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Subprime Crisis Strategic Decision-Making:[1] A Discussion of What Went Wrong and Strategies to Deal with It[2]

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What Went Wrong?

A defining moment for what went wrong in the capital markets was in August 2007 when Countrywide Financial was unable to get buyers for its commercial paper as it usually did. Countrywide elected to draw down its credit line by $11.5 billion, an unprecedented and massive drawdown that the capital market reacted to with a flight to more secure paper; then the "Fed Blinked" - it was the beginning of massive federal intervention extending well beyond the takeover of Fannie Mae and Freddie Mac. A description of this action and its immediate impact was provided by the lead story of the August 20, 2007 Wall Street Journal, "How a Panicky Day Led the Fed to Act."

A defining moment for what went wrong in the housing markets was when The New York Times published an article on September 2, 2007, "Can the Mortgage Crisis Swallow a Town?" That story described how the cascading of foreclosures in a Cleveland suburb led to family abandoning their home even though they were not in default because they no longer felt safe in the area with so many abandoned homes.

In both cases, what went wrong may have been avoidable. There was substantial misunderstanding as to the operation of the socio-economic system and a substantial mishandling of the political-economy. Additionally, the financial system was changing at an accelerated pace, and as the industry generals brilliantly prepared to fight wars of a bygone day, decisions were made without adequate strategies for contemporary and emerging conditions or adequate understanding of risk.

The purpose of this essay is to foster thinking about ways to enhance our understanding of our rapidly changing system. The intent is twofold: (1) to share a perspective that will assist others in modifying their perspectives and methodologies so as to better forecast outcomes, and (2) to inspire research relevant to facilitating better decision-making, especially by applications of interdisciplinary analyses and the use of a holistic approach.

[1] This material is intended as a pilot study for an ongoing effort at the Homer Hoyt Institute to integrate web based discussions into progress with its mission of improving the quality of real estate decisions by the development and dissemination of relevant knowledge. A version of this essay with links is on the Hoyt Group website, www.hoyt.org.

[2] The essay is intended as a framework for discussion on the Hoyt Group website. Links are planned to be provided in a hierarchically threaded structure in order to aid discussants who would like to flesh out ideas and/or take contrary views. Members of the Hoyt Group constituency and others are invited to post their comments.

[3] The author is Chairman of the Board of Directors of the Homer Hoyt Institute (HHI); however, HHI does not take policy positions so the views expressed are those of the author and possibly others when added. The "others" refers to discussants which have been linked and/or those who have responded on the web and have had their comments integrated into the text and/or the web discussion pages. Some of these discussants may be affiliated with HHI in various ways, including participation in the Subprime Crisis Research Council (SCRC) and the emerging Project New Initiative (PNI). The first discussant, Dr. Ron Donohue, is Executive Vice President of HHI; he provided many substantive comments that have been integrated into the essay. He set a high standard which I hope will induce others to similarly participate. This essay may be read as a companion piece to the author's report to the HHI Board of Directors on the first year's activities of the Subprime Crisis Research Program.

The financial system is incredibly complex and changing. If the reader is satisfied that she or he understands it, don't bother reading further. This essay is being written for people with inquiring minds and, believe it or not, for those with a humility imbedded in a belief that the social sciences have not made the turn that the physical sciences did in the scientific revolution. If we are sure we have it right and ride roughshod over the realities of the current situation to implement solutions based on the past, we are destined to pay a great price for our hubris.

The approach advocated is a strategic approach; one that recognizes that there is uncertainty and that there is a chance that the decisions that we will make will be in error. The strategic approach recognizes that human beings see the world from many different perspectives and as a result, do not always make decisions in a way the others see as logical. There is always uncertainty as to how others will react to stimuli and the actions that they will take in response to those stimuli. Behavioral economics is an emerging field that recognizes that "logic" varies widely from person to person. Indeed, some "illogical" actions may be a reaction to one's own decisions. By so-doing, one may constrain the loss from being wrong. To paraphrase Josh Billings, it is not so much what we don't know that gets us in trouble, as it is what we think we know that turns out to be wrong.

With that in mind, I will share what I think I know that will help in enhancing understanding of the subprime debacle and hope that others will carry it forward or substitute better analyses.

An explanation of the origins of the subprime debacle could start in many places. My choice is to develop a readily understandable line of reasoning that focuses on two ideas. One is wealth creation and destruction. The other is on participants' perspectives and decisions. By blending those two themes we can look at the debacle as starting with an unsustainable rise in house prices facilitated by less than prudent mortgage finance.

The next stage in the development of the line of reasoning is to consider the wealth destruction facilitated by the mortgage finance innovations, and their abuse, in the capital market. The destruction of wealth resulting from that fiasco reverberated to the rest of the capital market.

The next stage of the line of reasoning is the freezing up of capital markets and government intervention. The rescue plan, nee bail-out, was the first of a series of dramatic changes in the philosophical approach to the issues.

The philosophy applied to public policy over the last twenty years showed substantial adjustment when the capital markets lost liquidity as indicated in the second paragraph of the opening comments. The inauguration of a new administration and the greater proportion of Democrats in Congress will lead to further changes. This shift will be part of the final discussion which has a philosophical bent in dealing with institutional change.

The Housing Market

<u>The housing market created a temporary increase in wealth for many homeowners</u>. The easy money policies of 1990s and early in the first decade of the twenty-first century fueled consumer spending beyond sustainable levels. That easy money policy lowered the cost of home mortgage financing enabling purchasers to spend more than they otherwise would. It also brought into the housing market many who in a previous era would have been renters. It also increased speculation. The result was that while house prices continued to rise, it was widely presumed that equity rose to a point where there was a belief that household wealth had increased.

In the push to get business in the context of growing demand, subprime lending underwriting standards eroded to a point where the absence of loan qualification requirements led to loans being made that should not, by any standard resembling prudence, have been made. This was clear to many at the time, but the rising tide covered the rocks. The purchase of housing was abetted by federal policy aimed at increasing home ownership. The mandate to increase homeownership played a major role in the easy financing provided through the government sponsored entities, Fannie Mae and Freddie Mac.

<u>The belief in increased wealth and resulting underwriting help fund consumer spending beyond sustainable levels</u>. Consumer spending grew at a rate greater than personal income. Some of this spending was from refinancing homes that had been owned for some time. In addition to lump sum refinancing, equity lines of credit were used to an unprecedented level as home owners were encouraged to "make their home equity work for them."

Consumer spending is also influenced by long term income expectations. For many homeowners, these expectations are primarily dependent upon salaries or wages. An economic downturn increases unemployment and destroys some incomes making previous levels of spending unsustainable.

Housing construction added to supply beyond current sustainable requirements. While the financing was available and prospective homeowners had the optimism to continue buying, at some point it was no longer going to be profitable to produce additional housing. The amount of additional housing being supplied was predicated on demand being driven by unsustainable mortgage contracts, rather than fundamental economic demand. Ron Donohue writes that in his view, the result was a disconnect of massive proportions between the price at which housing was supplied and real income levels. People bought bigger and bigger homes because they could finance them, not because they needed the space. Many folks became "flippers" moving up and up in size and price with every flip. This does not work in Vegas and it does not work in housing for very long.

Some of the mortgage contracts were unsustainable because teaser interest rates or other mortgage payment lowering devices were used. Ron Donohue also adds that one of the most common problems was that traditional underwriting standards with respect to income were ignored and the LTV and percentage of family income required to service the mortgage were allowed to escalate these ratios to levels that did not make any sense. There was a lot of talk in 2005-2007 that traditional underwriting standards were arbitrary, outdated and overly restrictive. Those standards were not picked out of a hat, they evolved over a long period of time and they were thrown out the window. Strangely enough, virtually all residential lending occurring today is based on those standards, which actually work. Some were unsustainable because the expectation was that the house would be sold or refinanced in a rising market when the monthly payments escalated. Thus some of the houses were constructed for buyers that were simply speculating on a continuation of rising prices in the housing market. Ron Donohue also writes that many people signed mortgages - long term commitments for huge amounts of money - with full knowledge that they could not, absent continued appreciation and a sale, ever hope to repay. Obviously, there were people who were misled and who did not understand the nature of the contract, but many did understand the contract. He remembers the Weimer School session when one of the Fellows pointed out that in California, as many as 15 percent of borrowers defaulted without even making one payment. How can a borrower ever possibly justify signing that note?

Markets are tools and serve society best when there is proper alignment of interests. The housing market, as with other markets, is simply a societal tool that may be used to influence the production and distribution of goods and services. Alternative approaches include authoritarian structures such as within the military or in communist societies. Non-market housing allocation in the military is socially acceptable as is the method of allocating space on a first come first served basis.

The market works best when certain conditions are met such as symmetric bargaining power, transparency, and disclosure. When agents are involved in the market process, it is common to establish a fiduciary interest as a means for aligning interests. In the market process that evolved in the era of underwriting excess, there was a lack of true fiduciaries. There was almost no alignment of interest in the mechanisms developed to provide the financing that fueled the house price boom. That financing came from a system designed to create investment "paper" with the incentives largely based on how quickly capital could be issued, packaged and sold for a profit or fees, with little concern for the quality of mortgages underlying the paper. That set the stage for wealth destruction in the capital market.

Capital Markets

The financing terms were an invitation to default. When lenders held the mortgages they originated there was some prudence in mortgage underwriting. Ron Donohue also writes that as the secondary mortgage market system evolved, the ultimate providers of capital (buyers of paper) got further and further from the original transaction (both in terms of distance and the number of middlemen profiting); accountability became a quaint relic of a bygone era.) Thus when mortgages were created for the purpose of packaging with other mortgages for sale and resale sliced into different priorities of claim for resale, and the originators' compensation was incentivized to make as many loans as possible as quickly as possible and to generate as much total dollar volume as possible, which inevitably led to riskier loans, two things could be reasonably expected.

One is that the mortgages made were going to have substantially higher default rates than mortgages made where there was an alignment of interest. The other was that the prospects for destruction of capital were dramatically increased.

The origination procedures were heavily abused by many originators and some borrowers. Some of the borrowers knowingly took risks that were not prudent. Some even just made the purchase and loan knowing they would default but found that it was cheaper than rent. But, many home purchasers and owners refinancing were simply not aware of what they had agreed to in the contract. Some were victims of misrepresentation or fraud.

<u>The mortgage defaults reverberated to Wall Street.</u> The securitized mortgages are handled by mortgage servicers for a fee. There is some latitude on the part of the servicer, depending on the details of the contract. However, when the mortgages are packaged and sliced into tranches of different priorities of claim, the mortgage servicer may be very cautious about renegotiating mortgages, especially when it wipes out the interests of some investors. Ron Donohue also writes that while this is lamentable, also it may also be prudent, given the legal structure within which servicers operate. They have a complex fiduciary situation, and it is not clear that the current law allows enough leeway for them to get as much done as they could. Furthermore, the fees under the foreclosure option are paid up-front and the ongoing servicing fees may not have reflected a realistic probability assessment with respect to the costs associated with having to deal with workouts.

The rating agencies, compensated by issuers, did not have an alignment of interest with those relying on the ratings in making their investment decisions to purchase the securitized mortgages as partial interests. Ron Donohue notes that this led to what in retrospect appears to be a systematic underassessment of risk. A sad commentary, given that assessing risk and providing that information to investors to facilitate investment is the credit agencies' only real purpose. The over-rated securities were purchased at prices that did not adequately reflect risks. Thus, mortgage defaults occurred at a level well beyond that projected by the credit rating agencies, resulting in great wealth destruction. Actually, there was the intermediate step of wealth transfer when the over-rated securities were sold initially, so it could be argued that some of the wealth was destroyed upon acquisition.

The counter to that argument was that these tranches or slices of interests, were geographically diversified, limiting non-systematic risk. The sophisticated mathematics techniques used indicated that default in economically diverse local markets was not likely, but what was overlooked was that diversified garbage is still garbage.

As it happens, the securitized process and marketing was not restrained by regulation and the investments tended to be heavily leveraged. It was not unusual to have leverage as high as 33:1 so that a 3% decline could wipe out equity. Stock market regulations impose margin requirements substantially greater than margins actually used by securitized mortgage investors, which evolved unconstrained by regulation.

Although the securitized mortgage investments had ratings that appeared to make them out to be safe investments, many investors purchased a credit-default-swap. Ron Donohue writes that in many cases, the credit default swap was packaged in with the tranches when they were sold. Essentially, the idea was that the "credit enhancement" offered by the credit default swap was essentially a value added part of the package. Clearly, things did not work out that way, but that was the idea and the marketing. The credit default swap is a term used for an insurance policy where one party pays a premium to another party for the right to be indemnified for a loss from non-payment of the insured security. It was not called insurance because if it were identified as insurance it would be subject to regulation requiring insurance reserves.

Because there was no reserve requirement, in many cases the party agreeing to make the indemnification did not have available the resources to pay off on the bet when substantial defaults occurred. Ron Donohue writes that the party agreeing to make the indemnification commonly set aside enough for the "normal" default rate provided by their sophisticated econometric models of default, but not enough to cover the actual default rate experience. This seems to be a clear indication of a major issue with econometric modeling. Not only is it subject to the issues with dealing with the past, but when there is systematic change, the previous data are useless. Data on conforming loan defaults or even on the much smaller sub-prime market that existed previously have almost no relevance to the new and dramatically larger pool of sub-prime loans in existence in 2005-2007. The issuance of the guarantees was profitable for the firm when defaults did not occur, but profitable for the sales reps no matter what happened. These were very profitable for AIG right up to the point where it all blew up, then it was everyone's problem. Funny how the profits were for the executive bonuses and shareholders and the losses were a societal issue. It looks as though in this new world windfall profits and success are personal and losses and blame are societal. Again, accountability appears to be a quaint relic of a bygone era.

As a result of the securitization, and re-securitization, along with excessive leverage, along with credit default swaps, the assets exposed to wealth destruction were far greater than the aggregate value of the underlying mortgages. The subsequent wealth destruction potential was even greater when the impact on the so-called real economy was considered. This is because the fiasco affected not only those parties to the process but it also affected the profitability of unrelated businesses and the loss of jobs in the ensuing economic downturn.

Stock and bond markets were impacted on the way to the real economy. The stock and bond markets were impacted on the way and the impact reverberated to the real economy. Indeed, that impact intensified the destruction of the health of the real economy.

Stock prices went through a transition with enormous volatility and, depending on the measure, may be considered to have accounted for a destruction of wealth of around one-half of what was perceived to be wealth at the market's peak. The loss in retirement accounts, especially 401(K)s, significantly impacted consumer behavior. Additionally, of course, direct investments were significantly impacted, not only in spending, but in a flight to quality, especially to U. S. Treasury obligations.

Short term Treasuries had nominal yields probably less than inflation and fears of deflation arose. Lack of real returns on secure obligations and the increase in spreads for investments in riskier securities reflected an emerging credit crunch - and the lack of availability of credit was felt in the real economy in very real ways.

The Real Economy and Government Intervention

The real economy depends upon viable capital markets. The real economy, the area of production of goods and services, as contrasted with capital markets that deal with claims on the resources rather than the resources per se, depends heavily upon credit as well as equity investment in order to engage in the business of producing goods and/or services. When credit is not readily available or freezes up, the production of goods and services is restrained resulting in capital destruction as the enterprises engaged in production or distribution operate at reduced efficiencies.

That capital destruction is, in part, simply the reduction in the present value of the stream of income that can reasonably be expected to be produced by the enterprise. That is reflected as the loss of value to the owners of the enterprise even though it may not be realized in the marketplace. Aside from the potentially unrecognized loss, the equity interests in the form of traded securities may suffer a reduction through quoted market prices.

Investors who choose to sell securities under such conditions may suffer a loss of wealth. Some may feel that they have lost money because prices declined even when they sell for more than they paid. Others may sell at prices below that which they paid. There is no debate on the latter being a real destruction of wealth. As to the former, there may be some debate as some people see that wealth as "paper" wealth until it is captured.

The debate is not simply an issue of realized or unrealized losses. The key issue is that the last traded price of a security reflects a transaction with a quantity less than the amount that may be offered in the market. Thus, the price may depend on the quantity that will be offered. For example, a trade of relatively few shares on an open market order as the last trade of the day occurring well above prevailing prices is not much of an indication of the price achievable from the sale of a larger quantity.

A secondary effect is the reverberation through the real economy. The reduction in production leads to reduction in employment. The loss of income to those who were employed leads to consumption financed by use of wealth or savings rather than income. The reduction of household wealth leads to a reduction in spending which reverberates to further reductions in the production of goods and services.

A spiraling of such reductions may lead to a recession, loosely described as a reduction in the aggregate national production of goods and services for two successive quarters. Recessions generate impacts on innocent third parties, especially voters. Politically, recessions may be worse than inflationary periods depending on degree. Generally, policy decisions have reflected a willingness to tolerate a small amount of inflation in order to stimulate growth in the real economy.

The political choices made in economic policy depend a great deal on the underlying values of those making the choices and their perspective on outcomes. Sometimes, the theory underlying a policy might be right but the practical application is horrible. Sometimes the theory is flawed. The system is complex and may not be well understood and there are often unintended consequences. Furthermore, the system is always changing. This writing is, at its root, about understanding the changing system and applying that understanding to improving the forecast of outcomes. But, for now, the discussion returns to understanding what happened - what went wrong.

<u>The government intervenes</u>. The first major intervention in the debacle by the federal government may have been the takeover of Fannie Mae and Freddie Mac, the two government sponsored enterprises (GSEs) that hold massive amounts of securitized mortgages. These GSEs were run as for-profit organizations, with an implied guarantee by the government. In theory, the government could have refused to honor that implicit degree, but it is likely that the GSE's would not have survived that action. Their collapse would be devastating to the mortgage and housing markets.

The GSEs' operations were a failure in the single family mortgage market, and negatively impacted a significant portion of the capital markets, international as well as national. The GSEs were mandated to increase home ownership and had a history that included subprime lending. The subprime lending per se is not necessarily a formula for disaster, but it became so when the standards eroded and the lack of alignment of interests facilitated financing mortgage loans that should never have been financed.

As noted in the opening paragraph, a panicky day led the Fed to act. That was followed by a series of interventions by the federal government through the Secretary of the Treasury, the most profound of which may be the obtaining of Congressional authority for a $700 billion rescue package that has come to be known under the TARP acronym. More government intervention has followed and more is likely.

The focus of the $700 billion rescue package has shifted several times and will no doubt get further adjustment as the new administration proceeds. The next section, "A Reflection on Some Strategies" will delve into a shift in philosophical underpinnings as well as strategies.

The intent of the next section is to launch an outreach for discussion prompted by comments from those beyond the usual participants in Hoyt Group activities. This includes academics from economics and finance who have been working on these issues and policy makers and/or their staff members. It also includes experts from other disciplines. The character of the discussion is intended to evolve so as to provide a better understanding of the changing system and facilitate participants obtaining such an understanding in the most efficient way practicable through use of the web technology and resource information made freely available. This is what Project New Initiative is about.

<u>A Reflection on Some Strategies</u>

The discussion of aspects of strategies pursued may be organized in a variety of ways. For example one might organize the discussion by strategies of participants, by discussion of values or objectives, or by institutional arrangements. The option selected for this discussion is an organization that starts with a discussion of free markets and fair markets and then proceeds to a discussion of liberty and justice which underlie the philosophical choices regarding the role of markets.

These two discussions set the range of parameters within which strategic decisions may be made. Different parameters exert forces for different decisions. The parameters are part of the paradigm used in the analyses that lead to forecasted outcomes. But, the paradigm used in this essay is heavily dependent on a pragmatic understanding of the academic disciplines necessary to understand the system. The understanding required for high quality decisions is complex; and, this essay is intended as a lead to gaining a better understanding of the complex system from the perspectives of various disciplines.

One part of the complexity is that the understanding of academic disciplines has a history in the last few centuries of sharp focus on narrower and narrower issues, with new disciplines emerging as the body of knowledge grows. This is in contrast to ancient thinking which relied more on analogies taking a broader view that might be considered as holistic. Since contemporary problems are likely to be interdisciplinary in nature, analyses based on a seamless blending of disciplines may be expected to give better forecasts of outcomes than would be obtainable by relying on a single discipline.

Another part of the complexity is that the system keeps changing. Relationships among variables at one stage of development may not persist in a later stage; the dominance of variables may change. Another way to look at this is that the universe of the system influences relationships so that an expansion of the universe considered may provide a change in relationships. Ron Donohue makes the point in an example; the correlation (or covariance) can change significantly over time, and causation does the same. In an earlier era, household size and household wealth could be combined to give a good prediction of home size. Under recent underwriting, credit rating and expected market growth appear to have been better predictors, at least in the short run.

A third element of the complexity of the socio-economic system in a political environment is the impact of participants making decisions that alter the system. The character of the emerging system is not preordained; history is replete with "what ifs" that would have altered the course of history.

Different systems have emerged for different cultures. There are many commonalities of values, but significant differences exist. One size does not fit all, nor is there reason to believe that it should.

Reason is a powerful tool, but so is emotion. They probably blend more often than generally thought. This is a key point, and one that is often ignored by the academic disciplines particularly in economics and finance. Neither alone is a consistently good predictor of outcomes. Much reliance is placed on inductive reasoning, but great problems may ensue when market changing outliers in the form of Black Swans appear.

Free Markets and Fair Markets

Free markets have made a great contribution to the advancement of Western civilization. The recognition of that contribution is frequently associated with the work of Adam Smith in his writing about "the invisible hand." A perspective of an alternative that existed in England in an earlier era is in a novel by Ken Follett, *World Without End*.

More recent examples may be seen in Europe before the Age of Reason, also known as the Enlightenment. The freedom from domination by royalty and the church enabled great progress over time. As will be discussed shortly, the developments of the last few centuries, aided and abetted by free markets, are rooted in philosophical views associated with "the right to life, liberty, and the pursuit of happiness."

Some people have worshipped free markets as an idol, or at least an icon, for the underlying values of individual freedom. A more realistic view of free markets is as a system to be used as a tool for achieving goals dependent upon the underlying values, rather than having free markets as the goal itself.

<u>Free markets are not necessarily fair markets</u>. Free markets are most useful for achieving societal goals when the free markets are competitive, with some semblance of equality in bargaining power and symmetric information. Some people would see seller dominated markets such as oligopolistic markets, or even monopolistic markets, as free, but they are uneven in bargaining power as are markets where the dominance in power is by the buyer rather than the seller.

Government regulation is typically used to deal with situations where competition is not feasible due to the economics of supply as when only one or a few providers could flourish, as with utilities. Government regulation is also used when buyers are demanding more than can be supplied at what is deemed reasonable pricing as with rationing.

These government regulations are attempts to making markets fair and reasonably free as opposed to just free. There are other aspects of making markets fair rather than just free. These include disclosure requirements and regulation against misrepresentation and fraud.

Federal strategy for achieving housing goals permitted disastrous financing. The strategy for the federal government since the establishment of the goal of a decent home and suitable living environment for every American family has worked both sides of the system; at times focusing on supply by facilitating construction and at times focusing on demand by supplementing buyer resources including subsidizing down payments or lowering the costs of mortgage money. Lowering the cost of money also works to facilitate supply. Housing markets are more heavily impacted by the cost of money than most markets because housing is a long life asset typically financed with long term loans.

The difficulty with the strategy that facilitated the subprime crisis was at least threefold. First, the easy money policy that emerged after the debacle in the 1980's and 90's continued far too long. Second, the encouragement of higher home ownership rates, especially through Fannie Mae and Freddie Mac policies, was putting people into home ownership that would have done better to stay renters. Third, the regulatory system was much too lax.

Regulation at all levels of government fell short. Regulations at all levels of government fell short in protecting consumers and ultimately the public. Predatory lending went after some groups that were least able to protect themselves. Many borrowers simply did not understand the contracts they were signing.

Not all borrowers were innocent. Some were simply working the system and making bets on a continuation of the rapid rise in house prices. In states where there is no borrower liability beyond the security of the house itself, speculation was encouraged because the downside was constrained. There is some merit in no recourse home financing, especially where the loan is for acquisition rather than refinance, and especially if it seller provided the mortgage as a carry back. But, if non-recourse loans are used there is a lot more pressure to deal with the alignments of interests in origination and securitization.

A new strategy for housing may be built upon an interdisciplinary approach. A strategy for dealing with the housing markets may be built upon making them closer to fair markets. Equitable free market criteria may be used.

For strategy, it is helpful to start with the goal and to identify the impediments to the goal. Strategy in then used to deal with overcoming the impediments by suitable means dealing with risks and rewards. A decent home and suitable living environment for every American family is a reasonable goal with which to start the discussion.

Housing is location sensitive. Employment opportunities make a big difference as to where such decent home and suitable living environments are most likely to be needed and economically sustainable. A major consideration in policy at all levels of government is the shift in structure of domestic employment and the loss of employment opportunities because of lower cost foreign competition, especially in labor costs.

While some protectionist policies may realistically be expected to prevail at least in the short run, it makes a lot more sense to develop strategies based on the creation of jobs where the United States has comparative advantages. While this may sound as though it is leading down the path to central planning of production regulation, nothing could be farther from the truth. It is leading to using markets as tools for fostering the development of employment opportunities. Policy planning and market interpretation should be interactive processes.

The best example is in the energy crisis which is related to the next facet of the location discussion, externalities. Housing location is heavily dependent on the cost and availability of externalities such as utilities and transportation. Both utility costs and transportation costs are part of the energy crisis.

It would be insane, or at least imprudent, to continue on the dependence of foreign oil as a major source of future energy requirements. It is clear that the Obama administration is attempting to foster renewable energy sources and reduction of polluting emissions. Some of those policies will generate new jobs at locations that will alter present population distributions. A related aspect of this new locational distribution relates to density rather than region of economic activity. Making cities more compact and having housing more accessible to employment can significantly reduce energy consumption. Traditionally, economics and federal policy has looked at the housing problem as an economic problem in which some people could not afford a decent home and looked to enhance their ability by subsidizing them or the supplier. A better strategy is to look at the housing problem as an interdisciplinary problem. Sure it starts with the economics of resources to participate in the market, but it goes to getting enough education to effectively participate in a market economy and having access to the jobs. Now we have to add the structural shift in employment and education and training requirements, and the environmental considerations including energy production and consumption.

All of this sounds as though we need some humongous planning at a national level, and we do. The problem is that events cannot be counted on to correspond to plans and efforts to force the events are likely to generate more in costs than benefits, aside from inflicting cost on people other than those reaping benefits.

The planning, however, should be done strategically. By that I mean that the goals should be set clearly forth and the impediments to achieving those goals identified. Having done that, the levels of risks that are tolerable from a public policy perspective may be identified, and those include the incidence of costs. The policies can then be developed with a reliance on the market mechanism for implementation.

Here is where the criteria of effective markets that are both free and fair come into play. The disgrace of the federal pork barrel, and especially earmarks, needs to be stopped. That is no easy matter! One approach is information dissemination and societal pressure. The recent pronouncement by President Obama with regard to Federal funding to assist recovery from the recession is a good start.

The president used the web effectively in the election campaign and has noted that the time has come when we need to show greater concern for our national community. Information has always been powerful, but now it can be distributed at a cost so low and a time so fast that it boggles the mind.

Better information systems will also help the effective operation of markets. Some of which may be available to all on line. Transparency makes a difference and so does consumer education. Both of these also relate to housing finance and capital markets and so are now discussed under the mortgage markets and capital markets headings.

Mortgage markets also require better information. Consumer education could have averted some of the bad subprime loans. Just as there are programs to help new home buyers unfamiliar with their new responsibilities, so there are some consumer programs addressing the issues involved in mortgage finance. In both cases information systems help; and the progress has been great.

The shortfall in information in the mortgage market extended to the capital market where there was little transparency or understanding as to the risks involved. Furthermore, the lack of regulation made for less information available than would have been prudent and failed to facilitate understanding of secondary markets.

The 700 billion dollar rescue package provided an opportunity to get an organized secondary market going for the derivatives, but there has been no coherent ongoing strategy for the rescue package. What was worse was the denial of the need to deal with the source of the problem, rising foreclosures.

The Homer Hoyt Institute started a Real Estate Capital Flows Research Program over five years ago. The description on the Hoyt website is as follows: "The purpose of the Homer Hoyt Institute's Capital Flows Research program is to identify and quantify the sources and costs of funds available for real estate investment during various phases of the economic cycle. This research program is part of HHI's continuing effort to gain a better understanding of the system and in order to help improve the quality of decisions. The program addresses the long-term problem that the real estate industry experiences with over and under supplies of capital as the economic environment changes.

These changes in flows of funds have, at times, exacerbated space market imbalances, leading to overbuilding and extreme price volatility. At other times, the changes have led to a devastating shortage of funds. During the real estate debacle of the late 1980s and early 1990s, properties lost approximately 30% of their value on average, while many properties suffered losses of 50% or more. Through research, we can gather data and develop models that will contribute to better results for those who participate in the process and for society as a whole."

Although substantial progress was made with that program, the lack of available data stopped its progression. Had the government developed the data and monitored the flow of funds more closely and in a timely fashion, the imbalance in the system would have been obvious provided that it was related to a monitoring system for the housing market as well.

Real time information systems are discussed by Gelernter in his book Mirror Worlds. That model is something to be aspired to. Whatever advances can be worked out en route to achieving that aspiration would significantly aid policy makers in finding clues to achieve a better balance in the system. That could be facilitated by building better models and designing better regulations.

The clues to look for with the humongous flow of funds to subprime mortgages were incentives that were driving the system. Detectives know to "follow the money." In the case of subprime mortgages it was relatively easy to see that the alignments of interest for effective markets, fair markets, were not there and some tried to make this case during the height of the sub-prime market, but they were drowned out by those screaming for the next deal.

The mortgage originators were compensated based on an incentive system which induced some of them to steer borrowers eligible for standard mortgages into subprime mortgages. The mortgage bankers acquiring the mortgages for packaging and resale had no residual interest in the loss of capital from lack of repayment and thus no alignment of interest with the investor. Their incentive structure was based on putting together a package as quickly as possible to pass the risk along to investors and capture the resulting fees.

Regulatory systems for markets do best when they operate to provide fair market conditions so that the market system is used as a tool not an end in itself. In the long run, the key to optimizing is in providing a fair mechanism for exchange, thereby improving consumer/investor confidence and willingness to participate. Ron Donohue provided an analogy in that a fair casino in Vegas will make more than a crooked casino, assuming repeated plays of the game. He refers to the concept of the prisoner's dilemma. The nature of the regulatory system that is used as a tool to achieve desired results depends on the underlying values. The shortest phrase for America's underlying values may be "liberty and justice for all."

Liberty and Justice for All

Liberty and justice for all is, of course, the final phrase in the pledge of allegiance. Its roots are probably from the Declaration of Independence where the quote is as follows: "'We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain inalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness." The "Life, Liberty, and Pursuit of Happiness" phrase is a takeoff on a statement in John Locke's *The Second Treatise of Civil Government*, published in 1690. Locke referred to property, which he identified as life, liberty and estate. The relevance is in the implied claim that government's powers are derived from the governed.

The claim that government's powers are derived from the governed sets the stage for different views as to the range of powers appropriated or exercised by government. The range of policies adopted by governments is often discussed in terms of whether they are liberal or conservative. At the time of Locke and the Enlightenment, these views on the source of power were considered liberal. Over time they became conservative. The labels pose difficulties because they not only mean different things at different times, they mean different thing to different people at the same time.

The point of reading on is to be prepared to adjust one's thinking in light of a better philosophical understanding of the relationship between underlying values and appropriate government policies. Part of that adjustment may be based upon exigent circumstances and part on a better understanding of the system. The idea is to get better forecasts of outcomes but it makes a difference as to what is done to get the desired outcomes.

This is best put in context of the shift in national policy in which a conservative administration took measures that would not have been adopted under ordinary circumstances. That may be taken as a shift in means rather than a shift in values. However, the change of administrations reflects in some measure a shift in values, both of the electorate as well as of the differences between the newly elected leadership and its predecessors.

It would be naïve to believe that simple labels could describe differences in what was and what will be; that is because a new system will emerge and it is likely to be a blend, the nature of which has yet to be determined. The discussion which follows indicates one view of a range of what may emerge.

Liberty is more than just not being restrained. Liberty is generally thought of as the freedom to act without restriction. There may be some restrictions to liberty as a matter of "social contract," but the basic idea is freedom from unreasonable external constraint. Liberty may also be thought of as freedom in the sense of having the resources to be able to act. The first is called "negative liberty." The second is called "positive liberty."

In a market based economy, people without an education and other abilities sufficient to compete in the workplace are not free in the second sense of liberty, positive liberty. The concept of justice calls for society to do something to ameliorate the situation. That action may take a variety of forms ranging from simply providing aid by gift of resources to institutional changes that would remove the necessity of considering the gift of aid in the form of resources. The institutional changes might be whatever it takes to enable one to make one's way in the market economy, except for those who for some reason are unable to make the transition for reasons such as health. Some of the institutional changes may take a great deal of time to make and to generate an impact because while thinking changes over time, it changes slowly.

The nature and extent of societal aid in one form or another, especially institutional change, is in part a matter of what is considered to be justice.

Justice also is a matter of different concepts. Justice in one sense refers to getting a correction to get what is deserved based on an agreement. Justice in another sense is getting a fair share in the distribution of resources. Both are engendered in the concept of social justice.

Incommensurate values come into play because aside from justice and mercy there is equality and fairness. Equality may be thought of in terms of results, but it may also be thought of in terms of opportunity. But opportunity needs to be responded to in order to have results and people differ as to their willingness to take the risks and/or exert the effort. Different subcultures have different patterns of values affecting the selection and pursuit of opportunity. So fairness also reflects rewards for risk and perseverance not only through hard work but also through investment in capability.

Income distribution in recent decades has become greatly skewed towards high incomes for a small portion of society when compared to previous decades and to other western societies. While greater rewards are necessary to induce the productivity of those with the talents to make exceptional societal contributions, whether in business, sports, or arts, social justice calls for some equity in tax burden that reflects ability to support the system that makes the high rewards possible. The power of politics comes into play in these societal decisions and a shift is underway. The United States is not likely to move to become a socialistic society along the lines of many European countries, but the rescue packages for the subprime crisis have used methods that are closer to that model than the recent American model. The great challenge in our free society is to preserve our values based on the inalienable rights of individuals, rather than starting with the socialistic model and working backwards. We can build a new age of enlightenment with liberty and justice for all reducing not only the inequities within the distribution, but increasing the stability of the system and the greater preservation of wealth.

The wealth destruction in the current debacle has been so great that even the staunchest conservatives might reflect on how a better regulated financial system would have worked. The great upward blips in net worth turned out to be illusory when the wealth destruction hit. While some took the money and ran, the devastation they wreaked was unconscionable and there is no good societal reason for permitting such gross injustice.

Parameters for Strategic Decision Making

The parameters for strategic decision making are influenced by the question posed and the paradigm used by the decision maker. The former Secretary of the Treasury posed the question about how to restore liquidity in the capital market and came up with the solution to purchase toxic assets, a solution which shifted more than once.

The loss of liquidity in the capital market was a symptom of another malady; and as with physicians, who are quick to prescribe medication to counteract symptoms rather that delve deeper to find out the underlying cause, the result may be to lessen the symptoms, but unwanted and unnecessary side effects appear and the problem lingers on. The strategy to deal with the symptoms might have been to look to the causal chain that led to the problem and intervene at the point at which the best leverage could be obtained. That point, to stop the bleeding, to provide triage, should be stopping foreclosures from cascading.

That was a way to deal with the short run problem. There was still the longer run problem of institutional arrangements. Parameters within which strategic decisions may be made are based upon the underlying values as well as the questions posed and the parameters used. The United States' national leadership was focused on a conservative view with heavy reliance on unfettered markets and monetary policy until January 20, 2009. The new administration has a liberal tilt, but appears to consider a broad range of perspectives and may well settle on something that isn't easily categorized as liberal or conservative based upon historical classifications.

The result is likely to move toward what I envision as a new age of enlightenment. The premise discussed under the heading of "Liberty and Justice for All" is likely to prevail in that authority will still come from the people up to government rather than from a governmental authority in some sort of benevolent dictatorship. Furthermore, markets will be used as viable tools to achieve societal objectives reflecting "liberty and justice for all." The markets will be better regulated, which is not necessarily the same as more regulation, but which could take the form of more regulation. The difference will be in use of the feedback system built upon some sort of monitoring system of the flow of funds.

As discussed earlier, the Homer Hoyt Institute initiated a capital flows project at least five years ago. Had data been available and used with a policy along the lines being advocated here, the current economic disaster of the Great Recession could have potentially been avoided. As a personal note, on the morning of the day this part of the draft was written I underwent a stress test using nuclear medicine to monitor the flow of blood before and after the treadmill workout used to get my heart rate up. Since I had to lie quietly for twenty minutes before and after the treadmill, my working was restricted to thinking. As it happens, I thought about the analogy between monitoring the flow of blood and the flow of funds. The underlying principles are the same as viewed by the concept of consilience.

The idea of consilience is critical to making effective use of knowledge of one discipline when dealing with other disciplines especially in an interdisciplinary approach. In Consilience: The Unity of Knowledge, by Edward O. Wilson, Wilson argues for the fundamental unity of all knowledge. The idea is that, "everything in our world is organized in terms of a small number of fundamental natural laws that comprise the principles underlying every branch of learning."

A Strategy May be Built by Integrating Disciplines

Part of a transmission to the leadership of the Homer Hoyt Institute and the Subprime Crisis Research Council (the leadership group for HHI's Subprime Crisis Research Program) is in the boxed text that follows.

"The Next Step in Building a New Paradigm"

As background for the SCRC Leadership, who are being copied, I am providing an excerpt from my communication to the HHI Board of Directors sent preparatory to our recent board meeting. It is as follows:

"The last decade, starting with the Long-Term Capital Management debacle and running to the subprime mortgage crisis, was a watershed for our economy. It marked the period when some of our most brilliant and respected economists misunderstood how systems in motion operate. Indeed, they were well schooled in standard economic theory, but that theory is deficient, and debacles ensued.

"The Long-Term Capital Management principals included two Nobel Prize winners, Myron Scholes and Robert C. Merton, whose sophisticated mathematical models did not account for shifts in the system. That is a problem with econometric models that are built upon historical relationships.

"The subprime mortgage crisis, at the end of the decade that started with the Long-Term Capital Management debacle, was marked by the testimony of the former chairman of the Federal Reserve Board of Governors, Alan Greenspan, in which he admitted "I did not forecast a significant decline because we never had a significant decline in prices." He was referring to housing prices; but, that was only part of the testimony that related to the difficulty in forecasting.

"The point here is that the standard economic theory tends to view the economy as a mechanistic system that fails to include the analogous findings of Albert Einstein in his general theory of relativity. Another way to avoid the problem of forecasting outcomes solely on the basis of past relationships is to consider the system as an organic system rather than a mechanical one. Furthermore, when understanding is insufficient for forecasting outcomes at acceptable levels of risk then strategy may be used to deal with the uncertainty.

"The purpose of this communication to the directors of the various Hoyt Group organizations is to provide a line of reasoning that may be used to integrate the strategic plans of the HHI related organizations with the spine of the Hoyt Group, the Homer Hoyt Institute.

"The initiative proposed is to create a small task force to foster the creation of a new paradigm for understanding capital and real estate markets. [Emphasis added.] This is no small task, and the question arises as to whether or not it is within our capability.

"The answer to that question of capability is that we do not know. There are many things that we do that we would prefer to have better feedback on results, but by their nature it is not feasible to know even when successful. Often, the measures are focused on inputs rather than outputs. In the present case, the proposed initiative is based upon starting with the input of the financial resources still available from the SCRP, drawing on the existing network of people as we see appropriate, and expanding the intellectual talent by bringing in such additional expertise as is warranted, even when not drawn from the Weimer School Fellows or the Hoyt Fellows.

"It is too soon to tell what, if any, additional resources would be needed. It is also too soon to tell what additional resources might become available from outside sources. Even so, we can move ahead and explore the feasibility. I am more concerned with being able to assemble the intellectual talent than the financial resources since we have enough from the SCRP to move ahead long enough to get more information on what happens with the national economy and what resources HHI might have available.

"I don't know of any one person that has the range of expertise to set forth a new paradigm for capital and real estate markets. What I believe is that it will require a broader range of expertise than our academics are accustomed to being able to apply and that **it will require an interdisciplinary team much in the same way as getting a man to the moon integrated disciplines by bringing together experts in the relevant disciplines.** [Emphasis added.]

"Beyond standard economics and finance, we obviously need some behavioral economists and/or behavioral finance experts. Adding some expertise in cognitive science would help. The idea is to go beyond the reliance on rationality. As for aggregate behavior we need someone with expertise in emergence and the science of networks. Next, we need to deal with a system in motion. That could use someone who understands relativity well enough to develop the analogy to social science. It could also use someone who understands reflexivity. Additionally, an understanding of organic models would be a fine link among behavioral economics, emergence and networks. The lines between disciplines are useful for focusing on parts of a system, but when dealing with the system as whole, especially one in motion (changing over time), it is critical to get a seamless blend."

The approach for understanding the system is complex. It requires a holistic view as well as narrowing focus on various disciplines. Some social scientists have physics envy because they yearn for the rigor available in the physical sciences. There is a great debate on the transfer of methodology because many social scientists worship at the altar of rigor. More attention needs to be focused on relevance of research. It is a different matter to transfer principles as compared to transferring methodology.

One way to start the process is to focus on housing goals but to relate them to quality of life and conditions alluded to earlier in this essay. That approach would necessarily consider comparative advantage in production under the impending or expected globalization changes. Some of that production change is likely to be in the area of renewable energy. Energy is a likely addition to the necessities of life usually referred to as food, clothing, and shelter. Part of the process is energy education and attitude toward community.

It will take some time to flesh out a strategy. Realistically, a great deal depends on how far the next Congress and Administration moves in the first 100 days or so. Maybe what is written here will generate some impact, but I wouldn't count on it. What I believe has a chance of making an impact is what emerges from this effort, especially by enlisting leading experts in various disciplines to weave together a strategy that recognizes what the new starting point will be. That starting point is uncertain, but this is a working document that will be amended as time and events unfold. The context of this document is noted in the two stories in the newsletter for which this is an insert. One is titled "Hoyt Group Website Upgraded." The other is titled "Project New Initiative."

As an alternative to the focus on housing goals, there is the possibility of focusing on component issues that affect the achievement of housing goals. The idea is to illustrate the strategic approach that integrates disciplines other than those typically used in analyses for policy determination.

<u>Some examples of components of an overall strategy is a start</u>. As a start on developing a strategic approach it is useful to take a couple of examples of parts of an overall strategy. An overall strategy still needs to be developed, but by using some examples the process of integration of other disciplines into standard economic analyses will be illustrated. The two topics are (1) Foreclosure Prevention with Liberty and Justice for All and (2) Institutional Intervention with Liberty and Justice for All. In this essay we will start with the first. My hope is that HHI, along with others, will sponsor a research roundtable to deal with the second. At that conference, I would hope to attract some leading experts who could comment on an approach to the second issue, institutional intervention, focusing on how their perspectives from disciplines other than economics could be applied to the creation of a more effective strategy for dealing with the issues.

Foreclosure Prevention with Liberty and Justice for All

<u>Foundations of the paradigm are built upon underlying values</u>. A strategy for achieving "Foreclosure Prevention with Liberty and Justice for All" starts with identifying the goal and specifying the objective. That process necessitates naming parties to be considered in the process. For our purposes here we shall focus on the borrowers and lenders of properties that are underwater (mortgage debt exceeds price realizable under current market conditions), borrowers and lenders of properties close enough to be directly impacted by foreclosure of nearby properties (contagion), the national goal relating to home ownership (decent home and suitable living environment for every American family), the financial institutions that provide mortgage credit, the third party investors (investors in derivatives as well as stock holders) and those in the local economy. There are others, subsets of the local economy, such as real estate brokers, mortgage servicers, speculators, and lawyers.

Some of the issues have already been discussed in essays that are linked in the web version of this essay. Those may be supplemented by contributions from participants in the interdisciplinary process that is envisioned. Other essays may be written to flesh out ideas. **The thrust of this discussion is to indicate the relevance of some specific disciplines as an introduction to those accustomed to standard economic analyses.**

As to the paradigm in use for this development of strategy, the value basis is built on the text of the Declaration of Independence alluded to in the discussion of liberty and justice for all. Links to essays and other works describing the concept are provided in the endnote on the web version that includes previous links provided but expands on the list. Since interpretations of the values vary, generally using labels such as conservative and liberal, and the labels are ambiguous, and the thrust of the value system believed to be emerging is a new hybrid, possibly to be called New Age of Enlightenment, substantial ambiguity remains. However, the reader may simply substitute her or his value system in viewing the strategy. The core disciplines of economics and finance are used, but also real estate (which some don't recognize as a discipline but rather an area of study with economics or finance, or other disciplines). Real estate as a discipline is highly interdisciplinary. The economics and finance used might better be characterized as behavioral economics and/or behavioral finance. However, the key in tying the disciplines together as a seamless integration is the reliance on consilience as the spine of the interdisciplinary approach. Thus, the intent is to illustrate that other disciplines may be integrated with economics and finance approaches so as to get better forecasts of outcomes.

Discipline selection affects the character of the paradigm. Consilience is a word that goes back to the 19th century; it was used by philosophers of science referring to the connection of different disciplines through shared basic laws. The concept is uniting knowledge at a fundamental level. The word's revival in usage is by Edward O. Wilson for his book *"Consilience: The Unity of Knowledge*." A wide range of disciplines are discussed in the book; including biology, anthropology, psychology, religion, philosophy and the arts. The key, as I see it, is that the commonality of natural laws extends from the physical and natural sciences to the humanities and the social sciences.

The strategy being developed will be built upon a selection of a few of the "principles underlying every branch of learning." These principles are identified by labels rather than complete statements.

The use of the concept of consilience implies that the various disciplines will use the same underlying fundamental principles. This focus in the development of strategy seeks to identify disciplines that are relevant to the strategy so that we explore principles from those disciplines and apply various perspectives in order to get a seamless integration of disciplines, that is, principles from various disciplines applied to an interdisciplinary problem.

The start of a paradigm and strategy for prevention of foreclosure integrates disciplines. The first discipline for the paradigm and strategy is economics. The foreclosure occurs because the borrower is unwilling and/or unable to make the agreed mortgage payments and the lender, or lender's agent, sees foreclosure as the best means of recovering all of the investment or at least that which is recoverable in the market at that time. In a normal market the foreclosure process could proceed with minimal collateral damage.

The risk of collateral damage changes the picture. Up to a point the risk is one of a modest amount of "contagion effect." However, if a tipping point is reached there is a cascading effect. The cascading effect is a leveraging of the impact on the down side of values and creates great wealth destruction. That wealth destruction may be of an unprecedented amount of wealth destruction. In essence it would be an outlier of the magnitude that makes it a Black Swan.

A Minimax strategy calls for maximization of benefit within the constraints of acceptable risk. Thus, we must deal with the question of what is the acceptable risk of cascading. If we do not have actuarial experience sufficient to make reliable forecasts we are dealing with an uncertainty rather than a risk. This is a case in which the econometric models do not have sufficient historical data upon which to make sufficiently accurate forecasts. We are thus limited to judgmental models which may use analogy or simply build upon whatever experience the analysts and or policy makers have.

That judgment should consider the potential drop in prices. In the case at hand, it was not uncommon for house prices to rise well over 50% in the short period of time of the heyday of the subprime mortgages and the securitization that provided the toxic mortgage derivatives. Ideally, the goal might be to limit the decline to some long term path of increasing house prices. The danger is in overshooting the level of a long term trend. Standard economic analysis would forecast the drop below the trend by an amount that is enough to make it attractive for speculators to pick up the excess supply and hold it until normal growth in demand would absorb the speculatively acquired assets. Now, here is the rub - if the drop in prices is an outlier, a Black Swan, the speculators will wait so long that the collateral damage will feed the wealth destruction.

The decision to intervene is a political decision. As discussed earlier in this essay and in the linked material, the administrations' policies that led the nation into this mess were less than brilliant. The congressional mandate for fostering home ownership would be a close second, but it is bumped to third by the greed and myopia of the players in the enterprises that fed the capital for mortgage loans that should never have been made. Now, it is necessary for the same parties to come to grips with the new reality.

We will put aside the social structure that affected the bail out policies of the previous Secretary of the Treasury, to be dealt with in the strategy for institutional arrangements in the capital markets, the topic for the next step in the Project New Initiative. Rather we will focus on the sociological segments of the population that were drawn into the subprime mortgages.

Subprime lending was initially heavily targeted at the lower end of the economic spectrum of home owners and potential home owners. However, the use, nature and clientele for subprime loans expanded over time, as did the definition of subprime. That initial targeting produced a geographical concentration of subprime mortgage loans. Thus, when designing policies to abate foreclosures it is wise to consider the behavioral aspects of the segmented population. The psychographical profile of many borrowers under default shows that they were in some measure nonresponsive to efforts by the mortgage servicers to respond when default notices were issued. To some extent there may be cultural aspects influencing the decision making process of the borrower, although it may be overshadowed by the lack of business acumen.

At the other end of the spectrum, so as to speak, there are the astute borrowers without scruples who knew that they could not make the payments once the interest rates were reset, but calculated that the monthly payments under the mortgage, with over generously terms to start, were cheaper than rent. Some may have chosen to gamble with house money, never moved in and just waited for prices to climb. The credit rating for some may not have been an issue; it was already dismal, but the lender didn't bother with it, so that the mortgage loan was made.

Within these extremes there is a spectrum of cases with diverse psychological considerations. On the one hand it is necessary to deal with the lenders or really investors and investors servicer-agents. That may involve cram downs as well as voluntary renegotiations. On the other hand, it is necessary to deal with borrowers, especially those who need business and legal counseling. Some simply made poor decisions and while they have gained some experience they are still not equipped to make it a level playing field. Others were defrauded or provided loans where there was material misrepresentation. They too could use business and legal counseling. The idea is to level the playing field focusing on those that are at a competitive disadvantage and to better regulate the abuses on both sides of the table. The essence of intervention deals with facilitating voluntary renegotiation of mortgages, changing the legal restrictions on fraud remedies and cram downs, and becoming owners of mortgage interests in various forms. These should be discussed in the blog process that this essay is intended to foster. The second example, one that shifts to a capital market issue, is being considered as the potential topic for a conference or roundtable that may be held at the University of Pennsylvania. That conference is still in the exploratory stage, but to the key idea is that it would be designed to bring together leading experts from many diverse disciplines in order to not only deal with the issues, but to set an precedent for an interdisciplinary approach and a significant start on a new or improved paradigm for the capital markets. It would consider effective markets for toxic mortgages and a new regulatory process as well as relief in the form of abatement of foreclosures.

This is a call to action. That action is for even the best educated experts in their discipline to broaden their education by participating in this web based process. It is also a call to action of those in related disciplines to share their knowledge so as to help these experts improve their understanding of a changing system. And finally, it is a call to the policy makers and/or their staff experts to get the benefit of the best thinking on the issues as it emerges and to foster more relevant research by sharing their perspectives of the issues.