

# THE GREAT CRASH OF 2008

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This crash is The Big One; it has signs of becoming a Category 5. How do we know? We've "been there and done that" so many times before, roughly every 18 years over the last 800 or more. Major wars and, rarely, plagues have broken the rhythm, along with the little ice age, reformation and counter-reformation, political revolutions and reactions, the rise of nation-states, the enclosure movement, the age of exploration, massive European imports of stolen American gold, the scientific and industrial revolutions, the Crusades, Mongol and Turkish invasions, and other upheavals. Yet, the endogenous cycle keeps returning, as soon as we find peace, and economic life returns to its even tenors. What President Warren Harding famously called "normalcy" soon evolved into another boom and a shocking bust, as so often before. Calm and routine prosperity has never been man's lot for long: it somehow leads to its own downfall, cycle after cycle.

Homer Hoyt published his classic *100 Years of Land Values in Chicago, 1833-1933*, in December, 1933. He covered in fine detail the 5 major cycles that crested and crashed in 1837, 1857, 1873, 1893, and 1926-29. At the end he generalized "The Chicago Real Estate Cycle", a regular rhythm of boom and bust with the same features in the same sequence. The boom sets us up for the bust. He could have omitted the limiting word "Chicago", its cycles were synchronized with national waves recorded by other scholars like Arthur H. Cole, Philip Cornick, Lewis Maverick, Frederick Lewis Allen, Harry Scherman, Carter Goodrich, Ernest Fisher, Homer Vanderblue, Herbert Simpson, and others—surprisingly few others, in fact. Alexander Field has recently reviewed much of this literature, but held back from seeing cycles in the present or future.

It is uncanny how the latest boom tracks the events that Hoyt recorded and generalized. There was "an increase in rents, building ..., and subdivision ..., each of which was carried in turn to speculative excess, and each of which interacted upon the others and upon land values to generate and maintain the boom psychology". The cycle, Hoyt continued, is "the composite effect ... of a series of forces that ... communicate impulses to each other in a time sequence, ... in a definite order" (p. 369).

He breaks the major events down into 20 elements (pp. 373-403). We can consolidate a few to simplify, but the cycle is not so simple: if it were, mankind would have mastered it long ago, instead of constantly repeating it. Rather, I add a few events that others than Hoyt have noted—an asterisk (\*) precedes each of these non-Hoyt elements, below.

- Population grows
- Building rents rise
- Values of standing buildings rise
- New building rises
- Easy credit comes forth to builders, land buyers, and subdividers
- Nationally, people moving to new areas raise total need for buildings, because migrants leave their old homes behind them

- \*Construction itself makes jobs, with demand for more buildings
- \*Outside money flows into growth areas, taking as security liens on new buildings and on lands. As to the local balance of payments, this has the same *temporary* effect as exporting the buildings and lands: unearned increments become part of the local economic base. However, this is a trap: it evolves into debt service, an outflow of funds that, over time, exceeds the original inflow
- Easy credit evolves into “shoestring financing” (the 1933 expression for today’s “subprime lending”)
- New buildings absorb vacant land; land prices boom and spread outwards
- Governments spend freely, on borrowed money, for street improvements and public works to boost land sales
- Population growth rate slows, but “authoritative” forecasts come forth of more population growth—today’s “irrational exuberance”, which Hoyt calls a “mania”
- \* “Builders’ Illusion” sets in, where builders conflate the rise of land prices with a return on their building investment, boosting the incentive to build above what the actual return on building per se would justify. This is because building, however legitimate, entails buying and selling land, a form of “flipping”. Unearned increment becomes, for some parties, part of the incentive to build. Ditto for “flipper-remodelers”: it’s fun to remodel or just redecorate on a rising market. This illusion may be most extreme in large, self-contained, integrated developments, where each building is expected, even in a steady market, to pay for itself in part by raising the value of adjoining parcels. The big developer, being human, may credit himself for the rising tide of the market in general. Such illusions, widely shared, can result in overproduction of new buildings relative to the basic demand.
- Land subdivision and development (or partial development) for urban use goes to greater excess than any other variable in the cycle. The quantity of land is fixed, but people spread out over more and more land. Call it bringing more land into the market, or bringing the market to more land, the effect is the same: a growing overhang of ripening land.
- \* “Expert” appraisals of land are based on sales of comparables, and upward price trends. These sales, in turn, were influenced by appraisers who based their opinions on earlier comparables and upward trends, and so on. This is because there is no cost of production to check excesses. Thus a herd mentality can take over, divorcing prices from reality: “Irrational Exuberance”.
- \*Rising debt service overtakes inflow of new capital
- \*Corruption and graft that inevitably accompany easy money come to light, eroding and then cracking confidence in markets and banks and the “high, wide, and handsome” libertine boomtime philosophy that has papered over coven and fraud.
- \*Lenders’ loan turnover has to slow down as they turn from short-term trade credit or commercial loans to long-term loans based on land collateral. A bank that is all loaned out, no matter how sound its balance sheet, can not make new loans much faster than its

debtors pay back the old ones. Today's loan originators can appear to escape from this constraint by packaging and securitizing bad loans for passage on to others, and finally to Fannie Mae and Freddie Mac, but that just blows dust over the iron rule that some lender, or the taxpayer, is left at the end of the line holding the bag. Our complex modern apparatus that seems so sophisticated is at bottom just a variation on how Andrew Jackson subsidized wildcat banks by accepting their notes for sales of public land. The more elaborate the deception, the greater the final letdown, as Treasury Secretary Henry Paulson is now learning. On July 26 the National Australia Bank shocked investors by saying it may lose as much as 90% of the value of its US mortgage-backed investments - worth more than \$1 billion—and warning that the battered US housing market is poised to deteriorate further.

- \*A rise of land prices cannot simply flatten out at a high plateau, because the increment has become part of the expected return that buyers are paying for, and lenders are relying on. So prices that cannot rise further have to drop: there is no equilibrium level. (I expand on this point a few paragraphs below.)
- At the crest, asking prices almost always drop slower than bid prices. This makes sales (deeds recorded) drop sharply, even as recorded prices hold steady.
- “Shoestring” borrowers face foreclosure; their distress sales force prices down, in a cumulative spiral
- Banks, whose capital and surplus is always a small fraction of their liabilities, lose much of their capital and surplus when many debtors default. They are always vulnerable, since they borrow short and lend long, so they have to stop making new loans. Some or many fail. Depositors may panic.
- \*Lending slows faster than recorded interest rates rise, because banks cut off sub-prime borrowers. (Professor Ben Bernanke, in calmer days, developed this thesis for the 1930's.)
- \*Self-financed firms fare better than bank customers, but their capital returns slower than before, or not at all, cutting their rate of reinvesting
- \*Building stops; workers starve or emigrate; chaos reigns, we hit bottom
- \*Governments and leading gurus blame the crash on falling land values, bend their efforts to bailing out big banks and sustaining land values, prolonging the depression. In the process most actors lose sight of the original cause, speculation in rising land values, and the stage is set to begin the next cycle.

Hoyt carried his research back to 1833, the birth of Chicago, but that was not the birth of history. The Second Bank of the United States, founded in 1816, helped along the “peace-dividend” boom that crashed in 1819 during James Monroe’s “Era of Good Feeling”. This, too, was a land boom: Cole’s history of public land sales shows them peaking sharply 1817-19, only to drop like a stone. Twenty-one years earlier, 1798 saw a serious crash of land sales and prices, over which the First Bank of the United States presided. Among other results this sent several rich Americans to debtors’ prisons, discredited founder Alexander Hamilton and ruined his Federalist Party, and cost Andrew Jackson his first big plantation. Jackson’s ensuing hatred of central bankers smoldered until it erupted in his erratic handling of the Second Bank of the U.S.

when he was President, 1829-37, and this Second Bank was presiding over the great Canal Boom that busted in 1836-37.

History did not begin in 1798, either. Records grow murkier as we look further back, but some colorful events stand out. One was the Mississippi Bubble of 1720, to which Andrew Jackson compared his debacle of 1798. It saw the founding of New Orleans, but was part of a worldwide event, centered in Paris and in London (where it was “The South Sea Bubble”). Scottish banker John Law sold himself and his paper-money ideas to the Duc d’Orleans, Regent of France, took over the Bank of France, and engineered one of history’s more famous speculative manias—mostly based on the insecure security of land titles in the Mississippi Valley. Across the Channel, sober Englishmen and their famously conservative bankers built castles in air in southeast Asia—their “south seas”—and mighty was the fall thereof. After the Fall, of course, credit tightened for everyone.

Before London, Amsterdam was the financial kingpin of the world. In the 1630’s it suffered something known to history as “The Tulip Bubble”. Recent research by Maastricht Professor Piet Eichholtz, endorsed by our own Robert Shiller, discloses that this had more to do with real estate than tulips per se. They find that housing prices dropped 50%, 1634-36, along the *Herengracht*, an upper crust residential district. London scholar Anne Goldgar dissociates this from the more famous Tulip Bubble that crashed in 1639; we leave this detail for the specialists to settle. Our point is that there WAS a land bubble that burst, even back then. Shiller has also traced such a bubble in Norwegian history.

Back in New England, our first land bubble burst about the same time, 1640. This is when “The Great Migration” of Puritans stopped and reversed itself. This happened just after Captain John Mason’s massacre of the Pequods (1637) opened up the whole Connecticut and Thames Valleys to English settlers. It seems, though, that speculators got there first, deflecting English settlement to the rocky soils and harsh climate and precarious land titles of New Hampshire, which boomed then while Connecticut languished. We will see this pattern of continental sprawl repeated throughout American history. Indeed, it was repeated next door in New York State where Dutch speculators, called “patroons”, tied up the Hudson Valley while settlers poured from northern New England into the Mohawk Valley.

Before Amsterdam were Augsburg and Antwerp, and before them was Florence, premier banking center of the 15<sup>th</sup> Century. In 1454 the Peace of Lodi ended 20 years of costly warfare and left Florence with a great peace dividend, a secure, peaceful position. As has happened so often since, this led to prosperity, luxury, conspicuous consumption, a land boom and a bust in the late 1460’s, when several banks folded. Florence rebounded for another cycle led by Lorenzo di Medici. Popular history remembers Lorenzo as The Magnificent, a patron of the arts, but as a banker he preferred “lazy loans” (political, long-term, and land-secured) (Michael Veseth, 1990, and G.F. Young, 1930). He blew on art and other luxuries the money that Cosimo had made by hard work, serious banking, and a communal attitude toward fellow Florentines. Politically, Lorenzo appeared strong and effective, but in 1494 the Medici bank failed, Florentines sacked the Medici art collection, and flocked to Savanarola, who ended an era with his Bonfire of the Vanities.

The French scholar M.E. Levasseur went back even further in history, publishing data on the price of land in France from 1200 A.D. to 1799, its ups and downs in war and peace, prosperity and depression, territorial expansion and contraction, good kings and bad. Suffice it here that

land cycles have a long history. None of it, to my knowledge, differs in substance from Hoyt's findings from Chicago, 1833-1933.

Why must there always be an upper turning point? Why cannot the good times go on forever? Let us expand here on a previous point that I oversimplified for brevity. I alleged that the "Rise of land prices cannot simply flatten out at a high plateau, because the increment has become part of the expected return that buyers are paying for, and lenders are relying on. So prices that cannot rise further have to drop: there is no equilibrium level."

In abstract algebra, land prices could rise forever, unlikely as that seems, provided market agents expect rents to rise forever, interest rates not to rise, and exhaustible resources not to rise. The algebra is fairly simple. Let:

$a$  = current annual land rent

$i$  = interest rate expressed as a decimal

$g$  = annual *expected* growth of " $a$ ", expressed as a decimal

$V$  = value of land, derived as a discounted cash flow

Then, by summing the infinite geometrical progression starting from " $a$ ", we have:

$$V = \frac{a}{i - g} \quad (1)$$

Rearranging terms:

$$V = \frac{a + Vg}{i} \quad (2)$$

Rearranging terms once more:

$$\frac{V}{a} = \frac{1}{i - g} \quad (3)$$

$\frac{V}{a}$  is what Brits call the "years' purchase" of land. In the stock market it is the "price/earnings ratio". We will return to it; it is a handy way to summarize matters.

Equation (1) is more "elegant" than (2), but the two equations are equivalent, and (2) is the way most market agents see the matter, and salesmen present it.  $Vg$  is the annual rise of land price this year, and it grows every year as  $V$  rises.

For values,  $V$ , to level off, " $g$ " must fall to zero. However, when " $g$ " falls to zero,  $V$  also falls. In fact, when " $g$ " falls at all, as from 3% to 2%,  $V$  also falls, multiplying the fall of  $Vg$ . Once values are based on, say,  $g=3\%$ , they cannot level off without first taking a great tumble. The pioneer mathematical economist Professor Irving Fisher of Yale notoriously declared in 1929 that stock prices had reached a "permanent high plateau". There cannot be a "permanent high plateau" of land or stock prices, if "high" means based on high values of " $g$ ". Equation (3) shows that high values of " $g$ " mean high ratios of  $\frac{V}{a}$ , always a warning flag, as Professors Shiller and Case have reminded us more than once. To be permanent or stable, a plateau must be moderate.

The current revival of Fisher's reputation suggests that some modern economists, too, have blinded themselves to the simple relations shown in Equations (1), (2), and (3).

To save space I am not supplying numerical examples of the points above. I urge readers who are blocked by or rusty on algebra to work out examples on their own. It is easy, and makes matters much clearer.

It is an algebraic possibility that rents could conceivably keep on rising, if not to infinity, at least to the trillions, centuries in the future. Land values could then follow along without a hitch. Common sense and experience, however, tell us that does not happen. There are several reasons why not.

- We do press on the limits of exhaustible resources, as is so evident today
- Landowners treat unearned increments as current income, raising their consumption and lowering their real saving (in the manner of Lorenzo the Magnificent), raising interest rates
- In practice, in boom times, lemming psychology causes the "Vg" of Equation (2) to get ahead of a realistic forecast of future rents. Many buyers don't even know where it came from; others are speculating on the "greater fool" theory. Historically, the  $\frac{V}{a}$  ratio of Equation (3) sometimes rises well above sustainable levels.
- People and capital spread out over more land, as discussed below

Galloping settlement sprawl, such as that of the last 16 years, has set us up for The Great Crash of 2008. To repeat, we may call it bringing more land into the market, or bringing the market to more land, the effect is the same. There are both urban sprawl, and continental sprawl. Let's start with a modest case of urban sprawl.

In Milwaukee County, WI, there are 17 municipalities. Only two of these are fully built-out: Shorewood and Whitefish Bay, north of the City along the lake. Each houses about 10,000 people per square mile in the green comfort of detached houses on tree-lined streets. The others are full of vacant and derelict land. The central City itself has hollowed out badly, while also annexing the northwest corner of the County in 1960, still unfilled after 48 years.

At the density of these upper middle-class suburbs, the population of the U.S., 300 millions, would require 30,000 square miles. That is the area of a circle whose radius is 98 miles. Or, if we divide the needed area among 50 states, it is the area of 50 circles of radius 13.8 miles each. Either way you cut it, or any other way, it is lost in the vastness of the U.S.A.

Yet, while the City of Milwaukee hollows out, and the inner suburbs remain unfinished, Milwaukeeans spread into the neighboring counties, where growth is faster: Ozaukee to the north, Washington to the northwest, Waukesha to the west, and Racine to the south. In addition, some substantial fraction of factory jobs, during times of peak need, go to residents of small outlying towns or farms far away, who move in temporarily when opportunity knocks.

Milwaukee is not growing dynamically, so its sprawl is modest. For immodest, spread-eagle, classic American sprawl look to new and upstart cities in much of Florida, Texas, Anchorage, AK, or Las Vegas, NV. Some older cities like Albuquerque, NM, or Oklahoma City manage to sprawl without even being dynamic. In California, "From the redwood forests to the Gulf (of

California)”) urban sprawl inflates the price demanded for nearly every square foot of this land that “belongs to you and me”—or would, if we could afford it. As Woody Guthrie also sang of California, “Believe it or not you won’t find it so hot if you ain’t got that do-re-mi”.

Then there is continental sprawl. Old cities and regions stagnate or shrivel, while new ones balloon out of nowhere. Some once-leading cities, and their population ranks in 1890, were St. Louis, #4; Pittsburgh, #7; Buffalo, #9; Cincinnati, #11; Newark, #14; Jersey City, #15; Louisville, #17; and Rochester, #19. These shrinking cities are all in the quadrant northeast from St. Louis, fairly close together, along with surviving but diminished giants like New York, Boston, Philadelphia, Chicago, Detroit, Cleveland, Baltimore, and a dozen middling cities and most of the U.S. population, as of 1890. People and goods could get from one place to another within fairly short distances, by rail.

Some new big cities today that were not even on the radar screen in 1890 are Los Angeles, Houston, Dallas, San Diego, Phoenix, San Antonio, Honolulu, San Jose, Seattle, Washington (D.C.), Portland, Atlanta, Miami, Charlotte, Las Vegas, Salt Lake, and Jacksonville. These are all outside the northeast quadrant, as the U.S. center of population moves steadily southwestward, from southeast Indiana in 1890 to south central Missouri in 2000. It’s not just the center that counts, though: it’s the dispersion. Populations south and west of the center are widely scattered. Each city is scattered internally, and the system of cities is scattered continentally.

Each of these new cities represents the transfer of an entire subset of the economy. Cities grow, as Jane Jacobs showed so brilliantly, by import substitution. They and their regions grow more and more self-sufficient as they add people. Repair shops evolve into parts makers, and they into assemblers and manufacturers, some with national and world markets.

At the same time, to tie us together we have the Interstate Highway System, and many state highway systems. Interchanges create hundreds of new commercial nodes. In the short run these may seem to bring urban values to old farmland; in the long run and in the aggregate they create an artificial abundance of urbanesque land, an overhang that presages the crash phase of the cycle. They also create an overhang of deferred maintenance and replacement, for highways must in effect be rebuilt every 30 years or so, but at higher prices for cement. Worst of all they create a permanent commitment to wasting energy. These contingent liabilities have been hidden during years of euphoria. Today, as gasoline prices soar and tax revenues falter, they are all too visible. Too much land accessed, and rising costs of accessing it, combine to lower land prices.

We also have our inflated air transport system. The U.S. has 15,000 civilian airports, more by far than any other nation or group of nations. The vastest of these, Denver International, takes 34,000 acres, or 53 square miles. Other oversized ports are mostly in the south and west: Dallas, Orlando, Kansas City, Atlanta, LAX, Seatac, and Miami, for example. Some eastern ports are much smaller: Washington National is 1,000 acres; busy LaGuardia is only 600. Many general aviation ports are smaller yet, down to under 100 acres. Estimating the mean civilian airport area at 400 acres, (military airports, not included here, average much bigger), 15,000 airports would require six million acres, or 9400 square miles, about the area of New Hampshire.

While surface area is only one of the resources that air travel consumes, it is symptomatic of the daunting resource requirements of spreading people from Nome to Key West, from Eastport to Kauai, throwing in American Samoa and Puerto Rico and The Virgin Islands, protecting them all with military airports and bases and their logistics, and linking them as tightly as Baltimore

and Philadelphia. The soaring costs, led now by jet fuel, and security aggravations, and falling comforts of air travel are beginning to drive home these rising demands on limited resources. Meantime, though, this nationwide transportation network has brought vast new areas inside the urban ambit. A rich Montana rancher and his wife can wing it into Denver or Vegas in their private plane for a night on the town; but how long can this dream of city-country affluence last?

To highways and airlines let us add the power grid; huge interregional water transfers and systems; several new kinds of radio communication grids in bewildering novelty and abundance; the postal service grid; UPS and FEDEX grids; natural gas lines; the telephone grid; the banking network; the list goes on, and on. Most of these bring service not just to the end-points, but to most of the included interstitial lands.

How can land rents and values fall from oversupply, when land supply is fixed? This fixity feeds the delusion that land rents and values can only rise with population and capital formation. However, people and capital can spread out to encompass and fructify more land. That is sprawl, urban and continental (and worldwide, not covered here).

Professor Robert Murray Haig theorized in 1926 that if transportation costs fell to zero, there would be no urban land values: one location would be as good as another. That can't happen, of course, but lower transportation costs, as by an abundance of Ford's Model T's, would disperse land rents and values, thus lowering unit rents and values. He presented this just as a cautious academic speculation (*QJE*, February 1926), but did he see something coming? Seen or not, it did come right after he published.

To Henry George, "land speculation" meant holding land off the market waiting for a rise. He likened it to an unconscious "combination" (a cartel) of landowners creating an artificial scarcity. George missed the next trick, however. He attributed industrial depressions to inexorably rising rents and land prices that progressively squeezed labor and investors off the land and into the unemployment lines. It was too simple. A good explanation must account for land value collapses, like today's, playing a key role in the crash itself. In George's scenario, lower land prices enable the later recovery, which they do, ultimately. What about the timing, though, the sequence of events? Urban land prices peaked in 1926; stocks crashed in 1929; unemployment peaked even later.

Like all cartels, the unconscious combination of land speculators creates a "price umbrella" under which new resources enter the market. Students of cartels recognize a "price-umbrella syndrome". Cartels create an artificial scarcity of a resource or product and an artificially high "price umbrella" to shelter new competitors who come from outside the cartel. Previously marginal or untapped resources enter the market, often irreversibly. In urban growth, the cycle periodically thus creates an artificial surplus of half-developed land (graded, perhaps, roaded, platted, but lacking buildings). Other new land is even less than half-developed: accessed by new freeways, state highways, or county roads, but not even subdivided. At the same time, the lavish use of durable capital to bring settlers to all this marginal land creates a shortage of liquid capital, a shortage of loanable and investible funds, a rise of interest rates and a tightening of credit. The writer has analyzed elsewhere this lavish, irreversible misallocation of capital (Gaffney, 1976).

Austrian cycle theorists have dwelt on this tilting of what they call "the structure of production", with too much capital getting sunk irrecoverably in what they call "higher order" goods. Well and good, they are onto something big and vital. Unfortunately, though, they find its cause solely in "forced saving" from bank expansion, with no reference at all to its "geo-



economic” roots, and the role of inflated land collateral enabling bank expansion. Worst of all, they see no remedy except forcing down wage rates.

Forces of containment, notably including George’s land speculation, have imposed uneconomic scatter and sprawl on settlement. They have held back the logical areas for continuous settlement and forced the pioneers to move around and beyond them. If you examine a map of population density in the United States at any time in history, you see that urban scatter and sprawl have their counterparts in national patterns of land use, and they always have had, in spite of the Indian menace. (A series of such maps to 1865 is in John D. Hicks, *The Federal Union*.)

By 1890 the Census gave up trying to draw a “frontier line”. The Director wrote, “the unsettled area has been so broken into by isolated bodies of settlement that there can hardly be said to be a frontier line”—a passage that Frederick J. Turner misread, I think, as he launched from it into his classic “Frontier in American History.” It was not the frontier that was passing, but the last vestige of orderly advance into it. The center of population continued to march west-south-westward, as settlements grew ever more scattered. In 1893 another boom ended, evoking the populist plaint, “In God we trusted; in Kansas we busted”.

George himself did not, to my knowledge, call the crash of 1893, or explain its causes to his readers. It might have enhanced his reputation among later economists, and justified the subtitle of *Progress and Poverty*, “*An Inquiry into the Cause of Industrial Depressions*”. By 1893, however, he knew he had only few years left, and was preoccupied advancing the cause in other ways that he considered important. Perhaps he was right; many readers highly value his later works. Perhaps, also, he perceived that the facts did not exactly fit the simple scenario sketched so briefly in *Progress and Poverty*, and he lacked time to revise his model, in which by then he was heavily invested.

Georgists of the 1920’s did poorly calling the real estate slump that began in 1926, and the stock market crash of 1929. As late as 1932, at the very nadir of The Great Depression, Harry Gunnison Brown, leading Georgist economist of the times, dismissed the wreckage around him as “a period of slack business” (*The Economic Basis of Tax Reform*). Albert J. Nock and Frank Chodorov preoccupied themselves with carping at Keynes and FDR and labor unions, preaching free markets as though they had discovered them, and as though the system had not crashed after 1929. They opposed all totalitarians in principle, but in practice they aimed most of their shots at FDR and The Allies, alienating a generation of earnest activist reformers and anti-Fascists.

Career-minded professionals have to pause before issuing pessimistic forecasts about land and securities markets, where confidence hangs by a thread. Senator Charles Schumer warned of the IndyMac Bank collapse, and right away foes jumped him for causing it. Homer Hoyt could publish his masterpiece in the deepest trough of depression, when anyone with eyes or ears knew the system had crashed, and revolution was in the air. 20 years later Hoyt had gone into real estate consulting and land speculation, and declined to see any revival of his own cycle. Ravi Batra in 1985 called the downturn of 1990 spot on, but fell from grace when he called the next one prematurely for 2000. One suspects that his critics pounced too avidly because he also openly attacked Alan Greenspan, and the growing inequality of wealth and income in the U.S.A.

Many have put down even Robert Shiller for puncturing the euphoria: Michael Mandel, Chief Economics Editor of *Business Week*, recently published *Rational Exuberance*, whose title telegraphs its message, while the views of his senior columnist Jim Cooper remain upbeat, week

after week, as we sink deeper into the mire. In 2006 David Lereah published *Why the Housing Boom will not Bust, and How You can Profit from it*. Lereah, often cited by the *Washington Post*, is Chief Economist, National Association of Realtors. No one will fault Mandel or Cooper or Lereah for pricking the bubble of “confidence”; but today, in summer 2008, they look like utter fools.

Robert Shiller has been warning, targeting mainly investors, that residential real estate might be overvalued, but did not link this to a general depression in the forthright manner of the four Georgists to be cited below, nor with the same certitude. John Talbott deserves credit, too, although he may have called an earlier crash that did not occur. Alexander Field has declined to relate to current events his thoroughgoing history of the literature on older crashes.

I do not know of a single Nobel Laureate in Economics who forecast the present crash, or any other. Two of them, Chicago-Schoolers Robert Merton and Myron Scholes, founded Long Term Capital Management to demonstrate the brilliance of their investment theories. It went down in flames in 1997, saved only by a Federal bailout. Nothing daunted, media and public speakers seeking confirmation lean hard on Nobel Laureates whom they can cite. The media might better consider others with better track records.

Modern Georgists enter this period of danger and opportunity in relatively good shape. Several have outstanding scorecards calling the current crash. These include Fred Foldvary (2007, *The Depression of 2008*); Fred Harrison (2005, *Boom/Bust*); Michael Hudson (2006, “Guide to the Coming Real Estate Collapse”, *Harper’s*, May); and Bryan Kavanagh (2007, *Unlocking the Riches of Oz*). Each has a slightly different take on it, but they all saw it coming and stuck their necks out, far out, to forecast it in print. One of their distinctive commonalities is their recognizing that land rent and values are many times higher than most economists realize, and so play a major role in macro-economic ups and downs.

These Georgists who foretold this crash deserve a hearing, in preference to those who failed, and certainly to those who still deny it. What solutions would they offer? I do not speak for them, and they are not of one mind. There are a hundred more specifics than can even be outlined here, but the following elements seem reasonable and likely, knowing these authors.

One, of course, is to raise more public revenue from taxes on property in general and land in particular. These include property taxes, and in addition a host of other kinds of revenues. No less than sixteen of these are detailed in this writer’s “Hidden Revenue Capacity of Land”, forthcoming in the summer issue of the *International Journal of Social Economics*. One of them, which Michael Hudson has explained in several articles, is to reform the personal income tax (if we must have one) to bear heavier on property income and lighter on wage income.

Another is always to base land assessments on current market value, and update them annually. Earlier I criticized private fee appraisers for using current comparables to value owner-occupied homes, as follows:

“‘Expert’ appraisals of land are based on sales of comparables, and upward price trends. These sales, in turn, were influenced by appraisers who based their opinions on earlier comparables and upward trends, and so on. This is because there is no cost of production to check excesses. Thus a herd mentality can take over, divorcing prices from reality: ‘Irrational Exuberance’.”

Why, then, would I ask public assessors to join the misguided herd? Because the public assessor is the one valuer whose overvaluation stops the herd. The Assessor by law is supposed to follow a bull market, not outguess it. When the “exuberance” appears in his wisdom to be “irrational”, his job is still to go along, not judge. When private fee-appraisers go along they confirm and reinforce a boom, but when the tax Assessor goes along (and the tax rate isn’t lowered) he douses a boom with cold water: higher taxes (Gaffney, 1985, pp. 91-109). It was the lack of such an automatic remedy that let the farmland boom of the 1970’s soar so high above reality, then the urban bubble of the late 1980’s, and now of 2001-2007.

The present income-tax treatment of “capital” gains, which nearly forces the elderly to cling to their lands until they die, should be changed to a tax on annual accrual of value, as proposed by our same Professor Haig in the 1920’s. The “Hidden Capacity” article explains practical ways of doing this.

Banks should be regulated away from lending on land collateral. Following the South Sea Bubble there was such a movement in England. The emergence of the industrial revolution, flawed as it was, suggests the results were not all bad. I have not researched the history enough to say much more, but logically there is a powerful reason to regulate banks of deposit. This is because they are always technically insolvent, never able to meet their short-term liabilities from their long-term assets. A related reform might be to treat notes secured by mortgages as part of the property tax base. The counterpart is to tax the indebted landowner (“mortgagor”) only on his equity, thus recognizing that the creditor (“mortgagee”) is, de facto, part owner of the land. This idea is so radical and upheaving that I only hint at it here, its pros and cons would call for a book or two.

Public debt has often been a more stable asset for banks than mortgages. Ever since FDR, banks have avoided the total dependency on mortgage loans that led so many to fail from 1929-33. Should we then limit banks to holding public debt? The problem is, it only takes one wild administration to bankrupt a nation by making a virtue of spending more and taxing less, egged on by certain extremist schools of economic theory. We have sometimes had provident Federal administrations, but even they do not guarantee public thrift because there are 50 states, and thousands of local governments. When Andrew Mellon, Treasury Secretary from 1921-32, ran a Federal surplus, local governments and improvement districts ran wild with debt. In the 1830’s President Andrew Jackson lowered the national debt to zero, and subsidized the states besides, but several of them went bankrupt anyway. There is no simple mechanical substitute for sober judgment based on sound theory, and history, and selfless public spirit.

Meantime, where is hope? Cleaning up the mess left from the last few manic years will cost sweat and tears and some fortunes, whoever undertakes it. Lower rents and land prices will finally let us recover, but the process of getting from here to there entails a fall from illusion to reality, from high to low, that will agonize many. New administrations will prolong the agony by trying to defer it. They will bail out a few of the victims and many of the culprits by raising the national debt and inflating the currency to validate bad debts and sustain land values.

Hope lies in observing how many cities and nations have risen from disasters to new prosperity. John Stuart Mill stressed in his *Principles* (1848) “the great rapidity with which countries recover from a state of devastation; the disappearance, in a short time, of all traces of the mischiefs done by earthquakes, floods, hurricanes, and the ravages of war.”

Born-again San Francisco, 1907-30, makes a case study in fast recovery after it burned to the ground in 1906. What can it teach us? It had no State or Federal aids to speak of; no oil or gas royalties; no power to tax sales or incomes or payrolls; no lock on Sierra water to sell its neighbors, as now; no finished Panama Canal, as now; no regional monopoly; no semitropical climate; and little flat land. Its great bridges were unbuilt—it was more island than peninsula. It had eccentrics, drunken sailors, tong wars, labor strife, race riots, vice, vigilantism, civic scandals, and boatloads of illegal immigrants whose records were lost in the fire. It had fog, the Sierra wall to the east, and the San Andreas Fault, which will never go away. Statewide, mining was fading; irrigation barely beginning. Lumbering was far north, wine around Napa, deciduous fruit around San Jose, citrus and sunny beaches down south. Berkeley had the State University, Sacramento the Capitol, Palo Alto had Stanford, Oakland and Alameda had the major U.S. Naval supply center.

How did a City with so few assets raise funds to repair its broken infrastructure and rise from its ashes? It had only the local property tax, and much of this tax base was burned to the ground. The secret is that it taxed the ground itself, raising money while also kindling a new kind of fire under landowners to get on with it, or get out of the way. Developments are interdependent, so each owner could improve his land in the knowledge that other owners were subject to the same pressures, so needed complements would arise in sync with his own investment.

In 1907 the City Committee on Assessment, Revenue, and Taxation reported that revenues were still adequate, because before the quake and fire razed the city, 75% of its real estate tax base was already land value (*S.F. Municipal Reports, FY 1906 and 1907*, p. 777). The coterminous County and School District used the same tax base. San Francisco and Henry George were more in tune than perhaps either one realized. They did not rely just on jawboning and cheerleading. Civic spirit counts, but mainly they had a substantive program that worked.

This firm tax base also sustained San Francisco's credit to finance the great burst of civic works that was to follow. People flocked there to open businesses, and find jobs and homes. The City bounced back so fast its population grew by 22%, 1900-10, in the very wake of its destruction; another 22%, 1910-20; and another 25%, 1920-30. It did this without expanding its land area, and while providing wide parks and public spaces. It even pulled back from the treacherous filled-in level lands that had given way in the quake. On its hills and dales it housed, and linked with mass transit, a denser population than any major city except the Manhattan Borough of New York. For a sense of its gradients, see the chase scenes from the films *Bullitt* or *Foul Play*. It is these people and their works that made San Francisco so livable, the cynosure of so many eyes, and the commercial, financial, cultural, tourism, and light manufacturing center of the Pacific coast.

The whole U.S. can follow this model today, but on a grander scale and adapted to modern technology and values. Skeptics will wonder how we can take more taxes from rents when they are falling. Here is the key: the effect of untaxing trade, capital formation, enterprise, labor, and production is to raise and sustain land and resource rents as a tax base. This does not work through raising asking and holdout prices, but rather by raising bid prices, activating the market. Today we recognize a great variety of new ways these rents manifest themselves to be tapped for public revenues (Gaffney, 2008). We can seize these opportunities, old and new, and pull ourselves out of the funk left by the great crash of 2008.

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