Issue 27 31 August 2007

Overvaluing our assets

T HE COLLAPSE OF THE sub-prime mortgage market is probably the most important economic event of the decade, and, as usual with important economic news, is being either under-reported, or reported in such a way as to obscure the important issues.

This is what's important: the low interest rates of the last few years were made possible by a vast amount of capital made available through mortgage-backed securities instead of banks. Decisions about how much to loan were being made by people sitting in high-rise office buildings thousands of miles from the potential borrowers—people who were not going to bear the risk of the mortgages going sour.

A few weeks back, things started looking bad. Two huge funds at Bear Stearns that were predominantly invested in mortgage securities were declared pretty much worthless. Then a couple more funds at a bank in France were frozen because French bank regulators found them "impossible to value." Something is impossible to value when no one will buy it. This is not *exactly* like saying its value is zero,¹ but it's pretty darn close.

So, given that gazillions of dollars are invested in these instruments, should we worry? Well, here's one thing to worry about: The investors who have money tied up in these bonds are, in general, not real estate professionals.

¹There are unmarketable assets with high value: Narragansett Bay, for example.

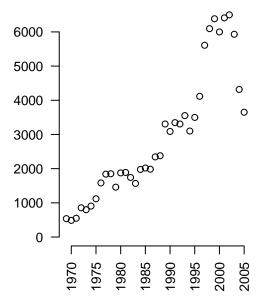


Figure 1: Number of U.S. biotechnology patents issued each year. The drop in the past few years hasn't been the result of economic conditions, but is more likely because the science that justified many of the patents has become cloudier. See article on page 2. (Source: US Patent Office. Some biotechnology patents are classified in different categories, so are missing from this graph.)

They are not set up to manage real estate. When a mortgage goes bad at a small bank, the bank is there in the area, and can hold the property while it determines what to do with it (or indulge the borrower's personal pleas for more time). The bank can find a local real estate agent to sell it, or if the real estate market is sour, they can find a property manager to rent it while it's being sold. Whatever they choose, there are many options for dealing with a troubled borrower on a local level.

This is completely unlike the French investors, or the investors in the Bear Stearns funds, who are not local. They own thousands of properties in many states. Even if they had the desire to hold on to foreclosed properties while the prices recover, they don't have the capacity to do so. They don't have local offices or even local contacts in many of the communities where they hold mortgages. In many cases they don't even own whole properties, since shares in mortgage-backed securities are frequently sold to a number of different funds. These investors will take their losses and liquidate the properties, because they have no alternative.

You can see the story in the statistics. The proportion of all mortgages that are 90 days delinquent is a tiny bit under 1%, which is slightly *less* than it was in 1986. But in 1986, this delinquency rate resulted in only half as many foreclosures as in the last quarter of 2006.² This implies that it's not fundamental economic conditions causing the wave of foreclosures, but the structure of the market.³

This also invites a way out of the mess. The government could step in here to tease out the threads of ownership and to give the borrowers time to work out a better repayment schedule. Many borrowers could use that, and could recover. As it is now, the system forces foreclosure even in cases where a modest payment delay is all that is necessary. Slowing the process down would be a good thing right now.

Naturally, there is no reason to expect such a sensible policy to prevail (though as of press time there were some faintly encouraging signs). Instead, the Federal Reserve and some European central banks injected funds into the market by loaning money against suspect securities. The mortgage holders weren't helped by this—they'll still lose their houses—but you'll be happy to know that the folks who gambled on these mortgages will suffer less. This means that lots of recently sold properties in areas where there are lots of sub-prime borrowers are going to be for sale soon. The poor neighborhoods of our state saw the most dramatic increases in prices in the late stages of

²See *US Housing Market Conditions*, Department of Housing and Urban Development, Spring 2007, table 18.

³Not to mention the fact that in 2005, Congress responded to the heartfelt pleas of banks and credit card companies by making it much harder for people to declare bankruptcy.

the real estate binge (especially the poor neighborhoods abutting more affluent areas)⁴ so they are likely to have the most value to lose in the downturn, as well as the most vulnerable borrowers.

The coming drop in real estate prices is going to affect even those people who did qualify for a regular mortgage, as they wind up owing more than the falling value of their houses. It's not an automatic crisis to owe \$200,000 on a house worth \$150,000. But it is not pleasant, and will make you very vulnerable to any kind of financial issue, like getting laid off or having an accident. For many people who wind up in this situation, walking away from the house and mortgage will make perfect sense, which will only depress house prices further.

The bottom line is that you should look for lots more FOR SALE signs sprouting in South Providence, Central Falls, West Warwick and all the other less affluent parts of the state. Each of those signs is the marker of a family whose hopes of owning their own home have been dashed by the needs of distant investors. Market binges and burps like these have real impacts on real families. The state has an interest in controlling the highs of a market in order to avoid the lows. People whose economic religion prevent them from understanding this make it worse for all the rest of us.

Overvaluing our genes

In June, in a joint publication of *Nature* and an entire issue of *Genome Research*, a consortium of dozens of scientists from all over the world published spectacular results about the shape of our genes.⁵ The consortium, called ENCODE, conducted dozens of studies about the parts of our DNA that no one understands. These stretches of DNA were once referred to as "junk" DNA because they don't appear to code for anything, but what the ENCODE studies show is that they are much more important than we thought, and what we think of as "genes" are much less important.

Every time you read a popular account of how genes work—a stretch of DNA contains a code for a protein

Rhode Island Policy Reporter

What's really going on, instead of what's said about it.

Box 23011, Providence, RI 02903-3011

www.whatcheer.net editor@whatcheer.net

subscriptions: \$35/11 issues, \$20/6 issues

editor & author of unsigned articles: Tom Sgouros

Issue 27 31 August 2007 (1.7)

© 2007 Tom Sgouros − ISSN: 1557-5675

Permission is hereby given to reproduce articles freely,

with credit to the publication and author.

that does this or that—you probably already knew you were reading a vastly simplified version of the science. What you didn't realize is that you were reading a version that has been demonstrably false since at least the 1970's. Developmental biologists, who study *how* an organism grows from an egg, have known for years that the simple story of DNA information, while true in some details, couldn't be the whole story. Unfortunately, the account of

DNA containing the information needed to make a protein is so clean and appealing (and so readily comparable to computer technology) that it was widely adopted

Molecular biologists have had to acknowledge cracks in the foundation of their science...

despite plenty of evidence that there is much more to the story. Molecular biologists became the rock stars of the science world, while developmental biologists labored on in relative obscurity.

Since the Human Genome Project announced its results in 2002, molecular biologists have been forced to acknowledge some cracks in the foundation of their science. The HGP findings were troubling for many reasons. For one thing, that work told us that only about 500 genes make the difference between us and chimpanzees, and that both have fewer genes than zebrafish. The ENCODE articles make it clear that the HGP was not decoding the whole genome, but only the easy part. The developmental biologists were right: there is much more to turning an egg into a chicken than just decoding information.

The scientific implications of these articles are profound, but it's the public policy implications that are of interest to this publication. The two big ones have to do with intellectual property and risk assessment.

Intellectual property There are around 300 publicly-traded biotechnology companies in the US, and another 700–800 privately held companies of significant size. Most of these companies were founded on the strength of one or two discoveries, but only a very small minority have anything to sell yet. When it comes time each quarter for them to make their financial reports, they have little to count on the positive side of their ledgers, except for the value of their discoveries. Since so few companies have real products, this value is mostly potential, and putting a number to it is tricky.

Companies can make the value of their research more concrete by acquiring patents on it. Since 1980, it has been possible to get US patents on pieces of DNA found in living organisms, including people. In order to get the patent, you have to be able to identify what the bit of DNA in question does. Hundreds of companies have done exactly that. One estimate is that over 20% of the hu-

⁴Confirmed by analysis of the dataset from **RIPR** issue 23.

⁵Nature 447 (14 June 2007) pp799–816 and *Genome Research*, 17(6) (June 2007).

man genome is now patented.⁶ Biotechnology startups typically count the patents as among their most important assets, and valuations in the tens of millions of dollars are not at all uncommon.⁷ Even if they fail to find a marketable product to make from the patents, they can still earn money if some other company succeeds and licenses their patents from them.

Here's the fascinating thing about the ENCODE consortium's findings: they have the potential to render all those patents worthless. If DNA doesn't work they way we thought it did in 1980—and the evidence is compelling that it doesn't—it will be very difficult to defend in court *any* of the tens of thousands of gene patents granted since then. The implications for the biotech in-

Scientific ignorance and public policy

One worrisome outcome of the ENCODE work concerns the credibility of scientists in public policy disputes. The short version: If biologists were so sure about genetics and are now wrong, why should we believe the climate scientists about global warming?

Science has a checkered history when it comes to important questions of public policy. Scientists have helped wipe out terrible diseases like polio and smallpox, but they've also enabled terrible ideas like eugenics (the correlation between race and intelligence, and the corollary that we should discourage breeding by certain races).

Try as one might to find a way to distinguish the good from the harmful science, it seems there is no substitute for critical analysis of the claims made and the cures proposed, which makes Al Gore's new book sadly relevant. (See p.5.)

Critical analysis shows that the problem isn't that the dominant dogma of DNA was wrong as much as it was incomplete in important ways. The dogma was right enough to make some astonishing advances in medicine, even if it failed to account for all the known facts. Molecular biologists overstated the explanatory power of their theories, but perhaps it was hard to remain humble as venerable medical puzzles toppled one after the other.

As for climate science, the issues are different. There are people who differ about the degree of certainty afforded by the data, but unlike biology, there isn't much in the way of contrary evidence to the story of global warming. An added benefit: the actions we should take to reduce warming will have many ancillary good effects: cleaner air, less crowded roads, more efficient use of energy resources. You can tell these are good ideas by appealing to old-fashioned virtues of thrift and cleanliness, even before the scientists weigh in.

dustry are profound. If you make a conservative estimate of 20,000 patents valued at \$20 million apiece, you're suddenly running out of zeros on your calculator. This is the potential loss of hundreds of billions of dollars of paper value from around a thousand companies. The loss of a company's patents isn't a death knell for the company, but would make it a much less appealing investment. In an industry that depends on big gambles by investors, this is a big deal.

Patents are a legal phenomenon, not a scientific one, so there will be no catastrophic loss of this money until after the first post-ENCODE court test of one of these patents.

That may not happen for a long time, since no one with a financial interest in the biotechnology industry is interested in pricking this bubble.

... Making hundreds of millions of dollars worth of gene patents worth a whole lot less.

However, many companies are quite aggressive in defending their patents, and letters from them demanding licensing fees from academic researchers are not at all uncommon. It may just be a matter of time before one such harassed researcher strikes back.

Undervaluing risk Every time a genetically altered organism is released into the world, there is an assessment done by a government agency about whether it is safe. We now know the science on which those judgments were based is flawed. The bland reassurances supplied by FDA and corporate officials that there is no risk are simply not credible any more.

The obvious risks involved are of two kinds. There are risks to people who eat the new plant or animal, and there are risks to the other plants and animals who share its world. Space limitations are going to prevent much of a look at these issues this month, but remember that risk is the probability times the stakes. Even if the probability is low of having some inedible gene spread throughout the world's corn seed, the stakes are quite high: imagine no more edible corn. In case this seems farfetched, it's been six years since genetically modified corn genes not approved for human consumption—were found in organic corn seed and in indigenous corn strains in Mexico.8 Since then, genetically modified plants have become more common, and their uses more varied. We're experimenting with growing lettuce to make insulin, splicing human milk protein into rice, and the use of corn for creating drugs is only awaiting regulatory approval. At this point, some kind of disaster is just a matter of time.

 $^{^6} K.$ Jensen and F. Murray, "Intellectual property landscape of the human genome," $\it Science~v310~(14~October~2005)~pp239–240.$

 $^{^7}$ Jeffrey J. Stewart, et al. "Putting a price on biotechnology," in *Nature Biotechnology* v19 (2001) pp813-817 has a useful discussion of valuing a hypothetical asthma drug.

⁸This was reported in *Nature* in 2001. Pressure from the biotech industry forced the journal to take the highly unusual step of withdrawing the article. The finding has been reproduced since then by a Mexican government agency, who reported contamination rates of about 8% of all the seedlings they tested.

Breaking down barriers to voting?

VICTORIA PICINICH & MEGHAN PURVIS

During the spring legislative session, Secretary of State A. Ralph Mollis formed the "Voters First" commission, with the stated purpose of studying election issues in the state. Skipping the study phase, the commission has formulated a platform of ten proposals and held public hearings focused on them instead. While several of these proposals may help to break down barriers to voting, overall the platform is a mixed bag. One proposal will actually *limit*

Is requiring people to have a photo ID in order to vote a good idea?

citizen access to the polls—specifically, a requirement for all voters to show a photo ID to vote.

There are a wide

range of voter ID laws in other states. Some only require providing a social security number or driver's license number when registering, while others are strict photo ID laws, requiring the procurement of a new ID in order to vote.

Strict voter identification requirements create institutional barriers to voting, particularly for many already underrepresented voters. Photo ID measures interact with race, class, age, and mobility to make it harder for eligible citizens to vote. These populations already face significant barriers to voting: lack of available transportation, inability to fit a trip to the polls into their workday as a result of holding more than one job, physical disability. Adding one more could be more than detrimental.

The cost for a state ID here in Rhode Island is \$16.50. While this may seem to be a small financial burden, to many Rhode Islanders it could be a major deterrent to participating in democracy, especially given that ID cards expire and have to be renewed. It also does not count the cost of acquiring a birth certificate or naturalization papers. Birth certificates cost \$15 to \$45, depending on the state they're from, and naturalization paperwork can cost as much as \$200. Not only does the financial cost of the ID need to be considered, but the time and logistical planning it takes to get to a location that offers identification, possible child care or work impacts must be considered.

Many people misunderstand the issue by not acknowledging the barriers to acquiring a photo ID. To obtain the ID these laws mandate, documentary proof would be required of an individual's full legal name, date of birth, social security number, primary address and citizenship. Some of these documents are not readily available to many Americans. New York University School of Law found that as many as 11 percent of adult Americans—more than 21 million individuals—do not have current,

government-issued photo identification, and 32 million adult women don't have IDs in their correct name.⁹

Photo ID requirements are not just a barrier to underrepresented voters. Just in the last election, the Governor of South Carolina was prohibited from voting because he forgot to bring his voter registration card to the polling place. While the press looked on, the Governor was turned away from the polls because he had not brought the correct card. Even though South Carolina law includes a provision to provide a lost card on Election Day to a voter who needs one, most working people would be unable to do what the Governor's staff allowed him to do: return home for his card and come back to the polling place later that day. ¹⁰

The Eagleton Institute of Politics at Rutgers University suggests that Latinos, Asian Americans and African Americans are less likely to vote as a result of increasingly restrictive voter ID requirements. The Eagleton study examined the 2004 election and concluded that in states requiring voters to present an ID at the polls, voters were 2.7 percent less likely to vote than in states where voters were merely required to state their names. Latinos were 10 percent less likely to vote, Asian-Americans 8.5 percent less likely to vote and African Americans 5.7 percent less likely to vote. The study further found: "As the level of proof becomes more costly to the voter, turnout declines."

This is not merely a potential effect There are states where election outcomes may have been changed because of voter ID laws. In Arizona in 2006, 22,000 voters

were disenfranchised because of the states' new proof of citizenship requirements, and one county in Arizona saw 1,300

It depends what you think about discouraging voters.

voters forced to vote on a provisional ballot because of the new photo ID requirement.

Supporters of photo identification measures are willing to exclude other eligible voters from the polling place on the theory that it is an acceptable price for curtailing fraud. However the type of voter fraud addressed by photo ID requirements is extraordinarily rare. The specific problem of voter impersonation—the only type of fraud addressed by photo ID programs—is simply not an epidemic problem that requires intervention that will prevent otherwise qualified voters from casting a ballot.

Rhode Island has a proud history of promoting polit-

⁹See www.federalelectionreform.com/pdf/Citizens%20Without%20Proof.pdf ¹⁰"South Carolina's Governor Goof Delays His Vote," November 8, 2006, www.rdono.com/2006/POLITICS/11/07/sanford.votes.

¹¹Anderson, D.& Vercellotti, T. 2006. "Protecting the franchise, or restricting it? The effects of voter identification requirements on turnout." Presented at the 2006 American Political Science Association meeting. A link to the complete article is available at whatcheer.net.

ical freedom and the power of the individual. In order to continue this tradition, our state must look for ways to break down barriers to voting. Every Rhode Islander should have the opportunity to vote and have their vote counted. Barriers such as photo ID requirements move our state in the opposite direction. Moreover, a photo ID requirement is unnecessary here in Rhode Island. There are a variety of reforms that could be put in place to address any voter fraud that may exist without systematically disenfranchising sets of voters. In addition, there are other reforms that could do more to break down barriers to voting, ensuring the strength and longevity of our democracy.

BOOK REVIEW

Being Rational

The Assault on Reason

Al Gore, The Penguin Press, 2007, 308 pages

Question: what do Rudy Giuliani's health care plan, Mike Huckabee's tax plan, and Don Carcieri's 2002 plan to reform state government have in common?

Rudy Giuliani's plan for health care reform barely deserves the compliment of calling it a plan. It is nothing more than proposals for more tax incentives for people who buy health insurance directly. In fact, most health insurance costs are *already* tax deductible for small employers and self-employed people like me. In the trade, this is called a bone-headed oversight, the sort of thing one should be embarrassed to have one's name on.

Mike Huckabee, another former Governor of Arkansas, has made waves since his second-place finish in the Iowa beauty contest a few weeks ago. He has rolled out his "Fair Tax" proposal at stump speeches, and has gotten respectful hearings for this proposal to reform the IRS. The problem is that the Fair Tax proposal is a only a warmed-over piece of buffoonery, a proposal to replace the personal and corporate income taxes with a single nation-wide sales tax. Fair enough, you say. After all, Great Britain funds its government in a similar fashion. But what would the rate be? The reality is that to replace

all the current government income, the rate on this national sales tax would have to be above 60%. Naturally, this doesn't poll well, so Huckabee has settled on 23%. This may be a more palatable number, but makes the proposal into a joke. Last week on "This Week with George Stephanopoulos," Huckabee talked about his proposal, and the host thoughtfully explained it to his audience,

and never said a whisper about the fact that it couldn't possibly do what his guest claimed it can.

Don Carcieri has been our Governor ever since he What can we do about a press that refuses to examine candidates' policy proposals?

promised to clean house with his "Big Audit" in 2002. There was noise made about the audit for a couple of years after his election, but the truth is that it was never a serious proposal for doing anything more than trimming a bit here and there. The trimming's been done, but what do we have left? We still have three separate environmental agencies, with overlapping jurisdictions. 12 We still run two fully-equipped television stations, 13 one of which is idle six months a year. Insane welfare regulations and twenty-page application forms still force us employ over 150 people whose only job is to help people who need welfare figure out how to apply. We're still waiting for Carcieri to address out-of-control health care costs, imprisonment rates, and borrowing in any substantive way. It is impossible to imagine that a real audit could have missed all of this, but it was also impossible to find any mention of these facts in the news at the time.

So what do these "plans" have in common? They are (or were) all essentially cynical ploys to gain election and have little or nothing to do with the reality of the situations they pretend to address. They are nothing but campaign fluff, as insubstantial as the hot air used to hold them up. But where is the press to point this out? Giuliani's plan is held up as comparable to plans promul-

Help bring unexamined issues like these to light. Buy a subscription to RIPR and help support its mission: to look where no one else is looking and say what no one else is saying.

To subscribe,	send \$3	35 for	11	issues,	or \$20) for
6 issues, to						

Rhode Island Policy Reporter

Box 23011, Providence, RI 02903. You can also pay online. The web site includes back issues and additional references, so is worth a look anyway:

whatcheer.net.

Name			
Street			
City	State	Zip	

¹²DEM, CRMC and the Water Resources Board.

¹³Channel 36 and Statehouse TV.

gated by Clinton, Obama and Edwards in the August 1 New York Times, where he's quoted as saying in reference to "socialist" policies that would bankrupt us:

"That is where Hillary Clinton, Barack Obama and John Edwards are taking you... You have got to see the trap. Otherwise we are in for a disaster. We are in for Canadian health care, French health care, British health care."

All three nations, of course, provide better care to their citizens for far less money than we spend. This has been documented by every respectable researcher who's looked into it, from the World Health Organization, to the OECD, the Congressional accounting office, and uncountable academics. France, for example, spends about half what we do on health care per citizen in a year, and yet their life expectancy is longer and their infant mortality is lower. You would think that, in a just world, a presidential candidate who has announced a reform plan, most of which is no change at all, and who uses palpably false statements to argue for it, could be expected to be called on one or both of those transgressions. But no, reporters for the New York Times—people at the respectable pinnacle of their profession—apparently don't do this kind of fact-checking.

Finally, this brings us to Al Gore's new book, *The Assault on Reason*. Gore's subject is the apparent uselessness of appeals to reason in public policy debates of today. Today, a candidate for office who comes up with a sensible policy for one of the problems that bedevil us can pretty much count on being ignored. Worse, their hard work is all but certain to be put on a par with sloppy and cynical work like the policy "proposals" described above.

Gore blames television for most of the problem, but there are few enough paragons in print, either. Running a newspaper was once thought to be a calling, not a profession. Today, there are as many pages in the Providence Journal's Lifebeat section as there are in the national and international news sections. Perhaps it's important to give the people what they demand; it's the free enterprise way. But the problem isn't that a journal is unprofitable if it doesn't always seek the widest possible audience. The problem, like in so many other arenas, is that it's not profitable *enough*. In a world where 3% profit margins were thought acceptable, a business plan that focused on a small segment of your market was a good idea. In a world where you need 7-10% to satisfy investors, 3% is a disaster. Newspapers are highly profitable enterpries. The big ones typically report profits of 20-30% of investment. They do not *lose* money when ad revenue declines, but they are no longer the golden

geese of days past. Knight-Ridder's profits dropped 22% from 2004 to 2005, and the money management firm that owned it

The profit motive isn't the problem. It's the demand profits be huge.

broke it up and sold it. But the profits had only dropped from 19.3% in 2004 to around 15%, still plenty by most measures. Some of their papers were making 24-26%, and even the less profitable papers that dragged down the average were all profitable in the 8-10% range. It's the craving for huge profits, not just the craving for profits, that dooms many journalistic enterprises.

So, read Gore's book. He makes excellent points about how the media really works, and how easily cynical politicians can manipulate them while they struggle to remain even-handed. But his analysis only goes so far. He has his finger on the problem, but he doesn't push hard enough to see that the insane demand for profits is at the back of much of the problem he decries. There are people in the world with capital enough to run superb newspapers. But until public service is again fashionable enough to become a part of the return on that investment (as it is here at RIPR) we will continue to have a press that refuses to perform the function we need.

The RIPR column now appears weekly in ten RI newspapers. If yours isn't one of them, complain to the editor!

dweis