Not just a mortgage crisis:
How finance maimed society

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The mortgage meltdown that began in 2007 quickly transformed into a credit crisis and then into a broader economic crisis. The dramatic rise in home prices over the previous decade was unprecedented in American history, as during the century prior to 1998 house prices had merely kept pace with inflation (Shiller, 2006). Yet the expectations of homeowners and their creditors reflected a view of homes as *investments* that never lost value. Through serial refinancing and lines of credit, families extracted equity at a rate of $800 billion per year, much of which funded consumer spending that outpaced Americans' stagnant employment income (Greenspan and Kennedy, 2008). Industries from mortgage brokerage and granite countertop installation to vacation travel and consumer electronics benefitted from the bubble. Roughly one-quarter of the jobs created during the Bush years were in housing-related industries, and at the peak of the bubble there were more real estate agents than farmers in the US. When prices experienced their inevitable reversal, the seeming prosperity of the bubble years was quickly revealed to be an illusion. Around the globe, investors who relied on American homeowners to make their mortgage payments, and producers who relied on American consumers to buy their goods, were caught up short. Back in the US, rates of foreclosure reached unthinkable levels, as millions of "homeowners" found that they owed more on their mortgage than their house was worth. The innovations flowing from the creative genius of Wall Street turned out to be not entirely benign.

Things are worse than we think. The mortgage bubble was just one part of a broader shift in the economy toward a finance-centered system that ties the fates of households, businesses, and governments to the vagaries of financial markets through the device of securitization—packaging capital assets (essentially any claim on future cash flows) into tradable securities. Mortgage-backed bonds are the most mundane and, generally, low-risk form of securitization, and we have recently witnessed the unanticipated consequences of mortgage securitization. But Wall Street constructed an infrastructure for securitization transactions that created wildly innovative products, from bonds backed by lawsuit settlements owed by tobacco companies to state governments, to those backed by the life insurance settlements of elderly retirees in Florida (Quinn, 2008). Advances in information and communication technologies allowed the creation and valuation of increasingly exotic instruments (although the precision of the "valuation" of these securities is debatable). One result is that investors and issuers occasionally faced some rather malign incentives. Buying a second house as an investment, with a low-documentation, no-money-down mortgage, was like being awarded a stock option: if the house's value went up, the buyer profited; if it went down, then the buyer could walk away with a minimal loss, while the mortgage issuer (and the house's neighborhood) suffered the consequences. And a hurricane that wiped out Palm Beach would be a bonanza for purchasers of "life settlement" bonds.

In this essay, I describe two related changes associated with widespread securitization. The first is changes in the nature and organization of the financial services industry, which has seen a paradoxical increase in concentration among the biggest banks in the US, yet a disaggregation of finance across the value chain. The second is changes in household ties to financial markets and in the worldviews of Americans. The financial crisis has temporarily stilled the manic pace of securitization of the previous two decades. But securitization is not going to disappear due to the mortgage meltdown, any more than the World Wide Web disappeared due to the collapse of the dot-com bubble. The cost advantages of the technology are far too compelling to go back. What we might hope for going forward is not to put the genie back in the bottle, but to grapple intelligently with the organizational and policy implications of securitization.

The new face of banking

For centuries, banking was a simple business. Banks gathered deposits from savers, who were paid a modest amount of interest, and made loans to borrowers, from whom they collected a higher rate of interest. The bank's profit came from the difference. To the bank, deposits were liabilities, and loans were assets. Banks could specialize in lending to home buyers (these were thrifts, or savings & loans), or to businesses (commercial banks). They could also draw on the bond market for funds if their deposit base was not big enough. But over the past two decades, banks followed the model of OEMs ("original equipment manufacturers") in vertically dis-integrating across the value chain. Like Nike, which designs and markets sneakers but relies on chains of contractors to manufacture them, banks began to sell off their assets (that is, the loans on their books) and to rely on external vendors such as mortgage brokers to make the loans in the first place. And if vetting borrowers, originating loans, servicing them, and maintainig them on the balance sheet could be separated across different organizations, the doors were opened to a world in which real estate speculators in Florida were making mortgage payments (or not) to LLCs in the Cayman Islands who serviced bonds ultimately owned by the municipal pension plans of Norwegian fishing villages. An extremely local business became a global one.

The wellspring of this transformation is securitization. Thanks to the law of large numbers, bundling together thousands of mortgages creates a pool that is fairly predictable even if the individual constituents are highly variable. And while a pool of mortgages from the same town in Oregon or Michigan might be somewhat risky—imagine if the local factory burned down, or the new housing development turned out to be built on a toxic waste dump—a geographically diverse pool is not, because housing market downturns were (until recently) localized. As a result, securitization initially made mortgages cheaper for home buyers and safer for investors. Moreover, by allowing banks to move assets (loans) off their balance sheet, securitization frees up capital for other loans.

The rationale for securitization is unimpeachable. Clearly, if it worked for mortgages, it could work for other kinds of loans. Given that commercial banks and other financial institutions had incentives to move loans off their books, and investment banks earned fees from underwriting these transactions, securitization spread like the Swine Flu across the balance sheets of American banks. Mortgage-backed bonds were followed by auto loans, student loans, and credit card receivables. If you have a balance outstanding on your Visa card, it is highly likely that your expected payment stream is now owned by a bondholder somewhere in the world. Business receivables are also regularly securitized: even a company in bankruptcy can issue a highly-rated bond if the buyers that owe it money are themselves creditworthy.

Because of the high fixed costs associated with the infrastructure for securitization, and strong demand from global investors for their product, investment banks had good reasons to keep the deals flowing. As economist James Mason put it, "Once you get into it, it's a bit like heroin." Corporate loans, royalties from album sales and television show syndications, property liens, veteran's pensions, Social Security payments to the elderly and infirm—name the cash flow, and it's a good bet that a banker somewhere has tried to securitize it. And the basic idea could be expanded to include blends of prior securitizations, not just "single malts." Collateralized debt obligations are the best-known example, consisting of a mix of prior asset-backed securities.

The advent of large-scale securitization corresponded to the broad deregulation of the American financial services industry. Unlike much of the industrialized world, where national-scale universal banks are the norm, American banking has been segregated both geographically and industrially for generations. Until the 1980s, commercial banks could not have branches in more than one state, and in some cases they were forbidden from operating more than one branch. And from the Glass-Steagall Act of 1933 until the Financial Services Modernization Act of 1999, commercial banks and investment banks were legally separated, forbidden from being owned by the same parent company. Under the influence of the market fundamentalism described by Mitch Abolafia (this issue), however, financial services was progressively deregulated, as first geographic and then industrial restrictions were eliminated.

Thanks to securitization and deregulation, the financial services industry looks almost nothing like it did 30 years ago. Commercial banks underwent a massive consolidation movement after the geographic restrictions on banking were removed, leading to an hourglass-shaped industry structure in which a handful of national-scale behemoths (JP Morgan Chase, Citigroup, Bank of America, and now Wells Fargo) were complemented by an array of relatively tiny local banks (Marquis and Lounsbury, 2007). Five of the ten biggest banks in 1989 are now combined in JP Morgan Chase. Meanwhile, nearly all the mid-sized urban banks that were the stalwarts of local communities were gobbled up. The biggest banks in San Francisco, Los Angeles, St. Louis, Boston, Jacksonville, and dozens of other cities now report to B of A's corporate headquarters in Charlottesville, North Carolina, and seven of the ten largest US cities no longer hosts a major local bank (see Davis, 2009: Chapter 4).

At the same time, securitization encouraged the disaggregation of the value chain in finance, as Palmer (this issue) describes. At the height of the bubble there were 50,000 free-standing mortgage brokerage firms, as home buyers (and refinancers) turned to brokers rather than banks for their loans. The loans themselves were frequently originated by "non-bank" specialists such as Countrywide and New Century, which could avoid the need for depositors by re-selling the loans they originated to Wall Street banks. By the same token, business loans made by commercial banks were routinely securitized, rendering the old distinction between commercial banking and investment banking largely obsolete: if debt was going to end up trading on markets rather than held on the balance sheet, then the Glass-Steagall Act was largely beside the point. An entire "shadow banking" system, comprised of players ranging from asset finance firms to hedge funds, arose in parallel to the traditional banking system, leaving our old maps of the banking industry deceptive.

One result of the changing terrain of financial services was that the US ended up with a complete mis-match between its Federal regulatory system and the players in the industry (cf. Hirsch and Morris, this issue). Regulatory agencies benefit from having large territories, and state governments can benefit from fostering local industries (e.g., mortgage banking in California; industrial banking in Utah; consumer credit in Delaware). As a result, some regulatory agencies and states competed to provide the most hospitable regulatory frameworks for their “customers,” that is, the financial institutions they nominally regulated. Customers among the financial services industry were, of course, sophisticated shoppers, as indicated by the fact the top-level regulator for AIG—America’s largest insurance company—was the Office of Thrift Supervision (OTS), created in the wake of the savings and loan crisis of the late 1980s to regulate thrifts. AIG had purchased a small savings and loan a few years before its downfall, which allowed it to be regulated by a Federal agency intended to oversee small-town thrifts—hardly a match for AIG’s high-flying London-based derivatives business. (OTS also oversaw Washington Mutual, the largest bank failure in US history, and IndyMac, another failed giant, and it appeared to be the preferred regulator for the more “creative” players in finance.) It is as if by buying a steam engine, a nuclear power plant could thereby choose to be regulated by the county steam commissioner rather than the Nuclear Regulatory Commission.

How households turned into miniature banks

While the banking industry morphed into a broad financial services meta-industry, American households increasingly turned into banks. Due to the reduced cover charge for participating in finance, households became both “investors” and “issuers.” By 2001, for the first time in history, most American families had money invested in the stock market through pension plans such as 401(k)s and through retail mutual funds. The amounts involved are not large—Fed economists estimate that the median household portfolio is worth about $23,000, including retirement savings invested through personal pension plans—but the effect can be substantial. George Bush sought to capitalize on this by appealing to the economic interests of voters as shareholders—successfully, as it turns out (Davis, 2009: chapter 6). Even small investors can be highly attuned to tax policies targeted at shareholders, particularly in a media culture in which knowledge of how the stock market is doing is almost inescapable.

Less discussed is the extent to which households had become *issuers*, just like companies that raise debt through bond issues. Through securitized mortgages and equity lines of credit, credit card debt, student loans, auto loans, and more exotic means such as life insurance settlements, American families are in much the same position as General Motors, with their streams of payments ultimately ending up in the hands of bondholders around the world. With adjustable rate mortgages tied to a Treasury index and monthly credit card payments tied to LIBOR, households had almost as much reason to follow the macro economy as the typical CFO.

The most salient economic outcome of all this is the so-called “wealth effect,” by which households premise their consumption on changes in their overall state of wealth rather than just their wage income. In practice, this meant that people whose house had (putatively) increased in value could extract cash through a line of credit or refinancing arranged through their local mortgage broker. The cash might in turn be “reinvested” in the form of granite countertops and Viking ovens. Those whose 401(k) had increased in value might decide to forego this month’s retirement contribution in favor of a flat screen TV, or paying off mounting credit card debt that outstripped their stagnant wage income.

By 2005, the American savings rate (the difference between wage income and spending) had turned negative for the first time since the Great Depression. According to the Economic Report of the President 2006, this was not a bug, but a positive feature of America’s innovative financial markets: “The decline in an often-cited aggregate personal saving rate may not be cause for much alarm for retirement preparedness. Much of this decline can be attributed to spending triggered by wealth increases from capital gains on housing and financial assets." And since house prices and stock markets always go up, Baby Boomers could look forward to a plush retirement (although it now appears that much of it may take place in a spare bedroom in their children's basement).

But what have been the cultural effects of turning homeowners into CFOs? Optimists—primarily those on the political right—believed that the "democratization of ownership" would turn people into sophisticated, economically literate, Ayn Rand-reading fiscal conservatives who knew what LIBOR meant and what the Fed did. Choosing their 401(k) would turn Americans into junior Milton Friedmans, just as choosing health insurance plans had turned them into a nation of marathon-running vegetarians. Pessimists, on the other hand, saw it as a "great risk shift" (Hacker, 2006), in which governments and corporations could slough off the risks of retirement and health care onto their citizens and employees. Enron's 401(k) plan, for instance, matched employee contributions in Enron stock, which employees were forbidden from selling until age 50. Over 60% of the value of Enron employees' pensions was invested in Enron stock on the verge of the company's implosion, an investment that ended up virtually worthless, with many of its beneficiaries left unable to retire. There may be a lesson here, but it is not one taught by Ayn Rand.

Perhaps a more insidious effect of the democratization of capital markets has been a shift in worldviews in which everything is viewed through the prism of investment, from education seen as an investment in human capital to friendship regarded as an investment in social capital. My point is not that everything has been commoditized under capitalism. This has been a commonplace from Karl Marx to Gary Becker, who regarded having children as essentially the purchase of durable goods. My point is that more and more things are regarded as *capital assets* whose fiscal benefits can be reaped by savvy investors. It is not that kids are like refrigerators; it is that kids are like mutual funds.

The most salient example of this shift in sensibilities, of course, is the US housing market. Enabled by the securitization of mortgages, and encouraged by rapid price increases and the relatively modest returns available from other asset classes, buyers turned homes into stock options. Over one-quarter of the houses sold in 2005 were purchased as investments, which their buyers intended to turn over for a profit. Houses were listed for sale on EBay, with many bought and sold sight unseen. Entrepreneurial brokers went door to door encouraging homeowners—even those whose mortgages had long since been paid off—to take out new loans, either to invest in home improvements or to pay off other loans and gain the tax advantages of mortgage debt. Internet-savvy homeowners who needed cash could check out their house's imputed value, their credit rating, and mortgage interest rates daily on the Web, just as they checked out the value of their 401(k) before deciding whether to buy a new car (Davis, 2009: chapter 6).

The result has been ironic, to say the least. For generations, commentators and American presidents had lauded the social benefits of home ownership, from Calvin Coolidge ("No greater contribution could be made to the stability of the Nation, and the advancement of its ideals, than to make it a Nation of homeowning families") to Franklin Roosevelt ("A nation of homeowners, of people who own a real share in their own land, is unconquerable") to George W. Bush ("Just like that, you're not just visitors to the community anymore but part of it--with a stake in the neighborhood and a concern for its future”). Now, homeowners had evidently become *lumpen rentiers*, more Paris Hilton than George Bailey. In 2008, Bank of America CEO Ken Lewis stated, “There’s been a change in social attitudes toward default...We’re seeing people who are current on their credit cards but are defaulting on their mortgages.” They are “homeowners in name only. Because these people never put up much of their own money, they don’t act like owners.” At the Treasury Department, the tone was even more scolding: “Homeowners who can afford their mortgage but walk away because they are underwater are merely speculators.” Perhaps they were merely speculators, but it was hard to impugn their financial street smarts. Only a fool exercises an underwater option.

This account has focused on the US because America’s hypertrophied financial markets put it at ground zero of the global financial catastrophe. But households elsewhere in the world are also more directly tied to financial markets than in the past, although none match the US for the sheer ubiquity of finance. In central Europe and the Baltics, home mortgages are routinely taken out in foreign currencies to take advantage of lower interest rates. Half the home mortgages in Hungary, and one-third of those in Poland, are denominated in foreign currencies such as the Euro or Swiss Franc. Like some hedge funds, such households are in the “carry trade,” their monthly budgets tied to currency exchange rates shaped by distant central bankers. A man in Budapest who had taken out a loan in Swiss francs to buy an Alfa Romeo convertible stated that when the Hungarian florint strengthened, “We would go out for a big family dinner;” when it sank, “The kids would get less ice cream” (Karmin and Perry, 2007.) And in China, mass participation in the stock market reached a level of near-mania this decade in a country that lacked a working stock exchange from the 1949 revolution until 1990. Due to the country's extremely high savings rate, a contagion of new retail investment fueled a stunning market bubble between January 2006 (when the Shangai Composite stood at 1181) and October 2007 (when it peaked at 5562). At its peak, the Shangai Stock Exchange had an aggregate market capitalization of $3 trillion, making it the world's fifth largest. Eight months later, the market had lost half its value. Financial bubbles, it seems, can inflate anywhere there is finance.

Conclusion

The mortgage crisis was the culmination of a larger transformation in the American economy toward a finance-centered model. From corporations operated exclusively to create shareholder value, to banks that had become façades fronting for financial markets, to households tied in myriad ways to the markets, finance came to permeate American life to a degree that would have been hard to imagine a generation ago. Moreover, it was not just a change in the economy, but a change in society. A financial sensibility helped transform a nation of ants into a nation of grasshoppers, and turned most families' major savings vehicle—their home—into a liability, with consequences to be felt for years to come. (At this writing, projections indicate that one-third of mortgages will be underwater within months.)

This discussion suggests two sets of research implications. The first concerns the effects of securitization on the organization of the financial sector. I have described the "OEM model" of finance briefly. Those of us with a mortgage in the US may not realize that our monthly check to Wells Fargo or Washington Mutual is actually only passing through a clearance service, and that ultimately the mortgage is owned elsewhere. A systematic comparison of the OEM model in manufacturing and finance would be highly informative. Like other industries that undergo massive technological change, finance has seen the rapid rise and fall of both new players (e.g., New Century) and entire categories of business (e.g., mortgage brokerage). Barriers to entry are considerably lower when loans need not be held on the books, but can be quickly re-sold to investment banks to be securitized. It would be intriguing to track the diffusion of business models and strategies via personnel flows among old and new players (e.g., from mutual funds to hedge funds; from banks to mortgage firms; from mortgage firms to thrifts). Regulation informed some of the organizational choices of entrepreneurs—for instance, Southern California was home to the major players in mortgage banking, such as Countrywide and New Century, because the state legislature wanted to provide a welcoming climate to a growing industry by avoiding "red tape." Our empirical understanding of regulation shopping, however, is largely limited to anecdote, and a more systematic theoretical analysis of how firms choose among regulatory regimes would be useful. Finally, it seems clear that many financial innovations are created by analogy: if bonds can be backed by mortgage payments, why not auto loans, or insurance payoffs? This would be an excellent domain to expand the application of institutional theory to understand when analogies work and when they fail in promoting product innovations.

A second category of research concerns individuals and households. Much as the "finance conception of control" came to hold sway in the corporate world (Fligstein, 1990), we may find that finance had a diffuse impact on individual decision making and broader worldviews. Initial evidence suggests that stock ownership influenced American voters to identify more strongly with the Republican Party between 2000 and 2004

(Davis, 2009: chapter 6). Through relatively portable 401(k) plans, stock ownership has also altered the bonds between employees and firms by increasing the prospects for mobility. There is almost no research, however, on the effects of securitized mortgages on the daily decision making of households. Do securitized mortgages induce individuals to view themselves more as "investors" and less as "homeowners" or "citizens"? If so, has this undermined the supposedly beneficial effects of buying a home on citizenship? Finally, I would anticipate that as the investment metaphor has spread to encompass human capital (education), social capital (friends), and cultural capital (knowledge of wines), it has changed the way we think of knowledge and relationships. Surely by now someone has created a Facebook app to implement a "social capital asset pricing model" to calculate the value of one's friends, and to help re-balance one's portfolio of relationships. But a deeper understanding of the effects of our metaphors on social action would be an apt topic of research in strategic organization.

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