

Expanding the Terrain for Global Capital

When Local Housing Becomes an Electronic Instrument

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Beyond its social and political role, housing has long been a critical economic sector in all developed societies. There have historically been three ways in which it played this economic role: as part of the construction sector, as part of the real estate market and as part of the banking sector in the form of mortgages (see Aalbers 2008; Wily *et al.* 2004; Gotham 2006, among others). In all three sectors it has at times been a vector for innovation. For instance, in the early stages of development solar energy was largely applied to housing rather than offices or factories. Mass construction has used housing as a key channel to develop new organizational formats, and so has the industrial production of prefabricated buildings, which has mostly been about housing. Finally, mortgages have been one of the key sources of income and innovation for traditional-style banking. The 30-year mortgage, now a worldwide standard, was actually a major innovation for credit markets. Japan earlier and China today have instituted, respectively, 90- and 70-year mortgages to deal with a rapidly growing demand for housing finance in a situation where it takes three generations to cover the cost of housing in a boom period – the 1980s in Japan and the 2000s in China.

Today, housing has become the instrument for yet another innovation: a financial instrument that has lengthened the distance between itself and the underlying asset (housing) to an extreme that is usually associated with high-risk innovative finance. This is not the first time the financial sector has used housing for such an instrument: the first residential-mortgage-backed securities were produced in the late 1970s. The original intention was quite reasonable: to generate an additional source for funding the mortgages of

modest-income households, besides the traditional one of bank deposits. The particular distortion of the original concept of the subprime mortgage at issue today is in substantial part a result of the selling logic and practices in the US during a short but intense period, mostly from 2003 to 2007.

Conceptually I situate the current disastrous outcome – millions of households losing their homes largely through the dubious, including illegal, practices of mortgage sellers – in a larger framing of *logics of expulsion* (Sassen 2010). In the larger project I develop the thesis that our post-1980s global age has now taken on a clear systemic shape. Notwithstanding its multiple exclusions, the Keynesian period of the mid-twentieth century brought with it an active expansion of the population systemically valued as “workers and consumers.” Today’s phase of advanced capitalism does not. In the last two decades there has been a sharp growth in the numbers of people that have been “expelled,” numbers far larger than the newly “incorporated” middle classes of countries such as India and China. I use the term “expulsions” to describe a diversity of conditions: the growing numbers of the abjectly poor, of the displaced who are warehoused in formal and informal refugee camps in the Global South, of the minoritized and persecuted warehoused in prisons in the Global North, of workers who have been reduced to laboring bodies, often rendered useless at far too young an age. My argument is that these multi-sited logics of expulsion, with strong elements of what Harvey (2003) has called accumulation by dispossession, are actually signaling a deeper systemic transformation that has been documented in bits and pieces but remains insufficiently theorized.

Elsewhere (Sassen 2008a: chapters 1, 8, and 9) I develop a theory of change that has as one core dynamic the fact that condition x or capability y can shift organizing logics and, thereby, actually change valence even if it may look the same: thus, for instance, I posit that this massive expulsion of people is not simply more of the same. I argue that the organizing logic of this post-Keynesian period is now making legible its shape: at the center of this logic is not the “valuing” of people as workers and consumers, but the expulsion of people and the destruction of traditional capitalisms to feed the needs of the new capitalism, one dominated by the interests of high finance and the needs for natural resources. The particular case of the so-called subprime mortgage crisis can be conceptualized as one instance of systemic expulsion through an extension of an advanced mode of capitalist relations of production – the financializing of non-financial domains. Extending this particular mode to modest-income households worldwide emerges as a possibility given low levels of home-ownership in many countries (e.g., Sassen 2008b, 2011: chapters 2, 5, and 8).

Here I examine the character of this innovation and its global potential for subjecting modest-income households to this mode of extraction. One major effort is to situate the particularity of the subprime mortgage crisis

that exploded in August 2007 in a larger context of crisis that culminates with the September 2008 credit-default swaps crisis, another major innovation of this period. It is this particular type of swap, which had reached \$62 trillion by 2007, compared to \$800 billion of the subprime mortgage market that threatened to bring the financial system down. The subprime mortgage crisis was a crisis for mortgage holders, and, in my analysis, a mere crisis of *confidence* for the world of high finance. The second major effort is to compare the incidence of household debt, especially residential mortgage debt, in a range of countries in order to underline the enormous differences across countries. For instance, in Sao Paulo, a high share of residents own their houses, but few have used mortgages – housing is bought with cash. These differences signal the variable potentials for growth in the selling of this particular type of distortion of the original concept of the subprime mortgage. It is important to see this as a mere signal of a potential and a danger. The enormous diversity of economic, financial, and social cultures through which housing is accessed across the world points to diverse levels of potential use.

Situating the Subprime Mortgage Crisis in a Larger Landscape

The geographic expansion and systemic deepening of capitalist relations of production over the last 20 years have led to one of the most brutal divisions of the winners and losers. The so-called subprime mortgage crisis can be conceptualized as an extension of an advanced mode of capitalist relations of production – the financializing of non-financial domains. One way of putting it is that capitalism is undergoing a deepening of advanced capitalism predicated on the destruction of more traditional forms of capitalism. The financializing of non-financial domains is one such form of deepening. Extending this to modest-income households is equivalent to peasant economies being subjected to early capitalist modes of capitalism.

Marx saw a specific type of shift whereby pre-capitalist modes of production were incorporated into capitalist relations, a process marked by violence, destruction, and appropriation. Here I posit another specific type of shift: the destruction of traditional capitalisms in order to extract what can be extracted for the further deepening of advanced capitalism (Sassen 2008a: chapters 4 and 5). I use this term to capture a phase dominated by a financial logic, a condition that recurs and historically signals a decaying phase (Arrighi 1994). Built into this proposition is the fact of diverse phases of capitalist development and, hence, the possibility that in today's global phase the extension of capitalist relations has its own distinct mechanisms and that these need to be distinguished from older imperial phases.

The marxist category “primitive accumulation” points not only to a logic of extraction that can expropriate and impoverish, but also, and more importantly, to a mode of incorporating non-capitalist economies into capitalist relations of production. In this regard PA is part of the historic expansion of capitalist relations. This would suggest *prima facie* that the category is not applicable today since most of the world has basically been incorporated into capitalist relations of production (Amin 2000, 2010).¹

For Marx, PA hinged on earlier modes of production becoming factors in the making of capitalist relations of production. Marx’s definition of PA in terms of the theory of capitalism has at its center the notion of a historical process that separates people from the means that allow them to live and produce.² Amin (2000) mentions the idea that primitive accumulation is not something confined to the early stage or prehistory of capitalism. Harvey (2003: 137–82) writes that Marx’s use of “primitive” or “original” accumulation is misleading since the history of capitalism contains repeated instances of this kind of accumulation. He recasts the term as accumulation by dispossession, and develops its multiple instances. One of these is as a safety valve against over-accumulation crises, since it allows lowering the prices of consumer commodities (thereby raising the propensity for general consumption); this, in turn, is made possible by the considerable reduction in the price of production inputs. Harvey (2003) makes a crucial contribution to the understanding of the current era by emphasizing the ongoing appropriation of non-capitalist economies and their incorporation into capitalist relations of production. Harvey opens up the concept to a wide range of processes.

These include the commodification and privatization of land and the forceful expulsion of peasant populations; the conversion of various forms of property rights (common, collective, state, etc.) into exclusive private property rights; suppression of rights to the commons; commodification of labour power and the suppression of alternative (indigenous) forms of production and consumption; colonial, neocolonial, and imperial processes of appropriation of assets (including natural resources); monetization of exchange and taxation, particularly of land; the slave trade [which continues particularly in the sex industry]; and usury, the national debt and ultimately the credit system as radical means of primitive accumulation. The state, with its monopoly of violence and definitions of legality, plays a crucial role in both backing and promoting these processes. (2003: 145)

This is a point I develop in the context of the making of regulations and laws in the post-1980s decades (2008a: chapters 4 and 5). Central to my analysis is that inside capitalism itself we can characterize the relation of advanced to traditional capitalism as one marked by PA. At its most extreme this can mean the immiseration and exclusion of growing numbers of people

who cease being of value as workers and consumers. But it also means that traditional petty and national bourgeoisies cease being of value.³ This is part of the current systemic deepening of capitalist relations, as is the financializing of mortgages for modest-income households aimed at building a new circuit for high finance for the benefit of investors and a total disregard for the homeowners involved. The “subprime mortgage crisis” is but one of a wide range of instances that all involve logics of expulsion from older forms of capitalism. For example, elsewhere (2010) I use this framing to examine how territory is systemically repositioned in growing parts of the Global South, away from representing nation states and towards representing “needed” resources. Here I extend this argument to a range of territorial sites in the Global North, particularly the US (e.g., neighborhoods devastated by home foreclosures). It can be extended to more instances than the one focused on in this chapter (for instance, central Detroit devastated by the disassembling of manufacturing production).⁴

I emphasize the *making* of these capitalist relations of production: whether those of early or of advanced capitalism.⁵ I think it is critical to go beyond questions of power and powerlessness and to recover the work and innovations that it takes to produce these outcomes. It is not simply a function of power – to make these destructive instruments it took state work, the innovations of lawyers and accountants, and so on. It is a process I describe as the making of complexities to produce elementary brutalities (2010). In what follows I discuss some of the work that it took to destroy a more traditional type of home mortgage in order to expand the operational space of advanced capitalism. These are system-changing practices and projects within capitalism.⁶

Expanding the Operational Space of Advanced Capitalism

The 1980s saw the financial industry produce multiple innovations that allowed the securitizing of all sorts of debt (for a discussion of the issues and the pertinent bibliography see Sassen 1991: chapter 4). These innovations also addressed small debts, notably individual consumer debt, through the bundling of millions of such small debts, from auto loans to credit card debt. When it came to mortgages, these were mostly owned by highly regulated institutions. Deregulation became the critical step to enable securitization: mortgages had to be pulled out of their protective encasements (Aalbers 2008; Newman Chapter 8 in this volume; Miles 2007).⁷

Two features of the current innovation make the particular type of subprime mortgage at issue here different from traditional mortgages. One is the extent to which these mortgages function purely as a financial instrument, in that they can be bought and promptly sold (Aalbers 2008;

Gotham 2006). In a fast moving market of buying and selling, ownership of the instrument may last for just two hours. Thus, when an investor has sold the instrument, what happens to the house itself becomes irrelevant to that investor; indeed, the subprime lenders who went bankrupt in the 2007 subprime mortgage crisis were those who did not sell these mortgages and hung on to them. Those who did sell them to investors made significant profits in the years before the crisis erupted. Further, these mortgages were mostly divided into hundreds of slices, which were then mixed up with high-grade debt and distributed across diverse investment packages; they could then be sold as asset-backed securities, no matter how thin and how dubious that slice of a mortgage representing an actual material asset. There is no single component in such a package that actually represents the whole house. In contrast, the owner loses the house if unable to meet the mortgage payments for a few months no matter who owns the instrument, because there is always some investor or “servicer” who owns it and hence can make claims.

The second difference from traditional mortgages is the fact that the source of profit for the investor is not the payment of the mortgage itself plus interests. It is, rather, the desirability of having an actual asset (a bit of a house) backing the security in a period of extreme speculation when asset-backed securities had become rare in the high-finance circuit. The aim of the innovation is to delink investor profits from the creditworthiness of the subprime mortgage borrower – the investor could benefit even if the mortgaged household went bankrupt. The critical condition to make it work for the high-finance investment circuit is securing a large number of subprime mortgage contracts to reach the volumes needed. These two features suggest that the 2 billion modest-income households worldwide are a potential global market for what has become a dangerous instrument not aimed at helping such households but rather at filling a demand in the high-finance circuit (Sassen 2008b, 2010). They can become a major target when the source of profit is not the payment of the mortgage itself but the sale of a highly liquid financial package with a bit of material asset. What counts, is not the creditworthiness of the borrower but crossing a threshold in terms of numbers of mortgage contracts sold to, and often pushed onto, households.

Much has been made, especially in the US media, of the subprime mortgage crisis as a source of the larger crisis. These mostly modest-income families unable to pay their mortgage were often represented as irresponsible for having taken on these mortgages. But the facts show another pattern. The overall value of the subprime mortgage losses was too small to bring this powerful financial system down. The crisis was triggered by another complex financial innovation: the so-called credit default swaps.

In an accelerated history that took off in the early 2000s, we can identify three distinct crises. A first one is a crisis of home foreclosures that in 2006

sent over a million households into poverty, downgraded housing, and often homelessness. As 2007 saw another 2.2 million foreclosures, an increase of 75% over 2006, this crisis of foreclosures became a crisis of confidence for investors in August 2007. By then the sharp growth and vast spread of slices of subprime mortgages had made it impossible to identify foreclosed mortgages, the so-called toxic asset. In other words, the complexity needed to delink borrowers' creditworthiness from investors' profit had become the source of the crisis of confidence in the financial system. This in turn fed the third crisis, when those who had bought complex types of derivatives named credit-default swaps and sold as insurance against financial crises called in to collect that "insurance." By 2007, the outstanding value of credit-default swaps stood at \$62 trillion, more than the \$54 trillion value of global GDP (ISDA 2009; Varchaver and Benner 2008). But the cash was not there to cover the claims. It should be noted that all along this process, many financial actors made vast amounts of profits.

Credit-default swaps are part of what has come to be referred to as the shadow banking system (http://www.huffingtonpost.com/saskia-sassen/obama-and-volcker-economi_b_161249.html). According to some analysts this shadow banking system accounted for 70 percent of financial transactions at the time the crisis exploded. The shadow banking system is not informal, illegal, or clandestine. Not at all: it is in the open, but it has thrived on the opaqueness of the investment instruments. The complexity of many financial instruments is such that nobody can actually trace what is bundled up in some of them. Eventually this meant that nobody knew exactly or could understand the composition of their investments, not even those who sold and bought the instruments. This shadow banking system has thrived on the recoding of instruments, which, at the limit, allowed illegal practices to thrive. For instance, it is now clear that credit-default swaps were sold as a type of insurance. But they were actually derivatives. In order to be an actual form of insurance the law requires they be backed by capital reserves and be subject to considerable regulation. Making them into derivatives was a *de facto* deregulation and eliminated the capital reserves requirement.

Credit-default swaps could not have grown so fast and reached such extreme values if they were actually insurances. None of the financial firms had the capital reserves they would have needed to back \$60 trillion in insurance. Because they were re-coded as derivatives, they could have an almost vertical growth curve beginning as recently as 2001. Finally, their growth also indicates the extent to which interpretation is a strategic function in financial markets. Those who sold these swaps did not see the crisis coming and bet on many more years of speculative growth. Those who bought the swaps, as insurance, were getting worried about the prospects of ongoing financial growth.⁸ It is important to emphasize that the viral infection of

subprime mortgages originated in the United States but spread to other countries via the globalization of financial markets (Aalbers Chapter 5 in this volume; IMF 2008). This spread was helped by the fact that non-national investors are, as a group, the single largest buyers of some of the weakest types of mortgage instruments (for more detail see Sassen 2008b; IMF 2008). Together with banks, non-national mortgage buyers make up over a third of all subprime mortgage holders. Foreign ownership strengthens the potential for spillover effects well beyond the United States.

A critical contextual feature bringing it all together was the growing demand among investors for asset-backed securities at a time of sharp growth in the financializing of economies. Actual assets had become increasingly attractive by the early 2000s given a financial market dominated by derivatives with an outstanding value of \$630 trillion, equivalent to fourteen times the value of global GDP. The total value of *financial* assets in the US stood at almost five times (450 percent) the value of its GDP in 2006, before the crisis was evident; the UK, Japan, and the Netherlands all had a similar ratio (see McKinsey 2008: 11).⁹ In one year alone, 2005–06, the total value of the world's financial assets grew by 17 percent (in nominal terms, 13 percent at constant exchange rates) reaching \$167 trillion. This is not only an all-time high value, it also reflects a higher growth rate in 2006 than the annual average of 9.1 percent since 1980 – in other words, a sharp growth in financial deepening (Sassen 2011: chapters 5 and 8). The total value of financial assets stood at \$12 trillion in 1980, \$94 trillion in 2000, \$142 trillion in 2005, and \$167 trillion in 2006.¹⁰

This is the context within which even subprime mortgage debt on modest housing became of interest to financiers (see also Wyly *et al.* 2004; Hernandez Chapter 7 in this volume, on the limits of this option, e.g., redlining).¹¹ It took complex mixes of innovations and vast numbers of these mortgages to make it all work for high-finance investors. Sellers of these mortgages needed at least 500 such subprime mortgages to make it work. As the demand for asset-backed securities grew, so did the push by subprime mortgage sellers to have buyers sign on, regardless of capacity to pay the mortgage. This combination of demand and a supply of increasingly low-quality assets meant mixing slices of low-quality mortgage debt with high-quality debt. The result was an enormously complex instrument that was also enormously opaque. These new types of mortgage-backed financial instruments allow lenders to overlook creditworthiness and aim at a quick sale, since what matters is the number of mortgages that can be bundled and sold on the secondary financial circuit. This is the logic that made low-quality subprime residential mortgages into an efficient mechanism for the high-finance investment circuit (Sassen 2008b), an accomplishment on its own terms.

Given the ensuing crisis of confidence once high rates of foreclosure became visible, the current period makes legible a third asymmetry. At a time of massive concentration of financial resources in a limited number of super-firms, the one that owns a good share of the subprime mortgages when the mortgage default crisis hits, gets stuck with massive losses. In an earlier period, ownership of mortgages was widely distributed among a large number of banks, savings and loans associations, and credit unions, resulting in a wider distribution of losses. The fact that large, powerful firms have also felt that they could get by with high-risk instruments has further raised their losses. Ruthless practices, the capacity to control these markets and the growing interconnectedness of markets have made these super-firms vulnerable to their own power in a sort of network effect (Sassen 2008a: 348–65).

The Selectivity of Subprime Mortgage Lending

Modest neighborhoods became a strategic space in this process, pushing the role of urban space as a source of profit well beyond the gentrification dynamic. This asymmetry between the worlds of investors (only some will be affected) and homeowners (once they default, they can lose the house and whatever they have already paid on it regardless of what investor happens to own the instrument at the time) creates a massive distortion in the housing market and the housing finance market. Most investors can escape the negative consequences of home mortgage default because they buy these mortgages in order to sell them; there were many winners among investors for several years and only a few losers before the crisis broke in August 2007. But homeowners unable to meet their mortgage obligations cannot escape default. The fact that investors could have a positive view of subprime mortgages (poor-quality instruments) was bad for potential homeowners. We see here yet another sharp asymmetry in the position of the diverse players “enacting” an innovation.¹²

Extending mortgages to modest-income households, in itself a worthy objective, became a dangerous innovation. Since creditworthiness is not the issue with these mortgages, but numbers sold is, the likelihood that a borrower would eventually be unable to pay the mortgage was high. As with home equity loans, lenders often pushed these mortgages onto households, without full disclosure of the risks and changes in interest rates involved, and without taking account of the capacity of a household to meet the monthly mortgage payments.

Under these conditions, subprime and similar kinds of mortgages for modest-income households became a mechanism for extracting something from those households, a sort of primitive accumulation (Sassen 2010). At

Table 3.1 New York City, rate of subprime lending by borough, 2002–06 (in percent)

| | 2002 | 2003 | 2004 | 2005 | 2006 |
|---------------|------|------|------|------|------|
| Bronx | 14.2 | 19.7 | 28.2 | 34.4 | 27.4 |
| Brooklyn | 9.2 | 13.9 | 18.4 | 26.1 | 23.6 |
| Manhattan | 1.3 | 1.8 | 0.6 | 1.1 | 0.8 |
| Queens | 7.7 | 12.6 | 17.8 | 28.2 | 24.4 |
| Staten Island | 7.2 | 11.1 | 13.9 | 19.9 | 17.1 |
| NYC total | 7.0 | 10.8 | 14.9 | 22.9 | 19.8 |

Source: Furman Center for Real Estate & Urban Policy, 2007, State of New York City's housing and neighborhoods (<http://furmancenter.org/research/sonychan/2007-report/>, accessed November 28, 2008).

Note: A further breakdown by neighborhoods (community districts) in New York City shows that the worst-hit ten neighborhoods were poor – and between 34 and 47 percent of all mortgages bought by residents were subprime mortgages (see Table 3.2).

its most brutal, the object of this extraction was a contract (the mortgage agreement) that represented an asset. And all that was needed, given financial engineering, was for the household to sign that contract – nothing more and nothing less. The available evidence does suggest that race and locality are one of the variables at work in this process. Newman (Chapter 8, this volume) provides an important datum in this regard: a significant share of those who got subprime mortgages could have qualified for regular mortgages.

Tables 3.1, 3.2, and 3.3 show clearly that race and income level matter: African Americans and low-income neighborhoods show a disproportionately high incidence of subprime mortgages as a share of all the mortgages bought by each of these groups from 2000 to 2007 (see also Chapters 7, 8, and 9). Table 3.1 shows the extreme difference between Manhattan (one of the richest counties in the whole country despite having significant pockets of poverty) and other New York City counties: in 2006 less than 1 percent of mortgages sold to Manhattan home-buyers were subprime compared to 27.4 percent in the Bronx. This table also shows the sharp rate of growth over the years of subprime mortgages in all boroughs except Manhattan.

Finally, we see a similar pattern if we control for race (see Table 3.3; Newman Chapter 9 in this volume). Whites, who have a far higher average income than all the other groups in New York City, were far less likely to have subprime mortgages than all other groups. Thus, of all mortgages bought by Whites in 2006, 9.1 percent were subprime, compared with 13.6 percent for Asians, 28.6 percent for Hispanics, and 40.7 percent for Blacks.

Table 3.2 Ten New York City community districts with the highest rates of subprime lending, 2006

| <i>Sub-borough area</i> | <i>Percent of home purchase loans issued by subprime lender</i> |
|--|---|
| University Heights/Fordham (Bronx) | 47.2 |
| Jamaica (Queens) | 46.0 |
| East Flatbush (Brooklyn) | 44.0 |
| Brownsville (Brooklyn) | 43.8 |
| Williamsbridge/Baychester (Bronx) | 41.6 |
| East New York/Starrett City (Brooklyn) | 39.5 |
| Bushwick (Brooklyn) | 38.6 |
| Morrisania/Belmont (Bronx) | 37.2 |
| Queens Village (Queens) | 34.6 |
| Bedford Stuyvesant (Brooklyn) | 34.2 |

Source: Furman Center for Real Estate & Urban Policy, 2007, State of New York City's housing and neighborhoods (<http://furmancenter.org/research/sonychan/2007-report/>, accessed November 28, 2008).

Table 3.3 Rate of conventional subprime lending by race in New York City, 2002–06 (in percent)

| | <i>2002</i> | <i>2003</i> | <i>2004</i> | <i>2005</i> | <i>2006</i> |
|----------|-------------|-------------|-------------|-------------|-------------|
| White | 4.6 | 6.2 | 7.2 | 11.2 | 9.1 |
| Black | 13.4 | 20.5 | 35.2 | 47.1 | 40.7 |
| Hispanic | 11.9 | 18.1 | 27.6 | 39.3 | 28.6 |
| Asian | 4.2 | 6.2 | 9.4 | 18.3 | 13.6 |

Source: Furman Center for Real Estate & Urban Policy, 2007, State of New York City's housing and neighborhoods (<http://furmancenter.org/research/sonychan/2007-report/>, accessed November 28, 2008).

Table 3.3 also shows the much lower growth rate in subprime lending from 2002 to 2006 among Whites compared with the other groups. In the most acute period, 2003–06, it doubled from 4.6 percent to 9.1 percent for Whites, but basically tripled for Asians and Hispanics, and quadrupled for Blacks.

The costs extend to whole metropolitan areas. The loss of property tax income for municipal governments varies across different types of cities and metro areas. One study of the ten metro areas with the largest losses of real GMP (Gross Municipal Product) for 2008 due to the mortgage crisis estimates their total economic loss at over \$45 billion (Global Insight 2007).¹³ New York City losses were estimated at \$10 billion in 2008, Los Angeles at \$8.3 billion, and Dallas, Washington, and Chicago each at about \$4 billion (see generally SAIS 2009).

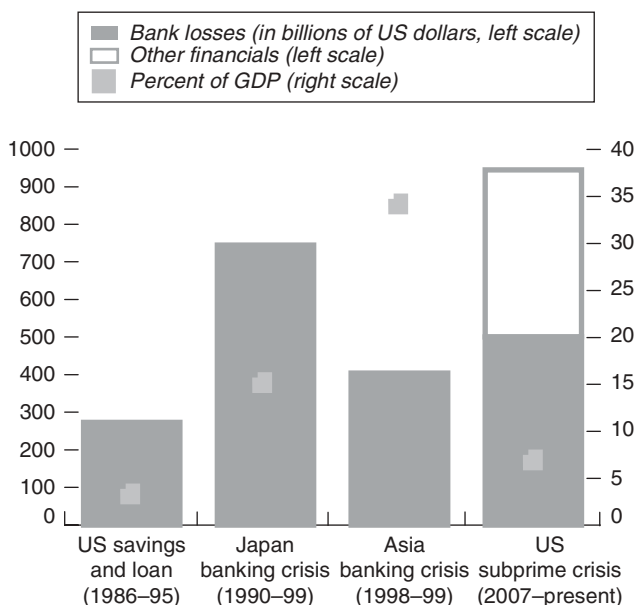


Figure 3.1 Comparison of financial crises

Sources: World Bank and IMF staff estimates. IMF Financial Stability Report 2008, Chapter 1: “Assessing Risks to Global Financial Stability.” Available at <http://www.imf.org/external/pubs/ft/gfsr/2008/01/PDF/chap1.pdf>, last accessed July 2011. Reproduced by permission of the International Monetary Fund.

Note: US subprime costs represent staff estimates of losses on banks and other financial institutions from Table 3.1. All costs are in real 2007 dollars. Asia includes Indonesia, Korea, the Philippines, and Thailand.

Subprime Mortgages: A New Global Frontier for Finance

When we compare the current crisis to earlier crises in the global phase that began in the 1980s, we can see some interesting differences. Figure 3.1 shows that financial leveraging added another 20 percent to the underlying banking crisis, thereby bringing the current financial crisis up to an equivalent of 40 percent of global GDP, compared to earlier crises, which rarely went beyond 20 percent.

Innovations in housing finance in advanced economies over the last half century have changed the role of the housing sector in the economy at the local, national, and, more recently, global levels. This results partly from the growing value of mortgage capital, expressed as a ratio to a range of variables: GDP, household credit, household disposable income, total private credit in an economy, and so on. And it results from the expansion

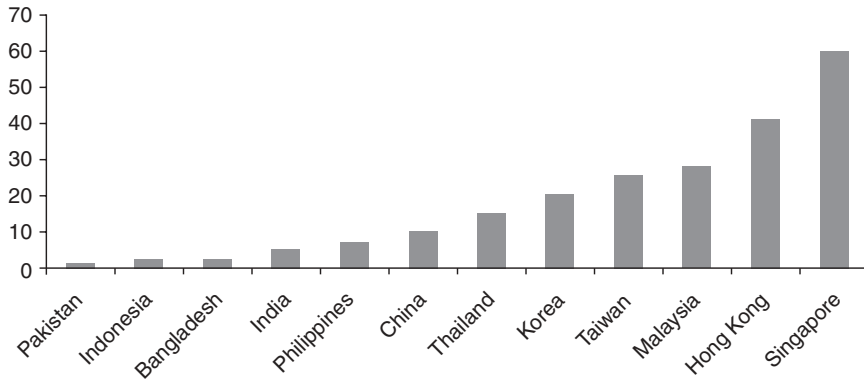


Figure 3.2 Ratio of residential mortgage debt to GDP: Emerging Asia, 2007

Source: Warnock, V.C. and Warnock, F.E., *Markets and Housing Finance* (February 2008). Available at SSRN: <http://ssrn.com/abstract=981641>, retrieved August 24, 2008.

of secondary mortgage markets (where financial instruments based on mortgages, rather than the houses themselves, get sold). Both of these, in turn, contribute to considerable spillover effects to other economic sectors.¹⁴

The extremely high value of mortgages measured as a ratio to national GDP in the United States, Switzerland, Denmark, Australia, Sweden, and the Netherlands is generally seen as an indication that these countries have the most flexible and “complete” mortgage markets. One key explanation for this is clearly the level of housing market deregulation with the associated possibility of securitizing mortgages, and how long they have been deregulated (Gotham 2006; and the chapters by Aalbers, Gotham, and Wainwright in this volume).

A comparison of the pre-crisis value of all residential mortgage debt (from high- to low-quality mortgages) as a ratio to national GDP across developed countries shows sharp variation. The average for the period 2001–06 stood at around a ratio of 20 percent to GDP for Italy and Austria; closer to 30 percent for France and Belgium; 40 percent for Finland, Sweden, and Germany; 60 percent for Spain, Portugal, and Ireland; 80 percent for the UK and the Netherlands, and so on (see Figure 3.2) (IMF 2007: chapter 3; Miles 2007; Wainwright Chapter 4 in this volume).¹⁵ To some extent the variation in this value is a function of the timing of processes. In the US, the UK, and Australia the housing market has long been private and many households have paid off their mortgages. More mature markets in Asia show a higher ratio of residential mortgage debt to GDP: 59 percent in Singapore, 39 percent in Hong Kong, and 26 percent in Taiwan (see Figure 3.2).

An important distinction is that between the ratio of residential mortgages to GDP (see, for example, Figure 3.1), on the one hand, and the

growth rate of residential mortgage finance, on the other. Thus, the former is very low in countries with young housing markets, such as India and China, where it stands at 10 percent. In contrast, in more mature markets in Asia that value can be much higher, but the growth rate much lower. The average annual growth of housing loans between 1999 and 2006 in India and China was extremely high and above the growth of other types of loans; both countries have rapidly growing housing markets and they are at the merest beginning of a whole new phase in their economies. While most other Asian countries have not had the extremely high growth rates of India and China in the mortgage market, they nonetheless had a doubling in such loans from 1999 to 2006.

Understanding the weight of the residential mortgage market in the rapidly growing and diversifying world of lending, including household credit, gives us an indication of the growth potential of mortgage finance. Tables 3.4 and 3.5 provide some comparative data on the incidence of residential mortgage loans to total loans in several highly developed and in so-called emerging market countries well before the current mortgage crisis. Developed countries with multiple different financial circuits, such as the US and the UK, clearly show that, compared to other types of loans, mortgages are a relatively small share of all loans even if most households have mortgages. It is important to distinguish that the same low level of mortgage loans to total loans in economies marked by a small elite of superrich, has a very different meaning from that in the US and UK: hence, Russia's extremely low incidence of residential to total loans in the economy is an indication of a narrow mortgage market (mostly for the rich and very rich) and the fact that there are vast financial circuits centered on other resources.

Critical measures for gauging the potential growth of residential mortgage capital are: (1) the ratio of overall household credit to household disposable income; (2) the share of household credit in total private sector credit in the national economy; and (3) the ratio of household credit to GDP. All three measures have grown over the last decade, indicating a financial deepening in the household sector and in the use of the household sector for financial deepening. While still low, these measures also show growth in emerging market economies. By the end of 2005, a good year before the subprime crisis became visible to investors, the average ratio of residential mortgages to all loans stood at 32 percent in developed markets (Table 3.4) and at 14 percent in emerging markets (Table 3.5).

The ratio of household credit to personal disposable income (see Table 3.6) shows sharp increases in some countries, especially in Eastern Europe: for instance, in the Czech Republic it grew from 8.5 percent in 2000 to 27.1 percent in 2005, in Hungary from 11.2 percent to 39.3%, while in South Korea it rose from 33 percent to 68.9 percent. This growth is also evident, for instance, in India, where the initial level was a low 4.7 percent

Table 3.4 Ratio of residential real estate loans to total loans, developed markets (December 31, 2005)*

| <i>Country</i> | <i>Residential real estate loans to total loans (%)</i> |
|----------------|---|
| Australia | 56.46 |
| Austria | 13.11 |
| Belgium | — |
| Canada | 58.94 |
| Denmark | — |
| Finland | 33.79 |
| France | 42.00 |
| Germany | 17.82 |
| Greece | — |
| Hong Kong SAR | — |
| Ireland | 13.87 |
| Italy | 17.37 |
| Japan | — |
| Netherlands | 28.62 |
| New Zealand | — |
| Norway | 61.53 |
| Portugal | 28.25 |
| Singapore | 22.01 |
| Spain | 25.85 |
| Sweden | 34.48 |
| Switzerland | — |
| United Kingdom | 20.05 |
| United States | 39.46* |
| Average | 32.10 |

Source: International Monetary Fund, Coordinated Compilation Exercise (CCE) for Financial Soundness Indicators (FSIs): data – individual economy tables selected by topic (Table A) <http://www.imf.org/external/np/sta/fsi/topic.asp?table=A>. Reproduced by permission of International Monetary Fund.

*Compiled on a domestic consolidation basis unless otherwise noted; one of the International Monetary Fund's Financial Soundness Indicators.

in 2000, but had doubled to 9.7 percent in 2004. In mature market economies, this ratio is much higher but it grew at a far lower rate than in emerging markets. For instance, in Japan it grew from 73.6 percent to 77.8 percent between 2000 and 2005, and in the US from 104 percent to 132.7 percent. Spain had one of the highest increases, from 65 percent in 2000 to 112.7 percent in 2005, as did Australia, growing from 83.3 percent to 124 percent.

An important question raised by these patterns is to what extent other developed and developing countries will follow the troublesome

Table 3.5 Ratio of residential real estate loans to total loans, emerging markets (December 31, 2005)*

| <i>Country</i> | <i>Residential real estate loans to total loans (%)</i> |
|--------------------|---|
| South Africa | 19.92 |
| Russian Federation | 9.15 |
| Poland | 12.91 |
| Luxembourg | 7.17 |
| Latvia | 18.81 |
| Croatia | 17.47 |
| South Africa | 19.92 |
| Russian Federation | 9.15 |
| Poland | 12.91 |
| Average | 14.16 |

Source: International Monetary Fund, Coordinated Compilation Exercise (CCE) for Financial Soundness Indicators (FSIs); data – individual economy tables selected by topic (Table A) <http://www.imf.org/external/np/sta/fsi/topic.asp?table=A>. Reproduced by permission of International Monetary Fund.

*Compiled on a domestic consolidation basis unless otherwise noted; one of the International Monetary Fund's Financial Soundness Indicators.

“development” path of the US. That path ultimately has become yet another way of extracting value from individuals, in this case through home mortgages that even very modest households are invited to buy. As indicated earlier, this is partly because once the sellers get enough mortgage contracts they just bundle them up with high-grade debt and sell the package to an investor. This passes on the risk and it no longer matters whether the homeowner goes bankrupt or manages to hang on to the house.

In my analysis of the subprime crisis, two dynamics of financial markets have come together and they signal a potentially global expansion in the use of these problematic tactics (Sassen 2008b). Both arise out of the interlinking of markets. One is usually described as a spillover effect; in this case, it is a spillover from US markets to the rest of the world. The second, less noted, is the network effect that arises from the fact that more and more firms use financial instruments that are meant to export risk: in electronically linked markets this becomes a network effect that hits all firms back (Sassen 2008a: 358–65).

The financializing of mortgages has broadened the spillovers from the housing sector to the rest of the economy and, given poor quality mortgage contracts, it has raised the use of derivatives and expanded their use onto wider and wider domains, as I have discussed regarding credit-default swaps.¹⁶

Table 3.6 Ratio of household credit to personal disposable income, 2000–05 (in percent)

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|------------------|-------|-------|-------|-------|-------|-------|
| Emerging markets | | | | | | |
| Czech Republic | 8.5 | 10.1 | 12.9 | 16.4 | 21.3 | 27.1 |
| Hungary | 11.2 | 14.4 | 20.9 | 29.5 | 33.9 | 39.3 |
| Poland | 10.1 | 10.3 | 10.9 | 12.6 | 14.5 | 18.2 |
| India | 4.7 | 5.4 | 6.4 | 7.4 | 9.7 | ... |
| Korea | 33.0 | 43.9 | 57.3 | 62.6 | 64.5 | 68.9 |
| Philippines | 1.7 | 4.6 | 5.5 | 5.5 | 5.6 | ... |
| Taiwan | 75.1 | 72.7 | 76.0 | 83.0 | 95.5 | ... |
| Thailand | 26.0 | 25.6 | 28.6 | 34.3 | 36.4 | ... |
| Mature markets | | | | | | |
| Australia | 83.3 | 86.7 | 95.6 | 109.0 | 119.0 | 124.6 |
| France | 57.8 | 57.5 | 58.2 | 59.8 | 64.2 | 69.2 |
| Germany | 70.4 | 70.1 | 69.1 | 70.3 | 70.5 | 70.0 |
| Italy | 25.0 | 25.8 | 27.0 | 28.7 | 31.8 | 34.8 |
| Japan | 73.6 | 75.7 | 77.6 | 77.3 | 77.9 | 77.8 |
| Spain | 65.2 | 70.4 | 76.9 | 86.4 | 98.8 | 112.7 |
| United States | 104.0 | 105.1 | 110.8 | 118.2 | 126.0 | 132.7 |

Source: IMF staff estimates based on data from country authorities, CEIC, OECD, and Bloomberg. International Monetary Fund, "Global Financial Stability Report, Market Developments and Issues," *IMF: World Economic and Financial Surveys*, September 2006, Table 2.4, p. 56. Reproduced by permission of International Monetary Fund.

Conclusion

In this chapter I have sought to show that the critical feature in the subprime mortgage crisis is the combination of: (1) the delinking of profit-making for lenders and investors from the capacity of the borrower to pay for the mortgage; (2) the development of instruments that allow for the splicing of individual mortgages and the bundling of these low-grade mortgage bits with high-grade debt; and (3) the interest of investors in asset-backed securities at a time when extremely complex instruments such as derivatives on interest rates were becoming dominant. The fatal flaw for mortgage borrowers is, in my reading, the delinking described in the first point, even though this is the condition that makes it attractive for investors. Clearly, this asymmetrical relation can only be activated if the second and third are also present. Securitizing mortgages in itself is not necessarily bad, especially

if it allows lenders to provide mortgages to modest-income households. Delinking profitability from the borrower's creditworthiness is bad – initially for borrowers and eventually, as it turns out, for investors.

A second issue developed here is what we might think of as a new global space for the deployment of subprime mortgages: the billions of households in much of the world where residential mortgage capital has extensive room to grow. Although in many countries households tend to use cash to buy their homes, modest-income households with little disposable cash emerge as prime candidates for faulty mortgages. One indication of this growth potential is the low ratio of residential mortgage capital to GDP in Eastern Europe and Asia.

The third issue addressed in this chapter has to do with the interlinking of financial markets and the rapid internationalization of financial capital. This includes the growing incidence of foreign-currency borrowing by households worldwide. The intermediaries that provide this credit might be credit card companies of a variety of banks and financial institutions. Foreign firms are one key agent in the financial deepening of much of the world, including the growth of household credit in relation to household disposable income. This interlinking also includes a great potential for spillover and network effects – that is to say, a potential for both enhanced growth and enhanced losses. While the subprime mortgage crisis originates in the US, its negative effects easily spread to Europe via the investment circuit. Investors bought instruments typically rated as high-grade given the mix of slices of subprime mortgages with high-grade debt. As lenders in the US delinked the granting of these mortgages from borrowers creditworthiness, the resultant escalating foreclosures alerted investors to the presence of “toxic” components.

The so-called “subprime mortgage crisis” is, strictly speaking, the result of the worries of investors about the composition of these mixed instruments and the impossibility of tracing that composition – the lack of transparency of these instruments. It exploded in August 2007, when banks as diverse as the Bank of China and Paribas discovered they had invested in troubled instruments. It was investors' crisis of confidence; whether the investors were banks or individuals. This crisis needs to be distinguished from the foreclosure crisis, which is a crisis of households and has repercussions on neighborhoods, whole cities and regions, and municipal governments.

Finally, notwithstanding the costs to particular types of investors, the subprime mortgage is not going to disappear. From the perspective of banks and financial firms, a market comprising potentially billions of modest-income households worldwide is too good a thing to relinquish. Today's subprime mortgage, like the “junk bond” of the 1980s, will be fixed and redeployed. Lawmakers, regulators, and citizens groups need to be on the alert. From other perspectives, refining this instrument and subjecting it to regulations that protect the weakest parties – the modest-income

households – is not necessarily a bad idea. But that would require some serious work on the part of legislators and regulators worldwide.

Notes

- 1 This is particularly so if we take a simple and direct definition such as “a primitive accumulation preceding capitalistic accumulation; an accumulation not the result of the capitalistic mode of production, but its starting point” (Marx 1992: 873).
- 2 “The capitalist system pre-supposes the complete separation of the labourers from all property in the means by which they can realize their labour. As soon as capitalist production is once on its own legs, it not only maintains this separation, but reproduces it on a continually extending scale. The process, therefore, that clears the way for the capitalist system, can be none other than the process which takes away from the labourer the possession of his means of production; a process that transforms, on the one hand, the social means of subsistence and of production into capital, on the other, the immediate producers into wage-labourers. The so-called primitive accumulation, therefore, is nothing else than the historical process of divorcing the producer from the means of production. It appears as primitive, because it forms the pre-historic stage of capital and of the mode of production corresponding with it” (Marx 1992: 874–5).
- 3 I have long been interested in expanding the analytic terrain within which we understand some classical categories, from citizenship to primitive accumulation, as a way to a) make these older categories work to elucidate novel conditions, and b) to identify, potentially, the limits of these older categories to explain current conditions, hence making visible the need for new categories (Sassen 2008a).
- 4 In my earlier research (e.g., Sassen 1982, 1988, 1991) I conceptualized these types of operations in the Global North – a mix of organizational complexity and destitution/disempowerment – as “peripheralization at the core.” In many ways this concept captures the particularity of the short and brutal history of this particular type of subprime mortgage.
- 5 For instance, the growing informalization of work in major global cities of the North beginning in the 1980s is often described as a mechanism to lower costs of production. It is that, but it is also a more complex dynamic that contributes to the deepening of advanced capitalism. In my research I find that some (not all) of the components of this informalizing of work are the systemic equivalent of the deregulation of major advanced economic sectors, notably finance and telecommunications. It adds particular forms of “flexibility,” i.e., needed components of production and work for the advanced sectors that could not function/survive formally. (Sassen 2008a: chapters 5 and 6).
- 6 Elsewhere (2008b, 2008c) I examine a range of cases through a specific lens: the assemblages of specific processes, institutions, and logics that get mobilized in this systemic transformation/expansion/consolidation. Comparing the current assemblage of elements that enables the operations of “PA” as systemic deepening with those of the original in Marx also is a way of establishing the differences – the

- specific historical and systemic differences. Focusing on assemblages of elements involved in these shifts, rather than positing more deterministic dynamics, also enables factoring in contingency.
- 7 I examined the implications of this for urban economies in the first edition of *The Global City* (Sassen 1991: chapter 4). In the US this began with the (in) famous and much debated phasing out of interest rate controls under Regulation Q in the 1980s, which also led to the destruction of the Savings and Loans institutions and a massive bailout by taxpayers. These destructions generated a series of innovations – new types of mortgage instruments, of which the current generation of so-called structured-investment instruments is but the latest. The overall effect was a vast expansion of credit in the mortgage sector in the 1980s, long before the current phase. It is extraordinary how regulators and legislators failed to learn a lesson from this.
 - 8 Elsewhere I have examined the strategic role of interpretation in finance, notably the diverse technical cultures of interpretation (2008a: chapter 4 generally and chapter 7, especially pp. 352–65).
 - 9 The financial deepening of economies has become one of the major dynamics characterizing advanced economies. The number of countries where financial assets exceed the value of their gross national product more than doubled from 33 in 1990 to 72 in 2006 (McKinsey 2008). Securitizing a broad range of types of debt is a key vehicle for this financial deepening. The extension of securitization into consumer debt, including mortgages, took off in the 1980s in the US. The sharp growth of mortgages to enable the massive housing construction boom in developed countries in the decades following the Second World War produced a vast money pool, which became a prime object for securitization in the 1980s.
 - 10 The trends in financial globalization point to geopolitical shifts. Before the loss of value of the financial crisis of September 2008, the US, still the largest financial power, had \$56.1 trillion assets, almost a third of the world's financial assets. Europe's Eurozone financial markets were almost \$40 trillion; including the UK's \$10 trillion and Eastern Europe's \$14 trillion puts Europe close to the US. The Euro had by then become a strong alternative global currency to the dollar, with the value of euro currency in circulation surpassing the latter in mid-2007; it was and is also the top currency for issuing of international bonds. Japan, China, India, and several other Asian countries are a fast growing third financial block. The composition of financial assets in these major national and regional financial markets varies sharply. Before the devaluing of the crisis, the largest components in the US were equity securities and private debt securities, which together accounted for seventy percent of the financial market. In contrast, in China, bank deposits account for 55 percent of financial assets.
 - 11 The high incidence of homeownership in the US partly explains why the banking and financial industries generated innovations so as to expand their markets. Ultimately, this logic led to the invention of mortgages aimed at modest- and low-income households – the remaining potential market. But before this current innovation there were the so-called home equity loans based on homeownership, which also expanded the financial market centered on homeownership. Mortgage lenders succeeded in developing a whole

industry around secondary mortgages, often persuading reluctant homeowners to sign on.

- 12 According to the Federal Reserve's flow of funds data, as of 2008: Q1, "U.S. households and nonprofits held about \$22 trillion in real estate assets (mostly residential properties), and businesses (corporations and non-corporate entities) held \$16 trillion; these sums do not include foreign or government holdings. Supporting these real estate assets is nearly \$15 trillion in mortgage debt. For purposes of comparison, households owe about \$2.5 trillion in consumer debt, and U.S. businesses (nonfarm and nonfinancial) owe about \$11 trillion" (FRBSF 2009).
- 13 For an explanation of how these estimates were reached please see Global Insight 2007. This report contains a full list of GMP estimated losses for all 361 metros (Appendix, Table A2, pp. 8–16). The estimate is that that 128 metros will see slow real GMP growth of less than 2 percent in 2008, and that growth will fall by more than a third in 65 metros, and by more than a quarter in 143 metros.
- 14 According to the Federal Reserve's flow of funds data, as of 2008: Q1, "U.S. households and nonprofits held about \$22 trillion in real estate assets (mostly residential properties), and businesses (corporations and noncorporate entities) held \$16 trillion; these sums do not include foreign or government holdings. Supporting these real estate assets is nearly \$15 trillion in mortgage debt. For purposes of comparison, households owe about \$2.5 trillion in consumer debt, and U.S. businesses (nonfarm and nonfinancial) owe about \$11 trillion" (FRBSF 2009).
- 15 These measures are based on several sources: IMF national accounts data, European Mortgage Federation, Hypostat Statistical Tables, the US Federal Reserve, the OECD Analytical Database, Statistics Canada, and IMF staff calculations.
- 16 There are two features of derivatives that matter for my argument here. The first, frequently overlooked both in general commentaries and in more academic treatments, is that their distinctive characteristic is not so much that they reduce risk, as is commonly believed, but that they transfer it to less risk-sensitive sectors in the economy. This aspect is easily lost in academic fields centered on firms. Insofar as firms remain central to a model, it makes sense to confine observation to the fact that firms use derivatives to hedge and thereby reduce their risks. This is correct, but only partially. What has been left out of this picture, I argue, is that in the context of electronically linked markets and an absolute predominance of derivatives as the instrument of choice for most firms in today's financial markets, the transfer of risk by individual firms becomes a collective transfer of risk to the market. In so doing, trading in derivatives produces a network effect that is a new type of risk: market risk (Sassen 2008a: 358–65). The crucial contextual variable contributing to this network effect is that derivatives are used by firms in all financial markets and account for the vast majority of financial transactions.

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