

How U.S. Land Use Restrictions Exacerbated the International Finance Crisis



An Economic Analysis Brief

October 2008 (Revised)

HOW U.S. LAND USE RESTRICTIONS EXACERBATED THE INTERNATIONAL FINANCIAL CRISIS

Introduction to the Revised Edition (October 2008)

Since the original issue of this report, financial markets have experienced disruption that is probably well beyond what was forecast at that time by the Organization for Economic and Development (OECD) and the International Monetary Fund (IMF). Largely precipitated by the collapse of prices in the US housing market, governments in Europe, as well as the United States, have begun expensive financial bailouts of financial institutions.

Much of the United States has not seen the strong house price escalation that has occurred in other parts of the nation. To appreciate the situation requires looking back at the history of house prices relative to incomes. Since 1950, median house values have tended, on the national level, to be 3.0 times median household incomes or lower (this measure is called the “Median Multiple”). Indeed, as late as 2000, the overall Median Multiple in the more than 100 metropolitan markets covered was 2.8, down from 3.1 in 1980. Since that time, unprecedented house price escalation has occurred in particular markets as more liberal mortgage loan policies have combined with scarcity creating land use regulations to increase financial exposures beyond the capability of the market to handle.

Introduction

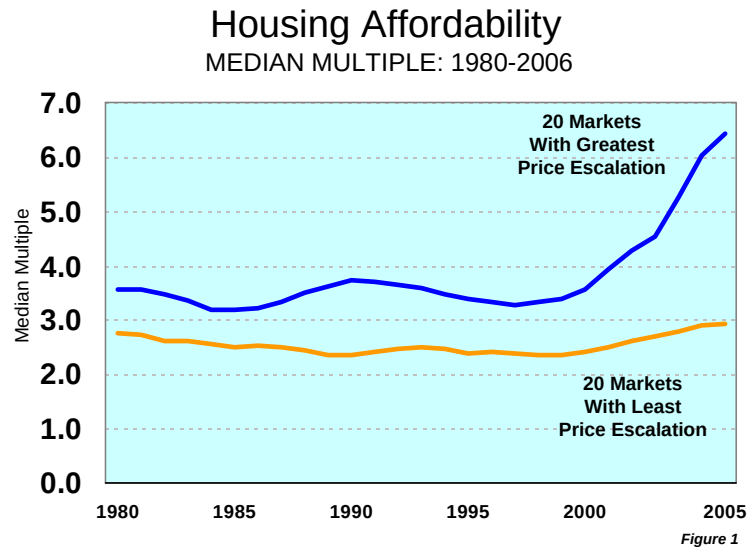
The U.S. mortgage meltdown has dominated business news for months. The crisis seems to deepen daily, and its impacts are felt throughout an increasingly interdependent financial world. Only recently, the Organization for Economic and Development (OECD) and the International Monetary Fund (IMF) have suggested that losses of an *additional* \$250 billion to \$1 trillion may yet be in the offing. In the ongoing debate over the causes and cures of the mortgage meltdown, one of the most important factors has been virtually absent: the role of excessive land use regulations in exacerbating the extent of losses.

Unprecedented Housing Price Escalation

This report analyzes the house price changes in major United States market between 2000 and 2007 by metropolitan area. This period has seen an unprecedented increase in house prices relative to incomes. This is illustrated by trends in the Median Multiple --- the median house price divided by the median household income. Among the 105 metropolitan markets surveyed by Harvard University researchers,¹ the average Median Multiple among had remained at near the historic rate standard of 3.0 between 1980 and 2000 (the Harvard data is the most comprehensive available for the period of 1980 to 2006).

- In 1980, the average Median Multiple was 3.1. There were 13 markets with Median Multiples above 4.0 and 2 markets above 5.0. The maximum Median Multiple was 5.7 (in Honolulu). The situation generally improved in the years that followed. After 1981, there were no years in which there were as many as 10 markets with Median Multiples above 4.0 until 2002.

- By 2000, housing affordability had generally improved, with the average Median Multiple dropping to 2.8. There were 8 markets with Median Multiples above 4.0 and 3 markets above 5.0. The maximum Median Multiple was 5.3 (in San Francisco), which was lower than Honolulu in 1980.



- The situation deteriorated materially from 2000 to 2006. The average Median Multiple had expanded by nearly one-half, to 4.1 in 2006. There were 44 markets with Median Multiples above 4.0 and 23 markets above 5.0. There were 13 markets with Median Multiples over 6.0. This compares with a maximum of two markets over 6.0 in all of the years from 1980 to 2000.

The 4th *Annual Demographia International Housing Affordability Survey* indicates that by 2007, the highest Median Multiples had expanded to more than 10 (Los Angeles, at 11.5, followed by San Francisco, Honolulu and San Diego).² The estimates in this report are based upon the movement of the Median Multiples from 2000 to 2007.³

The Two-Speed House Price Market

With this diversity in housing affordability, it would be a mistake to conclude that extraordinary house price increases have been pervasive. Indeed, a two-speed house price market has developed in the United States. Approximately one-half of the major markets have experienced price increases, to unprecedented Median Multiples of 4.0 or above. The other one-half of metropolitan markets have experienced from modest to little price increase. This subtlety has been missed by most analysts, who have focused on national averages.

Geography of Mortgage Stress

This report estimates the financial impact of the house price increases relative to incomes by major metropolitan markets. The nation's 50 largest metropolitan markets (those with more than 1,000,000 population⁴) were ranked by the extent to which their average house prices increased relative to their 2000 house price to household income ratio, or price/income ratio.⁵ Between 2000 and 2007, house prices increased an average of \$265,000 compared to incomes (house price to household income ratio) in the 10 markets with the greatest dollar price escalation per house (or the greatest affordability loss). Among the second 10 markets with the greatest affordability loss, prices rose \$135,000 relative to incomes. By contrast, in the 10 markets with the least affordability loss, house prices decreased (Table #1).

Price Overhang by Metropolitan Area: Los Angeles is estimated to have developed the greatest aggregate excess cost escalation, or price overhang at \$880 million, followed by New York,⁶ at \$850 million. The five largest California metropolitan areas account for 30 percent of the aggregate national price overhang (Los Angeles, San Francisco, Riverside-San Bernardino, San Diego and San Jose). The East Coast markets of New York, Washington and Boston accounted for 27 percent of the national aggregate price overhang (Table 3).

Excess Escalation Focused in Strong Land Use Regulation Areas

One common feature among the markets with the greatest price escalation is overly restrictive land use planning (also called “smart growth”), which increases the price of housing by strongly regulating land use. Examples of such strategies are urban growth boundaries, huge areas recently declared off-limits to development, building moratoria, expensive impact fees and excessively large minimum lot sizes. Economists on both sides of the political spectrum and in other nations with similar price escalation have made this connection (see Box).

This relationship between overly restrictive land use regulation and the house price overhang is evident in the metropolitan area groupings above.⁷ The 20 metropolitan markets with the highest price overhangs⁸ all have implemented strong land use planning, either at the metropolitan, county or municipal level. Among the 20 markets with the lowest price overhang, none has implemented strong land use planning (Table 2)

Table 1 Aggregate Price of the Housing Stock in 2007 and Change from 2000 Price/Income Ratio Ranked by Average Excess Exposure by House						
By Highest Average House Price Increase Relative to Incomes (Groups of 10)	Aggregate Housing Price: 2007 (Billions)	Excess Price (Overhang) Compared to 2000 (Billions)	Increase in Price	Share of Price Overhang	Estimated Average House Price: 2007	Estimated Excess over 2000 Ratio
Largest Increase	\$7,300	\$3,430	89%	65%	\$594,050	\$264,700
Second Largest Increase	\$1,780	\$710	66%	13%	\$335,150	\$134,700
Middle Increase	\$2,380	\$630	36%	12%	\$283,700	\$74,400
Second Smallest Increase	\$750	\$50	7%	1%	\$171,550	\$16,200
Lowest Increase	\$1,410	(\$70)	-5%	-1%	\$182,450	(\$8,700)
Total Major Metropolitan	\$13,620	\$4,750	54%	90%	\$359,000	\$125,500
Other Areas	\$6,460	\$510	9%	10%	\$174,500	\$13,000
United States	\$20,080	\$5,260	35%	100%	\$267,500	\$69,900
Aggregate price (average sales price) estimated by regional average to median price ratio. Median Multiple=Median house price divided by median household income (from "4th Annual Demographia International Housing Affordability Survey." Detail by metropolitan area in Table 3						

Smart Growth: Intensifying the Mortgage Losses

The tendency of housing prices to rise far more rapidly in markets with the most intense land use restrictions has had a significant impact on the extent of the sub-prime financial crisis.

If it is assumed that the increase in gross mortgage exposures follow a pattern similar to the house price differentials, then gross owner-occupied mortgage debt rose \$4.75 trillion relative to the level that would have existed if the 2000 price/income ratio had been maintained (2000 to 2007).

It is estimated that in 20 metropolitan markets with the most steeply rising prices, mortgage exposures rose by approximately \$3.0 trillion compared to the exposure that would have existed had the previous price to income ratios been maintained. These 20 markets have "rung up" 78 percent of the mortgage exposure overhang, yet account for only 24 percent of the nation's owner occupied housing stock.

This is not to suggest that restrictive land use policies created the sub-prime crisis. It is, however, to suggest that prescriptive land use policies made the financial far more severe. To this extent, urban planning policy has "upstaged" economic policy and had a major role in facilitating what *The Economist* magazine indicated a near global market collapse.⁹ Monetary authorities will need to deal with this issue as a prerequisite to avoiding similar problems in the future.

If the more liberal land use regulations of the 20 least escalating markets had been in place in all markets, the mortgage overhang would have been much less --- probably less than \$1 trillion, rather than the actual \$4.8 trillion.¹⁰ Thus, without the severe land use restrictions, it is likely that house price escalation and mortgage exposure would have been far less and that the financial squeeze that banks, funds, stockholders and home owners around the world are feeling could have been largely avoided. In this sense, it is possible that smart growth precipitated the international finance crisis because the house price increases in such markets were so great as to not allow the market to correct itself.

By Highest Average House Price Increase Relative to Incomes (Groups of 10)	Prescriptive Planning Markets in Group of 10	Estimated Excess over 2000 Average Price/Income Ratio	Excess Price (Overhang) Compared to 2000 (Billions)	Rise in Mortgage Exposure (Overhang) Relative to Income (Billions)	Share of Excess Mortgage Exposure (Overhang)
Largest Increase	100%	\$264,700	\$3,430	\$3,100	65%
Second Largest Increase	100%	\$134,700	\$710	\$640	13%
Middle Increase	50%	\$74,400	\$630	\$570	12%
Second Smallest Increase	10%	\$16,200	\$50	\$50	1%
Lowest Increase	0%	(\$8,700)	(\$70)	(\$60)	-1%
Total Major Metropolitan	50%	\$125,500	\$4,750	\$4,290	90%
Other Areas			\$510	\$460	10%
United States			\$5,260	\$4,750	100%
Assumes excess mortgage exposure is at the same ratio as excess price.					

The Limited Role of Demand

Some analysts have attributed the housing price escalation to more liberal mortgage policies to the more loan qualifications. Their claim is that the greater availability of mortgages fueled higher demand and higher prices. They are right on the first point, and wrong on the second.

The theory is that there was an increase in demand, which resulted in higher prices. However, demand alone does not raise prices. Yet, this explanation is insufficient in view of the fact that there has been such a disparity in house price trends between metropolitan areas. Demand raises prices in where there are supply constraints, such as the excessive land use regulations in the smart growth markets. Virtually the same liberal loan products have been available in every market in the United States. If these policies were at the heart of price trends, then it would be expected that the price escalation would have been general, rather than focused.

In fact, however, some of the smallest house price increases have come in metropolitan areas with the *highest* demand. For example, price escalation has been modest in Atlanta, Houston

and Dallas-Fort Worth, which are the fastest growing metropolitan areas with more than 5,000,000 population in the high-income world.¹¹

Economic Consequences

There is evidence that overly restrictive land use regulation leads to slower economic growth. A Federal Reserve Board study by Raven Saks concluded, “metropolitan areas with stringent development regulations generate less employment growth than expected given their industrial bases”¹² A prerequisite to restoring sustained economic growth in the least affordable areas may be restoring the historic relationships between housing prices and incomes.

Box

Research: Prescriptive Planning Associated with House Price Escalation

There is general agreement top world economists that strong land use planning (smart growth) is associated with severe housing cost escalation. Liberal (leftist) economist Paul Krugman¹³ of *The New York Times* and conservative (rightist) economist Thomas Sowell¹⁴ of the Hoover Institution attribute prices in the higher cost markets to more restrictive land use regulation. Recent research by Theo Eicher at the University of Washington attributed much of the inflation adjusted increase in housing prices from 1989 to 2006 in US cities to land use regulation.¹⁵ Moreover, the causal relationship between smart growth policies and excessive house price escalation has been cited by some of the world’s top economists.

- A United Kingdom government report by Kate Barker, a member of the Monetary Policy Committee of the Bank of England, blamed that nation’s loss of housing affordability on its prescriptive land use policies under the Town and Country Planning Act of 1947.¹⁶
- A New Zealand government report by Arthur Grimes, Chairman of the Board of the Reserve Bank of New Zealand blamed the loss of housing affordability in the nation’s largest urban area, Auckland, on prescriptive land use policies.¹⁷
- Reserve Bank of Australia Governor Glenn Stevens told a parliamentary committee that “An increase in state government zoning regulations is a significant factor driving up the cost of housing.” He also noted the increase in local and state government levies on new developments as a driver of higher housing prices.¹⁸
- Former Reserve Bank of New Zealand Governor Donald Brash wrote that *the affordability of housing is overwhelmingly a function of just one thing, the extent to which governments place artificial restrictions on the supply of residential land.*¹⁹
- An Organization for Economic Cooperation and Development (OECD) report noted an association between strongly regulated land markets and higher housing prices.²⁰
- Research by Harvard University’s Edward Glaeser the University of Pennsylvania Wharton School’s Joseph Gyourko others shows a strong relationship between prescriptive land use policies and higher housing prices.²¹
- Glaeser et al further show that Boston’s house prices had been inflated 60 percent by scarcity created by prescriptive planning that relies heavily on large lot zoning (rural zoning).²²
- Anthony Richards, head of the Economic Analysis Department of the Reserve Bank of Australia recently said that: *...supply-side factors should have a much greater influence on prices towards the fringes of cities, where land is less scarce and accounts for a smaller proportion of the total dwelling price. In principle, the price of housing there should be close to its marginal cost, determined as the sum of the cost of new housing construction, land development costs, and the cost of raw land.*²³ In fact, in prescriptive markets this is no longer the case.

Table 3

Aggregate Value of the Housing Stock in 2007: Change from 2000 Price/Income Ratio and Land Use Classification: Detail

Rank	Metropolitan Statistical Area	2007 Estimated Aggregate Value of Occupied Owner Housing Stock in Billions	Aggregate Value Increase in	Percentage Change in	Percentage of National Change in Aggregate Value	2007 Average Value (Price) per House Estimated Actual	Change in Value per House Relative to 2000 Price/Income Ratio	2007 Median Multiple	Prescriptive Land Use Regulation?
			Relation to 2000 Price/Income Ratio (Median Multiple) in Billions	Aggregate Value Relative to 2000 Price/Income Ratio (Median Multiple)			(Median Multiple):		
1	Los Angeles-Orange County, CA	\$1,430	\$880	160%	16.9%	\$659,500	\$407,500	11.5	YES
2	San Jose, CA	\$350	\$130	59%	2.4%	\$956,000	\$350,500	9.3	YES
3	San Diego, CA	\$400	\$210	111%	3.9%	\$660,500	\$344,500	10.0	YES
4	Washington, DC-VA-MD-WV	\$720	\$360	100%	6.8%	\$547,000	\$271,000	5.5	YES
5	Miami-West Palm Beach, FL	\$590	\$340	136%	6.4%	\$433,000	\$249,000	7.1	YES
6	New York, NY-NJ,-CT-PA	\$1,940	\$850	78%	16.2%	\$536,500	\$236,000	7.0	YES
7	San Francisco, CA	\$840	\$210	33%	4.0%	\$925,500	\$234,500	10.8	YES
8	Riverside-San Bernardino, CA	\$350	\$190	119%	3.6%	\$422,500	\$227,000	7.1	YES
9	Boston, MA-NH	\$510	\$180	55%	3.5%	\$467,000	\$167,500	6.1	YES
10	Orlando, FL	\$170	\$80	89%	1.5%	\$333,000	\$159,000	5.2	YES
10	Baltimore, MD	\$250	\$110	79%	2.1%	\$364,000	\$159,000	4.6	YES
12	Providence, RI-MA	\$130	\$60	86%	1.1%	\$328,000	\$153,000	5.6	YES
13	Las Vegas, NV	\$130	\$60	86%	1.2%	\$331,500	\$152,000	5.9	YES
14	Seattle-Tacoma, WA	\$360	\$120	50%	2.3%	\$442,500	\$147,000	6.0	YES
15	Sacramento, CA	\$180	\$70	64%	1.3%	\$376,500	\$141,000	5.8	YES
16	Virginia Beach-Norfolk, VA-NC	\$130	\$60	86%	1.1%	\$318,500	\$137,500	4.8	YES
17	Tampa-St. Petersburg, FL	\$210	\$100	91%	1.8%	\$272,500	\$123,500	4.7	YES
18	Portland, OR-WA	\$180	\$60	50%	1.2%	\$336,000	\$114,000	5.1	YES
19	Milwaukee, WI	\$110	\$40	57%	0.8%	\$277,500	\$111,000	4.2	YES
20	Hartford, CT	\$100	\$30	43%	0.7%	\$304,500	\$109,000	4.1	YES
21	Phoenix, AZ	\$280	\$100	56%	2.0%	\$286,500	\$105,000	4.7	YES
22	Richmond, VA	\$100	\$30	43%	0.6%	\$298,500	\$92,500	4.1	NO
23	Philadelphia, PA-NJ-DE-MD	\$420	\$140	50%	2.7%	\$273,500	\$91,000	4.0	NO
24	Salt Lake City, UT	\$70	\$20	40%	0.4%	\$276,500	\$90,500	4.5	NO
25	Chicago, IL	\$800	\$200	33%	3.8%	\$343,500	\$86,000	4.5	YES
26	Jacksonville, FL	\$80	\$20	33%	0.4%	\$236,500	\$66,000	3.6	YES
27	Charlotte, NC-SC	\$120	\$30	33%	0.5%	\$275,000	\$62,000	4.0	NO
28	Raleigh, NC	\$70	\$20	40%	0.3%	\$286,500	\$61,500	3.9	NO
29	Denver, CO	\$180	\$30	20%	0.6%	\$285,000	\$46,500	4.2	YES
30	Minneapolis-St. Paul, MN-WI	\$260	\$40	18%	0.8%	\$275,500	\$43,000	3.4	YES
31	Oklahoma City, OK	\$50	\$10	25%	0.2%	\$162,500	\$32,000	2.9	NO
32	Cleveland, OH	\$90	\$20	29%	0.3%	\$159,000	\$26,500	2.6	NO
33	San Antonio, TX	\$0	\$0	0%	0.0%	\$173,500	\$23,500	3.2	NO
34	Buffalo, NY	\$40	\$0	0%	0.1%	\$125,000	\$14,000	2.4	NO
35	Birmingham, AL	\$60	\$0	0%	0.1%	\$207,000	\$13,000	3.3	NO
36	Pittsburgh, PA	\$100	\$10	11%	0.2%	\$144,000	\$12,000	2.7	NO
36	Rochester, NY	\$40	\$0	0%	0.1%	\$138,500	\$12,000	2.3	NO
38	Houston, TX	\$230	\$10	5%	0.3%	\$194,500	\$11,500	2.9	NO

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39	Memphis, TN-AR-MS	\$60	\$0	0%	0.1%	\$176,500	\$9,500	3.0	NO
40	Austin, TX	\$80	\$0	0%	0.1%	\$235,000	\$8,000	3.2	NO
41	Cincinnati, OH-KY-IN	\$100	\$0	0%	0.1%	\$174,500	\$6,000	2.7	NO
42	Atlanta, GA	\$280	\$0	0%	0.1%	\$219,000	\$3,000	2.8	NO
43	Louisville, KY-IN	\$60	\$0	0%	0.0%	\$177,000	\$2,500	2.8	NO
44	Nashville, TN	\$80	\$0	0%	0.0%	\$200,000	\$0	3.0	NO
45	St. Louis, MO-IL	\$140	\$0	0%	0.0%	\$180,500	-\$2,000	2.7	NO
46	Columbus, OH	\$120	\$0	0%	-0.1%	\$182,000	-\$5,000	2.8	NO
47	Kansas City, MO-KS	\$100	\$0	0%	-0.1%	\$188,500	-\$7,500	2.7	NO
48	Dallas-Fort Worth, TX	\$240	-\$20	-8%	-0.5%	\$183,500	-\$18,000	2.5	NO
49	Detroit, MI	\$220	-\$30	-12%	-0.6%	\$171,500	-\$24,500	2.4	NO
50	Indianapolis, IN	\$70	-\$20	-22%	-0.4%	\$148,000	-\$41,500	2.3	NO
	Total	\$13,620	\$4,750	54%	90.6%	\$359,000	\$125,500	4.5	

NOTES

Value (average sales price) estimated by regional average to median price ratio (rounded to nearest \$500)

Median Multiple=Median house price divided by median household income (from "4th Annual Demographia International Housing Affordability Survey."

'Prescriptive planning markets include those classified as "growth management," "growth control," "containment" and "contain-lite" and "exclusions: in "From Traditional to Reformed A Review of the Land Use Regulations in the Nation's 50 largest Metropolitan Areas" (Brookings Institution, 2006) and markets with significant large lot zoning and land preservation restrictions (New York, Chicago, Hartford, Milwaukee, Minneapolis-St. Paul, and Virginia Beach)

'Responsive planning markets are all others, except for Nashville and Memphis, where urban growth boundaries have been drawn far enough from the urban areas to have no perceivable impact on land prices

'Part of Philadelphia is in New Jersey, which has prescriptive planning

END NOTES

- ¹ Data from the Joint Center for Housing of the John F. Kennedy School of Government at Harvard University.
- ² <http://www.demographia.com/dhi.pdf>.
- ³ Using median house price data from the National Association of Realtors and the National Home Builders Association.
- ⁴ New Orleans is excluded from the major metropolitan areas due to the impact of Hurricane Katrina.
- ⁵ The “price/income” ratio is the estimated ratio between average the house price and the average household income. The trend from 2000 to 2007 is estimated using the Median Multiples as calculated from National Association of Realtors and National Home Builders Association data.
- ⁶ Each metropolitan market is the metropolitan statistical area as defined by the Bureau of the Census effective 2005. The New York metropolitan statistical area includes a large share of northern New Jersey, part of Pennsylvania, part of Connecticut, a number of suburban New York counties and the city of New York.
- ⁷ Strong land use planning markets include those classified as “growth management,” “growth control,” “containment” and “contain-lite” in *From Traditional to Reformed: A Review of the Land Use Regulations in the Nation’s 50 largest Metropolitan Areas* (Brookings Institution, 2006) and markets with significant rural zoning (large lot zoning) and land preservation restrictions (New York, Chicago, Milwaukee, Minneapolis-St. Paul, Virginia Beach and Washington). Two metropolitan areas classified as “containment” by Brookings are considered to be responsive markets, Nashville, in which much of the area is exempt from the smart growth legislation and Memphis, where administration of the smart growth law has been sufficiently liberal to minimize interference with land (and housing) prices are classified as responsive markets.
- ⁸ Based on price overhang per house.
- ⁹ http://www.economist.com/finance/displaystory.cfm?story_id=10926298.
- ¹⁰ Assumes the mortgage overhang rate of the 20 markets with the lowest housing cost escalation.
- ¹¹ <http://www.demographia.com/db-5metrogrowth.pdf>.
- ¹² Raven E. Saks, *Job Creation and Housing Construction: Constraints on Metropolitan Area Employment Growth*, <http://www.federalreserve.gov/pubs/feds/2005/200549/200549pap.pdf>.
- ¹³ <http://www.nytimes.com/2005/08/08/opinion/08krugman.html>.
- ¹⁴ <http://article.nationalreview.com/print/?q=YjgwYzI4Njg3OWMxOGUzYmY0ZDMwYzYwNzkzYjc1NDI>
- ¹⁵ http://depts.washington.edu/teclass/landuse/housing_020408.pdf.
- ¹⁶ Kate Barker (2004 and 2006). *Review of Housing Supply: Delivering Stability: Securing Our Future Housing Needs: Final Report—Recommendations*. Norwich, England: Her Majesty’s Stationery Office. www.hmtreasury.gov.uk/consultations_and_legislation/barker/consult_barker_index.cfm, and *Barker Review of Land Use Planning*, http://www.hm-treasury.gov.uk/media/4EB/AF/barker_finalreport051206.pdf.
- ¹⁷ Arthur C. Grimes, *Housing Supply in the Auckland Region*, Center for Housing Research Oater New Zealand (2007). <http://www.hnzc.co.nz/chr/pdfs/housing-supply-in-the-auckland-region-2000-2005.pdf>.
- ¹⁸ “RBA says land shortage driving house prices,” *Adelaide Now*, 17 August 2007, <http://www.news.com.au/adelaidenow/story/0,22606,22260763-5005962,00.html>.
- ¹⁹ Donald Brash, Introduction to the 4th *Annual Demographia International Housing Affordability Survey*, <http://www.demographia.com/dhi.pdf>.
- ²⁰ “Recent House Price Developments: The Role of Fundamentals,” *OECD Economic Outlook* #78 (2005), <http://www.oecd.org/dataoecd/41/56/35756053.pdf>.
- ²¹ Edward L. Glaeser and Joseph Gyourko, *The Impact of Zoning on Housing Affordability*, (Cambridge, MA: Harvard Institute of Economic Research, 2002).
- ²² Edward L. Glaeser, Jenny Schuetz, and Bryce Ward, *Regulation and the Rise of Housing Prices in Greater Boston*, Pioneer Institute for Public Policy Research and Rappaport Institute for Greater Boston, Kennedy School of Government, Harvard University (2005). http://www.ksg.harvard.edu/rappaport/downloads/housing_regulations/regulation_housingprices.pdf.
- ²³ http://www.rba.gov.au/Speeches/2008/sp_so_270308.html.