# THE BANKERS' NEW CLOTHES 



## What's Wrong with Banking and What to Do about It

## ANAT ADMATI and MARTIN HELLWIG



FIGURE 2.1
Balance sheet diagram for buying a house.


FIGURE 2.2 Balance sheet diagrams for buying a house and selling it a year later.

TABLE 2.1 Debt and Equity When Buying a $\$ 300,000$ House in Two Down Payment Scenarios (with a nonrecourse mortgage loan)

Buying with a \$30,000 down payment (initial equity)

| Year-end <br> house price <br> (dollars) | Percentage <br> change in <br> house price | Mortgage debt <br> (dollars) | Final equity <br> (dollars) | Return on equity <br> (percent) |
| :--- | :---: | :---: | :---: | :---: |
| 345,000 | 15 | 270,000 | 75,000 | 150 |
| 315,000 | 5 | 270,000 | 45,000 | 50 |
| 300,000 | 0 | 270,000 | 30,000 | 0 |
| 285,000 | -5 | 270,000 | 15,000 | -50 |
| 255,000 | -15 | 270,000 | 0 | -100 |

Buying with a \$60,000 down payment (initial equity)

| Year-end <br> house price <br> (dollars) | Percentage <br> change in <br> house price | Mortgage debt <br> (dollars) | Final equity <br> (dollars) | Return on equity <br> (percent) |
| :--- | :---: | :---: | :---: | :---: |
| 345,000 | 15 | 240,000 | 105,000 | 75 |
| 315,000 | 5 | 240,000 | 75,000 | 25 |
| 300,000 | 0 | 240,000 | 60,000 | 0 |
| 285,000 | -5 | 240,000 | 45,000 | -25 |
| 255,000 | -15 | 240,000 | 15,000 | -75 |



FIGURE 2.3 for a business.


## FIGURE 2.4

Balance sheet diagram for a corporation.

| Assets | Liabilities |
| :---: | :---: |
| Reserves <br> Short-term loans <br> Long-term loans <br> Other investments | Deposits <br> Short-term debt <br> Long-term debt |
|  | Shareholder <br> equity |

FIGURE 4.1
A traditional commercial
bank's balance sheet.

| Cash | Deposits |
| :---: | :---: |
| Loans |  |
| Trading and other assets | Other debt (mostly short-term) |
|  | Long-term debt |
|  | Equity |


| Cash | Deposits |
| :---: | :---: |
| Loans |  |
| Trading and other assets |  |
|  | Other debt (mostly short-term) |
|  | Long-term debt |
|  | Equity |

FIGURE 6.1 JPMorgan Chase balance sheet, December 31, 2011, by U.S. accounting rules (left) and international rules (right).

TABLE 8.1 Borrowing at 4 Percent to Buy a $\$ 300,000$ House in Two Down Payment Scenarios (assuming a nonrecourse clause)

Borrowing with a $\$ 30,000$ down payment (initial equity)

| Year-end <br> house price <br> (dollars) | Percent change <br> in house price | Mortgage debt <br> (dollars) | Final equity <br> (dollars) | Return on equity <br> (percent) |
| :--- | :---: | :---: | :---: | :---: |
| 345,000 | 15 | 280,800 | 64,200 | 114 |
| 315,000 | 5 | 280,800 | 34,200 | 14 |
| 300,000 | 0 | 280,800 | 19,200 | -36 |
| 285,000 | -5 | 280,800 | 4,200 | -86 |
| 255,000 | -15 | 280,800 | 0 | -100 |

Borrowing with a $\$ 60,000$ down payment (initial equity)

| Year-end <br> house price <br> (dollars) | Percent change <br> in house price | Mortgage debt <br> (dollars) | Final equity <br> (dollars) | Return on equity <br> (percent) |
| :--- | :---: | :---: | :---: | :---: |
| 345,000 | 15 | 249,600 | 95,400 | 59 |
| 315,000 | 5 | 249,600 | 65,400 | 9 |
| 300,000 | 0 | 249,600 | 50,400 | -16 |
| 285,000 | -5 | 249,600 | 35,400 | -41 |
| 255,000 | -15 | 249,600 | 5,400 | -91 |

TABLE 9.1 How Kate Benefits from Guarantees When Borrowing
Kate's position with no guarantees (borrowing at 4 percent)

| Year-end <br> house price <br> (dollars) | Percent <br> change in <br> house price | Mortgage debt <br> (dollars) | Final equity <br> (dollars) | Return <br> on equity <br> (percent) |
| :--- | :---: | :---: | :---: | :---: |
| 345,000 | 15 | 280,800 | 64,200 | 114 |
| 315,000 | 5 | 280,800 | 34,200 | 14 |
| 300,000 | 0 | 280,800 | 19,200 | -36 |
| 285,000 | -5 | 280,800 | 4,200 | -86 |
| 255,000 | -15 | 280,800 | 0 | -100 |

Kate's position with guarantees (borrowing at 3 percent)

| Year-end <br> house price <br> (dollars) | Percent <br> change in <br> house price | Mortgage debt <br> (dollars) | Final equity <br> (dollars) | Return <br> on equity <br> (percent) |
| :--- | :---: | :---: | :---: | :---: |
| 345,000 | 15 | 278,100 | 66,900 | 123 |
| 315,000 | 5 | 278,100 | 36,900 | 23 |
| 300,000 | 0 | 278,100 | 21,900 | -27 |
| 285,000 | -5 | 278,100 | 6,900 | -77 |
| 255,000 | -15 | 278,100 | 0 | -100 |

TABLE 9.2 How Guarantees Make Borrowing More Attractive to Kate

| \$30,000 down payment (initial equity) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year-end <br> house price (dollars) | Percent change in house price | Mortgage debt (dollars) | Kate's final equity (dollars) | Aunt Claire's position (dollars) |
| 345,000 | 15 | 278,100 | 66,900 | 0 |
| 315,000 | 5 | 278,100 | 36,900 | 0 |
| 300,000 | 0 | 278,100 | 21,900 | 0 |
| 285,000 | -5 | 278,100 | 6,900 | 0 |
| 255,000 | -15 | 278,100 | 0 | -23,100 |
| \$10,000 down payment (initial equity) |  |  |  |  |
| Year-end house price (dollars) | Percent change in house price | Mortgage debt (dollars) | Kate's final equity (dollars) | Aunt Claire's position (dollars) |
| 345,000 | 15 | 298,700 | 46,300 | 0 |
| 315,000 | 5 | 298,700 | 16,300 | 0 |
| 300,000 | 0 | 298,700 | 1,300 | 0 |
| 285,000 | -5 | 298,700 | 0 | -13,700 |
| 255,000 | -15 | 298,700 | 0 | -43,700 |

