Figure 1.

PRIVATE RESIDENTIAL INVESTMENT IN REAL GDP
(billion 2012 dollars, saar, ratio scale)

Q2

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Bureau of Economic Analysis.

Figure 2.

HOUSING COMPLETIONS
(million units, saar)

Aug

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Census Bureau.
Predicting Real Estate

Figure 3.

HOUSING STARTS & HOUSING COMPLETIONS
(million units, saar)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Census Bureau.

Figure 4.

HOUSING STARTS & BUILDING PERMITS
(million units, saar)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Census Bureau.
Figure 5.

HOUSING STARTS
(million units, saar)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research. Source: Census Bureau.

Figure 6.

HOUSING STARTS: MULTI-FAMILY
(million units, saar)

Note: Shaded areas denote recessions according to the National Bureau of Economic Research. Source: Census Bureau.
Figure 7.

NEW HOME SALES & HOUSING COMPLETIONS: SINGLE-FAMILY
(thousand units, saar)

Source: Census Bureau.

Figure 8.

EXISTING vs. NEW HOME SALES
(million units, saar)

* Includes single-family, condominium, and co-op sales.
Source: Census Bureau and National Association of Realtors.
Figure 9.

MEDIAN AGE AT FIRST MARRIAGE
(years)

Source: Current Population Reports.

Figure 10.

HOUSEHOLDS & FAMILIES BY TYPE
(as a percent of all households)

Source: Census Bureau, Current Population Surveys, Annual Social & Economic Supplements, Table HH-1.
Figure 11.

**HOUSEHOLDS & FAMILIES BY TYPE**
( as a percent of all households)

- **Married Couples**
  - Total Married Couples
  - Married Couples with Children
  - Married Couples w/o Children


Figure 12.

**HOUSING COMPLETIONS & BUILDING PERMITS**
(million units, saar)

- Building Permits
- Completions

Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Census Bureau.
**Figure 13.**

**EXISTING & NEW SINGLE-FAMILY HOMES FOR SALE**

(million units)

**Inventory of Homes For Sale**

- Red: Existing (nsa)
- Blue: New (sa)

Source: Census Bureau and National Association of Realtors.

**Figure 14.**

**HOME SUPPLY: MONTHS ON THE MARKET**

**Months' Supply of Single-Family Homes***

- Red: Existing (nsa)
- Blue: New (sa)

*Homes for sale divided by sales.

Source: Census Bureau and National Association of Realtors.
**Figure 15.**

**HOUSING MARKET INDEX (HOMEBUILDERS) & PENDING HOME SALES INDEX (REALTORS)**

For each diffusion index, when all respondents answer "good," the index is 100. If all respondents answer "poor," the index is 0. If equal numbers of respondents answer "good" and "poor," the index is 50.


**Figure 16.**

**RETAIL SALES: BUILDING MATERIALS, GARDEN EQUIPMENT, & SUPPLY DEALERS**

(billion dollars, saar)

Source: Bureau of the Census.
Figure 17.

DIY* HOUSING CONSTRUCTION: SINGLE-FAMILY COMPLETIONS MINUS NEW HOME SALES (thousand units, saar)

* “Do-it-yourself” homebuilding.
Source: Census Bureau.

Figure 18.

MORTGAGE APPLICATIONS: NEW PURCHASE INDEX (4-week ma, sa)

Source: Mortgage Bankers of America.
**Figure 19.**

**LOAN DELINQUENCY RATE: ALL COMMERCIAL BANKS**
(percent, sa)

Source: Federal Reserve Board.

**Figure 20.**

**LOAN DELINQUENCY RATE: ALL COMMERCIAL BANKS**
(percent, sa)

* Residential real estate loans include loans secured by one- to four-family properties, including home equity lines of credit.
** Commercial real estate loans include construction and land development loans, loans secured by multifamily residences, and loans secured by nonfarm, nonresidential real estate.

Source: Federal Reserve Board.
Figure 21.
PRIVATE NONRESIDENTIAL FIXED INVESTMENT IN REAL GDP: COMMERCIAL & HEALTH CARE STRUCTURES
(billion 2012 dollars, saar)
Source: Bureau of Economic Analysis.

Figure 22.
COMMERCIAL MORTGAGES
(billion dollars outstanding, ratio scale)
Note: Shaded areas denote recessions according to the National Bureau of Economic Research.
Source: Federal Reserve Board Financial Accounts of the United States.
Figure 23.

(percent, daily)

Source: Federal Reserve Board and Federal Home Loan Mortgage Corporation.

Figure 24.

PERSONAL CONSUMPTION EXPENDITURES DEFLATOR: 2000-2009
(yearly percent change)

Source: Bureau of Economic Analysis.
Predicting Real Estate

**Figure 25.**
HOUSEHOLD REAL ESTATE VALUE & MEDIAN EXISTING SINGLE-FAMILY HOME PRICE
(ratio scale)

Median Existing Single-Family Home Price
(thousand dollars, 12-month average)

Real Estate Held by Households
(trillion dollars)

Source: Federal Reserve Board Financial Accounts of the United States and National Association of Realtors.

**Figure 26.**
TOTAL VALUE OF HOUSEHOLD REAL ESTATE HOLDINGS & HOME MORTGAGE DEBT
(trillion dollars, nsa)

* Home mortgages plus owners’ equity in household real estate.
Source: Federal Reserve Board Financial Accounts of the United States.
Figure 27.

HOUSEHOLD REAL ESTATE VALUE & HOME MORTGAGES*
(divided by Disposable Personal Income)

Divided by DPI
- Household Real Estate*
- Owners' Equity**
- Home Mortgages

* Total market value of real estate held by households. All types of owner-occupied housing including farm houses and mobile homes, as well as second homes that are not rented, vacant homes for sale, and vacant land.
** Value of household real estate minus home mortgages.
Source: Federal Reserve Board Financial Accounts of the United States.

Figure 28.

HOUSEHOLD OWNERS' EQUITY IN REAL ESTATE & HOME MORTGAGES
(as percent of market value of Household Real Estate*)

Divided by Value of Homes*
- Owners' Equity**
- Home Mortgages

* Total market value of real estate held by households. All types of owner-occupied housing including farm houses and mobile homes, as well as second homes that are not rented, vacant homes for sale, and vacant land.
** Value of household real estate minus home mortgages.
Source: Federal Reserve Board Financial Accounts of the United States.
Figure 29.

HOME MORTGAGE BORROWING
(billion dollars, 4-quarter sum)

Source: Federal Reserve Board Financial Accounts of the United States.

Figure 30.

HOME EQUITY LOANS*
(billion dollars, sa)

* Loans made under home equity lines of credit and home equity loans secured by junior liens. Excludes home equity loans held by mortgage companies and individuals.

Source: Federal Reserve Board Financial Accounts of the United States.
**Figure 31.**

CORPORATE BONDS OUTSTANDING
(trillion dollars, nsa)

Financial Sector
- ABS Issuers
- Commercial Banking

Source: Federal Reserve Board Financial Accounts of the United States.

**Figure 32.**

HOME MORTGAGES OUTSTANDING*
(trillion dollars)

Home Mortgages Held By:
- US Government Agencies & GSEs**
- Asset-Backed Security Issuers
- US-Chartered Depository Institutions

* Includes home equity loans.
** Government-sponsored enterprises plus Agency- and GSE-backed mortgage pools.

Source: Federal Reserve Board Financial Accounts of the United States.
Figure 33.

ASSET-BACKED COMMERCIAL PAPER & FED’S EMERGENCY LIQUIDITY FACILITY
(trillion dollars)

Commercial Paper
- ABS Issuers
- Held by Fed’s C.P. Funding Facility

Source: Federal Reserve Board.

Figure 34.

ALL FDIC-INSURED INSTITUTIONS: BAD DEBT PROVISIONS & CHARGE-OFFS
(billion dollars, nsa)

Provisions for Bad Loans & Charge-Offs
- Provision for Loan & Lease Losses
- Net Charge-Offs
- Provision for Loan & Lease Losses Minus Net Charge-Offs

Source: Federal Deposit Insurance Corporation, Quarterly Banking Profile.
Figure 35.

ALL FDIC-INSURED INSTITUTIONS: BAD DEBT PROVISIONS & CHARGE-OFFS
(cumulative change since 1984, billion dollars)

Provisions for Bad Loans & Charge-Offs
- Blue: Provision for Loan & Lease Losses
- Green: Net Charge-Offs
- Red: Provision for Loan & Lease Loses Minus Net Charge-Offs

Source: Federal Deposit Insurance Corporation, Quarterly Banking Profile.

Figure 36.

FINANCIAL CORPORATIONS NET ISSUANCE OF BONDS & EQUITIES
(billion dollars, 4-quarter sum)
- Red: Bonds
- Blue: Equities (ex-ETFs)

Source: Federal Reserve Board Financial Accounts of the United States.
**Figure 37.**

**WORLD EXPORTS & PRODUCTION**  
(Yearly percent change)

Source: CPB Netherlands Bureau for Economic Policy.

---

**Figure 38.**

**REAL GDP**  
(Percent changes from business cycle troughs*)


Source: Bureau of Economic Analysis.
Figure 39.

**FED’S LIQUIDITY FACILITIES**
(trillion dollars, weekly)

* The traditional discount window and crisis-related Term Auction Facility (TAF), Primary Dealer Credit Facility (PDCF), Term Securities Lending Facility (TSLF), Commercial Paper Funding Facility (CPFF), Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility (AMLF), Money Market Investor Funding Facility (MMIFF), and the Term Asset-Backed Securities Loan Facility (TALF). Also included are bilateral currency swap agreements with several foreign central banks.

Source: Federal Reserve Board.

Figure 40.

**FED’S CENTRAL BANK LIQUIDITY SWAPS**
(billion dollars)

Source: Federal Reserve Board.
Predicting Real Estate

Figure 41.

FED'S ASSETS: 2008-2015*
(trillion dollars)

QE3 expanded (12/12/12) = Fed starts buying $45bn/month in Treasuries.
Source: Federal Reserve Board.

* Average of daily figures for weeks ending Wednesday.

Figure 42.

FED'S ASSETS: 2008-2015*
(trillion dollars)

QE3 expanded (12/12/12) = Fed starts buying $45bn/month in Treasuries.
Source: Federal Reserve Board.

* Average of daily figures for weeks ending Wednesday.
Predicting Real Estate

Figure 43.

AGENCY- & GSE-BACKED SECURITIES
(trillion dollars, nsa)

Agency- & GSE-Backed Securities Held By:
- Rest of World
- Foreign Official Institutions*

* Held by foreign official institutions at the Fed.
Source: Federal Reserve Board Financial Accounts of the United States and Federal Reserve Board, Table H.4.1.

Figure 44.

AGENCY- & GSE-BACKED SECURITIES OUTSTANDING
(trillion dollars)

- Total Outstanding
- Total Outstanding Minus Held by Fed

Source: Federal Reserve Board Financial Accounts of the United States.