Private Forces Move to the Fore
Doug Duncan, Chief Economist
Fannie Mae
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GDP Growth Expected to Accelerate this Year...

Year-over-Year % Change

Q4/Q4 % Change

Values for 2014 are ESR group and other forecasts.

Source: Bureau of Economic Analysis, Blue Chip, Federal Reserve Board, Fannie Mae ESR Group
Underlying Demand in the Economy Strengthened in the Second Half of 2013

Inflation-Adjusted, Quarterly % Change (SAAR)

Note: Underlying demand is measured by final sales of domestic product (gross domestic product minus the change in inventories).

Source: Bureau of Economic Analysis
Manufacturing Output Approaches New Highs but Employment Still Below Peak

Source: Federal Reserve Board
Residential Investment as a Share of GDP Still Remains at an Historically Low Level

Source: Bureau of Economic Analysis
Core Capital Goods Orders Suggest Rebounding Business Capital Investment

Manufacturers New Orders of Nondefense Capital Goods ex. Aircraft (Year-over-Year % Change)
The Returns on Capital Investment in Technology Seem to be Declining

Information processing equipment and technology (IPES)
% change over 8 qtrs, ar, both scales

Source: JPMorgan Chase Research, 2013
Domestic Energy Production Reaches the Highest Levels in Decades

Total U.S. Field Production of Crude Oil (Millions of Barrels/Month)

U.S. Production of Dry Natural Gas (Billions of Cubic Feet/Month)

Source: Energy Information Administration
Petroleum and Other Fuels Falling as a Share of Total U.S. Imports

Mineral Fuels, Lubricants & Related Materials as a Share of Total Nominal U.S. Imports (NSA, %)

Source: Census Bureau
Steady Employment Growth and Falling Participation Push the Unemployment Rate Toward the Fed’s 6.5% Threshold

Source: Bureau of Labor Statistics
Exodus of Young Pushes Participation Down While Older Age Cohorts Work Longer

Labor Force Participation Rate by Age
(SA, %)

Peak in Total Participation (Jan-2000)

Labor Force Participation Rate by Age
(SA, Jan-2000 = 100)

Source: Bureau of Labor Statistics
Upward Wage Pressure Grows

Average Hourly Earnings for Production and Nonsupervisory Employees (Year-over-Year % Change)

Source: Bureau of Labor Statistics
Economic Risks

- Maturing expansion
- Weak household formation
- Geographically uneven recovery
- Household wealth distribution
- Declining labor force participation
- Income growth stagnation and distribution
- Weak job growth
- Weak productivity
- Weak capital investment
The Fed Plans to Steadily Wind Down Asset Purchases by the End of This Year...

Monthly Asset Purchases by the Federal Reserve* (Billions of $)

<table>
<thead>
<tr>
<th>Month</th>
<th>U.S. Treasuries</th>
<th>MBS</th>
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<tbody>
<tr>
<td>Jan-13</td>
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</tbody>
</table>

*Data for 2014 is an extrapolation of plans previously announced by the Federal Reserve.

Source: Federal Reserve Board
…But Not Before the Fed’s Balance Sheet Balloons to $4.5 Trillion

Federal Reserve Assets (Trillions of $)

*Data for 2014 is an extrapolation of plans previously announced by the Federal Reserve

Source: Federal Reserve Board
Federal Fiscal Imbalances Expected to Weigh on the Economy

### Federal Government
Receipts and Outlays as a Percent of GDP

<table>
<thead>
<tr>
<th></th>
<th>Receipts</th>
<th>Outlays</th>
<th>Deficit</th>
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</thead>
<tbody>
<tr>
<td><strong>Historical</strong></td>
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<tr>
<td>1950 to 2008</td>
<td>18.0</td>
<td>19.8</td>
<td>-1.8</td>
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<tr>
<td><em>Standard deviation</em></td>
<td>1.1</td>
<td>1.9</td>
<td></td>
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<tr>
<td><strong>2009-2012</strong></td>
<td>15.4</td>
<td>24.1</td>
<td>-8.7</td>
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<tr>
<td><strong>Forecast</strong></td>
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<td>2013 to 2018</td>
<td>18.3</td>
<td>21.8</td>
<td>-3.5</td>
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**Policy Choices**
- Higher Taxes
- Less Spending
- Growth
- Inflation

Source: OMB FY 2014
Entitlement Programs Face Serious Medium-Term Concerns

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<thead>
<tr>
<th>Entitlement Program</th>
<th>Insolvency Year</th>
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<tr>
<td>Social Security</td>
<td>2033</td>
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<tr>
<td>Medicare</td>
<td>2026</td>
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</tbody>
</table>

Medicare Trust Fund Fully Depleted by 2026

Changes in Projected Year of Insolvency

Source: Social Security Administration
Policy Risks

- Secondary market reform
- FHA reform
- Remaining Dodd-Frank rules
- CFPB Rules
- Principal forgiveness
- Foreclosure laws
- Eminent domain
- Immigration reform

Monetary Policy

- QE tapering
- Timing to tightening
- Non-traditional tools
- FRB membership
- MSR values and cap rates

Fiscal Policy

**Short-run**

- Debt-ceiling
- Budget negotiation
- State and local pension funding

**Intermediate-run**

- Interest on federal debt
- State and local pension funding

**Long-run**

- Entitlements
Housing Activity Expected to Continue to Recover after Turning the Corner in 2012

Year-over-Year % Change

-20% -10% 0% 10% 20% 30% 40% 50% 60%

- Existing Home Sales
- New Homes Sales
- Single-Family Housing Starts
- Multifamily Housing Starts
- Home Prices*

Source: National Association of Realtors®, Census Bureau, Fannie Mae ESR Group

*FHFA House Price Index
Household Formation Disappoints, Remaining Substantially Below Long-Term Average

Annual Household Formation (Thousands of Households)

Source: Census Bureau Housing Vacancy Survey
Expectations Regarding the Housing Market Improve Though Price Expectations Fall Back

Average 12-Month Home Price Expectation (%)

Share of Respondents Indicating it is a…

Source: Fannie Mae National Housing Survey, January 2013
Single-Family and Multifamily Starts Recover

SA, Thousands of Units

Source: Census Bureau
New Home Sales Improve After Summer Lull

New Single-Family Home Sales (SAAR, Thousands of Units)

Source: Census Bureau
Existing Home Sales Weaken on the Heels of Rising Mortgage Rates

- Existing Home Sales (SAAR, Thousands, Left Axis)
- Pending Home Sales Index (2-Month Lead, SA, Right Axis)

Source: National Association of Realtors®
Months’ Supply Measures Remain Below Average

Source: Census Bureau, National Association of Realtors®
Institutional Investor Footprint Is Shrinking

- **Short Sale Investor Share**
- **Resale Investor Share**
- **REO Sale Investor Share**

Source: CoreLogic
Home Prices Post Robust Year-over-Year Gains

Source: S&P/Case-Shiller, CoreLogic, Federal Housing Finance Agency
Foreclosure Inventory Has Declined Much Faster in Non-Judicial States

Foreclosure Inventory (NSA, %)

- Judicial Loans
- Non-Judicial Loans

Source: Mortgage Bankers Association
More Homeowners Move into Positive Equity Position, Which Should Lead to Rising Turnover

Source: CoreLogic
Consumers Believe It’s Easier to Get Mortgages While Loan Officers Report Easing Lending Standards

Do you think it will be difficult or easy for you to get a home mortgage today?

Lending Standards for Residential Mortgages (Net, %)

Source: Fannie Mae National Housing Survey, January 2013; Federal Reserve Board Senior Loan Officers Survey
Higher Income Households Have Shown Greater Improvement in Consumer Confidence

High income is $50K or greater, Middle is $35K-$50K, Low is $35K or lower

Source: Conference Board
Higher Mortgage Rates Have Curtailed Mortgage Refinance Demand

Refinance Applications (SA, January 4, 2013 = 100, Left Axis) - 30-Year FRM Rate (%), Right Axis

Source: Mortgage Bankers Association, Freddie Mac
Mortgage Market Is Switching to a Purchase Market

Mortgage Originations (NSA, 1-4 Unit, Billions of $)

- Source: ESR, Fannie Mae ESR Group

*Fannie Mae ESR Group Forecast

Source: ESR, Fannie Mae ESR Group
Speaker Biography

Douglas G. Duncan is Fannie Mae’s Senior Vice President and Chief Economist. He is responsible for managing Fannie Mae’s Economic & Strategic Research Group and oversees corporate strategy. In this leadership role, Duncan provides all economic, housing, and mortgage market forecasts and analyses, and serves as the company’s thought leader and spokesperson on economic and mortgage market issues.

Prior to joining Fannie Mae, Duncan was Senior Vice President and Chief Economist at the Mortgage Bankers Association. His experience also includes service as a LEGIS Fellow and staff member with the Committee on Banking, Finance, and Urban Affairs for Congressman Bill McCollum in the U.S. House of Representatives, and work on the Financial Institutions Project at the U.S. Department of Agriculture. He has been elected to the Board of Directors for the National Association of Business Economists, is a member of the American Economics Association and the American Real Estate and Urban Economics Association, and is past president of the Housing Statistics Users Group.

Named one of Bloomberg / BusinessWeek’s 50 Most Powerful People in Real Estate and one of Inman News’ 100 Most Influential Real Estate Leaders for 2013, Duncan is a frequent speaker on national and state economic, housing, and mortgage market conditions.

Duncan received his Ph. D. in Agricultural Economics from Texas A&M University and his B.S. and M.S. in Agricultural Economics from North Dakota State University.
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