



United States Department of Agriculture

United States Housing, Second Quarter 2013

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Forest
Service

Forest Products
Laboratory

Research Note
FPL–RN–0342

May
2017

Abstract

The U.S. housing market's quarter two results were disappointing compared with the first quarter. Although overall expected gains did not materialize, certain sectors improved slightly. Housing under construction, completions, and new and existing home sales exhibited slight increases. Overall permit data declined, and the decrease in starts was due primarily to a plunge in multifamily starts. Viewed from a recent historical context, all housing construction subsectors exceeded the record lows recorded in the 2008 to 2011 time period.

Keywords: Housing permits, starts, under construction, completions, construction spending; quarterly and annual construction averages, nominal and inflation adjusted construction spending, housing and gross domestic product

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May 2017

Alderman, Delton. 2017. United States Housing, Second Quarter 2013. Research Note FPL-RN-0342. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. 15 p.

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United States Housing, Second Quarter 2013

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Overview

The U.S. housing market's quarter one improvement did not continue into the second quarter of 2013. Although overall expected gains did not materialize, certain sectors improved slightly. Housing under construction, completions, and new and existing home sales exhibited slight increases. Overall permit data declined, and the decrease in starts was due primarily to a plunge in multifamily starts.

Several impediments affecting a return to a robust housing construction market still remain. Principal among them are a sluggish economy, declining real median incomes, and stricter lending standards. If these headwinds can be overcome, we should expect additional improvement in the U.S. housing market.

Housing Permits

Housing permits (see glossary for definitions of terms) are a leading indicator for gauging the current status and future housing construction market. Permits data, in the second quarter, were mixed. The seasonally adjusted annual rate (SAAR) permit data indicated a slight decline from April to June 2013 (Table 1, Fig. 1). In addition to assessing monthly data, analysts also contrast quarterly data to gauge housing construction. Permits issued in quarter two of 2013 were substantially greater than quarter two of 2012 on a year-over-year (Y/Y) basis and on a quarter-over-quarter (Q/Q) basis, which also increased (Table 2). For a supplementary contrast, the quarter two permit average was 72.4% of the aggregate quarter two average (Table 11). Historical quarterly and annual averages for the construction sectors reviewed in this brief are presented in Tables 11 and 12. According to the U.S. Bureau of Census, a “seasonal adjustment” is estimating and subtracting seasonal effects from a particular time series in order to expose discrete nonseasonal features such as underlying trends and business cycles.

Housing Starts

Housing starts also are an indicator for the housing construction market, because starts are generally regarded as an indicator for the health of the housing market and are integral to the production of economic activity. Starts include new single-family (SF) and multifamily (MF) structures, which historically make up a significant portion of the U.S. Gross Domestic Product (GDP). Second quarter starts were mixed, increasing in May and declining in June (Table 1, Fig. 1). A quarterly contrast resulted in a substantial Y/Y increase and a moderate Q/Q decrease (Table 2). For an additional comparison, the quarter two start average was 59.2% of the long-term quarter two average (Table 11).

Housing under Construction

Housing under construction is generally considered as a lagging indicator for the housing market. For example, if starts are greater than current demand, a builder may decide to halt construction or slow fabrication time. In turn, these data also can be used to assess current construction employment and building material demand. Housing under construction increased steadily through the quarter (Table 1, Fig. 1). This yielded a substantial Y/Y increase and a moderate Q/Q increase (Table 2). For further comparison, the quarter two housing under construction average was 64.3% of the long-term quarter two average (Table 11).

Table 1. Housing permits, starts, under construction, and completions, by year and by month (2013)^{a,b}

	Permits	Starts	Under construction	Completions
2000	1,592.3	1,569	933.8	1,573.7
2001	1,636.7	1,603	959.4	1,570.8
2002	1,747.7	1,705	1,001.2	1,648.4
2003	1,889.2	1,848	1,141.4	1,678.7
2004	2,070.1	1,956	1,237.1	1,841.9
2005	2,155.3	2,068	1,355.9	1,931.4
2006	1,838.9	1,801	1,204.9	1,979.4
2007	1,398.4	1,355	1,025.0	1,502.8
2008	905.4	906	780.9	1,119.7
2009	583.0	554	495.4	794.4
2010	604.6	587	411.0	651.7
2011	624.1	609	417.7	585.2
2012	829.7	781	532.5	649.2
			2013 ^c	
Jan	928	888	561	732
Feb	971	970	582	730
Mar	932	999	595	839
Apr	1,015	826	607	690
May	1,016	920	620	714
Jun	951	852	629	759

^aIn thousands, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cSeasonally adjusted annual rate.

Data source: Census Bureau (2015a).

Housing Completions

Housing completions indicate the quantity of homes finished and available for sale or rent. Analysts also may develop estimates for consumer-based products such as furniture and home appliances using these data. Generally, completions lag starts by 5 to 6 months. Housing completions progressively improved throughout the quarter (Table 1, Fig. 1). Completions registered a Q/Q decrease and a modest Y/Y increase (Table 2). For an additional comparison, quarter two completions were 49.2% of the long-term quarter two average (Table 11).

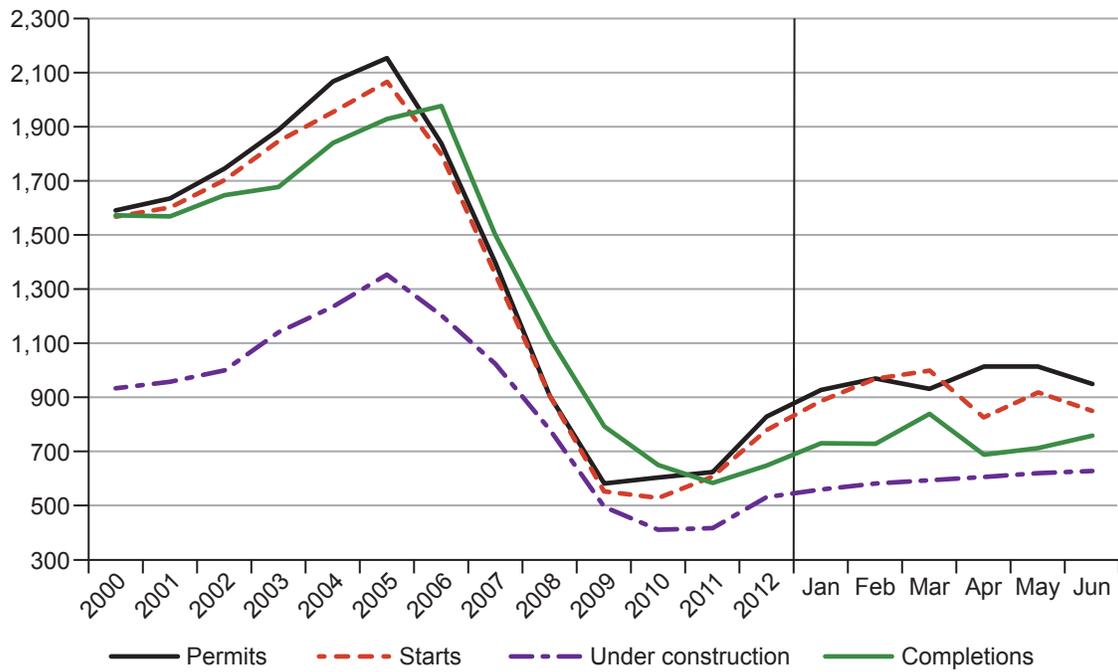


Figure 1. Total housing permits, starts, under construction, and completions, 2000–2013, in thousands. Seasonally adjusted annual rates for Quarter 2 (Q2), 2013.
 Data source: Census Bureau (2015a).

Table 2. Total yearly comparisons, second quarter of (2012) and (2013)^{a,b,c}

	2013 3-month running average	Change quarter-over-quarter (%)	2012 3-month running average	Change year-over-year (%)
Permits	994.0	5.3	781.3	27.2
Starts	866.0	-9.1	739.3	17.1
Under construction	618.7	6.8	474.3	30.5
Completions	721.0	-6.0	640.7	12.5

^aIn thousands, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cSeasonally adjusted annual rate.

Data source: Census Bureau (2015a).

Single-Family Housing

Single-family (SF) housing construction generally consumes more softwood, hardwood, and wood composite products than in any other type of building construction (Wood Products Council 2006). Historically, SF housing construction has contributed about 2.25% to the U.S. gross domestic product (GDP); however, since 2009, the contribution of SF housing construction has been about 1%. Nonetheless, SF housing starts remain a valuable data subset for assessing the current status of the housing market and are used by many in the forest products industry, and several other industries, to gauge current and future housing activity.

SF permits, SF starts, SF houses under construction, and SF completions all improved throughout the second quarter (Table 3, Fig. 2). SF permits increased modestly Q/Q and substantially Y/Y. SF starts increased Y/Y and declined on a Q/Q basis. SF housing under construction improved substantially on a Y/Y basis and moderately on a Q/Q comparison. SF completions increased moderately Y/Y and decreased Q/Q (Table 4). SF completions normally lag starts by 6 months to a year. For additional long-term comparisons, averages of historical quarter two data are SF permits issued, 69.4%; SF starts, 57.0%; SF houses under construction, 53.7%; and SF completions, 50.9% (Table 11).

Table 3. Single-family (SF) housing permits, starts, under construction, and completions, by year and by month (2013)^{a,b}

	SF permits	SF starts	SF under construction	SF completions
2000	1,198.1	1,231	623.4	1,241.8
2001	1,235.6	1,273	638.3	1,255.9
2002	1,332.6	1,359	668.8	1,325.1
2003	1,460.9	1,499	772.9	1,386.3
2004	1,613.4	1,611	850.3	1,531.5
2005	1,682.0	1,716	929.1	1,635.9
2006	1,378.2	1,465	764.7	1,654.5
2007	979.9	1,046	579.1	1,218.4
2008	575.6	622.0	377.3	818.8
2009	441.1	445.1	283.1	520.1
2010	447.0	471.2	247.3	496.3
2011	413.6	430.6	221.6	446.3
2012	518.7	535.3	267.7	483.0
		2013 ^c		
Jan	590	612	287	563
Feb	612	663	293	577
Mar	609	621	294	613
Apr	623	578	302	520
May	624	602	305	555
Jun	628	605	314	535

^aIn thousands, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cSeasonally adjusted annual rate (SAAR).

Data source: Census Bureau (2015a).

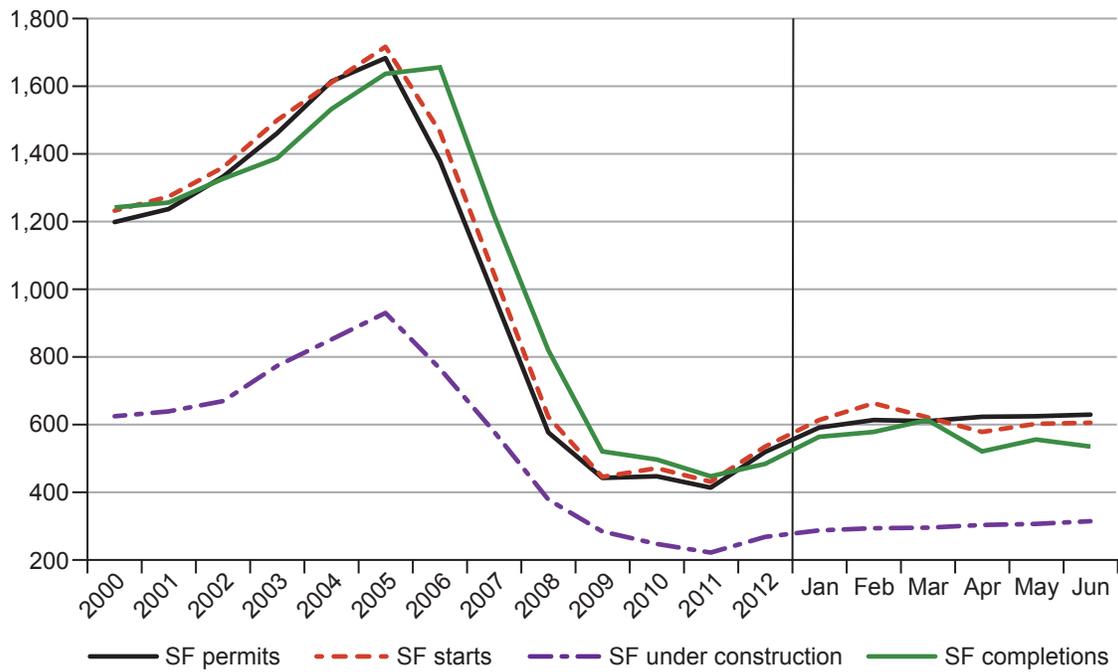


Figure 2. Total single-family housing permits, starts, under construction, and completions, 2000–2012, in thousands. Seasonally adjusted annual rate for Q2, 2013. Data source: Census Bureau (2015a).

Table 4. Single-family (SF) quarterly and yearly comparisons, second quarter of (2012) and (2013)^{a,b,c}

	2013 3-month running average	Change quarter-over-quarter (%)	2012 3-month running average	Change year-over-year (%)
SF permits	625.0	3.5	494.3	26.4
SF starts	595.0	-5.9	515.3	15.5
SF under construction	307.0	5.4	252.0	21.8
SF completions	536.7	-8.2	483.7	11.0

^aIn thousands, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cSeasonally adjusted annual rate.

Data source: Census Bureau (2015a).

Multifamily Housing

Multifamily (MF) housing continued to be an essential component of the 2013 housing market; though the overall numbers of units built in quarter two of 2013 were considerably less than the early and mid-1970s. The 1970s MF starts were the most recorded in U.S. history. April through June MF housing permits and starts were varied on a SAAR basis, as is typical for the MF sector. MF units under construction increased moderately and completions rose substantially from April to June (Table 5, Fig. 3). Please note that all segments of MF data are considered to be volatile, on a month-to-month and quarterly basis.

The second quarter comparisons resulted in MF permits increasing substantially on a Y/Y basis and increasing moderately Q/Q. Starts improved Y/Y and declined Q/Q, both substantially. Housing under construction improved moderately Q/Q and substantially Y/Y. MF completed units improved slightly Q/Q and substantially Y/Y (Table 6). For additional long-term comparison, averages of historical quarter two data were MF permits issued, 78.1%; MF starts, 64.5%; MF houses under construction, 79.8%; and MF completions, 44.9% (Table 11).

Table 5. Multifamily (MF) housing permits, starts, under construction, and completions, by year (annual rate) and by month (seasonally adjusted annual rate) (2013)^{a,b}

	MF permits	MF starts	MF under construction	MF completions
2000	394.2	338	310.4	332.0
2001	401.1	329	321.0	314.9
2002	415.1	346	332.3	323.2
2003	428.3	349	368.6	292.3
2004	456.6	345	386.8	310.4
2005	473.3	353	426.8	295.5
2006	460.7	336	440.2	325.0
2007	418.5	309	445.9	284.4
2008	329.8	284	403.7	300.9
2009	141.8	109	212.3	274.3
2010	157.3	116	163.8	155.4
2011	205.6	178	196.2	138.3
2012	311.0	245	264.9	166.3
		2013 ^c		
Jan	338	276	274	169
Feb	359	307	289	153
Mar	323	378	301	226
Apr	392	248	305	170
May	392	318	315	159
Jun	323	247	315	224

^aIn thousands, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cSeasonally adjusted annual rate.

Data source: Census Bureau (2015a).

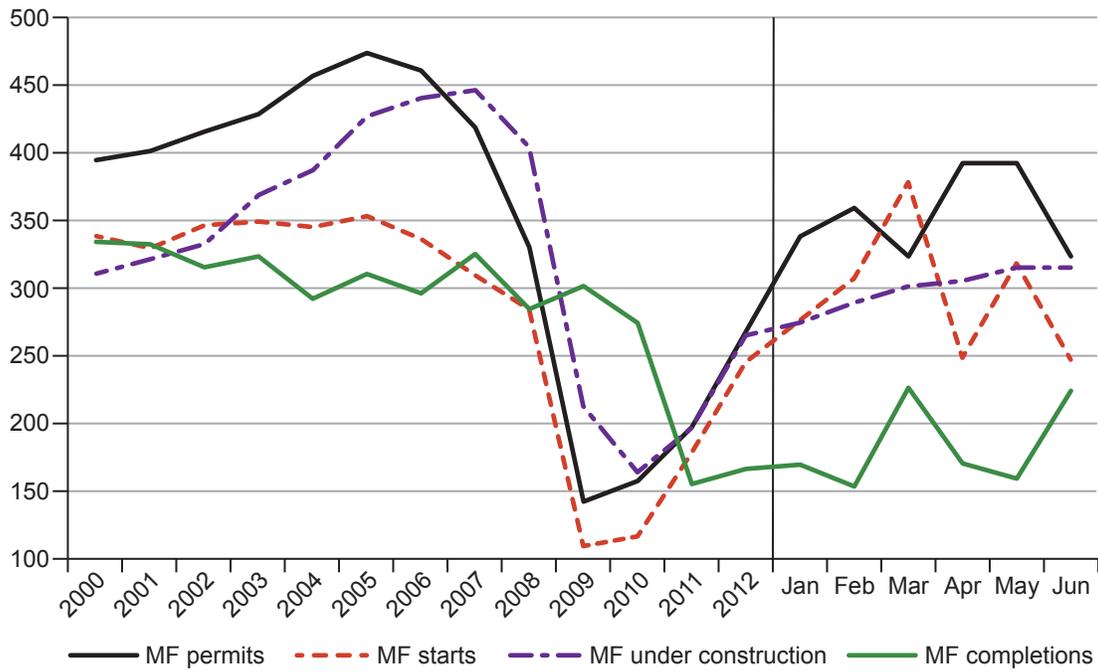


Figure 3. Multifamily housing permits, starts, under construction, and completions, 2000–2012, in thousands. Seasonally adjusted annual rate for Q2, 2013. Data source: Census Bureau (2015a).

Table 6. Multifamily (MF) quarterly and yearly comparisons, second quarter of 2012 and 2013^{a,b,c}

	2013 3-month running average	Change quarter-over-quarter (%)	2012 3-month running average	Change year-over-year (%)
MF permits	369.0	8.5	287.0	28.6
MF starts	271.0	-15.4	224.0	21.0
MF under construction	311.7	8.2	222.3	40.2
MF completions	184.3	0.9	145.0	17.4

^aIn thousands, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cSeasonally adjusted annual rate.

Data source: Census Bureau (2015a).

House Sales

New and existing house sales, in addition to other housing indicators, are important for the entirety of the forest products industry and they provide an indirect metric for assessing the overall U.S. economy. Historically, new house sales are about 10% of house sales.

Typically, new housing is an essential market for the forest products industry, because new houses utilize substantially more softwoods and wood composites in the framing structure and subfloor and more hardwoods in flooring, cabinets, and mouldings than the residential renovation and multifamily subsectors.

New house sales were mixed and increased very minimally in the second quarter of 2013 (Table 7, Fig. 4). Quarterly comparisons resulted in a substantial Y/Y new house sales gain and a very minimal Q/Q increase (Table 8). On a selected historical basis, second quarter new house sales were 67.8% of the quarter two average (Table 11).

Existing house sales provide insight for the home improvement industry and, by extension, the forest products industry. On average, existing sales are about 90% of sales but tend to have less economic impact from a wood products utilization perspective. Existing house sales also may be used to predict future remodeling demand and sales of associated items (such as furniture). The April to June 2013 period witnessed modestly increasing existing sales on a Q/Q basis and Y/Y sales increased moderately (Table 8, Fig. 4). For additional comparison, existing house sales were 86.6% of the long-term quarter two average (Table 11).

Table 7. New and existing house sales, by year (annual rate) and by month (seasonally adjusted annual rate) (2013)^{a,b}

	New house sales	Existing house sales
2000	877	5,173
2001	908	5,333
2002	973	5,631
2003	1,086	6,176
2004	1,203	6,778
2005	1,283	7,076
2006	1,051	6,478
2007	776	5,040
2008	485	4,110
2009	375	4,340
2010	323	4,190
2011	306	4,260
2012	368	4,660
		2013 ^c
Jan	442	4,870
Feb	439	4,950
Mar	449	4,960
Apr	451	4,990
May	430	5,150
Jun	463	5,160

^aIn thousands, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cSeasonally adjusted annual rate.

Data sources: Census Bureau (2015b), National Association of Realtors (2014).



Figure 4. New and existing house sales, 2000–2013, in thousands. Seasonally adjusted annual rate for Q2, 2013. Existing house sales (left-hand scale) and new house sales (right-hand scale). Data sources: Census Bureau (2015b), National Association of Realtors (2014).

Table 8. New and existing house sales, quarterly and yearly comparisons, second quarter of (2012) and (2013)^{a,b,c}

	2013 3-month running average	Change quarter-over-quarter (%)	2012 3-month running average	Change year-over-year (%)
New sales	448.0	1.1	361.3	24.0
Existing sales	5,100.0	3.5	4,543.3	12.3

^aIn thousands, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cSeasonally adjusted annual rate.

Data sources: Census Bureau (2015ab), National Association of Realtors (2014).

Residential Construction Spending

Private residential construction (PRC) spending is an important indicator for the general condition of the housing market and is used in computing the U.S. GDP. Throughout the second quarter of 2013, PRC, SF, MF, and improvement or remodeling spending exhibited minimal to moderate increases (Table 9, Fig. 5). Quarterly expenditure comparisons indicate PRC, SF, and MF all yielding substantial Y/Y and minimal to moderate Q/Q spending increases. Improvement

spending increased moderately Y/Y and decreased slightly Q/Q (Table 10). For additional comparison, PRC and SF spending were 94.5% and 76.2%, respectively, of their historical quarter two average. In quarter two, MF and improvement spending performed better than their long-term average—4.9% and 33.9%, respectively (all on a nominal basis) (Table 11). The U.S. Census Bureau does not report remodeling spending directly and these expenditures are interpolated.

Table 9. Construction spending for total private residential, single-family (SF), multifamily (MF), and improvements by year (annual rate) and by month (seasonally adjusted annual rate) (2013)^{a,b}

	Private residential spending ^c		SF spending		MF spending		Improvement spending	
	Reported ^d	Adjusted ^e	Reported	Adjusted	Reported	Adjusted	Reported	Adjusted
2000	346.1	506.8	236.8	328.3	28.3	41.4	81.1	118.7
2001	364.4	509.4	249.1	329.7	30.3	42.4	85.0	118.9
2002	396.7	541.2	265.9	343.5	33.0	45.0	97.9	133.5
2003	446.0	580.9	310.6	383.0	35.1	45.7	100.3	130.7
2004	532.9	648.6	377.6	435.2	39.9	48.6	115.4	140.5
2005	611.9	695.0	433.5	466.3	47.3	53.7	131.1	148.9
2006	613.7	658.7	416.0	422.8	52.8	56.7	144.9	155.5
2007	493.2	522.5	305.2	306.2	49.0	51.9	139.1	147.4
2008	350.3	376.5	185.8	189.1	44.3	47.7	120.1	129.2
2009	245.9	264.4	105.3	107.2	28.5	30.7	112.0	120.4
2010	238.8	266.1	112.6	118.8	14.7	16.4	111.6	124.3
2011	244.1	273.0	108.2	114.5	15.0	16.8	120.9	135.2
2012	280.6	311.4	132.0	138.7	22.5	25.0	126.1	139.9
				2013 ^f				
Jan	314.5		153.0		28.6		132.8	
Feb	321.9		161.8		28.3		131.8	
Mar	324.6		166.4		28.9		129.3	
Apr	327.3		168.1		29.8		129.3	
May	328.5		170.4		29.9		128.2	
Jun	331.2		171.3		30.6		129.2	

^aIn millions of dollars, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cPrivate residential spending = Single-family + Multi-family + Improvement.

^dAs provided by the Census Bureau's Survey of Construction.

^eAnnual spending estimates, adjusted for the second quarter of 2013. Bureau of Economic Analysis (BEA), table 1.1.9. Implicit price deflators for gross private domestic investment, residential fixed investment [index numbers, 2009 = 100, seasonally adjusted]; revised June 24, 2015.

^fSeasonally adjusted annual rate.

Data sources: Census Bureau (2015a,c); Bureau of Economic Analysis (2015a).

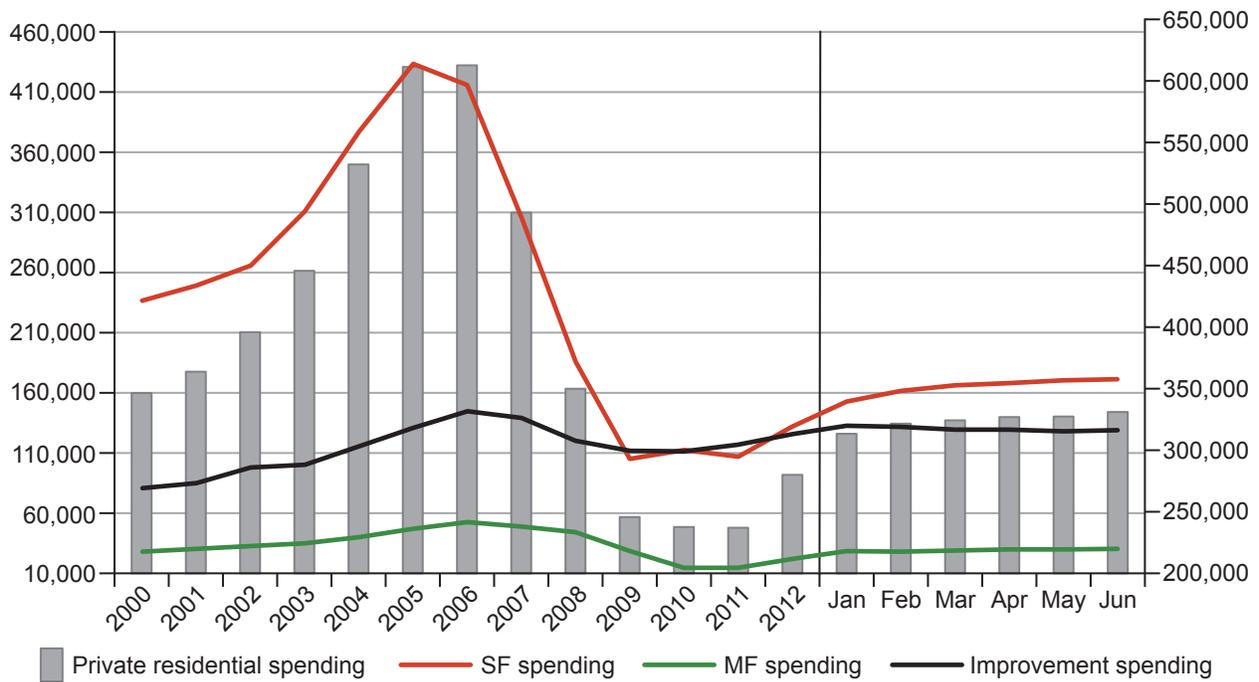


Figure 5. Construction spending, in thousands of dollars, for total private residential, single-family, multifamily, and improvement spending, 2000–2012. Seasonally adjusted annual rate for Q2, 2013. Private residential spending (right-hand scale) and SF, MF, and IS (left-hand scale). Data sources: Census Bureau (2015c,d).

Table 10. New and existing house sales, quarterly and yearly comparisons, second quarter of (2012) and (2013)^{a,b,c}

	Q2 2013 3-month running average	Change quarter-over-quarter (%)	Q2 2012 3-month running average	Change year-over-year (%)
Private residential ^d	328.9	2.7	270.9	21.4
Single-family	169.9	6.0	124.8	36.2
Multifamily	30.1	5.3	21.2	42.0
Improvement	128.9	-1.8	124.9	3.2

^aIn millions of dollars, annual and monthly data.

^bData are for conventional housing and do not include mobile home shipments.

^cPrivate residential spending = Single-family + Multi-family + Improvement.

^dAs provided by the Census Bureau's Survey of Construction.

Data sources: Census Bureau (2015a,c).

Housing as a Component of GDP

Housing is a crucial component of the U.S. GDP and the overall economy. The National Association of Homebuilders (2014) states that, “Historically, residential investment has averaged approximately 5% of GDP, and housing services have averaged between 12% and 13%, for a combined 17% to 19% of the GDP—at times slightly more. These proportions have a tendency to fluctuate during business cycles. Housing contributions to GDP are valued in two discrete ways: (1) private residential investment and (2) consumption spending of housing services. Residential investment includes construction of new single-family and multifamily structures, residential remodeling, manufactured home production, and brokers’ fees. Consumption spending on housing services includes gross rents (which include utilities) paid by renters and owners’ imputed rent.”

Housing construction’s aggregate share of U.S. GDP continues to inch along. In quarter two of 2013, housing was estimated to be 15.6% of the U.S. GDP (residential fixed investment was 3.1%, housing services was 12.5%) (Fig. 6) (National Association of Homebuilders 2014).

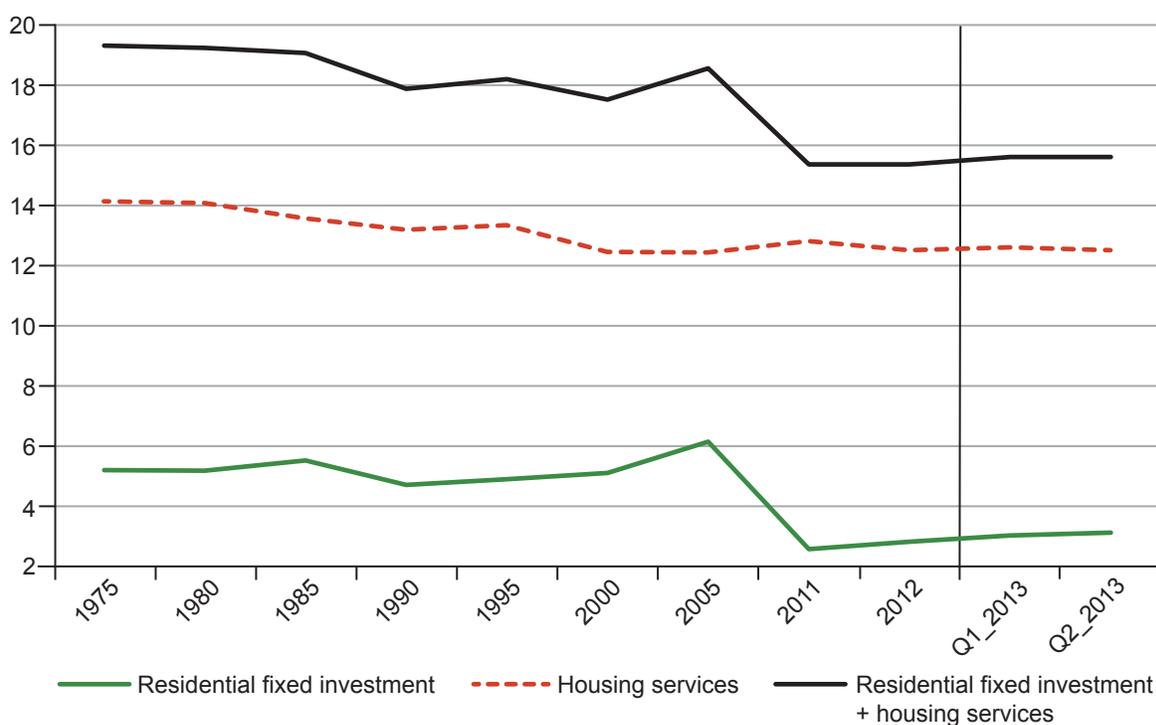


Figure 6. Contribution of housing markets to GDP, in percentage of total GDP, 1976–2012; seasonally adjusted annual rate through Q2, 2013. Data sources: Bureau of Economic Analysis (2015b), National Association of Homebuilders (2015).

Table 11. Second quarter construction averages^{a,b,c,d}

	Time period	Quarter 2	Quarter 2 2013	Time period	Quarter 2
Total permits	1960–2008	1,433.4	994.0	1960–2012	1,373.3
Total starts	1959–2008	1,495.3	866.0	1959–2012	1,462.9
Total under construction	1970–2008	1,010.0	618.7	1970–2012	962.8
Total completions	1968–2008	1,538.7	721.0	1968–2012	1,464.1
SF permits	1960–2007	937.9	625.0	1960–2012	900.6
SF starts	1959–2008	1,065.0	595.0	1959–2012	1,042.9
SF under construction	1970–2008	602.2	307.0	1970–2012	572.1
SF completions	1968–2008	1,107.3	536.7	1968–2012	1,053.9
MF permits	1960–2007	475.8	369.0	1960–2012	472.7
MF starts	1959–2008	430.4	271.0	1959–2012	420.1
MF under construction	1970–2008	407.8	311.7	1970–2012	390.7
MF completions	1968–2010	422.9	174.3	1968–2012	410.2
New house sales	1963–2007	692.7	448.0	1963–2012	660.9
Existing house sales ^c	1999–2007	5,889.6	4,886.7	1999–2012	5,306.9

	Time period	Reported	Adjusted ^g	Time period	Reported	Adjusted ^g
Private residential spending ^f	1993–2007	373.0	484.7	2008–2012	272.7	284.4
SF spending		254.2	329.9		129.4	134.7
MF spending		29.9	38.4		25.4	26.4
Improvement spending		89.0	116.5		118.0	123.4

	Time period	Reported	Adjusted ^g	Reported Quarter 2 2013
Private residential spending ^e	1993–2012	348.0	434.6	329.0
SF spending		223.0	281.1	170.0
MF spending		28.8	35.4	30.1
Improvement spending		96.2	118.2	128.9

^aThe time periods selected begin with initiation of modern data collection and end with the year generally recognized as the start of the housing crash.

^bAnnualized monthly data.

^cData are for conventional housing and do not include mobile home shipments.

^dAverage of quarter two monthly data.

^eNational Association of Realtors 2014; not seasonally adjusted.

^fPrivate residential spending = Single-family + Multifamily + Improvement; in millions.

^gAnnual spending estimates, adjusted for the second quarter of 2013. BEA, table 1.1.9. Implicit price deflators for gross private domestic investment, residential fixed investment [index numbers, 2009 = 100, seasonally adjusted]; revised June 24, 2015.

Data source: Census Bureau (2015a); Bureau of Economic Analysis (2015a).

Table 12. Historic annual construction averages^{a,b,c}

	Average by time period				
	1959–2008	1969–2008	1968–2008		
Total permits	1,430.0				
Total starts	1,534.1				
Total under construction		975.7			
Total completions			1,532.0		
	1959–2012	1969–2012	1968–2012		
Total permits	1,373.0				
Total starts	1,467.3				
Total under construction		929.2			
Total completions			1,455.3		
	1959–2008	1969–2008	1968–2008		
SF permits	939.4				
SF starts	1,092.2				
SF under construction		569.1			
SF completions			1,101.8		
	1959–2012	1969–2012	1968–2012		
SF permits	903.6				
SF starts	1,046.1				
SF under construction		540.6			
SF completions			1,047.1		
	1959–2008	1964–2008	1969–2008	1968–2008	
MF permits	490.6				
MF starts		447.8			
MF under construction			406.6		
MF completions				430.1	
	1959–2012	1963–2012	1969–2012	1968–2012	
MF permits	469.42				
MF starts		481.6			
MF under construction			388.6		
MF completions				408.2	
	1963–2007	1963–2012	1999–2007	1999–2012	
New house sales	697.1	664.5			
Existing house sales ^d			5,873.6	5,315.9	
	1993–2007	Adjusted ^f	1993–2012	Adjusted ^f	Quarter 2 2013
Private residential spending ^e	375.1	512.5	349.3	458.9	329.0
SF spending	254.7	304.5	223.2	263.6	170.0
Improvement spending	90.3	103.5	97.2	110.1	128.9
	1993–2008	Adjusted	1993–2012	Adjusted	Quarter 2 2013
MF spending	31.0	41.3	28.9	37.4	30.1

^aThe time periods selected begin with initiation of modern data collection and end with the year generally recognized as the start of the housing crash.

^bIn thousands and in millions of dollars, annual data.

^cData are for conventional housing and do not include mobile home shipments.

^dNational Association of Realtors (2014), not seasonally adjusted.

^ePrivate residential spending = single-family + multifamily + improvement.

^fAnnual spending estimates, adjusted for the second quarter of 2013. BEA, table 1.1.9. Implicit price deflators for gross private domestic investment, residential fixed investment [index numbers, 2009 = 100, seasonally adjusted]; revised June 24, 2015.

Data sources: Census Bureau (2015b,c); Bureau of Economic Analysis (2015b).

Literature Cited

Bureau of Economic Analysis. 2015a. Table 1.1.9. Implicit price deflators for gross domestic product. Washington, DC: U.S. Department of Commerce, BEA. Available at www.bea.gov/iTable/iTable.cfm (Accessed June 25, 2015).

Bureau of Economic Analysis. 2015b. Gross domestic product (GDP). Washington, DC: U.S. Department of Commerce, Bureau of Economic Analysis. Available at <http://www.bea.gov/national/index.htm#gdp> (Accessed June 25, 2015.)

Census Bureau. 2015a. New residential construction. Washington, DC: U.S. Department of Commerce, Census Bureau. <http://www.census.gov/construction/c30/c30index.html>. (Accessed June 4, 2015).

Census Bureau. 2015b. New residential sales. Washington, DC: U.S. Department of Commerce, Census Bureau. http://www.census.gov/construction/c30/historical_data.html. (Accessed June 4, 2015).

Census Bureau. 2015c. Value of construction put in place at a glance. Washington, DC: U.S. Department of Commerce, Census Bureau. <http://www.census.gov/construction/nrc>. (Accessed June 4, 2015).

Census Bureau. 2015d. Historical value put in place. Washington, DC: U.S. Department of Commerce, Census Bureau. <http://www.census.gov/construction/nrc>. (Accessed June 4, 2015).

National Association of Homebuilders. 2015. Housing's contribution to gross domestic product. Washington, DC: National Association of Homebuilders. <http://www.nahb.org>. (Accessed June 6, 2015).

National Association of Realtors. 2014. Existing-home sales data. Washington, DC: National Association of Realtors. <http://www.realtor.org/topics/existing-home-sales/data>. (Accessed June 21, 2014).

Wood Products Council. 2006. Wood used in new residential construction U.S. and Canada, with comparison to 1995, 1998, and 2003. Tacoma, WA: APA—The Engineered Wood Association. 169 p.

Glossary

Housing completions—A house is defined as completed when all finished flooring has been installed (or carpeting if used in place of finished flooring). If the building is occupied before all construction is finished, it is classified as completed at the time of occupancy. In privately owned buildings with two or more housing units, all the units in the buildings are counted as completed when 50% or more of the units are occupied or available for occupancy. Housing completions are estimated for all areas of the United States, regardless of whether permits are required.

Housing permits—The approval given by a local jurisdiction to proceed on a construction project. Note that not all areas of the country require a permit for construction.

Housing starts—Start of construction occurs when excavation begins for the footings or foundation of a building. All housing units in a multifamily building are defined as being started when this excavation begins. Beginning with data for September 1992, estimates of housing starts include units in structures being totally rebuilt on an existing foundation.

Housing under construction—Estimates of housing units started, but not yet completed, are estimated for all areas of the United States, regardless of whether permits are required.

Seasonally adjusted annual rate—Seasonal adjustment is the process of estimating and removing seasonal effects from a time series to better reveal certain nonseasonal features such as underlying trends and business cycles. Seasonal adjustment procedures estimate effects that occur in the same calendar month with similar magnitude and direction from year to year. In series whose seasonal effects come primarily from weather, the seasonal factors are estimates of average weather effects for each month.

Single-family housing—Dwellings that include fully detached, semidetached (semi-attached, side-by-side), row houses, and townhouses.

