United States Department of Agriculture

United States Housing, Third Quarter 2014

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Forest Service | Forest Products Laboratory | Research Note FPL–RN–0351 | April 2018

Abstract

The U.S. housing market's quarter three indicated slight improvement from the second quarter, with the exception of multifamily construction. Improvement spending declined within the quarter, quarter-over-quarter, and year-over-year. 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, gross domestic product.

Contents

April 2018

Alderman, Delton. 2018. United States Housing, Third Quarter 2014. Research Note FPL-RN-0351. Madison, WI: U.S. Department of Agriculture, Forest Service, Forest Products Laboratory. 15 p.

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The Forest Products Laboratory is maintained in cooperation with the University of Wisconsin.

United States Housing, Third Quarter 2014

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Overview

The third quarter 2014 U.S. housing market sectors were virtually unchanged from quarter two, with the exception being home improvement or remodeling spending. In this category, expenditures decreased and were substantially less than reported at the beginning of the year. A combination of factors hindered the housing market, including rising housing prices, strict loan requirements, declining real median incomes, and lackluster household formations.

Housing, primarily new construction and remodeling, is a vital market for wood products. For instance, wood framing was used in 94.2% of completed new single-family homes in 2013, somewhat less than consumed in 2010 (95.2%) and in 2009 (95.0%) (Census Bureau 2015e). Wood products consumption for the improvement sector (or remodeling) used 25% of all sawnwood, 26% of structural panels, and 16% of nonstructural panels in 2013 (Fig. 1). New single-family attached and detached construction houses consumed 21% of all sawnwood, 30% of structural panels, and 16% of nonstructural panels in 2013. New multifamily apartment construction consumed 4% of all sawnwood, 4% of structural panels, and 5% of nonstructural panels in 2013. Manufactured housing consumed an estimated 1% of all sawnwood, 2% of structural panels, and 1% of nonstructural panels in 2013. In total, new housing construction consumed 26% of all sawnwood, 36% of structural panels, and 18% of nonstructural panels in 2013 (Fig. 2) (Howard and McKeever 2014).

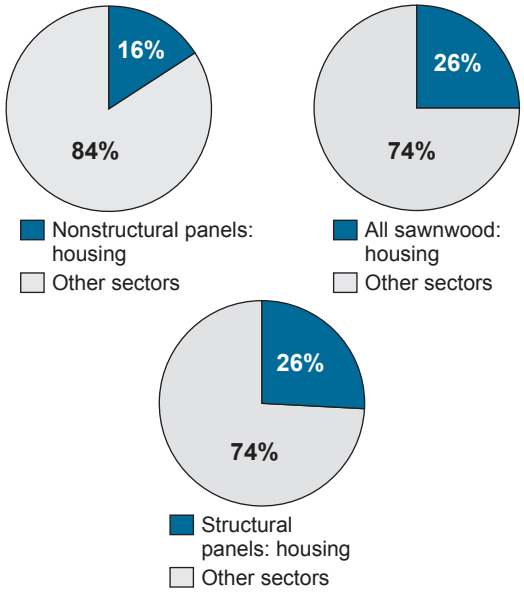

Figure 1. Repair and remodeling's percentage of wood products consumption. Data source: Howard and McKeever (2014).

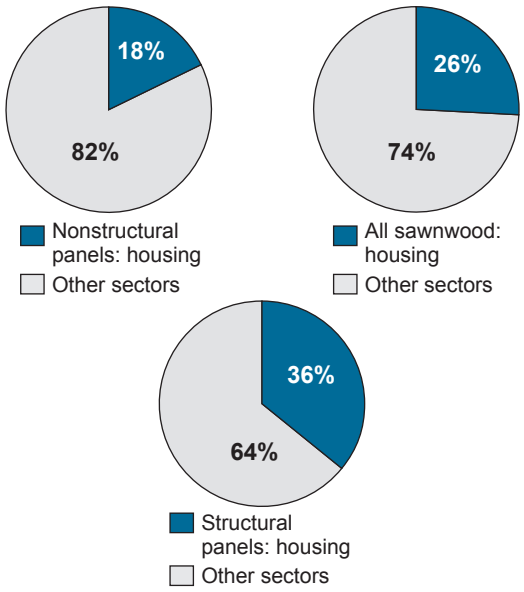

Figure 2. New construction's percentage of wood products consumption. Data source: Howard and McKeever (2014).

Housing Permits

Housing permits (see glossary for definitions of terms) are a leading indicator for gauging the current status and future of the housing construction market. In 2005, at the peak of the housing boom, 2.155 million building permits were issued at a seasonally adjusted annual rate (SAAR), the most since 1972. In quarter three of 2014, issued permits increased minimally by 0.3% from quarter two and 6.3% year-over-year (Y/Y) (SAAR) (Tables 1 and 2; Fig. 3).

In addition to assessing monthly data, analysts also contrast quarterly data to assess the housing market. The average number of permits issued in the third quarter of 2014 was 27.2% less than the 1960–2008 averages and 23.7% less than the 1960–2013 averages (based on quarter three means) (Table 11). The average number of permits issued in the third quarter of 2014 was 26.7% less than the 1959–2008 average and 23.5% less than the 1959–2013 average annual rate (AR) basis (Table 12).

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 an important portion of the U.S. Gross Domestic Product (GDP). From a historical perspective, a record 2.068 million housing starts were recorded in 2005. In the third quarter of 2014, starts increased 4.6% from quarter two and 16.5% year-over-year (SAAR) (Tables 1 and 2; Fig. 3). Overall, starts were mixed in the third quarter, similar to quarters one and two.

For further comparison, the average number of starts issued in the third quarter of 2014 was 33.5% less than the 1960–2008 and 29.3% less than the 1960–2013 averages (based on quarter three means) (Table 11). Comparing quarter three's long-term averages, starts were 32.9% less than the 1959–2007 and 29.4% less than the 1968–2013 averages (AR) (Table 12).

Housing under Construction

Housing under construction is generally considered as a lagging indicator for assessing the housing construction markets and also can be used to assess current construction employment and building material demand. 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.

Houses under construction improved steadily throughout quarter three, increasing 5.0% from quarter two and 16.5% year-over-year (SAAR) (Tables 1 and 2; Fig. 3). For additional comparison, the average number of houses under construction in the third quarter of 2014 was 21.1% less than the 1970–2008 average and 16.8% less than the 1970–2013 average (based on quarter three means) (Table 11). The third quarter houses under construction average was 18.7% less than the 1970–2008 average and 16.1% less than the 1970–2013 average (AR) (Table 12).

Table 1. Housing permits, starts, under construction, and completions, by year and by month (2014)[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	605.0	587	411.0	651.7
2011	610.7	609	417.7	585.2
2012	829.7	781	532.5	649.2
2013	990.8	925	688.7	764.4
		2014[c]		
Jan	1,002	888	713	847
Feb	1,030	951	716	872
Mar	1,061	963	725	911
Apr	1,074	1,039	743	826
May	1,017	986	754	903
Jun	1,033	927	768	797
Jul	1,041	1,095	790	861
Aug	1,040	966	793	905
Sep	1,053	1,026	796	948

[a]In thousands, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally adjusted annual rate.
Data source: Census Bureau (2015a).

Housing Completions

Number of housing completions indicates the quantity of houses finished and available for sale or rent. Normally, completions lag starts by 5 to 6 months. Analysts may use these data to develop sales estimates for consumer-based products, such as furniture and home appliances.

Housing completions improved steadily throughout quarter three, increasing 7.4% from quarter two and 18.1% Y/Y (Tables 1 and 2; Fig. 3). For further contrasts, the average number of houses completed was 41.0% less than in 1968–2008 average and 37.2% less than the 1968–2013 average (based on quarter three means) (Table 11). Comparing long-term averages, quarter three completions were 40.9% less than the 1968–2008 average and 37.2% less than the 1968–2013 average (AR) (Table 12).

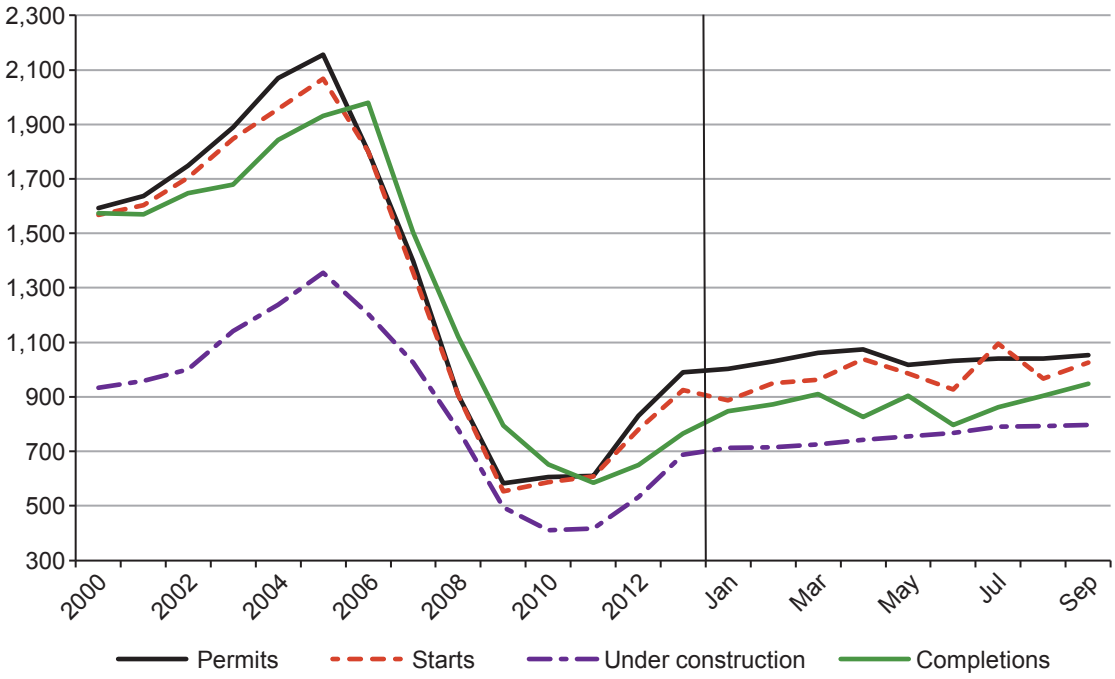

Figure 3. Total housing permits, starts, under construction, and completions, 2000–2014, in thousands. Seasonally adjusted annual rates for Quarter 3 (Q3), 2014. Data source: Census Bureau (2015a).

Table 2. Total quarterly and yearly comparisons, quarter three 2014 and 2013[a,b,c]

	2014 3-month running average	Change quarter-over-quarter (%)	2013 3-month running average	Change year-over-year (%)
Permits	1,044.7	0.3	982.7	6.3
Starts	1,029.0	4.6	883.0	16.5
Under construction	793.0	5.0	649.3	22.1
Completions	904.7	7.4	766.3	18.1

[a]In thousands, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally 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 construction has contributed about 2.25% to the U.S. GDP; however, since 2009, SF's portion has averaged about 1% (Bureau of Economic Analysis 2015b). Nonetheless, SF housing starts remain a valuable data subset for assessing the current status of the housing market. SF completions normally lag starts by 6 months to a year. SF data are used by the forest products industry and many other industries to gauge current and future housing activity.

In quarter three of 2014, SF housing improved as compared to the first two quarters of 2014. SF permits increased by 2.1% quarter-over-quarter (Q/Q) and 3.9% Y/Y (SAAR). SF starts increased 4.7% Q/Q and 8.7% Y/Y (SAAR), respectively. In the same time frame, SF houses under construction increased 5.0% Q/Q and 22.1% Y/Y (SAAR). SF completions also improved, recording 7.4% Q/Q and 18.1% Y/Y increases (SAAR) (Tables 3 and 4; Fig. 4).

For additional quarterly comparisons, the average number of SF permits issued in the third quarter of 2014 was 22.8% less than the 1960–2008 and 27.9% less than the 1960–2013 averages. SF starts were 40.7% less than the 1959–2007 and 37.1% less than the 1960–2013 averages. SF units under construction were 41.9% less than the 1970–2008 and 38.5% less than the 1970–2013 averages. SF completions were 43.2% less than the 1968–2008 and 39.6% less than the 1968–2013 averages (based on quarter three means) (Table 11).

Contrasting quarter three 2014 data to SF long-term averages, quarter three SF permits issued were 31.3% less than the 1960–2008 average and 28.2% less than the 1959–2013 average. SF starts were 40.1% less than the 1959–2007 average and 37.0% less than the 1959–2013 average. SF units under construction were 38.9% less than the 1970–2008 average and 36.5% less than the 1970–2013 average. SF completions were 43.4% less than the 1968–2008 average and 39.9% less than the 1968–2013 average (AR) (Table 12).

Table 3. Single-family (SF) housing permits, starts, under construction, and completions, by year (annual rate) and by month (seasonally adjusted annual rate) (2014)[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	377.3	818.8
2009	441.1	445	283.1	520.1
2010	447.0	471	247.3	496.3
2011	413.6	431	221.6	446.3
2012	518.7	535	267.7	483.0
2013	620.8	618	319.4	569.1
		2014[c]		
Jan	621	577	334	609
Feb	613	604	334	625
Mar	622	649	336	636
Apr	622	639	339	597
May	626	637	342	627
Jun	648	597	343	585
Jul	640	657	344	630
Aug	643	643	349	613
Sep	653	661	350	627

[a]In thousands, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally adjusted annual rate.
Data source: Census Bureau (2015a).

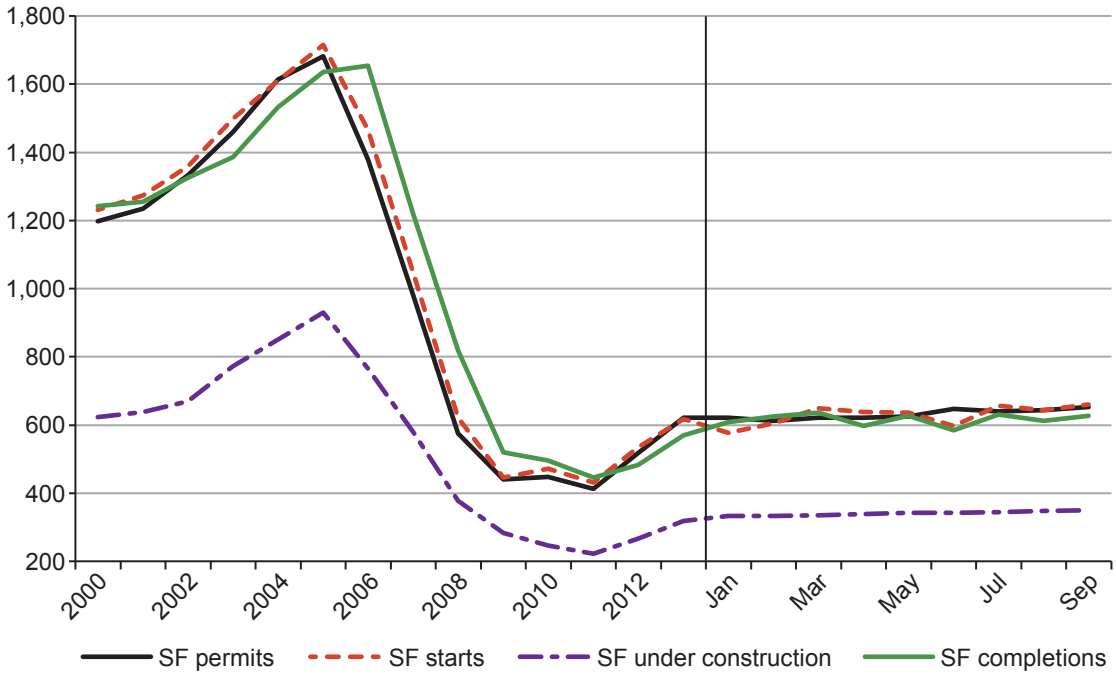

Figure 4. Total single-family housing permits, starts, under construction, and completions, 2000–2014, in thousands. Seasonally adjusted annual rates for Q3, 2014. Data source: Census Bureau (2015a).

Table 4. Single-family (SF) quarterly and yearly comparisons, quarter three of 2014 and 2013[a,b,c]

	2014 3-month running average	Change quarter-over-quarter (%)	2013 3-month running average	Change year-over-year (%)
SF permits	645.3	2.1	621.3	3.9
SF starts	653.7	4.7	601.3	8.7
SF under construction	347.7	1.9	319.7	8.8
SF completions	623.3	3.4	571.0	9.2

[a]In thousands, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally adjusted annual rate.
Data source: Census Bureau (2015a).

Multifamily Housing

In the third quarter of 2014, MF permits continued to provide stability to the housing construction sector as all facets of MF housing improved on a year-over-year basis. MF issued permits declined 2.4% Q/Q and increased 10.5% Y/Y (SAAR). MF starts increased 4.4% Q/Q and 33.3% Y/Y (SAAR). MF housing under construction increased 7.7% Q/Q and 35.1% Y/Y (SAAR). MF completions increased 17.7% Q/Q and 44.0% Y/Y (SAAR) (Tables 5 and 6; Fig. 5).

For additional comparison, the average number of MF permits issued in the third quarter of 2014 was 18.6% less than the 1960–2007 average and 15.8% less than the 1960–2013 average. MF starts were 14.8% less than the 1959–2008 average and 10.2% less than the 1959–2013 average. MF units under construction were 58.3% greater than the 1970–2008 average and 14.9% greater than the 1970–2013 average. MF completions were 35.3% less than the 1968–2008 average and 31.0% less than the 1968–2013 average (based on quarter three means) (Table 11).

Comparing quarter three averages to historical annual averages, MF issued permits were 18.6% less than the 1959–2008 average and 14.5% less than the 1959–2013 average. MF starts were 16.2% less than the 1959–2008 average and 11.1% less than the 1959–2013 average. MF units under construction were 9.5% greater than the 1970–2008 average and 12.2% greater than the 1970–2013 average. MF completions were 34.6% less than the 1968–2008 average and 30.3% less than the 1968–2013 average (AR) (Table 12).

Table 5. Multifamily (MF) housing permits, starts, under construction, and completions, by year (annual rate) and by month (seasonally adjusted annual rate) (2014)[a,b]

	MF permits	MF starts	MF under construction	MF completions
2000	394.2	338	310.4	334
2001	401.1	329	321.0	332
2002	415.1	346	332.3	315
2003	428.3	349	368.6	323
2004	456.6	345	386.8	292
2005	473.3	353	426.8	310
2006	460.7	336	440.2	296
2007	418.5	309	445.9	325
2008	329.8	284	403.7	284
2009	141.8	109	212.3	301
2010	157.0	116	163.8	274
2011	197.1	178	196.2	155
2012	267.7	245	264.9	166
2013	370.0	307	369.3	195
		2014[c]		
Jan	381	311	379	238
Feb	417	347	382	247
Mar	439	314	389	275
Apr	452	400	404	229
May	391	349	412	276
Jun	385	330	425	212
Jul	401	422	446	231
Aug	397	306	444	292
Sep	400	365	446	321

[a]In thousands, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally adjusted annual rate.
Data source: Census Bureau (2015a).

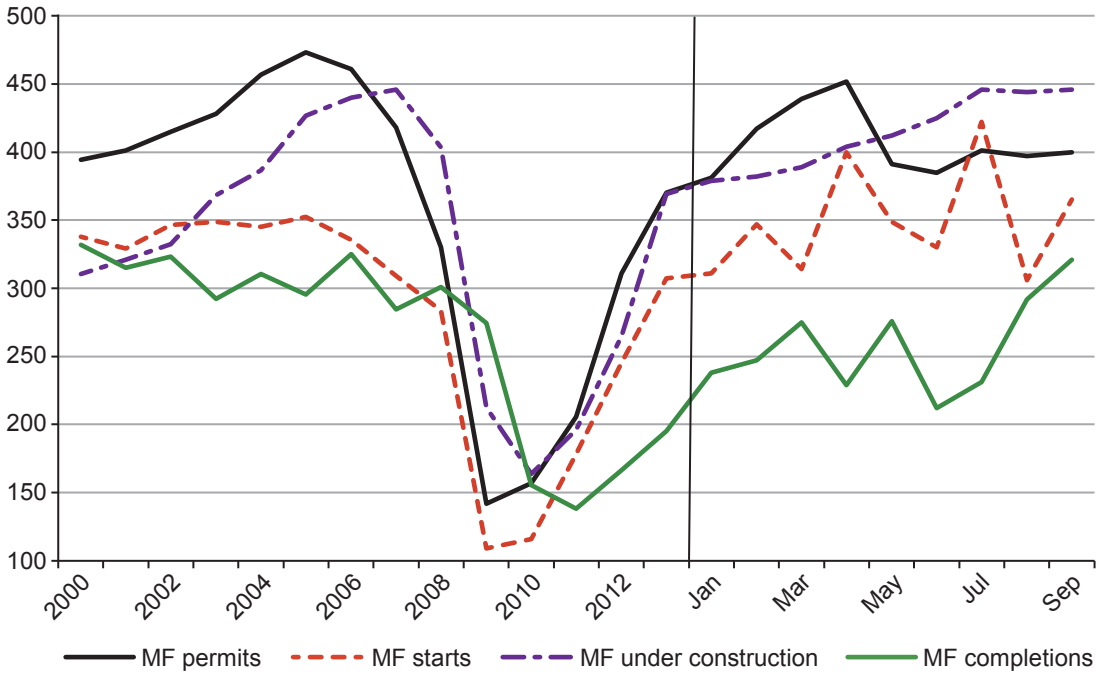

Figure 5. Total multifamily housing permits, starts, under construction, and completions, 2000–2014, in thousands. Seasonally adjusted annual rates for Q3, 2014. Data source: Census Bureau (2015a).

Table 6. Multifamily (MF) quarterly and yearly comparisons, quarter three of 2014 and 2013[a,b,c]

	2014 3-month running average	Change quarter-over-quarter (%)	2013 3-month running average	Change year-over-year (%)
MF permits	399.3	–2.4	361.3	10.5
MF starts	375.3	4.4	281.7	33.3
MF under construction	445.3	7.7	329.7	35.1
MF completions	281.3	17.7	195.3	44.0

[a]In thousands, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally 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 a critical market for the forest products industry because new houses utilize substantially more softwoods and wood composites (in the framing structure and subfloor) and hardwoods (in flooring, cabinets, and mouldings) than the residential renovation and multifamily subsectors.

New house sales in the third quarter of 2014 improved; new house sales increased 3.2% Q/Q and 13.9% Y/Y (SAAR) (Tables 7 and 8; Fig. 6). For additional comparison, the average number of new house sales in the third quarter of 2014 was 37.0% less than the 1963–2007 average and 33.5% less than the 1963–2013 average (based on quarter three means). Comparing quarter three new house sales to respective long-term averages, analysis results indicate that new house sales were 37.1% less than the 1963–2007 average and 33.5% less than the 1963–2013 average (AR).

Existing house sales provide insight to the current housing market and are important 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. In the third quarter, existing sales increased 3.5% Q/Q and decreased 5.0% Y/Y basis (SAAR) (Tables 7 and 8; Fig. 6) (National Association of Realtors 2015).

For further comparison, the average number of existing house sales in the third quarter was 9.2% less than the 1999–2007 average and 0.5% greater than the 1999–2013 average (based on quarter three means) (Table 11). Comparing quarter three existing house sales data to long-term annual averages, analysis results indicate that existing house sales were 9.4% less than the 1999–2007 average and 0.4% greater than the 1999–2013 average (AR) (Table 12).

Table 7. New and existing house sales, by year (annual rate) and by month (seasonally adjusted annual rate) (2014)[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	429	5,090
	2014[c]	
Jan	442	4,670
Feb	417	4,660
Mar	410	4,700
Apr	410	4,750
May	457	4,900
Jun	408	5,010
Jul	403	5,070
Aug	454	5,000
Sep	459	5,100

[a]In thousands, annual and monthly data
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally adjusted annual rate.
Data sources: Census Bureau (2015b), National Association of Realtors (2015).

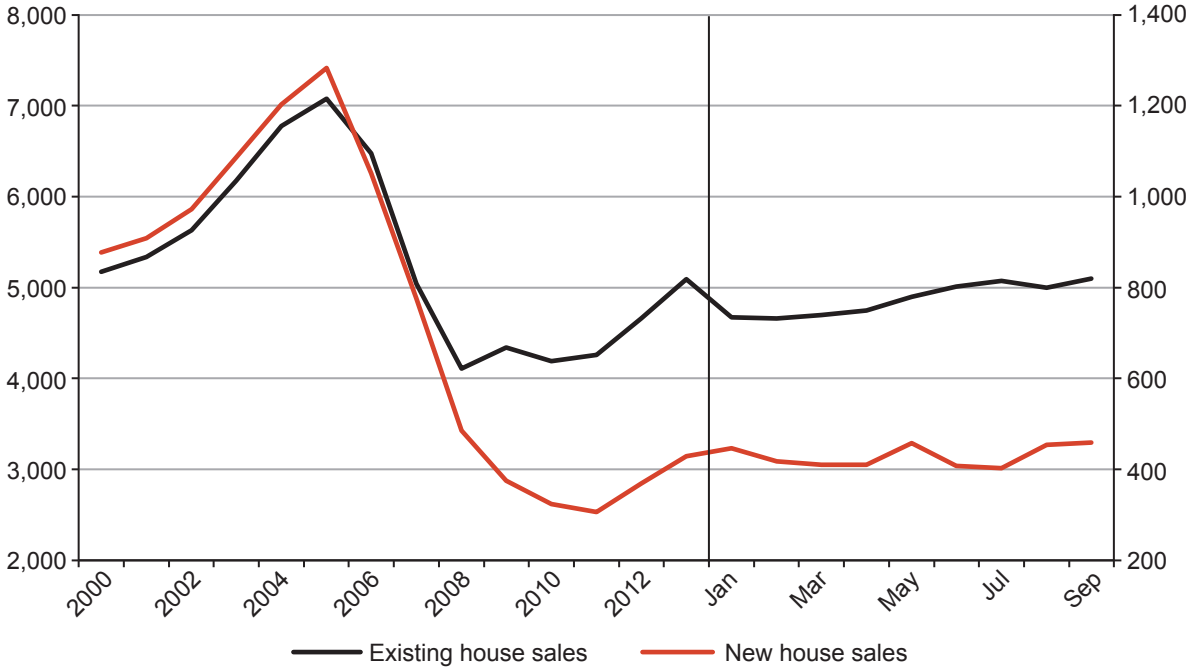

Figure 6. New (right-hand axis) and existing (left-hand axis) house sales, 2000–2014, in thousands. Seasonally adjusted annual rates for Q3, 2014. Data sources: Census Bureau (2015b), National Association of Realtors (2015).

Table 8. New and existing house sales, quarterly and yearly comparisons, quarter three of 2014 and 2013[a,b,c]

	2014 3-month running average	Change quarter-over-quarter (%)	2013 3-month running average	Change year-over-year (%)
New sales	438.7	3.2	385.0	13.9
Existing sales	5,056.7	3.5	5,323.3	–5.0

[a]In thousands, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally adjusted annual rate.
Data sources: Census Bureau (2015a), National Association of Realtors (2015).

Residential Construction Spending

Private residential construction (PRC) spending is important to assessing the overall condition of the housing market and is used in computing the U.S. GDP. In 2014 quarter three, PRC recorded a 0.7% decrease, SF expenditures rose 2.3%, MF spending increased 6.7%, and improvement expenditures decreased 9.0% on a Q/Q basis (SAAR). On a Y/Y basis, PRC recorded a 2.7% decrease, SF expenditures rose 10.6%, MF spending increased a robust 36.3%, and improvement expenditures decreased 29.1% (SAAR) (Tables 9 and 10; Fig. 7). Note that the U.S. Census Bureau does not directly report remodeling expenditures, and thus these outlays are interpolated.

For additional quarter three comparisons, PRC spending was 10.4% less than the 1993–2007 average and 12.7% greater than the 2008–2013 average. Single-family expenditures were 23.6% less than the 1993–2007 average and 31.7% greater than the 2008–2013 average. MF spending was 42.3% greater than the 1993–2008 average and 68.9% greater than the 2008–2013 average. Improvement expenditures were 7.7% greater than the 1993–2007 average and 20.0% less than the 2008–2013 average (based on quarter three means) (Table 11) (Census Bureau. 2015f).

On an annualized basis, 2014 PRC was 11.4% less than the 1993–2013 average. Single-family expenditures were 24.4% less than the 1993–2013 average. MF spending was 39.5% greater than the 1993–2013 average. Improvement expenditures were 6.5% greater than the 1993–2013 average (all AR) (Table 12).

Quarterly comparisons made on an inflation-adjusted basis — PRC spending was 63.2% of the 1993–2007 average, 0.8% more than the 2008–2013 average, and 71.7% of the 1993–2013 average. SF spending was 93.1% of the 1993–2007 average, 18.0% more than the 2008–2013 average, and 65.2% of the 1993–2013 average. MF spending was 3.8% greater than the 1993–2008 average, 50.7% greater than the 2009–2013 average, and 13.3% greater than the 1993–2013 average. Improvement spending was 75.6% of the 1993–2007 average, 71.4% of the 2008–2013 average, and 74.2% of the 1993–2013 average (all on a quarterly one basis) (Table 11).

Inflation-adjusted annual contrasts — PRC spending was 63.4% of the 1993–2007 average and 71.7% of the 1993–2013 average. SF spending was 93.5% of the 1993–2007 average and 65% of the 1993–2013 average. MF spending was 101.4% greater than the 1993–2008 average and 112.6% greater than the 1993–2013 average. Improvement spending was 75.7% of the 1993–2007 average and 74.5% of the 1993–2013 average (AR basis) (Table 12).

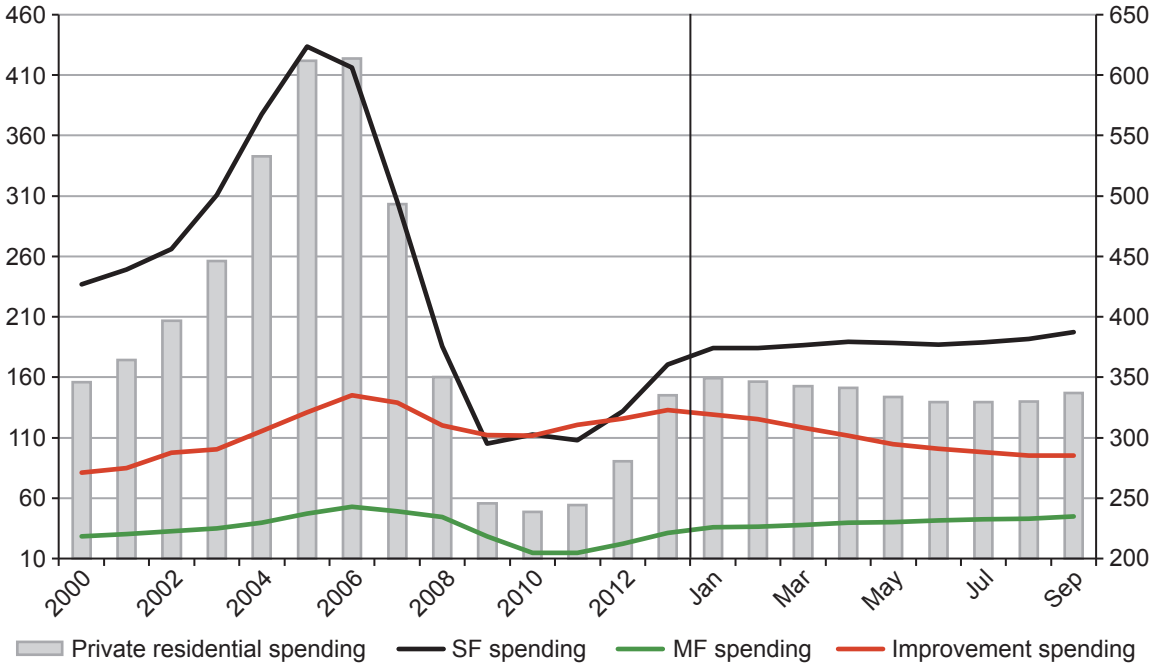

Figure 7. Construction spending, in millions of dollars, for total private residential, single-family, multifamily, and improvement spending, 2000–2014. SF, MF, and IS (left-hand axis); private residential spending (right-hand axis). Seasonally adjusted annual rates for Q3, 2014. Data sources: Census Bureau (2015c,d).

Table 9. Construction spending for total private residential spending, single-family (SF), multifamily (MF), and improvements by year (annual rate) and by month (seasonally adjusted annual rate) (2014)[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	315.4	28.3	41.4	81.1	118.7
2001	364.4	509.4	249.1	316.7	30.3	42.4	85.0	118.9
2002	396.7	541.2	265.9	329.9	33.0	45.0	97.9	133.5
2003	446.0	580.9	310.6	367.9	35.1	45.7	100.3	130.7
2004	532.9	648.6	377.6	417.9	39.9	48.6	115.4	140.5
2005	611.9	695.0	433.5	447.8	47.3	53.7	131.1	148.9
2006	613.7	658.7	416.0	406.0	52.8	56.7	144.9	155.5
2007	493.2	522.5	305.2	294.0	49.0	51.9	139.1	147.4
2008	350.3	376.5	185.8	181.6	44.3	47.7	120.1	129.2
2009	245.9	264.4	105.3	106.7	28.5	30.7	112.0	120.4
2010	238.8	266.1	112.6	114.5	14.7	16.4	111.6	124.3
2011	244.1	273.0	108.2	109.2	15.0	16.8	120.9	135.2
2012	280.6	311.4	132.0	132.0	22.5	25.0	126.1	139.9
2013	335.4	368.7	170.8	162.6	31.5	34.6	133.1	146.4
				2014[f]				
Jan	349.1		184.1		36.0		129.0	
Feb	346.4		184.2		36.6		125.6	
Mar	342.6		186.7		37.8		118.2	
Apr	341.1		189.5		40.0		111.6	
May	333.5		188.3		40.4		104.9	
Jun	329.5		186.9		41.7		100.9	
Jul	329.5		188.7		42.6		98.3	
Aug	330.2		191.9		42.9		95.2	
Sep	337.1		197.2		44.8		95.2	

[a]In millions of dollars, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Private residential spending = Single-family + Multifamily + Improvement.
[d]As provided by the Census Bureau's Survey of Construction.
[e]Seasonally adjusted annual rate.
[f]Annual spending estimated adjusted for the third quarter of 2014.
Data source: Census Bureau (2015c).

Table 10. Construction expenditure comparisons, quarter three of 2014 and 2013[a,b,c]

	2014 3-month running average	Change quarter-over-quarter (%)	2013 3-month running average	Change year-over-year (%)
Private residential[d]	332.2	–0.7	341.6	–2.7
Single-family	195.6	2.3	174.1	10.6
Multifamily	43.4	6.7	31.8	36.3
Improvement	96.2	–9.0	135.7	–29.1

[a]In millions of dollars, annual and monthly data.
[b]Data are for conventional housing and do not include mobile home shipments.
[c]Seasonally adjusted annual rate.
[d]Private residential spending = Single-family + Multifamily + Improvement.
Data source: Census Bureau (2015a).

Housing as a Component of GDP

As an important component of the U.S. GDP and overall economy, housing is typically valued by two discrete means. The National Association of Homebuilders defines housing's contribution to the GDP as follows: "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 includes utilities) paid by renters and owners' imputed rent (an estimate of how much it would cost to rent owner-occupied units), and utility payments. Historically, residential investment has averaged roughly 5% of GDP, whereas housing services have averaged between 12% and 13%, for a combined 17% to 19% of GDP. These shares tend to vary during business cycles" (National Association of Homebuilders 2015) (Fig. 8).

Although these are direct measures of housing's economic impact, these estimates unintentionally mask the influence of housing construction on allied economic networks. First, in the early stages of a business cycle recovery, residential construction stimulates about 20% of all economic growth. Second, construction is credited with influencing local government revenue, engenders substantial employment (in recent decades, in the millions), increases building materials and home furnishings purchases, and enhances the consumer wealth effect (Lascelles 2012). Banking, mortgage finance, and the financial sector also are components of the housing economy.

In the third quarter of 2014, housing construction's aggregate share of U.S. GDP remained less than its historical range. In quarter three, it was estimated that housing comprised 15.3% of the U.S. GDP (residential fixed investment was 3.1% and housing services were 12.2%) (Fig. 8) (Bureau of Economic Analysis 2015b, National Association of Homebuilders 2015).

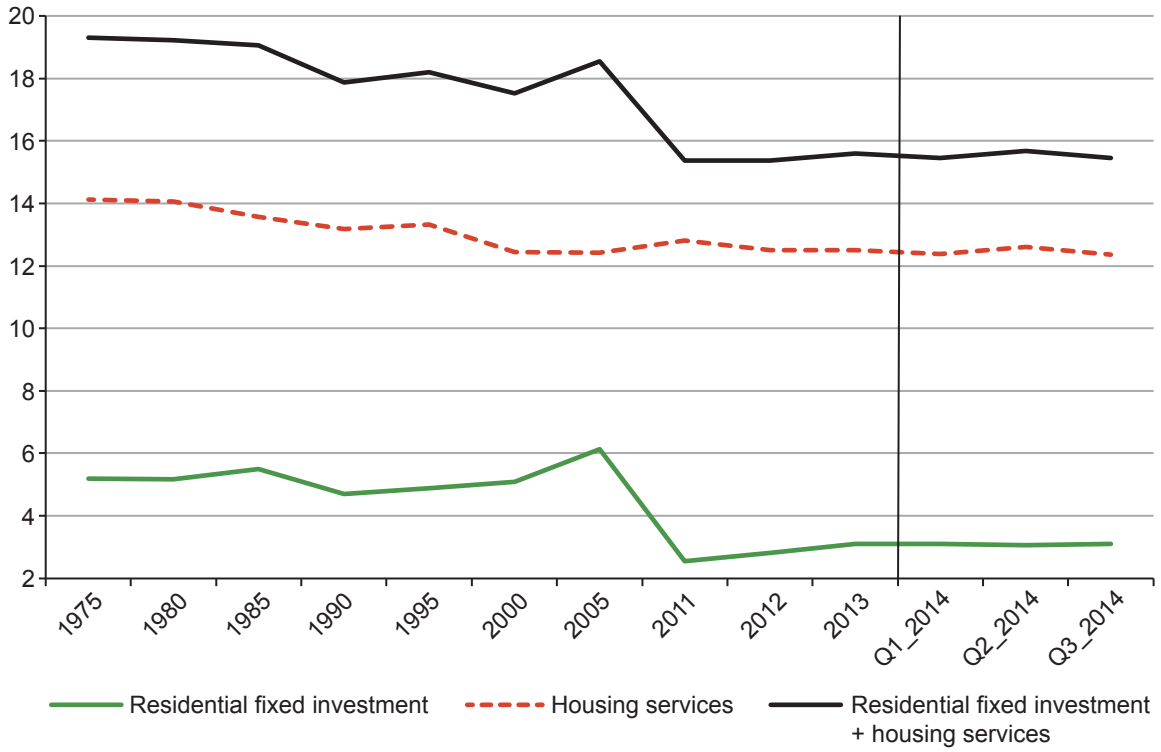

Figure 8. Contribution of housing to GDP, in percentage of total GDP, 1975–2014. Seasonally adjusted annual rates for Q3, 2014. Data sources: Bureau of Economic Analysis (2015b), National Association of Homebuilders (2015).

Table 11. Third quarter construction averages[a,b,c,d]

	Time period	Quarter 3	Quarter 3 2014	Time period	Quarter 3
Total permits	1960–2008	1,434.5	1,044.7	1960–2013	1,369.4
Total starts	1959–2007	1,546.6	1,029.0	1959–2013	1,456.3
Total under construction	1970–2008	1,004.9	793.0	1970–2013	952.7
Total completions	1968–2008	1,532.7	904.7	1968–2013	1,440.5
SF permits	1960–2008	936.2	645.3	1960–2013	895.2
SF starts	1959–2007	1,102.7	653.7	1959–2013	1,038.6
SF under construction	1970–2008	598.9	347.7	1970–2013	565.1
SF completions	1968–2008	1,097.7	623.3	1968–2013	1,032.8
MF permits	1960–2007	502.2	399.3	1960–2013	474.2
MF starts	1959–2008	440.6	375.3	1959–2013	417.7
MF under construction	1970–2008	406.0	445.3	1970–2013	387.6
MF completions	1968–2008	435.0	281.3	1968–2013	407.7
New house sales	1963–2007	696.2	438.7	1963–2013	659.3
Existing house sales[e]	1999–2007	5,862.2	5,323.3	1999–2013	5,297.6

	Time period	Reported	Adjusted[g]	Time period	Reported	Adjusted[g]
Private residential spending[f]	1993–2007	376.7	524.1	2008–2013	280.9	311.5
SF spending	1993–2007	255.4	355.3	2008–2013	134.7	149.2
MF spending	1993–2007	90.8	126.8	2008–2013	120.3	133.7
Improvement spending	1993–2008	31.4	42.4	2009–2013	22.1	24.5

	Time period	Reported	Adjusted[g]	Quarter 3 2014
Private residential spending[f]	1993–2013	349.3	463.4	332.2
SF spending		220.9	296.4	193.6
MF spending		99.3	128.8	96.2
Improvement spending		29.2	38.2	43.4

[a]The time periods selected begin with initiation of modern data collection and end with the year generally recognized as the start of the housing crash.
[b]Annualized monthly data, in thousands and in millions of dollars.
[c]Data are for conventional housing and do not include mobile home shipments.
[d]Average of quarter three monthly data.
[e]National Association of Realtors (2015); not seasonally adjusted.
[f]Private residential spending = Single-family + Multifamily + Improvement; in millions.
[g]Annual spending estimates, adjusted for the third quarter of 2014. 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		
	1959–2013	1969–2013	1968–2013		
Total permits	1,366.1				
Total starts	1,457.4				
Total under construction		944.8			
Total completions			1,440.3		
	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		
	1959–2013	1969–2013	1968–2013		
SF permits	898.5				
SF starts	1,038.4				
SF under construction		547.8			
SF completions			1,036.7		
	1959–2008	1964–2008	1969–2008	1968–2008	
MF permits	490.7				
MF starts		447.8			
MF under construction			406.6		
MF completions				430.1	
	1959–2013	1963–2013	1969–2013	1968–2013	
MF permits	467.1				
MF starts		422.2			
MF under construction			397.0		
MF completions				403.6	
	1963–2007	1963–2013	1999–2007	1999–2013	
New house sales	697.1	659.9			
Existing house sales[d]			5,873.6	5,300.8	
	1993–2007	Adjusted[f]	1993–2013	Adjusted[f]	Quarter 3 2014
Private residential spending[e]	375.1	466.1	348.7	413.0	332.2
SF spending	254.7	316.3	220.7	264.4	192.6
Improvement spending	90.3	112.7	98.9	114.7	96.2
	1993–2008	Adjusted	1993–2013	Adjusted	Quarter 3 2014
MF spending	31.1	37.5	29.1	33.9	43.4

[a]The time periods selected begin with initiation of modern data collection and end with the year generally recognized as the start of the housing crash.
[b]In thousands and in millions of dollars, annual data.
[c]Data are for conventional housing and do not include mobile home shipments.
[d]Not seasonally adjusted.
[e]Private residential spending = Single-family + Multifamily + Improvement; in millions.
[f]Annual spending estimates, adjusted for the fourth quarter of 2014. 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 (2015a).

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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.