

BEA BRIEFING

How BEA Accounts for Investment in Private Structures

By Paul R. Lally

WHILE the term “investment” popularly means buying financial assets in hopes of a capital gain, the economic concept of investment refers to the creation of productive assets—a company building a new plant, for example, or a new home. Such spending on new assets adds to the nation’s capital stock, which is used in turn to produce other goods and services. Investment is thus a key component of gross domestic product (GDP), which measures current production in the economy, and a perennial object of scholarly interest.

This *BEA Briefing* offers a guide to an important component of private business investment: structures. It also discusses recent improvements to the Bureau of Economic Analysis (BEA) statistics on investment in structures, which now better reflect productivity and quality changes.

Private investment in structures, as defined by the national income and product accounts (NIPAs), generally includes domestic spending on structures by private businesses, households, and nonprofit institutions regardless of whether the asset is owned by U.S. residents. Structures can be thought of as products that are usually constructed at the location where they will be used and that typically have long economic lives.

BEA generally relies on tax accounting conventions regarding assets that can be depreciated as a rough guide in determining what kind of spending is considered investment in the national economic accounts.¹

As defined by the NIPAs, most (but not all) structures are buildings. Accordingly, BEA classifies structures investment as either nonresidential or residential. Nonresidential investment consists of new construc-

tion and improvements to existing structures in commercial and health care buildings, manufacturing buildings, power and communication structures, and other structures. Residential investment includes new construction of single-family homes and multifamily homes and spending on other residential structures.²

The value of structures also includes equipment installed as part of the structure, such as elevators or heating and air-conditioning systems.

In the NIPAs, private investment in new construction is measured mainly as the sum of the costs of inputs of all construction “put in place,” that is, all construction activity completed in a given period. For individual projects, BEA’s measure of investment in structures includes the following:

- Cost of materials installed or erected
- Cost of labor and the cost of construction equipment rental for the period
- Cost of architectural and engineering work
- Miscellaneous overhead and office costs incurred by the project’s owners
- Interest and taxes paid during construction
- Contractors’ profits³

To these measures of construction activity, BEA adds the following:

- **Brokers’ commissions on the sale of new and used structures.** These commissions are considered part of the total price paid by the purchasers for the structure and are thus counted as part of the value of investment.

1. Tax accounting conventions are not a perfect guide to capital spending in the NIPAs. There are cases where spending is considered as investment in the NIPAs but not according to the tax code. For example, exploration and drilling costs associated with “dry” oil and gas wells are treated as investment in the NIPAs but as expenses in tax accounting. The use of business tax accounting conventions as a guide could result in a somewhat arbitrary classification of individual items as investment because business accounting practices do not treat all items identically from one business to another or from one period to another, while the NIPAs treat investment consistently across businesses. For example, businesses expense the purchase of certain software; in the NIPAs, all software purchases are treated as investment.

2. In the NIPAs, spending on new residential housing is counted as investment. However, separate calculations account for the capital services that flow from residential housing. These services represent the ongoing economic value that is generated by these assets. The rentals actually paid for tenant-occupied housing are accounted for as personal consumption expenditures and income for the business sector, and an imputed rental for owner-occupied housing is also accounted for as personal consumption expenditures and income for the household sector. The NIPA calculation for owner-occupied housing essentially treats homeowners as if they charged themselves rent for their homes. This treatment keeps GDP invariant as to whether housing is owned or rented.

3. Contractors’ profits do not apply to “own-account construction,” which is included in the NIPA measure of private structures investment. Such construction refers to construction activity performed by companies for their own use.

- **Net purchases of used structures from the government sector.** In general, ownership changes do not reflect current construction activity. But when a transaction for a used building occurs between the private and government sectors, the NIPAs record the activity. By definition, these purchases net to zero. They are included to record the transfer of assets between the public and private sectors to accurately value the net stock of capital.
- **Improvements to structures.** These capital expenditures add to the value or useful life of a property and are thus treated as part of investment in structures. Nonresidential improvements are included with new construction but are not separately identified. Residential improvements are separately measured.
- **Mining exploration, shafts, and wells.** This category includes exploration and development expenditures related to the construction of mine shafts and the drilling of oil and gas wells. It also includes expenditures for dry (unsuccessful) wells.
- **“Other” investment.** This category includes investment in mobile structures and manufactured homes.

Historically, structures investment has accounted for about half of total private investment and about 10 percent of GDP. However, since the first quarter of 2006, private investment in structures' share of current-dollar GDP has been steadily decreasing, from 9.1 percent in the first quarter of 2006 to 7.1 percent in the fourth quarter of 2008 (table 1).

Table 1. Private Fixed Investment in Structures as a Share of Current-Dollar Gross Domestic Product
[Percent]

	All structures	Non-residential structures	Residential structures
2006: I	9.1	2.9	6.2
II	9.0	3.1	5.9
III	8.7	3.2	5.5
IV	8.4	3.2	5.2
2007: I	8.3	3.3	4.9
II	8.1	3.4	4.7
III	7.9	3.5	4.4
IV	7.6	3.6	4.0
2008: I	7.4	3.7	3.7
II	7.3	3.8	3.5
III	7.2	4.0	3.3
IV	7.1	4.1	3.0

NOTE. Shares of nonresidential structures and of residential investment (mainly structures, but including residential equipment) are shown in NIPA table 1.1.10.

Recently, structures investment has generally been a drag on real GDP growth, largely because of reduced investment in residential buildings. From the first quarter of 2006 to the fourth quarter of 2008, real investment in residential housing subtracted from growth in each quarter, while real investment in nonresidential structures added to growth in all quarters except the fourth quarter of 2008 (table 2). In the

Table 2. Contributions to Percent Change in Real Gross Domestic Product by Private Fixed Investment in Structures
[Percentage points]

	All structures	Non-residential structures	Residential investment
2006: I	0.19	0.42	-0.23
II	-0.57	0.54	-1.11
III	-0.98	0.42	-1.40
IV	-1.10	0.08	-1.18
2007: I	-0.56	0.35	-0.91
II	-0.03	0.57	-0.60
III	-0.41	0.65	-1.06
IV	-1.04	0.29	-1.33
2008: I	-0.82	0.30	-1.12
II	0.12	0.64	-0.52
III	-0.24	0.36	-0.60
IV	-0.92	-0.07	-0.85

NOTE. Contributions of nonresidential structures and of residential investment (mainly structures, but including residential equipment) are shown in NIPA table 1.1.2.

fourth quarter of 2008, residential housing investment subtracted 0.85 percentage point, while nonresidential investment subtracted 0.07 percentage points. What's more, from the first quarter of 2006 to the fourth quarter of 2008, residential investment's share of GDP has dropped from 6.2 percent to 3.0 percent (table 1).

BEA produces statistics on structures investment as part of its GDP estimates. Quarterly and annual summary statistics on private investment in structures are presented in NIPA tables 1.1.1–1.1.10 and classified by type in tables 5.3.1–5.3.6. More detailed annual statistics for private investment in structures are presented in NIPA tables 5.4.1B–5.4.6B. In addition, more statistics are included in underlying detail tables.

Source data

BEA relies on Census Bureau statistical reports on construction spending as the primary source data for estimating investment in structures. BEA and the Census Bureau estimates generally share similar construction activity classifications. However, BEA measures investment in some structures for which Census

Bureau construction data are not available. In such cases, BEA uses data from other sources. For example, to measure investment in petroleum and natural gas mining, BEA relies on data about drilling footage and cost per foot from a trade group (the American Petroleum Institute).

Quarterly current-dollar estimates

In general, BEA relies on “value” or “expenditures” data, that is, information that encompasses both the quantity and price elements that are required to calculate current-dollar estimates.

In most cases, construction spending data are available from the Census Bureau. BEA uses these data to extrapolate quarterly estimates on a “best-change” basis, which means that BEA simply applies a percent change in the indicator for the type of investment being measured. For example, BEA’s quarterly single-family residential structures investment is determined by applying the growth rate of the Census Bureau estimate of construction spending for single-family residential units to BEA’s estimate from the previous quarter.⁴ For a listing of the component categories that are individually measured, see table 3.

In cases where value data are not available from the Census Bureau, notably for petroleum and natural gas mining structures, BEA relies on data about prices and quantities from other information sources. For example, a “physical quantity times price” method is used to calculate a current-dollar estimate of petroleum and natural gas shafts and wells.

Quarterly price and quantity estimates

Deflation. After current-dollar estimates are calculated, BEA uses various price measures to convert the current-dollar measures to “real” or inflation-adjusted quantity measures. For most components, simple deflation is used for this; a quantity index for each detailed component is obtained by dividing the most detailed current-dollar index by an appropriate price index that has the base year—currently 2000—equal to 100 and then by multiplying the result by 100. In some cases, a direct valuation method is used. For petroleum and gas mining, for example, quantity indexes are obtained by multiplying the base-year price by actual quantity data for the period. The result is then expressed as an index with the base year equal to 100.

Price indexes. To deflate individual components,

4. See the box “Incorporating Source Data on the Basis of ‘Best Change’” in Eugene P. Seskin and David F. Sullivan, “Annual Revision of the National Income and Product Accounts,” SURVEY OF CURRENT BUSINESS 80 (August 2000): 16.

BEA uses a variety of price measures from the Census Bureau, the Bureau of Labor Statistics, and trade sources. In addition, BEA calculates some indexes. Table 3 lists the price indexes used to prepare the quarterly estimates of private investment in structures.

Because GDP measures output, BEA generally prefers to use indexes that capture price changes of output; using input costs indexes assumes that the output prices are changing at exactly the same rate as input costs. This does not capture the effect of changing productivity. In addition, a longstanding goal of BEA has been to use, when possible, price measures that have been adjusted for quality changes, which most economists recommend.

In some important cases, BEA has long used indexes that account for both quality changes and output prices. For example, BEA incorporated the Census Bureau’s single-family price index in 1968 and the multi-family price index in 1993.

In recent years, BEA has benefited from more appropriate price measures, notably new producer price indexes (PPIs) from the Bureau of Labor Statistics (BLS) that measure output prices and are quality adjusted. BLS released a warehouse PPI in 2005, a new school building PPI in 2006, a new office building PPI in 2007, and a manufacturing and industrial building PPI in 2008. All were incorporated by BEA in the following annual revisions.

For some components, however, output price indexes are unavailable. In such cases, BEA combines an input cost measure with an output cost measure in an effort to reflect some of the productivity and quality changes in the construction industry and the costs for a particular building category. For hospitals, for example, BEA combines the Census Bureau’s single-family houses under construction index with the Turner Construction Company building cost index. The former index reflects the productivity and quality change of the industry; the latter index reflects the costs associated with building construction.

For some categories, combining a nonresidential cost index with a residential output index is not appropriate. In such cases, BEA uses trade-based cost indexes. For utilities and communication, for example, cost indexes are used.

Aggregated estimates

For all aggregated quarterly and annual components, BEA uses its familiar Fisher chain-type formula to produce real estimates. The procedure uses prices and quantities from specific components to compute a so-called chained index. For more details about how the

Table 3. Source Data and Price Indexes for the Quarterly Estimates of Private Fixed Investment in Structures by Type—Continues

Component	Major source data	Price index used to deflate the estimates	Description of the price index
Private fixed investment in structures			
Nonresidential			
Commercial and health care			
Office ¹	Census Bureau monthly construction survey.	BLS PPI for office building construction.	This PPI measures the quality-adjusted cost for new office building construction.
Health care			
Hospitals and special care			
Hospitals	Census Bureau monthly construction survey.	An unweighted average of Census Bureau's single-family houses under construction index and the Turner Construction Company building cost index.	The Census Bureau index measures quality-adjusted changes in the prices of new single-family homes under construction. The building cost index is a price index for national building construction costs.
Special care	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Medical buildings	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Multimerchandise shopping	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Food and beverage establishments	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Warehouses	Census Bureau monthly construction survey.	BLS PPI for warehouses.	This PPI measures the quality-adjusted cost for new warehouse construction.
Other commercial ²	Census Bureau monthly construction survey.	Weighted average of the BLS PPI for warehouses and the BLS PPI for mobile structures.	The PPI for warehouses is described above. The PPI for mobile structures measures the changes in prices for mobile structures.
Manufacturing	Census Bureau monthly construction survey.	BLS PPI for industrial buildings.	This PPI measures the quality-adjusted cost for new industrial building construction.
Power and communication			
Power			
Electric	Census Bureau monthly construction survey.	A three-quarter moving average of the Bureau of Reclamation composite index.	This index is a weighted average of costs of labor, materials, and equipment furnished by contractors for work on dams, pumping plants, steel penstocks, and discharge pipes, canals and conduits, laterals and drains, hydroelectric power plants, concrete pipelines, switch yards and substations, transmission lines, general property, and roads and bridges in 17 western states.
Other power ³	Census Bureau monthly construction survey.	An unweighted average of the three-quarter moving average of the Bureau of Reclamation composite index and the BLS PPI for steel pipe and tubes.	The Bureau of Reclamation index is described above. The BLS PPI measures change in the price of steel pipe and tubes.
Communication	Census Bureau monthly construction survey.	<i>Engineering News Record</i> construction cost index.	This index is based on prices for materials and the common labor rate.
Mining exploration, shafts, and wells			
Petroleum and natural gas	Footage drilled and cost per foot from trade source extrapolated by BLS PPI for oil and gas wells.	A weighted average of BLS PPI for drilling oil and gas wells and BLS PPI for oil and gas field services.	These indexes measure changes in prices of drilling oil and gas wells and of oil and gas field services.
Mining	Extrapolated from BEA data on private investment in mining equipment.	Same as those used for hospitals.	
Other structures			
Religious	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Educational and vocational	Census Bureau monthly construction survey.	BLS PPI for new school construction.	This PPI measures the quality-adjusted costs of new school construction.
Lodging	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Amusement and recreation	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Transportation			
Air	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Land ⁴	Census Bureau monthly construction survey.	Weighted average of BLS employment cost index (ECI) for construction industry, Bureau of Reclamation construction cost trends for bridges and for power plants, the BLS PPIs for material and supply inputs into construction industries, BLS PPI for other communication equipment, and the price indexes used for hospitals.	The BLS employment cost index measures labor costs. The Bureau of Reclamation construction cost trends index tracks costs such as contractor labor and equipment costs for the Bureau's construction projects. The PPI for material and supply inputs measure prices of input commodities, and the PPI for other communication equipment measures prices of signal equipment.
Farm	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Other ⁵	Census Bureau monthly construction survey.	A weighted average of the prices used for electric and the Federal Highway Administration composite index for highway construction.	The Federal Administration composite index is derived from average unit bid prices for fixed amounts of common excavation, surfacing, and structures.
Brokers' commissions on sale of structures	Trend-based BEA data.	BLS PPI for real estate brokerage, nonresidential property sales and rental including land sales and rental.	This PPI measures changes in real estate brokerage fees received from nonresidential property sales and rental.
Net purchases of used structures ⁶	Trend-based BEA data.	An unweighted average of the implicit price deflators for nonresidential buildings, for utilities, for farm buildings, and for other private structures.	These implicit deflators reflect the types of building bought and sold by the private sector.

See the footnotes at the end of the table.

Fisher index is computed, see “Chained-Dollar Indexes: Issues, Tips on Their Use, and Upcoming Changes,” SURVEY 83 (November 2003): 8–16.

Annual estimates

As part of the annual revision of the NIPAs released every July, BEA releases revised annual estimates—current dollar and real—of investment in structures for the previous 3 years. The 2008 annual revision, for example, included revised estimates for 2005–2007. Those estimates were based on the most recent data from the Census Bureau and other sources (table 4). Like the quarterly estimates, BEA’s estimates for all components of structures are made on a “best-change” basis. So if a Census Bureau type of construction value increases 5 percent from 1 year to the next, BEA’s corresponding measure will also increase 5 percent. In addition, the same deflation methods are generally used for quarterly and annual estimates.

As part of the annual revision, revised quarterly estimates for the previous 3 years are released as well.

Future directions

BEA plans to work closely with BLS on improving price measures. Recently, BEA and BLS staff have discussed ways that nonresidential building construction price indexes might be improved. BEA has suggested price indexes for highways, hospitals, retail, communication, power, and lodging structures. BEA is also working with the Census Bureau to fill gaps in data. Recently, the Census Bureau lost funding for the Survey of Residential Alterations and Repair, which provided data on improvements made to rental and vacant property.

For the 2009 benchmark revision, BEA plans to reclassify its historical estimates of nonresidential structures to a classification by function. This would create a consistent time series by removing a discontinuity that arose from the 2003 benchmark revision, for which BEA changed its estimates of structures beginning with 1997 to reflect changes in the Census Bureau classification of the value of construction from a classification by function instead of by type.

Table 3. Source Data and Price Indexes for the Quarterly Estimates of Private Fixed Investment in Structures by Type—Table Ends

Component	Major source data	Price index used to deflate the estimates	Description of the price index
Residential			
Permanent site			
Single-family structures.....	Census Bureau monthly construction survey.	Census Bureau's price index for single-family houses under construction.	This index measures quality-adjusted changes in the price of new single-family homes under construction.
Multifamily structures	Census Bureau monthly construction survey.	Same as that used for single-family structures.	
Other structures			
Manufactured homes	Shipments from trade source and average retail prices from Census Bureau monthly survey.	BLS PPI for mobile structures.	This PPI measures changes in the prices of new mobile homes.
Dormitories	Census Bureau monthly construction survey.	Same as that used for single-family structures.	
Improvements	Trend-based BEA estimate.	An unweighted average of Census Bureau price index for single-family houses under construction index, BLS PPI for home maintenance and repair construction, and BLS ECI for construction industry.	The Census Bureau index is described above, the PPI measures the cost of residential home maintenance and repair, and the ECI measures in labor costs.
Brokers' commissions on sale of structures	Number of single-family houses sold and mean sales price from Census Bureau monthly survey and trade source.	BLS PPI for real estate brokerage, residential property sales and rental.	This PPI measures changes in real estate brokerage fees received from residential property sales and rental.
Net purchases of used structures ⁶	Trend-based BEA data.	Same as that used for single-family structures.	

1. Consists of office buildings, except those constructed at manufacturing sites and those constructed by power utilities for their own use.

2. Consists of auto dealerships, garages except those for buses and trucks, service stations, drug stores, restaurants, mobile structures, and other structures used for commercial purposes by the retail, wholesale, and selected service industries.

3. Consists of gas plants, pipelines, and solar power plants.

4. Consists primarily of railroads, but also includes garages for buses and trucks.

5. Includes water supply, sewage and waste disposal, public safety, highway and street, and conservation and development.

6. Net purchases of used structures include net purchases from federal and state and local governments.

BLS Bureau of Labor Statistics
PPI Producers' price index
ECI Employment cost index

Table 4. Source Data and Price Indexes for Annual Estimates of Private Fixed Investment in Structures by Type—Continues

Component	Major source data	Price index used to deflate the estimates	Description of the price index
Private fixed investment in structures			
Nonresidential			
Commercial and health care			
Office ¹	Census Bureau monthly construction survey.	BEA price index for office buildings.	This quality-adjusted index measures changes in costs and is derived using ordinary least squares hedonic regressions based on square foot costs data from the R.S. Means Company.
Health care			
Hospitals and special care			
Hospitals.....	Census Bureau monthly construction survey.	An unweighted average of Census Bureau's single-family houses under construction index and a Turner Construction Company building cost index.	The Census Bureau index measures quality-adjusted changes in the price of new single-family homes under construction. The building cost index is a price index for national building construction costs based on current cost.
Special care.....	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Medical buildings.....	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Multimerchandise shopping.....	Census Bureau monthly construction survey.	BLS PPI for warehouses.	This PPI measures the quality-adjusted cost for new warehouse construction.
Food and beverage establishments.....	Census Bureau monthly construction survey.	Same as those used for multimerchandise shopping.	
Warehouses.....	Census Bureau monthly construction survey.	Same as those used for multimerchandise shopping.	
Other commercial ²	Census Bureau monthly construction survey and judgemental trend.	Same as that used for warehouses and BLS price index for mobile structures.	This PPI measures changes in the prices of new residential mobile homes.
Manufacturing	Census Bureau monthly construction survey.	BEA price index for factories.	This quality-adjusted index measures changes in costs. It is derived using ordinary least squares hedonic regressions based on square foot costs data from the R.S. Means Company.
Power and communication			
Power			
Electric.....	Census Bureau monthly construction survey.	Weighted average of Handy-Whitman price indexes for electric light and power plants and utility buildings.	These indexes are based on prices for materials, labor costs, and prices of mechanical and electrical equipment for steam operated electric plants in six regions and for reinforced concrete buildings and brick buildings in six regions.
Other power ³	Census Bureau monthly construction survey.	Handy-Whitman price index for gas plants.	This index is based on prices for materials, labor costs, and prices of mechanical and electrical equipment for gas plants in six regions.
Communication.....	Census Bureau monthly construction survey.	AUS Telephone Plant index.	This index is derived from data from operating companies and suppliers on construction methods, plant investment, and component costs.
Mining exploration, shafts, and wells			
Petroleum and natural gas.....	Footage drilled and cost per foot from trade sources extrapolated by BLS producer price index for oil and gas wells.	Weighted average of BLS PPIs for drilling oil and gas wells and for oil and gas field services.	These indexes measure changes in prices received by domestic producers.
Mining.....	Census Bureau annual capital expenditures survey.	Same as those used for hospitals.	
Other structures			
Religious.....	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Educational and vocational.....	Census Bureau monthly construction survey.	BLS PPI for new school construction.	This PPI measures the quality-adjusted cost for new school construction.
Lodging.....	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Amusement and recreation.....	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Transportation			
Air.....	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Land ⁴	Census Bureau monthly construction survey.	Weighted average of BLS employment cost index (ECI) for construction industry, Bureau of Reclamation construction cost trends for bridges and for power plants, the BLS PPIs for material and supply inputs into construction industries, BLS PPI for other communication equipment, and the price indexes used for hospitals.	The BLS employment cost index measures labor costs. The Bureau of Reclamation construction cost trends index tracks costs such as contractor labor and equipment costs for the Bureau's construction projects. The PPI for material and supply inputs measures prices of input commodities, and the PPI for other communication equipment measures prices of signal equipment.
Farm.....	Census Bureau monthly construction survey.	Same as those used for hospitals.	
Other ⁵	Census Bureau monthly construction survey.	An unweighted average of the Handy-Whitman water utility plant index, Federal Highway Administration composite index for highways, and those used for hospitals.	The Handy-Whitman water utility plant index is based on prices for materials, labor costs, and prices of mechanical and electrical equipment for water utilities in six regions.
Brokers' commissions on sale of structures.....	Trend-based estimates.	BLS PPI for real estate brokerage, nonresidential property sales and rental including land sales and rental.	This PPI measures changes in real estate brokerage fees received from nonresidential property sales and rental.
Net purchases of used structures ⁶	BEA government fixed asset accounts.	An unweighted average of the implicit price deflators for nonresidential buildings, for utilities, for farm buildings, and for other private structures.	These implicit price deflators reflect the types of buildings bought and sold by the private sector.

See the footnotes at the end of the table.

Table 4. Source Data and Price Indexes for Annual Estimates of Private Fixed Investment in Structures by Type—Table Ends

Component	Major source data	Price index used to deflate the estimates	Description of the price index
Residential			
Permanent site			
Single-family structures.....	Census Bureau monthly construction survey.	Census Bureau price index for single-family houses under construction index.	This index measures changes in the price of new single-family homes under construction.
Multifamily structures	Census Bureau monthly construction survey.	Census Bureau price index for multifamily houses under construction.	This index measures changes in the price of new multi-family homes under construction.
Other structures			
Manufactured homes	Shipments from trade source and average retail price from Census Bureau monthly survey.	BLS PPI for mobile structures.	This PPI measures changes in the prices of new mobile homes.
Dormitories	Census Bureau monthly construction survey.	Same as that used for single family structures	
Improvements	Census Bureau survey of residential alterations and repair and survey of consumer expenditures.	Average of the Census Bureau index for single-family houses under construction, BLS PPI for home maintenance and repair, and BLS employment cost index for construction industry.	See single-family structures for a description of the Census Bureau index. The BLS employment cost index measures labor costs in the construction industry. The PPI measures the cost of residential home maintenance and repair.
Brokers' commissions on sale of structures	Number of single-family houses sold and mean sales price from Census Bureau monthly construction survey and trade source.	BLS PPI for real estate brokerage, residential property sales and rental.	This PPI measures changes in real estate brokerage fees received from residential property sales and rental.
Net purchases of used structures ⁶	BEA government fixed asset accounts.	Same as that used for single family structures.	

1. Consists of office buildings, except those constructed at manufacturing sites and those constructed by power utilities for their own use.

2. Consists of auto dealerships, garages except those for buses and trucks, service stations, drug stores, restaurants, mobile structures, and other structures used for commercial purposes by the retail, wholesale, and selected service industries.

3. Consists of gas plants, pipelines, and solar power plants.

4. Consists primarily of railroads, but also includes garages for buses and trucks.

5. Includes water supply, sewage and waste disposal, public safety, highway and street, and conservation and development.

6. Net purchases of used structures include net purchases from federal and state and local governments.

BLS Bureau of Labor Statistics

PPI Producers' price index

ECI Employment cost index