

FMI's

# Construction Outlook

## *Fourth Quarter 2008 Report*

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*The Fed said that the "intensification of financial market turmoil is likely to exert additional restraint on spending, partly by further reducing the ability of households and business to obtain credit."*

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The good, the bad and the ugly. The good: nonresidential construction should finish up 2008 in the positive territory, marking five straight years of growth. The bad: 2009 will bring an end to the cycle with a significant downturn in growth. However, it should be the bottom in terms of percent declines. The ugly: the continued loss in 2010 will be off of the large downturn of 2009. The bottom in terms of dollar volume will be in 2010.

Put in place construction is based upon the amount of construction built each year, not the value of the construction started each year. For this reason, 2008 appears more positive than it actually is. Construction that was started in 2007 and early 2008 and is still being built or finished is propping up the growth for 2008. The pain from the fall in starts will not be felt until 2009 and 2010. Tight credit is contributing extensively to project delays and cancellations. According to FMI's Third Quarter Nonresidential Construction Index (NRCI), project delays are 2.2 times the normal rate and are currently at 17%. Project cancellations are 2.5 times the normal rate and are currently at 9.9%. Contractor backlogs are also getting shorter. They have shortened from 11 months in the first quarter to

10 months in third and fourth quarters. So, if contractors have a little less than a year's worth of backlog (that is subject to delays and cancellations), 2009 has a small hope of not being so "bad." This means that backlogs will probably shrink considerably in 2010, making it "ugly." The ugly year also has a slight chance of not being so ugly if the government's fiscal policies actually work and credit unfreezes before backlogs run out and delayed projects fill in the gaps while new projects are brought into the pipeline. We believe that credit is likely to loosen some from where it currently stands, but that standards will remain tight until 2011. Cheap and easy credit is gone. Equity requirements are also likely to increase. Under the Troubled Asset Relief Program (TARP), there were no requirements that banks actually lend the money out. Banks have been and will continue to be reluctant to make new loans for some time.

Our forecast assumes that a massive federal infrastructure spending bill will not be passed and put into construction during the forecast period. The timing (if any) of a major package is unknown and should not be arbitrarily placed into a forecast. If a major package were to be passed, it then takes time to be

worked into actual construction. A prime example of this is the federal money that was given to New Orleans post-Hurricane Katrina versus the actual amount of construction that has been put in place. Construction needs time to be planned, designed and also approved. There is also no guarantee that any funding from a new package would be used in addition to the old source. For example, if federal funds were given to a state for highway and street projects, it is possible that the state could use the federal money and then reallocate the old highway money to another area of need such as paying off interest on its bonds. If this occurs, no additional construction is actually built. The latest "proposal" calls for an investment of \$60 billion over ten years. This amount is a fraction of the highway bill funding level and is far shy of the \$1.6 trillion that is needed to fix our crumbling infrastructure. The source of the funding for a major infrastructure package is also in question.

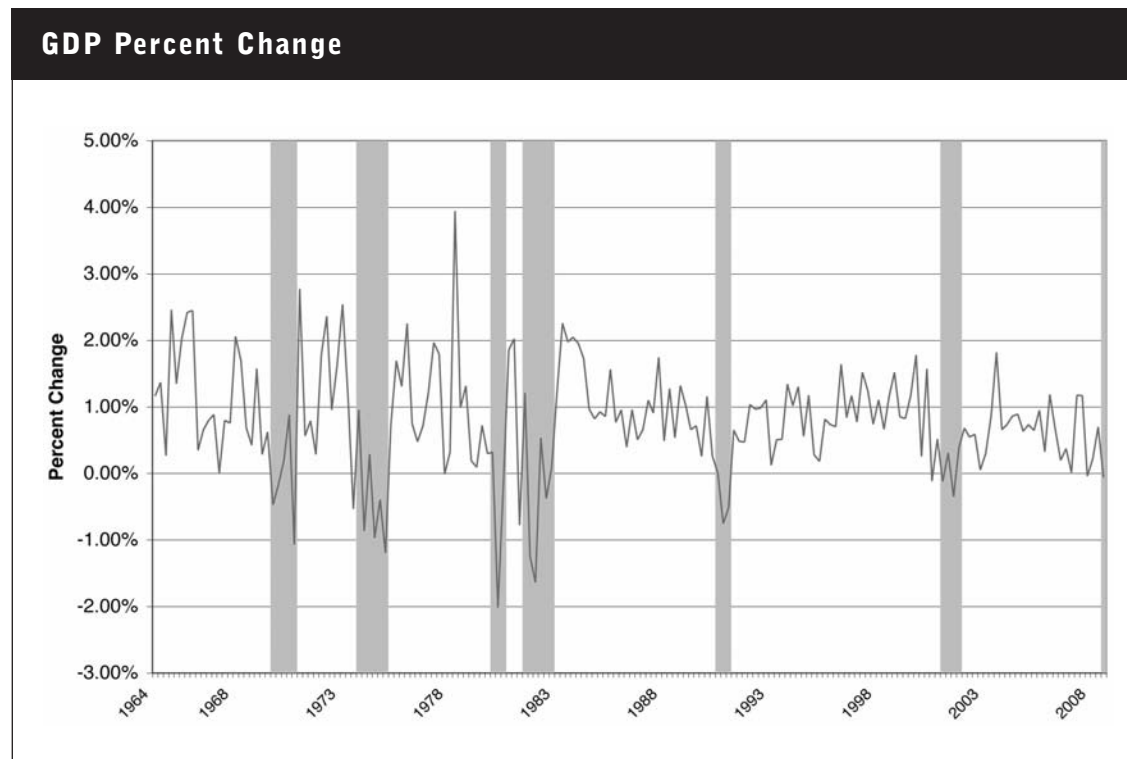
Several bond issues were voted on and passed during the elections. However, just because the bonds were passed, it does not necessarily mean that they will get funded. As banks raise the interest rates for the bonds, some states and municipalities are likely to cancel or delay the issuance. We believe that enough will go through that transportation construction will be the only positive nonresidential segment in 2010. Some of bond measures are \$18 billion for light rail in Seattle, \$10 billion for high speed rail in California and \$4.3 billion for light rail in Honolulu.

Housing is a very important sector for the construction industry. It has decreased from 56% of total construction in 2005 to 37% in 2008. It is expected to account for 37% to 38% per year through 2012. Historically, the residential sector has averaged around 45% of total construction. Housing is also a leading indicator for nonresidential construction. As housing booms and expands into new areas, demand for nonresidential segments such as schools, grocery stores, banks and other retail establishments follow. Conversely, as housing corrects, nonresidential construction declines. Housing (and the economy) is difficult to write about in these turbulent times. The situation is changing on a daily basis. On the day of this writing, it is rumored that a \$50 billion bailout is forthcoming for homeowners. We believe that it is likely that some sort of assistance package will be enacted, and that it will be beneficial to the housing industry. However, we believe that despite this assistance (barring anything radical and completely unpredictable), that housing has not yet reached the bottom in terms of dollar value (but that it has in terms of percent decline). The housing sector has good long-term growth prospects. The population in the United States is expected to grow from 300 million in 2006 to 400 million in 2039. That is an increase of 100 million people in about 33 years. This population will have to live somewhere. Multi family construction will recover and begin to grow before single family construction, due to an increase in rental construction. This population growth and eventual

increase in residential construction also bodes well for the future growth of nonresidential construction. Nonresidential construction will experience an increase in the out years as the population will need highways and streets to drive on, power for their homes, and water and sewer service. And of course, an infrastructure stimulus package would only cause this construction to occur sooner.

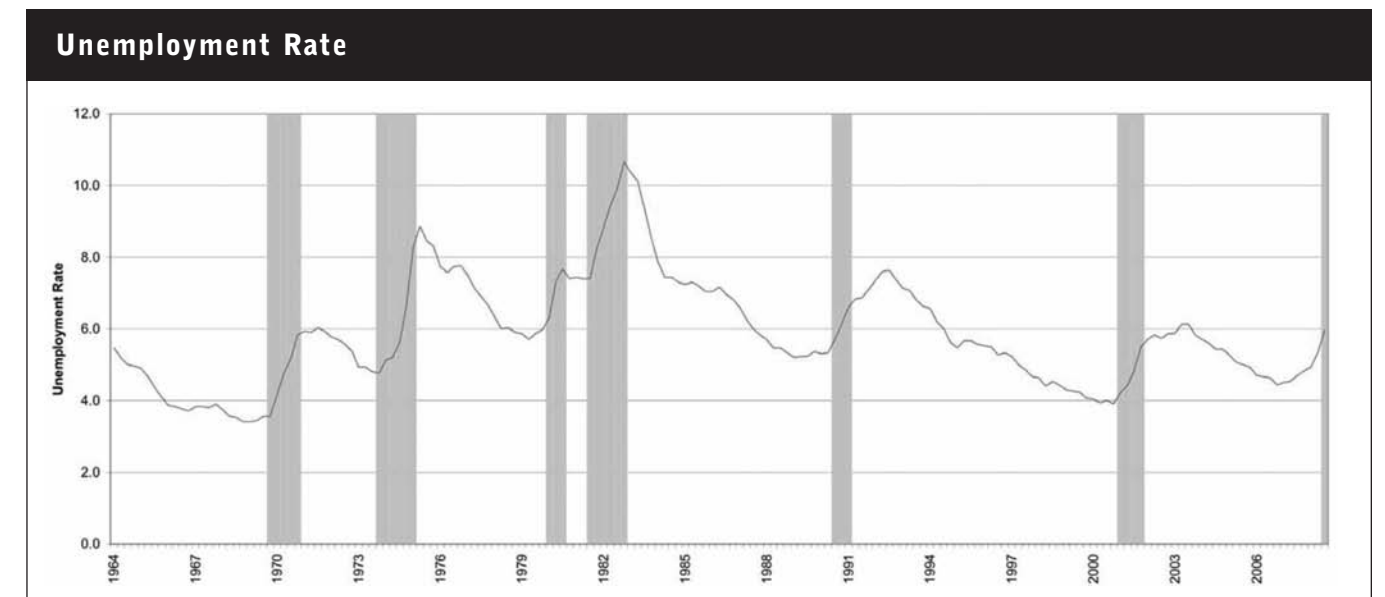
Obviously, the construction industry is not only dependent on the housing industry. The general economy is a driver for both residential and nonresidential construction. Most or all of 2008 will likely be called a recession despite not yet having two consecutive quarters of negative GDP. Declining housing and employment will contribute to this classification. A high-level of exports due to a cheap dollar and the stimulus package were artificially propping up GDP growth for parts of the year.

Real GDP decreased 0.3% in the third quarter according to advance estimates. GDP for the second quarter was revised down to 2.8% in final estimates, down from the 3.3% reported in the preliminary estimate. It grew 0.9% in the first quarter and the fourth quarter estimate for 2007 was actually revised down to a decline of 0.2%. Consensus Forecasts predict that GDP growth will be 1.4% for 2008 and 0.0% for 2009. We believe that these estimates are fairly accurate, but that they are extremely sensitive to the drivers discussed below.



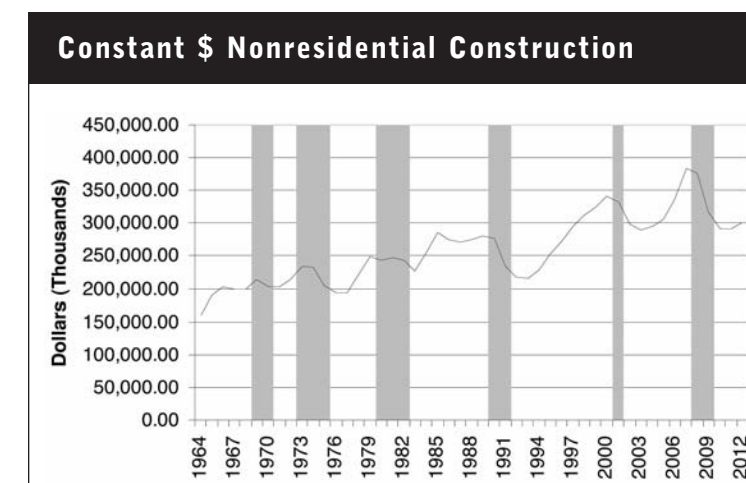
The employment situation continues to deteriorate. The unemployment rate rose to 6.5%. This rate is fairly low historically, especially during a recession. However, it is at a four-year-high and feels high compared to recent levels. Employment decreased by 240,000 in October to 137.7 million following job losses that totaled 1.2 million over the first ten months of 2008, with over half of the decrease occurring in the last three months. Depending on the effectiveness of the government's fiscal stimulus, unemployment is predicted to reach at least 7% and may possibly reach as high as 8%. However, the job losses have been concentrated in manufacturing, residential and hospitality so far. We expect significant losses in the financial sector to begin appearing in the fourth quarter and the first half of

2009. While these job losses are indicative of a bad economy, some of the losses may be slightly overstated as they relate to construction. Job losses in manufacturing have correlated to declines in manufacturing construction in the past. However, as manufacturing construction evolves from traditional manufacturing to refining, steel mills and basic materials, productivity improvements and construction to meet regulations may increase construction while decreasing employment. However, the expected job losses in the financial sector are expected to translate into a decreased demand for office construction, translating into a reduced demand for commercial/retail construction ultimately adding to the decrease in demand. (See chart below)



Another important indicator for construction is the federal funds rate. This rate influences borrowing rates and mortgage rates. At the end of October, the Fed lowered its rate to 1%, the lowest rate since 2003. The Fed said that the "intensification of

financial market turmoil is likely to exert additional restraint on spending, partly by further reducing the ability of households and business to obtain credit." The central bank said that "downside risks to growth remain" holding out the promise of



further rate cuts if needed. The rate-cut decision was unanimous. Federal Reserve Chairman Ben Bernanke and his colleagues pledged that they would "monitor economic and financial developments carefully and will act as needed to promote sustainable economic growth and price stability." We believe that the government can and is managing its fiscal policy as well as it can. One small note is that despite the artificial floor that the Fed has installed is that it may not be enough to create the confidence that is needed.

So what kind of downturn are we looking at? It is too early to tell, but here is a look at construction during past recessions.

(Charts continue on page 6)

**Construction Put in Place  
Estimated for The United States**

Millions of Current Dollars  
4th Quarter 2008

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>RESIDENTIAL BUILDINGS</b>															
Single Family	201,151	225,687	238,269	251,123	267,205	311,879	378,934	434,912	417,518	306,972	199,532	179,578	188,557	201,756	219,914
Multi Family	26,316	29,284	29,740	32,342	34,268	36,420	41,321	48,699	54,324	49,997	43,997	41,797	43,051	44,343	47,447
Improvements*	75,845	78,731	84,054	89,096	100,487	102,952	118,153	133,896	147,973	142,682	128,413	124,561	128,298	133,430	137,433
<b>Total Residential</b>	<b>303,312</b>	<b>333,703</b>	<b>352,063</b>	<b>372,561</b>	<b>401,960</b>	<b>451,251</b>	<b>538,408</b>	<b>617,507</b>	<b>619,814</b>	<b>499,650</b>	<b>371,942</b>	<b>345,937</b>	<b>359,906</b>	<b>379,529</b>	<b>404,794</b>
<b>NONRESIDENTIAL BUILDINGS</b>															
Lodging	15,333	16,512	16,850	15,486	10,869	10,712	12,363	12,840	18,139	28,728	31,601	22,121	17,033	17,714	18,600
Office	47,426	51,977	61,001	59,495	44,277	39,418	42,404	45,763	54,187	64,731	67,320	52,510	46,734	47,668	49,575
Commercial	59,116	63,329	67,873	68,506	62,520	61,529	67,057	70,242	76,713	88,777	84,338	66,627	61,963	64,442	68,308
Health Care	21,887	22,797	24,615	24,776	27,139	29,329	32,184	34,430	38,472	42,882	45,455	42,728	41,873	45,223	49,745
Educational	46,421	52,456	58,848	64,960	73,862	74,316	74,250	79,687	84,928	96,348	101,165	93,072	91,211	96,683	104,418
Religious	6,662	7,433	8,071	8,806	8,339	8,569	8,159	7,735	7,749	7,447	6,702	5,697	5,412	5,520	5,686
Public Safety	9,631	9,762	10,049	9,558	7,827	7,161	7,019	7,314	7,768	9,899	10,889	10,453	10,140	10,444	10,862
Amusement and Recreation	17,072	19,525	20,168	20,207	17,328	16,847	16,695	15,236	19,033	21,719	22,588	20,103	18,696	19,070	19,833
Transportation	19,228	19,525	22,887	24,409	25,781	24,710	25,059	25,052	27,964	32,420	35,014	32,913	33,900	35,934	38,090
Communication	12,636	18,617	18,958	20,173	18,457	14,550	15,546	18,906	22,219	27,040	26,229	22,819	20,765	21,388	22,458
Manufacturing	41,015	33,107	32,184	30,364	22,926	21,508	23,808	30,040	35,500	42,644	50,320	52,333	50,763	48,225	50,154
<b>Total Nonresidential Buildings</b>	<b>296,427</b>	<b>315,041</b>	<b>341,503</b>	<b>346,739</b>	<b>319,325</b>	<b>308,649</b>	<b>324,544</b>	<b>347,245</b>	<b>392,672</b>	<b>462,635</b>	<b>481,621</b>	<b>421,375</b>	<b>398,490</b>	<b>412,312</b>	<b>437,728</b>
<b>NONBUILDING STRUCTURES</b>															
Power	24,012	24,796	32,289	35,025	36,804	41,450	35,395	35,466	39,754	53,371	61,910	65,625	68,906	75,108	82,619
Highway and Street	45,842	50,248	54,002	60,554	57,484	57,139	58,623	64,139	72,040	76,021	78,302	79,868	83,062	87,215	92,448
Sewage and Waste Disposal	9,027	10,071	10,949	12,006	16,237	16,581	17,929	19,867	23,186	24,665	25,405	24,897	25,644	27,182	28,542
Water Supply	7,096	7,617	8,587	9,397	12,442	12,492	12,620	14,028	14,960	15,583	15,427	15,736	16,050	16,692	17,527
Conservation and Development	2,798	3,076	3,362	3,967	3,621	3,935	4,044	4,453	5,130	5,226	5,331	5,490	5,655	5,938	6,175
<b>Total Nonbuilding Structures</b>	<b>88,776</b>	<b>95,808</b>	<b>109,190</b>	<b>120,949</b>	<b>126,588</b>	<b>131,597</b>	<b>128,611</b>	<b>137,953</b>	<b>155,070</b>	<b>174,866</b>	<b>186,375</b>	<b>191,616</b>	<b>199,318</b>	<b>212,136</b>	<b>227,311</b>
<b>Total Put in Place</b>	<b>688,515</b>	<b>744,551</b>	<b>802,756</b>	<b>840,249</b>	<b>847,873</b>	<b>891,497</b>	<b>991,563</b>	<b>1,102,705</b>	<b>1,167,556</b>	<b>1,137,151</b>	<b>1,039,938</b>	<b>958,928</b>	<b>957,714</b>	<b>1,003,977</b>	<b>1,069,833</b>

\*Improvements include additions, alterations and major replacements. It does not include maintenance and repairs.

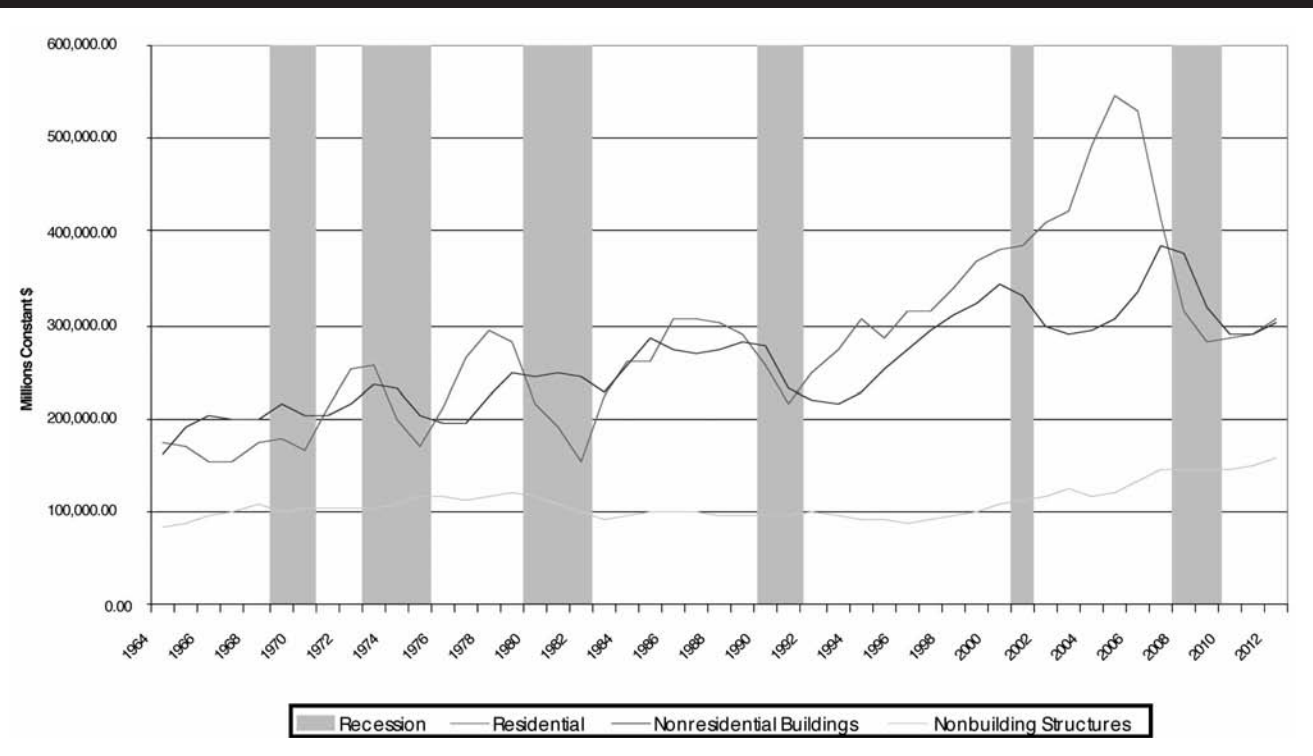
**Construction Put in Place  
Estimated for The United States**

Change From Prior Year - Current Dollar Basis  
4th Quarter 2008

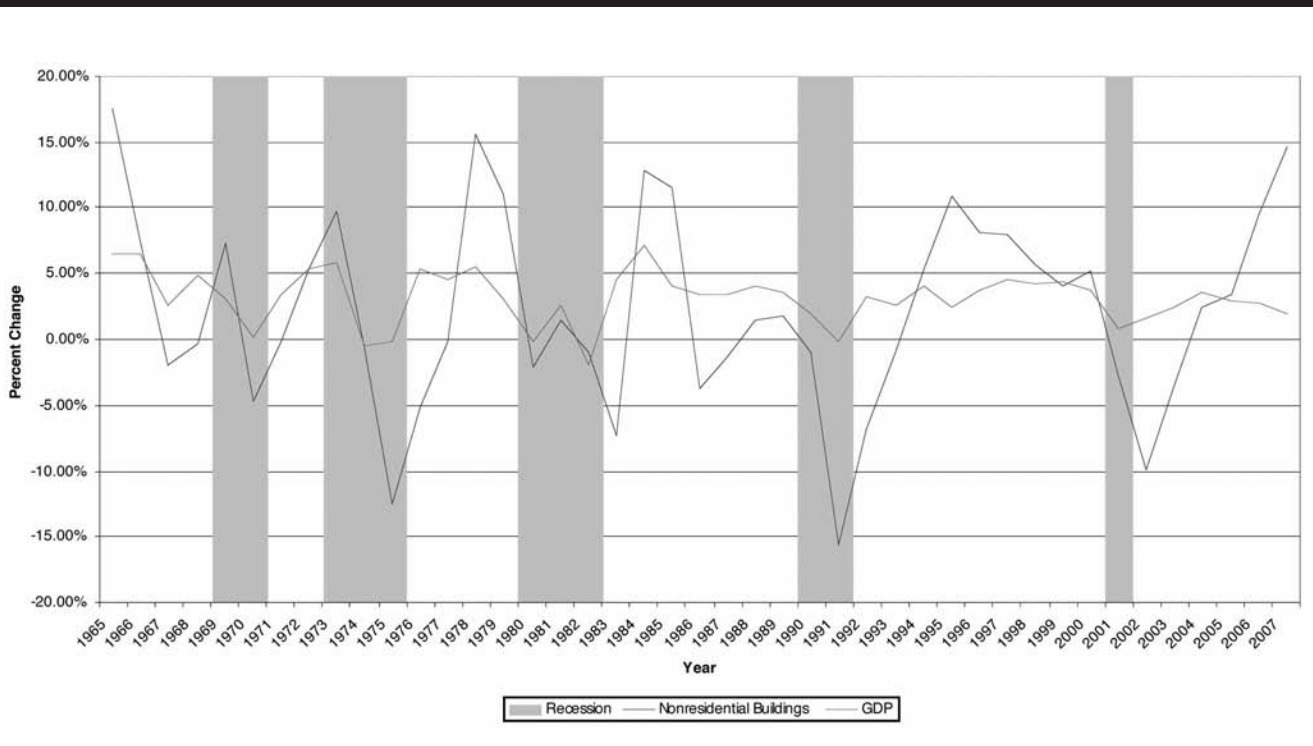
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>RESIDENTIAL BUILDINGS</b>															
Single Family	14%	12%	6%	5%	6%	17%	22%	15%	-4%	-26%	-35%	-10%	5%	7%	9%
Multi Family	6%	11%	2%	9%	6%	6%	13%	18%	12%	-8%	-12%	-5%	3%	3%	7%
Improvements*	7%	4%	7%	6%	13%	2%	15%	13%	11%	-4%	-10%	-3%	3%	4%	3%
<b>Total Residential</b>	<b>11%</b>	<b>10%</b>	<b>6%</b>	<b>6%</b>	<b>8%</b>	<b>12%</b>	<b>19%</b>	<b>15%</b>	<b>0%</b>	<b>-19%</b>	<b>-26%</b>	<b>-7%</b>	<b>4%</b>	<b>5%</b>	<b>7%</b>
<b>NONRESIDENTIAL BUILDINGS</b>															
Lodging	14%	8%	2%	-8%	-30%	-1%	15%	4%	41%	58%	10%	-30%	-23%	4%	5%
Office	19%	10%	17%	-2%	-26%	-11%	8%	8%	18%	19%	4%	-22%	-11%	2%	4%
Commercial	4%	7%	7%	1%	-9%	-2%	9%	5%	9%	16%	-5%	-21%	-7%	4%	6%
Health Care	-2%	4%	8%	1%	10%	8%	10%	7%	12%	11%	6%	-6%	-2%	8%	10%
Educational	5%	13%	12%	10%	14%	1%	0%	7%	7%	13%	5%	-8%	-2%	6%	8%
Religious	14%	12%	9%	9%	-5%	3%	-5%	-5%	0%	-4%	-10%	-15%	-5%	2%	3%
Public Safety	11%	1%	3%	-5%	-18%	-9%	-2%	4%	6%	27%	10%	-4%	-3%	3%	4%
Amusement and Recreation	5%	14%	3%	0%	-14%	-3%	-1%	-9%	25%	14%	4%	-11%	-7%	2%	4%
Transportation	9%	2%	17%	7%	6%	-4%	1%	0%	12%	16%	8%	-6%	3%	6%	6%
Communication	0%	47%	2%	6%	-9%	-21%	7%	22%	18%	22%	-3%	-13%	-9%	3%	5%
Manufacturing	7%	-19%	-3%	-6%	-24%	-6%	11%	26%	18%	20%	18%	4%	-3%	-5%	4%
<b>Total Nonresidential Buildings</b>	<b>7%</b>	<b>6%</b>	<b>8%</b>	<b>2%</b>	<b>-8%</b>	<b>-3%</b>	<b>5%</b>	<b>7%</b>	<b>13%</b>	<b>18%</b>	<b>4%</b>	<b>-13%</b>	<b>-5%</b>	<b>3%</b>	<b>6%</b>
<b>NONBUILDING STRUCTURES</b>															
Power	20%	3%	30%	8%	5%	13%	-15%	0%	12%	34%	16%	6%	5%	9%	10%
Highway and Street	4%	10%	7%	12%	-5%	-1%	3%	9%	12%	6%	3%	2%	4%	5%	6%
Sewage and Waste Disposal	0%	12%	9%	10%	35%	2%	8%	11%	17%	6%	3%	-2%	3%	6%	5%
Water Supply	3%	7%	13%	9%	32%	0%	1%	11%	7%	4%	-1%	2%	2%	4%	5%
Conservation and Development	2%	10%	9%	18%	-9%	9%	3%	10%	15%	2%	2%	3%	3%	5%	4%
<b>Total Nonbuilding Structures</b>	<b>7%</b>	<b>8%</b>	<b>14%</b>	<b>11%</b>	<b>5%</b>	<b>4%</b>	<b>-2%</b>	<b>7%</b>	<b>12%</b>	<b>13%</b>	<b>7%</b>	<b>3%</b>	<b>4%</b>	<b>6%</b>	<b>7%</b>
<b>Total Put in Place</b>	<b>9%</b>	<b>8%</b>	<b>8%</b>	<b>5%</b>	<b>1%</b>	<b>5%</b>	<b>11%</b>	<b>11%</b>	<b>6%</b>	<b>-3%</b>	<b>-9%</b>	<b>-8%</b>	<b>0%</b>	<b>5%</b>	<b>7%</b>

\*Improvements include additions, alterations and major replacements. It does not include maintenance and repairs.

**Constant \$ Put in Place Construction**



**Constant \$ Nonresidential Construction and GDP % Change 1965 – 2007**



# FMI's Construction Market Forecasts

## BENEFITS

*A Construction Market Forecast from FMI's Research Services Group can:*

- Supply the market-oriented, economy-driven dimension essential for preparing, implementing and monitoring strategic plans.
- Be a significant aid in defining, targeting, implementing and monitoring other critical corporate decisions, such as long and short-term sales goals, or redirecting resources; for example, on a geographic or a product-line basis.
- Provide the basis for estimating sub-markets.
- Provide the basis for comparing performance among markets.
- Provide the basis for identifying activities that are beneficial or detrimental to performance.

## FEATURES

*Each Standard Construction Market Forecast:*

- Details construction put in place in three residential building, 11 nonresidential building and five non-building structure categories. It covers the current year, eight previous years and five forecasted years. It is available for any county in the U.S., or any combination of counties, metropolitan statistical areas, states, regions, etc.
- Includes both construction values and annual percentage changes. Delivery time depends on the size of the request but is usually only a few days. It can be delivered in printed or electronic form, in most major text or spreadsheet formats. Graphs can be provided at additional cost.

## BASIS

- Historical information in FMI's standard Construction Market Forecast is based on building permits and construction put in place data as provided by the U.S. Commerce Department. Forecasts are based on econometric and demographic relationships developed by FMI, on information from specific projects gathered from trade sources, and on FMI's analysis and interpretation of current and expected social and economic conditions.

## OTHER REPORTS

- Reports on state and federally financed highway construction are available for most counties or combinations of counties.
- Custom reports on a wide variety of construction-related topics can be prepared by FMI.
- Reports are based on multiple sources and are appropriate for preliminary analytical and planning purposes, but contain little or no direct observation of the area described and are not guaranteed to be accurate by FMI.

*For more information, call  
919.785.9335*

## About FMI

Founded in 1953 by Dr. Emol A. Fails, FMI provides management consulting and investment banking for the worldwide construction industry.

FMI, management consultants and investment bankers to the building and construction industry, delivers innovative solutions to contractors, architects and engineers, construction materials producers, manufacturers and suppliers of building products and construction equipment, private owners, residential builders, utilities, government agencies, surety companies and trade associations.

FMI's management consulting practice provides a wide array of services, including strategy, training and talent development, leadership and organizational development, market research, project execution, business development and compensation consulting. FMI's investment banking practice provides merger and acquisition advisory services, capital placement and financial advisory services.

## About FMI's Research Services Group

As the construction industry becomes increasingly competitive, market intelligence becomes an important tool for the building industry. A more complete understanding of the market, market trends, customer perceptions, buying practices, competitor profiles and other market influencers will enhance craft labor studies.

Since 1953, FMI has provided consulting and training services specialized for the construction industry. FMI's market research includes both secondary and primary research designed to meet clients' specific needs. Both types of research are used to provide accurate assessments in a timely, efficient and concise manner for clients.

Typical project work performed includes customer buying practices, competitive analyses, market-size modeling, market forecasts and trends, channel performance analyses, customer satisfaction surveys and sales performance evaluations.

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Construction Economist

Heather Jones is a construction economist in the Research Services Group. She is responsible for design, management and performance of primary and secondary market research projects and related research activities, including economic analysis and modeling, construction market forecasting and database management. Heather's particular expertise is in the areas of market sizing and modeling, competitive analysis, sales and market performance evaluations, buying practices and trends analysis.

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