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Indiana Business Research Center

The State of Indiana's
Housing Market

Foreign Direct
Investment in Indiana

demographic and economic perspectives, insights, and analysis since 1926

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From the Editor

Two essential but very different types of investments are considered in this issue of the *Indiana Business Review*.

The first is housing, an investment made by individuals or families. The second is foreign investment in on-the-ground businesses in Indiana. Both are important to our communities. Each contributes significantly to the Indiana economy through property taxes (\$6.1 billion in 2010) and by providing jobs (more than 130,000). The authors of both articles provide us with analysis and insights into current trends in housing and foreign investment—enjoy!

The State of Indiana's Housing Market

MATT KINGHORN: DEMOGRAPHER, Indiana Business Research Center, Kelley School of Business, Indiana University

Five years after the bottom fell out of the Indiana housing market, there are finally some signs of a recovery.

In 2011, the number of houses sold in Indiana increased for the first time since 2006 and the median sales price climbed for the second consecutive year. The state's foreclosure rate is still far too high, but the number of homes in the later stages of mortgage delinquency has declined of late.

Of course, a recovering patient is not necessarily a healthy one. The modest improvements in some housing market indicators spring from very weak positions. Existing home sales in Indiana, for instance, are still more than 30 percent off the 2006 peak and the share of mortgages that are 90 or more days overdue is only about half-way back to the state's pre-crash level. Meanwhile, residential construction—another key facet of the housing market and the economy in general—has fallen to levels last seen in the early 1980s and seems stuck there.

So where does the Indiana housing market stand? This article examines some of the latest data to try to answer that question.

Housing Demand on the Rise

After slipping for four straight years, Indiana finally saw an uptick in existing home sales in 2011. Spurred by historically low mortgage interest rates and modest improvements in the economy, sales in 2011 increased by 0.4 percent over the previous year.

Existing home sales in the state had declined by an average rate of 9.5 percent per year between 2006 and 2010. The improved pace of sales is even more encouraging when one remembers that 2011 marked the first year since 2008 that the market stood on its own without government incentives designed to boost sales.

“After slipping for four straight years, Indiana finally saw an uptick in existing home sales in 2011.”

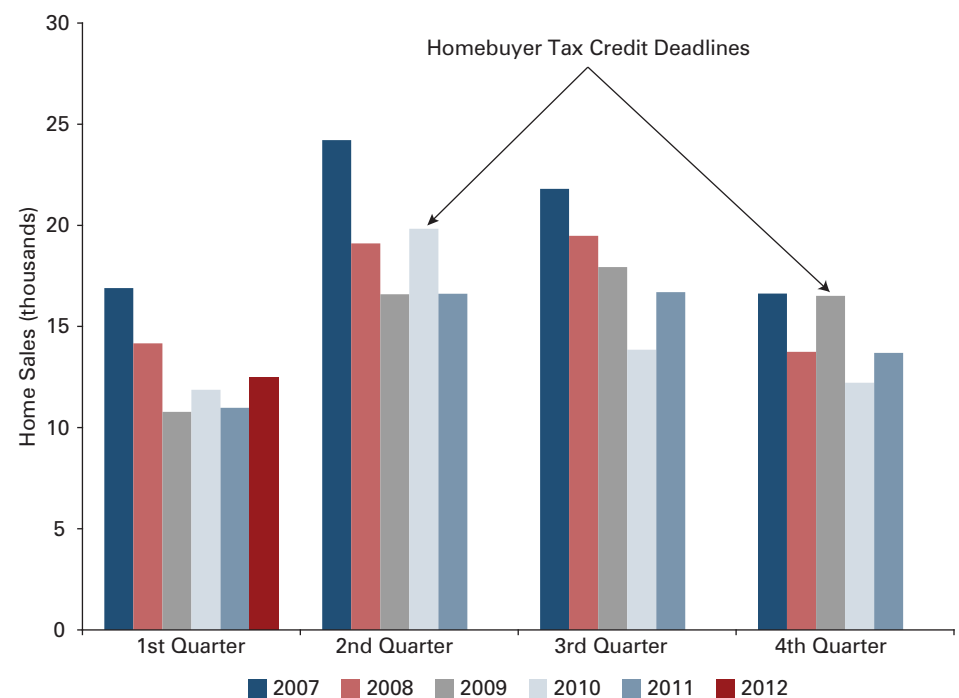
The homebuyer tax credits of 2009 and 2010 almost certainly pulled-forward some home sales that otherwise would have occurred in 2011.

As **Figure 1** illustrates, sales surged to beat the tax credit deadlines in the fourth quarter of 2009 and the second quarter of 2010 but then declined sharply afterward. Because of this distorted pattern, sales were down year-over-year in the first half of 2011 but then increased in the second half of the year. The rebound appears to be picking up steam in

early 2012. Data from the Indiana Association of Realtors shows that sales in the first quarter of 2012 are up 15 percent over the same period a year ago and are the highest first quarter total since 2008. The extremely mild weather conditions this past winter likely helped to boost demand during what is typically the slow season for home sales. Housing market activity over the spring and summer should tell whether a true rebound is underway.

With the exception of the Michigan City-La Porte area, each of Indiana's

■ **FIGURE 1: Indiana Home Sales by Quarter, 2007:1 to 2012:1**



Source: Indiana Association of Realtors

metro areas had an increase in home sales over the 12-month period ending in March 2012 (see Figure 2). The Columbus area led the way with an 11 percent increase in sales when compared to the same period a year earlier. With a 7.9 percent increase, the Indiana portion of the Louisville metro had the second-largest uptick in sales followed by the Indianapolis-Carmel area (7.3 percent), South Bend-Mishawaka (5.9 percent) and Fort Wayne (5.4 percent). The 45 Indiana counties that are outside of metro areas combined to post a 2.4 percent increase in sales. Statewide, sales are up 4.7 percent over this period.

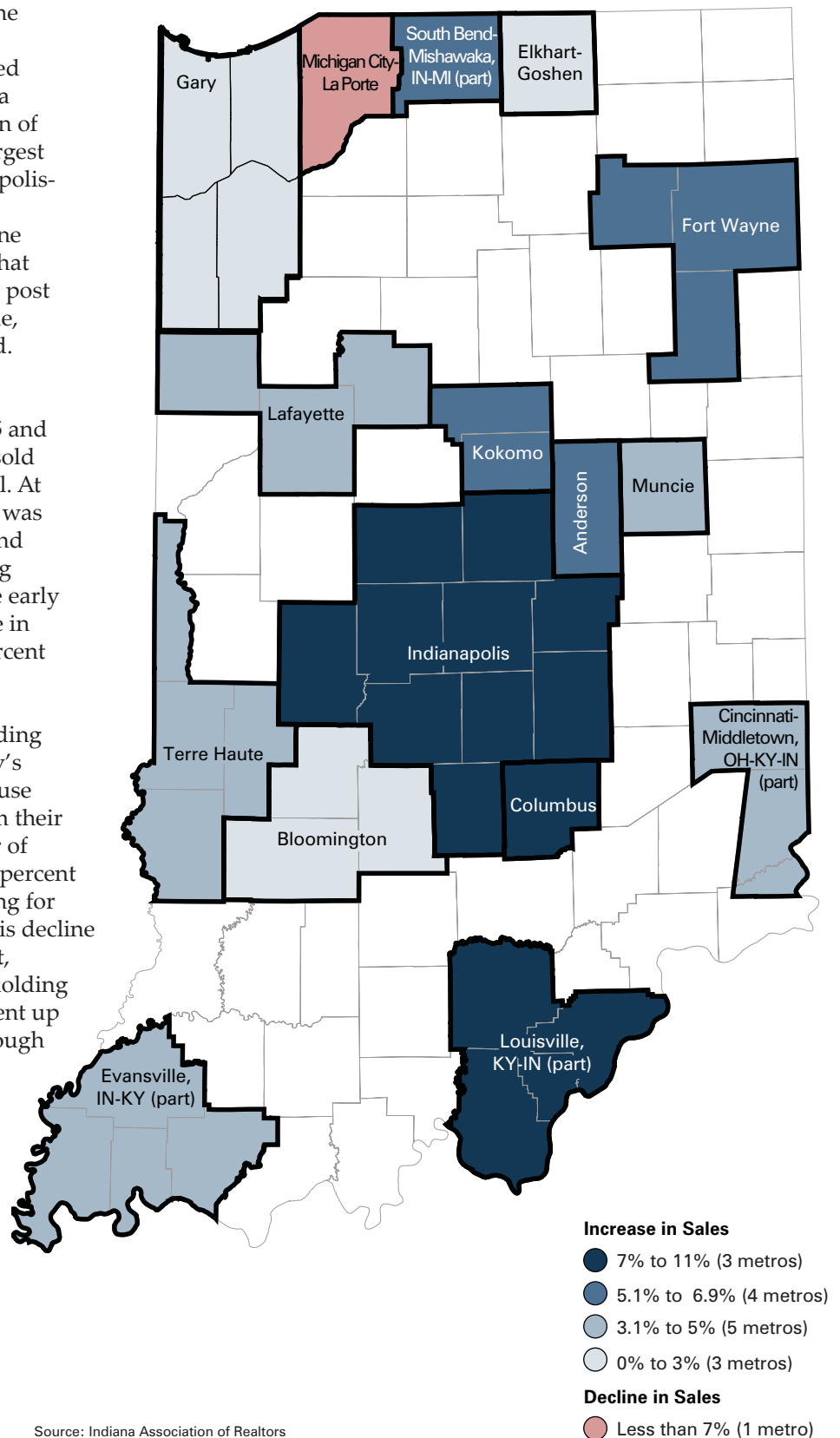
House Prices Find Their Footing

After declining each year between 2005 and 2009, the median sales price of homes sold in Indiana continues to rebound as well. At \$112,900, last year's median sales price was a 0.8 percent improvement over 2010 and 2.6 percent above 2009. As with housing demand, price gains continued into the early months of this year as the median price in the first quarter of 2012 improved 3 percent year-over-year.

Other measures show that Indiana's house prices are stabilizing, too. According to the Federal Housing Finance Agency's House Price Index (HPI), the state's house prices have declined by 10 percent from their peak in early 2007 to the fourth quarter of 2011.¹ The U.S. index value is down 25 percent over this same period. Most encouraging for Hoosier homeowners is that most of this decline occurred by early 2009. Since that point, Indiana's house prices have been in a holding pattern, showing no sustained movement up or down. In contrast, the U.S. HPI—though declining at a slower rate in recent years—continues to fall.

Indiana's 10 percent drop in house prices from 2007 to the fourth quarter of 2011 actually ranks as the 14th best peak-to-current price change performance among states. With a 62 percent decline in prices that began in early 2006, Nevada has the nation's largest peak-to-current loss followed by Arizona (-54 percent), California (-50 percent) and Florida (-49 percent). Among Indiana's neighbors, Michigan (-43 percent),

■ FIGURE 2: Total Home Sales by Metro Area, April 2011 to March 2012, Year-over-Year Change



“House prices around the country have fallen for five years simply because it has taken that long for the bubble to deflate fully.”

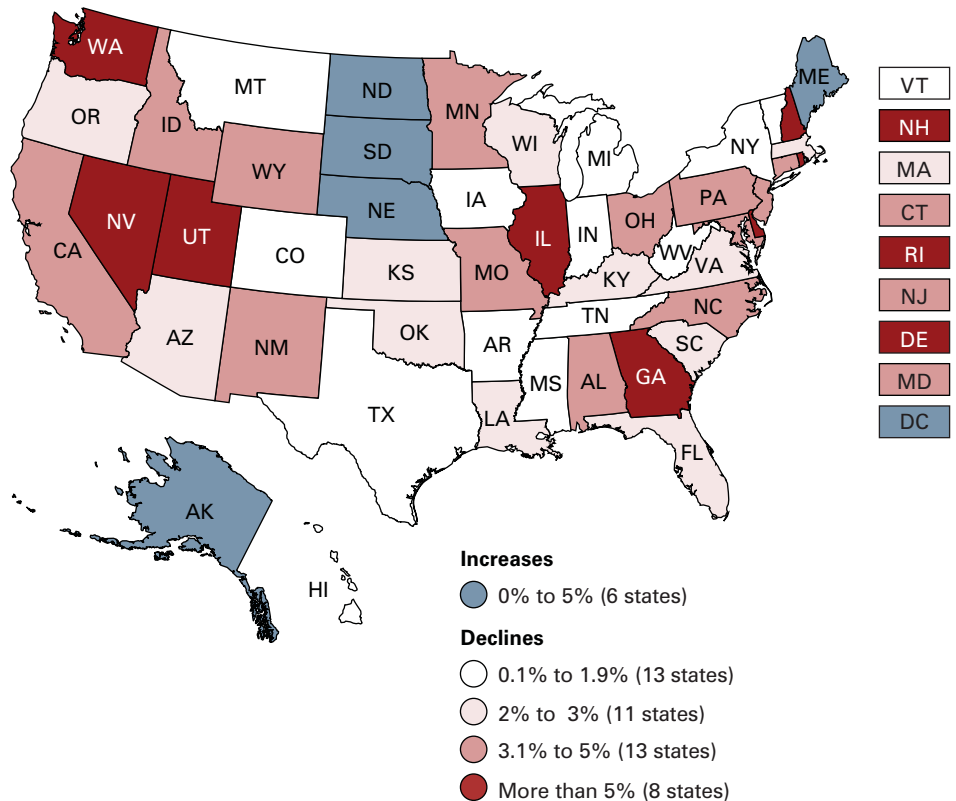
Illinois (-30 percent) and Ohio (-25 percent) have also had dramatic house price depreciation since their respective peaks; meanwhile, Kentucky’s 6 percent decline has been comparatively mild.

Looking over the past year, Indiana’s HPI value increased in the last two quarters of 2011 but the state’s fourth quarter mark was 0.9 percent below the same period in 2010 (see **Figure 3**). Delaware had the largest house price decline at 10.2 percent, followed by Nevada (-9.7 percent), Georgia (-8.1 percent) and the state of Washington (-7.6 percent). Only five states and the District of Columbia had an increase in house prices year-over-year in the fourth quarter of 2011.

House prices around the country have fallen for five years simply because it has taken that long for the bubble to deflate fully (see **Figure 4**). That is, at the end of 2011, the national HPI had just reached the “pre-bubble” trend for price appreciation, meaning that house prices at the national level are about where one would expect had the run-up in prices never occurred. In this sense, the decline in prices—though painful for many homeowners and an economic drag for the U.S.—has been a necessary correction.

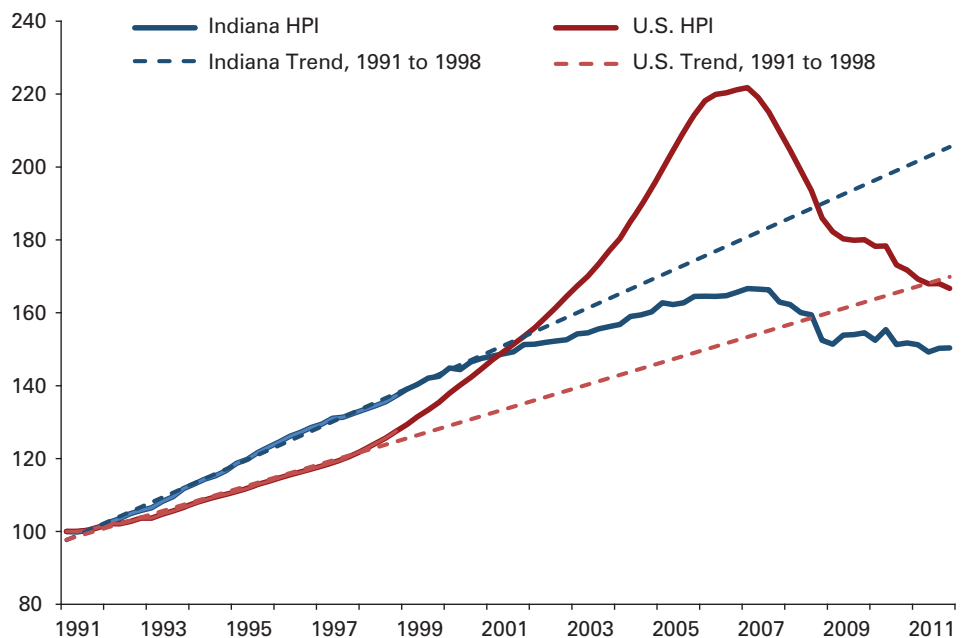
Indiana’s experience has been far different. According to the Federal Housing Finance Agency (FHFA), price appreciation in Indiana

FIGURE 3: Change in House Price Index by State, 2010:4 to 2011:4



Source: Federal Housing Finance Agency, House Price Index (expanded data series, seasonally adjusted)

FIGURE 4: House Price Index Compared to Pre-Bubble Trend, 1991 to 2011



Source: Federal Housing Finance Agency, House Price Index (expanded data series, seasonally adjusted)

outpaced the national average through the 1990s but then began to slow while prices elsewhere were taking off. After falling since 2007, Indiana's home prices now sit well below the trend set during the 1990s. However, comparing current prices to earlier trends isn't necessarily meaningful for Indiana—or at least not in the same way. Whereas the HPI data for the U.S. clearly illustrate the magnitude of the housing bubble, this measure for Indiana shows the state had no price bubble at all. Instead, changes in Hoosier house prices have gone hand-in-hand with the state's economic performance.

As a case in point, one important reason that Indiana's house price appreciation outpaced the U.S. during the 1990s was that household incomes in the state increased at a greater rate than for the nation as whole. Between 1991 and 1998, Indiana's median household income grew at an average annual rate of 5.6 percent compared to 3.7 percent for the nation. During the housing bubble years of 1998 to 2006, Indiana's median household income growth slowed to an average rate of 1.7 percent per year and the state's pace of house price appreciation slowed in turn. By contrast, household income growth in the U.S. also slowed over this period (2.7 percent annually) but house prices increased by an average rate of 8 percent per year. Since 2006, the average annual rate of median household income growth for both Indiana and the U.S. has dropped to roughly 0.5 percent.

The ratio of incomes to house prices over time clearly illustrates how prices in many parts of the country became detached from economic fundamentals. Among the states that headlined the housing bubble, the price-to-income ratios in Florida and Nevada more or less doubled between 2000 and 2005 while prices in California soared to nine times its median household income

“One important reason that Indiana’s house price appreciation outpaced the U.S. during the 1990s was that household incomes in the state increased at a greater rate than for the nation as whole. Between 1991 and 1998, Indiana’s median household income grew at an average annual rate of 5.6 percent compared to 3.7 percent for the nation.”

(see **Figure 5**). Looking at some of Indiana's neighbors, Illinois also saw a significant jump in this measure and even struggling Michigan's ratio climbed modestly.

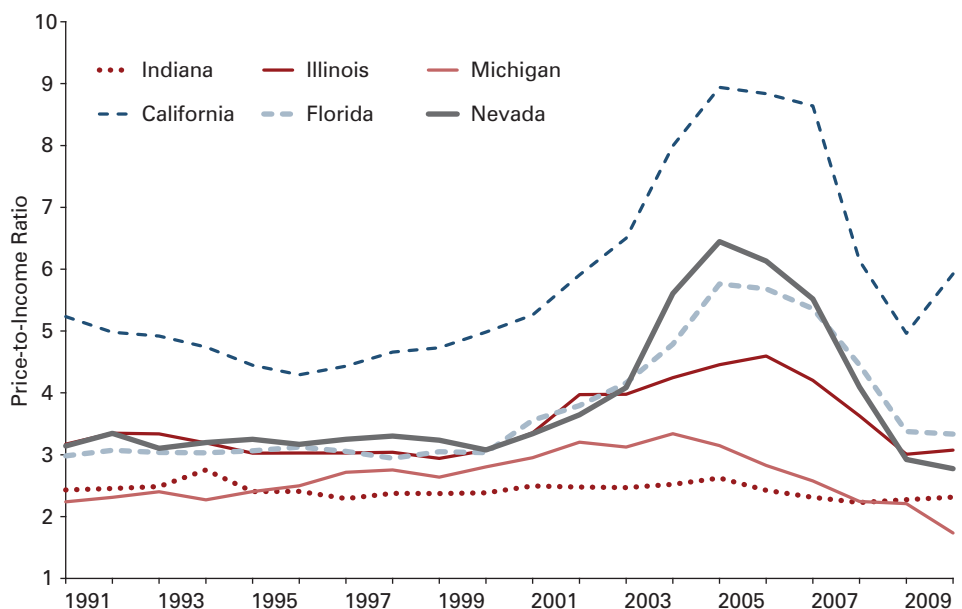
Since the onset of the housing slump, however, the price-to-income ratio in each of these states tumbled back to the more sustainable levels seen during the 1990s, although the ratio did tick up in California and Illinois in 2010. All the while, Indiana's ratio held steady, rising just two-tenths of a percentage point between 2000 and 2005—a smaller increase than all but four

states. Indiana and Michigan had the nation's lowest price-to-income ratios in 2010 while Ohio's was the fourth-lowest, suggesting that this region offers some of the most affordable housing in the country.

Foreclosures Remain High

The still-large numbers of mortgage defaults is one of the primary obstacles to a house price rebound in many areas. States like Florida, Nevada and Illinois—which have had some of the nation's steepest declines in house prices—also have some of the highest rates of mortgage

FIGURE 5: Ratio of Median Home Price to Median Household Income, Indiana and Select States, 1990 to 2010



Source: U.S. Census Bureau and Moody's Economy.com

“For a variety of reasons, high foreclosure rates have been a persistent problem in Indiana for more than a decade.”

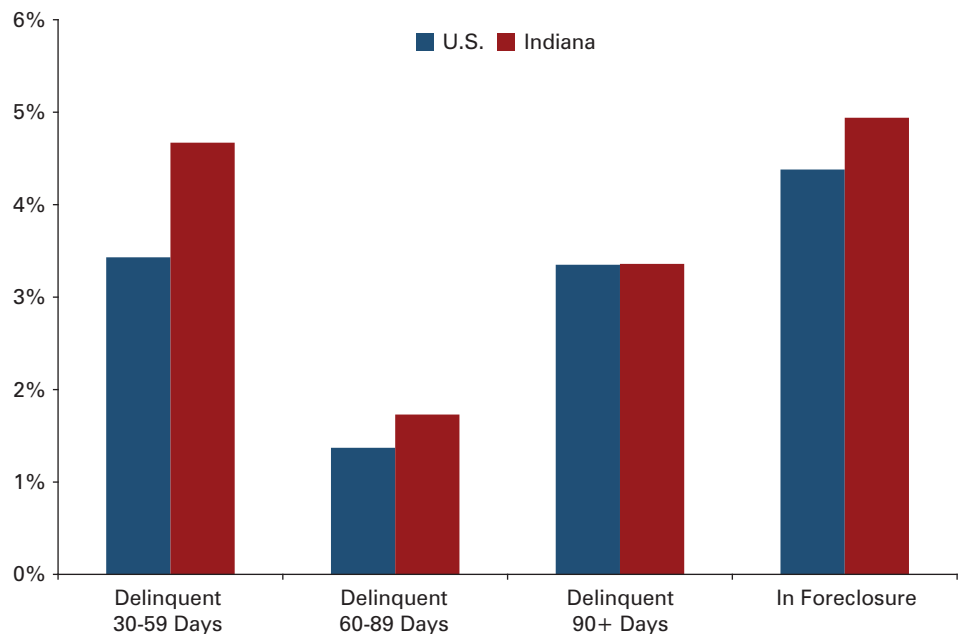
delinquency and foreclosure. The drop in Indiana’s house prices has not been as dramatic as in other areas, but the state’s delinquency and foreclosure rates remain high.

As **Figure 6** shows, Indiana and the U.S. have a similar share of mortgages that are 90 or more days delinquent but Indiana’s foreclosure rate (4.9 percent) is higher than the U.S. mark (4.4 percent). The state’s foreclosure rate at the end of 2011 was its highest on record. Indiana has a higher rate of loans in the early stages of delinquency, too. As of the fourth quarter of 2011, 6.4 percent of all Indiana home loans were up to three months past due compared to 4.8 percent nationally. In all, 14.7 percent of Indiana mortgages were past due or in foreclosure at last measure compared to 12.5 percent nationally.

For a variety of reasons, high foreclosure rates have been a persistent problem in Indiana for more than a decade. Indiana had little trouble with foreclosures through much of the 1990s, but the state’s foreclosure rate began to rise in 1996 and truly spiked around the 2001 recession (see **Figure 7**). The state’s foreclosure rate remained well above the U.S. average until the housing bust.

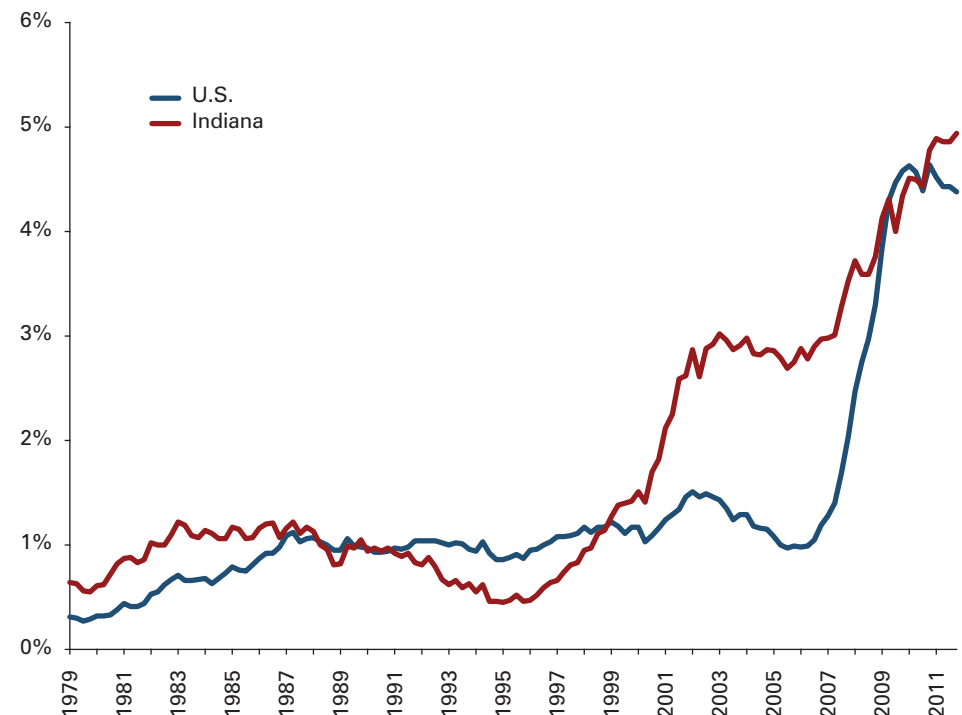
A mix of factors that include weak economic conditions, a surge in high-risk mortgage lending, a rising homeownership rate and a slow pace

FIGURE 6: Percent of Mortgages in Various Stages of Delinquency, 2011:4



Source: National Delinquency Survey, Mortgage Bankers Association

FIGURE 7: Share of Mortgages in Foreclosure, 1979:1 to 2011:4

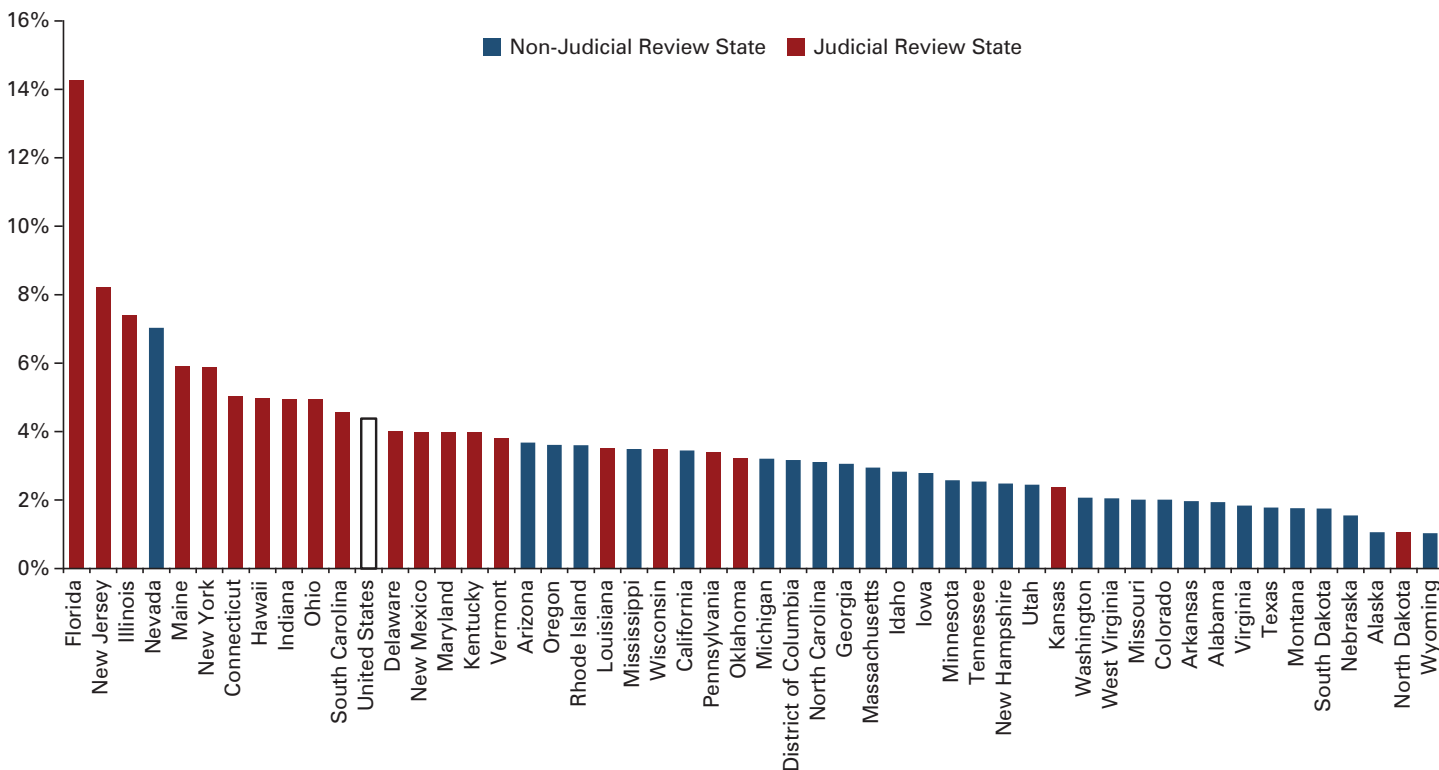


Source: National Delinquency Survey, Mortgage Bankers Association

of house price appreciation combined to give Indiana one of the country’s highest foreclosure rates through the early and mid-2000s. However,

it’s important to note that Indiana was not alone in its high foreclosure rates before the bust. Neighboring Michigan, Ohio and Illinois joined

■ FIGURE 8: Share of Mortgages in Foreclosure by State, 2011:4



Source: National Delinquency Survey, Mortgage Bankers Association

Indiana to form a distinct block of high foreclosure states.² Each of these states, no doubt, shared the same mix of factors that drove Indiana’s trend.

The Role of Foreclosure Laws

It’s important to note that the comparison of foreclosure rates across states can be misleading because foreclosure laws vary by state. According to the Mortgage Bankers Association (MBA), Indiana is one of 21 states that require a judicial review of all foreclosures. In all other states, lenders may proceed with a foreclosure without court oversight. While there are many reasons for these different approaches, one practical effect is that judicial review lengthens the time a given property spends in the foreclosure process, which can then inflate a state’s foreclosure rate. As of January 2012, loans in the foreclosure inventory of judicial

“As of January 2012, loans in the foreclosure inventory of judicial review states had been delinquent for an average of 24 months while the average length of delinquency in non-judicial states was 17 months—a 41 percent difference.”

review states had been delinquent for an average of 24 months while the average length of delinquency in non-judicial states was 17 months—a 41 percent difference, according to Lender Processing Services (LPS).³

As a result, judicial review states have a greater backlog of foreclosures. Of the 16 states with the highest foreclosure rates at the end of 2011, 15 were judicial review states (see Figure 8). Nevada is the lone non-judicial review state to crack the top 15 while other non-judicial

states that were at the epicenter of the housing bust like Arizona and California have comparatively low foreclosure rates. According to LPS, the combined foreclosure rate in judicial states as of March 2012 (6.5 percent) was more than two-and-a-half times greater than the rate in non-judicial states (2.5 percent).

The current foreclosure situation in Indiana—while still a major problem—is somewhat better than the foreclosure rate suggests. The share of the state’s mortgages that

are at least three months past due has declined sharply since peaking in late 2009 (see **Figure 9**). At the end of 2011, this measure was about halfway back to its average rate between 2003 and 2007. This decline has leveled-off in the last three quarters of 2011 but Indiana's trend in this pre-foreclosure category has been nearly identical to the U.S. trend over the last two years.

So while Indiana's foreclosure inventory remains high, the flow of homes into foreclosure is on the decline. And when comparing across states, it's the flow into foreclosure that offers a clearer contrast. In the fourth quarter of 2011, 0.99 percent of Indiana's home loans entered foreclosure, according to the MBA. This mark was identical to the U.S. rate and ranked 17th among states (compared to 9th for the total foreclosure rate). Florida (1.7 percent), Arizona (1.5 percent), Nevada (1.4 percent) and Georgia (1.4 percent) had the nation's highest foreclosure start rates at the end of 2011.

Residential Construction Still Slow

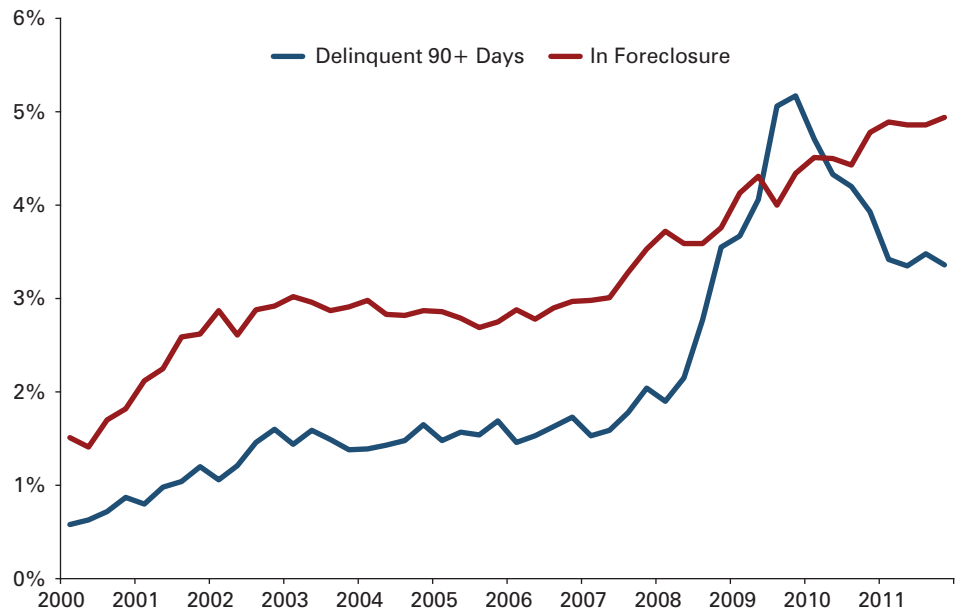
Along with acting as a weight on prices, another key effect of the foreclosure crisis has been to undercut demand for new construction. This is a trend that the economics blog *Calculated Risk* has termed the "distressing gap," in reference to the large number of distressed home sales in recent years. Over at least a dozen years leading up to the housing bust, there was a consistent ratio of five or six existing home sales for each new home sold at the national level. Since the beginning of 2007, however, the housing demand that still exists has tilted even more heavily toward increasingly affordable existing homes. As a result, the ratio of existing home sales to new homes has climbed to roughly 14 by early 2012. The price discount on existing homes brought on by the large inventory

of foreclosures and other distressed properties at least partially explains this widening gap.⁴

New home sales data are not available for states so we are unable

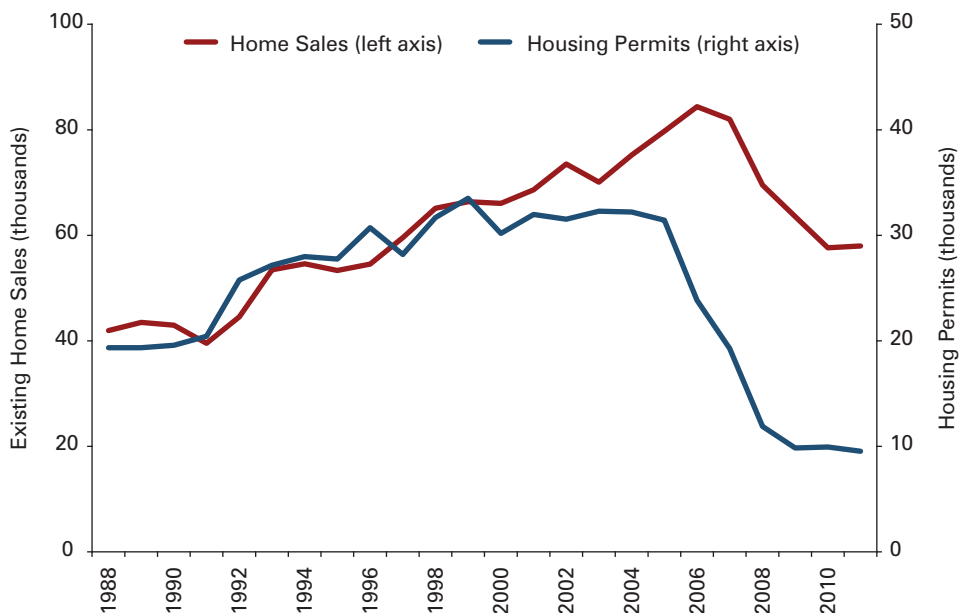
to confirm if this relationship holds in Indiana. However, a comparison of existing home sales and annual housing construction permits suggests that the same dynamics are

FIGURE 9: Share of Indiana Mortgages 90+ Days Past Due or in Foreclosure, 2000:1 to 2011:4



Source: National Delinquency Survey, Mortgage Bankers Association

FIGURE 10: Indiana Existing Home Sales and Single-Family Housing Permits, 1988 to 2011



Source: U.S. Census Bureau, Moody's Economy.com

at play (see **Figure 10**). From 1988 to 2005, there were approximately two existing home sales for each single-family housing permit in Indiana. Even through the 1990s when the number of annual housing permits increased by 14,000, there was a corresponding increase in existing home sales. Since 2006, the number of housing permits has plummeted but existing home sales have not dropped in proportion—resulting in a ratio of six existing home sales for every permit in 2011. Since finding a bottom in 2009, single-family residential construction activity has been stuck at a level last seen in the early 1980s.

Conclusion

There are finally some positive signs in the Indiana housing market. Most notably, housing demand is up slightly and the flow of homes into foreclosure is on the decline. Other indicators, such as house prices and residential construction, however, have reached a bottom and stayed

there. So, is a recovery underway or will the housing market languish for some time in a new normal?

In all likelihood, the market's separate issues will have to be resolved in turn. That is, housing demand and the foreclosure situation must continue to improve before there can be a true rebound in prices and construction. Of course, none of this will happen until there is progress in the broader economy. There are hopeful signs on this front too. As of April 2012, Hoosier businesses have added more than 50,000 jobs in the last year and the state's unemployment rate dropped below 8 percent for the first time since late 2008. Add in historically low mortgage interest rates and the pieces are in place for a housing recovery. To be sure, the Indiana housing market continues to face challenges and progress may be slow, but most signs point to a market on the mend. ■

Notes

1. An HPI like this one from FHFA is conceptually different from the median sales price indicator discussed earlier. The HPI is a repeat-sales index, meaning that it measures the change in sales price for properties when they are resold. A median sales price simply indicates the median price of all homes sold in a given period and, thus, is influenced by the mix of homes sold in that period. In 2011, for instance, homes with four or more bedrooms accounted for 28.3 percent of Indiana's sales compared to 25.9 percent in 2009. The different mix of homes sold likely explains part of the increase in median sales price.
2. "Report to Congress on the Root Causes of the Foreclosure Crisis," U.S. Department of Housing and Urban Development, January 2010.
3. "LPS Mortgage Monitor," Lender Processing Services, February 2012, www.lpsvcs.com/LPSCorporateInformation/CommunicationCenter/DataReports/Pages/Mortgage-Monitor.aspx
4. "Home Sales: Distressing Gap," Calculated Risk (blog), March 23, 2012, www.calculatedriskblog.com/2012/03/home-sales-distressing-gap.html.

Foreign Direct Investment in Indiana

TANYA J. HALL, Economic Research Analyst, Indiana Business Research Center, Indiana University Kelley School of Business

Foreign direct investment (FDI) is one way to measure the scope and degree of a region's globalization (exports being another). FDI contributes financially to the state's economy and often provides job opportunities for local residents. This article provides an overview of the recent historical data from the Bureau of Economic Analysis (BEA) on FDI trends nationally, in the Midwest and Indiana specifically, as well as "real-time" FDI announcements made between 2009 and 2011 for planned investments in new and expanded plants and equipment. For a more detailed analysis, read *Capturing the Flag: Foreign Direct Investment in Indiana*, available at www.stats.indiana.edu/topic/exports.asp.

Historical FDI (2007-2009)

FDI data from the BEA cover U.S. businesses newly acquired or established by foreign direct investors. In 2009, the United States had nearly 5.3 million workers employed at enterprises where a foreign investor or company had at least a 50 percent stake, otherwise known as a majority-owned U.S. affiliate (MOUSA). Slightly more than 23 percent of these MOUSA workers were employed in the Midwest. In 2009, Indiana ranked 14th among states (same as 2008), with 131,400 workers employed at MOUSA firms (see Table 1). From 2007 to 2009, MOUSA employment declined in the U.S. by 5.5 percent, a trend mirrored in most Midwestern states except Missouri and Iowa.

The Origin of FDI

European countries accounted for 52.2 percent of the nation's MOUSA

TABLE 1: Majority-Owned U.S. Affiliate Employment in Midwestern States, 2009

Geography	MOUSA Employment (in thousands)	Change since 2007	U.S. Rank
United States	5,279.7	-5.5%	n/a
Illinois	250.8	-10.6%	5
Ohio	211.2	-11.3%	8
Michigan	134.8	-11.7%	13
Indiana	131.4	-11.9%	14
Tennessee	116.3	-16.5%	15
Minnesota	92.2	-6.1%	20
Kentucky	87.0	-6.4%	21
Missouri	85.5	3.8%	22
Wisconsin	74.6	-9.0%	25
Iowa	46.0	1.1%	29

Source: Bureau of Economic Analysis

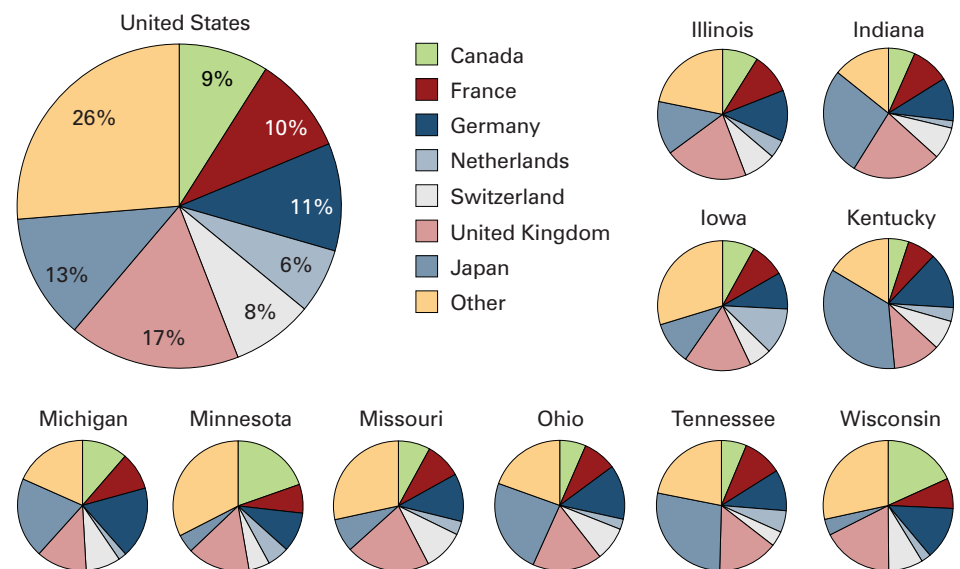
employment in 2009 followed by "other countries" (such as Middle Eastern and Latin American countries) at 26.3 percent and Japan

(12.5 percent). The Midwest, as a whole, followed similar trends with a slightly stronger presence from Japan and other countries compared to the nation, and less from Europe and Canada. At the individual country level, Japan held the largest share of MOUSA employment in Indiana at 26.9 percent (35,300 jobs). In the U.S. and Midwestern states, the United Kingdom was the dominant European country creating FDI jobs. Among Indiana's neighboring states, Illinois had the largest employment presence from France and the United Kingdom (see Figure 1).

FDI Employment

During the Great Recession MOUSA employment rolls declined nationally by 5.5 percent or 308,500 workers, reducing its MOUSA employment concentration to about 5 percent of total private employment in 2009. In Indiana, MOUSA firms accounted for 5.6 percent of Indiana's total

FIGURE 1: Midwestern States' Majority-Owned U.S. Affiliate Employment by Source, 2009



Source: Bureau of Economic Analysis

private sector employment. The state ranked 12th nationally and among its Midwestern neighbors, only Kentucky MOUSAs had a higher share of total private employment.

Midwestern states lost nearly 131,000 MOUSA jobs (-9.6 percent) and Indiana had the fifth highest job loss in the region at 17,700 workers. Only Missouri and Iowa gained MOUSA jobs during the recession, albeit slightly. Tennessee had the greatest percent change in MOUSA employment, yet Illinois lost the greatest number of jobs at 29,700.

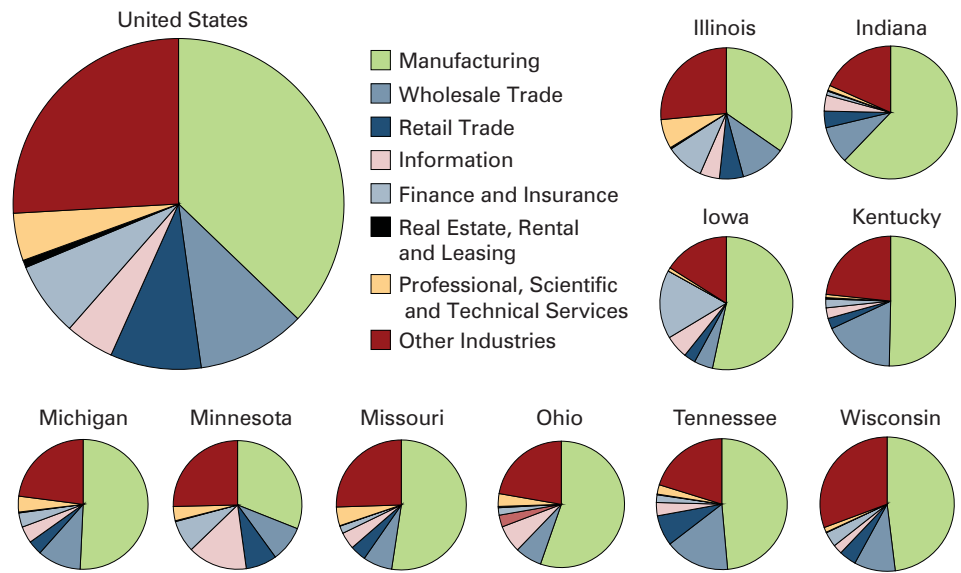
FDI by Industry

FDI-related employment spans multiple industries, with manufacturing remaining dominant at the national, regional and state levels in 2009 (see **Figure 2**). Beyond manufacturing, the second-largest industry category employing U.S. workers is “other industries” at 25.9 percent. Indiana follows a similar trend with manufacturing constituting 62.2 percent of total MOUSA employment, with “other industries” comprising 18.3 percent, and wholesale and retail trade at 9.1 percent and 4 percent, respectively. Industries where Indiana’s concentration of MOUSA employment was greater than the United States included manufacturing, wholesale trade and information.

Manufacturing Employment

In 2009, 37.2 percent of all FDI-related employment in the U.S. was in manufacturing, with the Midwest capturing 29.9 percent of all manufacturing-related FDI employment. Since 2007, manufacturing-related MOUSA employment as a percent of total employment has increased by 0.5 percentage points. In Indiana, 62.2 percent of total MOUSA employment was in the manufacturing sector, the second-highest percentage nationally (following Arkansas).

FIGURE 2: Share of MOUSA Employment by Industry, 2009



Source: Bureau of Economic Analysis

These 81,700 MOUSA manufacturing jobs represented 18.5 percent of total private manufacturing employment in the state. This share of manufacturing employment exceeded the U.S. percentage of 16.6 percent and, among neighboring states, was surpassed by only Kentucky and Ohio. Compared to other regions of the country; manufacturing dominates MOUSA employment in the Midwest. In recent years, Indiana has become more attractive to foreign direct investors—particularly in manufacturing as it continues to capture one of the largest shares of MOUSA manufacturing employment among states over time.

FDI Announcements (2009 to 2011)

To get a more “real-time” measure of FDI, the IBRC uses an investment tracking service, fDi Markets (www.fdimarkets.com), to determine potential foreign direct investments in the U.S. from 2009 through 2011. This service tracks foreign direct investment announcements (through media releases) and often includes projected investment values and expected number of jobs that will be

created. fDi Markets “counts” the FDI project the year it is announced with the understanding that it may take years before the investment is fully realized, if the project is realized at all. Additionally, an important difference compared to BEA data is that fDi Markets collects data on greenfield and expansion projects only. Merger and acquisition transactions are not captured in the fDi Markets data.

One must exercise some caution when using and interpreting fDi Markets data. As an announcement is made, fDi Markets uploads the data, thus enhancing its timeliness, but subsequent announcements or adjustments to that particular announcement may not be reflected in the database. Additionally, if investment or employment values are not announced explicitly, fDi Markets estimates these values with varying degrees of accuracy. Despite these inherent shortcomings, fDi Markets is our best source for current FDI activity.

FDI Announcements in the United States, Midwest and Indiana

Every year states announce forthcoming investments made by companies moving to or expanding within their borders as well as the expected new jobs needed to support the business. Nationally, between 2009 and 2011, the majority (91.5 percent) were intrastate investments made by U.S. businesses. In the Midwest and Indiana, however, over a quarter of the announcements were made by foreign countries (see Table 2).

Recognizing that the data presented in this section includes estimated data from fDi Markets for cases where the expected capital investment or employment was not reported in the original announcement, the IBRC researched the Indiana announcements to corroborate the estimated figures.¹ Although not all estimates could be vetted, the revised figures show Indiana had 136 announcements over this three-year period valued at \$5.1 billion with an anticipated 11,800 jobs. The fDi estimates over-reported Indiana's capital investment by \$0.7 billion and 1,000 employees; therefore, the remainder of the article will use Indiana's revised announcement figures.

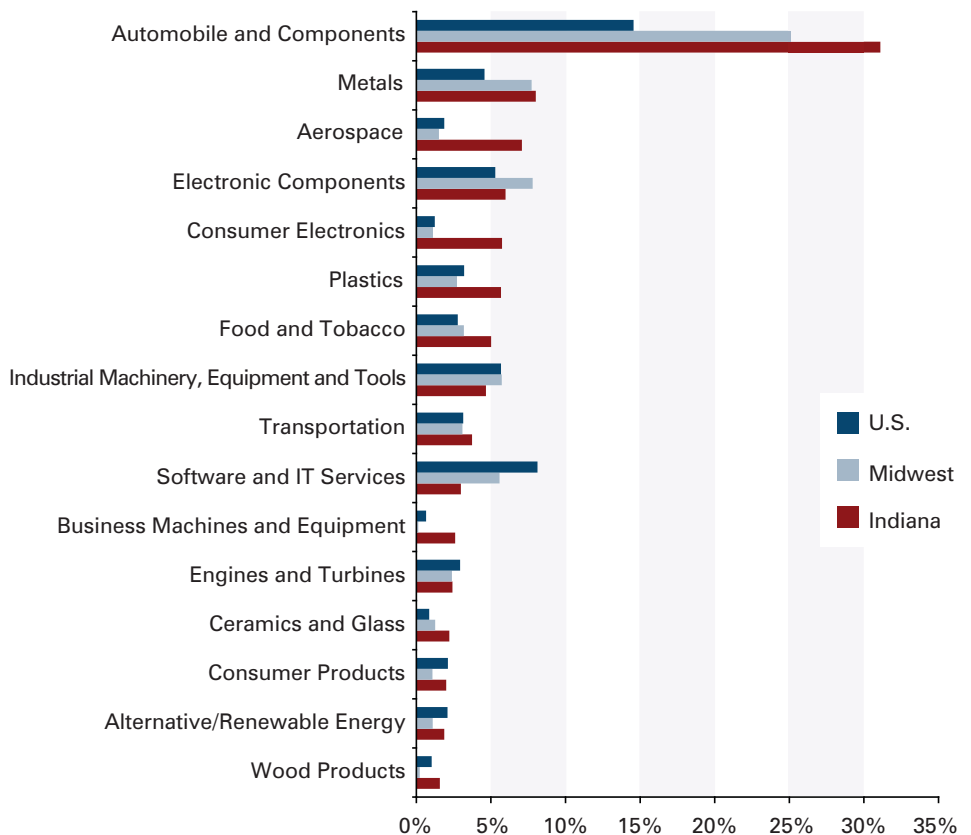
Between 2009 and 2011, 4,081 FDI announcements were made in the U.S. with an estimated value of \$182.8 billion and 352,460 anticipated jobs. The Midwest captured 19.6 percent of the nation's FDI announcements with 799 reported investments valued at \$38.4 billion and 78,600 anticipated jobs. Seventeen percent of the FDI within the Midwest was earmarked for Indiana, with an estimated value of \$5.1 billion and the anticipated creation of 11,800 jobs. This expected value places Indiana fifth among its Midwestern neighbors with Ohio, Tennessee and Wisconsin capturing the highest levels of investments at \$7.6 billion, \$6.8 billion and \$6.1

TABLE 2: Foreign Direct Investment by Region, 2009 to 2011

Region	Total Deals	Foreign Deals	Foreign Deals	
			Value (in millions)	Jobs
U.S.*	48,108	4,081	\$182,768	352,458
Midwest*	2,884	799	\$38,387	78,598
Ohio	538	158	\$7,606	14,033
Illinois	474	156	\$5,509	9,195
Indiana*	483	136	\$5,111	11,799
Michigan	240	86	\$3,382	11,511
Tennessee	298	78	\$6,758	14,213
Kentucky	284	62	\$1,191	4,675
Wisconsin	162	43	\$6,093	6,917
Missouri	173	36	\$928	2,906
Minnesota	135	27	\$1,103	2,028
Iowa	98	17	\$707	1,321

*Indiana's data have been verified, yielding more conservative estimates. The other states' data represent unverified fDi Markets reported figures.
Source: fDi Markets

FIGURE 3: Projected FDI Employment by Industry Sector as a Share of Total MOUSA Employment, 2009 to 2011



Source: fDi Markets

billion, respectively. With respect to employment, Indiana ranked third among Midwestern states behind Tennessee and Ohio. Beyond the Midwest, Indiana's total estimated investments and job announcements ranked ninth in capital investments and 10th in total jobs nationally.

FDI Announcements by Industry

Nationally, the top three industries capturing foreign capital investments were the communications (\$13.4 billion), automobile and components (\$12.4 billion) and real estate (\$10.3 billion) industries. Within Indiana, the top three investments by capital were in the alternative energy (\$1.2 billion), coal/oil/natural gas (\$894.8 million) and the automobile and components industries (\$871.9 million). In the other Midwestern states, the coal/oil/natural gas, chemicals and metal industries were the top three future recipients of foreign capital investment flows

of \$8.9 billion, \$2.9 billion and \$2.8 billion, respectively. However, these large capital investments do not always correlate to large expected employment figures.

Figure 3 shows that Indiana's top FDI-employment industries were automobiles and components (3,670 jobs, or 31.1 percent of the total) followed by metals (945 jobs, 8 percent) and aerospace (845 jobs, 7.1 percent). The state can expect new jobs resulting from the 41 FDI deals announced in the automotive industry between 2009 and 2011. The single largest auto-related deal was Honda's announcement in 2011 for 1,000 jobs—27.2 percent of the auto-related jobs.

The auto industry also had the largest share of total FDI employment announcements nationally and in the Midwest; however, FDI job announcements were more evenly distributed across industries. The expected 50,000 jobs related to auto

sector FDI deals between 2009 and 2011 accounted for 14.2 percent of the U.S. total. Among the top destination states for auto sector FDI, Indiana had the fifth highest projection of auto-related jobs behind Alabama, Tennessee, Michigan and Georgia.²

In Indiana, the Great Recession certainly affected the FDI announcement volume—even in the automobile and components industry—creating some volatility in the past five years. Indiana has had a range of 4,350 expected jobs in 2006 to 229 jobs in 2008. The U.S. followed a similar trend with 2008 being a soft year for FDI job announcements. Since 2008, the state's FDI-related job announcements in the automobile and components industry have continued to grow along with year-over-year increases in the total number of FDI announcements.

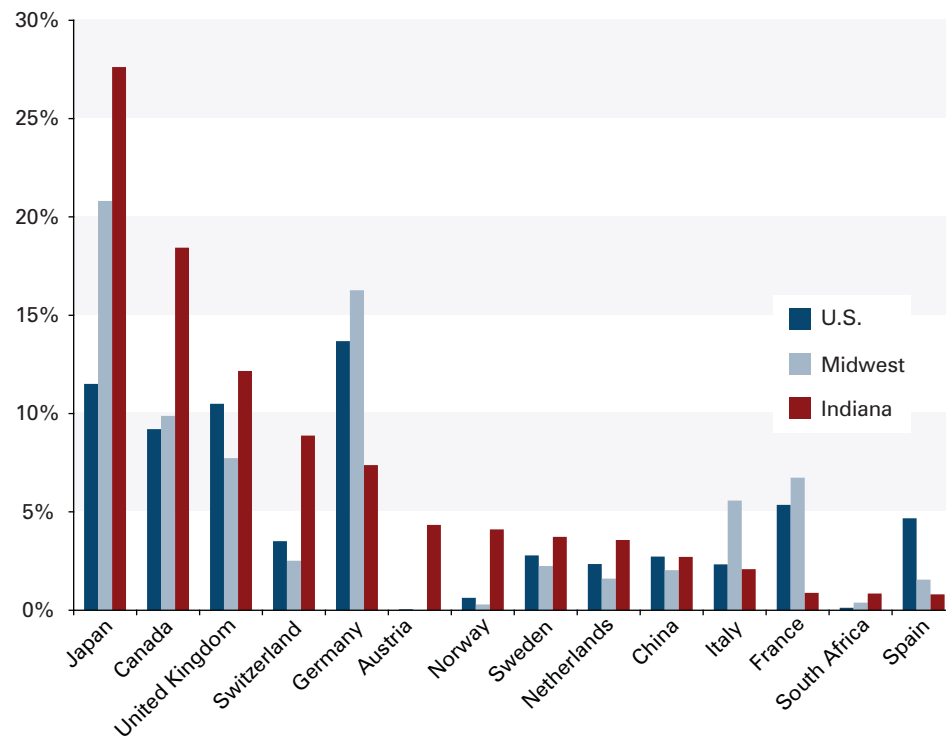
FDI by Business Activity

Nearly 74 percent of the FDI-related jobs announced in Indiana between 2009 and 2011 were in the manufacturing business activity. Business activity classifies FDI projects based on the primary task undertaken at a facility rather than on the type of product or service a company produces. While Indiana had the highest number of manufacturing FDI project announcements (95) between 2009 and 2011, it ranked fifth in the number of announced jobs (8,700). Nine of the top 10 states with FDI manufacturing jobs were in either the Midwest or the South, regions where most of the nation's automotive plants are located. Indiana was not the only state to have heavy concentrations of manufacturing jobs as its 74 percent placed it at 15th place. Nationally, manufacturing represented 41.6 percent of FDI job announcements.

FDI by Source Country

Japan was the largest source of FDI commitments in Indiana and the

■ FIGURE 4: Share of Total Announced FDI Employment by Source Country, 2009 to 2011



Source: fDi Markets

Midwest from 2009 through 2011. More than a quarter of Indiana's announced FDI jobs came from Japan compared to 11.5 percent for the United States (see **Figure 4**). Germany, in contrast, was the top source of employment announcements for the United States at 13.7 percent. Rounding out the top five source countries that invested in Indiana from 2009 to 2011 are Canada (18.4 percent), the United Kingdom (12.2 percent), Switzerland (8.9 percent) and Germany (7.4 percent). Overall, these top five countries had 103 FDI announcements in Indiana within the past three years and expected employment of 8,788, comprising 75 percent of all announced Indiana FDI employment.

Conclusion

Foreign direct investment plays an important role in Indiana's economy, particularly in the manufacturing sector. U.S. Bureau of Economic Analysis data for 2009 show that Indiana's MOUSA manufacturing employment share was greater than the nation's, and FDI announcements between 2009 and 2011 indicate that this trend is continuing.

The Great Recession certainly affected the volume of FDI announcements nationally, regionally and statewide, but not all states were negatively affected. The continued growth of FDI announcements in Indiana in 2011 indicates that the state is still an attractive destination for foreign investment, particularly

in the automobile and components industry and the manufacturing business activity. ■

Notes:

1. Research was done by searching press releases and news stories about companies' investments within Indiana with a focus on confirming/denying the fDi reported employment and capital figures.
2. Indiana's rankings against other states may suffer slightly from the more conservative FDI announcement data used for Indiana. IBRC analysts scrub the fDi Markets data for Indiana, removing errant records—e.g., counting a plant retooling as a plant expansion—but the IBRC analysts do not scrub the data for other states.