



KELLEY SCHOOL OF BUSINESS

INDIANA UNIVERSITY  
Indiana Business Research Center

Indiana's Ongoing  
Foreclosure Crisis

European Investment in  
Indiana's Automotive Sector

*demographic and economic perspectives, insights, and analysis since 1926*

# INDIANABUSINESSREVIEW

*Inside This Issue*  
**Housing and Auto**



**Summer 2011**  
Volume 86, No. 2

## Kelley School of Business

**Daniel C. Smith**  
Dean

**Frank Acito**  
Associate Dean of  
Information Technology

**Munirpallam Venkataramanan**  
Associate Dean of  
Academic Programs

**Idie Kesner**  
Associate Dean of  
Faculty and Research

**Philip L. Cochran**  
Associate Dean of  
Indianapolis Programs

**Anne D. Auer**  
Director of Marketing

## Indiana Business Research Center

**Jerry N. Conover**  
Director and Publisher

## Indiana Business Review

**Carol O. Rogers**  
Executive Editor

**Rachel M. Justis**  
Managing Editor

**Diane M. Probst**  
Graphic Designer

**Flora A. Lewis**  
Quality Control

# Table of Contents

## 1 Indiana's Ongoing Foreclosure Crisis

Matt Kinghorn explores the mortgage delinquency and foreclosure trends, analyzing factors that have fueled the current housing crisis, as well as why Indiana's historic foreclosure trend often deviates from the United States.

## 6 European Investment in Indiana's Automotive Sector

Ryan Krause looks at the increasingly important role European companies are playing in Indiana's transportation equipment manufacturing industry.

## From the Editor

A home and a car – two things most Hoosiers can relate to, considering we have a home-ownership rate of 70 percent and nearly 95 percent of households have at least one vehicle available for their use. But not everyone has been able to stay in their homes. Learn the extent of the foreclosure crisis in Indiana in our lead article by demographer and economic analyst Matt Kinghorn. Regarding cars, we don't just own them – we make them. Auto has begun its comeback and European investment in Indiana's automotive sector has become more and more significant, as you will learn from Ryan Krause in his look at investment in Indiana's auto sector by countries across the pond.

# Indiana's Ongoing Foreclosure Crisis

**Matt R. Kinghorn:** Economic Research Analyst, Indiana Business Research Center, Kelley School of Business, Indiana University

**M**any areas of the economy are finally showing signs of life.

Here in Indiana, labor force data from March show that Hoosier employers added more than 50,000 jobs over the preceding 17 months and the state's unemployment rate was at its lowest point since late 2008. Despite this momentum in the broader economy, the housing market continues to struggle and its near-term direction seems as uncertain as ever.

Mortgage delinquencies and foreclosures are at the heart of the enduring housing troubles. This article will explore mortgage delinquency trends in Indiana and around the country and consider the factors that have fueled this crisis and why Indiana's historic foreclosure trend often deviates from that of the United States. Also, we will examine the impact of this issue on other aspects of the housing market and economy.

## Foreclosures at Record Levels

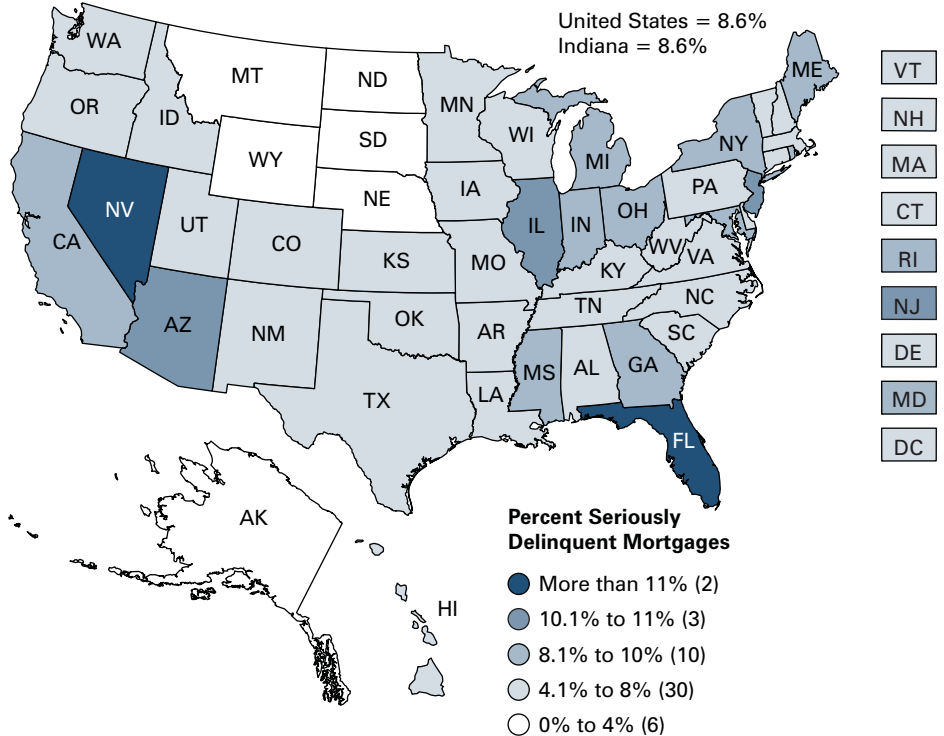
States like Florida, Nevada and California have grabbed most of the national headlines concerning the housing bust and for good reason. As of the fourth quarter of 2010, Florida led the nation with over 19 percent of its mortgages being seriously delinquent (i.e., 90 or more days overdue or in foreclosure) followed by Nevada at 17 percent (see **Figure 1**). New Jersey, Illinois and Arizona also had marks above 10 percent. At the same time, Indiana's serious delinquency rate of 8.6 percent matched that of the United States and ranked 10th highest nationally, coming in just below Ohio and Michigan.

While Indiana and the United States have a comparable share of mortgages that are seriously delinquent, the state has typically had a higher rate of loans in the early stages of delinquency. As of

the fourth quarter of 2010, 6.3 percent of all Indiana home loans were up to three months past due compared to 5 percent nationally (see **Figure 2**). The United States had a slightly higher

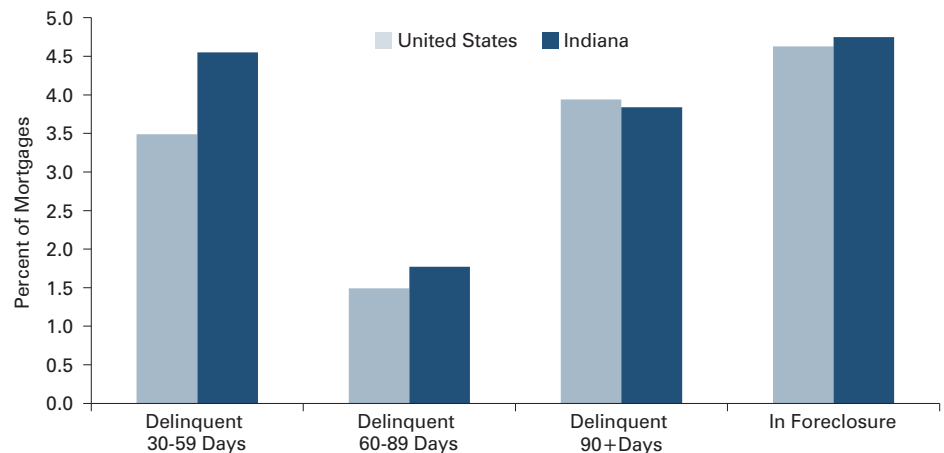
rate of mortgages 90 or more days delinquent while the share of Indiana mortgages in foreclosure (4.8 percent) edged the U.S. mark (4.6 percent). These foreclosure rates are

**FIGURE 1: Share of Seriously Delinquent Mortgages, 2010:4**



Source: IBRC using National Delinquency Survey, Mortgage Bankers Association data

**FIGURE 2: Percent of Mortgages in Various Stages of Delinquency, 2010:4**



Source: IBRC using National Delinquency Survey, Mortgage Bankers Association data

the highest on record for both Indiana and the nation. All told, 14.9 percent of Indiana mortgages were past due or in foreclosure at last measure compared to 13.6 percent nationally.

### Trends

Although Indiana and the United States currently have comparable foreclosure rates, the state's trend over the last two decades has rarely tracked the national rate. Indiana's foreclosure rate was well below the U.S. mark through much of the 1990s.

At the low point from mid-1994 to mid-1996, Indiana's foreclosure rate averaged 0.5 percent compared to 0.9 percent for the United States (see **Figure 3**).

Indiana's rate began to rise steadily in late 1996 and truly soared, along with unemployment rates, at the onset of the recession in the early 2000s. The recession spurred an increase in the U.S. foreclosure rate too, but not to the extent seen in Indiana. More importantly, through the mid 2000s, the U.S. rate gradually

returned to the 1 percent level while Indiana's remained elevated. However, the housing bust and ensuing economic downturn have pushed the U.S. rate up more than four-fold since 2007.

### Driving Forces

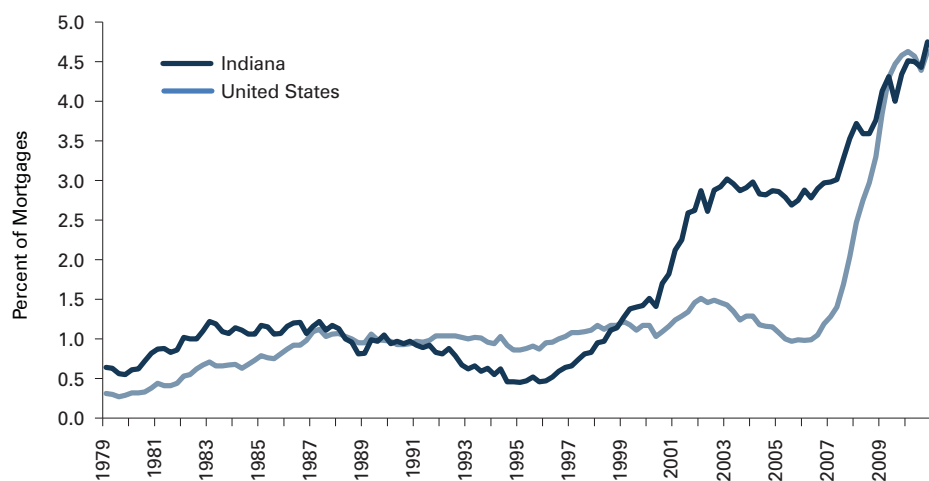
In a 2009 report to Congress, the Department of Housing and Urban Development outlined several factors that contributed to the recent foreclosure situation.<sup>1</sup> Listed among the underlying causes were slowing home price appreciation and, later, the weak economy. Yet while these factors helped to spark the recent rise in mortgage defaults, the growth in high-risk loans provided the primary fuel for the crisis.

The rise of subprime lending around 2003 certainly headlined this development and Hoosiers have been more likely to enter the subprime market than Americans have on whole. By 2006, more than 15 percent of Indiana's home loans were subprime compared to 13.5 percent for the nation, according to the Mortgage Bankers Association. In Indiana, this mark has dropped to roughly 11 percent in 2010 while the U.S. stands below 10 percent. As of late 2010, one quarter of Indiana's subprime loans were seriously delinquent.

The loosening of lending standards began before the boom in subprime loans, however. Federal Housing Finance Agency (FHFA) data show that Indiana's average mortgage loan-to-home value (LTV) ratio jumped from 73 percent in 1991 to 81 percent in 1995. Indiana's ratio hovered around the 80 percent mark through 2008 but has dropped precipitously since. Even more telling, Indiana's LTV ranking went from 12th lowest among states in 1991 to 34th in 1995. Each year between 2003 and 2006, Indiana had one of the 10 highest ratios in the nation.

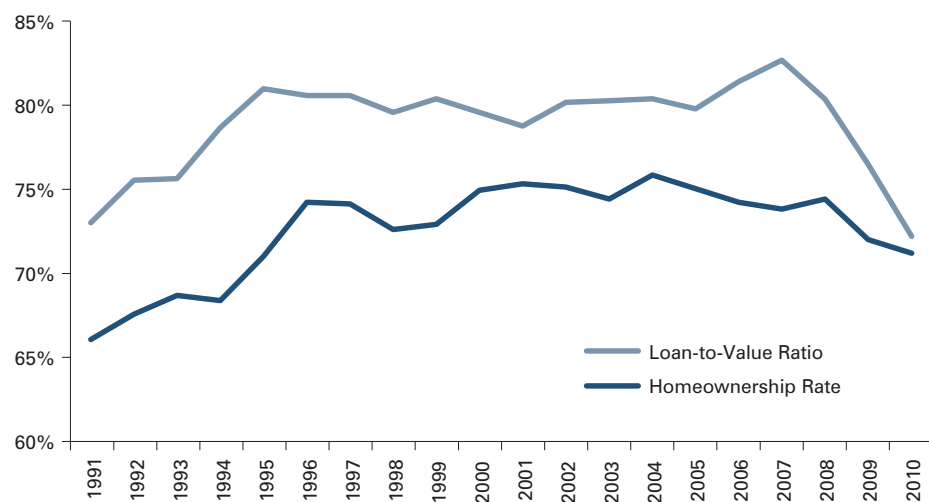
This easier access to credit no doubt helped to make the dream of

**FIGURE 3: Share of Mortgages in Foreclosure, 1979:1 to 2010:4**



Source: IBRC using National Delinquency Survey, Mortgage Bankers Association data

**FIGURE 4: Indiana Loan-to-Value Ratio and Homeownership Rate**



Source: IBRC using Federal Housing Agency and U.S. Census Bureau data

owning a home a reality for many Hoosiers (see **Figure 4**). Indiana's homeownership rate rose from 66 percent in 1991 to 76 percent in 2004, the fifth largest increase in the nation over this period. The U.S. rate also peaked in 2004 at 69 percent, up 5 percentage points over 1991. These lax lending standards, however, also meant that there were more homeowners unprepared for the type of economic shocks associated with the housing bust and ensuing recession. As a result, foreclosures have soared and homeownership is in retreat. Indiana's 2010 homeownership rate is down to 71 percent, its lowest point since 1995.

While the growth of high-risk lending fueled the national foreclosure crisis that began in 2007, this factor alone does not explain Indiana's elevated default rate earlier in the decade. Other structural dynamics left Hoosiers more susceptible to foreclosure. Chief among these has been the state's sustained industrial decline.

After expanding through the 1990s, Indiana shed more than 220,000 manufacturing jobs between

*“Indiana’s 2010 homeownership rate is down to 71 percent, its lowest point since 1995.”*

2000 and 2009. Roughly half of those losses came before the recession hit in late 2007. Other jobs have cropped up to offset a portion of these manufacturing losses, but they have tended to be in lower wage industries. This shift has contributed to a steady slide in household incomes. From its peak in 1999, Indiana's real median household income dropped by a rate of 1 percent per year through 2007—ranking Indiana 44th among all states. The recent downturn forced the state's real median household income down at an even faster rate.

As it relates to foreclosures, the decline in real household incomes was compounded by the state's slow rate of housing appreciation. According to the FHFA's House Price Index, Indiana housing appreciated 69 percent from 1991 to its peak in 2007 (see **Figure 5**). This was the slowest 1991-to-peak increase of any

state. Ranking just ahead of Indiana were Ohio (75 percent increase to its peak in 2006), Texas (92 percent) and Kentucky (93 percent).

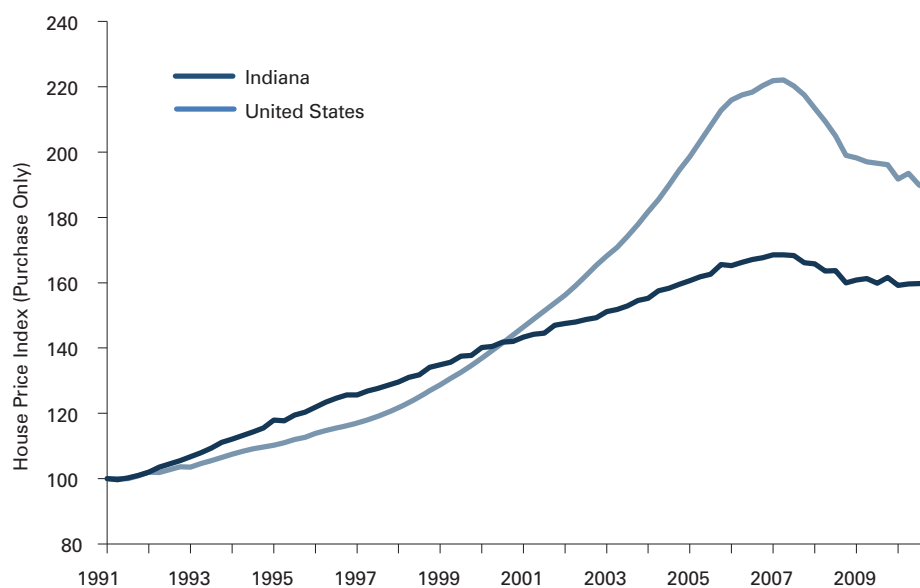
When looking at changes in home values, it's reasonable to question whether Indiana was even part of the housing bubble. After all, the state's home prices did little more than keep pace with nominal growth in household incomes over the last two decades.

**Figure 6** traces the ratio of nominal median household income to median home sales price for select states. This analysis shows that although many states experienced a run up in home prices relative to incomes in the early 2000s, California, Nevada and Florida truly led this trend. 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. Among 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 crisis, however, the price-to-income ratio in each of these states tumbled back to the more sustainable levels seen during the 1990s. 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's ratio has come down as both prices and nominal median household incomes have dipped in recent years. Indiana, Ohio and Michigan had the nation's lowest price-to-income ratios in 2009.

In many parts of the country, these rapid price increases during the bubble period rescued many homeowners who were in over their

**FIGURE 5: House Price Index, Indiana and the United States, 1991:1 to 2010:4**



Source: IBRC using Federal Housing Finance Agency data

heads. In the event of economic hardship, many people could take advantage of their inflated home values to refinance or sell their homes at prices that allowed them to avoid foreclosure. By contrast, the lack of a price bubble in Indiana meant that fewer Hoosiers had this option.

Not until the bubble began to deflate in 2006 did many homeowners around the country begin to fall victim to the same circumstances that had plagued

many Hoosiers for several years prior: too many high-risk loans that were no longer cloaked by rapid price increases.

It's important to note that Indiana was not alone in its lofty foreclosure rates before the bust. Neighboring Michigan, Ohio and Illinois joined Indiana to form a distinct block of high foreclosure states. Each of these states, to some degree, shared the same mix of factors that drove Indiana's trend.

## Implications

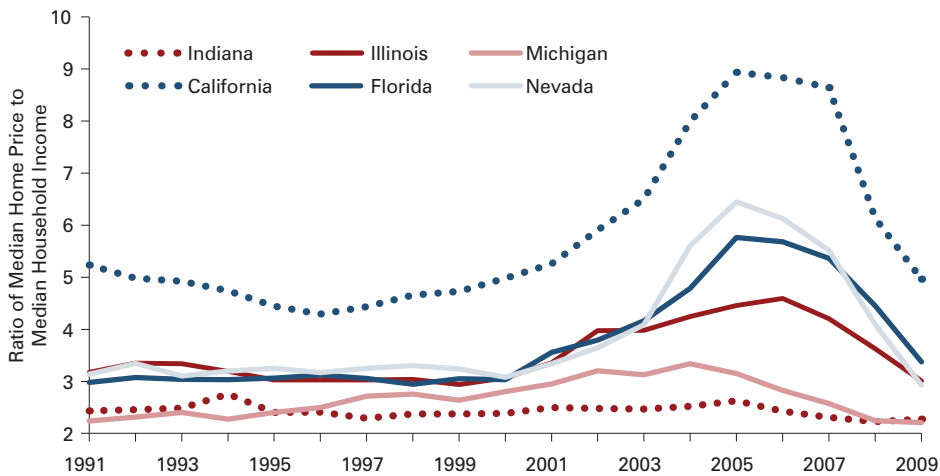
The foreclosure fallout has led to a glut of distressed properties on the market. The real estate analytics firm CoreLogic estimates that distressed sales, comprising both real estate owned (REO) sales and short sales, jumped from 6 percent of all U.S. transactions in 2007 to 28 percent in 2009.<sup>2</sup> This measure reached 30 percent by November 2010.<sup>3</sup>

Among states, the usual suspects lead the way. Distressed properties made up over half of all sales in Michigan, Nevada and Arizona in November 2010, followed by California and Florida with marks above 35 percent (see Figure 7). Distressed sales accounted for nearly one out of every five homes sold in Indiana in November 2010. This value ranks 21st nationally and is well below the U.S. average.

The flood of distressed properties on the market has a couple of damaging side effects. First, the elevated inventory of distressed homes places downward pressure on prices. This effect varies widely between local markets yet it is clearly a major force behind continued price declines in some areas and a weight on price rebounds in others. Moreover, working through the inventory of distressed properties is, in some ways, perpetuating the housing crisis. That is, more and more homeowners become at risk of foreclosure as prices continue to decline (or simply tread water) and the employment situation is slow to rebound.

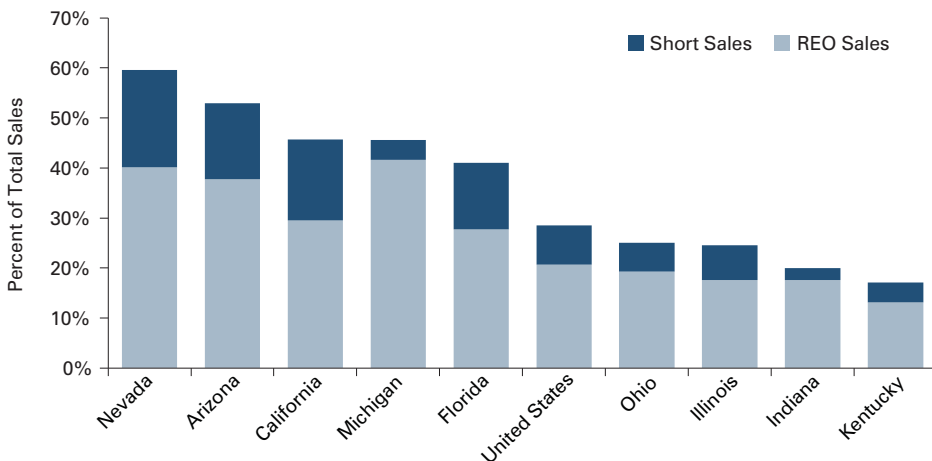
The large inventory of distressed properties has also helped to undercut demand for new homes. This is a trend that the economics blog *Calculated Risk* has termed the "distressing gap." Over at least a dozen years leading up to the housing bust there was a consistent ratio of five to six existing home sales for each new home sold at the national level. Since the beginning of 2007, however, the housing demand

■ **FIGURE 6: Ratio of Median Home Price to Median Household Income, Indiana and Select States, 1991 to 2009**



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

■ **FIGURE 7: Distressed Home Sales as a Share of Total Sales, United States and Select States, November 2010**



Source: IBRC using CoreLogic data

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 climbed to 17 by early 2011. This widening gap is at least partially explained by the decline in existing home prices driven by the large inventory of distressed properties.<sup>4</sup>

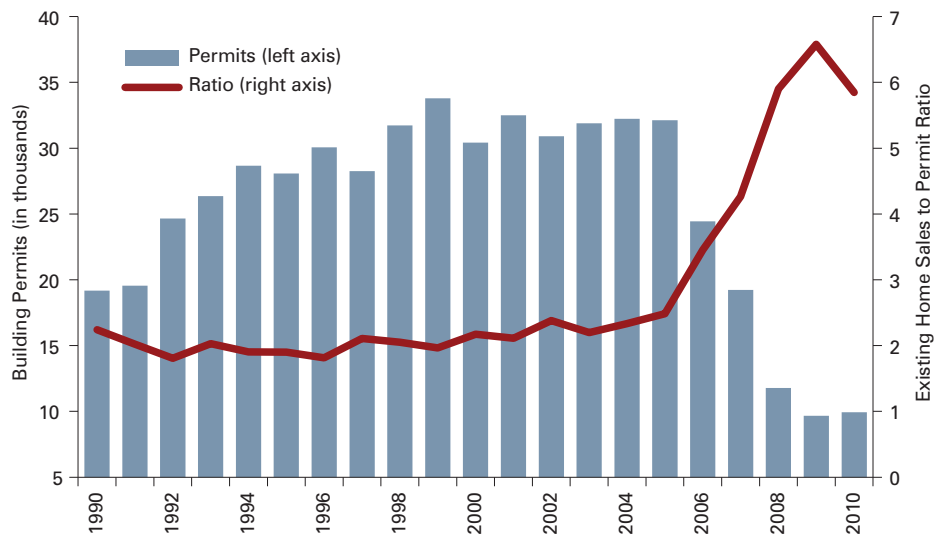
New home sales data are not available for states so we are unable to confirm if this relationship holds in Indiana. However, a comparison of existing home sales and annual building permits suggests that the same dynamics are at play (see **Figure 8**).<sup>5</sup> From 1990 to 2005, approximately two existing homes were sold for each single-family building permit issued in Indiana. Even through the 1990s when the number of annual permits increased by 15,000, there was a corresponding increase in existing home sales. Since 2006, the number of building permits issued has plummeted but existing home sales have not dropped in proportion, resulting in a ratio that approached seven in 2009. Presumably, distressed-sales-induced price declines for existing homes contributed to this moribund market for new homes.

This measure declined some in 2010 as existing home sales continued to slide while single-family permits ticked up slightly. The increased permits, however, were likely a temporary product of the federal government's homebuyer tax credit programs of 2009 and 2010. As of April, the number of permitted units in Indiana has declined year-over-year in ten of the last 11 months.

## Conclusion

The Indiana housing market will continue to face challenges. The state's foreclosure rate at the end of 2010 was at a historic high and could remain elevated for some time judging by the share Indiana mortgages that are still under water.

**FIGURE 8: Indiana Annual Single-Family Building Permits and Ratio of Existing Home Sales to Single-Family Building Permits**



Source: IBRC using U.S. Census Bureau, Moody's Economy.com, and Indiana Association of Realtors data

According to CoreLogic, 11 percent of the state's mortgages were in a negative equity position in the fourth quarter of 2010. Another 5 percent were near negative equity (i.e., the outstanding mortgage is at least 95 percent of the home value). These figures are well below the U.S. average but they do suggest that there remains a sizeable pool of Hoosier homeowners who are at risk of foreclosure.

However, Indiana will eventually work through this crisis, as will the rest of the country. The state's swollen inventory of distressed homes will shrink and the value of Indiana homes will appreciate once again. For Hoosiers, though, the sobering question becomes: what then? We already saw that Indiana had one of the nation's highest foreclosure rates for several years before the housing bust. After the market recovers, will the economic fundamentals that created that environment continue or will Indiana see the economic development it needs to reverse its decade-long slide in household incomes? Indiana will need a retooled economy to ensure

that it does not spend another decade among the top foreclosure states. ■

## Notes

1. "Report to Congress on the Root Causes of the Foreclosure Crisis," U.S. Department of Housing and Urban Development, January 2010.
2. Real estate owned refers to properties that are owned by lenders after an unsuccessful foreclosure auction. A short sale is the sale of a home at a price that is less than the outstanding mortgage.
3. "U.S. Housing and Mortgage Trends," CoreLogic, February 2011, [www.corelogic.com/#home-research](http://www.corelogic.com/#home-research).
4. "Home Sales: Distressing Gap," *Calculated Risk* (blog), February 24, 2011, [www.calculatedriskblog.com/2011/02/home-sales-distressing-gap.html](http://www.calculatedriskblog.com/2011/02/home-sales-distressing-gap.html).
5. Admittedly, building permits is a crude proxy for new home sales. Other factors such as overbuilding prior to 2006 may contribute to the drop in building permits as well. However, the trend line in **Figure 8** mirrors the trend line for the U.S. ratio of existing home sales to new home sales over this same period.

# European Investment in Indiana's Automotive Sector

Ryan Krause: Economic Research Analyst, Indiana Business Research Center, Kelley School of Business, Indiana University

Indiana, as well as the rest of the Midwest, boasts a proud tradition of automotive manufacturing. Historically, transportation equipment has been Indiana's biggest export, although that distinction has become tenuous in recent years. The percentage of Indiana's employment devoted to transportation equipment manufacturing is more than three times the corresponding percentage for the nation as a whole. That figure, however, has decreased considerably over time. In 2001, transportation equipment manufacturing accounted for 5.6 percent of Indiana's employment. In 2009, that figure dropped to 3.8 percent. For the United States as a whole, the decrease was less dramatic, from 1.8 percent to 1.3 percent.

As Figure 1 shows, the most recent recession has proved particularly devastating to

Indiana's transportation equipment manufacturing employment, although the drop in employment in this sector began as early as 2004. But transportation equipment remains a major player in the Indiana economy.

## A Snapshot of Europe's Investment

Foreign investment in Indiana's motor vehicle manufacturing activity has ballooned over the last half-decade, particularly from the European Union (EU). EU firms' estimated investment in Indiana in transportation equipment has totaled close to \$1.5 billion since 2003. This investment has resulted in the creation of more than 5,300 jobs in the state, or roughly 6 percent of the total 2009 transportation equipment manufacturing employment in Indiana. Relatively speaking, Europe is a prominent player in

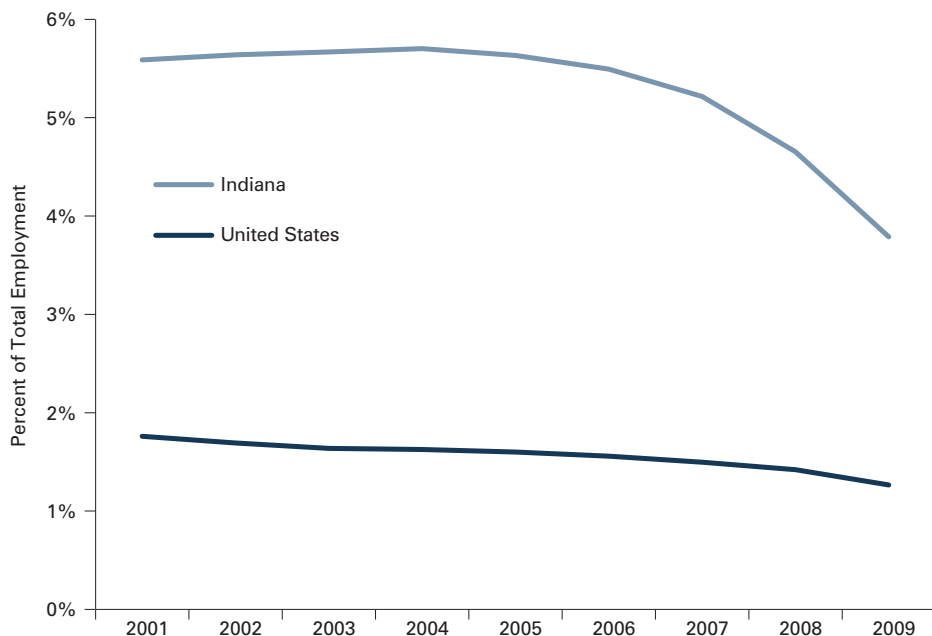
the transportation equipment manufacturing industry in Indiana.

Figure 2 shows the estimated dollar value of EU investments in Indiana's transportation equipment industries in each year since 2003.

These investments came from 21 separate European firms. The top five EU investors are shown in Table 1. The lion's share of investment was derived from DaimlerChrysler, the German-owned firm created when Daimler merged with U.S. car company Chrysler in 1998. Daimler divested its interest in Chrysler in 2007, and so 2007 is the last year in which the combined firm is recorded as investing in Indiana. After a couple of years as a privately owned firm, Chrysler was sold to Italian auto firm Fiat in 2009. A review of the specific investments DaimlerChrysler made in Indiana reveals two investments, both of substantial value, and both directed at Chrysler's Kokomo manufacturing facility. So, while the German firm is no longer supplying the funds, Chrysler remains financially tied to the EU through its corporate parent, Fiat.

Rolls-Royce Group, a U.K. firm, has invested over a quarter of a billion dollars in its Indiana operation since 2003. Rolls-Royce focuses its production on vehicles for air and sea, but its involvement in the Indiana economy has real implications for a workforce trained in the manufacturing of motor vehicle parts. For instance, Rolls-Royce's most recent investment in the state, announced just last January 2011, will inject almost \$50 million into Indianapolis for the purpose of designing engine control systems. This project is estimated to generate 159 new jobs by 2013. Engine design is obviously an integral component of the automotive supply chain, and regardless of the

■ FIGURE 1: Percentage of Total Employment Devoted to Transportation Equipment Manufacturing, 2001-2009



Source: IBRC, using Bureau of Labor Statistics data



engines' ultimate use, the activity fits well with Indiana's strength in parts manufacturing.

ThyssenKrupp, a global technology holding company based in Germany, is also on the list. This EU firm has invested over \$50 million

in Indiana for the purposes of producing automotive components, primarily in Terre Haute. In 2009, a U.S. subsidiary of ThyssenKrupp expanded its metal casting operations in Tell City, Ind., with a \$36.5 million investment. The project was intended to upgrade equipment and expand capacity at the plant. This was expected to create 160 jobs by the end of 2012, which is not negligible in a town of just over 7,000 people.

In January 2011, French tire manufacturer Michelin announced a single \$50 million investment through its subsidiary, BF Goodrich. The investment will go to BF Goodrich's existing tire plant in Woodburn, Ind. This grant will expand the operation's current tire production facility and add 35 new jobs. Since Woodburn's population is just over 1,500 people, this project will have about the same per capita impact on employment in Woodburn as the ThyssenKrupp project will have on employment in Tell City.

BAE Systems is a U.K. defense and security firm that provides products and services for land, air and naval forces. In 2009, the company invested almost \$15 million to add 200 jobs to its production facility in Fort Wayne. The facility manufactures engine controls, flight controls, and cables for commercial and military avionics. The new jobs that the investment funds brought were to be operations, operations support and engineering positions.<sup>1</sup>

■ **TABLE 1: Top Five European Investors in Transportation Equipment Manufacturing, 2003 to 2011**

Investor	Source Country	Total Estimated Investment
DaimlerChrysler	Germany	\$938,000,000
Rolls-Royce Group	United Kingdom	\$254,100,000
ThyssenKrupp	Germany	\$53,750,000
Michelin	France	\$50,000,000
BAE Systems	United Kingdom	\$31,900,000

Source: IBRC, using FDI Markets data

In addition to these larger foreign investors, several other smaller players have recently found Indiana's manufacturing capability to be an opportune investment vehicle. In just the past year, four other European firms have announced investments totaling \$32 million, with each granted to a facility in a different city. All four firms are involved in the automotive industry.

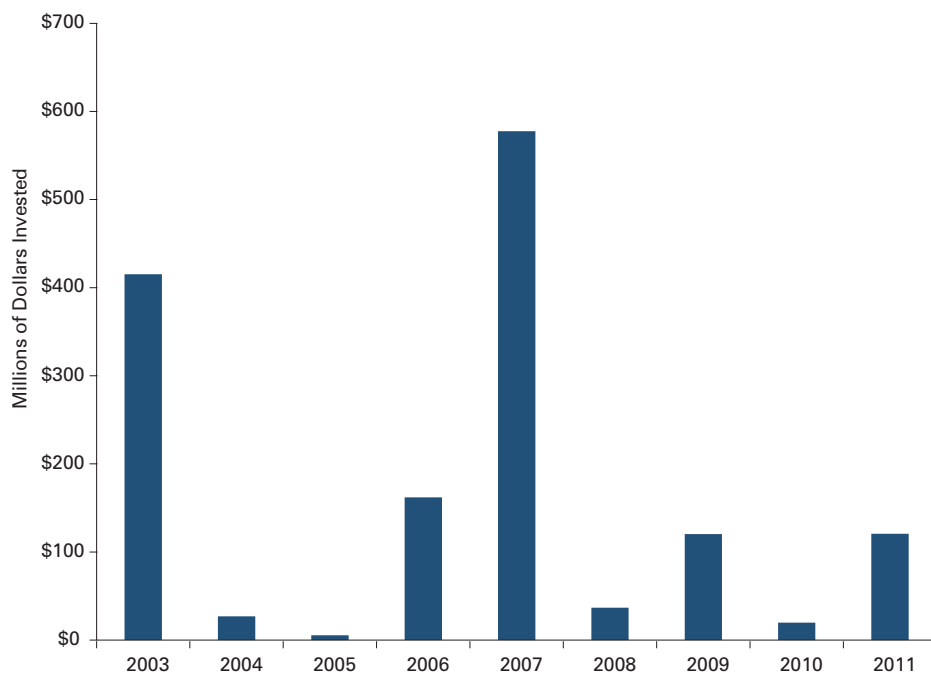
Somaschini is an Italian manufacturer of a wide array of gears for automotives. The company's

recent \$18 million investment in South Bend is not an expansion but a new project, a joint venture with Schafer Gear Works. The joint venture, named South Bend Gear, will produce engine gears for heavy-duty trucks to be marketed in North America.

AL-KO Kober announced a \$4.5 million expansion of its operations in Elkhart in order to manage an expected 20 percent rise in sales this year. The German company produces a diverse catalog of machinery and engineering products, but focuses on the manufacture of axles and brakes. The Elkhart facility was the launching point of AL-KO Kober's U.S. operations almost 30 years ago.<sup>2</sup>

Another German automobile components producer, Voss, — specializing in air brake, fuel, and metric fittings, lines and valves — announced in 2010 that they were going to invest in Fort Wayne. Their plans call for adding office, lab and warehouse space to the existing

■ **FIGURE 2: European Investment in Indiana Transportation Equipment Manufacturing**



Source: IBRC, using FDI Markets data

production facility, as well as additional staff.

Finally, in November 2010, Italian race car designer and manufacturer Dallara Automobili broke ground in Speedway on a \$7 million production facility, the company's first outside its hometown of Parma, Italy.<sup>3</sup> Dallara Automobili is well-known for providing the chassis for the IndyCar series. The new production facility will bring 80 new jobs.

### What the Future Holds

Europe's investment in Indiana's motor vehicle industry is likely to continue increasing. The largest investor over the last eight years was Chrysler. While Fiat currently owns only 30 percent of Chrysler, the Italian firm recently announced that it may exercise an option to purchase up to 70 percent.<sup>4</sup> This would substantially increase the parent company's involvement in Indiana's—and the Midwest's—automotive industry.

Other new developments also portend greater European involvement. Manufacturing in Indiana and the Midwest is currently undergoing a fundamental change as motor vehicle producers clamber to produce "greener" and more fuel-efficient products. A recent report on changes in the auto industry revealed that while the Midwest is in many ways poised to take advantage of increases in the technological sophistication and efficiency of new vehicles, in other ways Europe and Asia have the upper hand.<sup>5</sup> For instance, one change facing the auto

*“While the Midwest is in many ways poised to take advantage of increases in the technological sophistication and efficiency of new vehicles, in other ways Europe and Asia have the upper hand.”*

industry today is the need to produce more fuel-efficient vehicles without sacrificing the size of the vehicle. This requires lighter raw materials, and the U.S. lags behind Europe and Asia in the fields of metallurgy and material science, which are necessary to create these new materials. As such, European firms will likely play an even bigger role in U.S. auto manufacturing as time progresses and the needs of the industry exceed the nation's traditional competencies.

European firms who provide such raw materials have begun to invest in Indiana. In 2008, Luxembourg-based steel giant ArcelorMittal announced a \$240 million expansion of its production facility in New Carlisle, Ind. The investment would create a new galvanizing line, resulting in 100 new jobs. Most important for the greening U.S. auto industry, however, the new line would produce "high-grade, high-quality coated sheets that promote improved safety and fuel efficiency in automobiles."<sup>6</sup> The company credited the Indiana Economic Development Corporation's provision of training grants and tax credits with making Indiana the most attractive location for its business.

Many of the European vehicle and parts producers mentioned above also noted Indiana's tax breaks and employee training grants as critical factors in their decisions to invest in the state.

Training grants are particularly important as the industry moves toward producing more technologically advanced and environmentally friendly products. At times like these, when demand for vehicles has stagnated and cash is scarce, providing training in-house or contracting it out can be difficult or infeasible for manufacturers. In the report mentioned above, employers in the motor vehicle industry indicated that state government support for skill development and training attracted them to the South, as opposed to the Midwest.<sup>7</sup> While statements from firms already investing in Indiana attest to the value of this state's support for training, there might still be room for improvement.

With the greening of the automotive industry, Indiana has become one of the prime locations in the United States for manufacturers of electric vehicle batteries and engines.<sup>8</sup> Given Europe's edge in producing green technologies, specializing in electric vehicle inputs might put Indiana on the radar of European auto manufacturers looking to produce greener cars on American soil. Our less expensive workforce and government incentives would only increase the Hoosier state's attractiveness. Signs are already emerging that European producers of battery-powered cars

■ TABLE 2: Recent European Investors in Indiana's Automotive Industry

Announcement Date	Company Name	Source Country	Destination City	Investment	Jobs
March 1, 2011	Somaschini	Italy	South Bend	\$18,000,000	12
February 1, 2011	AL-KO Kober	Germany	Elkhart	\$4,500,000	21
September 1, 2010	Voss	Germany	Fort Wayne	\$2,500,000	9
July 1, 2010	Dallara Automobili	Italy	Speedway	\$7,000,000	80

Source: IBRC, using FDI Markets data

are looking to the United States as a manufacturing venue. German automaker BMW announced in late 2010 that the carbon fiber for its new line of Megacity electric vehicles would come from a plant in the state of Washington.<sup>9</sup> As automakers around the world introduce and expand lines of battery-powered cars, Indiana stands ready to capitalize on that growth.

## Conclusion

What this review of European foreign direct investment in Indiana reveals is that Europe is playing an increasingly important role in Indiana's transportation equipment industry and, perhaps more importantly, is entering the state at all stages of the automotive supply chain. Just the few examples discussed here span the range of components used to produce finished vehicles: engines, gears, axles, brakes, bodies, etc. In addition, the end users of the products range from individual civilians to

businesses to the military. Given the importance of the motor vehicle industry—and especially the motor vehicle parts industry—to Indiana's economy, European firms' continued willingness to invest their capital here can only be viewed as a positive sign for the state's economic prospects. ■

## Notes

1. Aaron Organ, "BAE Systems to Add 200 Jobs in Fort Wayne," *News-centinal.com*, February 28, 2009, accessed May 6, 2011.
2. Source: [www.al-kousa.com](http://www.al-kousa.com).
3. "Dallara and Indy Racing Experience Break Ground on New Speedway Home," *Indy Racing Experience*, [www.indyracingexperience.com](http://www.indyracingexperience.com), November 16, 2010, accessed May 6, 2011.
4. "Fiat Has Options to Boost Chrysler Stake to More than 70%," *Automotive News Europe*, May 10, 2011, <http://autonewseurope.com/apps/pbcs.dll/article?AID=/20110510/ANE/305109869/1193>.
5. Driving Change Consortium, "Driving Workforce Change: Regional Impact and Implications of Auto Industry Transformation to a Green Economy," a report prepared for the Employment and Training Administration, U.S. Department of Labor, May 2011, [www.drivingworkforcechange.org/reports/DrivingWorkforceChange.pdf](http://www.drivingworkforcechange.org/reports/DrivingWorkforceChange.pdf).
6. ArcelorMittal and Nippon Steel Corporation Announce \$240 Million Expansion at I/N Kote in New Carlisle, Indiana," ArcelorMittal, April 16, 2008, [www.arcelormittal.com/index.php?lang=en&page=49&tb0=274&tblng=1](http://www.arcelormittal.com/index.php?lang=en&page=49&tb0=274&tblng=1).
7. Driving Change Consortium, "Driving Workforce Change: Regional Impact and Implications of Auto Industry Transformation to a Green Economy," a report prepared for the Employment and Training Administration, U.S. Department of Labor, May 2011, [www.drivingworkforcechange.org/reports/DrivingWorkforceChange.pdf](http://www.drivingworkforcechange.org/reports/DrivingWorkforceChange.pdf).
8. Timothy Slaper, "Ion Drive: A Visit to Enerdel," *Indiana Business Review*, Summer 2010, [www.ibrc.indiana.edu/ibr/2010/summer/pdfs/summer2010.pdf](http://www.ibrc.indiana.edu/ibr/2010/summer/pdfs/summer2010.pdf).
9. Jack Ewing, "BMW Inaugurates a Factory for Electric Cars," *The New York Times*, November 6, 2010, [www.nytimes.com/2010/11/06/business/global/06bmw.html](http://www.nytimes.com/2010/11/06/business/global/06bmw.html).

*This research was sponsored by the European Union Center at Indiana University through a grant from the European Union.*