

Global Positioning

Indiana's Exports and Foreign Direct Investment



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KELLEY SCHOOL OF BUSINESS

INDIANA UNIVERSITY

Indiana Business Research Center

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Indiana's Exports and Foreign Direct Investment

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Executive Summary

This international report, produced by the Indiana Business Research Center (IBRC), presents data and trends for Indiana exports and foreign direct investment (FDI) activity in the state. Additionally, in this year's report, there is a focus on trade and investment linkages between the European Union and Indiana. Exports and FDI play a large role in Indiana's economy. The purpose of this report is to gauge the significance of that role and the extent of Indiana's global engagement.

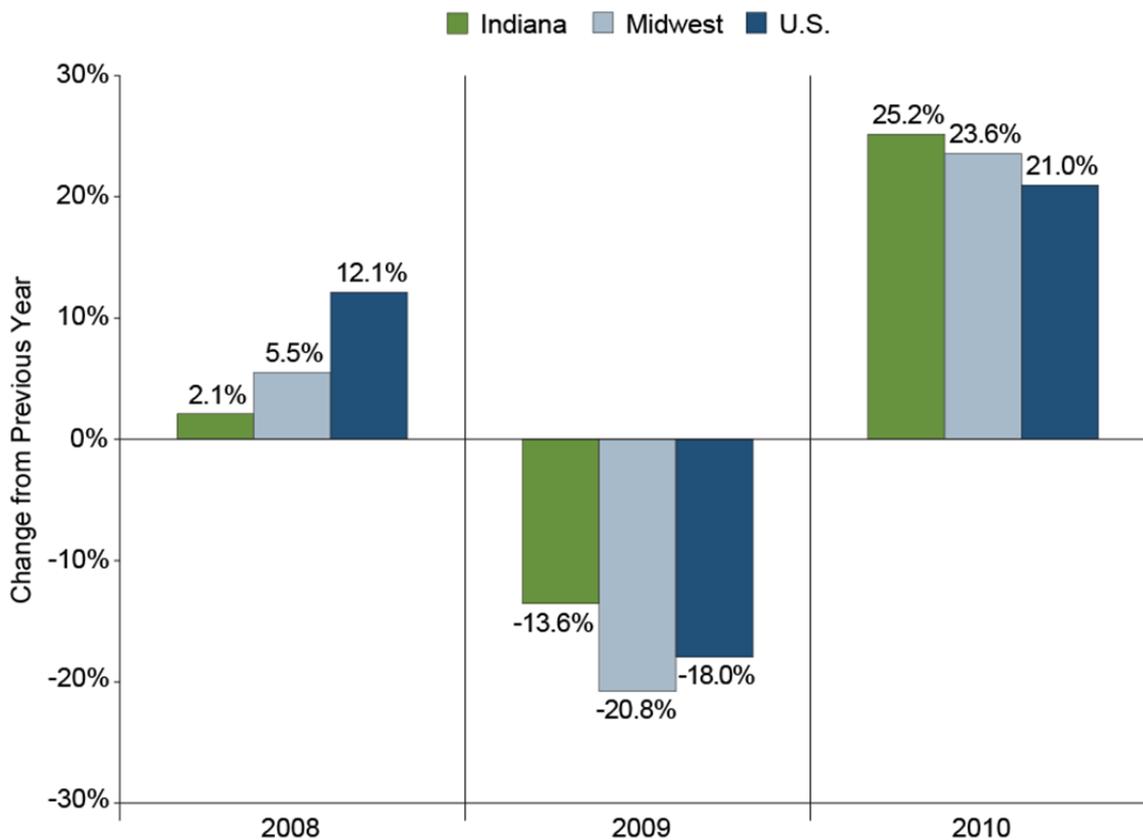
Exports

In 2010, the United States exported nearly \$1.3 trillion in goods. Indiana's contribution was \$28.7 billion to the U.S. total, a record high for the state. While it may seem that Indiana's share of all exports is relatively small, over the past decade, Indiana has outperformed the nation in its average annual growth rate of exports, 9 percent versus 6 percent, respectively.

The global slowdown in 2008 and 2009 certainly affected the U.S. and Indiana's exports, particularly in 2009. While the U.S. continued to post respectable export growth in 2008—increasing 12.1 percent—in 2009 export activity contracted 18 percent, before rebounding in 2010. Indiana on the other hand, felt the initial effects of the recession in 2008, but had a less severe contraction in 2009. In 2010, the Indiana rebound was stronger than the nation and the Midwest.

Figure 1 shows the volatility of the past three years. In 2010, Indiana marked the strongest year-over-year growth in a single year since 2000. By way of comparison, Indiana's rank among all states in terms of export sales fell to 15th with its anemic 2008 growth, but rose to 14th in 2010.

Figure 1: Annual Increase in Exports for Indiana, Midwest and United States, 2008-2010



Source: WISER Trade

For the purposes of this report, the Midwest is defined as Indiana, Illinois, Iowa, Kentucky, Michigan, Minnesota, Missouri, Ohio, Tennessee and Wisconsin. Like Indiana, the rest of the Midwest also enjoyed dramatic export growth in 2010. The Midwest experience through the recession was generally more like that of the nation as a whole—minimal uptick in 2008 and contraction in 2009. Much of this change in exporting activity in the past three years can be attributed to the export of industrial machinery and vehicles and parts—manufacturing staples in the Midwest.

Though Canada, Mexico and Germany generate a majority of the demand for Indiana's exports, growth of late has derived from Spain and the emerging economies of Brazil and China. Spain is the only country in the top 10 export destination countries that increased its year-over-year imports of Indiana goods in 2009 and 2010—up 9.7 percent and 105.5 percent, respectively. Germany, Indiana's top foreign purchaser of pharmaceutical products as well as optical and medical instruments, has seen its share of Indiana's exports increase and now accounts for 6.4 percent of Indiana's foreign sales. In 2010, Germany became the third-largest purchaser of Indiana exports. Canada, still Indiana's top export destination, increased its purchases of Indiana products in 2010 by 26.3 percent, a welcome jump from its 20.2 percent decline in 2009. As other countries have increased their purchases of Indiana goods, Canada's percentage share of Indiana exports has fallen. In 1999, Canada accounted for more than half of Indiana's export sales, but now accounts for 37.2 percent.

Vehicles and parts has remained Indiana's top exporting industry and experienced tremendous growth in the past year (56.5 percent), after dropping 25.5 percent in 2009. Pharmaceutical products became the second-largest exporting industry, which was inevitable with its 95.2 percent average annual growth rate since 2001. In third place is industrial machinery, which is still an exporting powerhouse at \$4.3 billion in 2010. The optical and medical instruments industry ranked fourth highest, having grown an average of 18.1 percent annually over the past nine years. Rounding out the top five export industries is electrical machinery, which will soon face stiff competition from organic chemicals for fifth place.

Foreign Direct Investment

As with exports, FDI in the U.S. and Indiana has also been volatile in recent years. In 2008, the United States had nearly 5.6 million workers employed at majority-owned U.S. affiliates (MOUSA firms)—that is, a company in which a foreign investor or company had at least a 50 percent stake. Slightly more than one in five MOUSA workers was employed in the Midwest. Indiana MOUSA employment ranked 14th among states, with 141,600 workers, and accounted for 5.6 percent of all Indiana employment. For the nation as a whole, MOUSA employment was 4.9 percent in 2008. Historically, manufacturing has been the dominant business activity drawing foreign direct investment to Indiana. In 2008, the latest year for which data are available, 61.6 percent of Indiana's total MOUSA employment was in the manufacturing sector.

European countries, particularly the United Kingdom, continue to dominate MOUSA employment in the United States, Midwest and Indiana. However, within Indiana, Japan served as the single largest source nation of MOUSA employment in 2008.

While these data for MOUSA investment and employment from the Bureau of Economic Analysis are real, booked and vetted, the downside is that they are not current since the most recent year available is 2008. In order to present more current, “real-time” trends today and expectations for the future, the IBRC reports FDI announcements for greenfield and expansion investments that have occurred between 2008 and 2010 in the U.S., Midwest and Indiana using fDi Markets™ data.

While fDi Markets presents the best data available for real-time FDI activity, one must exercise caution when interpreting it. These data are the publicized intentions for the investments being planned by foreign firms and may not materialize. That being said, nationally, in 2008 to 2010, 953 FDI announcements were made for an estimated total investment of \$183.7 billion and an expected 263,800 jobs. The Midwest captured 16.5 percent of the FDI

announcements, with Indiana registering 88 FDI announcements with plans to invest roughly \$4.7 billion in the state and create approximately 6,900 jobs. This places Indiana third among Midwestern states in investment announcements. Compared nationally, Indiana's total estimated value of investments ranked eighth and the number of expended jobs associated with those investment announcements ranked 15th.

Of the expected 6,900 Hoosier jobs that were announced over the three-year period, nearly 70 percent will be engaged in manufacturing as the primary business activity. On an industry basis, 28.4 percent of Indiana's expected employment from FDI announcements over this period will be in the automobile sector. The automobile sector is the most prominent for the United States as well, but the expected FDI-related jobs are more evenly distributed across all industries. The auto sector accounts for 10.7 percent of the total expected FDI employment in the United States.

Region IN Focus: The European Union

The European Union (EU) and its euro zone countries are important trading partners to Indiana. The EU imported more than a quarter of Indiana's exports (27 percent) in 2010. Of the \$7.7 billion the EU imported in 2010 from Indiana, \$5.9 billion (77 percent) were destined for euro zone countries. Of all the euro zone countries, Germany and France dominate the market, with Spain recently emerging as a significant market. The EU began a dramatic increase in Indiana imports in 2002. Since then, Indiana exports to the euro zone rose at an average annual growth rate of 22.4 percent. The non-euro zone countries also experienced growth, but with the recent recession, imports have fallen dramatically, reducing their average annual growth to 6 percent since 2002.

Indiana's life sciences industry generates most of the imports among euro zone countries as pharmaceutical products, organic chemicals and optical and medical instruments are the top three imported industries. These top three industries exported \$4.4 billion to euro zone countries in 2010, accounting for 75 percent of all Indiana exports to these countries. The importance of exports to the euro zone from Indiana is also evident by the fact that every country has at least one of these commodities in their top five lists of imports.

Conclusion

The global recession adversely affected export and FDI activity for the U.S. and Indiana. Indiana has rebounded nicely, however, with strong export numbers and FDI announcements in 2010. Several export industries have had strong average annual growth rates over the past nine years including aircraft, spacecraft and related parts, pharmaceutical products, iron and steel and optical and medical instruments. These strong growth patterns have been led by purchases in emerging countries, such as Brazil and China, and will likely continue changing the composition of Indiana's top exporting industries and export destinations in the years to come. MOUSA activity in the United States and Indiana appears to follow previous trends, with Indiana remaining attractive to investors in manufacturing. European countries and Japan are large investors, generating many jobs, a trend that is also likely to continue as Indiana continues to court Asian and European investors.

This report is part of an annual series that focuses on international business activities in Indiana. Please send any comments about this report to ibrc@iupui.edu.

Introduction

The world has become a marketplace for many businesses. It provides companies the ability to expand outside their traditional markets and grow. Hence, one key component of Indiana's future prosperity is its integration with the global economy through exports and foreign direct investments. The Indiana Business Research Center (IBRC) monitors the global business activity occurring within Indiana's borders as well as Hoosier-produced goods exported overseas. This report details the export and foreign direct investment activities of Indiana businesses, and includes a special section highlighting export activity to European Union countries.¹

The trade outlook chapter presents the global trends and forecasts that are expected to affect Indiana's exports and foreign direct investment activity. In the export chapter, the industry mix and destinations of Indiana's exports is presented to help understand the importance of exports as sources of employment and economic growth in Indiana. It also examines whether there are discernable trends for future export growth in the global marketplace. The first FDI chapter takes a retrospective look at foreign direct investments. The subsequent chapter looks at recent FDI announcements as an indication of the state's future investment activity. This international report will conclude with a special section on the European Union.

The data used for this report include public data sources, such as the Bureau of Economic Analysis and Bureau of Labor Statistics, as well as commercial datasets, such as WISER Trade and fDi Markets. Given the wealth of data that exist pertaining to the addressed topics, this report aims to present a complete picture of the state's integration with the global economy and future trends.

¹ In the past, the IBRC has analyzed FDI and export data in two separate reports. The traditional reader of these two reports will see little difference in the content between the two reports and this bundled report.

Trade Outlook

Due to the recession that gripped the world in 2008 and 2009, export activity from the U.S. slowed in 2009. U.S. exports appeared to be unaffected by the global slowdown in 2008 (marking a 12.1 percent growth), but exports contracted nearly 18 percent in 2009. In 2010, however, U.S. exports rebounded with a 21 percent increase. While Indiana's export growth was well below the national trend in 2008 (increasing only 2.1 percent), the 2009 decline in Indiana's exports (-13.5 percent) was less severe than the national contraction. In 2010, Indiana exports rebounded stronger than the U.S., increasing 25.2 percent. The value of the state's exports in 2010 grew \$5.8 billion—far more positive than the \$3.6 billion drop witnessed in 2009.

The International Monetary Fund predicted world output to grow 4.8 percent in 2010, and grow again at 4.2 percent in 2011. The IMF forecast for advanced economies—Indiana's primary trading partners—is that they would grow by 2.7 percent in 2010 and again by 2.2 percent in 2011.² **Table 1** presents the Organization for Economic Cooperation and Development's (OECD) economic growth forecasts for Indiana's leading export destinations.³

Table 1: Real GDP, Actual 2009 and 2010, Forecast 2011 and 2012

| Nation | Percentage Change from Previous Year | | | |
|----------------|--------------------------------------|------|------|------|
| | 2009 | 2010 | 2011 | 2012 |
| Australia | 1.2 | 3.3 | 3.6 | 4.0 |
| Brazil | -0.2 | 7.5 | 4.3 | 5.0 |
| Canada | -2.5 | 3.0 | 2.3 | 3.0 |
| China | 9.1 | 10.5 | 9.7 | 9.7 |
| France | -2.5 | 1.6 | 1.6 | 2.0 |
| Germany | -4.7 | 3.5 | 2.5 | 2.2 |
| Japan | -5.2 | 3.7 | 1.7 | 1.3 |
| Korea | 0.2 | 6.2 | 4.3 | 4.8 |
| Mexico | -6.6 | 5.0 | 3.5 | 4.2 |
| Netherlands | -3.9 | 1.7 | 1.7 | 1.8 |
| United Kingdom | -5.0 | 1.8 | 1.7 | 2.0 |
| United States | -2.6 | 2.7 | 2.2 | 3.1 |
| Euro area | -4.1 | 1.7 | 1.7 | 2.0 |

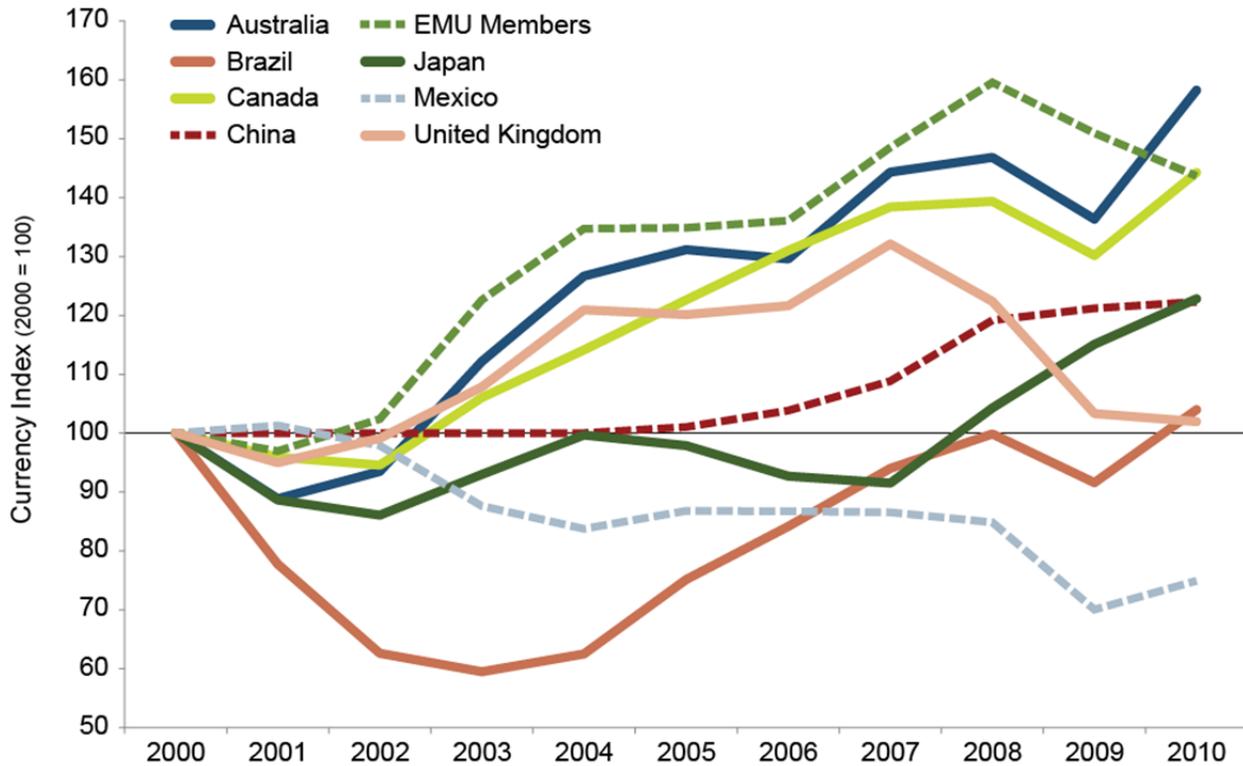
Source: Organization for Economic Cooperation and Development

The current foreign exchange environment is favorable for continuing strength in exports. Except for Mexico and the United Kingdom, U.S. trading partners have seen their cost of foreign exchange in U.S. dollars increase since 2000. In 2009 and 2010, the Japanese yen and Chinese yuan appreciated considerably against the dollar, whereas other countries depreciated in 2009 before a reversal in 2010 (see **Figure 2**).

² More IMF projections can be found at <http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf> and <http://www.imf.org/external/pubs/ft/weo/2011/01/weodata/download.aspx>.

³ The OECD forecasts growth for member countries and also for other large economies, such as China and Brazil.

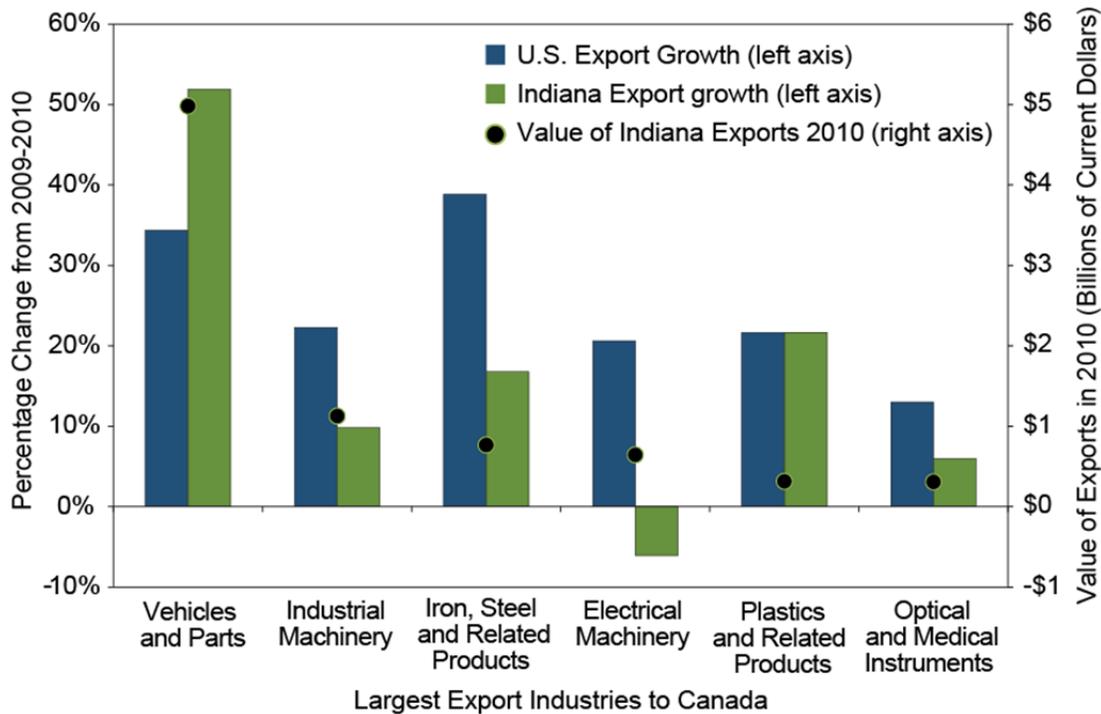
Figure 2: Foreign Exchange Trends for Indiana's Top Trading Partners, 2000-2010



Note: EMU is the European Monetary Union.
Source: Federal Reserve

Indiana's exports to Canada—the state's largest export market—increased 26 percent between 2009 and 2010. This contrasts sharply with the 20 percent decline in Indiana's exports to Canada a year earlier. **Figure 3** shows the change in the six export categories that appear in the top 10 exports to Canada for both the United States and Indiana between 2009 and 2010. Vehicle exports grew by 52 percent from 2009 to 2010—far outpacing the U.S. growth and also experiencing the highest dollar value of exports. In all other categories, except plastics and related products, Indiana's export growth lagged behind national growth trends between 2009 and 2010. Nearly all industries experienced positive rebounds from the dramatic export declines in 2009, except electrical machinery.

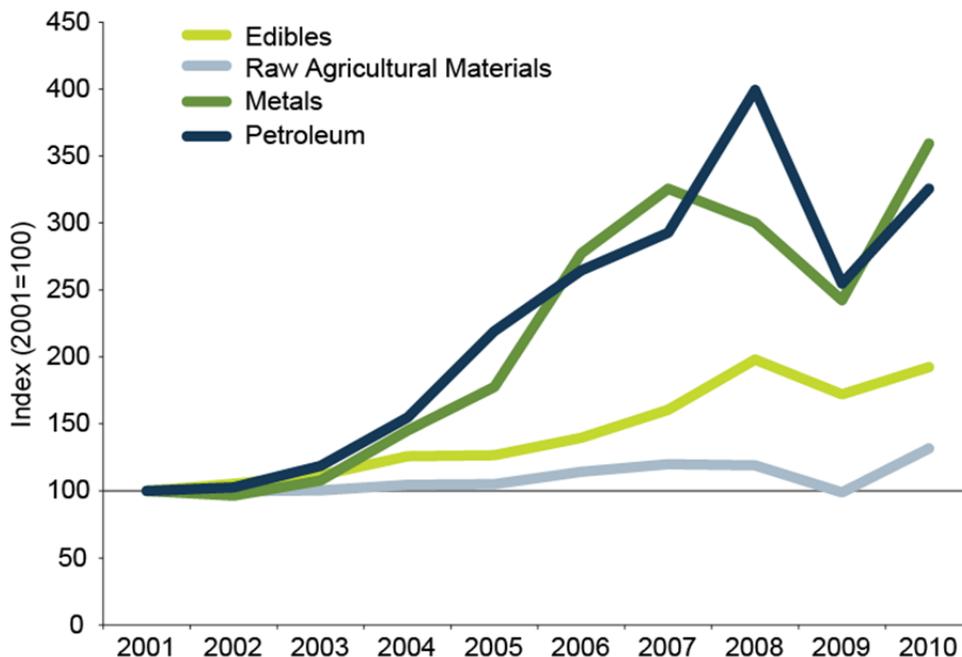
Figure 3: Comparing U.S. and Indiana Exports to Canada by Industry, 2010



Source: WISER Trade

The weakening dollar would tend to encourage export sales, but the downside is that a weak dollar also increases commodity prices. A weak dollar increases the prices of raw materials that range from crude to copper to corn. **Figure 4** shows the trends in commodity prices since 2001. All commodity prices declined in 2009, a reflection of the strengthened dollar and flagging demand. Conversely, in 2010, the dollar weakened and all commodities have increased in price, which may be partly attributed to renewed confidence in the economy in 2010.

Figure 4: World Primary Commodity Prices, 2001-2010



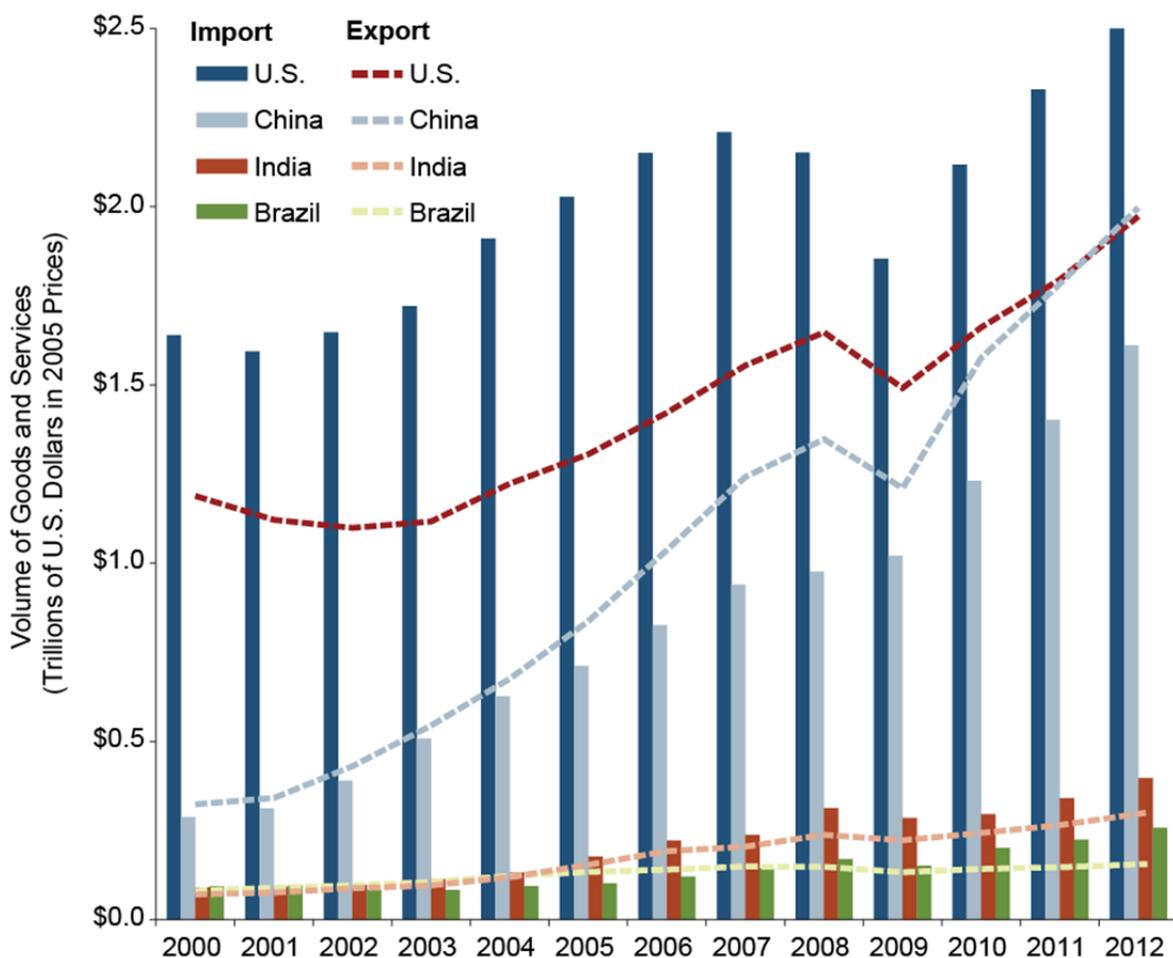
Source: International Monetary Fund

BRIC Countries

In 2001, a global economist from Goldman Sachs highlighted the rapid emerging economies of four countries—Brazil, Russia, India and China (BRIC). It was predicted that by 2050, their combined economies could surpass the combined economies of the current richest countries in the world due to the countries accounting for more than a quarter of the world’s land area and more than 40 percent of the world’s population. In the past decade, Goldman Sachs reported that BRIC countries were responsible for a third of the world’s GDP growth and its share of the economy has grown tremendously.⁴ Within this decade, it is forecast that the growing middle class will begin importing more high-value-added items, such as vehicles, office equipment and technology. Therefore, it is worth giving the BRIC countries special attention in the future, as they will likely drive the global growth in the coming decades.

Figure 5 shows the trading trends of the U.S., Brazil, China and India since 2000 and projected export and import trends through 2012. Unfortunately, the OCED did not have data for Russia to complete the BRIC analysis. Immediately it can be seen that China is the dominant country within the BRIC group and that it has had the most growth in its import and export activity (see Table 2). Brazil and India also performed well in the past decade—their imports grew in double digits and India’s level of exports also grew in double digits.

Figure 5: Trade Trends of United States, Brazil, China and India, 2000 to 2012



Note: Projections begin in 2010.
Source: OECD

⁴ The Goldman Sachs report on BRICS can be found at <http://www2.goldmansachs.com/ideas/brics/brics-decade-doc.pdf>.

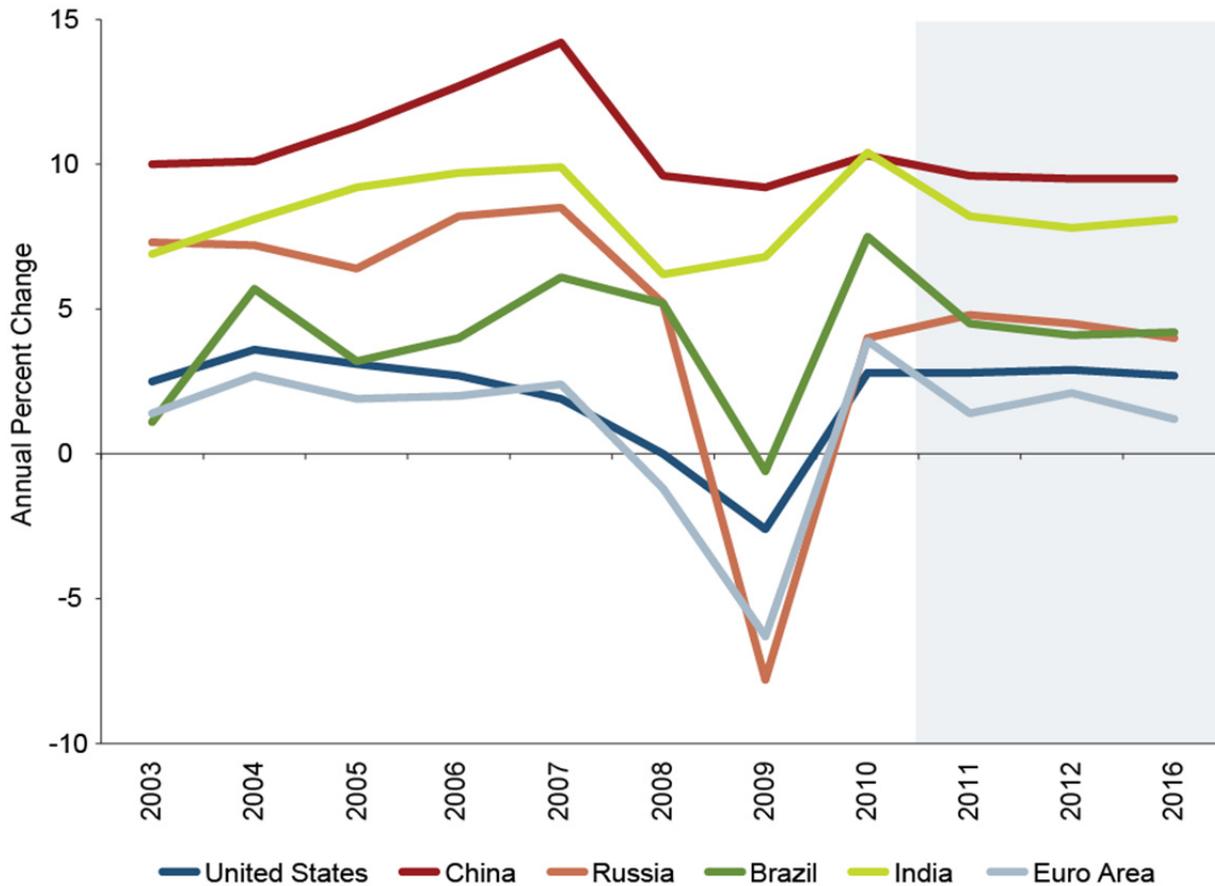
Table 2: Trade Activity of the United States, Brazil, China and India, 2000-2012

| Nation | Realized Average Annual Growth Rate (2000-2010) | | Projected Average Annual Growth Rate (2010-2012) | |
|---------------|---|---------|--|---------|
| | Imports | Exports | Imports | Exports |
| United States | 2.9% | 4.0% | 9.2% | 9.4% |
| Brazil | 11.4% | 7.5% | 13.9% | 5.6% |
| China | 32.8% | 38.7% | 15.4% | 13.4% |
| India | 22.7% | 24.3% | 14.9% | 12.0% |

Source: OECD

Figure 6 represents the real GDP trends that have occurred in the United States, BRIC countries and the euro area (except Estonia, which became a member in 2011). Again, China’s annual percentage growth in its real GDP surpasses the other countries. Directly behind China are the remaining BRIC countries. All four BRICs are expected to continue outperforming the U.S. and euro area through 2016.

Figure 6: Real GDP of United States, BRIC countries and Euro Area, 2003-2016



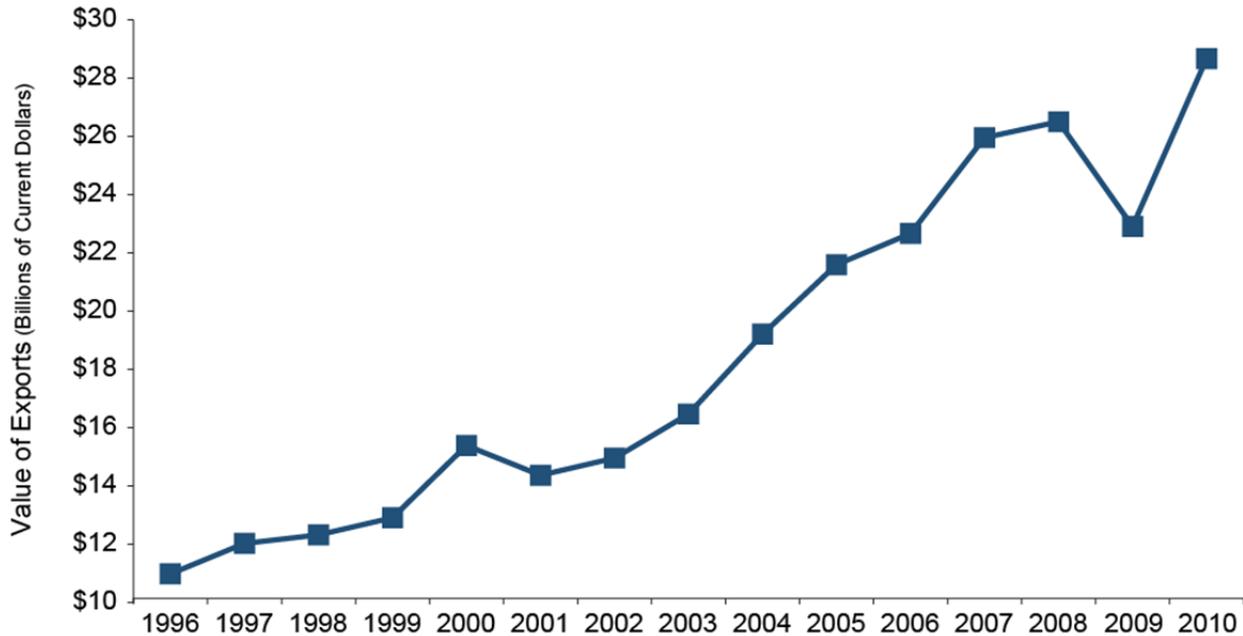
Note: Projections begin in 2011
 Source: IMF, World Economic Outlook

Indiana Export Trends

In 2010, the U.S. exported nearly \$1.3 trillion to foreign countries, of which Indiana was responsible for \$28.7 billion, a record high for the state. While it may seem that Indiana’s share of all exports is rather small, over the past decade, Indiana has outperformed the nation in its average annual growth rate, 9 percent versus 6 percent, respectively.

As **Figure 7** shows, Indiana exports have steadily grown since 1996, with two exceptions attributed to the 2001 and 2007-2009 recessions. Indiana exports rose from \$11.0 billion in 1996 to \$28.7 billion in 2010.

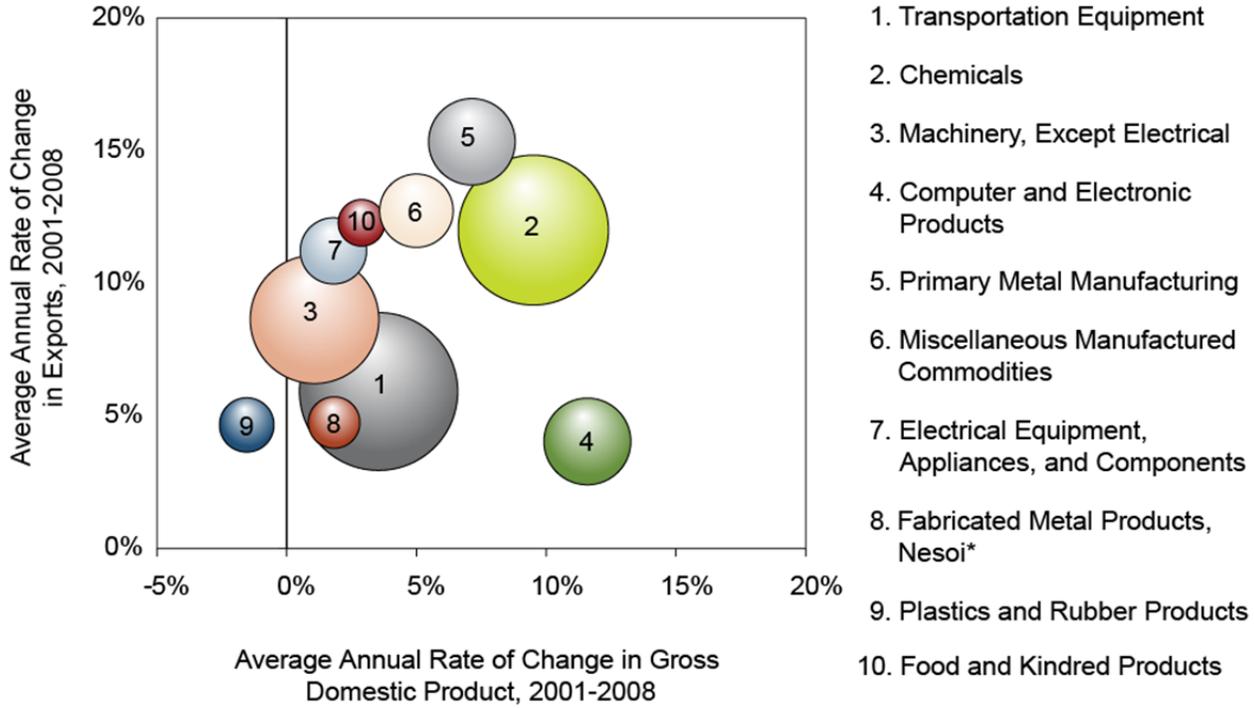
Figure 7: Indiana Exports, 1996-2010



Source: WISER Trade

After vibrant growth from 2006 to 2007, the rate of increase for Indiana exports from 2007 to 2008 slowed considerably. The impact of the Great Recession is seen in the slowdown in 2008 and downturn in 2009, but Indiana quickly recovered lost ground. Exports rose 25.2 percent from 2009 to 2010, compared to a 13.6 percent decline from 2008 to 2009. As shown in **Figure 8**, export growth in almost all industries continues to outpace GDP growth for those industries. The exception is the computer and electronic products industry.

Figure 8: Comparing Indiana's Growth in Exports and GDP by Industry, 2001-2008



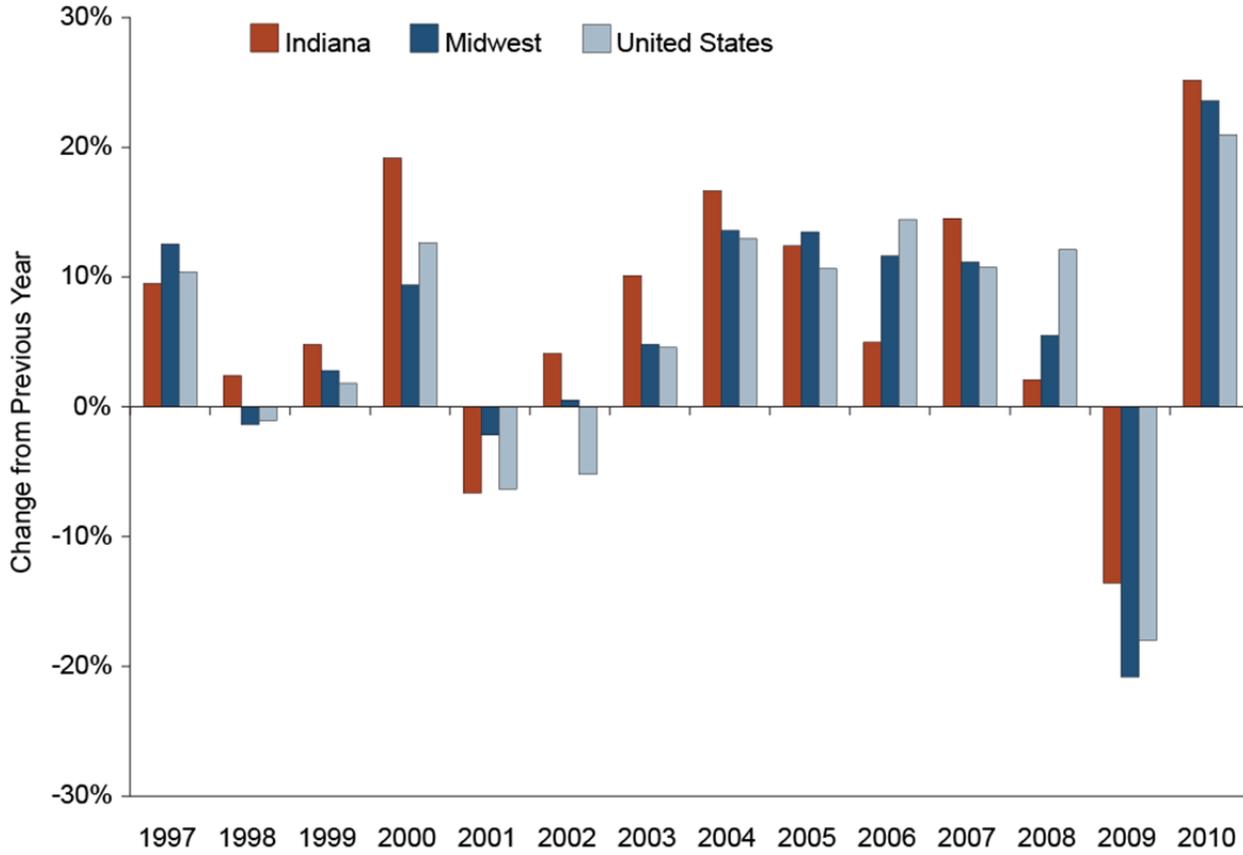
*Nesoï = Not either specified or included

Note: Industry classifications based on NAICS industry codes. WISER Trade data based on the Harmonized System for Commodities. Bubble size indicates the 2008 export value.

Source: WISER Trade (exports) and the Bureau of Economic Analysis (gross domestic product)

Figure 9 shows annual change in exports for Indiana, the Midwest and the United States from 1997 to 2010. Indiana exports recovered from the 2001 recession more quickly than did those of its Midwestern neighbors and of the nation as a whole. In 2008, however, the worldwide recession took a greater toll on Indiana exports than it did on either the Midwest or the United States. Nevertheless, Indiana recovered more quickly than the region or the country as evidenced by the less severe decline in 2009 and the surge of exports in 2010. After three years of export volatility, Indiana's net effect was a growth of 8.2 percent.

Figure 9: Annual Change in Indiana, Midwestern and U.S. Exports, 1997-2010

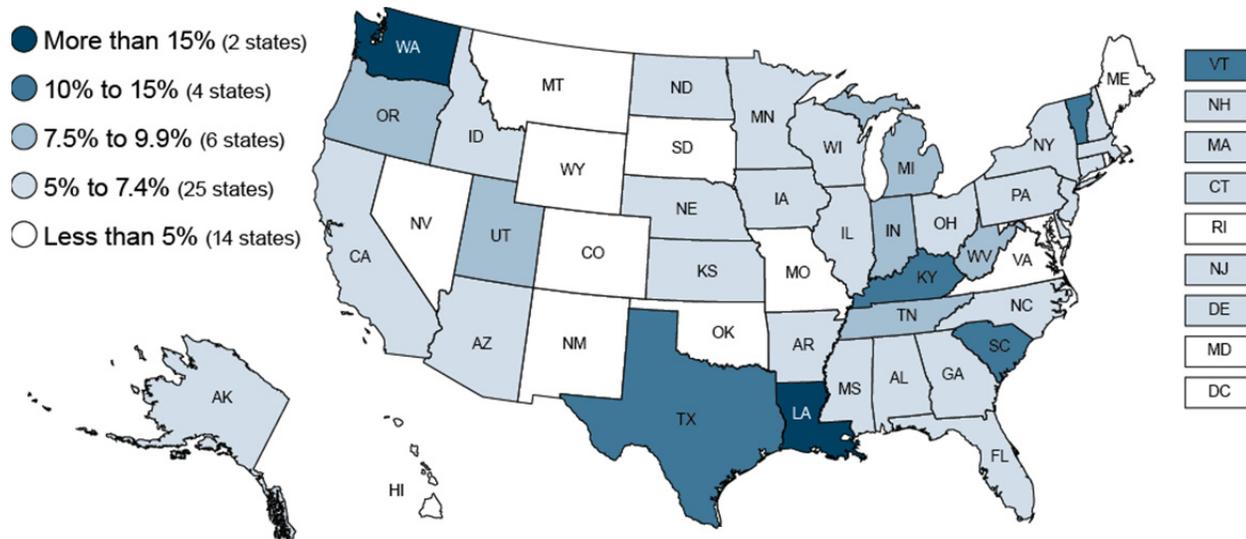


Source: WISER Trade

While GDP—the sum of all value-added components, such as wages and profits—is not conceptually the same as sales (because sales includes the price of intermediate inputs as well as value added), the ratio can provide a rough measure of the relative dependence a state has on exports. **Figure 10** shows how Indiana’s exports-to-GDP ratio compares with the rest of the country.

The deceleration in Indiana’s export sales in 2008 and 2009 diminished Indiana’s export share of GDP. However, Indiana was not alone in this trend as every state had a decline in their export share of GDP between 2008 and 2009. In terms of the ratio of exports to GDP, Indiana moved from ranking eighth in 2007, ninth in 2008, and in 2009 fell another slot to 10th in the nation.

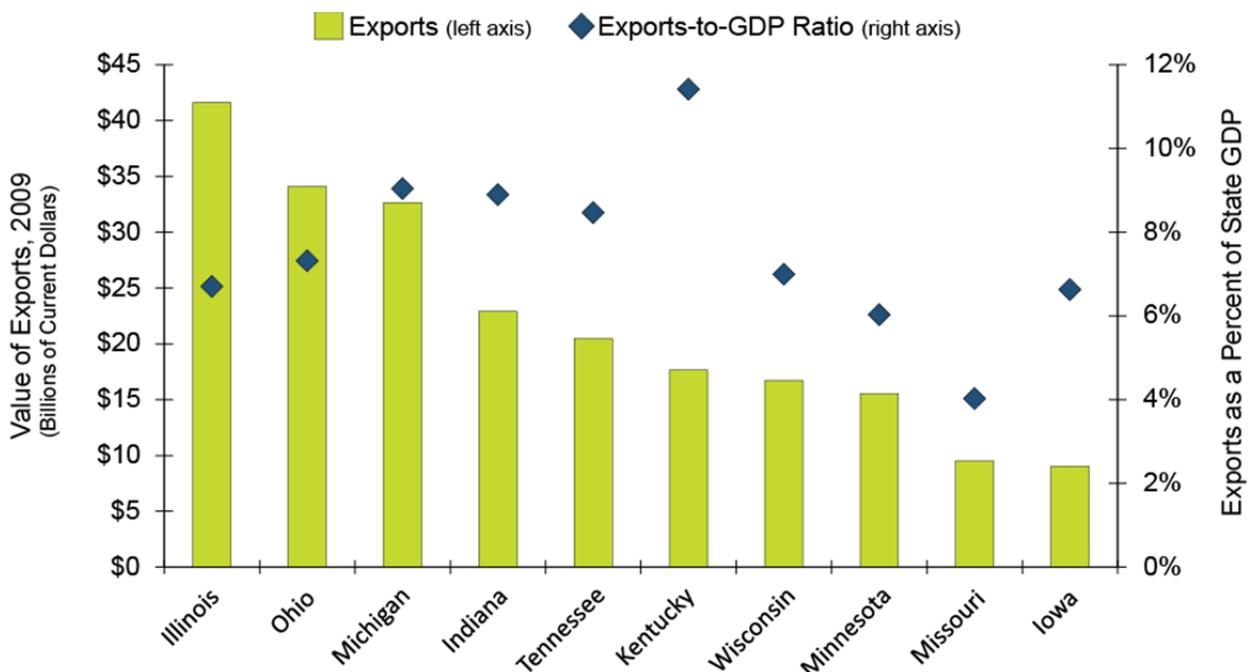
Figure 10: State Export Dependency—Export Sales to GDP, 2009



Source: WISER Trade (exports) and the Bureau of Economic Analysis (gross domestic product)

Figure 11 compares Indiana’s 2009 export sales and the exports-to-GDP ratio with the other Midwestern states. In terms of export sales dollars, Indiana falls into the upper half, trailing behind Illinois, Ohio and Michigan. As in 2008, only Kentucky and Michigan were more export dependent in 2009 than Indiana, using exports-to-GDP as a measure for export reliance.

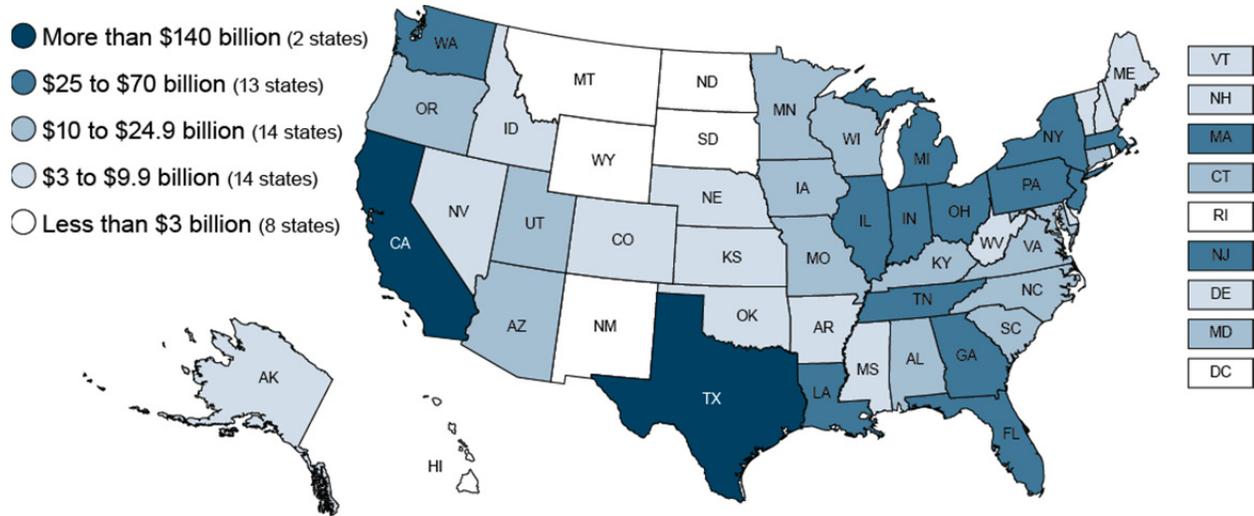
Figure 11: Midwestern States Total Exports and Export-to-GDP Ratio, 2009



Source: WISER Trade (exports) and the Bureau of Economic Analysis (gross domestic product)

Figure 12 shows how all the states compare regarding the dollar value of export sales. Indiana definitely holds its own, ranking 13th in 2010.

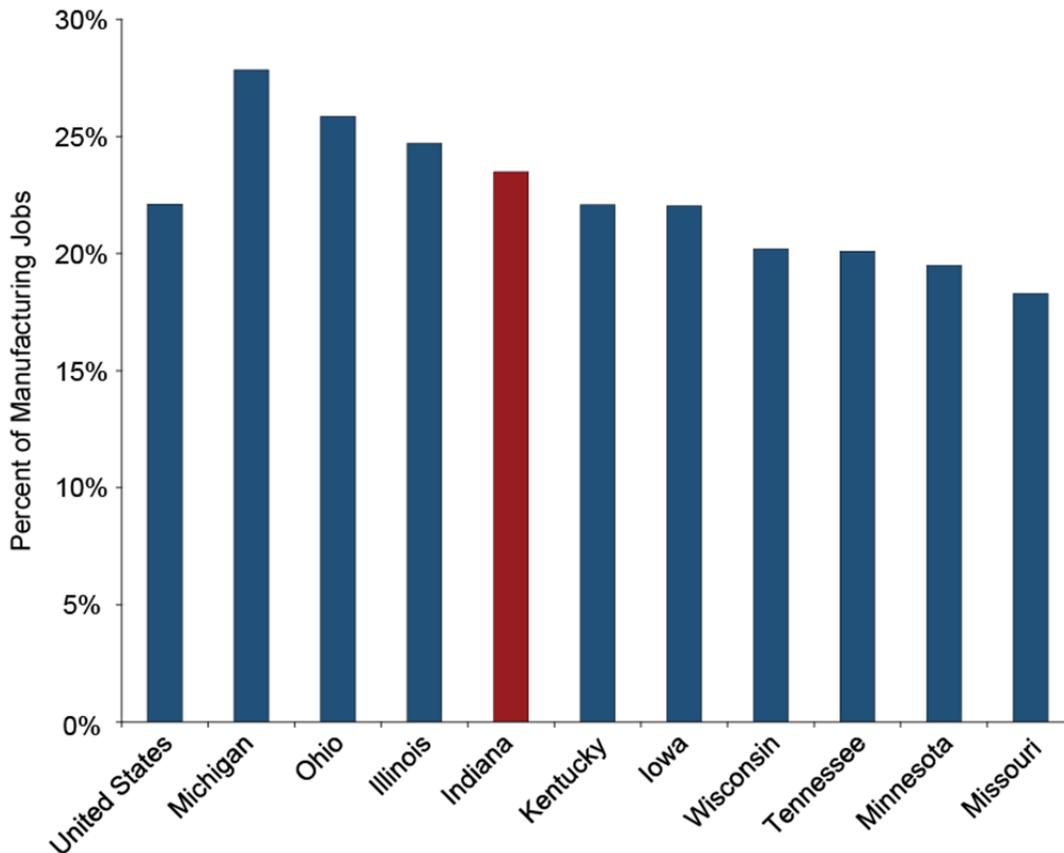
Figure 12: Value of Exports by State in Current Dollars, 2010



Source: WISER Trade

Figure 13 shows the percentage of manufacturing employment that is dependent upon exports in Indiana, the Midwest, and the United States. In 2008, the most recent year for which data are available, Indiana ranked fourth among the 10 Midwestern states in export-oriented manufacturing employment. Nearly half of the Midwestern states have higher levels of manufacturing employment related to exports in 2008 than the United States, indicating the strength of manufacturing in these states.

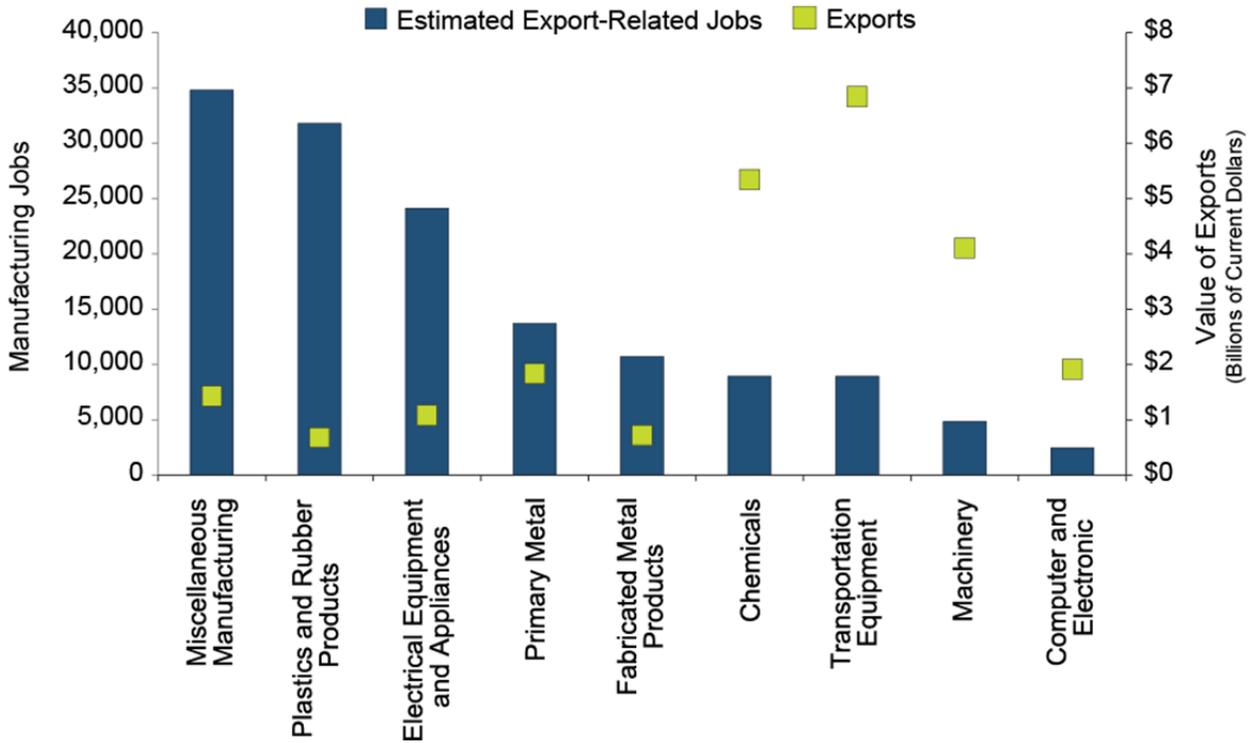
Figure 13: Manufacturing Employment Devoted to Exports, 2008



Source: U.S. Census Bureau

Figure 14 provides greater industry detail for Indiana. In 2008, export sales supported nearly 35,000 jobs in miscellaneous manufacturing, the industry category that includes medical device manufacturing. The data also suggest that the number of jobs is not necessarily tied to the dollar value of export sales. For example, a relatively small dollar value of exports in plastics and rubber products drives a large number of jobs. Conversely, relatively low total employment in the chemicals industry generates the second-highest export sales.

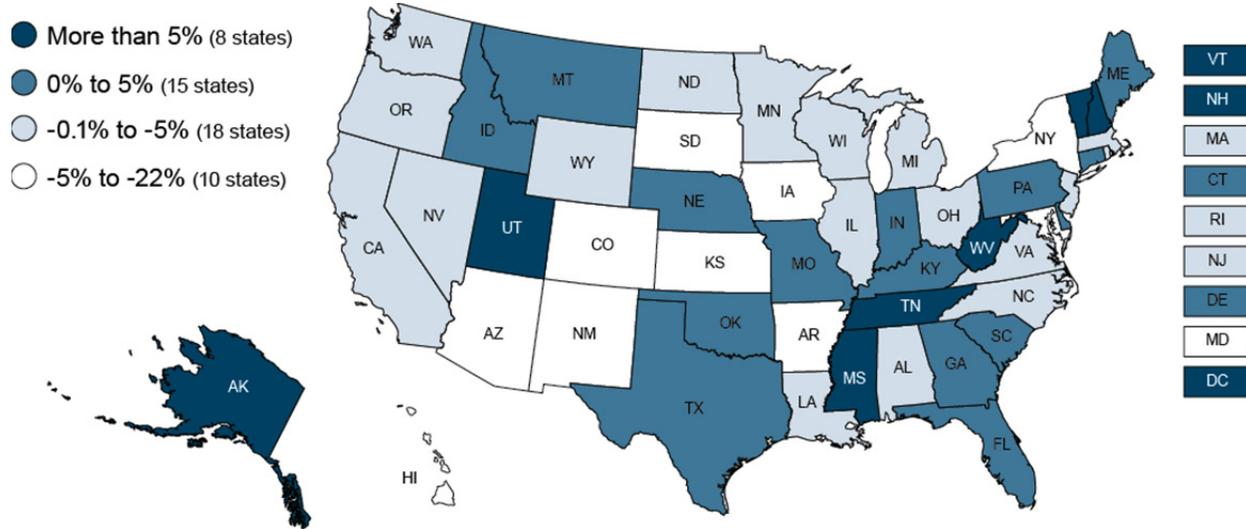
Figure 14: Indiana Export-Related Employment in Manufacturing, 2008



Note: Employment and exports are defined by NAICS industry codes.
 Source: WISER Trade (exports), International Trade Administration and the U.S. Census Bureau (percentage of export-related employment by industry) and Bureau of Economic Analysis (employment by industry)

Despite export volatility in the past three years, Indiana’s average annual growth rate from 2008 to 2010 of 4.1 percent is well above the U.S. average of -0.4 percent, as shown in **Figure 15**. Indiana’s average growth rate was suppressed by less than ideal export figures in 2008 and 2009, yet rebounded enough in 2010 to post positive annual export growth. Of the Midwestern states, Tennessee and Indiana led the region in the annual rate of change in the past three years.

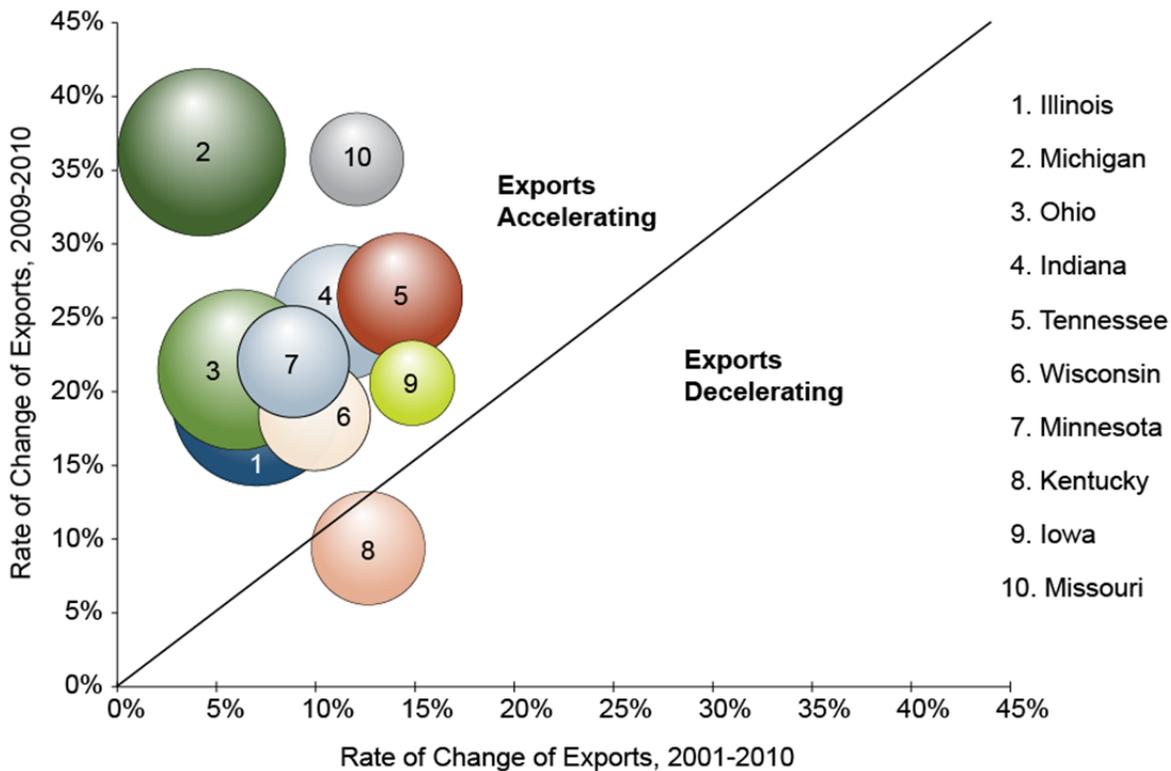
Figure 15: Average Annual Rate of Change in Exports, 2008-2010



Source: WISER Trade

Figure 16 compares the rates of export increase and the relative dollar-value of exports in the Midwestern states. The horizontal axis shows the average annual rate for export growth from 2001 to 2010. The vertical axis plots the change in exports from 2009 to 2010. The bubble size shows the relative value of each state’s 2010 exports. A bubble above the diagonal line indicates that the most recent year’s growth exceeds the 2001 to 2010 trend. For instance, Michigan’s exports accelerated greatly in 2010, so its bubble is well above the diagonal line. Bubbles below the line indicate that the most recent year’s growth is below trend—that is, exports were decelerating relative to trend. Only Kentucky fell into this category, where 2010 growth was less than its 10-year trend.

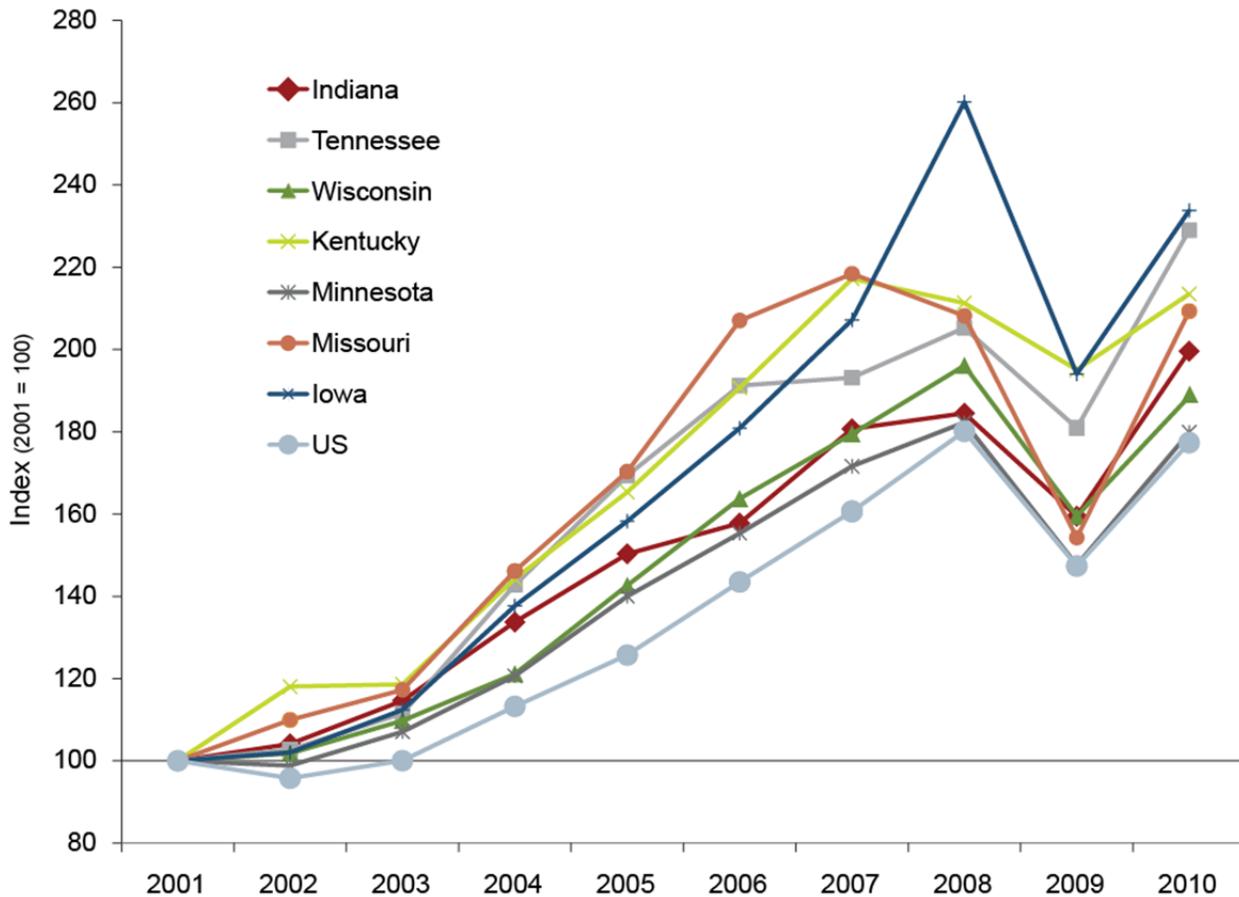
Figure 16: Export Trends in the Midwest, 2001-2010



Source: WISER Trade

Figure 17 compares Indiana’s export growth from 2001 to 2010 with that of the leading Midwestern states and the United States as a whole. The graph uses an index based in 2001, the year of the first recession of the century. While Indiana exports have done better on average than the nation since 2001, export growth has not been as robust as it has for the state’s more dynamic peers.

Figure 17: Export Index for Select Midwestern States, 2001-2010



Source: WISER Trade

Indiana Export Destinations

Canada has long been Indiana’s leading export sales market. Since 2000, when Mexico overtook the United Kingdom in export sales, Mexico has been consistently in the number two spot. Germany emerged as the third top importer of Hoosier exports in 2009 and further secured its position in 2010. **Table 3** summarizes Indiana’s exports to the top 10 country destinations in 2010, presenting the current-dollar value of exports and the growth in exports over the short, medium and long run.

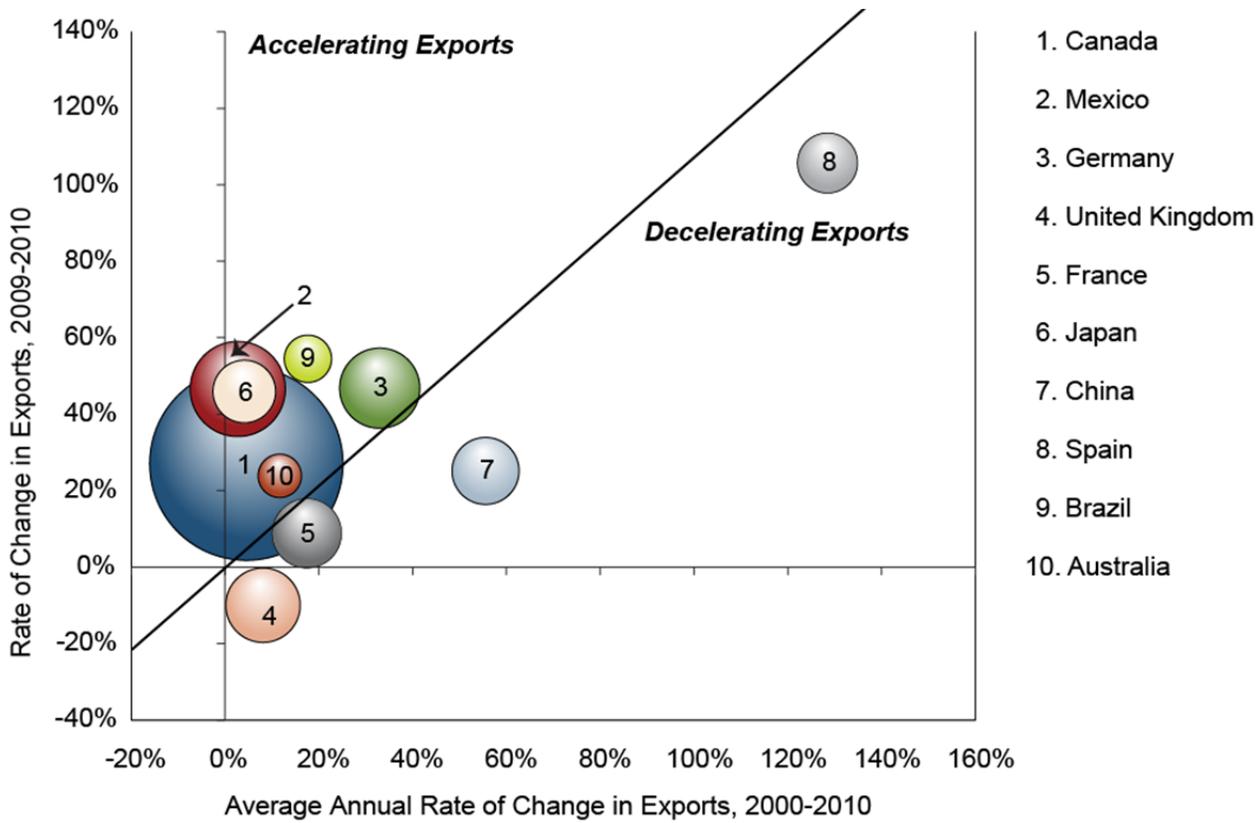
Table 3: Indiana's Top Export Destinations—Value and Average Annual Rate of Change, 2000-2010

| Export Destination | Value of Exports (Millions of Current Dollars) | | | Average Annual Rate of Change | | |
|--------------------|---|----------|----------|-------------------------------|-----------|-----------|
| | 2008 | 2009 | 2010 | 2009-2010 | 2005-2010 | 2000-2010 |
| World Total | \$26,502 | \$22,907 | \$28,670 | 25.2% | 6.6% | 8.6% |
| Canada | \$10,567 | \$8,437 | \$10,657 | 26.3% | 2.1% | 5.0% |
| Mexico | \$2,113 | \$1,781 | \$2,613 | 46.7% | -0.1% | 2.9% |
| Germany | \$1,271 | \$1,249 | \$1,831 | 46.6% | 33.0% | 33.1% |
| United Kingdom | \$1,979 | \$1,627 | \$1,468 | -9.8% | -0.7% | 7.5% |
| France | \$1,419 | \$1,291 | \$1,409 | 9.2% | -0.8% | 17.5% |
| Japan | \$864 | \$824 | \$1,198 | 45.4% | 11.1% | 4.5% |
| China | \$930 | \$869 | \$1,090 | 25.4% | 31.9% | 55.4% |
| Spain | \$418 | \$458 | \$942 | 105.5% | 95.7% | 128.6% |
| Brazil | \$637 | \$534 | \$823 | 54.0% | 49.2% | 17.1% |
| Australia | \$544 | \$459 | \$569 | 23.9% | 14.1% | 11.6% |

Source: WISER Trade

The top 10 destinations comprised nearly 79 percent of Indiana’s export sales in 2010. **Figure 18** presents a picture of the **Table 3** data. Canada’s bubble clearly dominates the graph. Note that of the exports to Indiana’s top 10 destinations all but four accelerated in the past year relative to the decade long trend. This could signal a shift in export reliance for Indiana as not all of the growth can be attributed to a rebound from 2009.

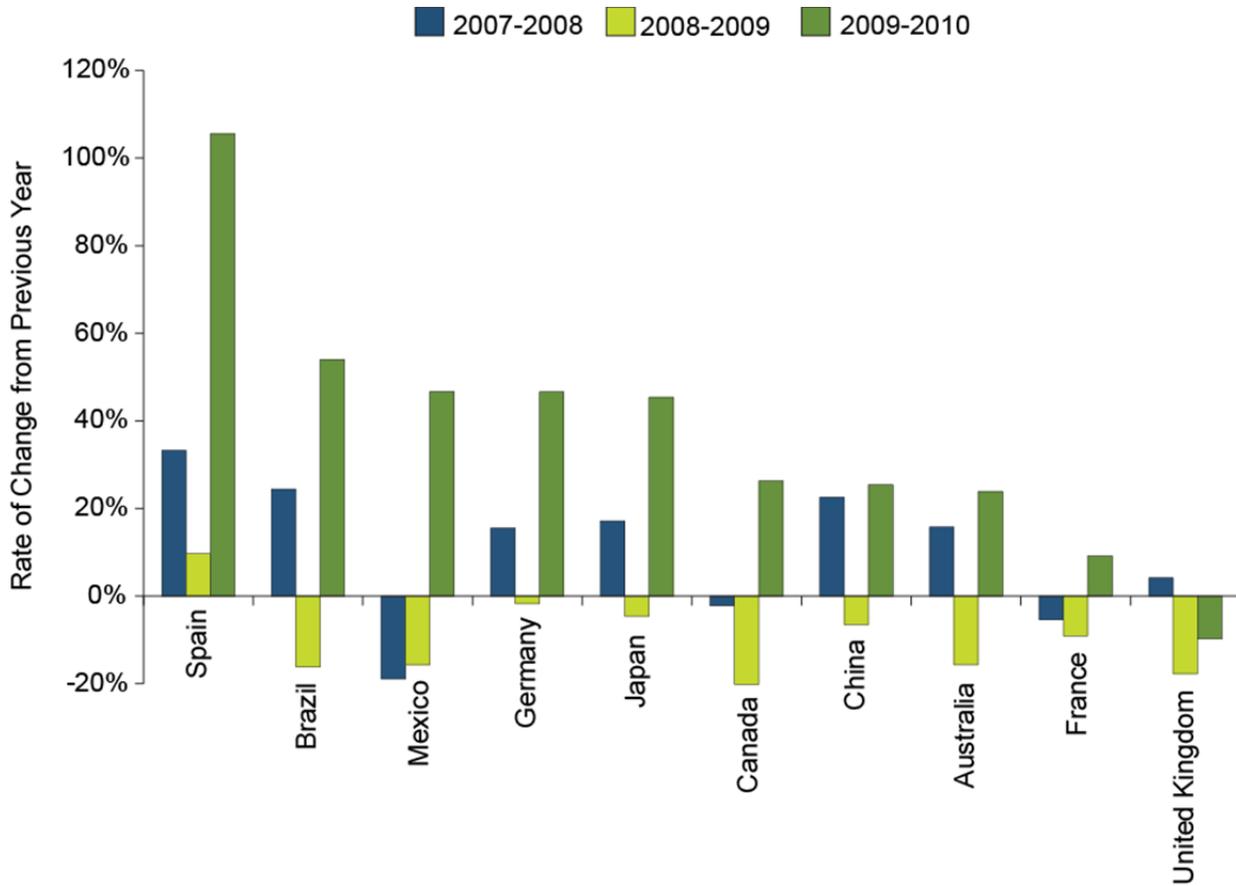
Figure 18: Export Trends for Indiana's Top 10 Destinations, 2000-2010



Source: WISER Trade

Figure 19 compares the annual rate of change in exports to these countries for three successive years. The smaller destinations continued to exhibit vibrant growth in 2008 and 2010, whereas the larger destinations had a slower growth rate. During 2009, the smaller export destination countries had a less severe pullback in imports than the larger countries—perhaps indicating their growing wealth and purchasing power.

Figure 19: Annual Change in Exports for Indiana's Top 10 Export Destinations, 2007-2010

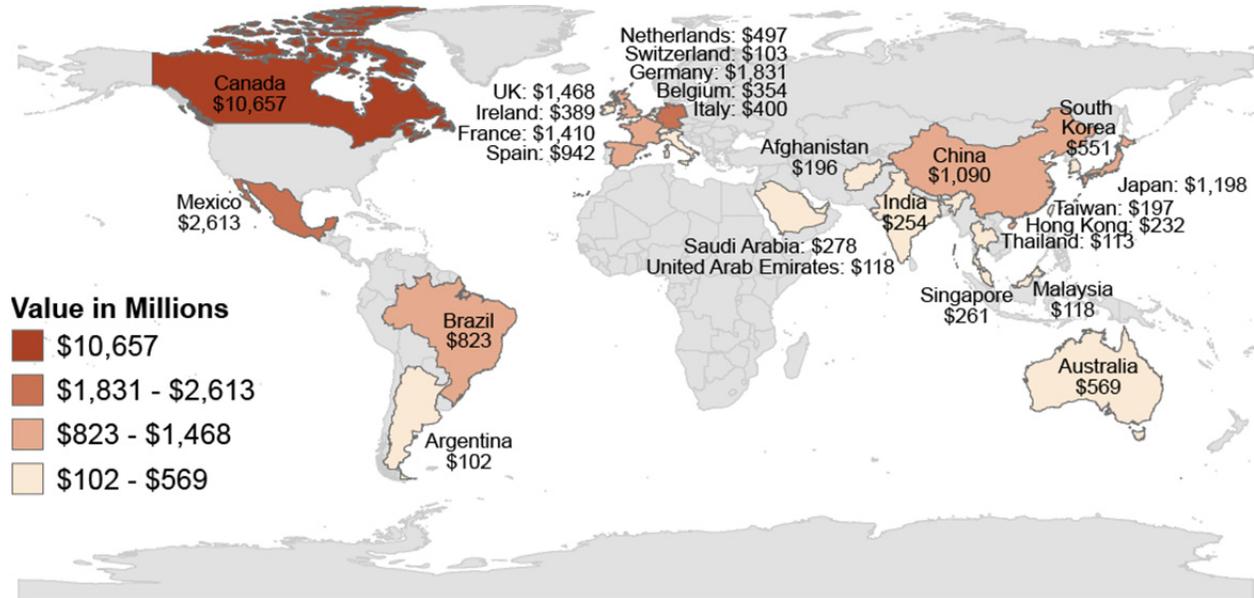


Source: WISER Trade

Indiana exported to 199 countries in 2010, but only 26 had export sales greater than \$100 million (see **Figure 20**). These 26 countries accounted for 93 percent of all Indiana exports. Certain global changes are evident in the statistics from some of Indiana's smaller trading partners. Spain and Afghanistan, for example, have increased their imports from Indiana substantially in recent years, with Spain's rising an average of 50 percent annually from 2008 to 2010. Likewise, Afghanistan's imports increased on average 228 percent per year from 2008 to 2010. While Afghanistan's growth seems remarkable, it is due to several factors. First, 2007 was the first year Afghanistan imported more than \$400,000 worth of products from Indiana; thus, the base from which the growth is measured is very small. Secondly, the war in Afghanistan creates an elevated need for imports that is likely to not be sustained once the war activities subside.

Traditional European trading partners have seen less growth or no growth in the past few years, save 2010—a blockbuster year for nearly all countries. Growth in exports to the United Kingdom, France and the Netherlands has been minimal. Countries that have doubled their purchases from Indiana since 2007 include Spain, Italy, Saudi Arabia, Afghanistan and Argentina. Among Asian countries, their imports from Indiana have increased at an average annual rate of 9.2 percent from 2008 to 2010 with Taiwan, Korea and Japan leading the growth. Japan, the sixth-largest importer of Indiana goods has steadily increased their purchasing power, growing from \$863 million in 2008 to \$1.2 billion in 2010.

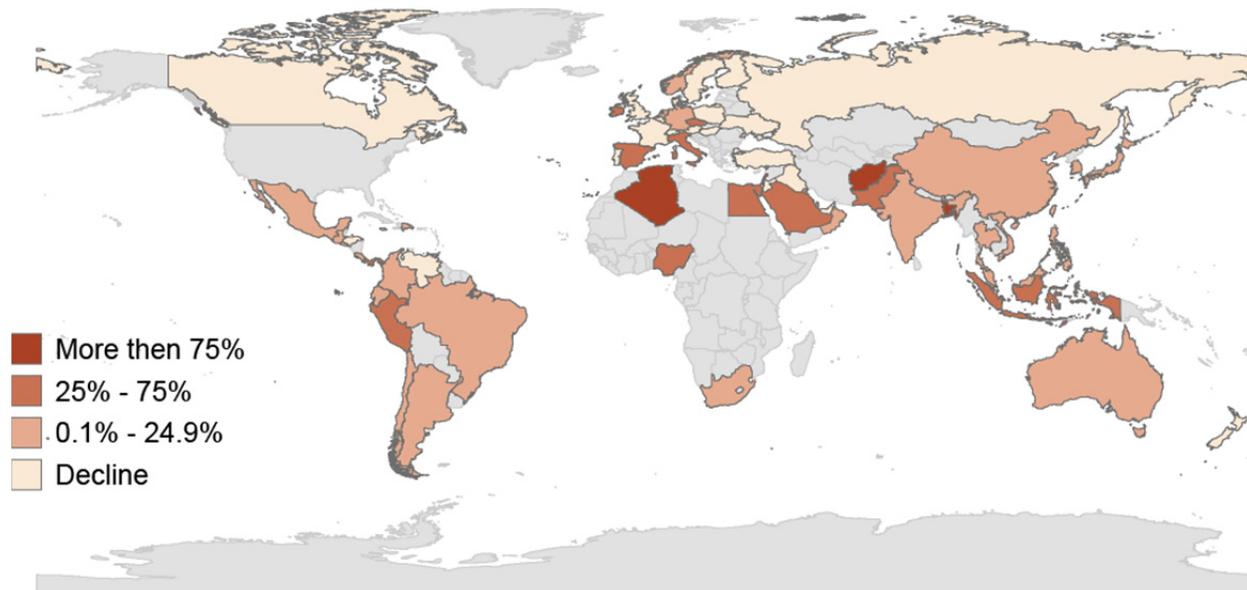
Figure 20: Destinations for Indiana Exports Exceeding \$100 Million, 2010



Source: WISER Trade

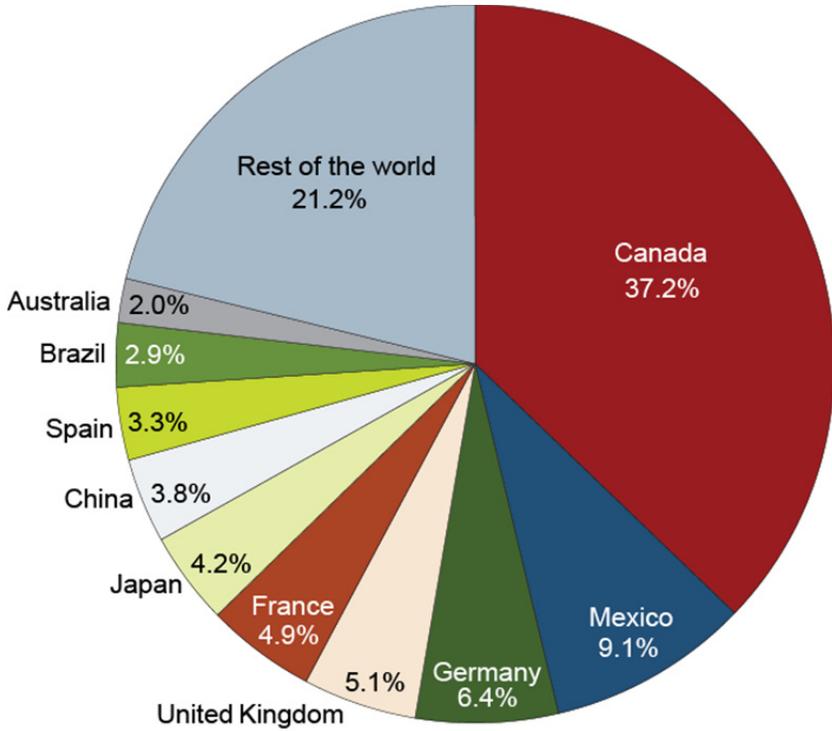
Figure 21 presents export growth rates from 2007 to 2010 across the globe for the 68 countries that purchase more than \$10 million in products from Indiana. The average annual rate from 2007 to 2010 for all partners was 3.5 percent, despite the fact that 33 countries had average growth rates above 10 percent. Canada put downward pressure on the overall average, as it accounted for 37 percent of all Indiana exports in 2010 and those exports shrunk by an average annual rate of 0.5 percent. Mexico, with the second largest share of Indiana exports, also pulled down the average annual rate by 0.1 percent. Figure 22 shows how the other top 10 countries compare with respect to their share of Indiana's exports.

Figure 21: Indiana Average Annual Export Growth by Destination, 2007-2010



Note: Includes only countries that purchase more than \$10 million in Indiana exports
 Source: WISER Trade

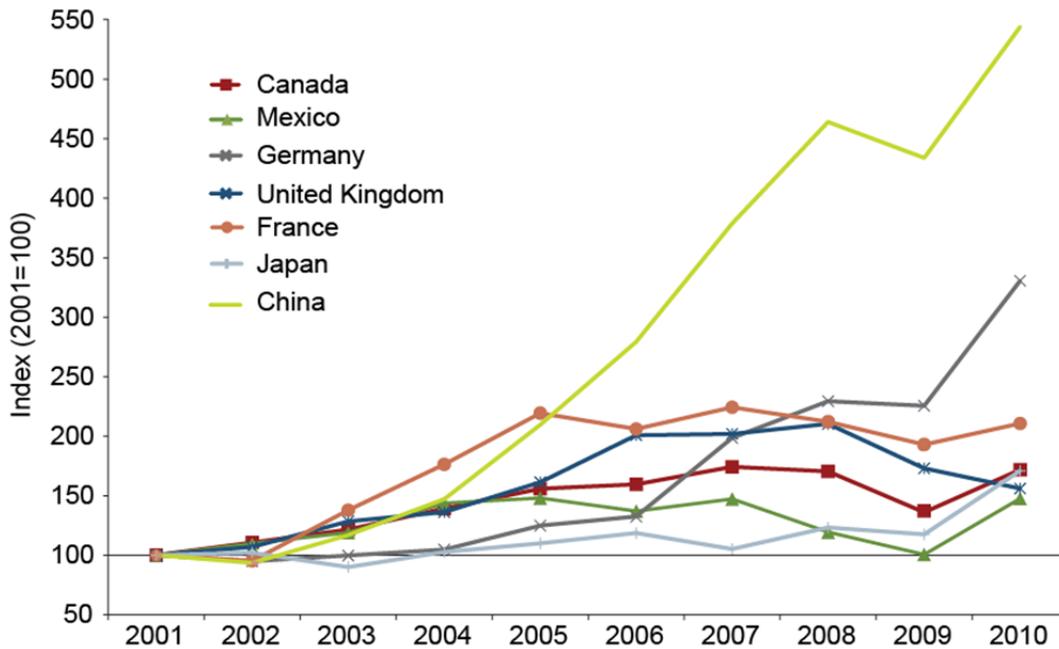
Figure 22: Top Indiana Export Destinations, 2010



Source: WISER Trade

Figure 23 presents a profile of the top seven Indiana export sales destinations importing over \$1 billion from Indiana between 2001 and 2010. Compared to the European export markets, the growth of exports to Canada and Mexico have lagged. Export growth to China, on the other hand, has surged since 2004. Exports to China have more than quadrupled since the beginning of the century.

Figure 23: Indiana Export Index for Countries Importing over \$1 Billion, 2001-2010



Source: WISER Trade

Table 4 identifies the largest changes in export sales by industry, both positive and negative, for Indiana’s top 10 export destinations in 2010. These changes are reported in millions of dollars. This table shows how much impact each of the leading export destinations and each of the leading export industries have on Indiana exports. For example, pharmaceutical exports increased \$829 million from 2009 to 2010, even though Canada, Indiana’s largest trading partner, had a minimal increase in its purchases of pharmaceutical products. The table shows a predominantly European rise in demand for these products. Similarly, it shows that optical and medical instruments exports increased \$313.9 million despite only a \$30.2 million increase in purchases in that sector by Canada and Mexico, Indiana’s two largest trading partners. Organic chemicals, on the other hand, experienced significant total dollar growth despite the uneven changes in Indiana’s primary markets for these exports.

Table 4: Indiana's Largest Positive and Negative Changes in Exports by Industry for 10 Largest Export Destinations, 2010*

| Export Destination | Vehicles and Parts | Industrial Machinery | Pharmaceutical Products | Electrical Machinery | Optical and Medical Instruments | Organic Chemicals |
|--------------------|--------------------|----------------------|-------------------------|----------------------|---------------------------------|-------------------|
| World Total | 2,389.4 | 696.7 | 829.0 | 51.7 | 313.9 | 301.0 |
| Canada | 1,702.8 | 101.0 | 47.0 | -41.6 | 17.4 | 1.0 |
| Mexico | 278.0 | 333.4 | 2.9 | 75.6 | 12.8 | -47.5 |
| Germany | 3.4 | 16.6 | 213.4 | 24.7 | 203.9 | 9.9 |
| United Kingdom | 1.0 | 87.6 | -291.9 | 0.1 | -20.9 | 18.9 |
| France | -6.0 | -6.4 | 48.2 | -10.1 | 18.0 | 65.1 |
| Japan | 11.6 | 22.8 | 175.6 | 18.0 | 56.8 | -1.0 |
| China | 46.8 | 55.6 | 4.2 | 21.6 | 11.4 | -4.1 |
| Spain | 0.3 | 0.4 | 209.7 | 1.7 | -6.7 | 289.6 |
| Brazil | 21.4 | 78.7 | 56.4 | 12.1 | 12.7 | -17.5 |
| Australia | 27.2 | 44.6 | -16.1 | -3.7 | 33.9 | 0.3 |

*Values in millions of dollars

Note: Shaded cells indicate destination countries that did not experience at least a \$10 million movement in exports by industry

Source: WISER Trade

Nevertheless, the top three destinations still account for most of the changes in Indiana’s export mix. **Figure 24**, **Figure 25** and **Figure 26** plot the top 10 imports from Indiana to Canada, Mexico and Germany, respectively.

Figure 24: Indiana Exports to Canada by Industry, 2001-2010

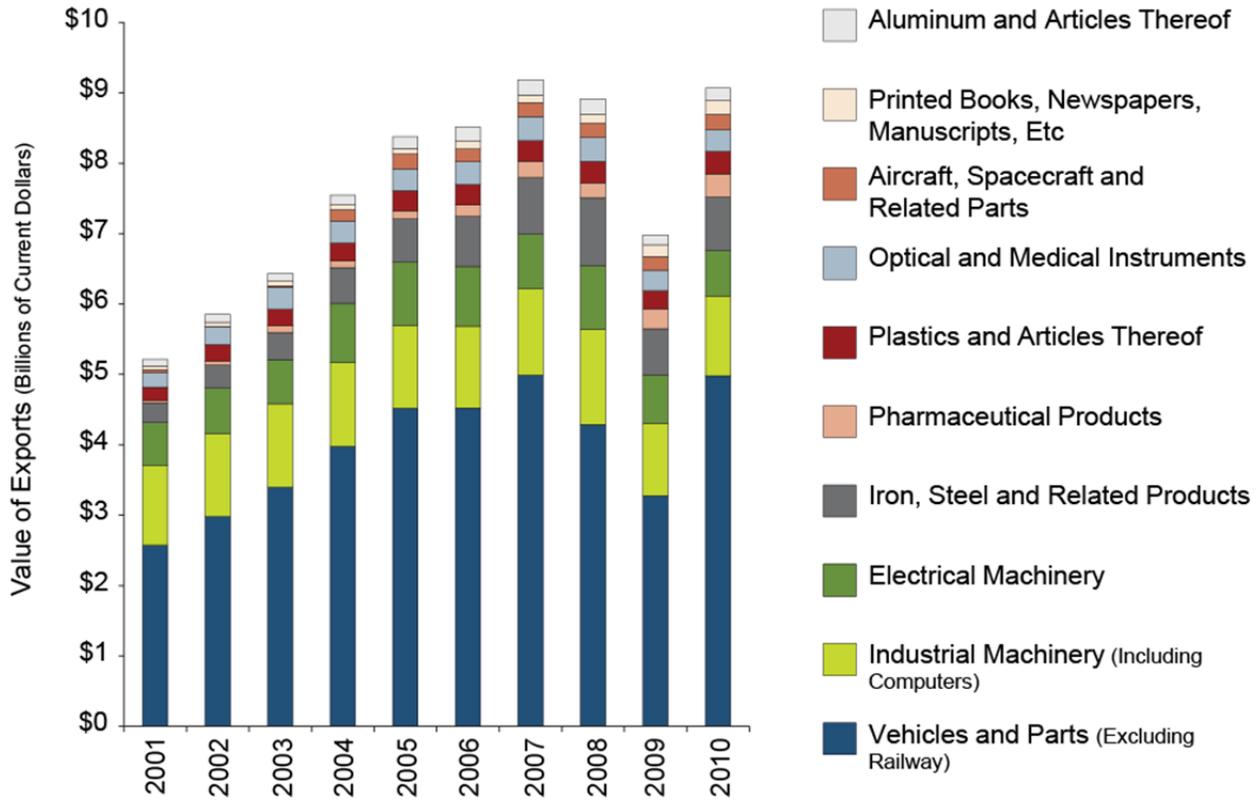


Figure 25: Indiana Exports to Mexico by Industry, 2001 to 2010

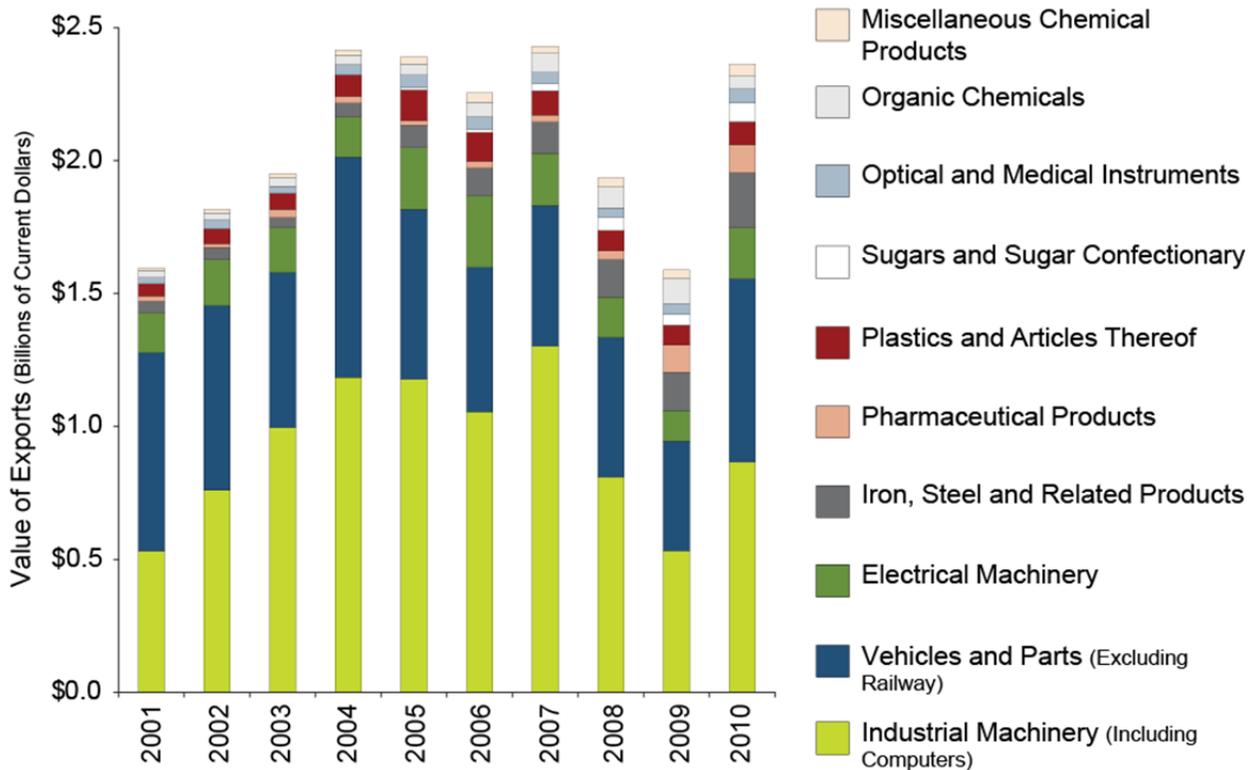
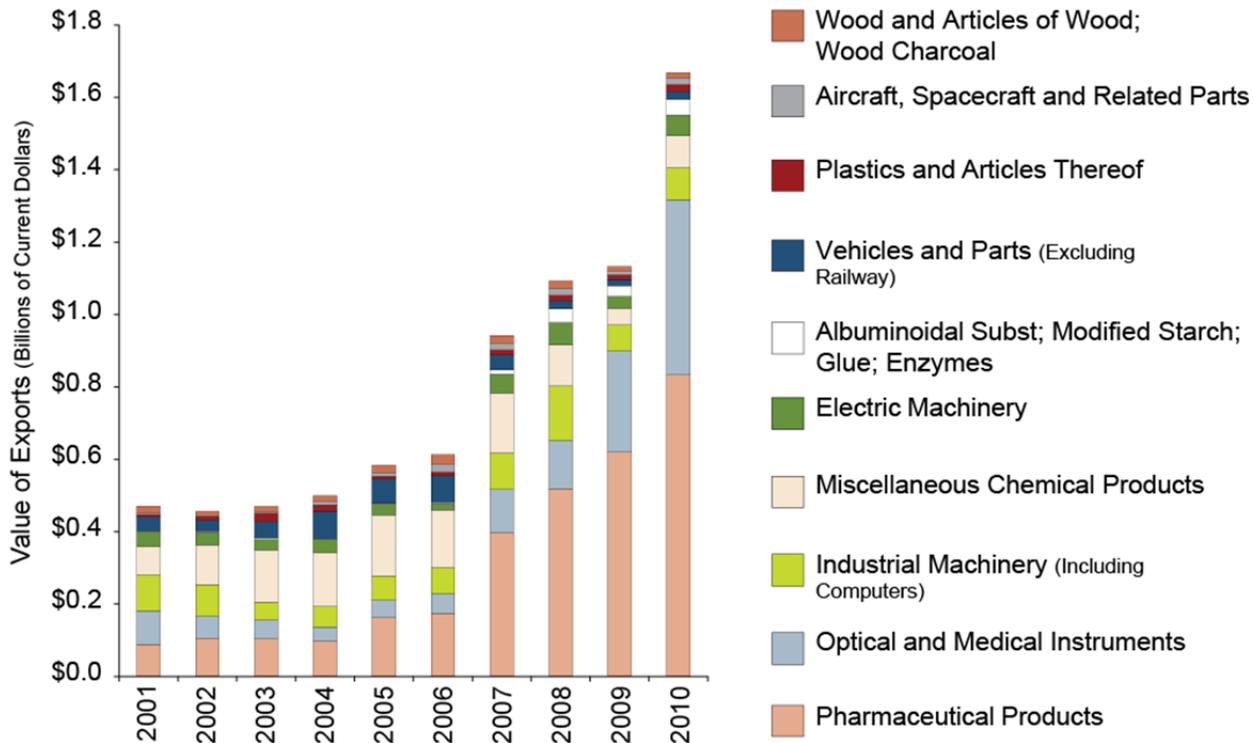


Figure 26: Indiana Exports to Germany by Industry, 2001-2010



Source: WISER Trade

In 2010, Indiana shipments to Canada increased by \$2.2 billion, or 26 percent, driven almost exclusively by a \$1.7 billion increase in vehicles and parts exports. Increases of \$101 million from industrial machinery, \$110 million from iron, steel and articles thereof and \$56.1 million from plastics and articles thereof also contributed to the increase in exports between 2009 and 2010.

Indiana exports to Mexico in 2010 increased \$832 million, or 47 percent, from their 2009 figure. Nearly 75 percent of this increase can be attributed to industrial machinery and vehicle and parts imports. Industrial machinery imports increased by \$333.4 million and vehicle and parts grew by \$278 million. The third-largest growth category came from electrical machinery, but its magnitude (\$75.6 million) pales in comparison to the previously mentioned categories.

Exports to Germany rose \$582 million, or nearly 47 percent, from 2009 to 2010. A 34 percent jump of \$213.3 million in pharmaceutical product exports explains much of this bounce. The second largest jump in total value of imports was in optical and medical instruments (\$203.9 million), increasing 73 percent from the previous year. The fact that the majority (72 percent) of Germany's import growth of Indiana products increased through its pharmaceutical and medical instrument purchases bodes very well for the Indiana pharmaceutical industry's future with this trading partner.

Indiana Export Industries

Table 5 presents the top 10 export categories for the state in 2010, as well as average annual rates of change from 2009-2010 and 2000-2010. Indiana's top 10 exports constitute 86 percent of all exports out of Indiana. **Figure 27** presents these data graphically.

Table 5: Indiana's Top 10 Export Industries, 2000-2010

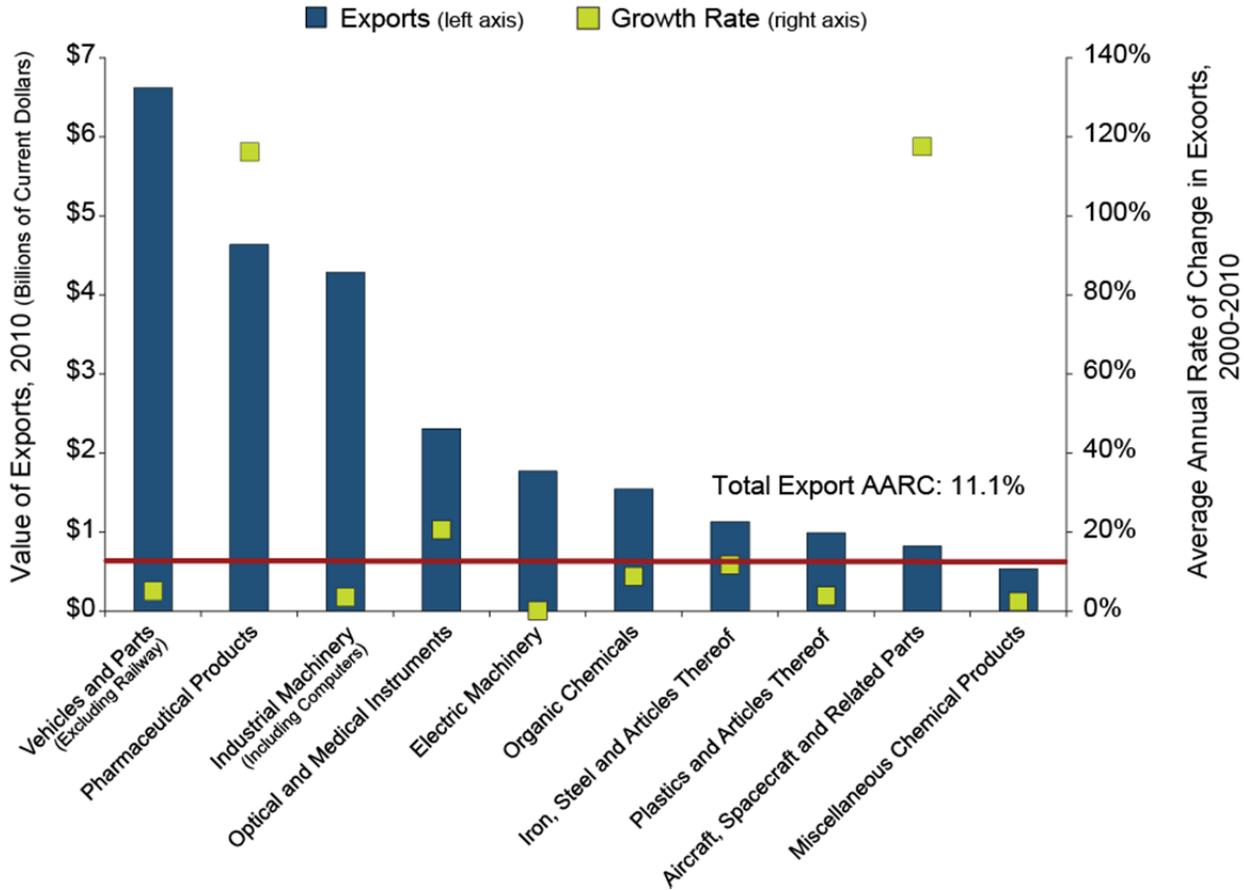
| Industries* | Exports (in millions) | Average Annual Growth Rate | |
|--|--------------------------|-------------------------------|-----------|
| | 2010 | 2009-2010 | 2000-2010 |
| Vehicles and Parts (Excluding Railway) | \$6,620 | 56.5% | 5.1% |
| Pharmaceutical Products | \$4,638 | 21.8% | 116.2% |
| Industrial Machinery (Including Computers) | \$4,284 | 19.4% | 3.5% |
| Optical and Medical Instruments | \$2,311 | 15.7% | 20.6% |
| Electric Machinery | \$1,772 | 3.0% | 0.1% |
| Organic Chemicals | \$1,545 | 24.2% | 8.8% |
| Iron, Steel and Articles Thereof | \$1,131 | 19.9% | 11.7% |
| Plastics and Articles Thereof | \$992 | 25.6% | 3.9% |
| Aircraft, Spacecraft and Parts Thereof | \$825 | 36.7% | 117.5% |
| Miscellaneous Chemical Products | \$534 | 21.0% | 1.8% |

*Industries defined by the Harmonized System of Commodity Classifications

Source: WISER Trade

Vehicles and parts exports maintained its perch at the top of Indiana's 10 largest export industries in 2010. In 2009, pharmaceutical products edged past the industrial machinery industry to become the second-largest exported product category (in dollar value) from Indiana, growing by 116 percent since 2000. Other industries have been growing steadily as well. The top three industries with the highest average annual rate of growth in the past decade were aircraft, spacecraft and related parts; pharmaceutical products; and optical and medical instruments. The aircraft, spacecraft and related parts industry has grown from \$64.7 million in exports in 2000 to \$825 million in 2010. Should this trend continue, this industry will surpass plastics and articles thereof within the next year.

Figure 27: Indiana's Top 10 Export Industries, 2000-2010



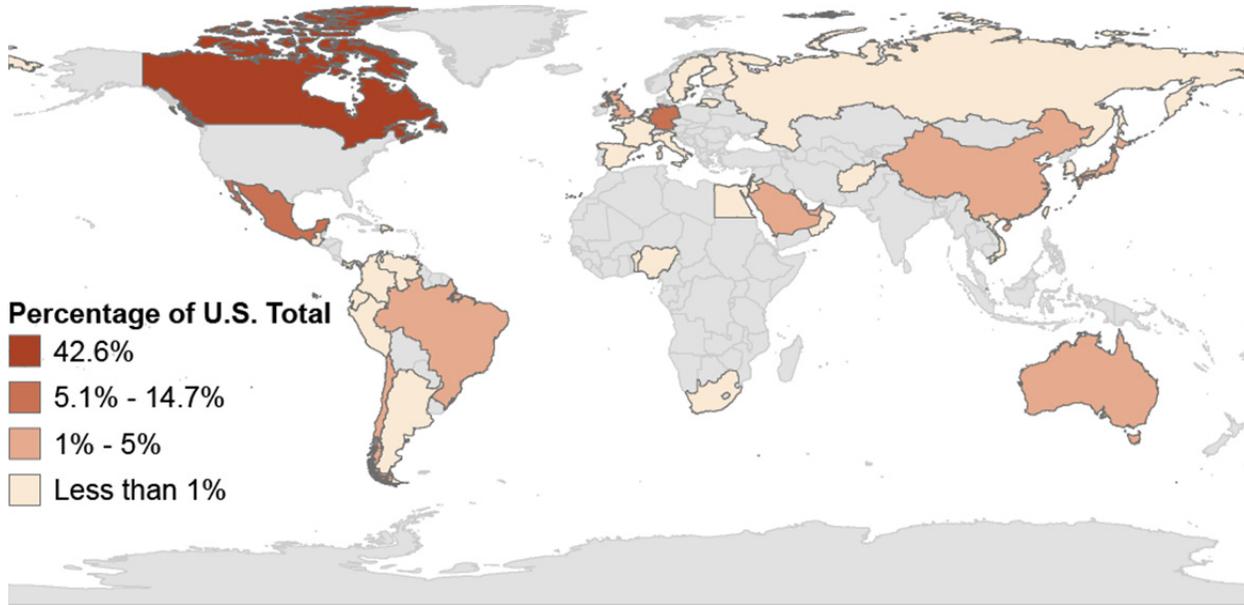
Source: WISER Trade

The following section reports on the most important export industries in greater detail.

Vehicles

Figure 28 shows the share of U.S. vehicle and parts exports in 2010 for destination countries with export purchases greater than \$200 million. Canadian purchases of vehicles and parts have slowly risen in the last few years, reversing the downward trend in 2007 and 2008. In 2008, vehicles and parts exports to Canada accounted for 41 percent of U.S. exports and in 2010, Canada accounted for 43 percent of vehicle and parts exports. Mexico, the U.S.'s second-largest trading partner, has also seen a slight increase in its share of vehicle and parts imports, sharing the same trends as Canada. Countries with sustained increases in vehicle and parts imports include China, Saudi Arabia, Australia, Chile, Brazil and Kuwait. Individually, these countries purchase a much smaller share of the vehicle and parts exports, but collectively they constitute 14 percent of this category, nearly matching Mexico's 14.7 percent share.

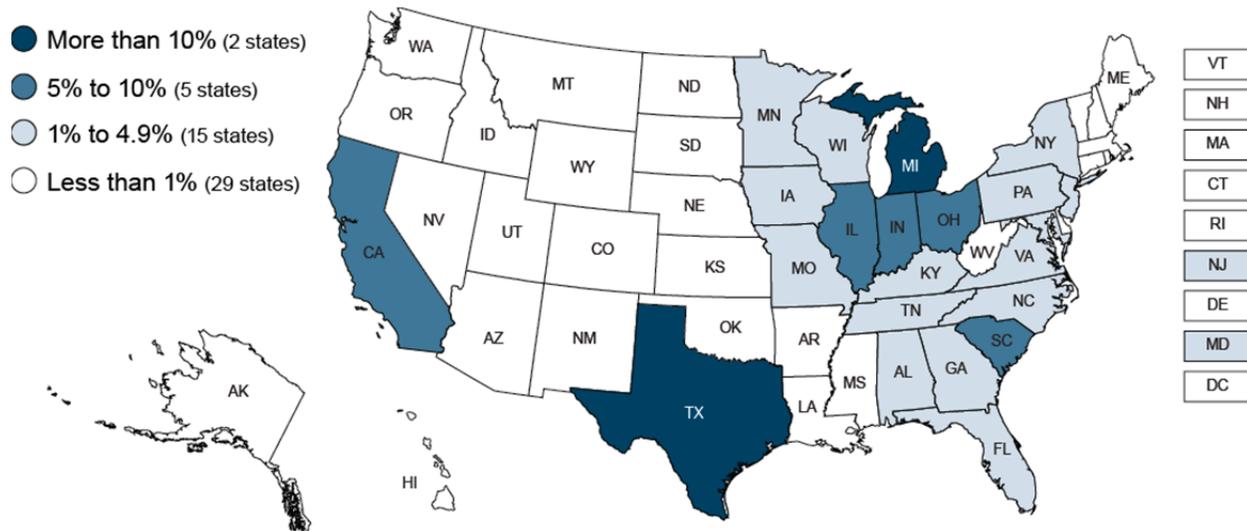
Figure 28: Destinations for U.S. Exports of Vehicles and Parts (Excluding Railway), 2010



Source: WISER Trade

Figure 29 presents the state sources of U.S. vehicle and parts exports. Michigan is the unambiguous leader in this export category, with an 18.4 percent share. This percentage is a return to the pre-recession level of 18.5 percent seen in 2007. Texas moved to the number two spot in 2008, eclipsing Ohio. Following the downturn experienced by all states in 2009, Indiana quickly rebounded and became the third-largest exporter of vehicle and parts in 2010 at 6.7 percent, closely followed by Ohio and Illinois. Collectively, these top five states are responsible for almost 50 percent of exports in this category.

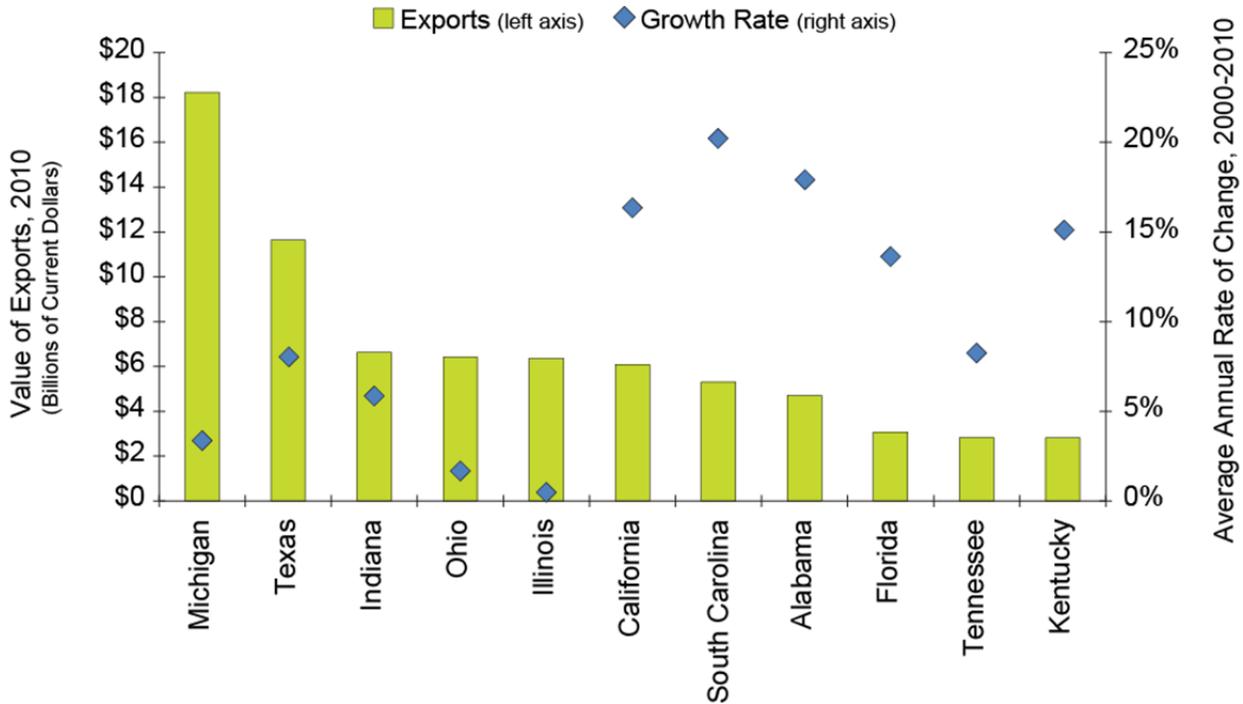
Figure 29: Share of U.S. Vehicle Exports (Excluding Railway), 2010



Source: WISER Trade

Figure 30 graphically recasts the above discussion of the realignment of vehicle exports among the states. Vehicle exports from Ohio and Illinois did not expand, but Texas and Indiana did, moving up in the rankings. Other states are also making inroads in this export category. California, South Carolina, Alabama, Florida and Tennessee will soon be jockeying for Illinois, Ohio as well as Indiana’s positions as vehicle and parts export leaders.

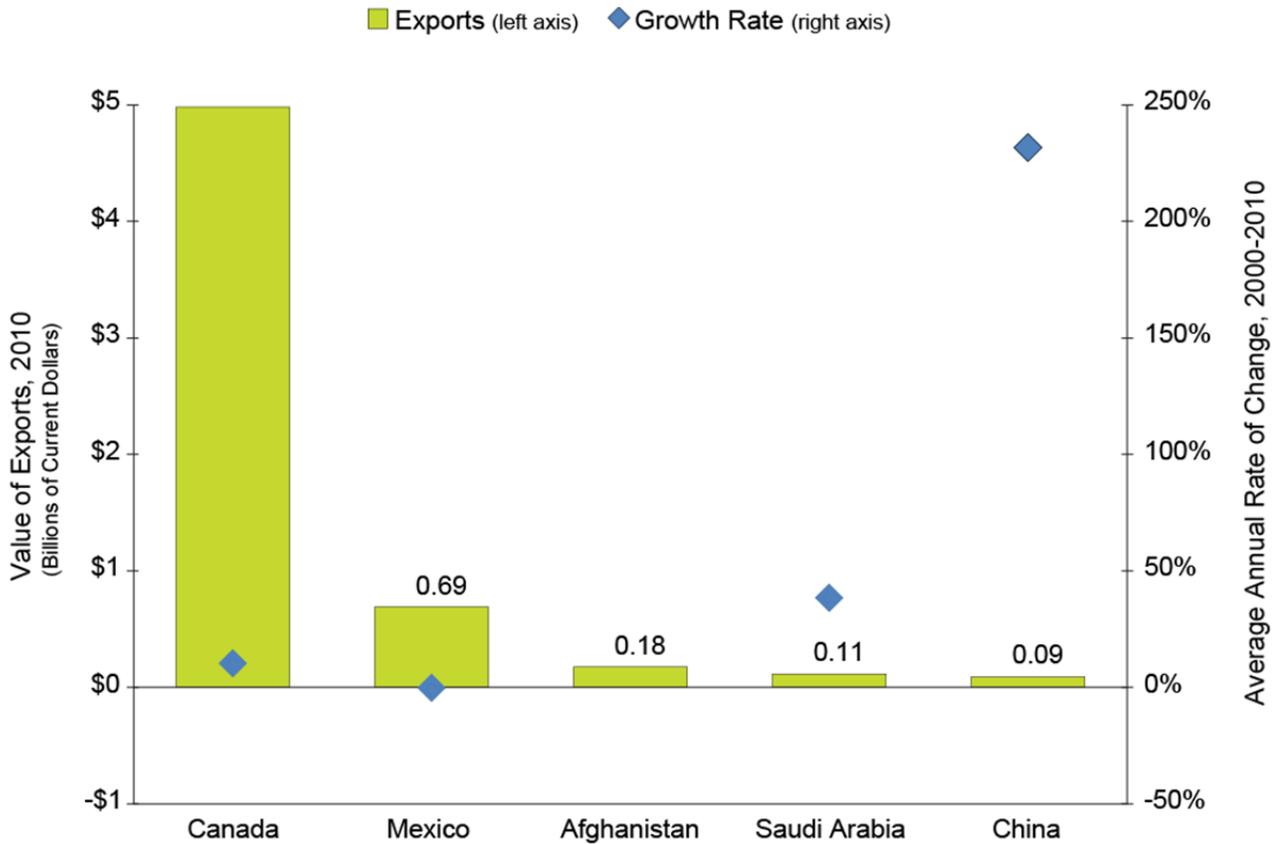
Figure 30: Leading States in the Export of Vehicles and Parts (Excluding Railway), 2000-2010



Source: WISER Trade

Figure 31 shows the top five destinations for Indiana’s vehicle exports. Canada has long been the largest and most consistent export market for Indiana’s vehicles and parts, with nearly \$5 billion and growing at an average of 6.7 percent since 2000. Mexico is a distant second. If recent trends continue, the gap will widen. Since 2000, Indiana exports of vehicles and parts to Mexico have fallen at an average annual rate of 1.1 percent. Of the smaller markets, Afghanistan is a new market as it did not consistently import Indiana’s vehicles and parts until 2007, but has grown immensely since to become Indiana’s third-largest trading partner. However, Afghanistan’s increase in imports is likely attributed to the current U.S. involvement in the war efforts within the country and is not sustainable for the long run. Saudi Arabia and China also posted large increases in 2010 to be the fourth- and fifth-largest importers and have been posting high average annual rates of growth in the past decade.

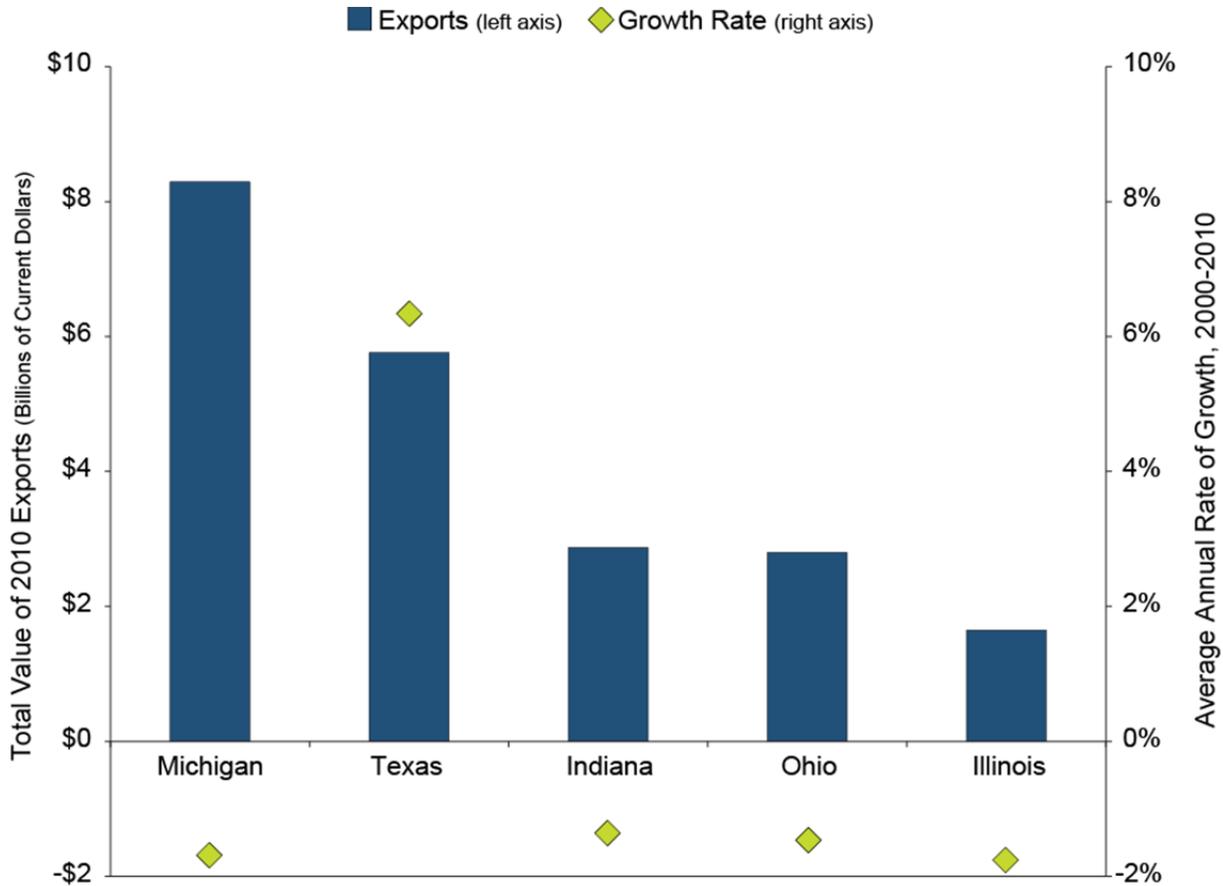
Figure 31: Indiana's Top Five Export Destinations for Vehicles and Parts (Excluding Railway), 2000-2010



Note: Afghanistan's average annual growth rate was omitted from the graph due to its size.
 Source: WISER Trade

Indiana's top exported commodity within the broadly defined category of vehicles and parts is automobile parts and accessories. **Figure 32** shows the top exporting states. Not surprisingly, Michigan led the group in 2010, but Texas was second and grew at an average annual rate of 6.3 percent annually from 2000 to 2010. Michigan still exported more than twice the amount of Texas, but Michigan's exports in this category have been shrinking by an average 1.7 percent annually. Indiana is also losing its relative prominence. Since 2000, exports of these commodities have declined at an average annual rate of 1.3 percent. The top three foreign purchasers of Indiana's automobile parts and accessories are Canada, Mexico and China.

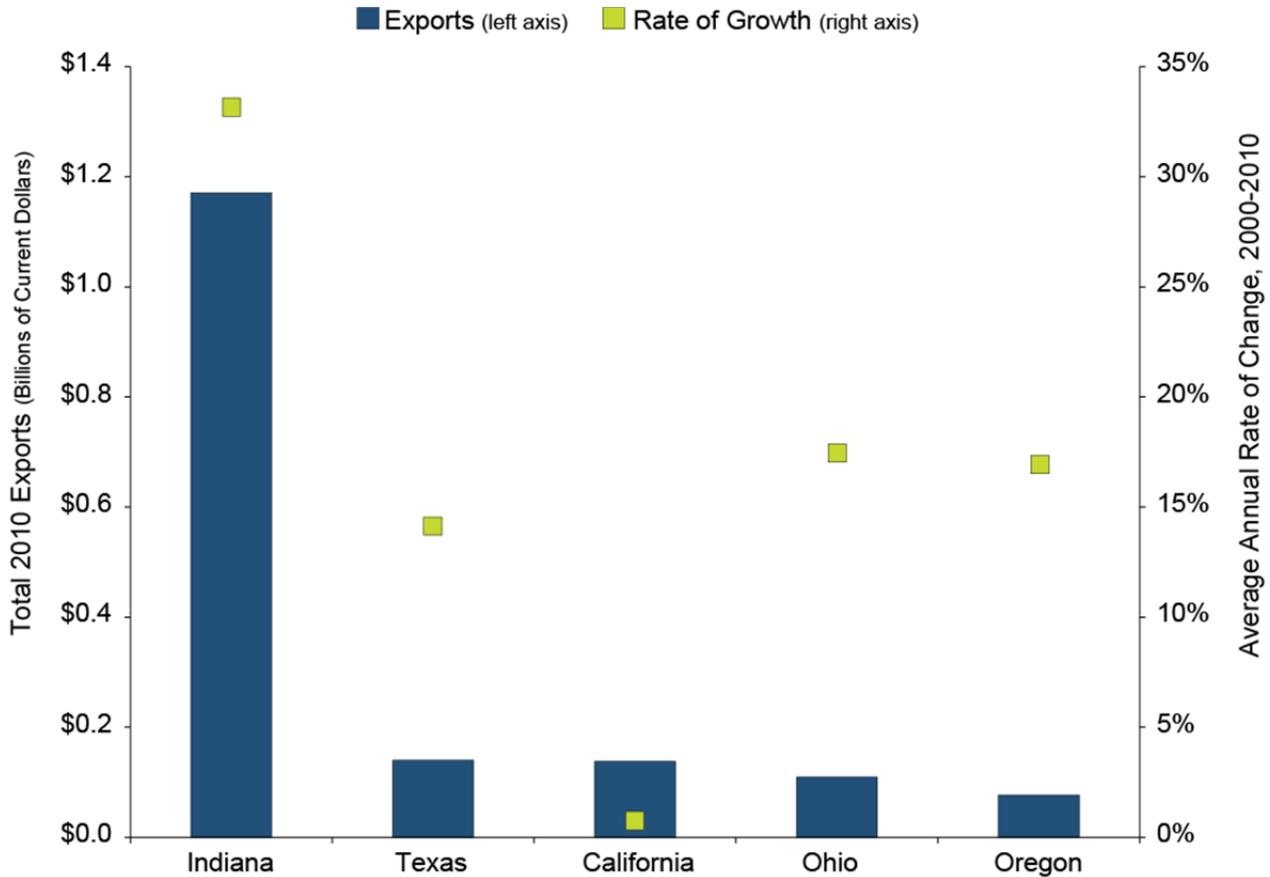
Figure 32: Top Five Exporters of Motor Vehicle Parts and Accessories, 2000-2010



Source: WISER Trade

Indiana’s second-largest commodity exported under the vehicle and parts category in 2010 was non-mechanically propelled trailers. Indiana is the top exporter among the states (see **Figure 33**). Indiana grossed \$1.2 billion in exports in 2010, with Texas a distant second at \$140 million. The two states constituted nearly half of all U.S. exports in this category. Indiana’s position as the top exporter in this category is likely attributed to the strong average annual growth over the past 10 years. While most of the remaining states in the top five have double-digit growth, it is unlikely they will overtake Indiana anytime soon.

Figure 33: Top Five Exporters of Non-Mechanical Propelled Trailers, 2000-2010

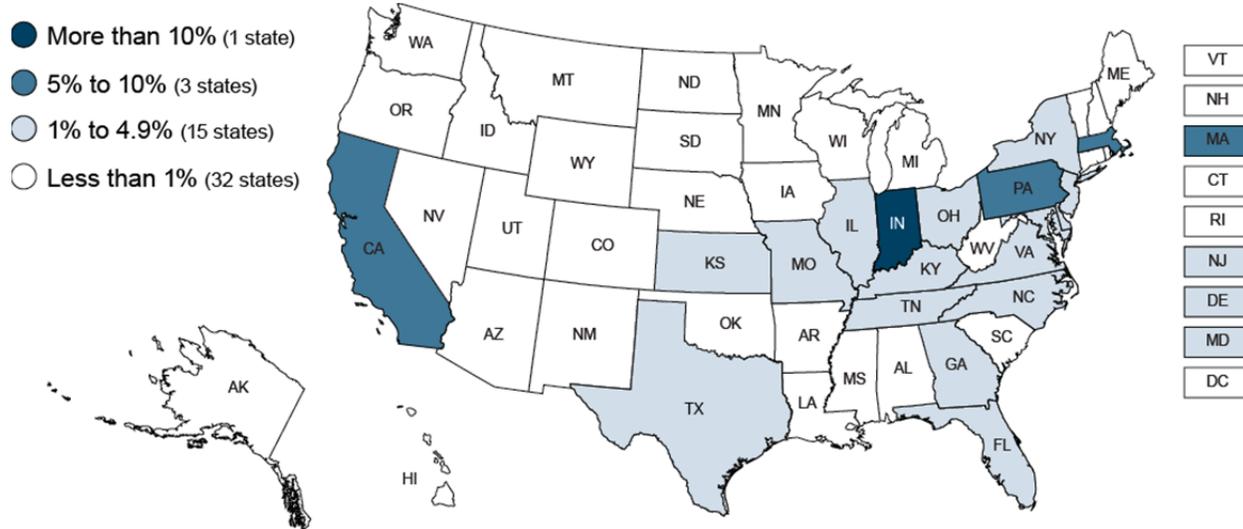


Source: WISER Trade

Pharmaceuticals

Leading pharmaceutical exporting states are shown in **Figure 34**. Indiana and California are the leaders among the states with 11.4 percent and 9.1 percent of U.S. pharmaceutical exports, respectively. (While Puerto Rico contributes 31 percent of the nation's pharmaceutical exports, it is not regarded as a state, and its total is excluded from state ranking calculations.) Indiana became the nation's top exporting state in pharmaceuticals in 2009 and held its stance in 2010, rising from its third-place position in 2008. In the past three years, the top 10 states' rankings in pharmaceutical exports have experienced some volatility.

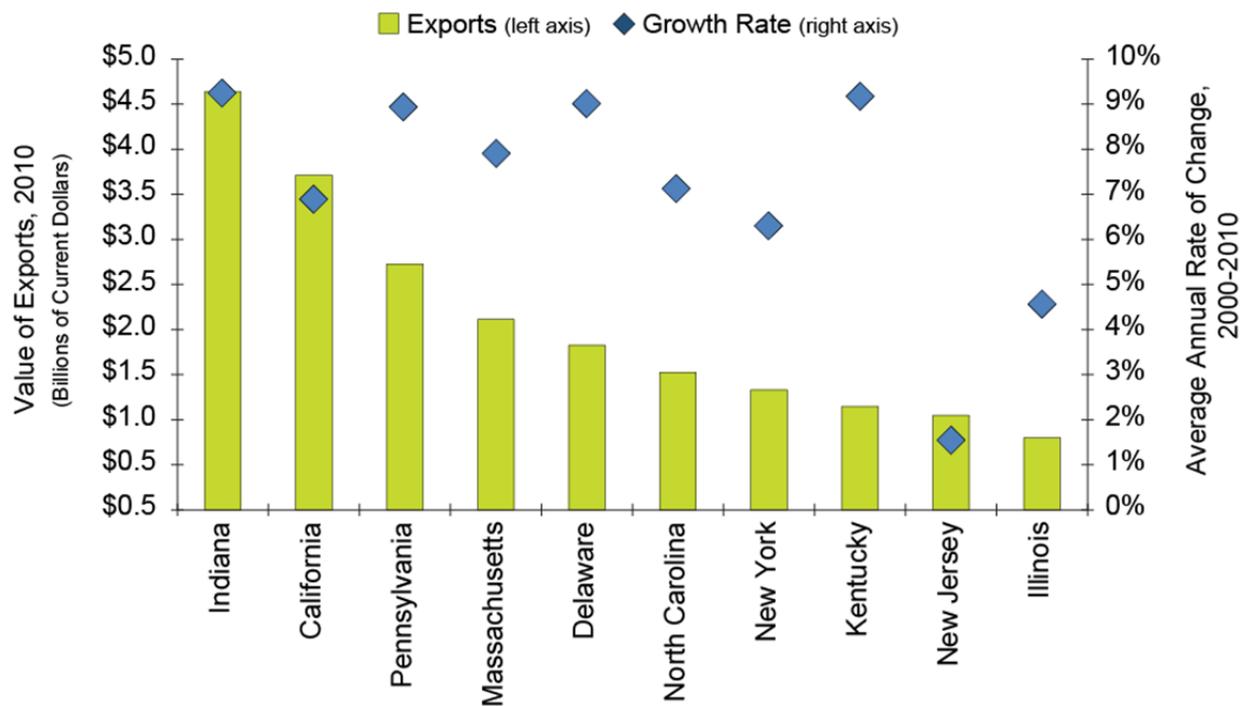
Figure 34: Share of U.S. Pharmaceutical Exports, 2010



Source: WISER Trade

As **Figure 35** shows, Indiana’s 9.2 percent average annual growth in pharmaceutical product exports is competitive with the rest of the top 10 exporting states.

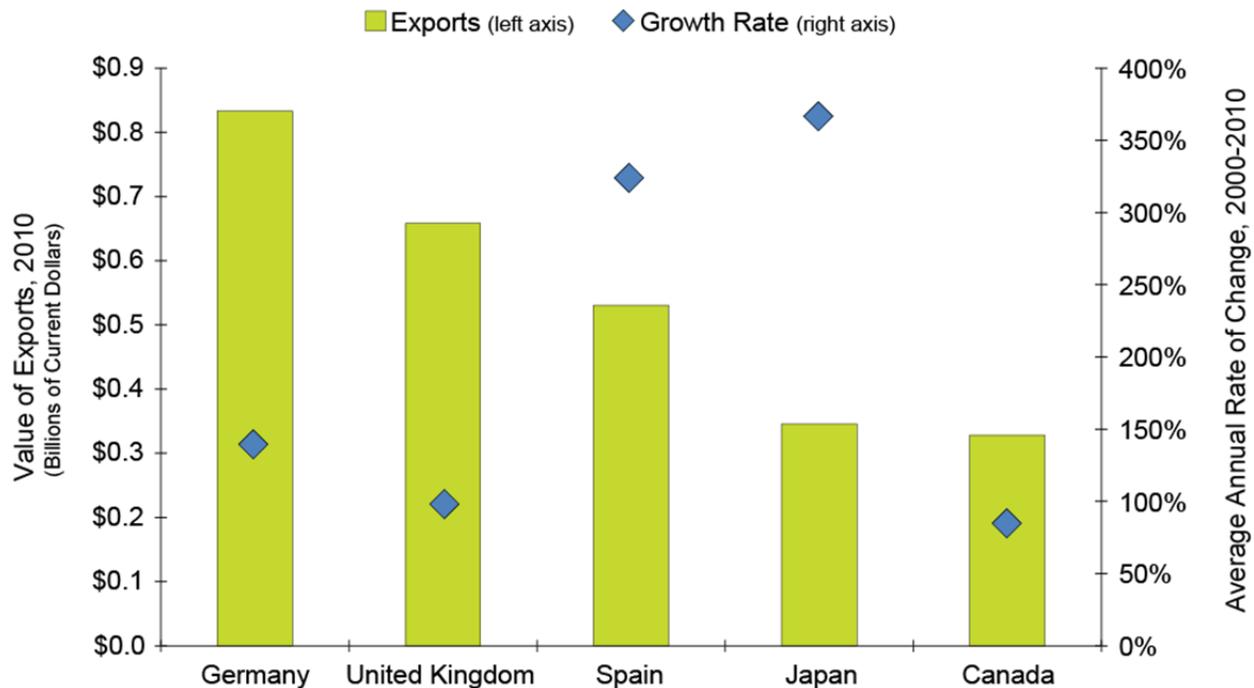
Figure 35: Leading States in the Export of Pharmaceuticals, 2000-2010



Source: WISER Trade

Figure 36 presents the top five export destinations for Indiana’s pharmaceuticals. Three of the top five destinations are in Europe. The United Kingdom imported the most pharmaceutical products from Indiana in 2008 and 2009, but in 2010, Germany claimed the top spot. Spain and Japan have ramped-up their imports of Indiana’s pharmaceutical products since 2000, with stratospheric average annual rates of growth. Canada also continues to increase its imports with average annual rate of growth of 82 percent.

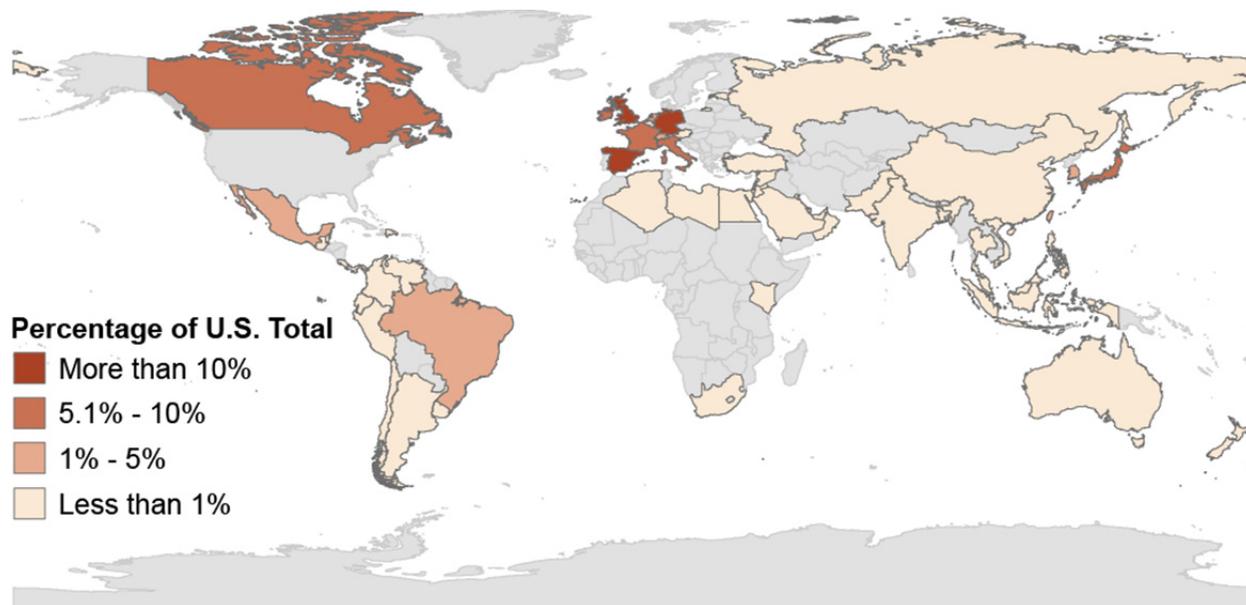
Figure 36: Indiana's Top Five Export Destinations for Pharmaceutical Products, 2000-2010



Source: WISER Trade

The global scope of Indiana pharmaceutical products' destinations (for nations importing over \$10 million) can be seen in Figure 37.

Figure 37: Destinations for Indiana Exports of Pharmaceutical Products, 2010

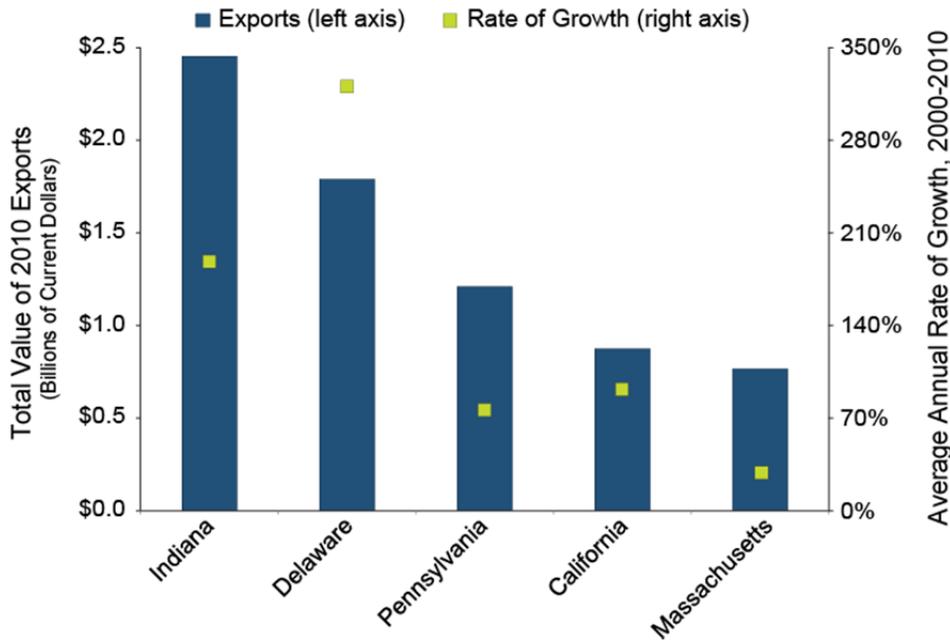


Note: Includes only countries that purchase more than \$10 million
Source: WISER Trade

In 2009, retail packs of medicaments outpaced vaccines for human medicine to make up the lion's share of Indiana's pharmaceutical exports in 2010. Over half of the pharmaceutical product exports were devoted to retail packs of medicaments (53 percent) in 2010, an increase from 27 percent in 2008. Figure 38 displays the top five states exporting this pharmaceutical sub-category. In 2010, Indiana was the obvious leader, exporting the most relative to the other

states. However, at the average annual growth rate that Delaware has experienced since 2000, it could soon become the leader in this sub-category. Indiana sold nearly \$2.5 billion in retail packs of medicaments in 2010, equivalent to nearly 13 percent of the U.S. share of exports in this commodity.

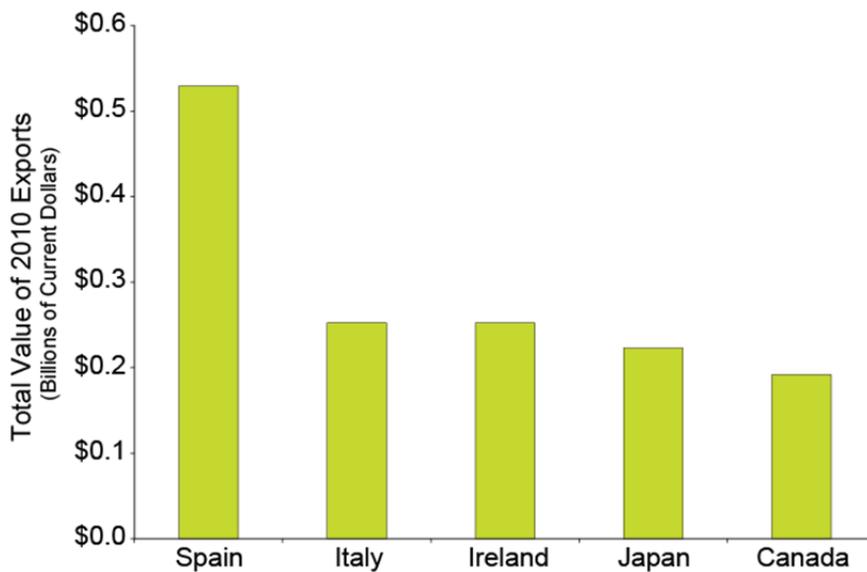
Figure 38: Top Five Exporters of Retail Packs of Medicaments, 2000-2010



Source: WISER Trade

Figure 39 shows the top five foreign destinations of Indiana’s retail packs of medicaments. Spain is the leading customer, purchasing approximately 22 percent of Indiana’s exports in this category. All the top five countries (except Canada), have had exponentially large average annual growth rates over the past nine years in the purchase of this product, hence the reason why it has overcome human vaccines to become the largest pharmaceutical product exported out of Indiana.

Figure 39: Indiana’s Top Five Destinations for Retail Packs of Medicaments, 2010

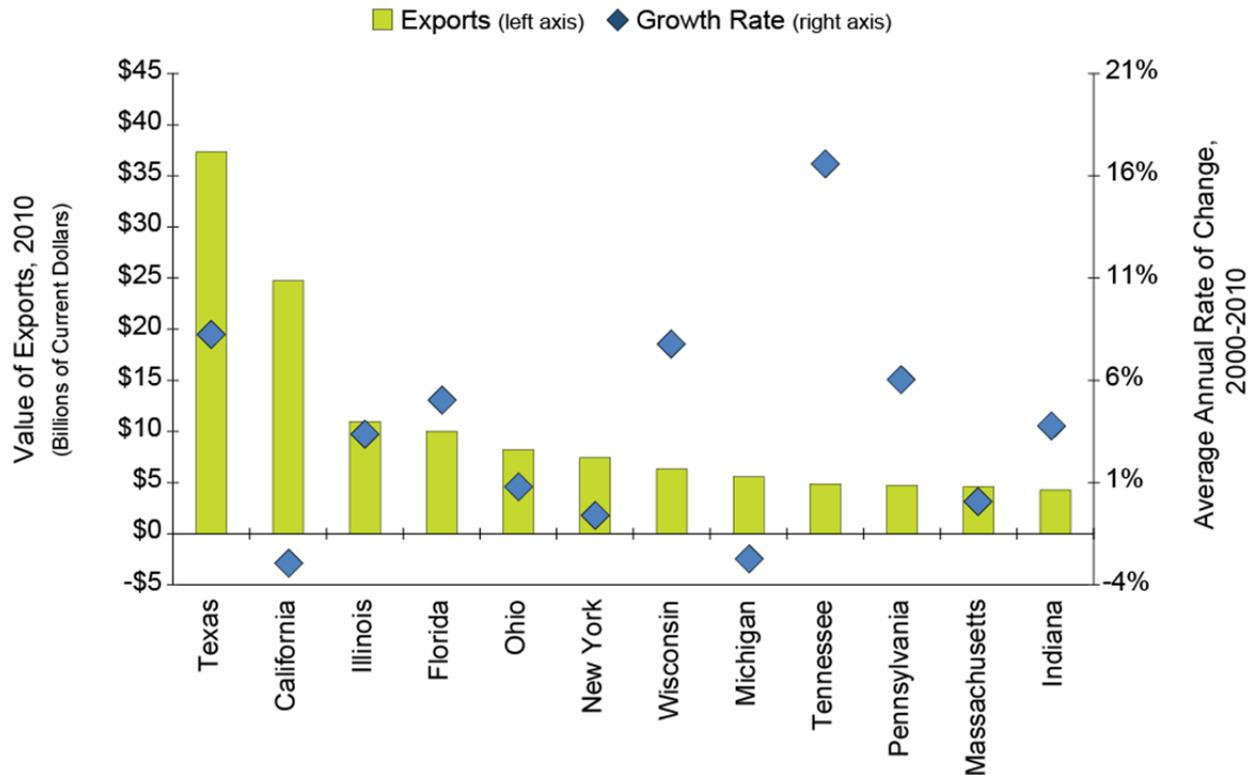


Source: WISER Trade

Industrial Machinery

Figure 40 presents export value and growth among the top state exporters of industrial machinery. Indiana ranked 12th in 2010, a position it has held since 2008. Texas and California clearly dominate the market. There are many smaller states, however, with similar levels of exports in this area and with robust average annual growth rates, e.g., Wisconsin and Tennessee. Indiana has several peer states in this general category, but Indiana is particularly strong with regard to compression-ignition internal combustion piston engines, as the state exported 28.5 percent of the nation’s exports of this product.

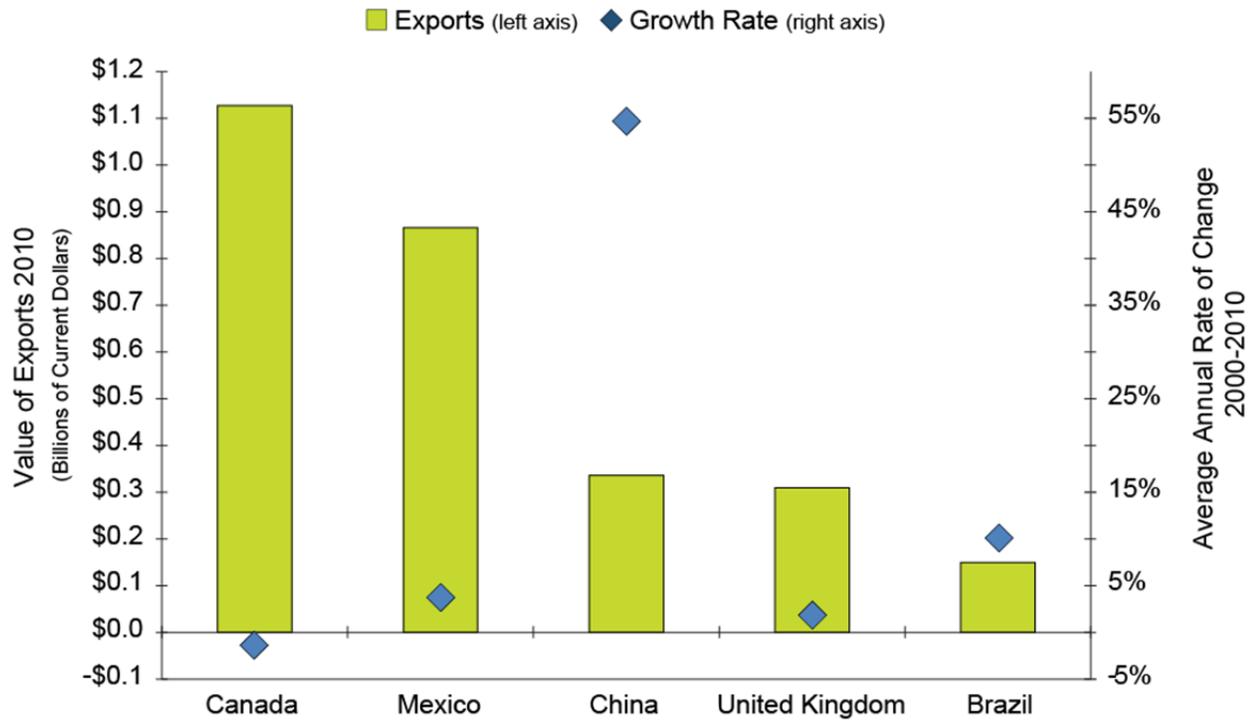
Figure 40: Leading States in the Export of Industrial Machinery, 2000-2010



Source: WISER Trade

Figure 41 plots the 2010 value of exports and the average annual rate of growth for industrial machinery exports to Indiana’s top five destinations from 2000 to 2010. Canada has maintained its position as the top importer from Indiana despite a 10-year downward trend of 1.5 percent (average annual rate). Mexico was the second-largest purchaser of Indiana’s industrial machinery despite a sustained drop-off in purchases in 2008. In 2009, China surpassed the United Kingdom to become the third-largest importer of industrial machinery, likely due to its double-digit average annual growth rate of 55 percent. The United Kingdom and Brazil rounded out the top five markets. Several other growing markets include Japan and Singapore; both countries purchased over \$100 million of industrial machinery products in 2010.

Figure 41: Indiana’s Top Five Export Destinations for Industrial Machinery, 2000-2010

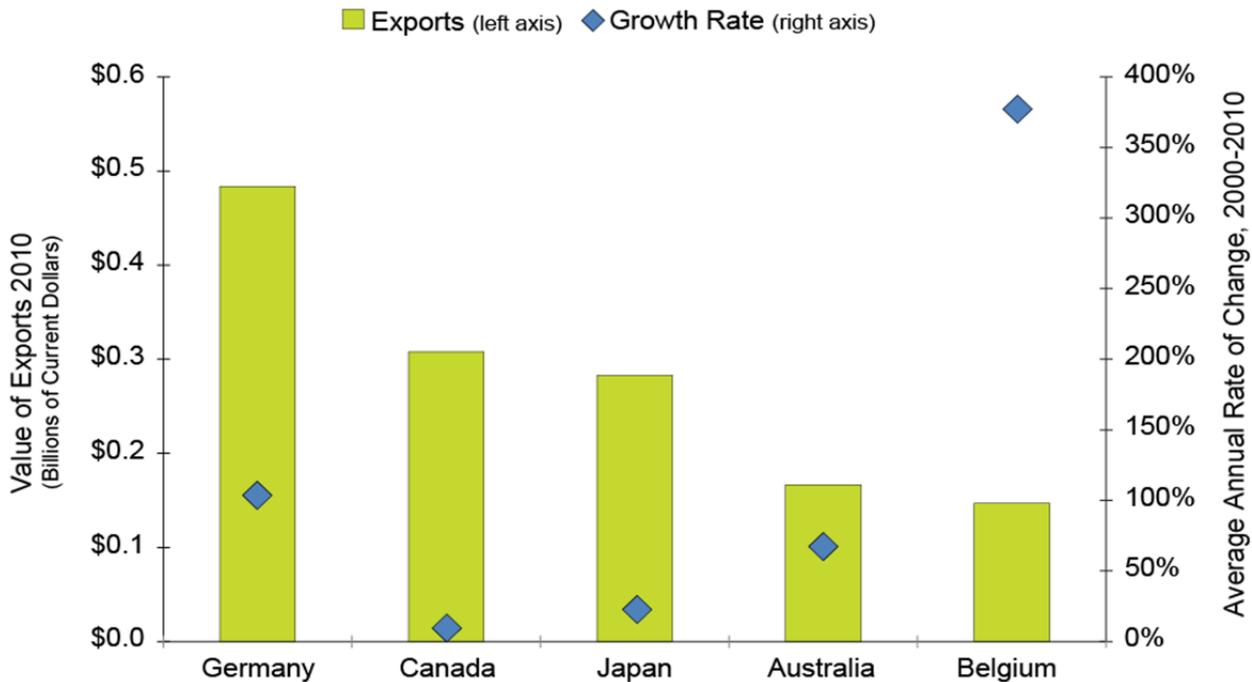


Source: WISER Trade

Optical and Medical Instruments

Figure 42 profiles Indiana’s optical and medical instrument export markets. In 2010, the top destinations for this category shifted. Germany has slowly increased its imports, rising from fourth place in 2008 to second place in 2009 and finally the leading importer in 2010. Canada had been the dominant purchaser since at least 1996. The other three countries rounding out the top five had double- or triple-digit growth rates in 2000 to 2010. If Canada and Japan’s rate of import growth persist, expect to see Japan surpass Canada as the second-largest importer of Indiana-produced optical and medical instruments in the next year. In contrast, Australia and Belgium have only recently increased their imports of optical and medical instruments and it is too soon to tell whether the upswing will be sustained.

Figure 42: Indiana's Top Five Export Destinations for Optical and Medical Instruments, 2000-2010

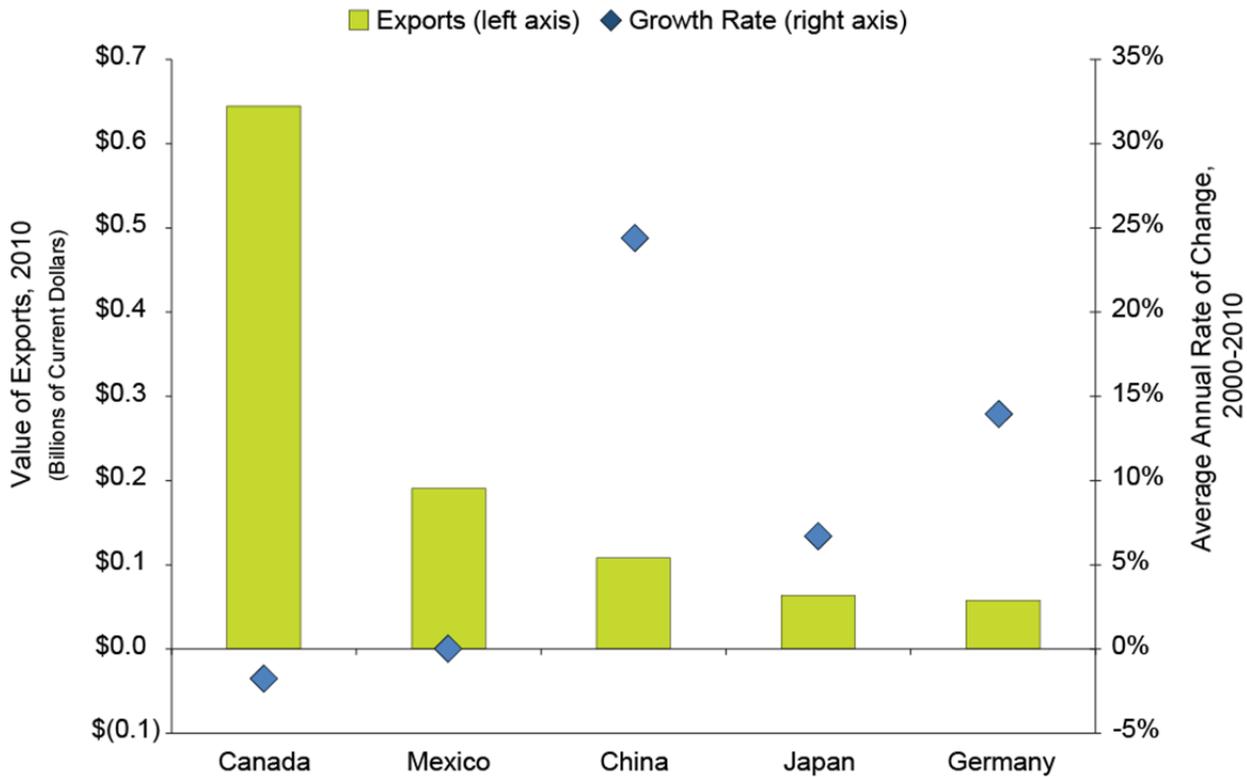


Source: WISER Trade

Electrical Machinery

Similar to Indiana's overall exporting trends, electrical machinery saw strong growth in 2008, a decline in exports in 2009 and an uptick in 2010. However, the export growth in the past year has not been as strong (3 percent) as the previously mentioned industries. **Figure 43** shows sales volume and growth rates for Indiana's electrical machinery exports to that category's top five markets: Canada, Mexico, China, Japan and Germany. Canada is by far the largest purchaser of Indiana's electrical machinery exports at nearly \$645 million, but over the past decade, Canada's imports have been on the downward trend. In contrast, China's average annual growth rate was 24 percent and it currently imports \$108 million from Indiana. On average, Indiana's electrical machinery exports grew 1.2 percent between 2000 and 2010.

Figure 43: Indiana's Top Five Export Destinations for Electrical Machinery, 2000-2010

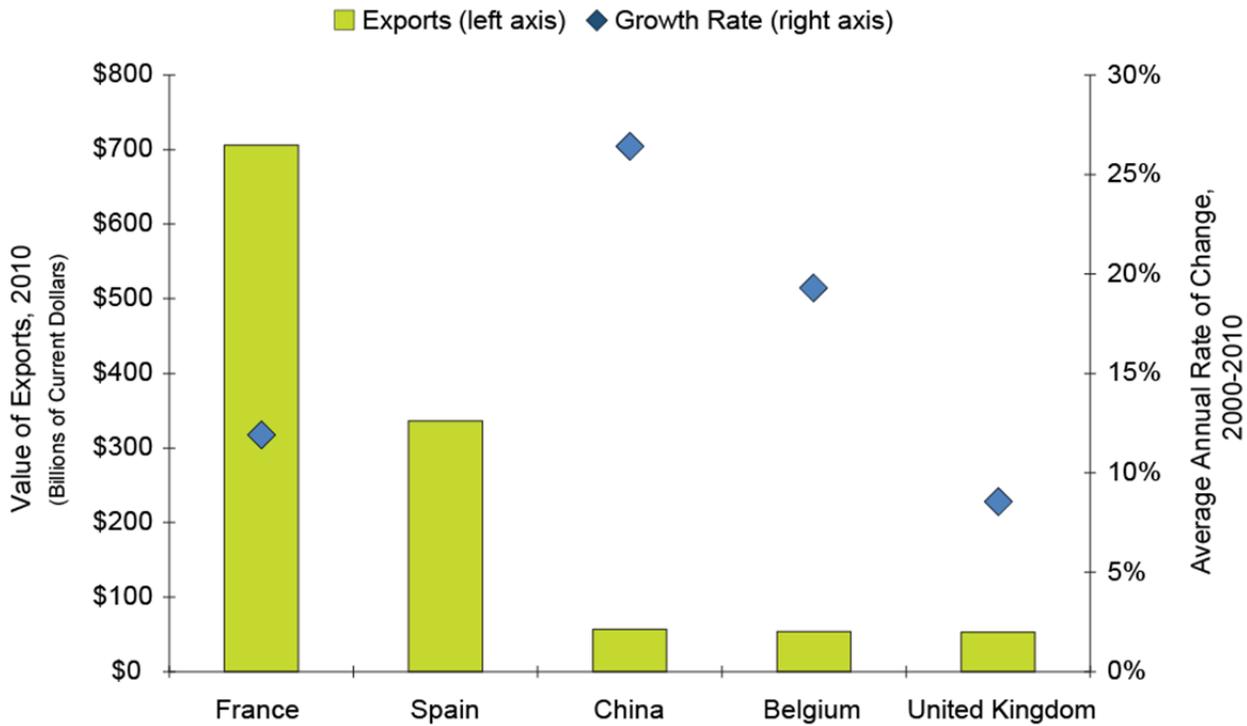


Source: WISER Trade

Organic Chemicals

Growth in this export category has been steady at approximately 9 percent since 2000 with a 24 percent increase from 2009 to 2010. **Figure 44** graphs the top five export destinations of Indiana's organic chemical production, a category that includes products such as insulin, various proteins, vitamins and antibiotics. France is clearly Indiana's largest trading partner in this area, purchasing \$706 million in organic chemicals in 2010. Spain was second in 2010, in part due to a \$50 million increase in imports in 2008. China and Belgium has also had double-digit growth since 2001 (26 percent and 19 percent, respectively). The United Kingdom has seen erratic swings in this import category. It dropped in rank from second in 2007 with \$180 million in imports to fifth with \$53 million in 2010. Outside of the top five, other emerging countries with strong average annual growth rates are Egypt and India (1,223 percent and 180 percent, respectively) and could muscle its way to the top five, passing the United Kingdom in the near future.

Figure 44: Indiana's Top Five Export Destinations for Organic Chemicals, 2000-2010

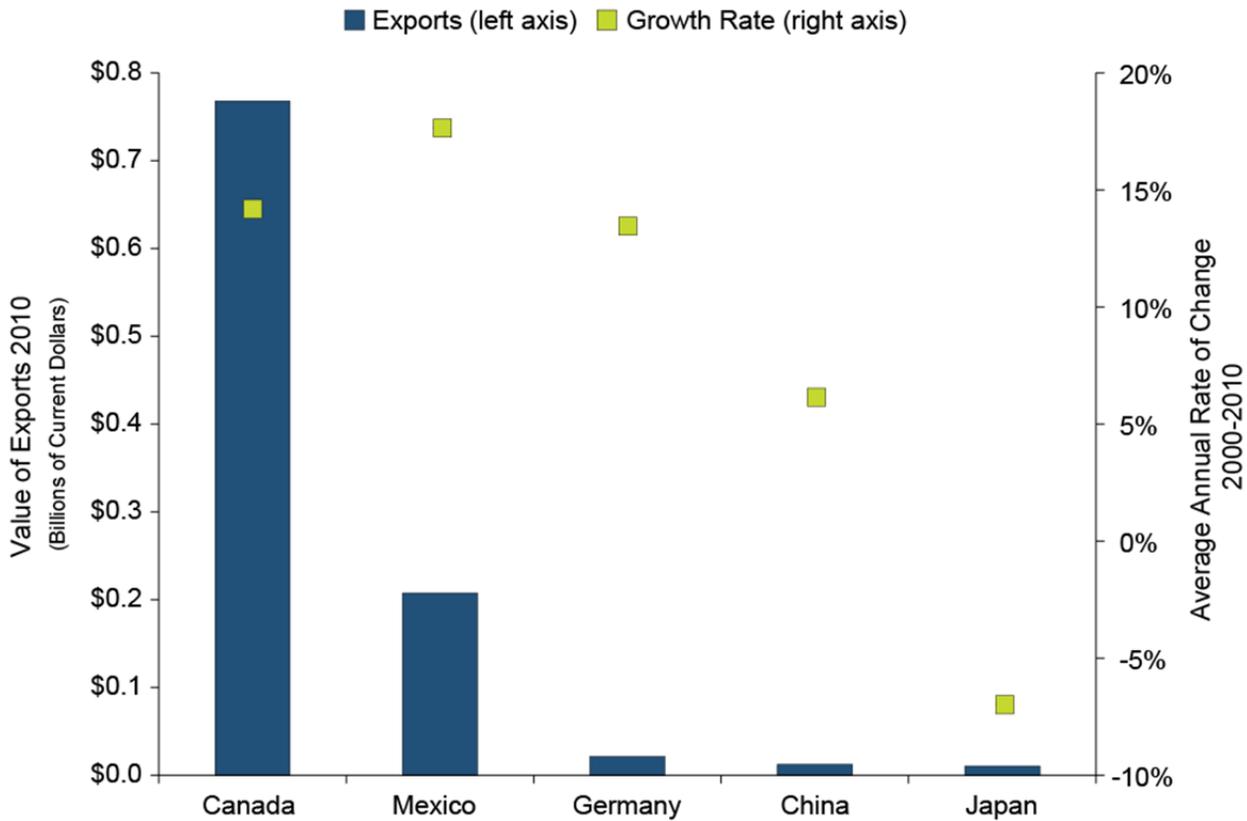


Note: Spain's growth rate is not included on the graph due to its size.
Source: WISER Trade

Iron, Steel and Related Products

Figure 45 presents Indiana's iron, steel and related product exports to Canada, Mexico, Germany, China and Japan. This product category is completely dominated by Canada's \$768 million in 2010 purchases. As a whole, the market totals \$1.1 billion, making Canada's share nearly 70 percent. This is also a high-growth sector, with even the dominant Canadian market growing at over 14 percent per year on average. The Mexican market, a distant second, has been growing at an average rate of 18 percent and constitutes more than 18 percent of the market share.

Figure 45: Indiana's Top Five Export Destinations for Iron, Steel and Related Products, 2000-2010

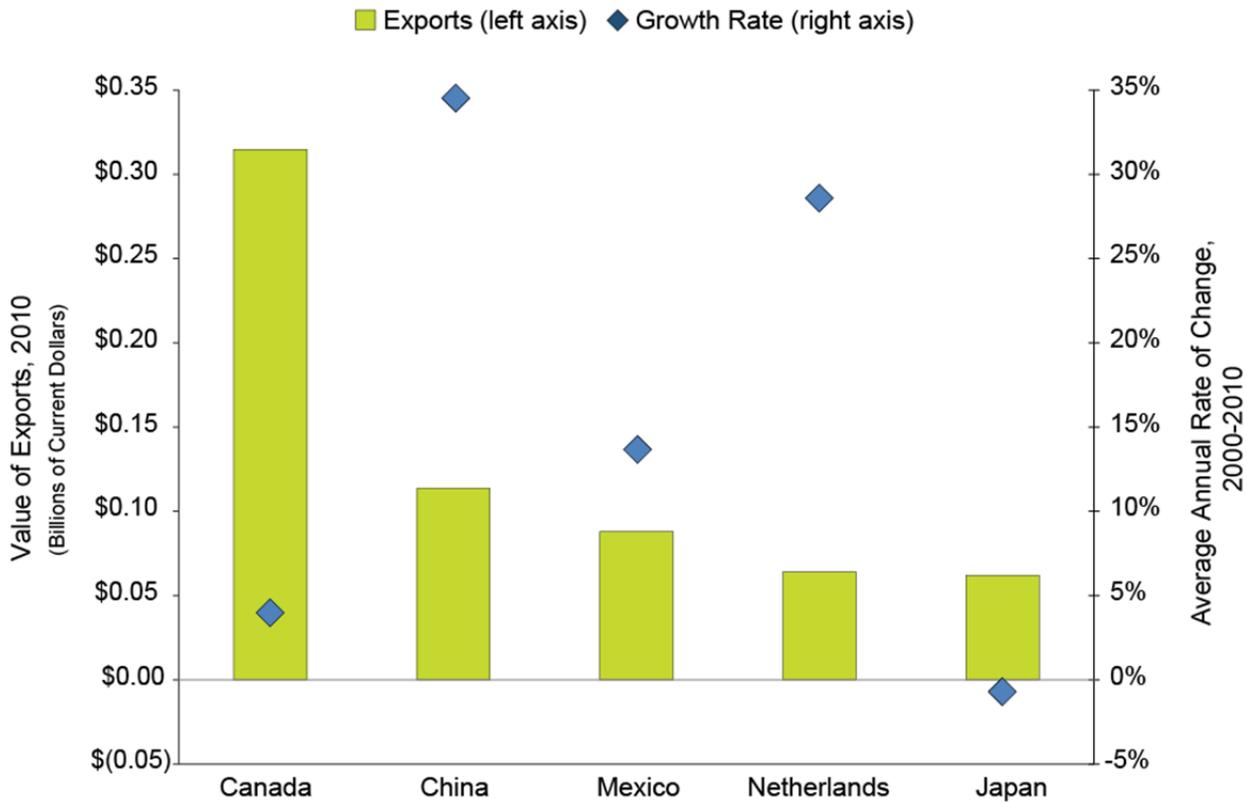


Source: WISER Trade

Plastics

As with most export categories, **Figure 46** shows that Canada is the primary foreign destination for Indiana plastic products. The next closest destination in dollar value is China with \$114 million, a position China recently claimed in 2009—leaping past Mexico and the Netherlands. While other countries decreased their imports in 2009, China had a 49 percent increase in their imports. That said, its growth in 2010 (10 percent) was not as strong as the remainder of the top 10 countries (38 percent). Among the top five destination countries, China and the Netherlands have had the strongest average annual rates of growth since 2000. It is likely that the Netherlands could surpass Mexico to become the third-largest destination for Indiana plastics if their trend continues. Other countries experiencing rapid growth in their plastics purchases from Indiana include Brazil and France, markets that have grown at above average rates.

Figure 46: Indiana's Top Five Export Destinations for Plastic Products, 2000 to 2010

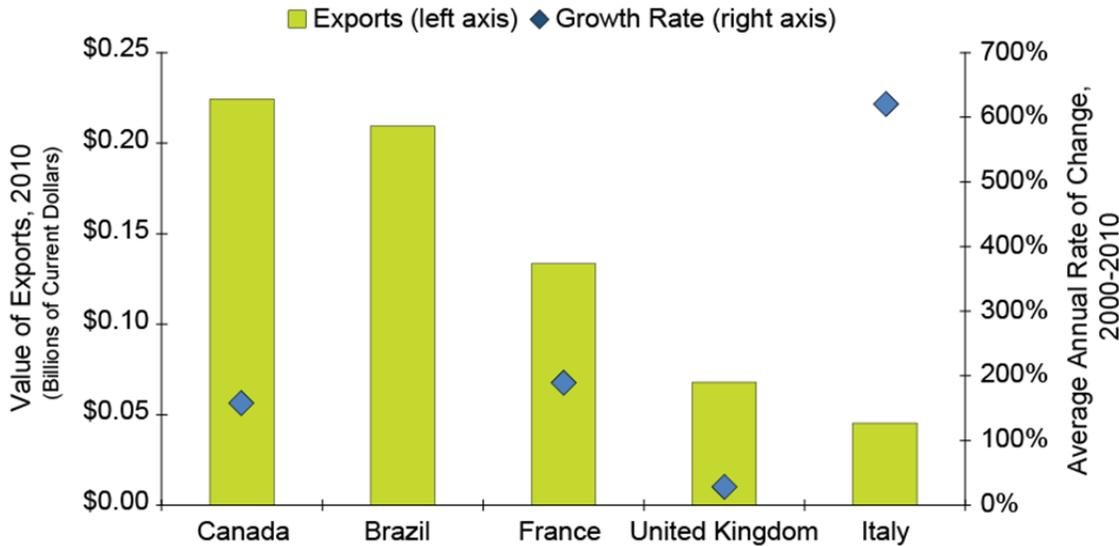


Source: WISER Trade

Aircraft, Spacecraft and Related Parts

Since 2004, the aircraft, spacecraft and its related parts industry has become a top 10 contributor to the state's exporting activity, expanding at 118 percent (average annual rate) since 2000. The top five destinations, presented in **Figure 47**, account for more than 82 percent of Indiana's export market for this category. Like most of Indiana's manufacturing exports, Canada is the top market at \$224 million. Close behind Canada is Brazil (\$209.3 million), a country that experienced a whopping average annual growth rate of 28,773 percent from 2000 to 2010. While Brazil's average annual growth rate is tremendous, a great deal of volatility has existed in its importing volume during this timeframe. A distant third is France despite its triple-digit growth rate. Of the remaining top 10 destination countries, Italy, China, Mexico and Australia have had robust increases in Indiana exports. Even still, their relatively small size makes it unlikely that any other country will challenge Canada's dominance as Indiana's primary market for aircraft, spacecraft and its related parts. The only exception is Brazil, which may eclipse Canada in the near future.

Figure 47: Indiana's Top Five Export Destinations for Aircraft, Spacecraft and Related Parts, 2000-2010



Note: Brazil's growth rate is not included on the graph due to its size.
Source: WISER Trade

Miscellaneous Chemicals

Miscellaneous chemicals is a low-growth export industry, recording only an average annual growth of 2 percent from 2000 to 2010. **Figure 48** shows the top five export destinations for this category. While the market is somewhat stable among the top three, with Canada, Germany and the United Kingdom topping the list since 2000, the fourth and fifth spots have rotated frequently. Mexico has grown at an average annual rate of roughly 43 percent since 2000, thus taking fourth place at \$44 million. Japan, on the other hand, while close behind Mexico in the value of its imports (\$40 million) has only had a 23 percent average annual growth rate.

Figure 48: Indiana's Top Five Export Destinations for Miscellaneous Chemical Products, 2000-2010



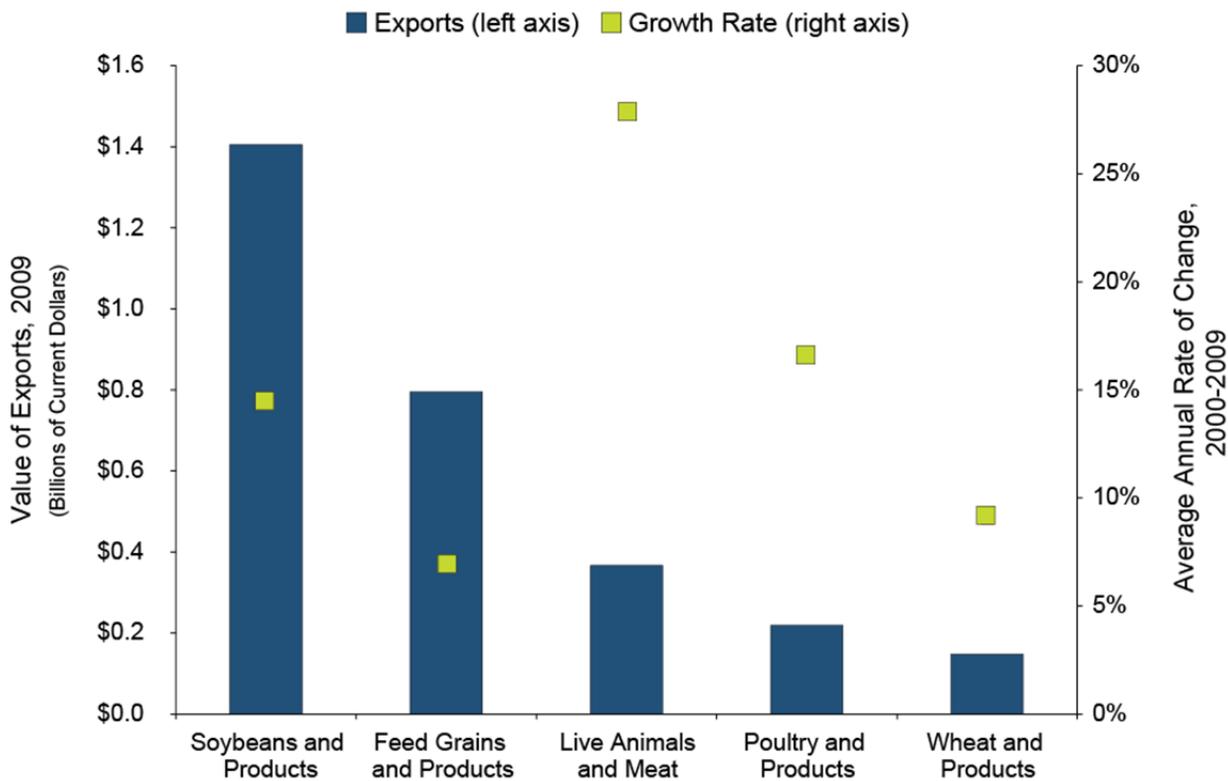
Source: WISER Trade

Agriculture

In addition to producing a wide array of manufactured goods, Indiana is also a major agricultural state. Agricultural commodities are not tracked by agencies that report the exports of goods and services. In large part, because agricultural goods are undifferentiated (one state’s soybeans have the same characteristics as another’s) agricultural exports are difficult, if not impossible, to trace back to source states. However, the Economic Research Service division of the U.S. Department of Agriculture uses the state’s production of commodities to determine each state’s contribution to national agriculture export sales. Due to the commodity’s homogeneous traits, state-level detail on where these commodities are shipped is not available.

Figure 49 highlights Indiana’s largest agricultural exports for 2009, the most recent year for which data are available. Soybeans and products topped the list, totaling \$1.4 billion. Feed grains and products were another large source of agricultural export revenue for the state, with \$795 million in 2009. This category includes corn, Indiana’s highest grossing agricultural product overall. The remaining top three export categories are not quite as significant in dollar terms. None of them reaches the \$400 million mark. All categories experienced positive average annual growth between 2000 and 2009. Live animals and meat exports grew the fastest, at 27.6 percent. The high growth in live animals and meat exports is likely attributed to the increases in pork, poultry and dairy production in the state.

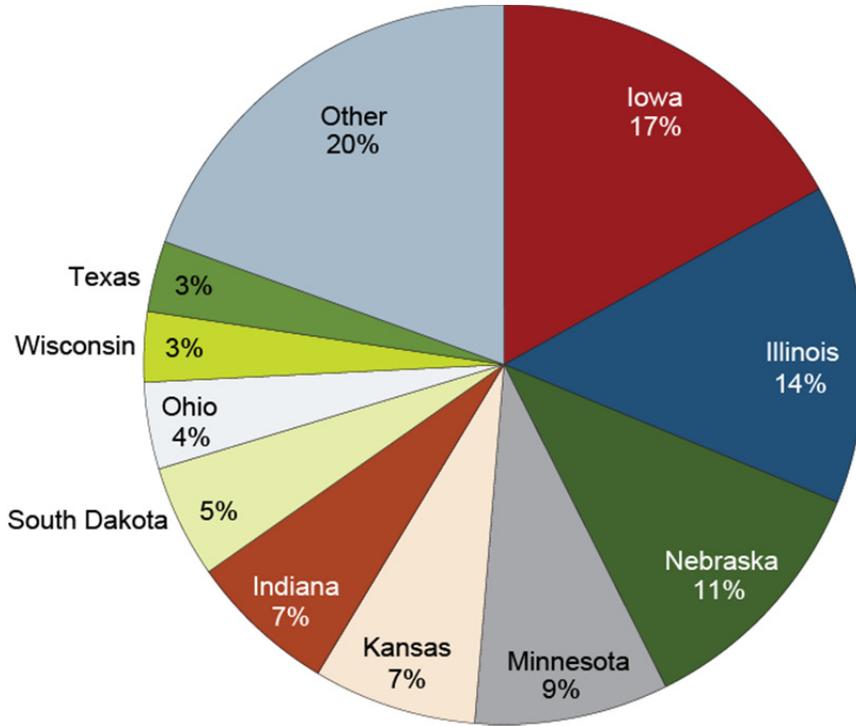
Figure 49: Indiana Agricultural Exports, 2009



Source: USDA Economic Research Service

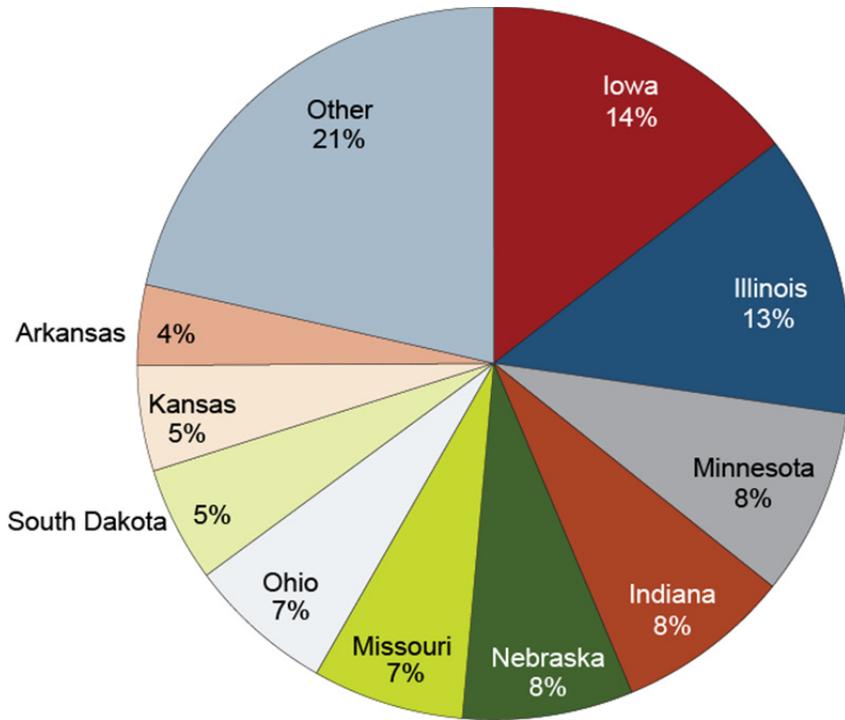
U.S. agricultural exports totaled approximately \$97 billion with Indiana ranking ninth in agricultural exports among the states, at \$3 billion. In its top two commodities, however, Indiana ranked higher—fourth in soybeans and products and sixth in feed grains and products. **Figure 50** and **Figure 51** show the distribution of sales among the top five exporting states for feed grains and soybeans, respectively. Not surprisingly, Iowa and Illinois lead in both categories.

Figure 50: Share of U.S. Feed Grains and Products Exports, 2009



Source: USDA Economic Research Service

Figure 51: Share of U.S. Soybean and Products Exports, 2009



Source: USDA Economic Research Service

FDI in the United States and Indiana

Exports are critical to the Indiana economy, but the investment of foreign entities into Indiana's business enterprises is also important.⁵ These investments contribute financially to the state's economy and often provide jobs to Hoosiers. The subject area of foreign investment has its own vocabulary. Therefore, it may be helpful to become familiar with a few definitions of commonly used phrases within the foreign direct investment (FDI) field.⁶

1. **U.S. Affiliate:** a U.S. business enterprise where a single foreign person or entity owns or controls, directly or indirectly, 10 percent or more of the voting securities of an incorporated U.S. business enterprise or an equivalent interest in an unincorporated U.S. business enterprise.
2. **Majority-Owned U.S. Affiliate (MOUSA):** a U.S. affiliate where the combined ownership of all foreign parents exceeds 50 percent.
3. **Foreign Parent:** the first person, or entity, outside the United States in a U.S. affiliate's ownership chain that had direct investment interest in the affiliate.
4. **Ultimate Beneficial Owner (UBO):** the person or entity that ultimately owns or controls a U.S. affiliate of a foreign company and derives the benefits associated with ownership or control. The UBO of a U.S. affiliate is that person, or entity, proceeding up the affiliate's ownership chain beginning with the foreign parent, that is not owned more than 50 percent by another person or entity. Unlike a foreign parent, the UBO of a U.S. affiliate may be located in the United States.

Due to a recent shift in the emphasis in how foreign investment is measured, the better measure of foreign participation in the United States and Indiana is to track the finance and operations of majority-owned affiliates, rather than "all affiliates." Unless otherwise specified, all the data and references are for majority-owned U.S. affiliates (MOUSAs).

Foreign direct investment data come from the Bureau of Economic Analysis (BEA) and cover U.S. businesses newly acquired or established by foreign direct investors. Due to changes in the data collected by the BEA, state-level breakdowns of U.S. affiliate manufacturing employment; gross property, plant and equipment; and commercial property are no longer reported, thus 2007 is the latest available year for these components. Likewise, beginning with the 2007 data, BEA changed its reporting from solely non-bank MOUSA firms to include bank MOUSA firms, thus annual series of data for MOUSA firms only cover two years (2007 and 2008). Otherwise, the data presented below is the most recent available (2008).

Foreign Direct Investment Activity

In 2008, the United States had nearly 5.6 million workers employed at enterprises where a foreign investor or company had at least a 50 percent stake, otherwise known as a MOUSA. Slightly more than one in five of these MOUSA workers were employed in the Midwest (21.5 percent), with Indiana's share being 2.5 percent. Despite the seemingly low percentage of FDI employment in Indiana, the state ranked 14th among states with 141,600 workers employed at MOUSA firms (see **Table 6**). Historically, manufacturing has been the dominant business activity drawing foreign direct investment to Indiana, a trend that will be analyzed in this chapter.

⁵ To learn more about the inbound impacts of FDI into the United States please visit www.whitehouse.gov/sites/default/files/microsites/cea_fdi_report.pdf.

⁶ These definitions came from the Bureau of Economic Analysis' glossary at www.bea.gov/glossary/glossary.cfm.

Table 6: MOUSA Employment in Midwestern States, 2008

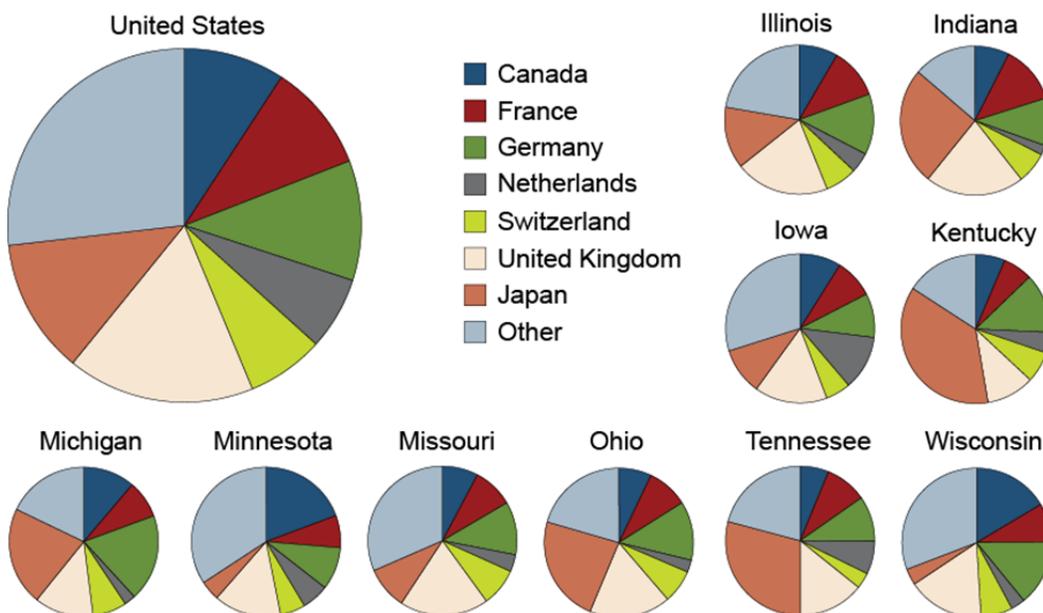
| Geography | MOUSA Employment (in thousands) | U.S. Rank |
|---------------|------------------------------------|--------------|
| United States | 5,593.5 | n/a |
| Illinois | 273.3 | 4 |
| Indiana | 141.6 | 14 |
| Iowa | 48.2 | 28 |
| Kentucky | 95.2 | 20 |
| Michigan | 150.6 | 13 |
| Minnesota | 97.2 | 19 |
| Missouri | 91.3 | 21 |
| Ohio | 231.6 | 7 |
| Tennessee | 130.6 | 15 |
| Wisconsin | 84.3 | 24 |

Source: Bureau of Economic Analysis

The Origin of FDI

European countries accounted for 51.6 percent of the nation’s majority-owned U.S. affiliates (MOUSA) employment in 2008 followed by other countries (such as Middle East and Latin countries) at 26.8 percent and Japan (12.4 percent). The Midwest, as a whole, followed similar trends with a slightly stronger presence from Japan and Canada compared to the nation and less from Europe and other countries. Within Indiana, Japan held the largest share of MOUSA employment at 25.5 percent (36,100 jobs). The United Kingdom was the dominant European country bringing jobs to all regions. Among the neighboring states, Indiana had the largest employment presence from France and the United Kingdom (see **Figure 52**).

Figure 52: Midwestern States’ Majority-Owned U.S. Affiliate Employment by Source, 2008

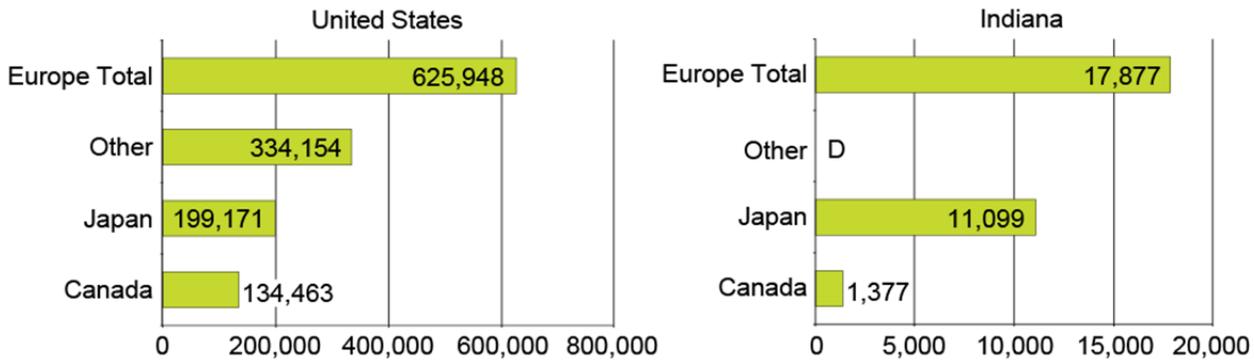


Source: Bureau of Economic Analysis

Employment is not the only measure used to determine a foreign direct investments' impact, as data are collected on the dollar amount of gross property, plant and equipment by the residence of the ultimate beneficial owner (UBO).⁷

Figure 53 shows that the majority of investment in the United States and in Indiana by foreign parents primarily came from Europe. Nationally, the Middle East/Latin/other Pacific countries are second, but Japan is second for Indiana, similar to the MOUSA employment trends. The share of FDI from Canada is more than double in the United States than it is for Indiana. However, Indiana's share of investment from Japan is more than double the national level.

Figure 53: MOUSA FDI in the United States and Indiana by Country of UBO, 2007



Note: Indiana's "Other" category is non-disclosable data
 Source: Bureau of Economic Analysis

In terms of foreign participation, the manufacturing sector is dominant. One helpful way to gauge the relative significance of the value added created by manufacturing is to compare its value to GDP (the measure of U.S. total economic output).⁸ Irrespective of international or domestic investment sources, manufacturing contributed approximately 12.1 percent of the nation's privately produced GDP in 2007.⁹ When comparing the MOUSA-produced value-added (GDP) to the national GDP in 2007, it contributed 17.2 percent. By contrast, manufacturing's share of MOUSA-produced GDP in that same year was three-and-a-half times greater—42.9 percent.¹⁰ In 2007, European firms were the dominant source of MOUSA manufacturing employment for both the United States and Indiana, accounting for roughly 50 percent of the total in each (see **Figure 54**). Japanese firms play a far larger role in Indiana's MOUSA manufacturing employment than is the case nationally (37 percent versus 19 percent, respectively). Conversely, Canadian, Latin American, Middle Eastern and other Asian/Pacific manufacturers are more concentrated elsewhere in the United States than they are in Indiana.

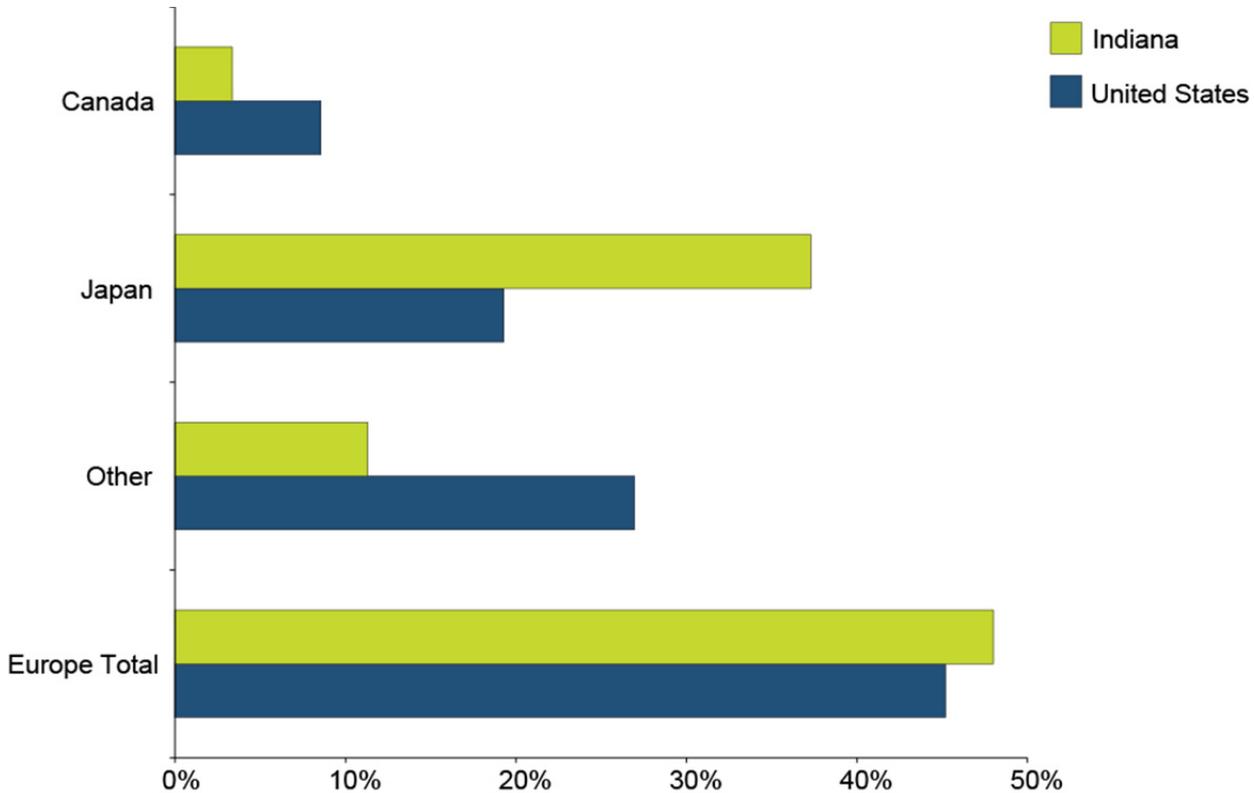
⁷ The UBO is the person or persons that ultimately owns or controls the U.S. affiliate. A foreign parent is the first link in the ownership chain of a U.S. affiliate. Unlike the foreign parent, however, the UBO may be located in the United States.

⁸ The ratio of foreign PP&E investment to state GDP is to provide a rough measure of foreign participation in a state's economy. It is not a measure with an extensive theoretical foundation.

⁹ This is based on BEA's GDP-by-Industry estimates for the United States. The percentage was calculated by dividing manufacturing GDP by the national GDP value. Likely due to the recession, this figure declined to 11.5 percent in 2008 and then 11.2 percent in 2009.

¹⁰ Comparing these two percentages is not strictly correct because the MOUSA data do not include value added imputations elsewhere in the National Income and Product Accounts. This is intended to be an order of magnitude comparison. That said, this caveat does not diminish the fact that MOUSA investment and production is considerably more concentrated in manufacturing.

Figure 54: MOUSA Manufacturing Employment Share by Country of Ultimate Beneficial Owner, 2007



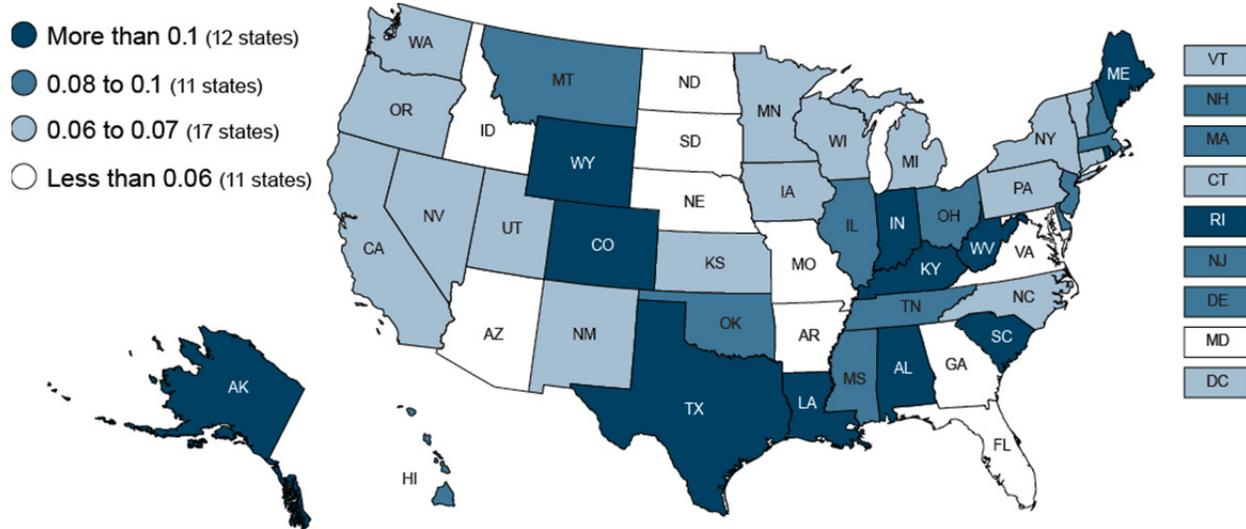
Source: Bureau of Economic Analysis

Investment by FDI

The gross value of property, plant and equipment (PPE) held by MOUSAs in the United States totaled nearly \$1.3 trillion in 2007. Among all states, Indiana ranked 11th (\$30.4 billion) in the gross value of MOUSA property, plant and equipment investment. That figure translates to 2.3 percent of the national total. However, seven states had non-disclosed values for their total PPE (including Indiana), and estimated values were determined from existing data. Therefore, the data for these seven states are underrepresented. Texas and California account for the largest shares of total gross value of MOUSA investment at 9.9 percent and 8.4 percent, respectively. New York follows with 6.2 percent of the national total. Neighboring Illinois (3.8 percent) and Ohio (3.4 percent) also placed slightly ahead of Indiana in this measure.

Comparing the investment made in property, plant and equipment for each state against the state's GDP reflects the relative importance of the investment on the state's overall economic activity. As **Figure 55** shows, Indiana's ratio of the value of MOUSA property, plant and equipment to state GDP ranks eighth nationally. Indiana's ratio exceeds its neighbors and all other Midwestern states with the exception of Kentucky (ranked third).

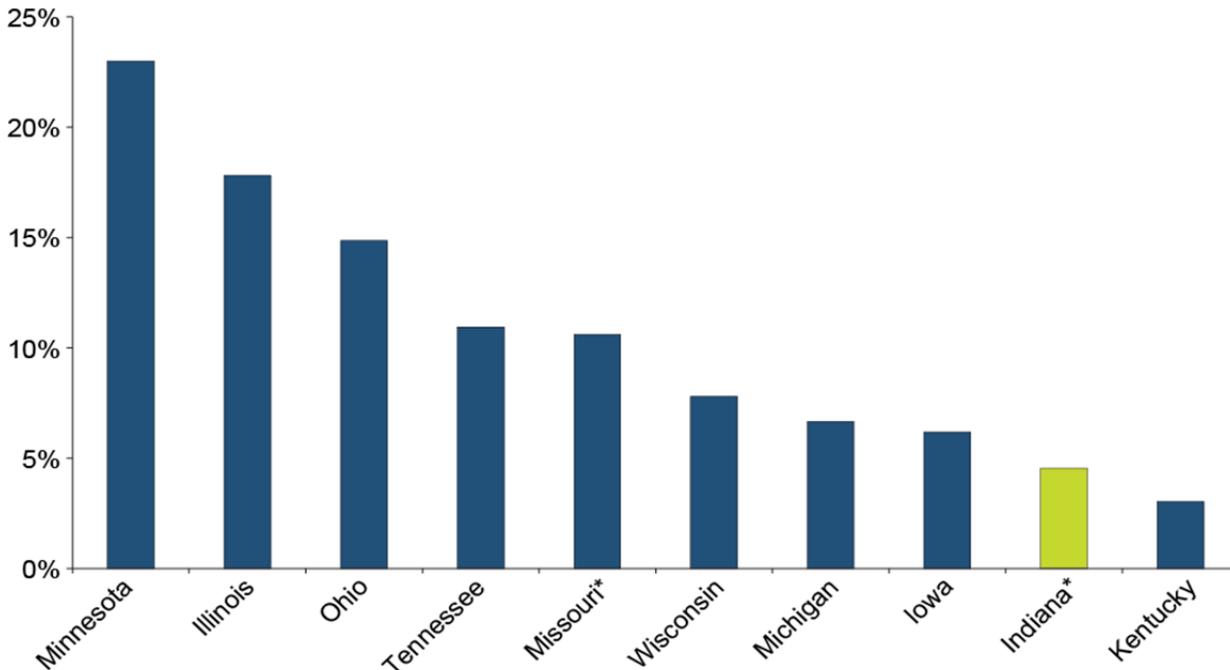
Figure 55: Ratio of Foreign Direct Investment to GDP by State, 2007



Notes: States with suppressed data include: Indiana, South Carolina, Colorado, Georgia, Missouri, Virginia, and Nebraska; thus the values presented are underrepresented. Foreign direct investment by state is measured as the gross value of property, plant and equipment of majority-owned U.S. affiliates. Source: Bureau of Economic Analysis

Commercial property investment in Indiana accounted for 4.6 percent of the gross book value of MOUSA property, plant and equipment in 2007, well below the national average of 12.5 percent. **Figure 56** shows that most Midwestern states have a larger portion of FDI invested in commercial property, led by Minnesota (23.0 percent) and Illinois (17.8 percent). Indiana’s traditional strength in manufacturing is reflected in foreign companies investing more heavily in manufacturing plant and equipment than in commercial property.

Figure 56: Percentage of Gross Value of Property, Plant and Equipment Invested in Commercial Property, 2007

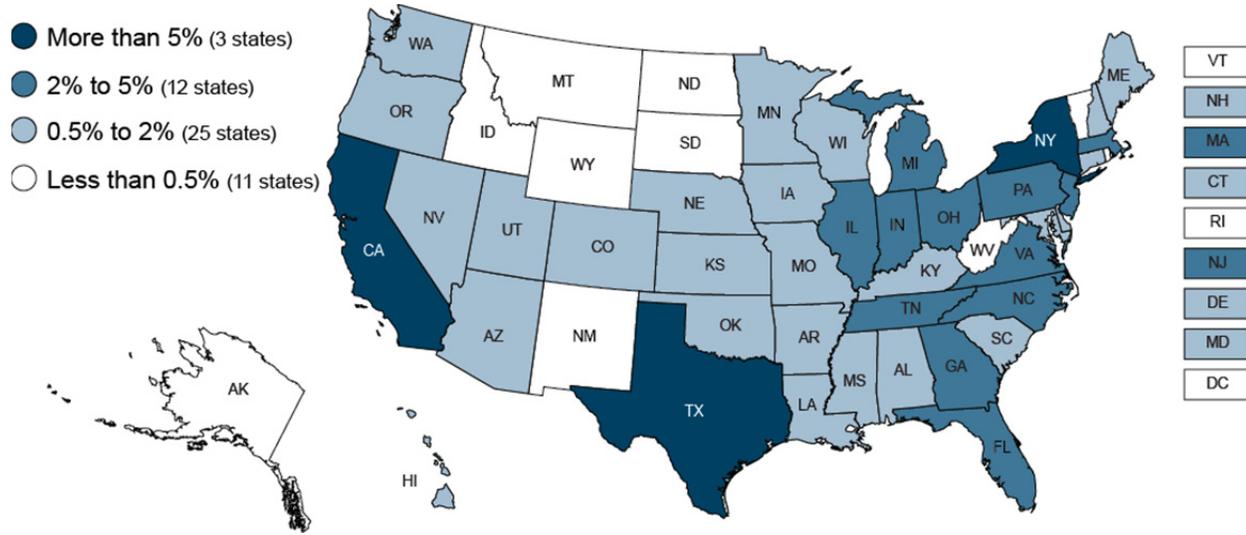


* Denotes states with suppressed data; thus the values presented are underrepresented. Source: Bureau of Economic Analysis

FDI Employment

Nationally, nearly 5.6 million American workers were employed by a MOUSA in 2008 (see **Figure 57**), an increase of 5,300 workers (or 0.1 percent) from 2007.

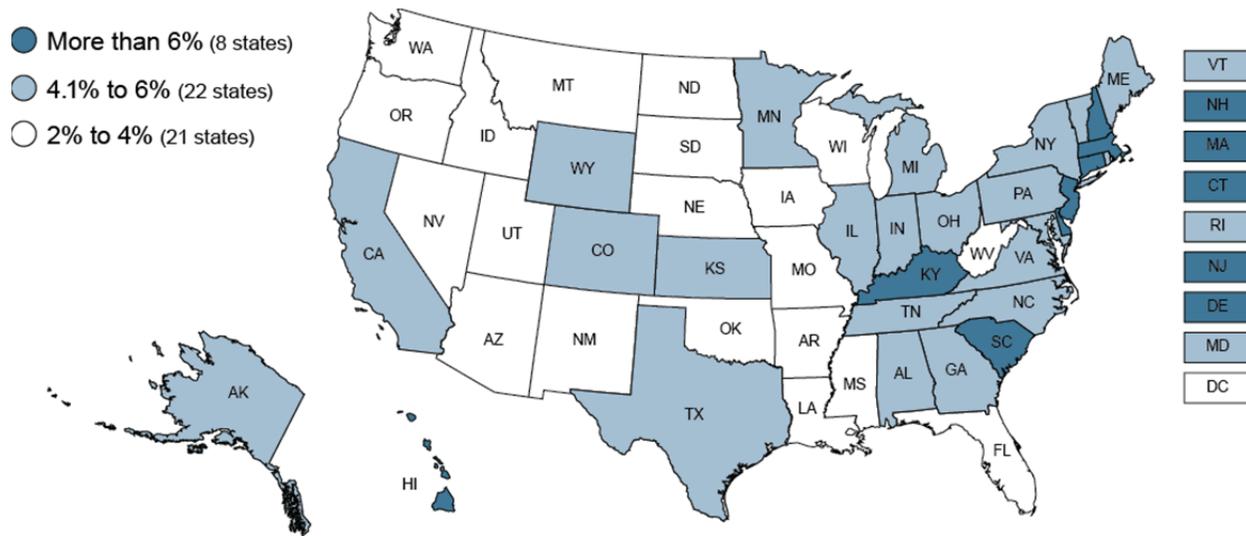
Figure 57: MOUSA Employment as a Share of Total Private Employment, 2008



Source: Bureau of Economic Analysis

With 141,600 Hoosier workers, MOUSA firms accounted for 5.6 percent of Indiana’s total private sector employment (see **Figure 58**). The state ranked 12th nationally, well above the U.S. average (4.9 percent). Furthermore, among its Midwestern neighbors, only Kentucky has a higher share of total private employment in MOUSAs.

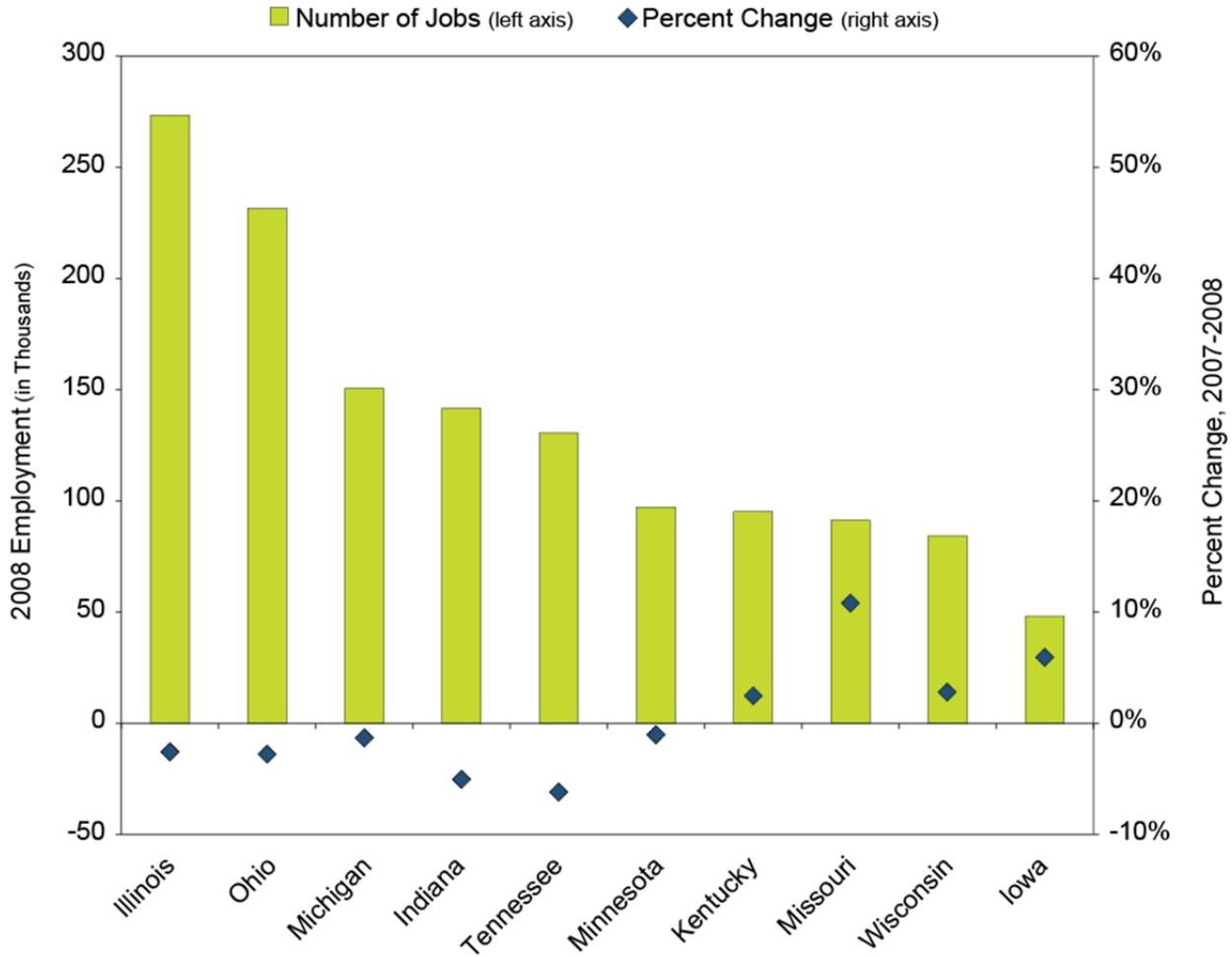
Figure 58: MOUSA Employment as Percent of Total Private Employment, 2008



Source: Bureau of Economic Analysis

Due to the start of the recession at the end of 2007, one would expect to see declines in foreign-owned firm employment in the subsequent year. Indeed, Indiana had a decline of 7,500 MOUSA related jobs (see **Figure 59**), accounting for 19.5 percent of the state’s total employment decline between 2007 and 2008.

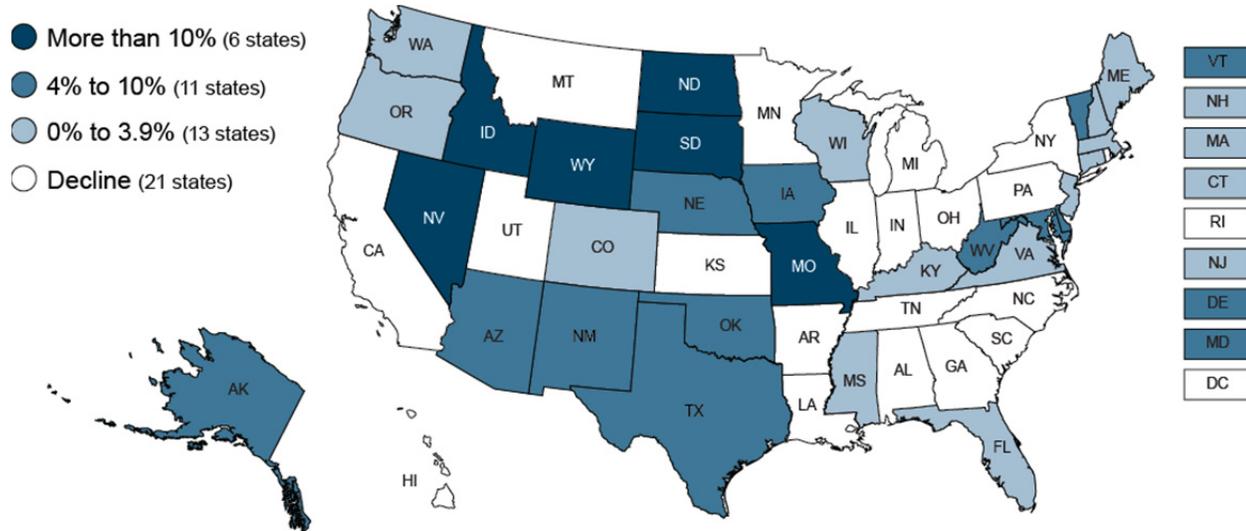
Figure 59: MOUSA Employment Trends in the Midwest, 2007-2008



Source: Bureau of Economic Analysis

Unfortunately, Indiana had one of the largest declines in MOUSA employment (-5.0 percent), ranking the state 46th out of the 50 states and the District of Columbia in its change from 2007 to 2008 employment growth (see **Figure 60**). During this time period, 30 states showed positive MOUSA growth, including the nation, growing minimally at an average annual rate of 0.1 percent.

Figure 60: Average Annual Percent Change in MOUSA Employment, 2007-2008



Source: Bureau of Economic Analysis

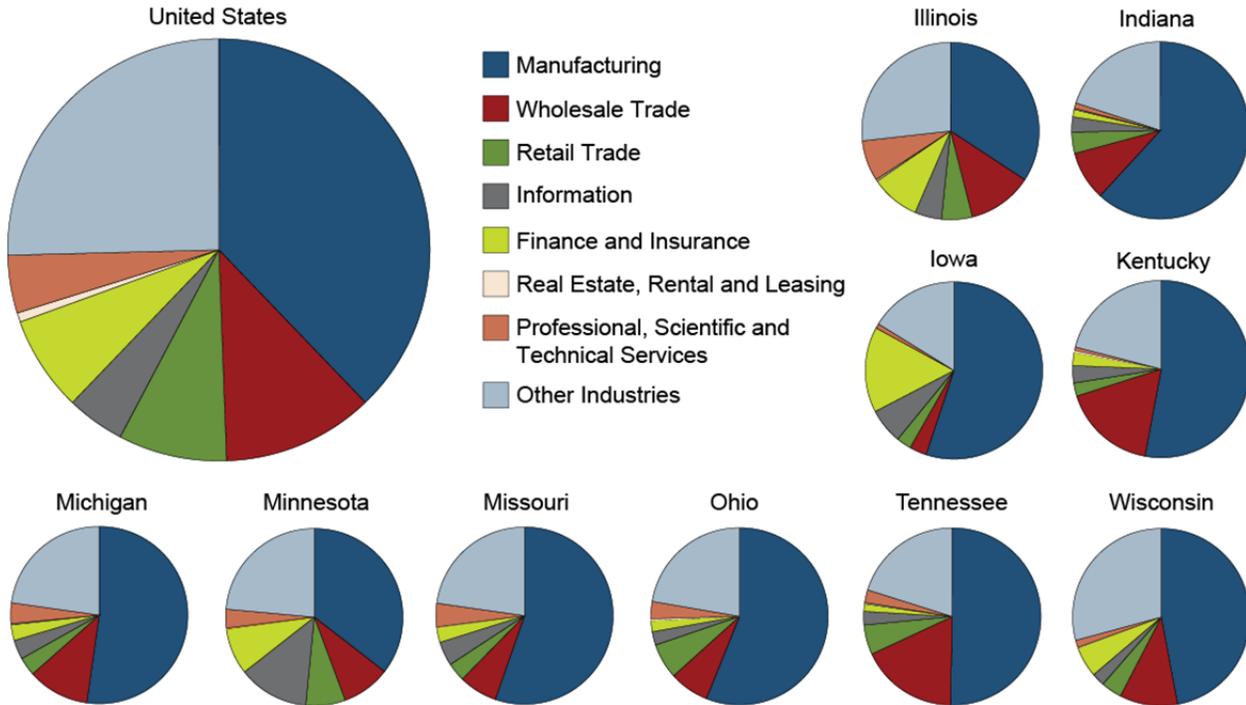
FDI by Industry

The significance of MOUSA firms can be gauged by investment dollars or employment. Employment may be a better measure of the effects of FDI. Accounting for changes in the value of the dollar against other currencies and keeping track of net changes in the capital stock—that is, accounting for new investment flows and depreciation—can be tricky. On the other hand, the value of a job is not directly affected by changes in exchange rate, nor do most jobs “depreciate” or suffer a reduction in wages. For this reason, this section reports the structure of MOUSA employment by industry.

FDI-related employment spans across several industries, with manufacturing dominating at the national, regional and state level in 2008 (see **Figure 61**). Beyond manufacturing, the second-largest industry category employing U.S. workers is “other industries,” at 25 percent. Indiana follows a similar trend with the all other industries sector comprising 20 percent share of total MOUSA employment. Wholesale and retail trade followed at 9 percent and 4 percent, respectively for Indiana.

More broadly, foreign-owned businesses in Indiana represented 5.6 percent of the state’s total private industry employment in 2008 (see **Table 7**). Indiana’s share was greater than the nation as a whole (4.9 percent) and, with the exception of Kentucky and Tennessee, surpassed all neighboring states. MOUSAs accounted for 15.1 percent of Indiana’s total manufacturing employment compared to 11.5 percent for the nation.

Figure 61: Share of MOUSA Employment by Industry, 2008



Source: Bureau of Economic Analysis

Table 7: Employment of MOUSAs by Industry of Affiliate, 2008

| Geography | Indicator* | All Industries | Manufacturing | Wholesale Trade | Retail Trade | Information | Finance and Insurance | Real Estate and Rental and Leasing | Professional, Scientific, and Technical Services | Other Industries |
|---------------|-------------------------|----------------|---------------|-----------------|--------------|-------------|-----------------------|------------------------------------|--|------------------|
| United States | Jobs | 5,593.5 | 2,115.5 | 648.8 | 464.4 | 249.1 | 407.5 | 39.4 | 248.3 | 1,420.5 |
| | Percent of Private Jobs | 4.9% | 1.9% | 0.6% | 0.4% | 0.2% | 0.4% | 0.0% | 0.2% | 1.2% |
| Illinois | Jobs | 273.3 | 93.6 | 32.2 | 15.3 | 13.4 | 24.4 | 0.9 | 20.3 | 73.2 |
| | Percent of Private Jobs | 5.4% | 1.8% | 0.6% | 0.3% | 0.3% | 0.5% | 0.0% | 0.4% | 1.4% |
| Indiana | Jobs | 141.6 | 87.5 | 12.7 | 5.5 | 3.9 | 1.9 | 0.3 | 1.4 | 28.3 |
| | Percent of Private Jobs | 5.6% | 3.5% | 0.5% | 0.2% | 0.2% | 0.1% | 0.0% | 0.1% | 1.1% |
| Iowa | Jobs | 48.2 | 26.5 | 1.5 | 1.3 | 3.1 | 7.5 | D | 0.4 | 7.8 |
| | Percent of Private Jobs | 3.8% | 2.1% | 0.1% | 0.1% | 0.2% | 0.6% | D | 0.0% | 0.6% |
| Kentucky | Jobs | 95.2 | 50.4 | 16.3 | 2.3 | 3.0 | 2.3 | 0.3 | 0.6 | 20.0 |
| | Percent of Private Jobs | 6.2% | 3.3% | 1.1% | 0.2% | 0.2% | 0.2% | 0.0% | 0.0% | 1.3% |
| Michigan | Jobs | 150.6 | 78.7 | 16.9 | 5.1 | 5.3 | 4.3 | 0.3 | 5.7 | 34.3 |

| Geography | Indicator* | All Industries | Manufacturing | Wholesale Trade | Retail Trade | Information | Finance and Insurance | Real Estate and Rental and Leasing | Professional, Scientific, and Technical Services | Other Industries |
|-----------|-------------------------|----------------|---------------|-----------------|--------------|-------------|-----------------------|------------------------------------|--|------------------|
| | Percent of Private Jobs | 4.3% | 2.2% | 0.5% | 0.1% | 0.2% | 0.1% | 0.0% | 0.2% | 1.0% |
| Minnesota | Jobs | 97.2 | 34.5 | 8.6 | 7.0 | 12.5 | 8.2 | 0.2 | 3.3 | 22.9 |
| | Percent of Private Jobs | 4.1% | 1.5% | 0.4% | 0.3% | 0.5% | 0.3% | 0.0% | 0.1% | 1.0% |
| Missouri | Jobs | 91.3 | 50.6 | 6.4 | 3.1 | 4.0 | 2.5 | 0.1 | 3.9 | 20.8 |
| | Percent of Private Jobs | 3.9% | 2.2% | 0.3% | 0.1% | 0.2% | 0.1% | 0.0% | 0.2% | 0.9% |
| Ohio | Jobs | 231.6 | 129.9 | 16.7 | 14.9 | 5.7 | 4.6 | 0.8 | 7.3 | 51.6 |
| | Percent of Private Jobs | 5.1% | 2.8% | 0.4% | 0.3% | 0.1% | 0.1% | 0.0% | 0.2% | 1.1% |
| Tennessee | Jobs | 130.6 | 65.7 | 23.1 | 7.1 | 3.2 | 1.8 | 0.3 | 3.0 | 26.3 |
| | Percent of Private Jobs | 5.6% | 2.8% | 1.0% | 0.3% | 0.1% | 0.1% | 0.0% | 0.1% | 1.1% |
| Wisconsin | Jobs | 84.3 | 39.6 | 8.9 | 3.2 | 2.0 | 4.7 | 0.1 | 1.1 | 24.6 |
| | Percent of Private Jobs | 3.4% | 1.6% | 0.4% | 0.1% | 0.1% | 0.2% | 0.0% | 0.0% | 1.0% |

* Majority-owned affiliate job data are in thousands.

D indicates non-disclosable data.

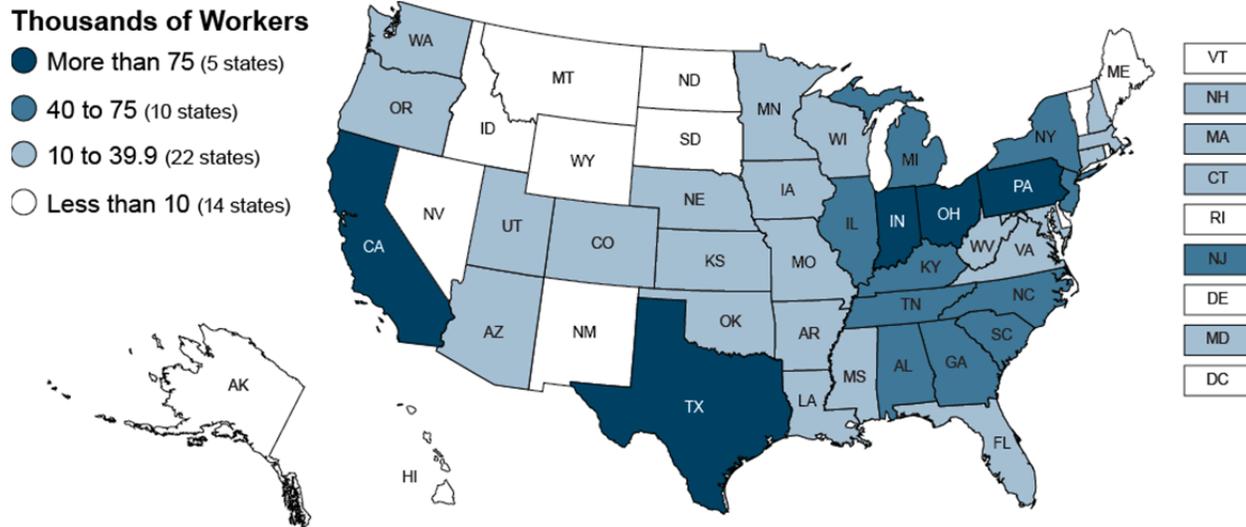
Source: Bureau of Economic Analysis and Bureau of Labor Statistics

Manufacturing Employment

A closer look at manufacturing requires using 2007 data due to differences in data compilation between the data presented above and the specific manufacturing employment data collected. Nationally, 36.7 percent of all FDI-related employment was in manufacturing, with the Midwest (excluding Indiana) comprising 27.1 percent of all the manufacturing-related FDI employment. In Indiana, 61.6 percent of total MOUSA employment was in the manufacturing sector, the third-highest percentage nationally (following Arkansas and Kansas).

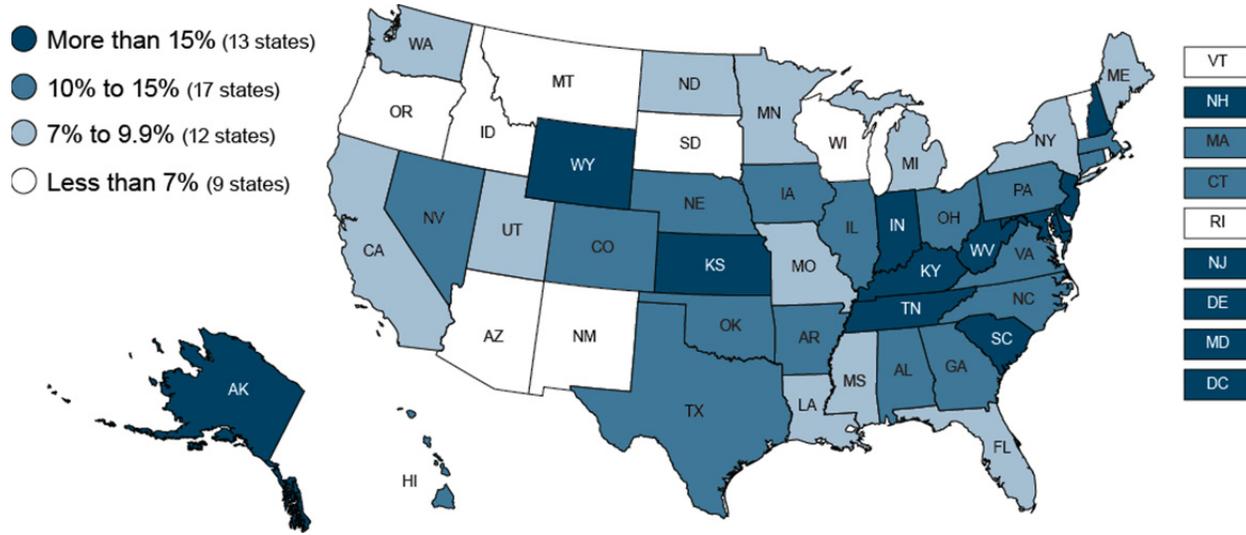
In 2007, MOUSAs supported 83,100 manufacturing jobs in Indiana (see **Figure 62**). These jobs represented 15.1 percent of total private manufacturing employment in the state (see **Figure 63**). This share of manufacturing employment far exceeds the U.S. percentage of 11.5 and, among neighboring states, is surpassed by only Kentucky and Tennessee. These figures illustrate that compared to other regions of the country, manufacturing dominates MOUSA employment in the Midwest.

Figure 62: MOUSA Manufacturing Employment, 2007



Source: Bureau of Economic Analysis

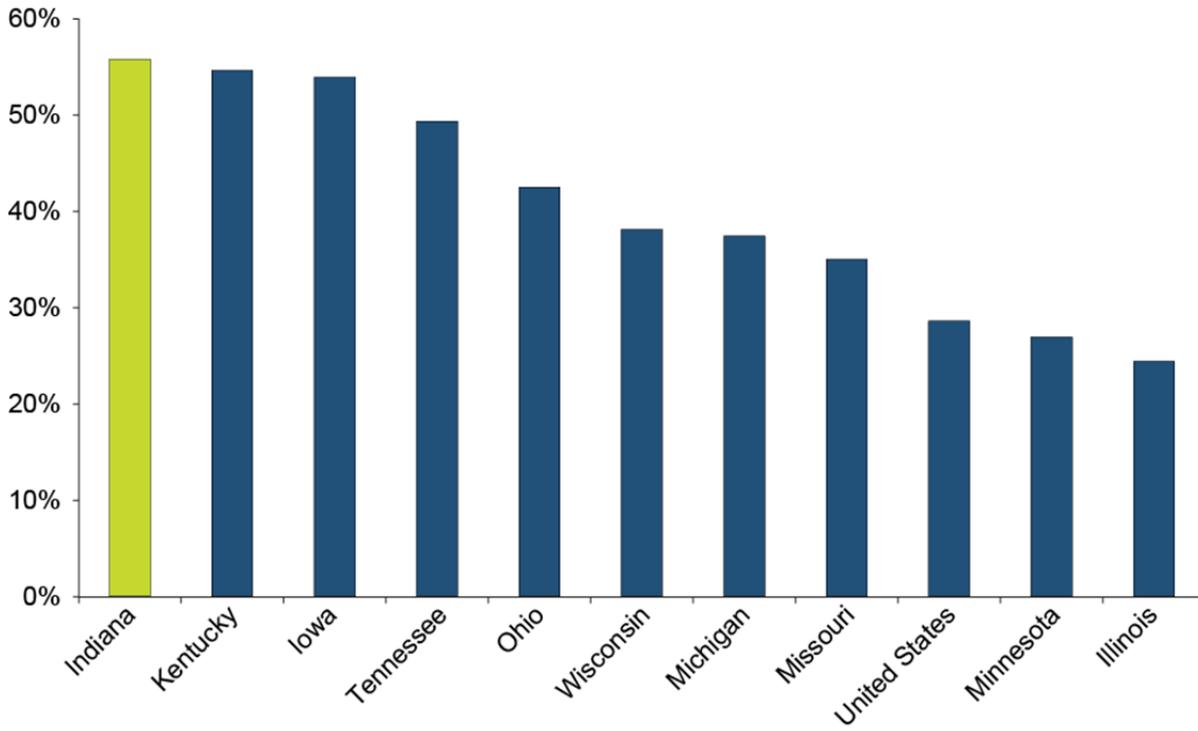
Figure 63: MOUSA Manufacturing Employment as a Percent of Total Private Manufacturing Employment, 2007



Source: Bureau of Economic Analysis

Manufacturing jobs represent 55.7 percent of MOUSA employment in Indiana, the second-highest share in the nation in 2007 behind Kansas. By comparison, Kentucky, Iowa and Tennessee had between 54 percent and 49 percent of their MOUSA jobs in manufacturing (see **Figure 64**). These statistics point to the fact that FDI-related employment in Kentucky and Iowa mirrors Indiana, but in other Midwestern states it is spread more evenly across sectors.

Figure 64: Share of Manufacturing Jobs of All MOUSA Employment in Midwest, 2007



Source: Bureau of Economic Analysis

FDI Announcements, 2008 to 2010

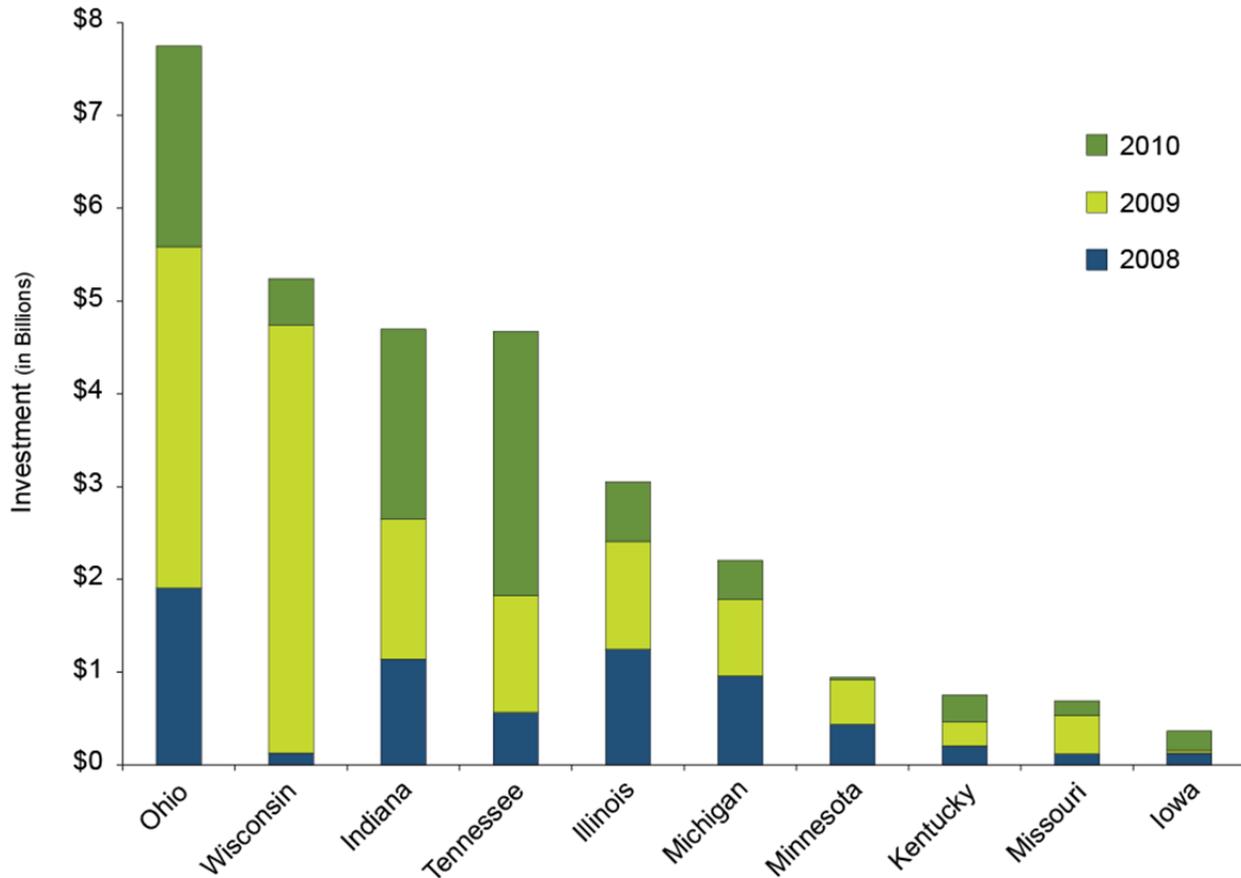
The previous chapter focused on realized FDI investments by foreign direct investors throughout the United States. At the time of this writing, 2008 data is the last year available. In order to get closer to a “real-time” measure of FDI, the IBRC uses an investment tracking service, fDi Markets, to determine potential foreign direct investments in the U.S. from 2008 through 2010. This service tracks foreign direct investment announcements (through media releases) and often includes projected investment values and job creation targets if such information is not available in the media release. This data source “counts” the FDI project the year it is announced despite the fact that it may take years before the investment is fully realized, if at all. Additionally, an important difference between BEA-collected data on FDI and fDi Market’s data is that fDi Markets collects data on greenfield and expansion projects only. Merger and acquisition transaction are not captured in the fDi Markets data.

Despite these caveats, fDi Markets does provide a more current sense of FDI activity. Still, one must exercise caution and be circumspect about fDi Markets’ data. As an announcement is made, fDi Markets uploads the data, thus enhancing its timeliness factor, but subsequent announcements and or adjustments to that particular announcement are not 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 real-time FDI activity.

FDI Announcements in the United States, Midwest and Indiana

Nationally, between 2008 and 2010, there were 953 FDI announcements for an estimated total investment of \$183.7 billion and 263,800 jobs. The Midwest captured 16.5 percent of the FDI announcements, with Indiana having 88 FDI announcements with plans to invest roughly \$4.7 billion in the state and create approximately 6,900 jobs. As **Figure 65** illustrates, this expected value places Indiana third among its Midwestern neighbors with Ohio and Wisconsin capturing the highest levels of investments at \$7.7 billion and \$5.2 billion in announcements, respectively. Beyond the Midwest, Indiana’s total estimated investments ranked eighth and job announcements ranked 15th nationally.

Figure 65: Expected Value of FDI Project Announcements, 2008-2010

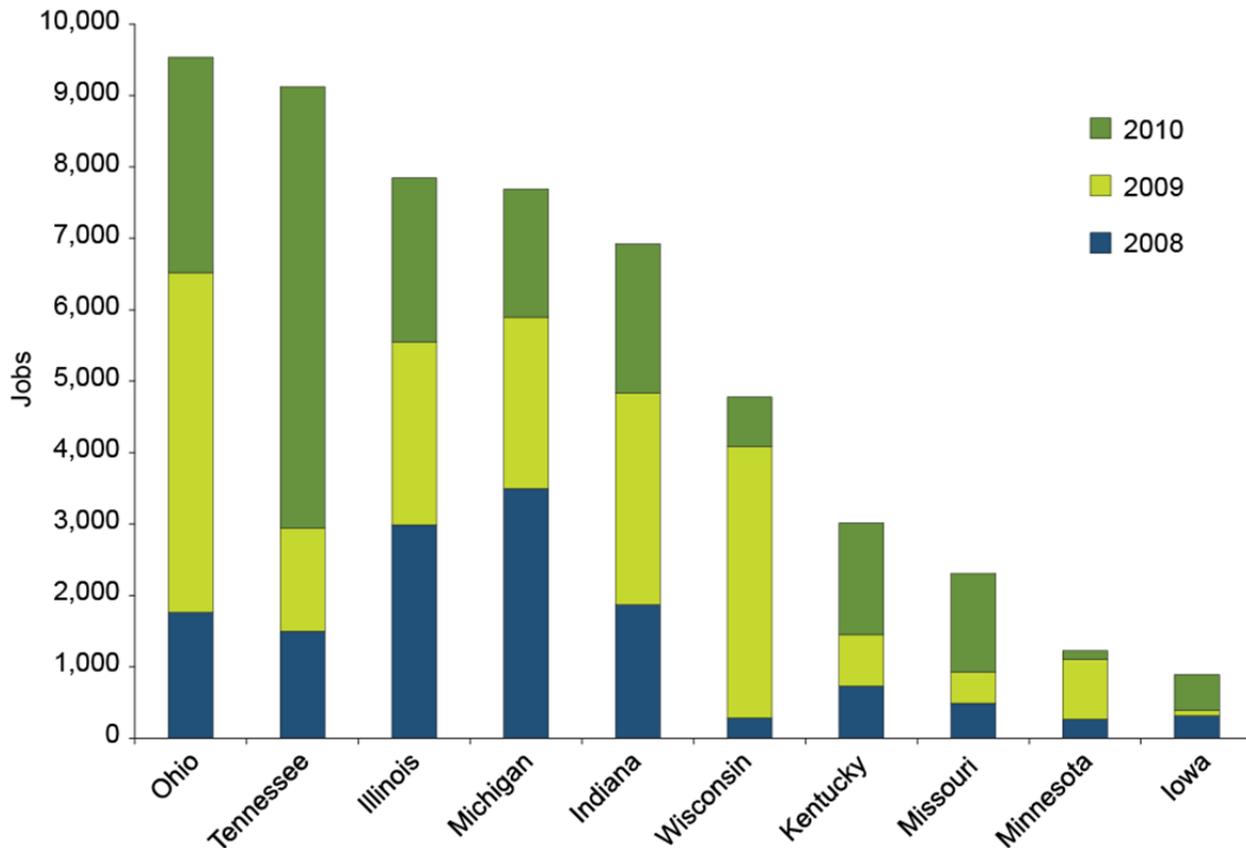


Source: fDi Markets

Indiana’s top three announced investments between 2008 and 2010 were made by British Petroleum (BP), Energias de Portugal (EDP) and Toyota Motor Company. Nearly half (45 percent) of the projected investment can be attributed to these three announcements, but only 1.8 percent of all job announcements. These three top announcements were made between July 2009 and February 2010; however, BP and Toyota have made numerous other investment announcements within Indiana in the three-year period. The largest investment came from BP with the nearly \$1 billion investment in Portage and an anticipated 80 jobs. If BP’s other announcements in 2008 through 2010 were considered, the company planned to invest \$1.6 billion and create 197 jobs. The second-largest announcement came from EDP in 2010 to invest into wind farms in west-central Indiana. This single announcement estimated investments of \$616 million and the creation of 42 jobs. Rounding out the top three announcements, Toyota Motor Company announced an investment plan of \$500 million in Princeton during 2009 to retool the plant and no plans to create additional jobs. During this retooling, Toyota has opted to use this time to further train its employees and increase plant efficiencies through the input of its workers. Toyota also had several other announcements between 2008 and 2010 for a total planned investment of \$500 million and an estimated 115 jobs.

In terms of employment, Indiana’s 6,900 job commitments placed the state fifth among its Midwestern states, trailing behind Ohio, Tennessee, Illinois and Michigan (see **Figure 66**). Among the Midwestern states, Indiana also ranked fifth in the average number of jobs per announcement (79 jobs). Wisconsin and Tennessee lead the Midwestern states in the average jobs per announcements at 208 and 160 jobs, respectively. Wisconsin’s high average and surge in 2009 can be partially attributed to the 3,000 jobs announced by Enbridge Energy. Tennessee’s high average and surge in 2010 was due in part to the 3,000 jobs announced by Nissan. Both announcements were among the largest job announcements in the nation in their respective years.

Figure 66: Expected Number of Jobs Related to FDI Projected Announcements, 2008-2010



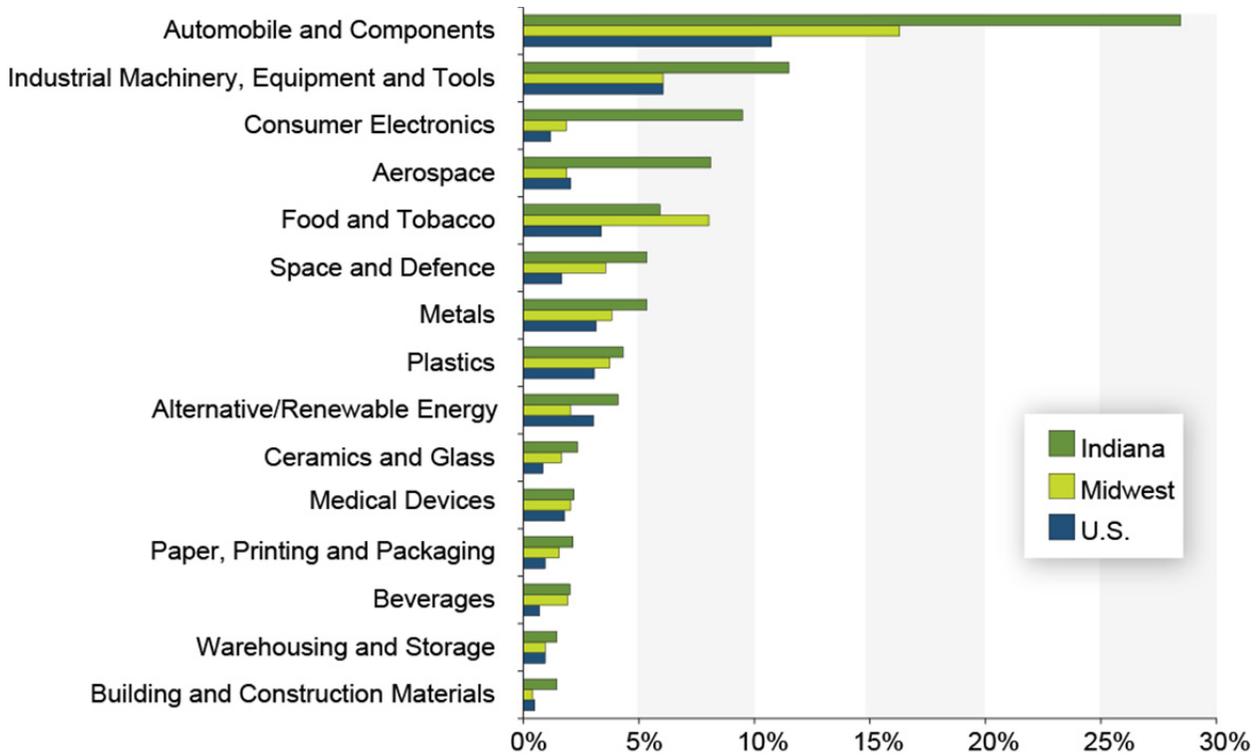
Source: fDi Markets

FDI Announcements by Industry

Investments made by EDP contributed to making the alternative/renewable industry account for 32.4 percent of the total expected value of FDI announced in Indiana between 2008 and 2010. However, with only 284 new jobs anticipated, the investments in this capital-intensive industry comprise just 4.1 percent of the total employment expected from FDI deals. The coal, oil and natural gas industry ranked second, representing 21.3 percent of expected foreign investment. Automobile and components was third at 17.4 percent of expected FDI in Indiana.

The automotive industry—automotive components and original equipment manufacturers (OEM)—continues to dominate Indiana’s FDI-related employment. The state can expect 1,970 new auto-related jobs resulting from the 26 FDI deals announced in this industry between 2008 and 2010. The single largest auto-related deal was Think Energy’s announcement in 2009 for 415 jobs, which comprises 21.1 percent of the auto-related jobs. In total, the auto industry accounted for 28.4 percent of all promised jobs (see **Figure 67**). Industrial machinery, equipment and tools manufacturing was the second-largest industry contributor with expected employment of 11.5 percent of the total followed by the consumer electronics industry at 9.5 percent.

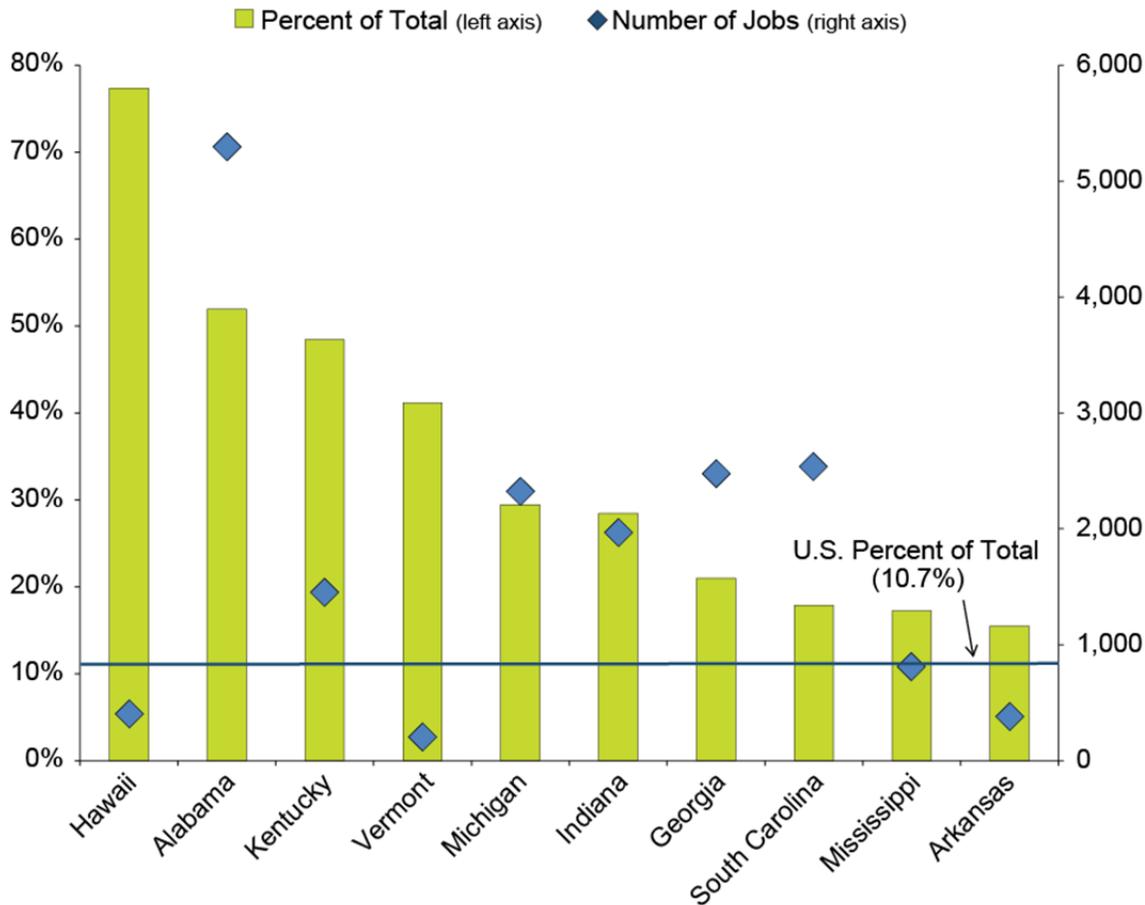
Figure 67: FDI Project Announcement Employment by Industry Sector, 2008-2010



Source: fDi Markets

The auto industry represented the largest single industry share of total FDI employment announcements in the United States as well. Nationally, however, FDI job announcements are more evenly distributed across industrial sectors. The expected 28,300 jobs related to auto sector FDI deals between 2008 and 2010 account for just 10.7 percent of the U.S. total. Among the top destination states for auto-sector FDI, Indiana was sixth in the auto industry’s share of total state employment announcements, behind Hawaii, Alabama, Kentucky, Vermont and Michigan (see **Figure 68**).

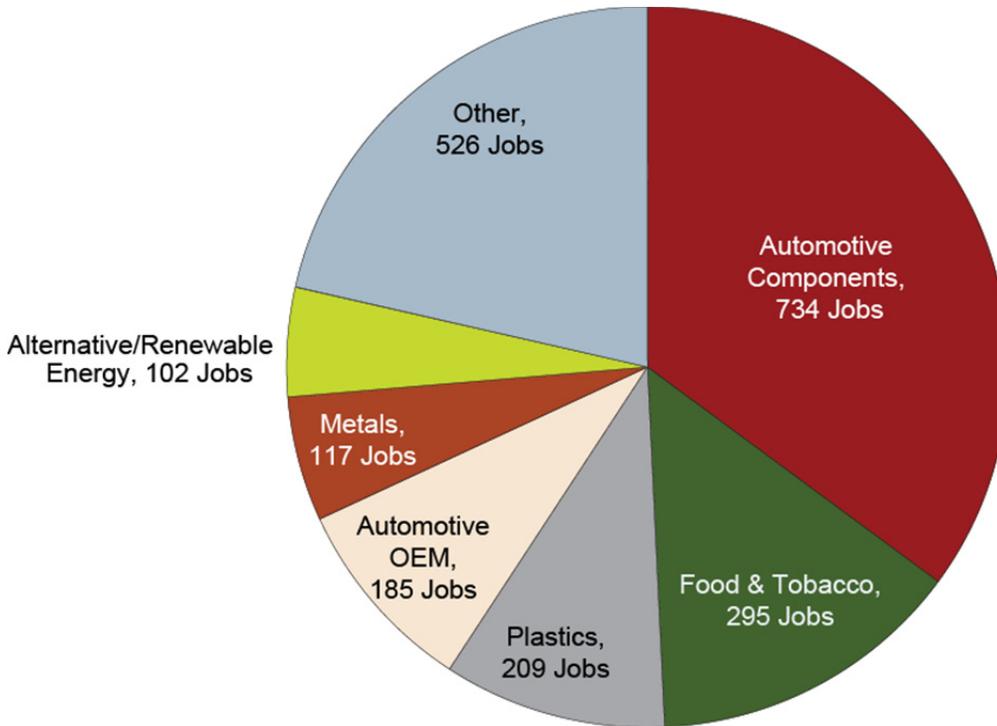
Figure 68: Automotive Industry FDI Employment Announcements as a Share of the Total, 2008-2010



Source: fDi Markets

In Indiana, the past five years have experienced some volatility regarding FDI announcements within the auto industry. Indiana has had announcements ranging from a high of 4,350 jobs in 2006 to as low as 229 jobs in 2008 due to the worldwide economic slowdown. The U.S. followed a similar trend with 2008 a soft year for FDI job announcements. In 2010, Indiana saw a rebound in FDI announcements, including the auto industry with 919 announced jobs (see **Figure 69**).

Figure 69: Indiana FDI Employment Announcements by Industry Sector, 2010



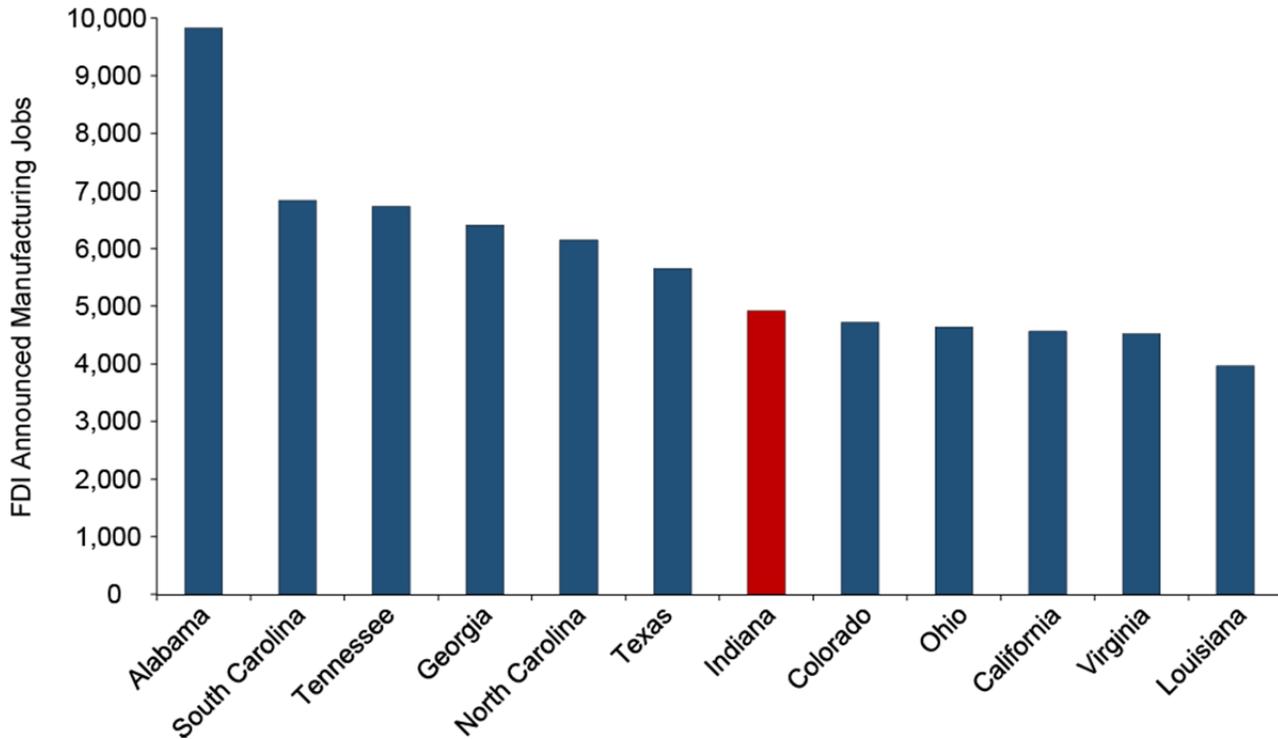
Source: fDi Markets

FDI Announcements by Business Activity

Nearly 70 percent of the FDI-related jobs announced in Indiana between 2008 and 2010 were related to manufacturing as a business activity. Business activity as a classification scheme differs from industry classification in that it focuses on the primary task undertaken at a facility rather than on the type of product or service a company may produce. An automotive industry FDI announcement, for instance, could be primarily involved in one of several activities including manufacturing, research and development, maintenance and servicing, customer service center or a company headquarters.

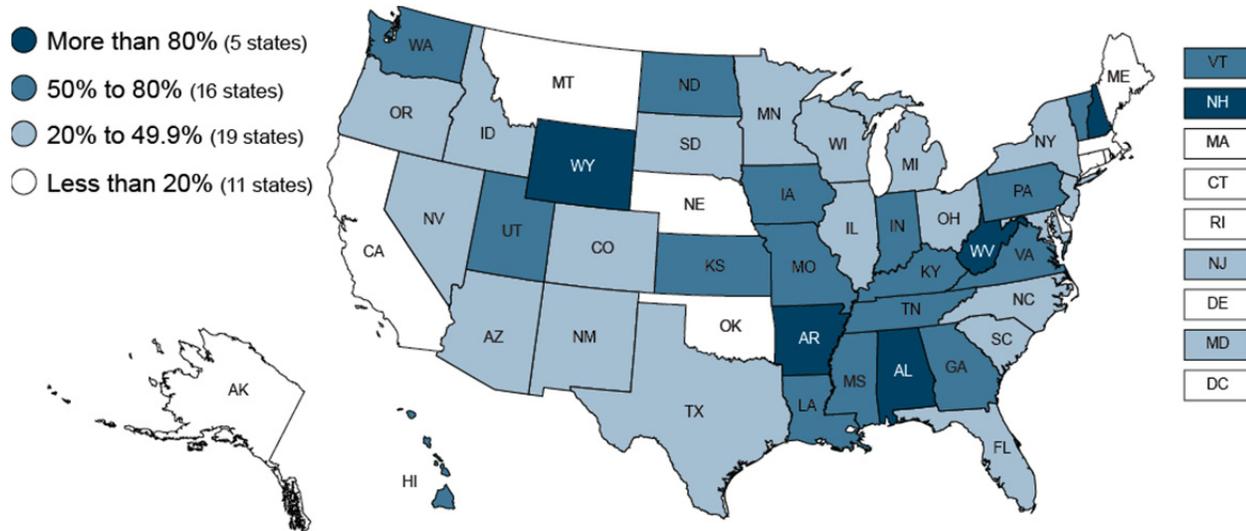
Figure 70 shows that although Indiana had the most manufacturing job announcements between 2008 and 2010 among all states, it ranked seventh with roughly 4,900 new manufacturing jobs expected. Interestingly, 10 out of the top 12 states with FDI manufacturing jobs were from either the Midwest or the South. Manufacturing accounted for 71 percent of Indiana's FDI employment announcements over this period—the 13th largest share nationally (see **Figure 71**). In contrast, manufacturing represented 45.1 percent of FDI job announcements for the United States.

Figure 70: Manufacturing FDI Employment Announcements, 2008-2010



Source: fDi Markets

Figure 71: Manufacturing FDI Employment Announcements as a Share of the Total, 2008-2010

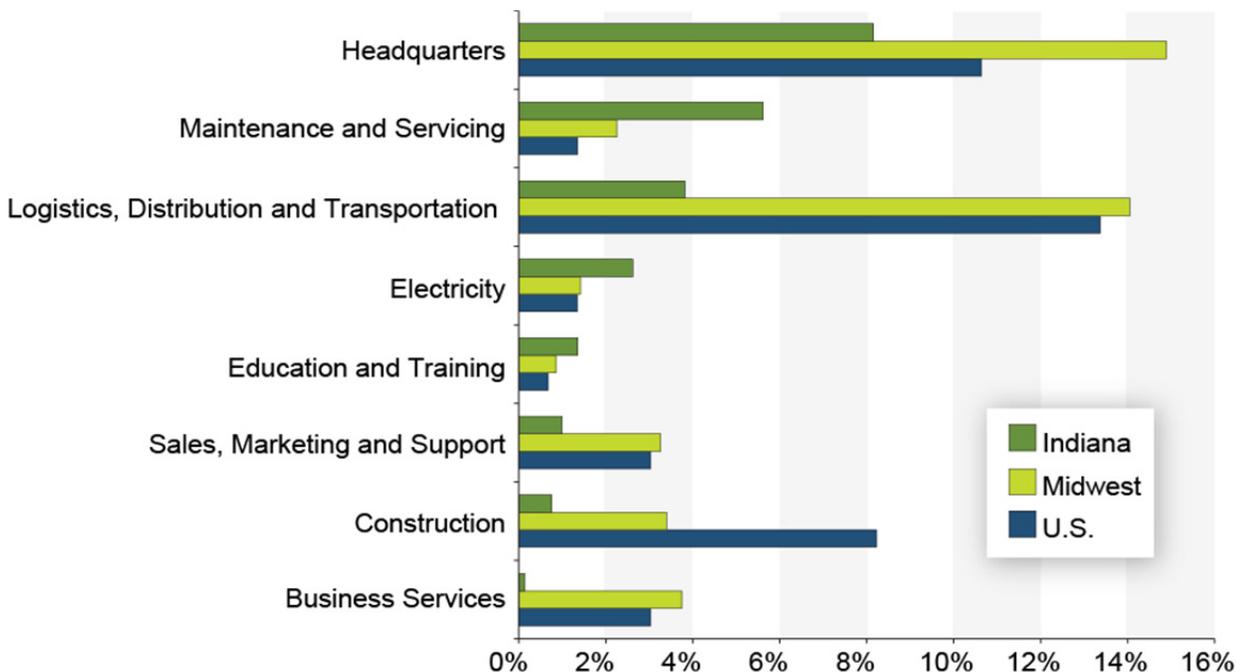


Source: fDi Markets

Beyond manufacturing, logistics, distribution and transportation activities captured the second-largest share of FDI employment nationally, accounting for 13.4 percent of total job announcements over the three-year period. Headquarters' activity ranked third at 10.6 percent of total job announcements. As **Figure 72** indicates, employment linked to headquarter announcements was Indiana's top business activity after manufacturing. There were three headquarter deals announced in Indiana between 2008 and 2010 with a combined expected employment of 700. These jobs represent 8.2 percent of all FDI job announcements, less than the U.S. share and trailing the Midwest region's share of 14.9 percent. In Indiana, the logistics, distribution and transportation activities only garnered 3.8 percent of the

expected job announcements in the past three years. However, the Midwest exceeded the national share with a 14.1 percent employment share in this business activity.

Figure 72: Non-Manufacturing FDI Employment Announcements as a Share of the Total, 2008-2010



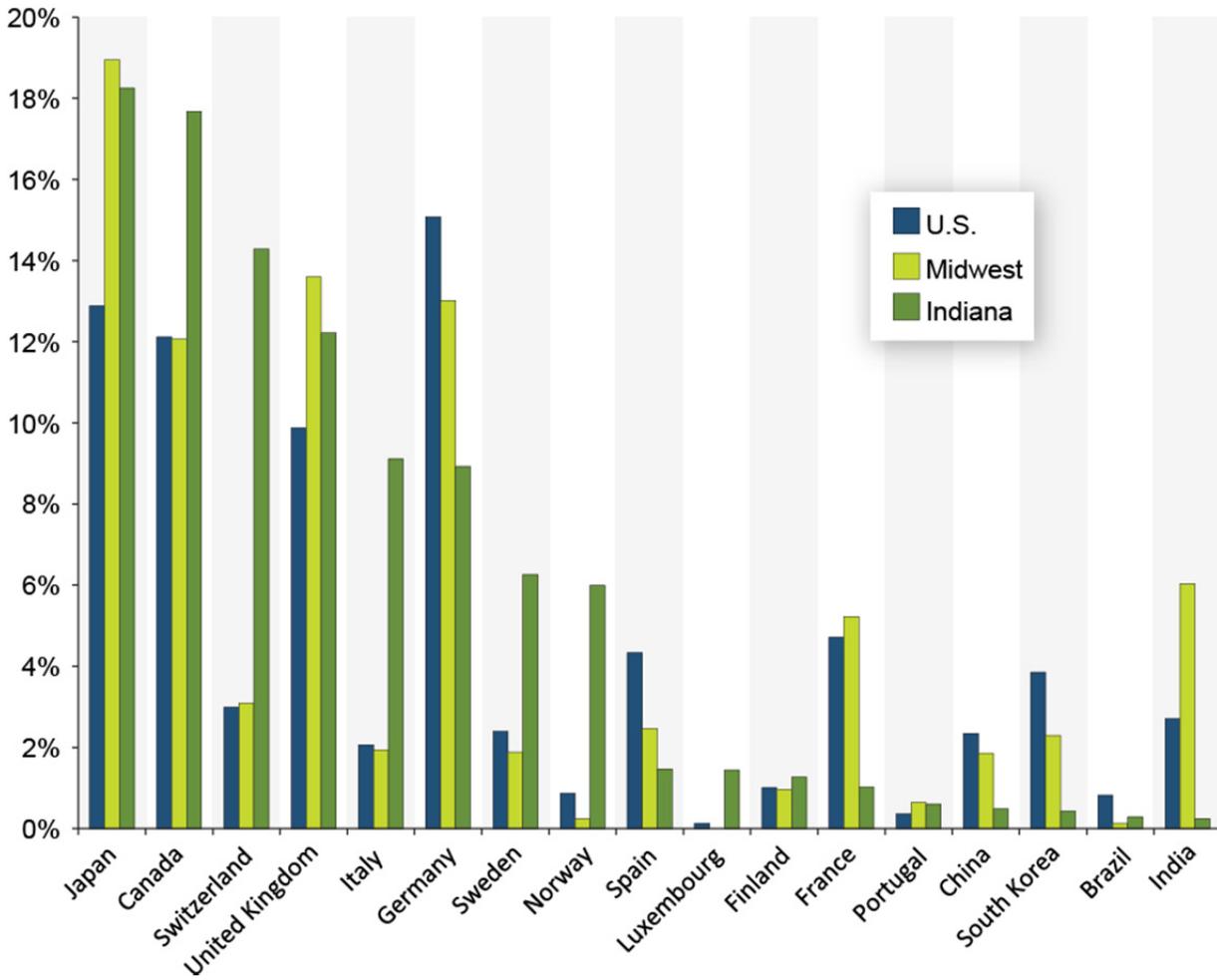
Source: fDi Markets

FDI Announcements by Source Country

In terms of source countries, investment commitments by Japanese companies have the largest effect on Indiana and Midwest employment based on FDI announcements from 2008 to 2010. **Figure 73** shows that 18.3 percent of Indiana’s FDI job announcements over this period came from Japan compared to 12.9 percent for the United States. Germany, in contrast, was the top source of employment announcements for the United States at 15 percent.

Rounding out the top five source countries that invested in Indiana from 2008 to 2010 are Canada (17.7 percent), Switzerland (14.3 percent), the United Kingdom (12.2 percent) and Italy (9.1 percent). Switzerland’s growth as the third-largest investing country in Indiana comes from three FDI announcements for Nestlé in the past three years with expected employment of 370.

Figure 73: Share of Total Employment Announcements by Source Country, 2008-2010



Source: fDi Markets

Conclusion

Foreign direct investment plays an important role in Indiana’s economy, particularly in the manufacturing sector. For instance, U.S. Bureau of Economic Analysis data for 2008 show that Indiana’s MOUSA manufacturing employment share is greater than the nation’s and FDI announcements between 2008 and 2010 indicate that this trend is likely to continue under normal economic conditions. Although Indiana was affected by the Great Recession, the state weathered the slowdown in a similar manner as the Midwest and the nation. With an uptick in FDI announcements in 2010, it appears that the state is still an attractive destination for foreign investment.

Regions IN Focus: The European Union

Europe has long been a strong trading partner with Indiana. This special section highlights the importance of the European Union (EU) countries to Indiana. Over the next few years, the international reports will include a chapter focusing on a particular global region. This year's report focuses on the EU, particularly countries that use the euro. Latin America and the Caribbean will be the focus in 2012. This chapter first covers the latest exporting trends to the EU's euro zone; these countries tend to import a larger portion of Indiana produces goods than countries outside the euro zone. The euro zone section identifies the top commodities exported from Indiana and then focuses on the import profile for the larger economies. The following section focuses on the non-euro zone countries, covering the top commodities imported from Indiana and detailing the imports of Indiana goods to each country.

The European Union

The EU was formed from an array of treaties beginning in the 1950s, following the devastation from World War II. What began as six countries forging ties to integrate the coal and steel industries has resulted in an economic community of 27 countries. The European Union officially acquired its moniker in 1993 and in 1999 a monetary union, the euro zone, was established. The euro zone consists of 17 EU member states that have adopted the euro as their common currency and legal tender. **Figure 74** shows the euro zone as of 2011, which includes its newest member—Estonia.

Figure 74: European Union and the Euro Zone, 2011



Source: Indiana Business Research Center

The EU member countries vary widely in GDP, population and their import activity from Indiana. Table 8 shows their GDP and GDP per capita—both in current dollars. The leading country in terms of GDP is Germany with €2.4 trillion whereas the country with the smallest GDP is Malta at €5.7 billion. Of the top five countries, only the United Kingdom does not use the euro—which happens to be the largest non-euro export partner to Indiana. It is also remarkable as to

the magnitude of difference in GDP between the top five countries and the remainder of EU countries—a difference that carries over to the countries’ import volume. From a per capita GDP perspective, Luxembourg tops the list at €75,700, compared to the EU average of €22,800. In contrast to the EU, U.S. GDP looms over Germany, yet its GDP per capita trails behind Luxembourg, Denmark, Ireland and the Netherlands.

Table 8: European Union Member Countries and GDP, 2010

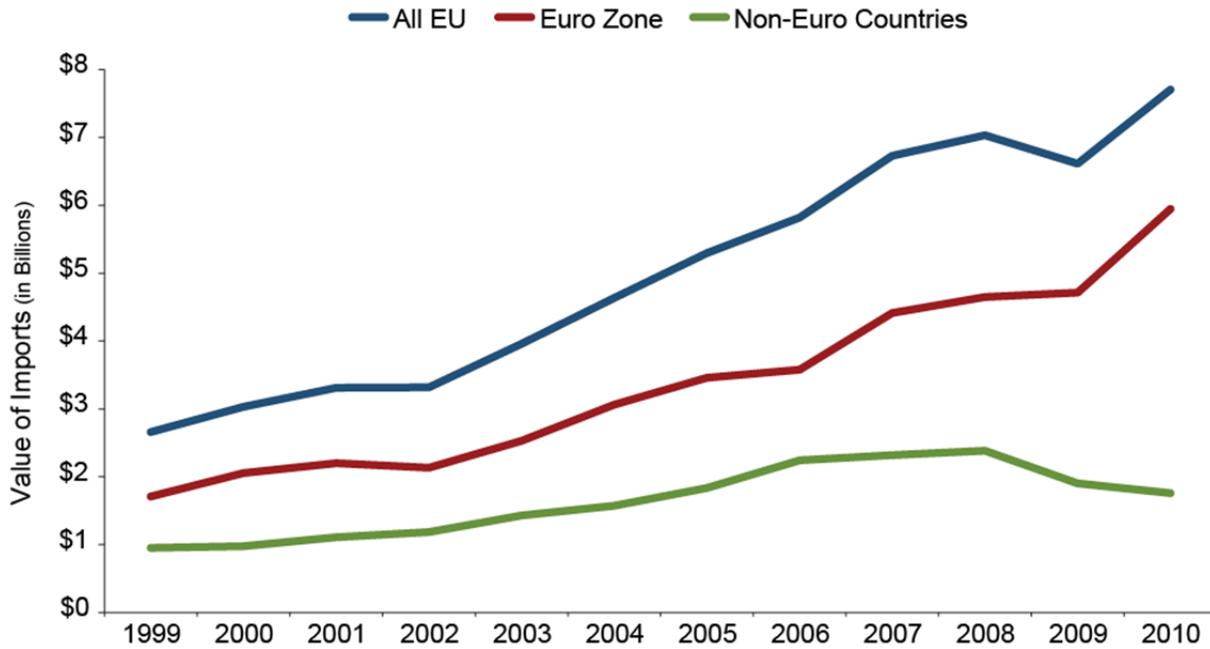
| Country | Euro Zone* | GDP (in billions of current euros) | Per Capita GDP (in current euros) |
|----------------------|-------------------|--|---|
| Germany | € | 2,397 | 29,300 |
| France | € | 1,907 | 29,600 |
| United Kingdom | | 1,563 | 25,300 |
| Italy | € | 1,521 | 25,200 |
| Spain | € | 1,054 | 22,900 |
| Netherlands | € | 572 | 34,600 |
| Belgium | € | 339 | 31,400 |
| Poland | | 310 | 8,100 |
| Sweden | | 293 | 31,300 |
| Austria | € | 274 | 32,800 |
| Greece | € | 233 | 20,700 |
| Denmark | | 223 | 40,400 |
| Finland | € | 171 | 32,100 |
| Portugal | € | 168 | 15,800 |
| Ireland | € | 160 | 35,700 |
| Czech Republic | | 137 | 13,100 |
| Romania | € | 116 | 5,800 |
| Hungary | | 93 | 9,300 |
| Slovak Republic | € | 63 | 11,700 |
| Luxembourg | € | 38 | 75,700 |
| Slovenia | € | 35 | 17,300 |
| Bulgaria | | 35 | 4,700 |
| Lithuania | | 27 | 8,000 |
| Latvia | | 19 | 8,200 |
| Cyprus | € | 17 | 21,200 |
| Estonia | € | 14 | 10,300 |
| Malta | € | 6 | 13,900 |
| United States | | 10,122.6 | 32,900 |

* The euro icon indicates a country is part of the euro zone.

Source: European Commission: EuroStat

In 2010, EU countries imported more than a quarter of Indiana’s exports (27 percent) for a total of \$7.7 billion. The EU’s share of Indiana’s exports has consistently hovered around 20 to 30 percent since 2000, reaching its peak of 29 percent in 2009, primarily due to non-EU countries decreasing their imports of Indiana goods. The euro zone countries have consistently imported the bulk of EU-imported products. In 2010, these countries commanded their largest share yet at 77 percent or \$5.9 billion. **Figure 75** shows that the EU began its dramatic increase in imports in 2002, in 2009 hit a downdraft and recovered in 2010. The majority of this growth came from the euro zone countries that increased their imports by 22.4 percent (average annual rate) since 2002. Indiana exports to non-euro zone countries also grew since 2002, but since 2008 their imports have dropped off.

Figure 75: Import Trends into the EU, Euro Zone and Non-Euro Zone Countries, 1999-2010



Source: WISER Trade

Euro Zone Purchases of Indiana Exports

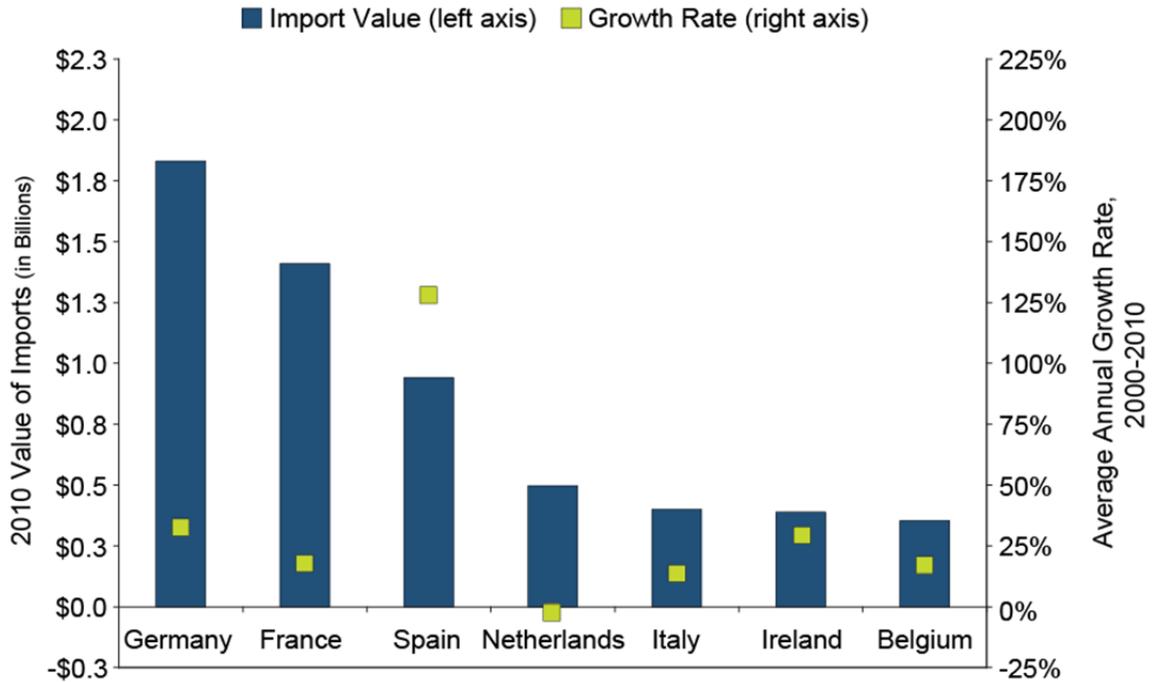
Three of the euro zone countries were among Indiana's 2010 top 10 export partners—Germany, France and Spain. Collectively, these countries imported \$4.2 billion worth of Indiana products, commanding 70 percent of the market within the euro zone (see **Table 9**). While Germany and France have been top 10 trading partners for the past 10 years, Spain just joined the top 10 in 2010. Thus, of all euro zone countries, Spain has had the largest average annual rate of growth over the last decade. It will be interesting to observe whether this trend continues considering Spain's recent economic woes. Overall, the euro zone has recorded double-digit average annual growth rates in the short, medium and long term—a trend that does not seem to be abating any time soon. A graphical depiction of **Table 9** can be seen in **Figure 76** and **Figure 77**.

Table 9: Euro Zone Import Trends

| Export Destination | Ranking | | Value of Exports (Millions of Current Dollars) | | | Average Annual Growth Rate | | |
|-------------------------|-----------|-----------------|---|-----------|-----------|----------------------------|-----------|-----------|
| | Euro Zone | Total IN Market | 2000 | 2009 | 2010 | 2009-2010 | 2005-2010 | 2000-2010 |
| All Euro Zone Countries | | | \$2,054.2 | \$4,714.0 | \$5,947.8 | 26.2% | 14.4% | 19.0% |
| Germany | 1 | 3 | \$425.3 | \$1,249.0 | \$1,830.9 | 46.6% | 33.0% | 33.1% |
| France | 2 | 5 | \$512.3 | \$1,291.3 | \$1,409.5 | 9.2% | -0.8% | 17.5% |
| Spain | 3 | 8 | \$68.0 | \$458.2 | \$941.9 | 105.5% | 95.7% | 128.6% |
| Netherlands | 4 | 12 | \$557.9 | \$520.3 | \$496.9 | -4.5% | 3.2% | -1.1% |
| Italy | 5 | 13 | \$163.5 | \$247.8 | \$399.8 | 61.3% | 45.0% | 14.5% |
| Ireland | 6 | 14 | \$98.2 | \$443.2 | \$388.9 | -12.2% | 19.8% | 29.6% |
| Belgium | 7 | 15 | \$129.4 | \$361.9 | \$353.5 | -2.3% | 27.7% | 17.3% |
| Portugal | 8 | 39 | \$15.0 | \$37.8 | \$51.6 | 36.5% | -0.6% | 24.4% |
| Austria | 9 | 50 | \$48.7 | \$55.4 | \$33.1 | -40.3% | -14.8% | -3.2% |
| Finland | 10 | 57 | \$10.2 | \$13.3 | \$21.7 | 62.8% | -4.9% | 11.3% |
| Greece | 11 | 75 | \$20.4 | \$13.3 | \$6.4 | -52.2% | -14.8% | -6.9% |
| Luxembourg | 12 | 79 | \$1.8 | \$16.4 | \$4.7 | -71.2% | 8.5% | 16.9% |
| Estonia | 13 | 95 | \$0.6 | \$1.1 | \$2.8 | 161.1% | 20.3% | 38.5% |
| Slovakia | 14 | 101 | \$1.3 | \$1.6 | \$2.2 | 36.9% | 0.3% | 7.2% |
| Malta and Gozo | 15 | 106 | \$0.2 | \$0.8 | \$1.7 | 103.8% | 6.8% | 65.5% |
| Slovenia | 16 | 111 | \$1.2 | \$1.9 | \$1.4 | -27.8% | 1.9% | 1.9% |
| Cyprus | 17 | 117 | \$0.5 | \$0.8 | \$0.9 | 16.1% | 12.5% | 9.2% |

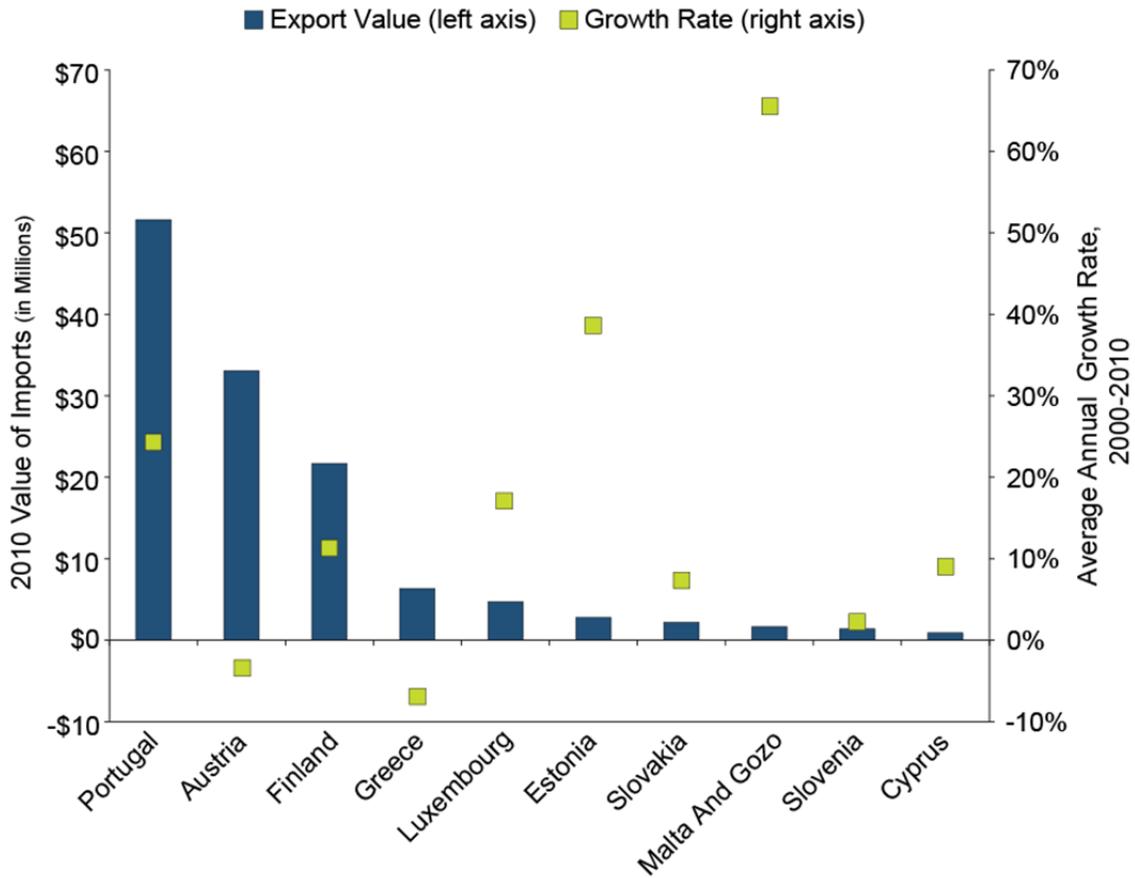
Source: WISER Trade

Figure 76: Euro Zone Imports, High Import Values, 2000-2010



Source: WISER Trade

Figure 77: Euro Zone Imports, Small Import Values, 2000-2010



Source: WISER Trade

Euro Zone Top Imported Commodities

Table 10 presents the top 10 commodities exported from Indiana to euro zone countries in 2010 and their average annual growth rates. Of the top 10 commodities, only one commodity deviates from the top 10 exported commodities to the entire EU area (rubber and articles thereof). Interestingly, the composition of the top 10 commodities has had very little change over time; however, the rankings have shifted considerably year to year. Nearly all export categories have grown both recently and over the decade. (Miscellaneous chemical products is the exception). In 2008, pharmaceutical products edged out organic chemicals to claim the top spot. Optical and medical instruments have had considerable growth in the past few years and now occupies third place. Industrial machinery has had little change from its position in the middle of the pack. Aircraft, spacecraft and parts has merged from its eighth place position to fifth in 2009 and with its continued growth may replace industrial machinery in the near future.

Table 10: Euro Zone's Top 10 Imported Commodities, 2000-2010

| Industries* | Exports (in millions) | Average Annual Growth Rate | |
|--|--------------------------|-------------------------------|-----------|
| | 2010 | 2009-2010 | 2000-2010 |
| Pharmaceutical Products | \$2,397.5 | 33.0% | 180.0% |
| Organic Chemicals | \$1,141.9 | 40.8% | 15.4% |
| Optical and Medical Instruments | \$897.3 | 43.5% | 50.3% |
| Industrial Machinery (Including Computers) | \$307.3 | -15.3% | 0.6% |
| Aircraft, Spacecraft and Parts Thereof | \$207.7 | 6.6% | 98.1% |
| Electric Machinery | \$172.3 | 6.5% | -3.8% |
| Plastics and Articles Thereof | \$156.4 | 30.5% | 10.4% |
| Miscellaneous Chemical Products | \$110.8 | -0.4% | -4.6% |
| Vehicles and Parts (Except Railway) | \$85.3 | 5.9% | -5.7% |
| Rubber and Articles Thereof | \$50.2 | 0.6% | 14.9% |

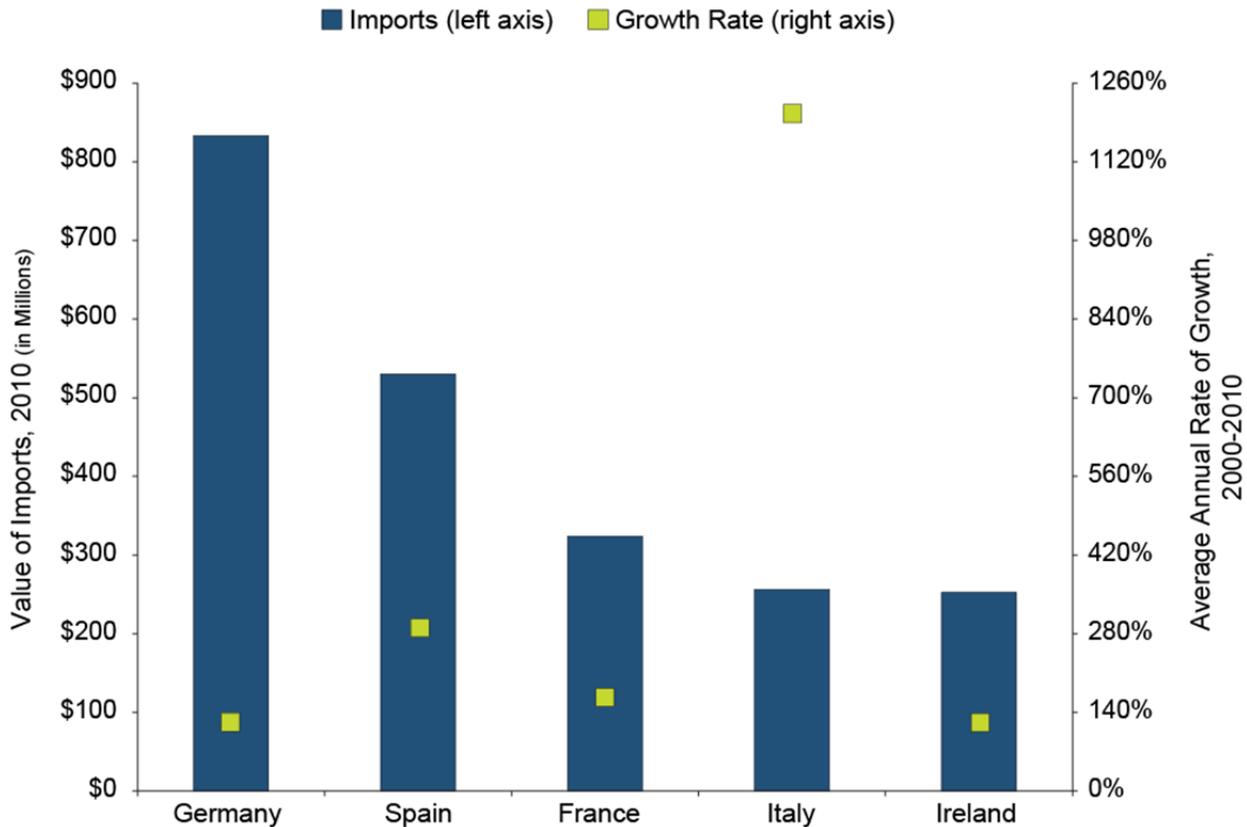
*Industries defined by the Harmonized System of Commodity Classifications

Source: WISER Trade

Pharmaceutical Products

Of the top 10 countries that import pharmaceutical products from Indiana, seven are EU countries with six being from the euro zone. **Figure 78** shows the top five euro zone countries and their respective growth rates since 2000. All five countries have had at least triple-digit growth over the past 10 years. In 2010, Germany became the top importer of Indiana’s pharmaceutical products and maintained its post as the top importer among euro zone member countries. In 2009, Spain edged out France to become the second-largest importer, a position it still held in 2010.

Figure 78: Top Five Destinations for Indiana Pharmaceutical Products, 2000-2010



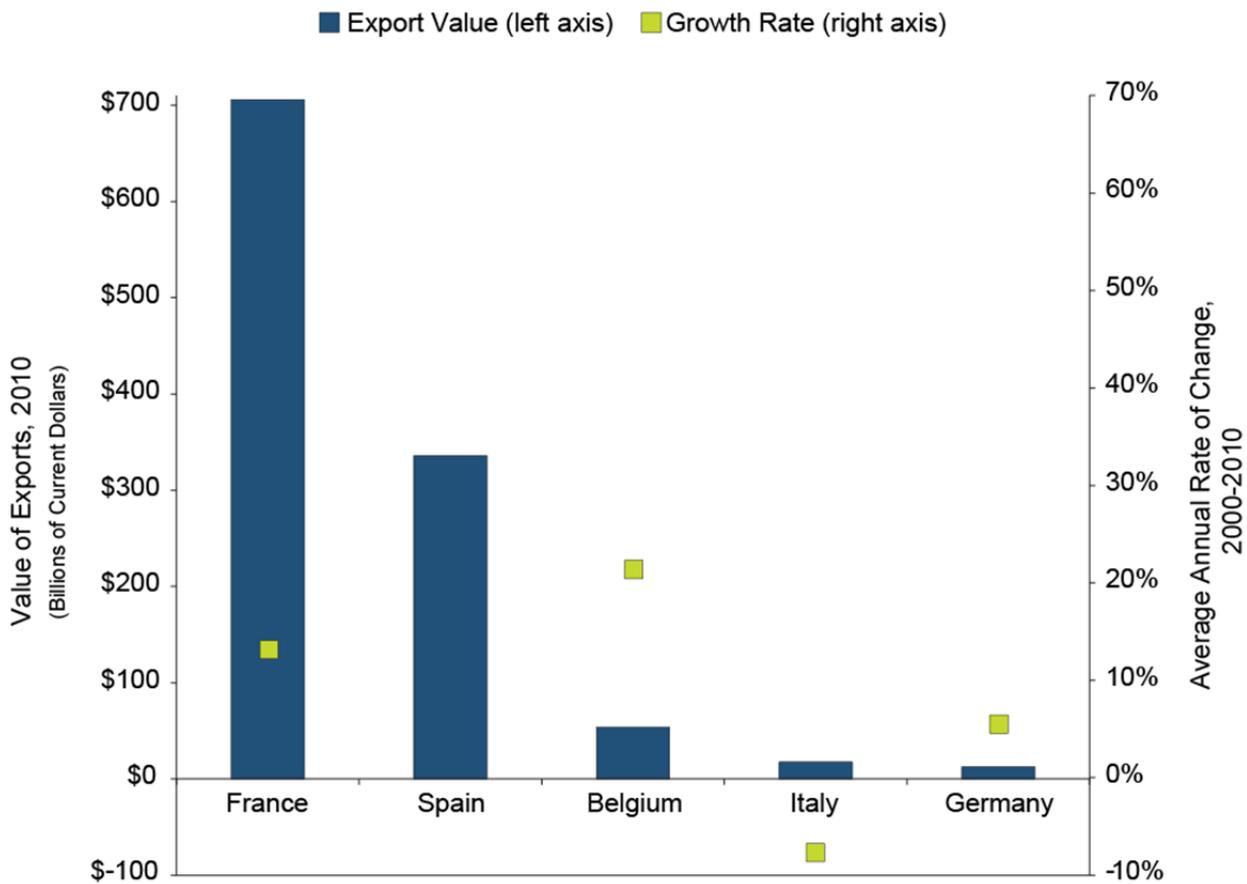
Source: WISER Trade

Of all the pharmaceutical products Indiana exports, the retail packs of medicaments and immunization products are the top two imported products by euro zone countries. The medicaments have had a very strong and steady growth since 2000 (62 percent). But this growth is from a small base. The euro zone only imported \$13 million in 2000 compared to the \$1.3 billion in 2010. This dramatic growth became even more pronounced in 2009 with the 164 percent increase from 2008, making the euro zone a billion dollar market for Indiana’s pharmaceutical products.

Organic Chemicals

In 2010, 77 percent of Indiana’s organic chemicals went to all the European countries with 97 percent landing in euro zone countries. **Figure 79** shows the top five euro zone export destinations for organic chemicals, which include insulin, nucleic acids and salts and various proteins. Of all the countries Indiana exports organic chemicals to, France, Spain and Belgium are ranked as the first-, second- and fourth-largest export destinations. France is clearly Indiana’s largest trading partner in this area, purchasing \$706 million in organic chemicals in 2010. A rapidly emerging country, Spain, was second in 2010. Belgium has also had double-digit growth since 2001 (38 percent). Italy has reduced its imports of organic chemicals by nearly 8 percent since 2000 while Germany has slowly increased its imports by nearly 6 percent in the past decade. In 2002, the euro zone began importing insulin and its salts, which has become the largest organic chemical product exported from Indiana to the euro zone, valued at \$341 million and comprising 30 percent of all organic chemical exports.

Figure 79: Top Five Destinations for Indiana Organic Chemicals, 2000-2010



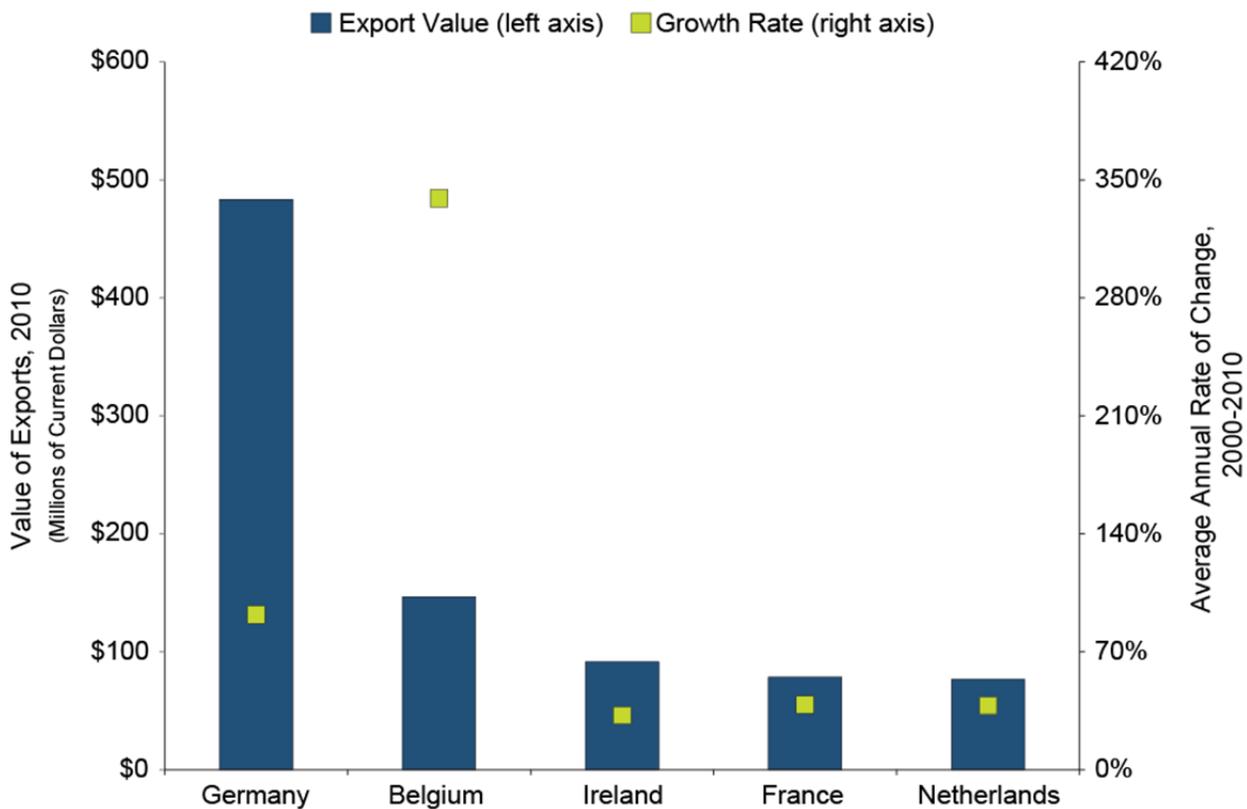
Source: WISER Trade

Optical and Medical Instruments

Only two euro zone countries are in the top five of Indiana’s top destinations for optical and medical instruments. That said, the euro zone purchases nearly 40 percent of all Indiana’s optical and medical instrument exports. In 2010, Germany became the top export destination for Indiana’s optical and medical instruments, slowly rising from its fourth-place position in 2008 (see **Figure 80**). In 2009, Belgium dramatically increased its imports, becoming the second-largest importer of optical and medical instruments. The remaining three countries, Ireland, France and the Netherlands have also recorded double-digit growth in the past decade, and collectively imported nearly \$247 million in 2010, slightly more than half of Germany’s imports in 2010.

In 2002, the euro zone began importing artificial joints from Indiana. This type of product now represents 35 percent of the imports within the broader category of medical instruments.

Figure 80: Top Five Destinations for Indiana Optical and Medical Instruments, 2000-2010



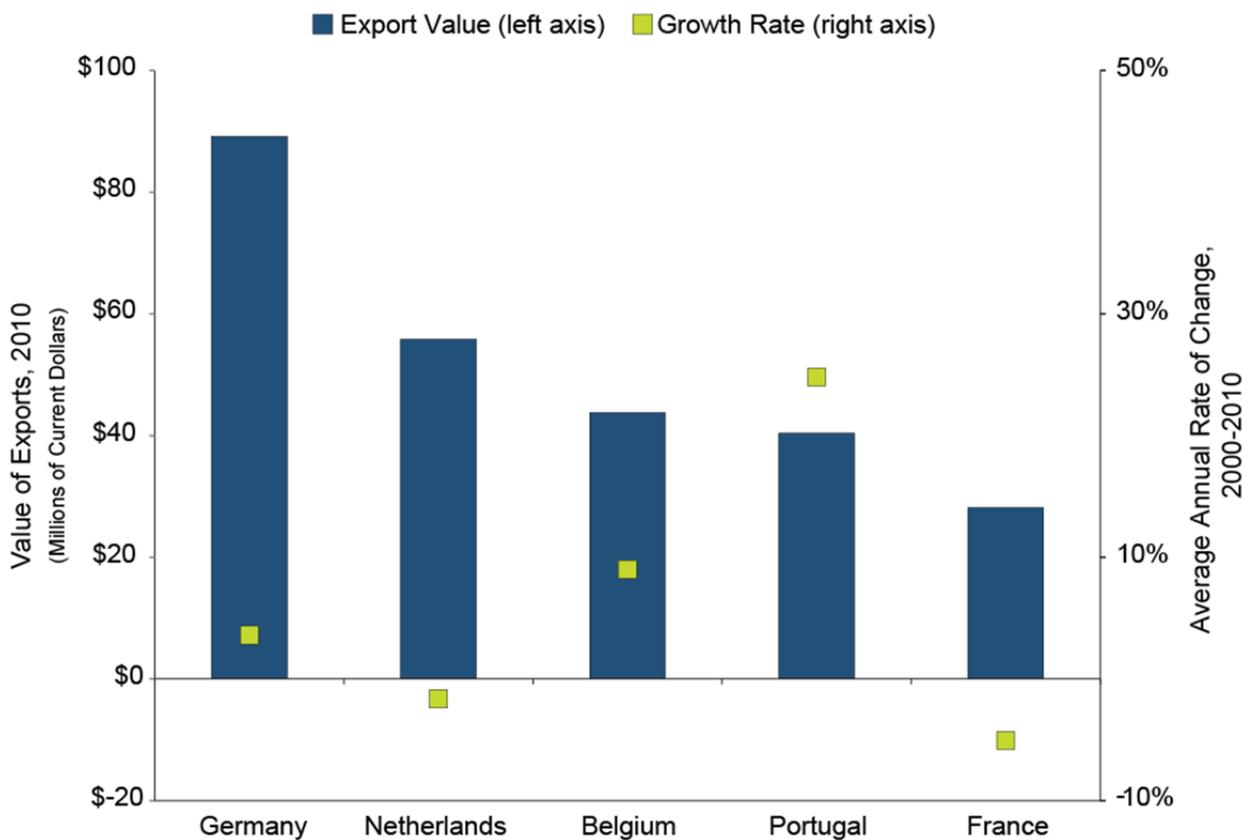
Source: WISER Trade

Industrial Machinery (Including Computers)

Compared to Canada and Mexico, the European Union imports a relatively small share of Indiana’s industrial machinery (16 percent). Of the \$307 million worth of industrial machinery that Europe imported from Indiana in 2010, the euro zone accounts for 44 percent. **Figure 81** shows the top five euro zone importers and their respective growth rates. These top five countries account for 84 percent of the imports by euro zone countries. While Portugal had the highest average growth rate, its growth has been erratic and its level of imports in 2000, the base year, was low. Germany and Belgium also recorded modest growth rates in the past decade.

Overall, this category of imports has not expanded much since 2000 (0.6 percent). However, the largest imported commodity in this category—internal combustion piston engines—did experience a 21 percent average annual growth rate in the past decade. This category of imports is not dominated by one particular import, but is quite diversified—with internal combustion piston engines only comprising 13 percent of all imports in 2010.

Figure 81: Top Five Destinations for Indiana Industrial Machinery, 2000 to 2010

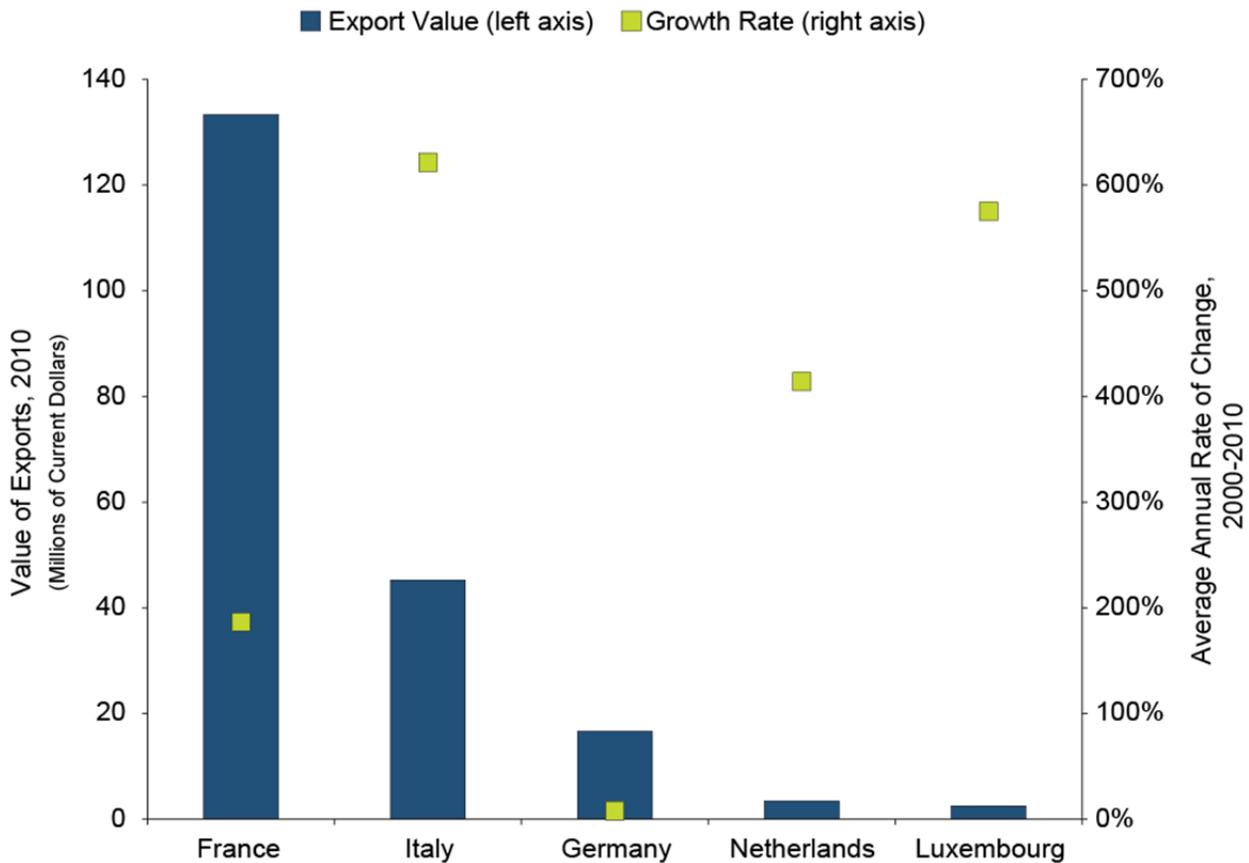


Source: WISER Trade

Aircraft, Spacecraft and Parts

The increase in Indiana exports of aircraft, spacecraft and parts thereof is largely due to EU countries. EU countries purchase 34 percent of Indiana’s aircraft, spacecraft and parts exports, with the euro zone countries purchasing about three-fourths of the EU’s share, or about \$210 million in 2010. **Figure 82** shows France as the top importer of aircraft, spacecraft and parts among euro zone countries at \$133 million. While Italy, the Netherlands and Luxembourg have very high growth rates, the level from which the growth rate is calculated (year 2000) was very low (less than \$100,000 in the cases of the Netherlands and Luxembourg).

Figure 82: Top Five Destinations for Indiana’s Aircraft, Spacecraft and Parts Thereof, 2000-2010



Source: WISER Trade

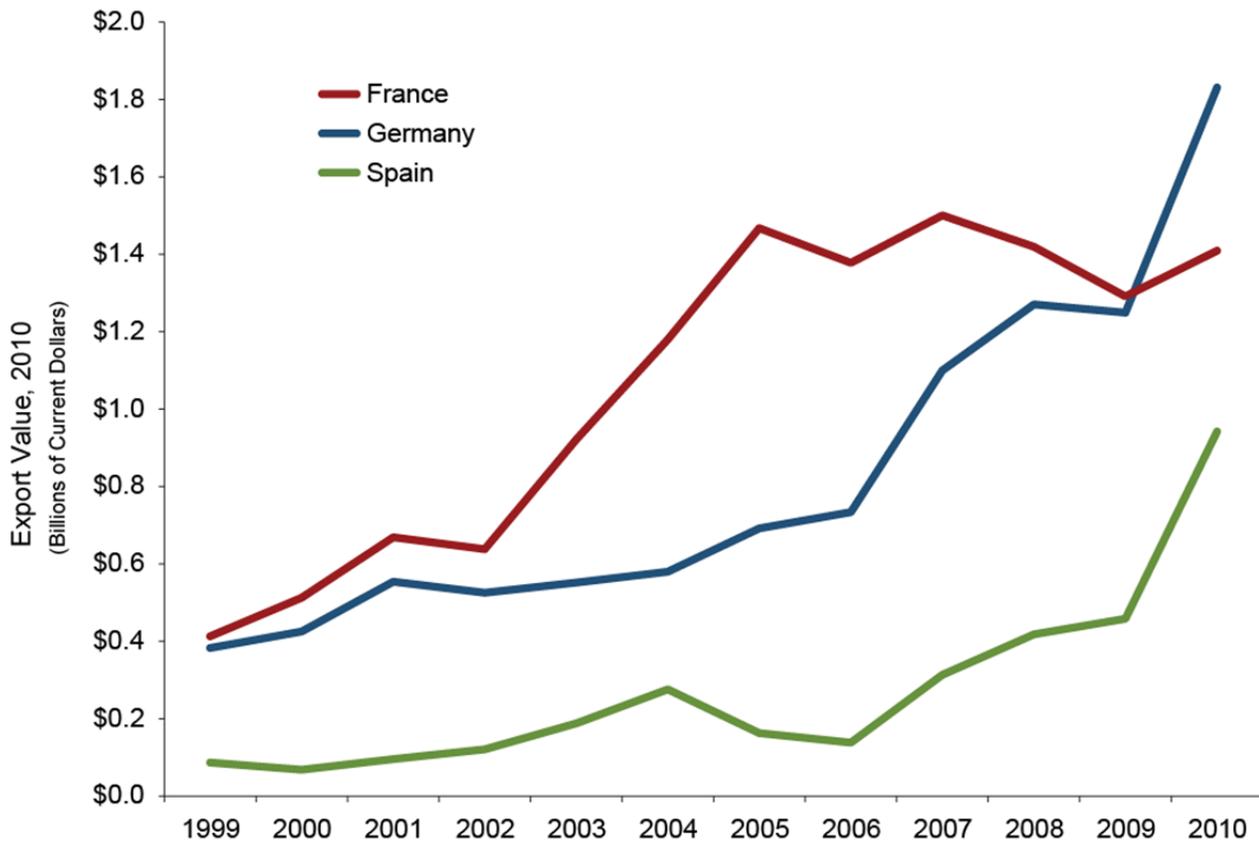
Import Activity of Euro Zone Countries

This section examines the import picture for euro zone countries and is organized into four cohorts based on their level of importing activity from Indiana.

The Big Three—Germany, France and Spain

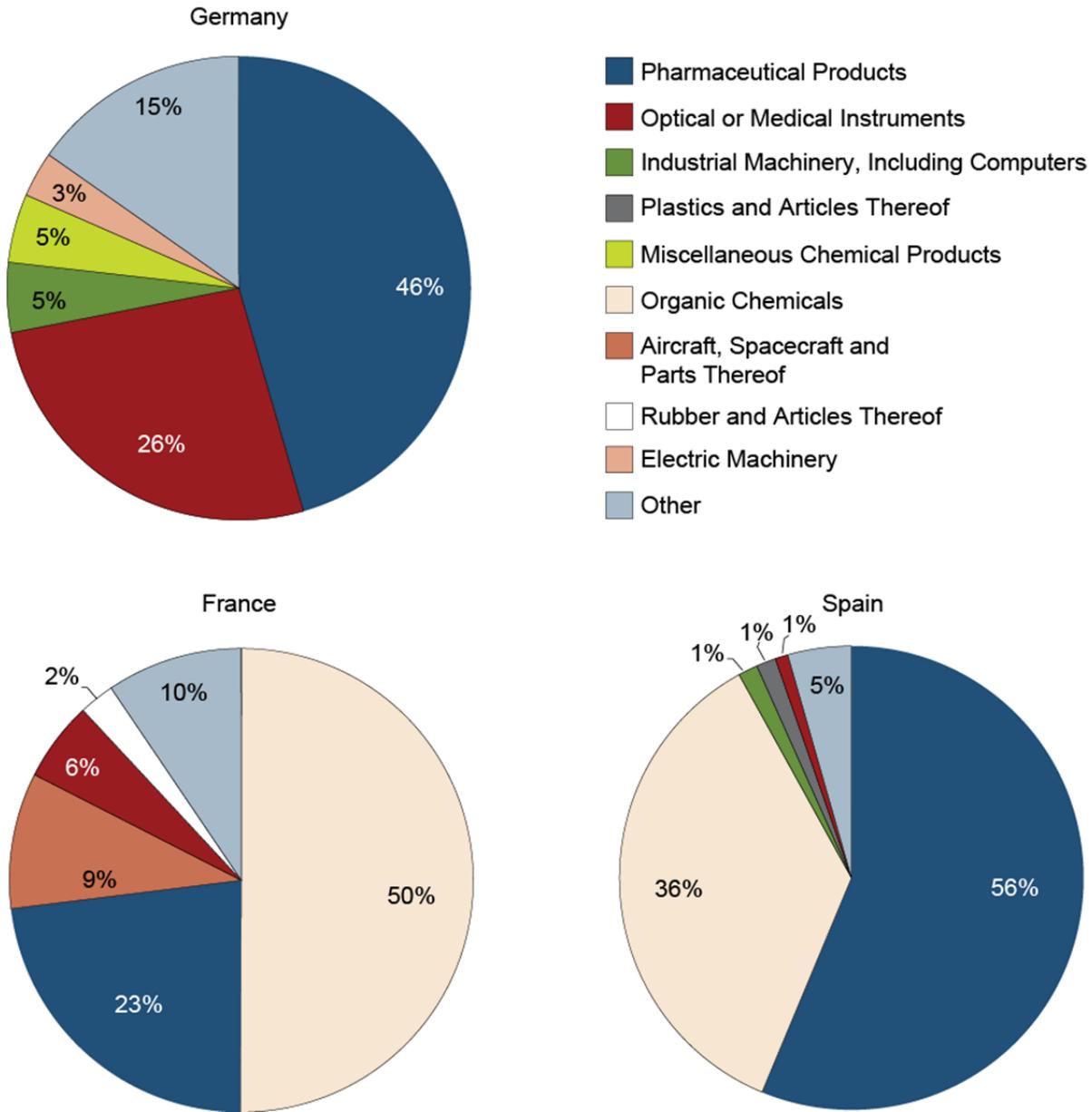
The three largest euro zone importers of Indiana products are Germany, France and Spain. While France has typically been the largest trading partner, in 2009, Germany claimed the lead. **Figure 83** shows the trends since 1999, when the euro became the adopted currency in these countries. **Figure 84** shows the top five imported goods from each country, of which pharmaceutical products, organic chemicals and optical and medical instruments garner the larger shares among the three countries. This aligns well with the expanding Indiana life sciences sector.

Figure 83: Import Trends for Germany, France and Spain, 1999-2010



Source: WISER Trade

Figure 84: Top Five Imported Goods by Germany, France and Spain, 2010

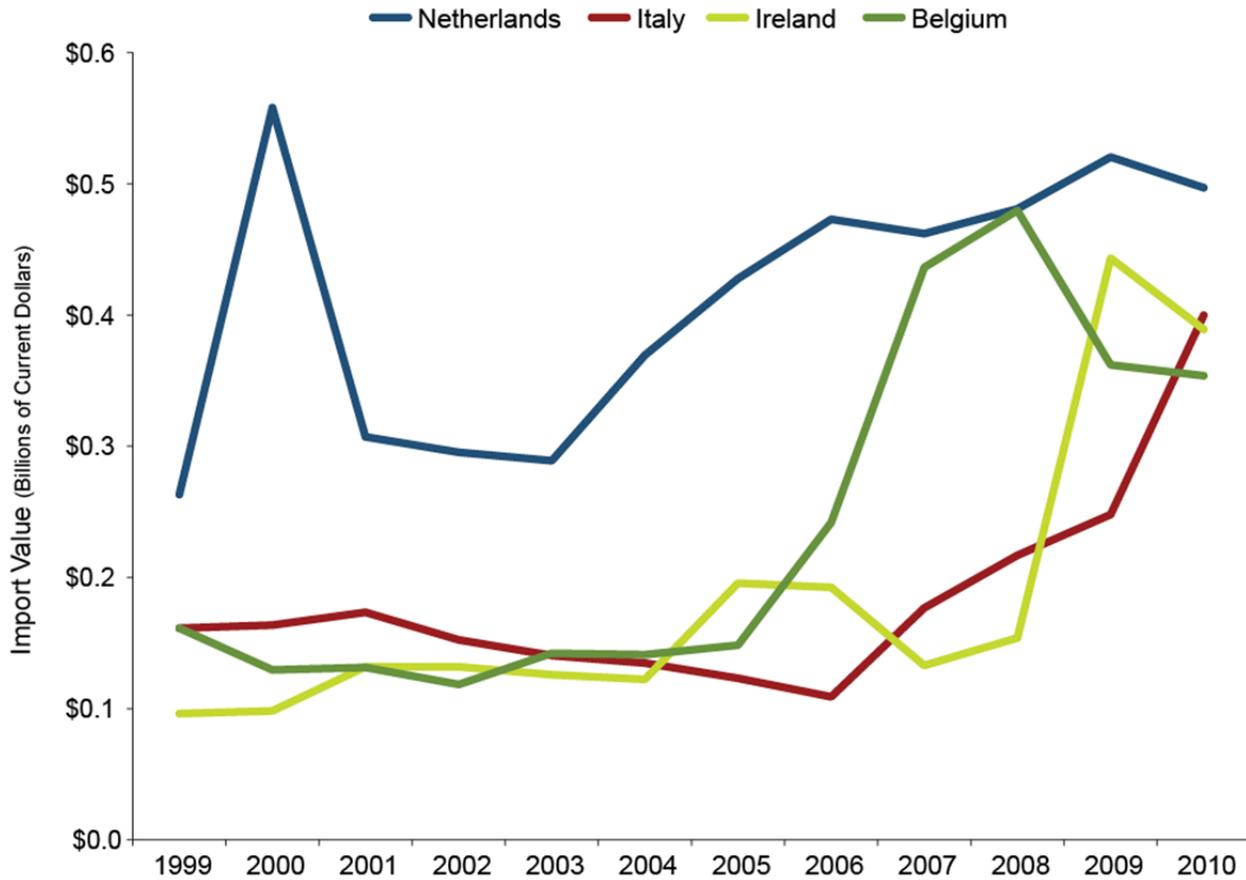


Source: WISER Trade

Tier 1—Netherlands, Italy, Ireland and Belgium

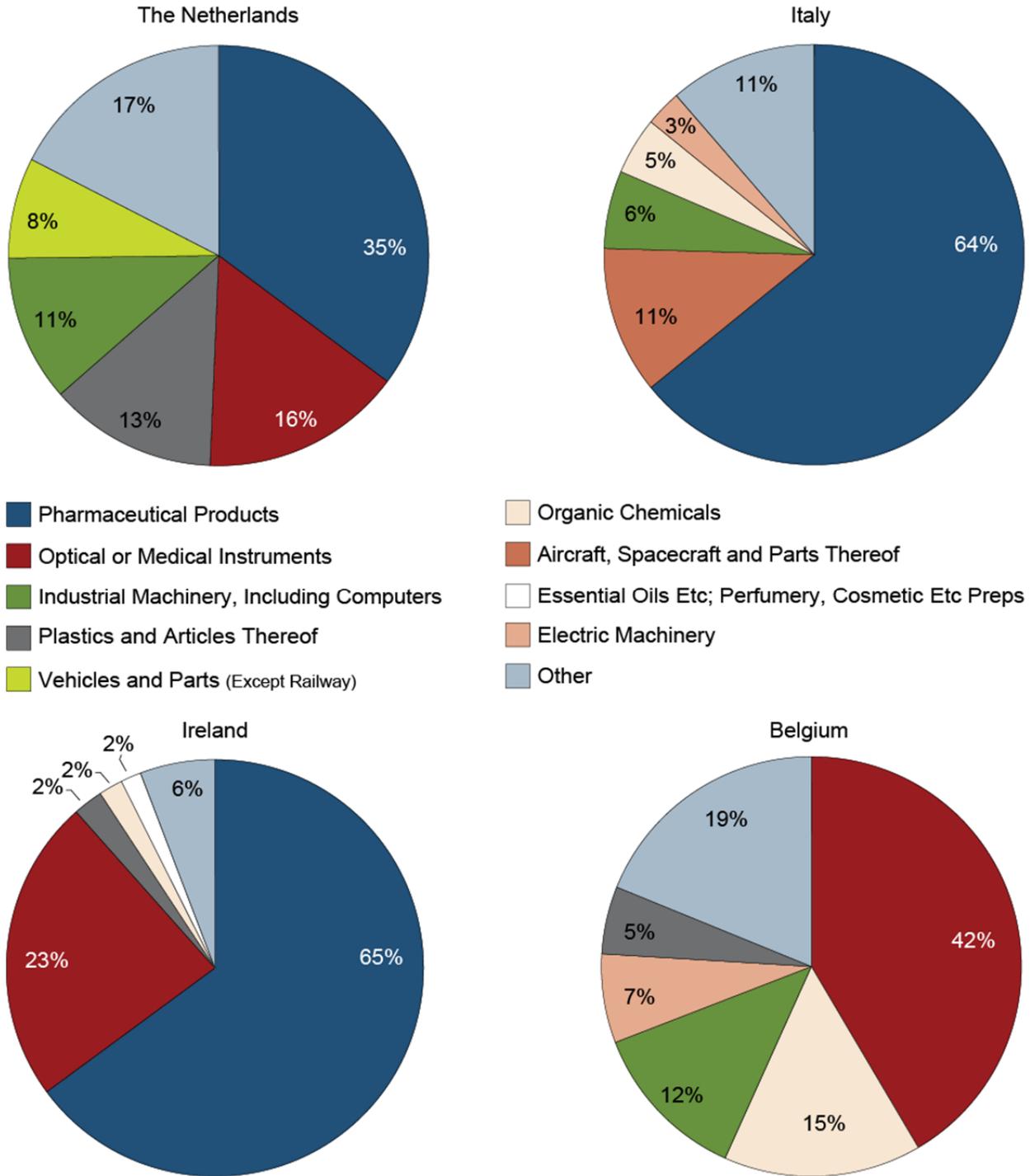
The next group of euro countries has imported between \$100 and \$550 million worth of Indiana goods from 1999 to 2010. Unlike the “big three,” the importing trends have been erratic, marked by large swings in short time periods. For example, the Netherlands had a large spike in imports in 2000 and a strong run up again between 2003 and 2006 before settling down to more stable growth (see **Figure 85**). As with the big three countries, pharmaceutical products and optical and medical instruments were among the top imported items by these four countries (see **Figure 86**).

Figure 85: Import Trends for the Netherlands, Italy, Ireland and Belgium, 1999-2010



Source: WISER Trade

Figure 86: Top Five Imported Goods by the Netherlands, Italy, Ireland and Belgium, 2010

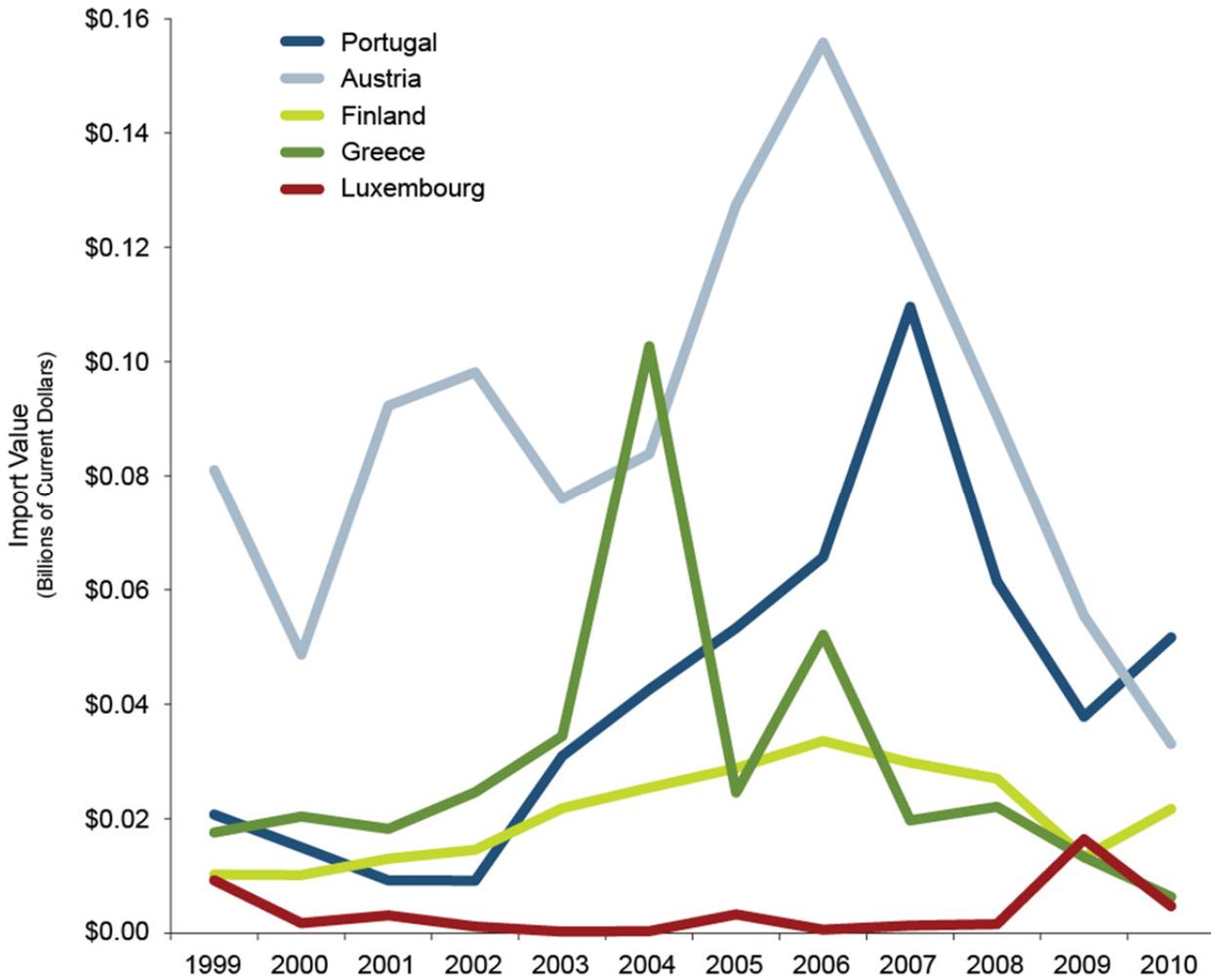


Source: WISER Trade

Tier 2—Portugal, Austria, Finland, Greece and Luxembourg

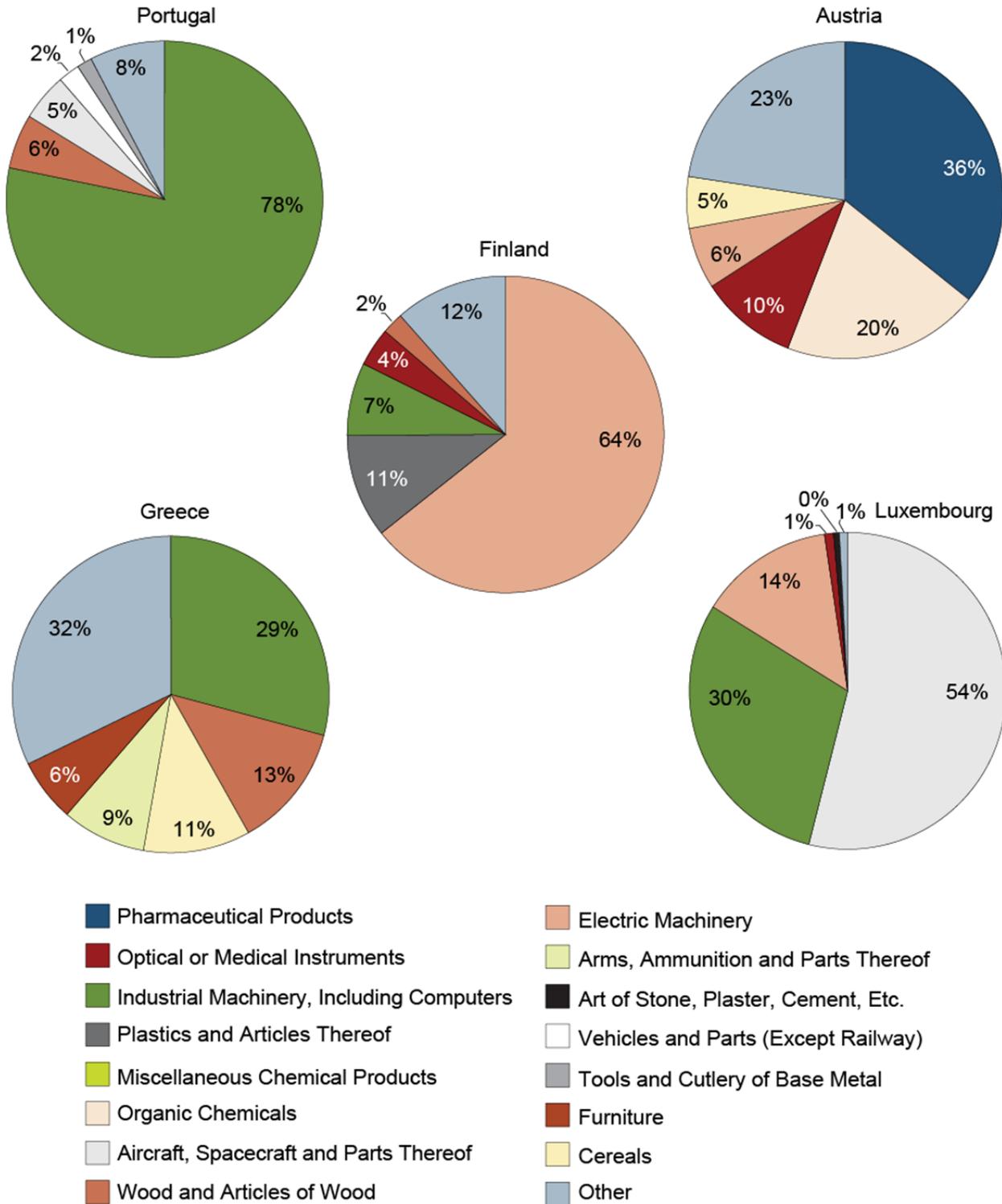
Similar to “Tier 1,” the imports of this group have been volatile, particularly Austria, Portugal and Greece. **Figure 87** shows the large year-to-year swings. **Figure 88** shows the top five imported goods for each country in 2010. The mixture of goods imported is diverse; even wood and articles of wood is represented. This emergence may be because these economies have industries that need wood inputs, for example, Greece is still a major shipbuilding country. While the volume of imported Indiana goods has fluctuated considerably for these countries, the mix of imported commodities has been relatively consistent.

Figure 87: Import Trends of Portugal, Austria, Finland, Greece and Luxembourg, 1999-2010



Source: WISER Trade

Figure 88: Top Five Imported Goods by Portugal, Austria, Finland, Greece and Luxembourg, 2010



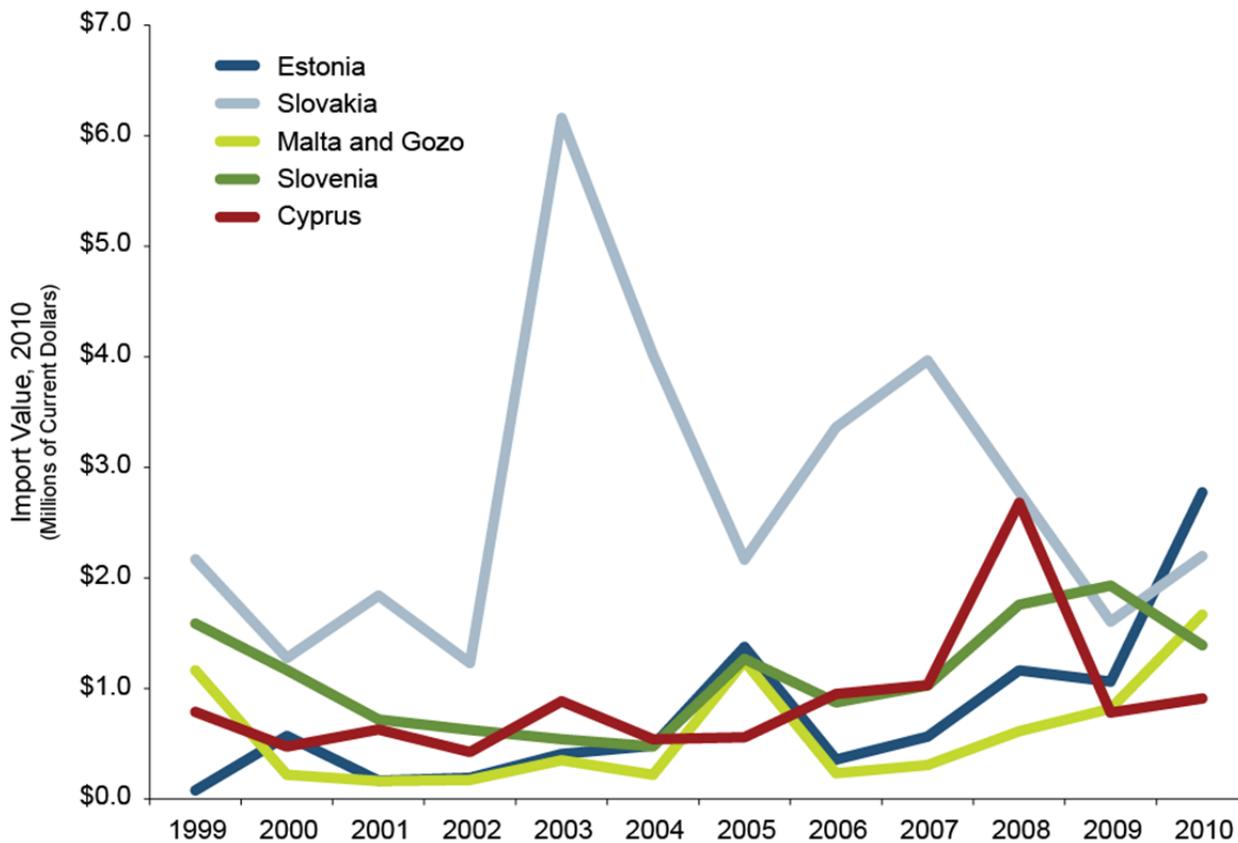
Source: WISER Trade

Tier 3—Estonia, Slovakia, Malta and Gozo, Slovenia and Cyprus

The final set of countries import small quantities from Indiana, ranging from \$80,000 to \$6 million in 2010, with an average of \$1.8 million. A common theme among these countries is that they are all relatively new euro zone countries, with the date of euro adoption ranging from 2007 (Slovenia) to 2011 (Estonia). It is uncertain if the adoption of the euro significantly affects trading relationships with Indiana or the United States. **Figure 89** shows the importing trends

of these countries, which, with the exception of Slovakia, includes some moderate swings. From 1999 to 2010, nearly all countries had increased their imports from Indiana, a trend that will hopefully continue in the future.

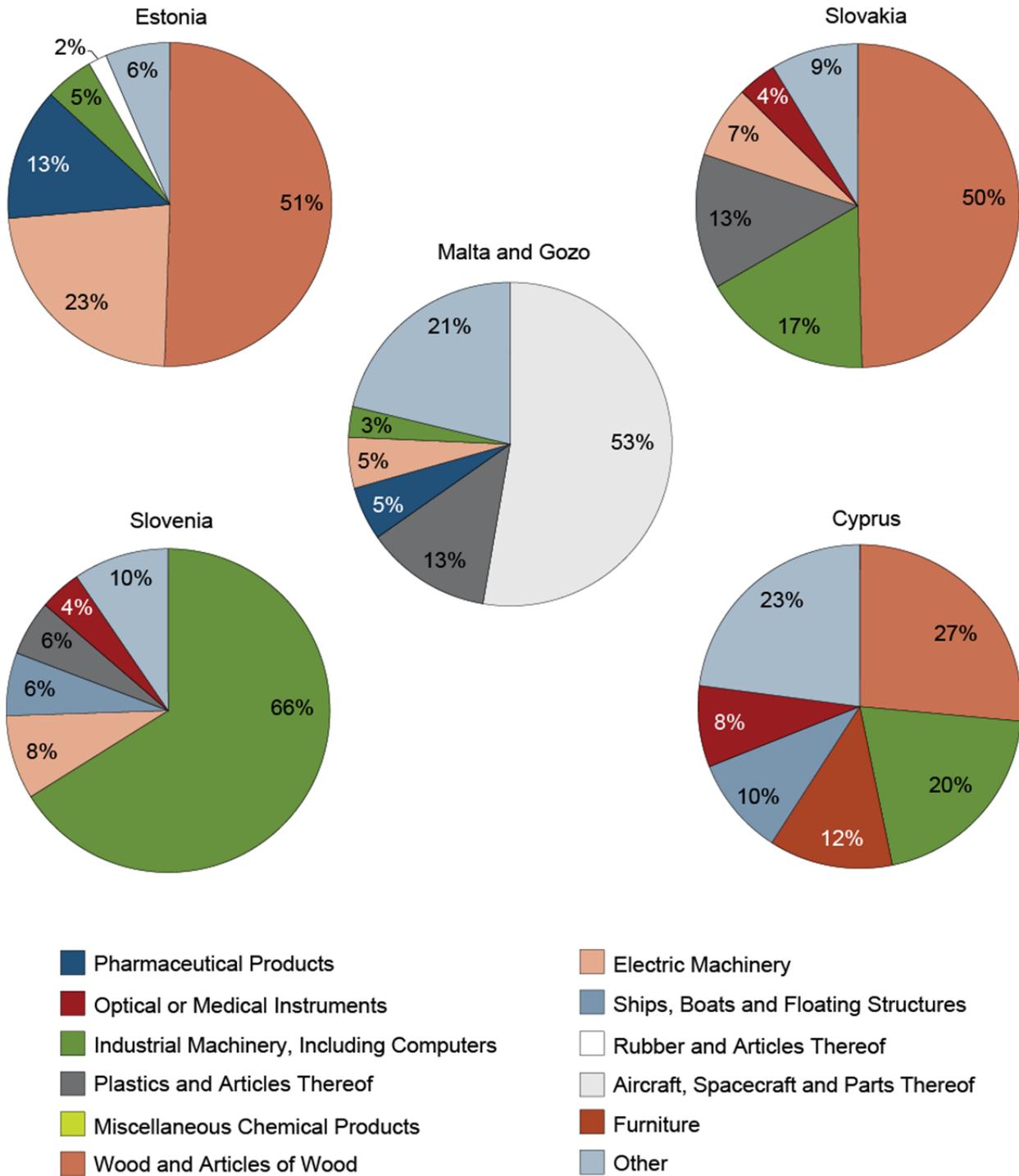
Figure 89: Import Trends of Estonia, Slovakia, Malta and Gozo, Slovenia and Cyprus, 1999-2010



Source: WISER Trade

Figure 90 shows the top five exports to each of these countries in 2010. In three of the countries, wood was the top imported item, whereas other countries purchased more manufactured items from the Indiana. A note of caution: The pie charts in **Figure 90** describe the 2010 import profile and may not reflect longer-term trends given that these countries are small and their consumption needs can change from year to year. Recent developments in several countries can partially explain why certain imports were more popular than others in 2010. In Malta, for example, tourism continues to grow along with its airport usage; therefore, 2010 may have been the year to acquire more aircraft parts from Indiana. Tourism and property rentals are on the rise in Cyprus; this could explain the imports in wood products and furniture in 2010.

Figure 90: Top Five Imported Goods by Estonia, Slovakia, Malta and Gozo, Slovenia and Cyprus, 2010



Source: WISER Trade

Non-Euro Zone Purchases of Indiana Exports

The non-euro zone consists of 10 countries, of which only one country—the United Kingdom—was in Indiana’s top 10 export destinations in 2010. The UK was the fourth-largest importer of Indiana goods. When ranking all the EU countries in terms of Indiana imports, only three non-euro countries were in the top 10—the UK at second, Denmark at ninth and Sweden at 10th. Referring back to **Table 8**, only three of the top 10 countries by GDP were non-euro zone countries, indicating that the non-euro zone countries tend to be, on average, poorer than those in the euro zone. Collectively these countries imported approximately \$1.8 billion of Indiana products in 2010, averaging an annual growth of 8 percent over the past decade.

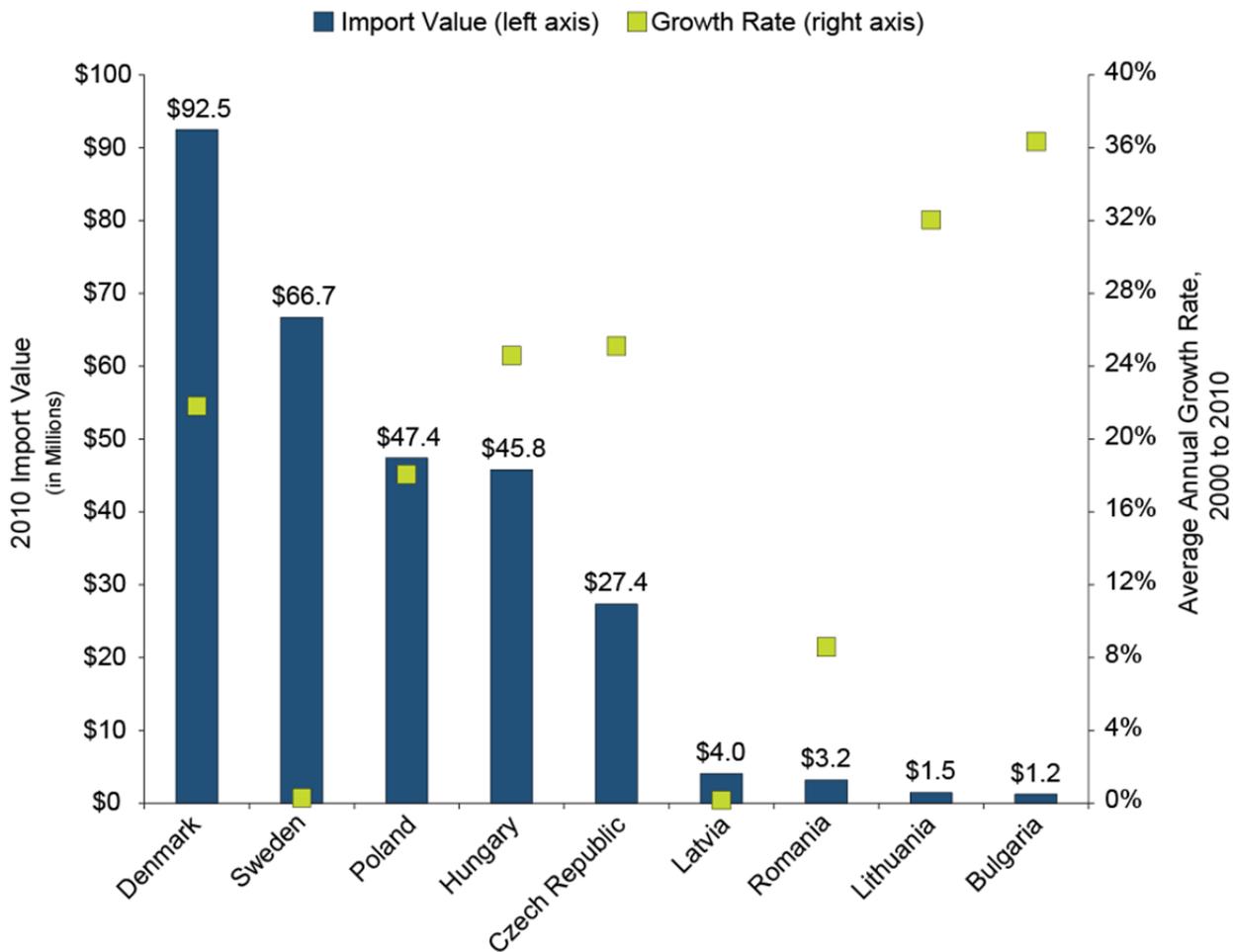
As **Table 11** shows, the average annual growth rates of these countries have been sporadic, indicating inconsistent importing patterns. Only two countries, Poland and Latvia have had positive growth rates last year, over the last five years and over the decade. It appears that most of Latvia’s growth has occurred within the past five years, whereas Poland’s growth occurred in the first half of the past decade. **Figure 91** graphically depicts the data in **Table 11**. Note that due to the disproportion of the United Kingdom’s imports, the country was omitted from the graph to allow a better illustration of the smaller importing countries.

Table 11: Non-Euro Zone Import Trends, 2000-2010

| Export Destination | Ranking | | Value of Indiana Imports (Millions of Current Dollars) | | | Average Annual Growth Rate | | |
|--------------------|---------------|----------------------|---|-----------|-----------|----------------------------|-----------|-----------|
| | Non-Euro Zone | Total Indiana Market | 2000 | 2009 | 2010 | 2009-2010 | 2005-2010 | 2000-2010 |
| Non-Euro Zone | n/a | n/a | \$977.0 | \$1,901.0 | \$1,757.7 | -7.5% | -0.8% | 8.0% |
| United Kingdom | 1 | 4 | \$839.9 | \$1,627.3 | \$1,468.0 | -9.8% | -0.7% | 7.5% |
| Denmark | 2 | 28 | \$29.1 | \$119.5 | \$92.5 | -22.6% | 7.8% | 21.8% |
| Sweden | 3 | 33 | \$63.9 | \$40.2 | \$66.7 | 65.8% | -6.5% | 0.4% |
| Poland | 4 | 43 | \$16.9 | \$43.7 | \$47.4 | 8.5% | 5.0% | 18.1% |
| Hungary | 5 | 44 | \$13.2 | \$47.7 | \$45.8 | -3.9% | -7.1% | 24.6% |
| Czech Republic | 6 | 53 | \$7.8 | \$15.9 | \$27.4 | 71.6% | -3.6% | 25.1% |
| Latvia | 7 | 85 | \$4.0 | \$0.9 | \$4.0 | 337.7% | 23.2% | 0.2% |
| Romania | 8 | 88 | \$1.7 | \$3.4 | \$3.2 | -5.2% | 17.7% | 8.6% |
| Lithuania | 9 | 110 | \$0.3 | \$1.2 | \$1.5 | 23.2% | -13.9% | 32.0% |
| Bulgaria | 10 | 113 | \$0.3 | \$1.3 | \$1.2 | -1.7% | -5.9% | 36.3% |

Source: IBRC, using WISER Trade data

Figure 91: Non-Euro Zone Imports, 2000-2010



Note: The United Kingdom was omitted due to its size.
Source: WISER Trade

Non-Euro Zone Top Imported Commodities

Table 12 shows the top 10 commodities exported from Indiana to the non-euro countries in 2010. Most of the commodities listed are also on the state's top 10 list of exports, except for printed books, newspapers and manuscripts and nickel and articles thereof. The United Kingdom's dominance among non-euro zone countries is evident. The UK was responsible for 85 percent of the imports. The only commodities where the UK accounts for less than 50 percent of all imports are organic chemicals and vehicles and parts.

Table 12: Top 10 Imported Indiana Commodities by Non-Euro Zone Countries, 2000 to 2010

| Industries* | Imports (in millions) | UK Share of Import | Average Annual Growth Rate | |
|--|--------------------------|-----------------------|-------------------------------|-----------|
| | 2010 | 2010 | 2009-2010 | 2000-2010 |
| Pharmaceutical Products | \$658.4 | 100.0% | -30.7% | 83.9% |
| Industrial Machinery (Including Computers) | \$384.2 | 80.4% | 40.4% | 2.7% |
| Optical and Medical Instruments | \$125.0 | 87.4% | -28.9% | 0.3% |
| Aircraft, Spacecraft, and Related Parts | \$77.6 | 87.1% | 67.9% | 27.0% |

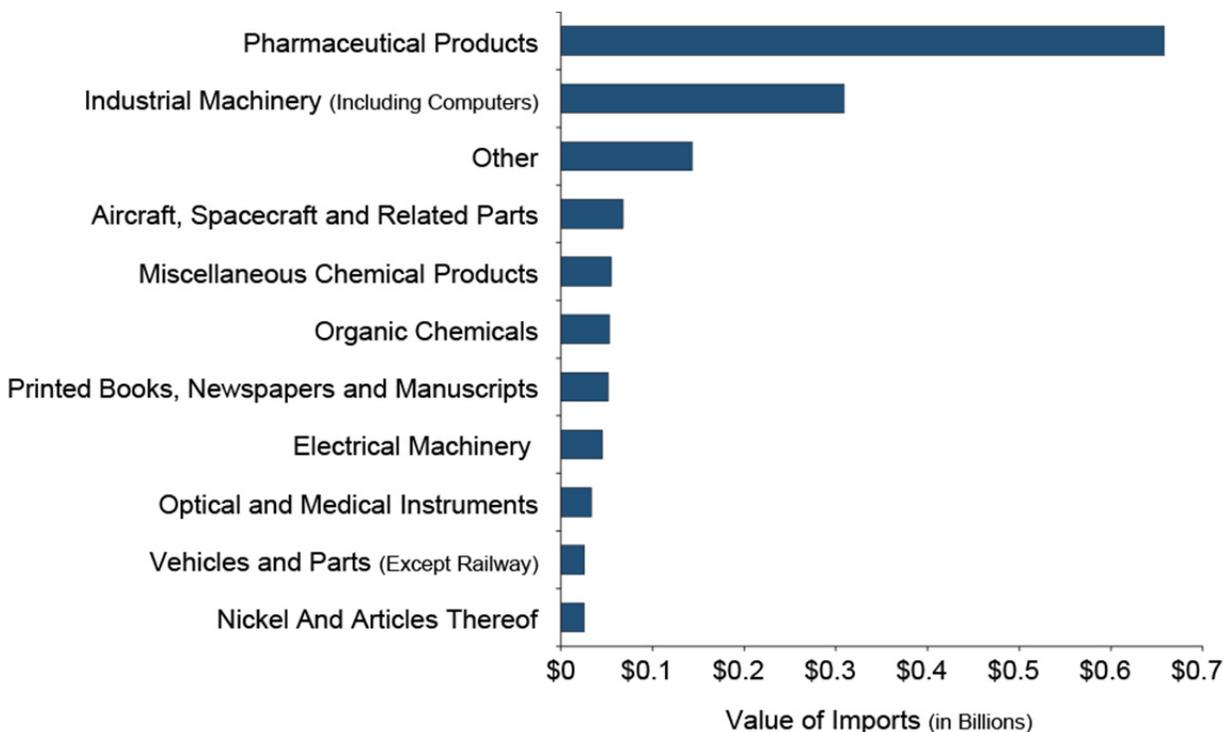
| Industries* | Imports (in millions) | UK Share of Import | Average Annual Growth Rate | |
|---|--------------------------|-----------------------|-------------------------------|-----------|
| | 2010 | 2010 | 2009-2010 | 2000-2010 |
| Electrical Machinery | \$64.3 | 99.6% | 5.5% | 2.0% |
| Miscellaneous Chemical Products | \$63.4 | 99.7% | 30.8% | -1.4% |
| Vehicles and Parts (Except Railway) | \$59.1 | 70.8% | 6.7% | -4.9% |
| Organic Chemicals | \$53.2 | 26.6% | 55.9% | 6.2% |
| Printed Books, Newspapers and Manuscripts | \$51.7 | 44.0% | 30.5% | 8.8% |
| Nickel And Articles Thereof | \$29.3 | 86.8% | -0.6% | 28.6% |

*Industries defined by the Harmonized System of Commodity Classifications
Source: WISER Trade

Non-Euro Zone and Import Activity

Due to the broad variances in Indiana exports to non-euro zone countries, it is best to portray the countries in three cohorts: the UK, the middle tier of importers and the lower tier of importers. As mentioned earlier, the UK clearly drives the import activity of all the non-euro zone countries. **Figure 92** shows the mixture of commodities exported to the UK from Indiana in 2010. Pharmaceutical products and industrial machinery comprised the bulk of the imports from Indiana at 45 percent and 21 percent, respectively. Pharmaceutical products have been the United Kingdom's top import from Indiana since 2005. Industrial machinery has remained in second or third place ever since. Beyond these top two imports, the import trends of the remainder commodities have shifted considerably over the last decade, despite the fact that most of the top 10 commodities have remained within the top 10 exports from Indiana to the UK.

Figure 92: United Kingdom's Mix of Imports from Indiana, 2010

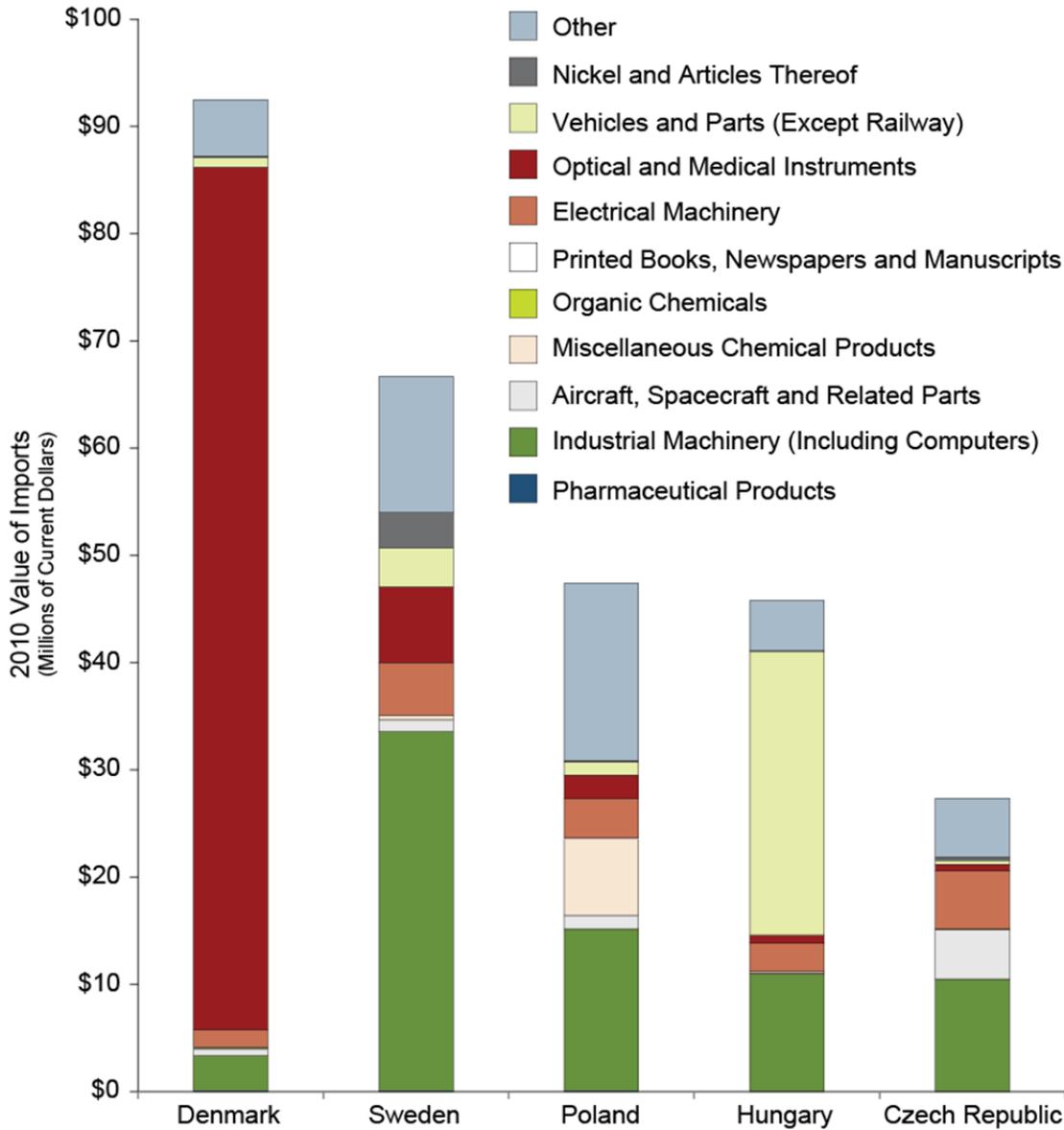


Source: IBRC using WISER Trade data

Figure 93 shows the diversified array of Indiana exports to the second tier of non-euro zone countries in 2010. Collectively, these countries imported \$280 million worth of goods from Indiana. Industrial machinery commands a

respectable share of each country’s imports, with Sweden importing the largest share and Denmark the least. Optical and medical instruments are a sizable import commodity for Denmark, but not as much for the other countries. Hungary is the only country with a significant level of Indiana vehicle and parts imports. While the level of Indiana produced imports may have fluctuated over the last decade for these countries, the mix of leading import commodities have been rather consistent.

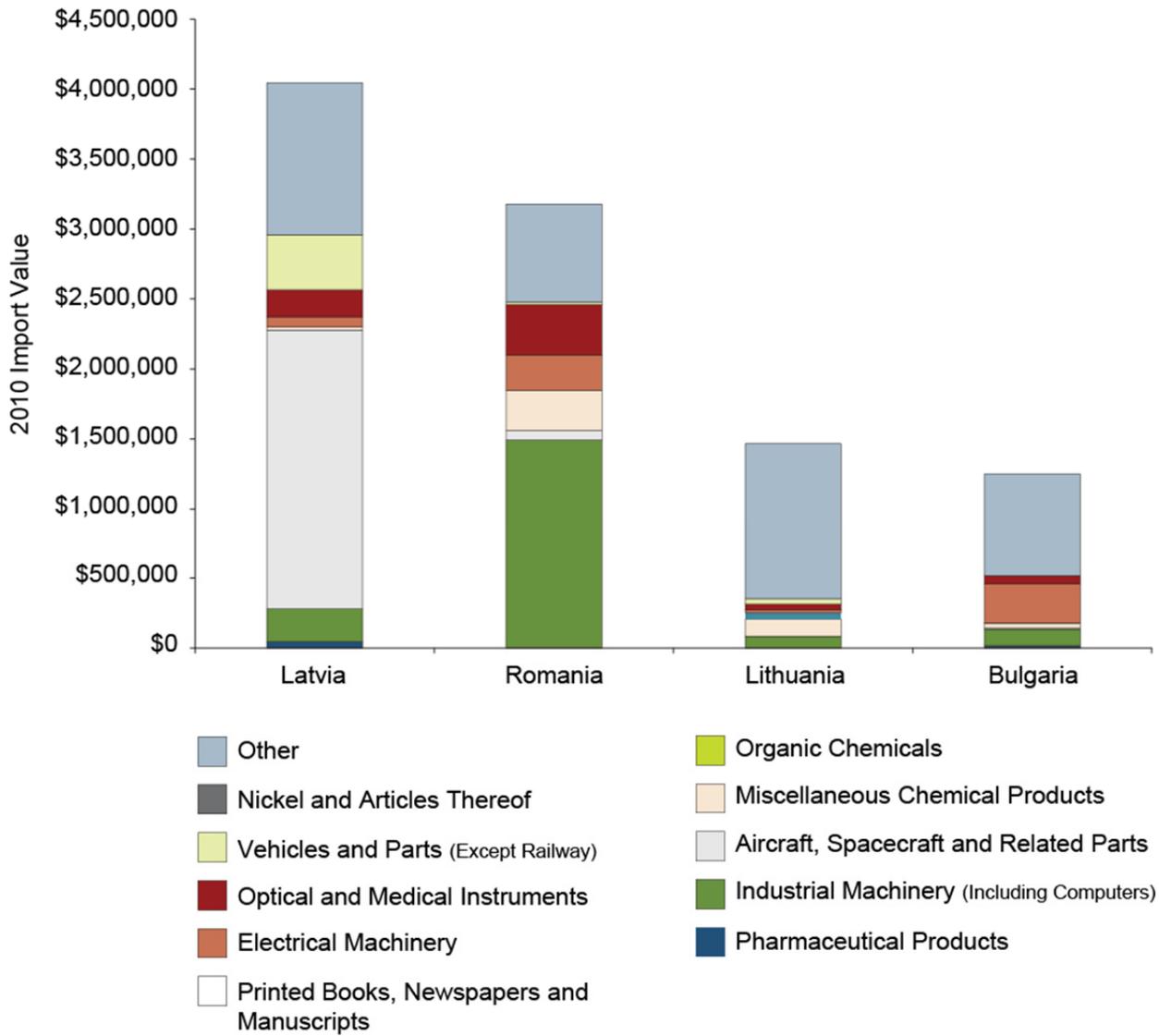
Figure 93: Import Activity of Second-Tier of Non-Euro Countries, 2010



Source: IBRC using WISER Trade data

The final four countries of the non-euro zone collectively imported almost \$10 million worth of Indiana goods in 2010, a fraction of the value of imports by the UK or each of the second-tier countries. Similar to the second-tier of non-euro zone countries, however, each country has its own diverse mixture of imports as illustrated in **Figure 94**. Latvia’s largest import from Indiana was aircraft, spacecraft and related parts whereas Romania’s largest import was in industrial machinery. Lithuania’s largest import was plastics, followed closely by meat products (which were lumped into the “other” category). Bulgaria’s largest Indiana import was cereals (also part of the “other” category), followed by electrical machinery. While the mentioned imports by each respective country were the top import in 2010, it must be noted that these countries have a good deal of instability in their importing patterns.

Figure 94: Import Activities of Lower-Tiered Non-Euro Zone Countries, 2010



Source: WISER Trade

Conclusion

The European Union and its euro zone countries are important trading partners to Indiana, as they imported \$7.7 billion and \$5.9 billion of Indiana goods in 2010, respectively. The United Kingdom is the largest importer of Indiana goods among the non-euro zone countries while Germany and France clearly dominate the euro zone, with Spain quickly emerging as a significant market. Indiana’s life sciences industry fuels most of the importing activities within the EU as pharmaceutical products, organic chemicals and optical and medical instruments are the top three imported industries. The majority of the EU countries had one of these commodities in their top five lists of imports. In smaller trade partner countries, however, other commodities emerged as the more popular imports. As these European Union countries continue to grow, it is expected that the level of imports will increase as well, a good sign for Indiana’s manufacturing in general, and life science industries in particular.

Appendix: Indiana Exports for All Commodities

| Rank | Description | Annual (in millions) | | | Percent Change* | | Commodity as a Percent of Total | | Change (in millions) | |
|------|---|-------------------------|----------|----------|--------------------|---------------|---------------------------------------|-------|-------------------------|---------------|
| | | 2008 | 2009 | 2010 | 2008- 2009 | 2009- 2010 | 2009 | 2010 | 2008- 2009 | 2009- 2010 |
| | Total: All Commodities | \$26,502 | \$22,907 | \$28,670 | -13.6 | 25.2 | 100.0 | 100.0 | -\$3,595 | \$5,763 |
| 1 | Vehicles, Except Railway or Tramway, and Parts Etc | \$5,682 | \$4,230 | \$6,620 | -25.5 | 56.5 | 18.5 | 23.1 | -\$1,451 | \$2,389 |
| 2 | Pharmaceutical Products | \$2,437 | \$3,809 | \$4,638 | 56.3 | 21.8 | 16.6 | 16.2 | \$1,372 | \$829 |
| 3 | Industrial Machinery, Including Computers | \$5,072 | \$3,587 | \$4,284 | -29.3 | 19.4 | 15.7 | 14.9 | -\$1,484 | \$697 |
| 4 | Optic, Photo Etc, Medic or Surgical Instruments Etc | \$1,789 | \$1,997 | \$2,311 | 11.6 | 15.7 | 8.7 | 8.1 | \$208 | \$314 |
| 5 | Electric Machinery Etc; Sound Equip; TV Equip; Pts | \$2,238 | \$1,720 | \$1,772 | -23.1 | 3.0 | 7.5 | 6.2 | -\$518 | \$52 |
| 6 | Organic Chemicals | \$1,429 | \$1,244 | \$1,545 | -12.9 | 24.2 | 5.4 | 5.4 | -\$185 | \$301 |
| 7 | Plastics and Articles Thereof | \$983 | \$790 | \$992 | -19.6 | 25.6 | 3.4 | 3.5 | -\$193 | \$202 |
| 8 | Aircraft, Spacecraft, and Parts Thereof | \$646 | \$603 | \$825 | -6.7 | 36.7 | 2.6 | 2.9 | -\$43 | \$221 |
| 9 | Iron and Steel | \$993 | \$688 | \$797 | -30.8 | 16.0 | 3.0 | 2.8 | -\$306 | \$110 |
| 10 | Miscellaneous Chemical Products | \$681 | \$441 | \$534 | -35.2 | 21.0 | 1.9 | 1.9 | -\$240 | \$93 |
| 11 | Printed Books, Newspapers Etc; Manuscripts Etc | \$294 | \$319 | \$361 | 8.7 | 13.0 | 1.4 | 1.3 | \$26 | \$42 |
| 12 | Articles of Iron or Steel | \$340 | \$256 | \$333 | -24.9 | 30.4 | 1.1 | 1.2 | -\$85 | \$78 |
| 13 | Aluminum and Articles Thereof | \$478 | \$286 | \$329 | -40.2 | 15.0 | 1.2 | 1.1 | -\$192 | \$43 |
| 14 | Furniture; Bedding Etc; Lamps Nesoi Etc; Prefab Bd | \$324 | \$265 | \$318 | -18.3 | 20.0 | 1.2 | 1.1 | -\$59 | \$53 |
| 15 | Rubber and Articles Thereof | \$269 | \$213 | \$240 | -20.8 | 12.6 | 0.9 | 0.8 | -\$56 | \$27 |
| 16 | Copper and Articles Thereof | \$157 | \$106 | \$164 | -32.4 | 54.2 | 0.5 | 0.6 | -\$51 | \$57 |
| 17 | Wood and Articles Of Wood; Wood Charcoal | \$208 | \$151 | \$160 | -27.3 | 6.0 | 0.7 | 0.6 | -\$57 | \$9 |
| 18 | Meat and Edible Meat Offal | \$80 | \$94 | \$152 | 18.7 | 60.7 | 0.4 | 0.5 | \$15 | \$57 |
| 19 | Mineral Fuel, Oil Etc.; Bitumin Subst; Mineral Wax | \$78 | \$108 | \$145 | 38.1 | 33.8 | 0.5 | 0.5 | \$30 | \$37 |
| 20 | Albuminoid Substance; Modified Starch; Glue; Enzymes | \$129 | \$116 | \$142 | -9.9 | 21.6 | 0.5 | 0.5 | -\$13 | \$25 |
| 21 | Paper and Paperboard and Articles (Inc Paper Pulp Artl) | \$131 | \$122 | \$131 | -7.0 | 7.2 | 0.5 | 0.5 | -\$9 | \$9 |

| Rank | Description | Annual (in millions) | | | Percent Change* | | Commodity as a Percent of Total | | Change (in millions) | |
|-----------------------------|--|-------------------------|----------|----------|--------------------|---------------|---------------------------------------|------|-------------------------|---------------|
| | | 2008 | 2009 | 2010 | 2008- 2009 | 2009- 2010 | 2009 | 2010 | 2008- 2009 | 2009- 2010 |
| 22 | Tanning and Dye Ext Etc; Dye, Paint, Putty Etc; Inks | \$112 | \$96 | \$128 | -14.3 | 34.1 | 0.4 | 0.4 | -\$16 | \$33 |
| 23 | Nickel and Articles Thereof | \$224 | \$169 | \$127 | -24.5 | -25.3 | 0.7 | 0.4 | -\$55 | -\$43 |
| 24 | Miscellaneous Articles of Base Metal | \$118 | \$124 | \$124 | 5.2 | -0.7 | 0.5 | 0.4 | \$6 | -\$1 |
| 25 | Special Classification Provisions, Nesoi | \$85 | \$109 | \$112 | 28.4 | 2.4 | 0.5 | 0.4 | \$24 | \$3 |
| 26 | Glass and Glassware | \$117 | \$97 | \$104 | -16.8 | 6.5 | 0.4 | 0.4 | -\$20 | \$6 |
| 27 | Sugars and Sugar Confectionary | \$74 | \$58 | \$88 | -22.2 | 51.9 | 0.3 | 0.3 | -\$17 | \$30 |
| 28 | Art of Stone, Plaster, Cement, Asbestos, Mica Etc. | \$30 | \$36 | \$88 | 17.6 | 146.1 | 0.2 | 0.3 | \$5 | \$52 |
| 29 | Inorganic Chemicals; Precious and Rare-Earth Met and Radioactive Compounds | \$76 | \$67 | \$76 | -11.6 | 13.4 | 0.3 | 0.3 | -\$9 | \$9 |
| 30 | Soap Etc; Waxes, Polish Etc; Candles; Dental Preps | \$62 | \$66 | \$75 | 7.0 | 13.0 | 0.3 | 0.3 | \$4 | \$9 |
| Total of Top 30 Commodities | | \$25,336 | \$21,969 | \$27,711 | -13.3 | 26.1 | 95.9 | 96.7 | -\$3,368 | \$5,742 |

*Using the standard percent change formula, not rate of change as used elsewhere

Note: Nesoi stands for "not elsewhere specified or indicated."

Source: WISER Trade