2014 Economic Forecast
for the U.S., Indiana, and Central Indiana

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The United States

The United States economy will continue to perform poorly in a number of key areas through 2014. We estimate the topline measure of inflation adjusted gross domestic product (GDP) to grow at an annualized rate of 1.9 percent to 2.1 percent quarterly in 2014. This rate of GDP growth is greater than the post 2007-2008 recession and faster than the period of the great moderation from 1982-2007. See Figure 1. It reflects a U.S. economy that has recovered in total production of goods and services, but growth has not yet been sufficiently rapid to restore employment to the pre-recession levels.\(^1\)

**LABOR MARKETS**

U.S. labor markets continue to perform very poorly, with large numbers of unemployed across all demographic sectors. The coming year will show little real improvement in this condition. See Figure 2. We anticipate the U.S. economy will end the year with an unemployment rate of 6.7 percent, resulting in total employment gains of fewer than 1.8 million jobs through 2014. This will result in overall employment levels still 2.4 million beneath the pre-recession level.

The U.S. labor force will remain very sluggish through the forecast period, but will remain roughly 2.5 percent beneath the pre-recession peak. While some slowing in the growth of labor force participation is due to demographic changes (e.g. retirement of Baby Boomers), federal policy changes that were inherent in the 2008 American Recovery and Reinvestment Act continue to contribute significantly to the low labor force participation. See Figure 3.

Labor market recovery in this recession has been historically poor, matched only by that of the Great Depression. Indeed, the labor market impact of this recession, in terms of jobs lost or regained is worse than all previous post-World War II recessions combined. Employment remains roughly 2 million beneath the pre-recession peak and will not return to precession levels until 2015 or later. Moreover, the appropriate working-age population has grown significantly since the start of the Great Recession. Today roughly 11.5 million workers are unemployed, and a further 8 million may be classified as unemployed under the broadest definition. The result is that perhaps 10 million workers or more than 7.5 percent of working-aged adults remain unemployed or marginally employed as a consequence of the Great Depression.

1. The national models are estimated from the FAIR Model, which is explicated initially in Fair, Ray C. 1984. Specification, Estimation, and Analysis of Macroeconomic Models. Harvard University Press.

The Indiana Econometric Model and Midwest forecasts are explained in Hicks, Michael J. 2009. “Forecasting State-Level Economic Activity: An Error Correction Model with Exogenous National Structural Forecast Components.” Proceedings of the National Tax Association’s 101st Annual Conference on Taxation.
Recession, while 8.5 million are unemployed due to more common conditions of job turnover and relocation that is not directly attributable to the recession. Figure 4 illustrates the change in employment from the start of each post-World War II recession through the start of the next recession (except for the current period, which is the obvious outlier in which net job growth has yet to return to pre-recession levels). Under any measure, the current labor market conditions represent a significant challenge across the spectrum of economic and social concerns. See Figure 4.

FINANCIAL MARKETS

While equity markets continue to set records, it is clear that expectations of continued quantitative easing by the Federal Reserve bolster stock performance. Continued growth in the U.S. money supply (M1) reflects the impact of three rounds of quantitative easing. The choice to taper or terminate the third round of quantitative easing is likely once the unemployment rate signals a return to the non-accelerating inflation rate of unemployment. See Figure 5.

Underlying the gloomy performance of labor markets is the excessive policy uncertainty that impedes capital investment and slows hiring. A recent economic uncertainty index provides clear evidence of the sustained levels of economic uncertainty inherent in our current economy. Continuing budgetary disagreements, deep uncertainty regarding labor costs due to the Affordable Care Act and unsustainable growth in the federal debt combine to impose significant uncertainty on the U.S. economy. It will persist throughout 2014. See Figure 6.

In 2013, U.S. public debt reached 100 percent of GDP. While there is no apparent trigger point in the effect of debt on slower long-term growth, it is clear that this debt is viewed increasingly as a future tax increase and constitutes a constraining factor on long-term growth.2

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Indiana and the Midwest

The Midwestern states of Illinois, Indiana, Michigan, Ohio, and Wisconsin have experienced an economic downturn and recovery that largely mirrors the national economy. Moreover, these states are expected to see overall growth in GDP similar to that of the U.S. as a whole through 2014. See Figure 7.

The individual state experience in personal income is also similar, with cumulative growth rebounding significantly since the recession. Here, Indiana and Wisconsin are expected to see accelerating personal income growth, while the remaining states will see growth, but at slower rates than in 2012 and 2013. See Figure 8.

Employment growth in the Midwest has likewise failed to fully rebound, mirroring the national labor markets. See Figure 9. Our forecast suggests that no Midwestern state will return to the 2007 levels of employment during 2014.

**MANUFACTURING**

Much of the recovery story in the Midwest involves the remarkable recovery of the U.S. manufacturing sector since the deepest period of the recession. Of particular importance to the Midwest is U.S. automobile manufacturing. For the first seven years of the decade, monthly auto production (expressed in Figure 10 as millions of annual sales) hovered near 17 million cars and light trucks per year, punctuated by small spikes coincident with the 9/11 interest rate cuts and the introduction of the GM Friends and Family program in 2005.

As the economy slid into recession, production of autos declined by more than 45 percent to annual sales of only 9 million by winter 2009. A brief spike during the Cash for Clunkers period in the summer months of 2009 occurred shortly after the darkest days for the industry. The recovery has exhibited strong growth and minimal

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**Figure 7. Annual GDP Growth, U.S. and Selected States, 2006-2013**

![Graph showing annual GDP growth](image)

*Note: Shaded years indicate recessions as determined by the National Bureau of Economic Research.*

*Source: Ball State CBER using data from the Bureau of Economic Analysis, U.S. Department of Commerce.*

**Figure 8. Cumulative Real Personal Income Growth, Fourth Quarter 2007-Fourth Quarter 2014**

![Graph showing cumulative real personal income growth](image)

*Note: Shaded years indicate recessions as determined by the National Bureau of Economic Research.*

*Source: Ball State CBER using data from the Bureau of Economic Analysis, U.S. Department of Commerce.*

**Figure 9. Cumulative Percent Change in Employment, Fourth Quarter 2007-Fourth Quarter 2014**

![Graph showing cumulative percent change in employment](image)

*Note: Shaded years indicate recessions as determined by the National Bureau of Economic Research.*

*Source: Ball State CBER using data from the Bureau of Economic Analysis, U.S. Department of Commerce.*

**Figure 10. Annualized Monthly Sales Data for Autos and Light Trucks, January 2000-October 2013**

![Graph showing annualized monthly sales data for autos and light trucks](image)

*Note: Shaded years indicate recessions as determined by the National Bureau of Economic Research.*

*Source: Ball State CBER using data from the Bureau of Economic Analysis, U.S. Department of Commerce.*

*2013 data includes January-October.
volatility, which is readily attributable to interest rate stability, with the only significant deviation from trend accompanying the rise in oil prices through spring 2011, and the recent increase in interest rates through late summer and early autumn 2013. Still, excess production capacity remains, with production now only at 88 percent of pre-recession levels. See Figure 10.

The effect of constant production growth in automobiles is reflected in consistent real income growth in durable goods manufacturing, which experienced one of the deepest of recession-related declines. In Michigan alone, a decline in durable goods incomes reached 10 percent in one quarter of 2009 as GM and Chrysler declared bankruptcy and automobile production and assembly operations were idled throughout the nation. See Figure 11.

The rebound in the manufacturing sector is an important contributor to growth overall in individual Midwestern states. As manufacturing rebounds nationally, 2013 marks the record year of inflation-adjusted manufacturing production in the United States, with 2014 forecasted to mark yet another manufacturing peak. In Indiana, the full manufacturing recovery occurred a year earlier, in 2012, while Wisconsin, Michigan, and Ohio remained far below their peak production years of the late 1990s. Illinois will not again see a manufacturing production peak until the end of 2014.

A clear example of the divergent paths of manufacturing production within the region is apparent in the changes to the national share of manufacturing production in the local Midwest. Share declines have occurred for Michigan, Ohio, Wisconsin, and Illinois, while Indiana has seen its share of national manufacturing rise across the past decade and a half. See Figure 12.

SUMMARY

Overall economic activity through 2014 will frustrate Americans seeking an end to the economic difficulties that have gripped the nation since winter 2007. Sectoral adjustment will continue to occur, with state and local government employment declining, as will health care in many states. Where health care grows, it is forecasted to expand by less than a half a percent, marking a historical change in health care employment and incomes. Policy uncertainty surrounding the implementation of the Affordable Care Act along with reimbursement and insurance changes will continue to cast a pall over economic activity in this sector. Overall, 2014 marks yet another difficult and uncertain year for the beleaguered U.S. economy. See Table 1.
Central Indiana

Central Indiana (roughly the greater Indianapolis region) is comprised of Boone, Brown, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Putnam, and Shelby counties. The region is home to more than 1.76 million persons with a per capita income of $40,027. Nearly one in three employed Hoosiers work in the region, totaling more than 1.1 million jobs. Since the end of the Great Recession, the region has seen strong population growth of 2.14 percent, per capita income growth of more than 8 percent, and employment growth of 1.8 percent. These are remarkably robust growth conditions, which mark the region as one of the more resilient and growing metropolitan areas in the nation.

THE ECONOMY

The post-recession period has seen strength in most sectors of the Central Indiana economy. In the period from the end of the recession to the most recent data available, we observe significant employment growth in administrative and waste management services; educational services; health care and social assistance; accommodations; transportation and warehousing; real estate services; and professional, scientific and technical services. Also, private sector educational services have seen dramatic growth. Though large, growth in mining and agriculture represents a modest share of regional employment. Other notable areas of growth include retail trade, finance and insurance, and management services. Declines of note occurred in information services; utilities; construction and manufacturing; arts, entertainment, and recreation; and government. See Table 2.

The composition of local economic activity includes large shares of government, education, and health care, which together comprise 35.7 percent of incomes. The heavy reliance on the government and the health care sectors means that the Affordable Care Act may offer risk to the region with uncertain outcomes influencing employment. Indiana currently enjoys a remarkably small state government on a per capita basis and is fiscally more sound than all but a handful of other states. This means that future employment declines in government are unlikely. See Figure 13.

THE FORECAST

The Central Indiana region is forecasted to grow through 2014 at a faster rate than both the nation and state as a whole. We project this region to see GDP growth of 2.4 percent, and growth of more than 13,000 jobs by the end of the year. Personal income will grow by 2.5 percent, led by growth of durable goods manufacturing, construction, trade, and finance. Declines in education and government health care are more modest than in other regions, but are unusual for the otherwise rapidly growing Indianapolis area. See Table 3.

The post-recession period in Indiana is marked by a significant manufacturing rebound. Examining that rebound and trend yields insight

Table 2. Post-Recession Employment Growth, 2010-2013

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percent Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm employment</td>
<td>0.65%</td>
</tr>
<tr>
<td>Forestry, fishing, and related activities</td>
<td>62.36%</td>
</tr>
<tr>
<td>Mining</td>
<td>21.19%</td>
</tr>
<tr>
<td>Utilities</td>
<td>-1.76%</td>
</tr>
<tr>
<td>Construction</td>
<td>-4.04%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-4.32%</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>-0.28%</td>
</tr>
<tr>
<td>Retail trade</td>
<td>1.74%</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>3.64%</td>
</tr>
<tr>
<td>Information</td>
<td>-10.23%</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>1.38%</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>4.39%</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>2.86%</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>0.86%</td>
</tr>
<tr>
<td>Administrative and waste management services</td>
<td>13.30%</td>
</tr>
<tr>
<td>Educational services</td>
<td>10.91%</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>6.81%</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>-2.00%</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>3.20%</td>
</tr>
<tr>
<td>Other services, except public administration</td>
<td>0.35%</td>
</tr>
<tr>
<td>Government and government enterprises</td>
<td>-3.68%</td>
</tr>
</tbody>
</table>


Table 3. Post-Recession Employment Growth, 2010-2013

The composition of Regional Economy, 2013

Source: Ball State CBER using data from the Bureau of Economic Analysis, U.S. Department of Commerce.
into the future of manufacturing growth in the region. In Central Indiana, durable goods manufacturing now exceeds its long-term trend. This suggests that modest new growth in the sector is not likely and that the recession rebound has run its course. New income and job growth in this sector will be due to longer run effects, not the lasting consequences of the Great Recession in Indiana. See Figure 14.

An important note for the Central Indiana region is the enormous structural change which has occurred within the private sector. To understand that we produce a graphic which depicts income earned from regionally ‘exportable’ goods and services and those which are not regionally ‘exportable.’ Over the past four decades, the share of personal income earned in sectors which produce goods exported outside the central Indiana region has dropped from just under half to roughly 20 percent of incomes. The implication from this is that employment growth in Central Indiana will continue to depend more upon the growth of the regional population, and less on attracting firms which produce goods sold outside the region. Greater Indianapolis has been unusually adept at attracting residents, and hence growing new employment in these non-exportable sectors. However, the impact has not been uniform, with the continuing poor performance of Indianapolis Public Schools (IPS) acting to divert new residential expansion and economic activity to the surrounding suburbs. See Figure 15.

The greater Indianapolis region will continue to see its remarkable economic growth continue through this forecast horizon. Growth in population will fuel higher levels of economic activity in sectors which do not export, while the very high levels of educational attainment and amenities within the metropolitan area will continue to draw households of higher than average education and income. The attractiveness of the region to these households will provide the economic engine of Indianapolis.


Table 3. State and Regional Forecast for 2014 (Percent Growth)

<table>
<thead>
<tr>
<th></th>
<th>Indiana</th>
<th>Central Indiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth</td>
<td>2.19%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Labor Market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment gains</td>
<td>57,380</td>
<td>13,258</td>
</tr>
<tr>
<td>Personal Income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>2.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0.8%</td>
<td>0.9%</td>
</tr>
<tr>
<td>Durable goods</td>
<td>3.6%</td>
<td>3.7%</td>
</tr>
<tr>
<td>manufacturing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>3.6%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Health care</td>
<td>-0.1%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>Transportation and</td>
<td>1.9%</td>
<td>1.9%</td>
</tr>
<tr>
<td>warehousing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade (retail and</td>
<td>2.6%</td>
<td>2.6%</td>
</tr>
<tr>
<td>wholesale)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance</td>
<td>2.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Information technology</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Education, state and</td>
<td>-0.1%</td>
<td>-0.1%</td>
</tr>
<tr>
<td>local government</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Shaded years indicate recessions as determined by NBER.


Figure 14. Share and Trend in Durable Goods Manufacturing, 1969-2011

The greater Indianapolis region will continue to see its remarkable economic growth continue through this forecast horizon. Growth in population will fuel higher levels of economic activity in sectors which do not export, while the very high levels of educational attainment and amenities within the metropolitan area will continue to draw households of higher than average education and income. The attractiveness of the region to these households will provide the economic engine of Indianapolis.

**RECENT NEWS AND DEVELOPMENTS FOR CENTRAL INDIANA**

- **MARION COUNTY:** Knowledge Services intends to expand its headquarters, creating up to 400 new jobs by 2018. • Bloomerang, LLC plans to expand its operations in Lawrence through 2015 and plans to create up to 70 new jobs by 2023. The company provides software solutions to non-profits.

- **MORGAN COUNTY:** Indianapolis Power & Light Co. is investing in an environmentally friendly power plant, replacing six coal-fired plants. The 2014-2017 project could create up to 660 jobs during construction.

- **BOONE COUNTY:** Mobi Wireless and HC1.com are asking for financial incentives to expand and create 314 jobs collectively over the next four years. • Hoosier Tool & Die Co. requested tax abatement for new equipment. The investment should create 47 new jobs by 2017. • Sims-Lohman, Inc., a granite countertop manufacturer and cabinet distributor, is investing in a new facility and equipment in Zionsville and will create up to 32 jobs by 2015. • GNC may establish a major distribution center in Whitestown and could create 175 new jobs.

- **HENDRICKS COUNTY:** CarDon & Associates will construct a senior living community in Plainfield. Phase I, skilled nursing beds and assisted living apartments, will create 124 new jobs and should finish in 2015.

Note: Shaded years indicate recessions as determined by NBER.

Source: Ball State CBER using data from the BEA.
About This Forecast

Economic forecasts are designed to provide insight into the expected path of economic activity. The goal is to improve planning for businesses and government. All forecasts are wrong (we can arithmetically predict the number of workers down to the tenth decimal place), but the hope is that they are useful. For example, a business considering expansion into a region may wish to consult the forecasts for population growth for that region. Likewise, a local school corporation considering building additional classroom space might wish to consult that same population forecast. Forecasts like this can be useful in planning because they offer a benchmark from which to assess the current state of the economy. Forecasts also offer the opportunity to examine both recent and longer term changes to an economy. This permits some deeper reflection on the direction of a region’s economy.

NATIONAL MODEL

To perform this forecast we begin with a national forecast model of the U.S. economy. This model, produced by Ray C. Fair, is available at http://fairmodel.econ.yale.edu and is offered to scholars with frequent updates. This model is a traditional econometric forecast model in that assumptions regarding the behavior of agents (households and businesses) follow closely decades of observed behavior. The model assumes that agents adjust their consumption, production, and investment decisions adaptively, and that the speed of this adjustment varies with decisions and time. Thus actual data experience drives the speed of these adjustments. The Fair Model we employ consists of 225 equations to predict key variables of the U.S. economy.

STATE MODEL

The state model we employ is the Indiana Econometric Model, which employs a combination of predicted national variables, historical data on the Indiana economy, and discrete policy or temporal variables (e.g. trends, recessionary periods, time since the passage of the Affordable Care Act) to predict both quarterly and annual changes to the Indiana and Midwestern economies. For the state-level Midwestern economies we employ 213 equation models, for sub-state regions we use a model of 129 equations. The only non-traditional assumption employed in this model is that the Indiana economy is assumed to play no meaningful role on the overall U.S. economy. That is wrong, of course, but relaxing it dramatically increases the computational cost of the estimate without adding significant improvements in the forecast.

“Key regional variables used to predict your local economy are scheduled to be terminated with the upcoming second wave of sequestration in 2014.” – Michael J. Hicks

DATA SOURCES

The data are publicly available from the U.S. Census Bureau, the Bureau of Labor Statistics, the Bureau of Economic Analysis at the U.S. Department of Commerce, and freely available data sources at the Federal Reserve Bank. Much of these data were unavailable from the federal government during the October government shutdown, and the key regional variables used to predict the sub-state regional economy are scheduled to be terminated with the upcoming second wave of sequestration in 2014.

RESEARCH

As a publicly supported university, these forecasts are designed to provide both a tool to businesses and government, but also provide a learning opportunity to students. Much of the data were obtained by student research assistants at the Center for Business and Economic Research and by the Business and Economic Forecasting Group at Ball State University. The forecast models were prepared and run by students, staff, and faculty within these organizations. The design and production of the forecast information was performed by staff and students at the Center for Business and Economic Research.
About the Author

Michael J. Hicks, PhD is the director of the Center for Business and Economic Research and a professor of economics in the Miller College of Business at Ball State University. He came to Ball State following stints at the Air Force Institute of Technology’s Graduate School of Engineering and Management and research centers at Marshall University and the University of Tennessee.

Hicks’ research has focused on issues affecting local and state economics. His work on the effects of federal regulation of energy and mining industries has resulted in testimony in state and federal courts and the U.S. Senate. His research has been highlighted in such outlets as the Wall Street Journal, the New York Times, and the Washington Post. He has appeared nationally on CSPAN, MSNBC, NPR’s “All Things Considered,” and Fox Business News. His weekly column on economics and current events is distributed through newspapers including the Indianapolis Business Journal, the South Bend Tribune, and the Star Press.

About Ball State CBER

The Center for Business and Economic Research (CBER) is an economic policy and forecasting research center at Ball State University. CBER research includes public finance, regional economics, manufacturing, transportation, and energy sector studies. View our latest studies and publications at www.bsu.edu/cber/publications.

The Center produces a suite of web-based data tools (the CBER Data Center) and the Indiana Business Bulletin, a weekly e-newsletter with regularly updated data and commentary on current issues.

In addition to research and data delivery, CBER serves as a business forecasting authority in Indiana’s east central region—holding the annual Indiana Economic Outlook and quarterly meetings of the Ball State University Business Roundtable.

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