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

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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 recession 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 Recession.

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

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
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.

![Figure 11. Quarterly Change in Durable Goods Manufacturing Income, 2008-2014](image)

![Figure 12. Share of National Manufacturing Production in Midwestern States, 1997-2014](image)

![Table 1. State Forecasts for 2014 (Percent Growth)](table)
East Central Indiana

East Central Indiana is comprised of Blackford, Delaware, Grant, Henry, Madison, Randolph, Jay, and Wayne counties. The region is home to more than 490,000 persons and has a per capita income of $30,393. Employment in the region is more than 213,000 workers, which is just under 6 percent of the Indiana total. Since the end of the recession, the population in the region has declined by 0.32 percent (more than 1,500 persons), while employment has declined by 1 percent.

THE ECONOMY

The post-recession period has seen dramatic differences in employment growth in the region. In the period from the end of the recession to the most recent data available, we observe significant growth in transportation and warehousing, private sector education, and health care services. Though large in percentage, growth in mining represents a modest share of regional employment. Other notable areas of growth include the management of companies, which likely comprises employment services. Administration and waste management and real estate/rental/leasing services also grew. Declines of note occurred in utilities, wholesale trade, finance, information services, and government, including state and local education. See Table 2.

Local economic activity contains high proportions of government, education, and health care, which together comprise 45 percent of incomes and more than half of employment. The difficult fiscal environment facing state and local governments, declining student populations in most school corporations within the region and the impacts of the Affordable Care Act combine to dampen growth prospects for the region. See Figure 13.

THE FORECAST

The region is forecasted to grow slowly through 2014, in a continuance of early projections of economic activity. We project this region to see GDP growth of 1.9 percent, but observe very modest employment declines of just over 450 jobs in the region. Personal income will grow by 1.7 percent, led by growth of durable goods manufacturing, while declines in education and government health care and information technology will constrain job growth through the coming year. In each sector, growth in East Central Indiana will be lower than Indiana as a whole, but overall GDP growth will match the lower bound estimate of the national average for 2014. See Table 3.

Durable goods manufacturing in the region is currently close to its long-term trend, suggesting significant future changes are unlikely, and the adjustments of the Great Recession have run their course on durable goods manufacturing in the region. See Figure 14.

An important note for the ECI region is the enormous structural change that has occurred within the private sector. To understand that, we produce a graphic which depicts income earned from

**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>0.69%</td>
</tr>
<tr>
<td>Forestry, fishing, and related activities</td>
<td>0%</td>
</tr>
<tr>
<td>Mining</td>
<td>280.36%</td>
</tr>
<tr>
<td>Utilities</td>
<td>-6.16%</td>
</tr>
<tr>
<td>Construction</td>
<td>-6.65%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1.01%</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>-28.57%</td>
</tr>
<tr>
<td>Retail trade</td>
<td>-2.65%</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
<td>37.00%</td>
</tr>
<tr>
<td>Information</td>
<td>-5.92%</td>
</tr>
<tr>
<td>Finance and insurance</td>
<td>-3.78%</td>
</tr>
<tr>
<td>Real estate and rental and leasing</td>
<td>4.64%</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>-3.49%</td>
</tr>
<tr>
<td>Management of companies and enterprises</td>
<td>8.76%</td>
</tr>
<tr>
<td>Administrative and waste management services</td>
<td>6.15%</td>
</tr>
<tr>
<td>Educational services</td>
<td>21.06%</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>25.27%</td>
</tr>
<tr>
<td>Arts, entertainment, and recreation</td>
<td>-0.73%</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>-2.89%</td>
</tr>
<tr>
<td>Other services, except public administration</td>
<td>-2.45%</td>
</tr>
<tr>
<td>Government and government enterprises</td>
<td>-4.55%</td>
</tr>
</tbody>
</table>


**Figure 13. Composition of Regional Economy, 2013**

Source: Ball State CBER using data from the Bureau of Economic Analysis, U.S. Department of Commerce.
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 that produce goods exported outside the ECI region has dropped by half from two-thirds to less than one-third of the private sector economy. The implication from this is that employment growth in East Central Indiana will continue to depend more upon the growth of the regional population, and less on attracting firms that produce goods sold outside the region. See Figure 15.

As with past forecasts, this projection offers little comfort from the economic difficulties which have immersed the region throughout the Great Recession. However, the current challenges to the East Central Indiana region do not have their primary genesis in the most recent downturn, but reflect a four-decade structural change in the composition of employment and earnings in the region. Locations that will thrive are those that are along the urban fringe and areas within the region that enjoy a strong quality of place and a climate that nurtures human capital. Locations that do not offer these critical amenities will likely see their populations relocate within the region to areas that do, and will therefore continue to observe the regional trend of declining employment and population.


<table>
<thead>
<tr>
<th>Table 3. State and Regional Forecast for 2014 (Percent Growth)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indiana</strong></td>
</tr>
<tr>
<td>GDP growth</td>
</tr>
<tr>
<td><strong>Labor Market</strong></td>
</tr>
<tr>
<td>Employment gains</td>
</tr>
<tr>
<td><strong>Personal Income</strong></td>
</tr>
<tr>
<td>Growth</td>
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<tr>
<td>Manufacturing</td>
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<td>Durable goods manufacturing</td>
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<tr>
<td>Construction</td>
</tr>
<tr>
<td>Health care</td>
</tr>
<tr>
<td>Transportation and warehousing</td>
</tr>
<tr>
<td>Trade (retail and wholesale)</td>
</tr>
<tr>
<td>Finance</td>
</tr>
<tr>
<td>Utilities</td>
</tr>
<tr>
<td>Information technology</td>
</tr>
<tr>
<td>Education, state and local government</td>
</tr>
</tbody>
</table>


**RECENT NEWS AND DEVELOPMENTS FOR EAST CENTRAL INDIANA**

- DELAWARE COUNTY: Dannar LLC, a heavy equipment producer for the government, has announced a new corporate headquarters in Muncie. Estimates include the creation of 288 jobs and a project investment of more than $4 million over the next four years. • Construction is underway on the $60 million commercial development in Muncie, which includes a city-owned parking garage ($5 million) and storefronts and apartment buildings (funded by Indiana Property Advisors). • Dick’s Sporting Goods will open in late 2014 in Muncie and is intended to act as an anchor for other retailers and a restaurant, according to the Muncie Star Press. Total investment in the development is estimated at $12 million.

- GRANT COUNTY: Café Valley will be opening in 2014. The baked goods supplier should create 200 jobs in its first year of operation.

- HENRY COUNTY: The Historic Jennings Building is nearing the construction stage as legal steps wrap up. The New Castle Economic Development Commission plans to issue bonds to finance renovations to transform the vacant building into a mixed-use development with eateries and residential apartments. • New Castle City Council has granted a 5-year tax abatement to Grede New Castle Foundry for an expansion. The company is deciding between the New Castle location and other potential locations. Once the investment is granted, construction is slated for the end of 2014 through 2015. The expansion would allow for the upgrade of a 40 year-old moulding production line, increasing production by 50 percent and creating 10 new jobs.

- MADISON COUNTY: Nestle is expanding its current plant in Anderson. The investment is estimated at $72 million.

- WAYNE COUNTY: Paragon Casket, Inc., a national distributor for casket companies, is making an acquisition of Romark Industries in order to expand operations and will receive a grant from the county’s economic development corporation. • Finance System of Richmond, an accounts receivable management firm, will invest $800,000 in a new facility, which will allow it to expand a new division, RadiologyBill. The development is anticipated to create 42 new jobs by 2016.
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.

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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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