

1 Results That No One Can Ignore

You *Can* Successfully Prepare for an Unknown Future

You and I must make tough decisions with imperfect knowledge. That is what business leaders and investors do every day. The world is an uncertain place, and according to many people, it is an unknowable future. Yet paradoxically, most of us at times assume that current trends, be they financial, cultural, or political, will last into the future. This latter assumption presupposes that we can see the future. It is into the vortex of trends, uncertainties, and risk that we all plunge daily.

You address major decisions regularly. Sixty-five percent of businesses in America employ more than 100 people. We chose the word *people* and this approach over a discussion on labor as a factor of production because the latter is more sterile and would eliminate the often gut-wrenching nature of the decisions you make. Talking about people emphasizes the importance of those decisions and the risk involved in making the wrong decision. The decisions you make will have a direct impact on people's lives.

You are also likely directly or indirectly responsible for the decision making involved in the \$875.1 billion in nondefense capital goods shipments made last year or the \$117.8 billion in capital goods shipments related to the defense industry. Should you make the



capital commitment that could potentially make or break the future of the company?

All decisions involve risk to the health of the firm, to the financial well-being of people who are depending on you, and to your personal wealth and well-being. This book is about how you can minimize the uncertainties and thus minimize the risk in decision making and prosper. We show you that you can have 94.7 percent confidence in what the economy will be doing and that you can prosper professionally and personally with that knowledge through both the short and the longer term.

You are also no doubt an investor to one degree or another and have an interest in the \$18.7 trillion U.S. stock market. The decisions you make here are extremely important to your future success and wealth. Later in the book we present investment ideas that are age specific and driven by a solid, reasoned view of the economic future of the United States and its major trading partners. The world will face some significant difficulties, but you and your family can be financially successful.

We argue that common perceptions can result in misallocation of resources and unnecessary worry. People were obsessed with China supposedly stealing all of our manufacturing jobs and in the process growing to be the largest economic country in the world. Neither proved to be true. Some people did indeed make money on this assumption in the past, but clinging to this assumption can lead to expensive capital expenditure or personal investment mistakes. The current reality is that manufacturing as a percent of gross domestic product (GDP) is on the rise in the United States. The China-manufacturing fixed-trend assumption makes it nearly impossible to get an accurate view of the future. How can anyone put together a three- or five-year plan for company growth, or a winning investment strategy, with a false view of the future?

Low interest rates, burgeoning government debt, and an aging population are but three of the major driving trends we present in this

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book. We discuss which trends we think will last and what individual investors and business leaders should do with this knowledge. Understanding and acting upon these trends are the keys to prosperity in what will likely be an age of global economic decline.

Where Not to Look

Arguably half the battle in successfully gauging the future and prospering in that future comes from not being misled by false signals. Don't waste time analyzing data that aren't relevant or statistically useful. We think it helps to learn where and what not to look at before committing yourself to looking for answers and insight in the right places.

Confidence Indicators

People often use business and consumer confidence indicators as a means of determining the next bend in the economic road. Most of these just do not work well, as you will see in Table 1.1. There are other leading indicators that work very well; we will also discuss those.

Table 1.1 Confidence Indicators to Retail Sales

Series	Correlation	Months
Small Business General Business Conditions Index	0.11	n/a
University of Michigan Consumer Expectations Index—Monthly	0.11	10
Small Business Sales Expectations Index	0.28	2
University of Michigan Consumer Expectations Index—Rate-of-Change	0.28	7
Conference Board Consumer Confidence Index	0.50	4
Small Business Optimism Index	0.58	11





Popular confidence indicators include the:

- Conference Board Consumer Confidence Index
- University of Michigan Consumer Expectations Index
- Small Business Sales Expectations Index
- Small Business General Business Conditions Index
- Small Business Optimism Index

A quick word of explanation is in order regarding Table 1.1. Unless it is specifically stated otherwise, we used rate-of-change methodology for the comparisons. This allows for a smoothing of trend lines and thus an easier discernment of correlation and business cycle pressures. We have attached Appendix A with more information on the determination of rate-of-change and its value in forecasting.

We also show a correlation number. In case it has been a while since you were in school, this is a measure of the association between two variables. A coefficient of 1 means that there is a perfect positive correlation; thus, a change in one series predicts a change in the other series. A coefficient of 0 means the relationship is random. You therefore look for numbers that are closest to +1 or -1 as they will more accurately tell you of a forthcoming cyclical change in the second series. Generally, the closer the correlation coefficient is to 1, the better the results are. High correlations are not foolproof, but they are indicative of tools we can use to anticipate change. Correlations of less than 0.5 are not helpful as they will be wrong as often as they are right in seeing the next turn in the economy, your market, or your company. Pay close attention to this column when deciding if your currently used confidence indicator is worth the effort.

Note that the correlation coefficients are only a tool. We at ITR Economics apply our experience to the process. Two series may seem to have a low correlation coefficient, but it is our job to see whether that is caused by volatility, random spikes, or some unique circumstances in



one of the data series (for instance, a company made an acquisition). However, although the correlation coefficients are subject to interpretation, they will serve our purpose of determining how generally useful each of the confidence indicators is in predicting changes in both retail sales (retail sales drive 67 percent of our economy) and U.S. total industrial production (our benchmark of the U.S. economy in general).

The column marked *months* is the median timing relationship between a high or a low in the hoped-for leading indicator and the subsequent high or low in the second series. You will note the “n/a” in the months column, as the correlation coefficient results show that the data results were meaningless. It is important to note that a lead time of four months or less is still helpful when we are dealing with rates-of-change, but it is best to think of four months or less as confirming input. The change in the direction in the economy is virtually upon you by the time there is confidence that the leading indicator has indeed changed direction versus simply looking at statistical noise. Ideally a lead time of seven months or more will give a business leader time to implement plans for either increased or decreased levels of activity.

In Table 1.1, we have ranked the various confidence indicators from the lowest correlations to the highest using the data commonly reported in print and other media. We think you will be surprised by how some of these well-thought-of indicators actually perform.

You probably noticed a popular indicator on that list—the University of Michigan’s Consumer Expectations Index. This number is produced monthly and followed religiously by the media and many business leaders. As you can see in Table 1.1, the monthly data that are published and followed by many have a very low correlation to retail sales rate of change (0.11), rendering them just about useless. Figure 1.1 shows you how this much-followed monthly trend compares to the retail sales monthly data trend. As you can see, the index will not help retailers, wholesale distributors, or manufacturers anticipate consumer activity.

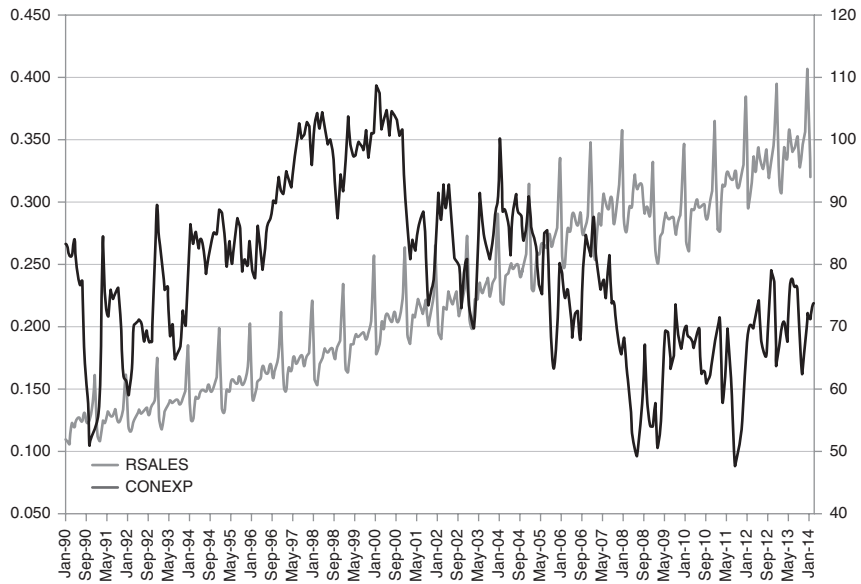


Figure 1.1 Retail Sales (Excluding Auto) to the University of Michigan’s CEI

Table 1.2 examines the results of the monthly confidence index numbers and U.S. Total Industrial Production instead of retail sales (retails sales was used in Table 1.1). The Conference Board Consumer Confidence Index has the highest correlation at 0.85, which is impressive. Unfortunately, it leads turns in the overall economy by only a short four months. The Small Business Optimism Index has a helpful

Table 1.2 Confidence Indicators to U.S. Industrial Production

Series	Correlation	Months
Small Business General Business Conditions Index	0.13	n/a
Small Business Sales Expectations Index	0.25	3
University of Michigan Consumer Expectations Index	0.56	10
Small Business Optimism Index	0.70	6
Conference Board Consumer Confidence Index	0.85	4

Table 1.3 Leading Indicators to U.S. Industrial Production

Series	Correlation	Months
Small Business General Business Conditions Index	0.13	n/a
Conference Board U.S. Leading Indicator—Monthly	0.11	−8
Housing Starts	0.62	8
Purchasing Managers Index—Monthly	0.81	9
ITR Leading Indicator—Monthly	0.83	11
Conference Board U.S. Leading Indicators 1/12 Rate of Change	0.90	4

relationship with the economy, but there is still room for error at 0.70. That makes it useful, but you would not want to depend on it as a prominent forecasting tool, at least not without corroborating input from other leading indicators.

There are other popular leading indicators that are not related to business confidence. Some of these work exceptionally well, and we are happy to introduce them to you. However, while most of the indicators shown in Table 1.3 are popular they do not all work well.

We are proud to say that the ITR Leading Indicator is the best leading indicator based on correlation and lead time. This proprietary indicator is used heavily in our forecasting efforts.

The most consistently reliable results are achieved by using a *group* of leading indicators. Businesses that are positively correlated to the economy can use the ITR Leading Indicator, the Purchasing Managers Index from the Institute for Supply Management, and the Conference Board U.S. Leading Indicator to get a clear look around the next economic corner. None of these relies on business or consumer confidence as sole determinants of what will be, but rather they each use a number of empirical data points.

Table 1.4 Leading Indicators to Europe's Industrial Production

Series	Correlation	Months
Europe Leading Indicator	0.62	11
Europe Export Volume	0.75	-3
Europe Economic Sentiment Index	0.87	3

We have seen that confidence indicators do not work well in the United States. However, they work better in Europe, as the correlation coefficients in Table 1.4 demonstrate. The major drawback is the brevity of the lead time. The best indicator, the Europe Economic Sentiment Index, leads the Europe Industrial Production Index through highs and lows by only three months. It will often take longer than three months to confirm that a trend shift in the indicator has actually occurred. The economy may have changed direction by the time you know the indicator has a confirmed change in direction.

Politics

There is no help in looking to one political party over the other in determining whether the economy is going to be expanding or contracting. A look at the economic history of the United States shows that the economy expands under Republicans and Democrats in equal measure. Sorry, but there is statistically no difference.

It is also popular to believe that the economy is going to expand because it is a presidential election year. Since the inception of the Federal Reserve Board, the economy has been in recession 25 percent of the time, or 25 out of the last 100 years. Presidential election years have been recessionary 34.7 percent of the time based on our studies at ITR Economics. Investors and business leaders should not expect any extra help from the economy just because there is a presidential election.

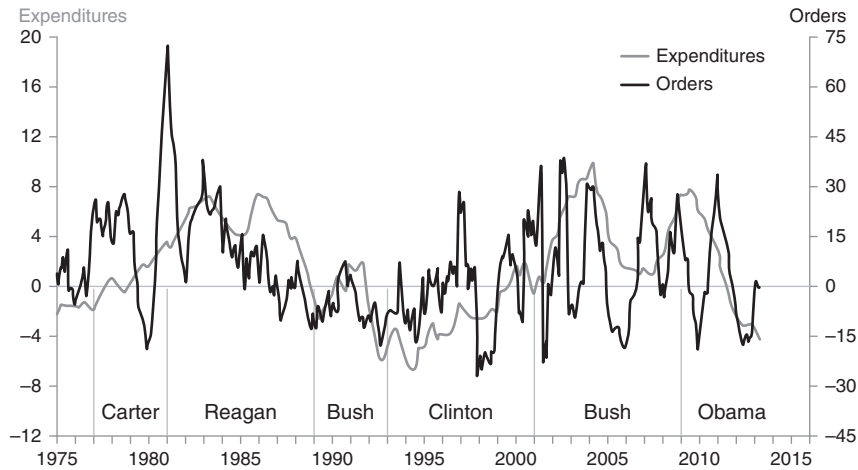


Figure 1.2 National Defense Expenditures to Defense Capital Goods N.O.

There is another popular myth in America that Republicans are good for defense spending and Democrats cut defense appropriations. The president is generally seen as the standard bearer for the party. A Republican in the White House is viewed as good news for the defense industry, and the opposite is true when a Democrat is residing at 1600 Pennsylvania Avenue. This has not been the case in modern times, as Figure 1.2 shows. Yet people will make predictions on the defense industry based on this false assumption. In doing so they may easily find themselves out of position to take maximum advantage of increased spending, or they may find themselves with too much labor and too little cash when the downturn comes.

Federal Reserve Board (The U.S. Version of Central Banks in Other Countries)

The Federal Reserve System, often known simply as *the Fed* or sometimes by the name of the governing body, the Federal Reserve Board (FRB), was created in December 1913, when President Woodrow



Wilson signed the Federal Reserve Act into law. The goal was to provide the nation with a safer, more flexible, and more stable monetary and financial system. The Fed's responsibilities fall into four general areas:

1. Influencing money and credit conditions through monetary policy, effectively done by influencing interest rates and by adjusting the money supply. The overarching goal is to pursue full employment and stable prices.
2. Supervising and regulating banks and other important financial institutions to ensure the safety and soundness of the nation's banking and financial system and to protect the credit rights of consumers.
3. Maintaining stability in the financial system and containing any systemic risk that may arise in financial markets.
4. Providing certain financial services to the U.S. government, U.S. financial institutions, and foreign official institutions and playing a major role in operating and overseeing the nation's payment systems.

These are, of course, important goals in terms of our national economic health and the well-being of individuals. A growing economy creates jobs, but an economy growing too fast can cause inflation or create an asset bubble, such as what we saw in home prices from 2000 to 2007. The Fed therefore strives to keep the economy growing at just the right speed and, if possible, avoid recessions as recessions involve layoffs, the antithesis of job growth.

People, including business leaders and politicians, believe in the Fed's ability to manage the economy. They put a lot of faith in that management and assume that they know when to act and what to do. Reality shows that the Fed has not been particularly good at maintaining a semi-constant growth rate, avoiding recessions, and providing for full employment.



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There have been 18 recessions in the 100 years since the Federal Reserve System became law. Those 18 recessions have resulted in a total of 25 years of decline in industrial production in the United States. (Industrial production is our preferred benchmark for economic activity.) That is 18 times that the Fed either caused a recession to end an inflationary trend that it was charged to prevent in the first place or did not see the downturn coming and failed to act in time. There is a third possibility, and that is that the economy is too large to be controlled despite the enormous power the central bank wields.

Recessions are obviously tough on employment. The last three recessions alone resulted in the loss of 12,732,000 jobs in the private sector. The Fed could not prevent it because its power and abilities are limited in the face of the free-market economy. It is not that it is not competent or that it needs new superpowers; it is a function of complexity and the amazing strength of the free-market system. Any economy that is even somewhat market-driven will experience expansions and contractions. They have been occurring in economies around the world long before the Fed and other central banks were created.

The stated goal of the Fed is to provide stability to the banking system and financial markets. It is reasonable to ask what happened, then, in 2007 and 2008. Where was the Fed? The reality is that it did not see the Great Recession coming, and therefore it failed in its mandate to maintain the soundness of the banking and financial markets.

The end of this megatrend of the 2000s was foreseeable. In July 2007, ITR Economics warned readers through the *ITR Trends Report*TM to head for the exit because stock prices were about to shift into a declining trend. The long slide began a little longer than two months later. Proper preparation saved clients from losing millions of dollars and from lots of sleepless nights.

Please observe the comments and observations of Dr. Bernanke, chair of the Federal Reserve Board, during different stages of his tenure.



You may be among the millions of homeowners who enjoyed the aggressive run-up in home prices after the late 2001 price trough that accompanied the 2001–2002 recession. Many Americans believed a new reality was upon us and that the housing boom was set to continue indefinitely. Dr. Bernanke thought so, too, for in *February 2006* he stated, “Housing markets are cooling a bit. Our expectation is that the decline in activity or the slowing in activity will be moderate, that house prices will probably continue to rise.” Housing prices peaked in June 2006.

In May 2007 Dr. Bernanke said:

All that said, given the fundamental factors in place that should support the demand for housing, we believe the effect of the troubles in the subprime sector on the broader housing market will likely be limited, and we do not expect significant spillovers from the subprime market to the rest of the economy or to the financial system. The vast majority of mortgages, including even subprime mortgages, continue to perform well. Past gains in house prices have left most homeowners with significant amounts of home equity, and growth in jobs and incomes should help keep the financial obligations of most households manageable.¹

You may remember that housing prices began to slide in October 2006 and continued to generally move lower through March 2011.

It was possible to see the upside in housing and foresee the downside. Early in the rising trend, we encouraged our clients to buy more real estate given the good rise ahead.² Housing prices rose in 2003,

¹“The Subprime Mortgage Market” (speech, Federal Reserve Bank of Chicago’s 43rd Annual Conference on Bank Structure and Competition, Chicago, IL, May 17, 2007).

²ITR Economics. *ITR Trends Report*, January 2003, Executive Summary page 1 and analysis on subsequent pages.



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2004, and 2005 by 3.4 percent, 13.8 percent, and 7.5 percent, respectively. By March 2006 we were concerned that our clients were going to get caught in a significant recession and that they should therefore build cash reserves instead of going deeper into debt. We warned that the recession would begin in 2008, extend through 2009, and would be worse than anything in the prior 25 years. The recession began in early 2008, and the trough came in a thin 2.3 percentage points below the 2006 forecast estimate.

In January 2008 Dr. Bernanke said, “The Federal Reserve is not currently forecasting a recession.”³ The downturn in the Industrial Production Index began in November 2007 on a monthly basis and March 2008 on a quarterly moving average basis. GDP peaked in the third quarter of 2008. Even when the recession appeared imminent, the FRB forecast was not reliable. It was in June 2008 at the Boston Federal Reserve’s fifty-second annual economic conference that the chair said, “the risk that the economy has entered a substantial downturn appears to have diminished over the past month or so.”⁴

The Fed and Congress have not stopped recessions or eliminated the inherent risk in the financial systems. They simply cannot because it is an impossible task. It is, therefore, unwise to look to them to provide ongoing stability or accurate forecasts. Two months before Fannie Mae and Freddie Mac collapsed and were nationalized, Dr. Bernanke said they would make it through the storm. He was either misleading the country in an effort to restore confidence or simply not seeing the near future. Either way, it raises the question of credibility and makes us ask why so many people look to the Fed for guidance for their future. The reality is that the Fed is either not particularly good at seeing and/or

³Associated Press, “Bernanke: Fed Ready to Cut Interest Rates Again: ‘We Stand Ready to Take Substantive Additional Action,’ Fed Chief Says,” NBCNews.com, last modified January 10, 2008, www.nbcnews.com/id/22592939.

⁴Craig Torres and Scott Lanman, “Bernanke Says Risk of ‘Substantial Downturn’ Has Diminished,” Bloomberg, June 9, 2008, www.bloomberg.com/apps/news?pid=newsarchive&sid=aH6u3wsqwMFM.



communicating trouble coming at us, nor is it particularly good at containing the risk in financial markets.

The complex financial system cannot be so easily controlled even if the forward view is accurate. We can state that with great certainty because of history. Previous legislative efforts in the United States, Europe, Canada, and elsewhere would have worked to prevent economic and market contractions if it were possible to legislate or regulate economic risk into oblivion, but prior efforts failed, as will future efforts. In the United States we have had 24 stock market corrections since 1913. Past legislative and central bank efforts should have prevented the financial crisis of 2008, yet they did not. Now we have a massive piece of banking and financial legislation commonly known as Dodd Frank. The Fed has also increased its scrutiny and reporting requirements within the banking and finance community, and people believe that this will keep the problems from happening again. Do not be misled; they will happen again. Banks and financial institutions will find new ways to deal with existing laws, and those new ways will introduce more risk into the system until the system breaks once again. No entity can protect us from the results of that risk taking because of the inventiveness and legal astuteness of the high-stakes game of Wall Street banking and investment firms. The system is fluid and central banks cannot anticipate all the creativity in the industry.

Richard Fisher, president of the Federal Reserve Bank of Dallas and a member of the important decision-making Federal Open Market Committee (FOMC) stated in 2012 that “at best, the economic forecasts and interest rate projections of the FOMC are ultimately pure guesses.”⁵ Furthermore, he said that “forecasts issued by the FOMC

⁵“Fed’s Fisher: All FOMC Forecasts ‘Are Guesses,’” *Real Time Economics* (blog), *Wall Street Journal*, Feb 3, 2012, <http://blogs.wsj.com/economics/2012/02/03/feds-fisher-all-fomc-forecasts-are-guesses>.



are tactical judgments of the moment, made within a broader strategic context.” The latter part of this statement means that they may say things that are consistent with the policy they wish to implement. For instance, an inflation dove who wants to keep interest rates low will forecast a low rate of inflation into the future.

Newspapers and Media

Our biggest competitors as forecasters are the *Wall Street Journal*, the *London Financial Times*, and other respected business and financial publications because people think that what appears in print is verifiable, actionable truth; but it's not. Newspapers, even the most prestigious, are not in the business of providing accurate economic forecasts; they're in the business of selling newspapers.

Most print publications have a particular position, point of view, or slant that underlies their reporting of the information they provide. To varying degrees, the same holds true with other media outlets: magazines, journals, television, radio, the Internet, and blogs. Most have certain positions that they seek to advance.

In days gone by, those who reported the news were considered objective, and most folks felt confident that they were reliable. That's drastically changed. As the media has expanded, especially on cable and blogs, many outlets have become specialized and more partisan. Many are dedicated to promoting a particular position or point of view. Some are conservative, others liberal, while others fill all levels between. We don't say this to malign these folks in any way; it appears to be either a part of the accepted culture or perhaps a function of being human.

In addition, we now have media outlets that specialize in business and finance. And each has spawned pundits who can't wait to tell us their opinions on what tomorrow will bring. It can get confusing because these pundits constantly seem to be disagreeing and often



publicly bicker. Many of these media personalities owe their careers more to the fact that they look good, are articulate, and are entertaining rather than to their forecasting accuracy.

ITR Economics Forecast Accuracy

Knowing where not to look is only half an answer. Investors and decision makers need to know where to look. Our firm, ITR Economics, has a stellar long-term accuracy rate. That is why our forecasts and analyses are integral to the strategic planning process in myriad companies across a wide range of industries. (Please go to www.itreconomics.com to see a partial list of our clients.) Companies of all sizes and types can depend on our solid, nonpartisan, objective forecasts. We do not have a political agenda or any other goal except to be right in our projections. Everything we do is done with the single goal of providing our clients with dependable, actionable forecasts.

Our long-term accuracy rate on macroeconomic trends since the 1980s is 94.7 percent.⁶ That is how long we have been stewards of ITR. Table 1.5 and Table 1.6 show our accuracy rates for 2011 for the U.S. and other global markets. Notice the duration column. That is how long the forecast was in place before the end of 2011. For instance, the forecast for U.S. GDP, at \$13.525 trillion, was put in place in June 2010,

⁶We measure the mean absolute percentage error (MAPE) of the 12-month moving average (MMA) or 12-month moving total (MMT), whatever is relevant, of the subject series. The results are adjusted for any data revision to the subject series since the time of the forecast origination. (For example, if the 12 MMA is upward revised by 10 units, we upward revise the forecast by 10 units to account for the data revision before calculating the accuracy rate.)

We line up all the forecast errors for a given length of time (say four quarters away from origination) and then average those percentage errors. The quoted accuracy rate is the inverse of the error rate. So 97 percent accurate four quarters out means there was a 3 percent average deviation from the forecast 12MMA/T and the actual 12MMA/T four quarters out for all series.



**Table 1.5 ITR Economics Forecast Accuracy
2012—United States**

	Duration	Forecast	Actual	
U.S. GDP	18	\$13.525 trillion	\$13.332	(−1.4%)
U.S. ind prod.	11	93.1 (12MMA)	93.8	(0.8%)
EU ind. prod.	11	101.1 (12MMA)	101.2	(0.1%)
CA ind. prod.	21	96.0 (12MMA)	96.0	(0.0%)
Retail sales	18	\$2.116 trillion	\$2.106	(−0.5%)
Housing	17	579 Ths units	607	(4.8%)
Employment	20	\$141.1 million	139.9	(−0.9%)
CPI	17	2.9% Index	3.2%	

**Table 1.6 ITR Economics Forecast Accuracy
2011—Foreign**

Country	Duration	Accuracy
Germany	12	98.0%
France	18	99.9%
Italy	18	99.9%
United Kingdom	18	99.9%
Spain	18	98.6%
China	17	96.7%
Japan	15	95.9%
Brazil	14	96.7%
EU Industries	14	94.1%

18 months before the end of 2011. We had a 98.6 percent accuracy rate 18 months in advance. This is important because other firms constantly update their forecasts. Their forecasts shift up or down throughout the year, leaving their clients wondering what the coming year will actually look like. Our clients had a firm hand on the end of 2011 before the year even began.



**Table 1.7 ITR Economics Forecast Accuracy 2012—
United States**

	Duration	Forecast	Actuals	
U.S. GDP	12	\$13.593 trillion	\$13.648	(0.4%)
U.S. ind. prod.	31	97.2 (12MMA)	97.2	(0.0%)
EU ind. prod.	12	100.4 (12MMA)	98.8	(−1.6%)
CA ind. prod.	8	96.7 (12MMA)	96.7	(0.0%)
Retail sales	30	\$2.186 trillion	\$2.131	(−2.5%)
Housing	6	743 Ths units	780	(5.0%)
Employment	33	\$143.9 million	142.5	(−1.0%)
CPI	9	2.8% Index	2.1%	

Table 1.7 and Table 1.8 present domestic and foreign accuracy for 2012. The U.S. GDP forecast was put in place in December 2011 for the coming year. The year deviated a slim 0.4 percent from what we had estimated a whole year before. Our forecast accuracy for the more than 600 industries spanning the globe had an accuracy of 94.7 percent 12 months out from the forecast date. That is an accuracy our clients can use to their distinct competitive advantage. It is vital to capital expenditure budgets, changes in the labor force, lease negotiations,

Table 1.8 ITR Economics Forecast Accuracy 2012—Foreign

	Duration	Forecast	Actuals	
UK ind. prod.	13	101.2 (12MMA)	99.0	(2.2%)
EU GDP	12	€2.922 trillion	€2.931	(0.3%)
EU ind. prod.	12	100.4 (12MMA)	98.8	(−1.6%)
China ind. prod.	7	472.5 (12MMA)	474.2	(−0.6%)
Mexico ind. prod.	7	121.0 (12MMA)	121.2	(−0.2%)
All industries	12		5.3%	

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and fixed-cost contract negotiations. Accurate forecasts reduce the uncertainty that shrouds the decision-making process for busy business leaders.

Table 1.9 presents ITR Economics' domestic and foreign accuracy for 2013. US GDP came in 0.7% higher than we had projected 12 months before the end of 2013. US Total Industrial Production came in 0.3% below our expectation. The largest deviation, Housing, had a forecast duration of one year and a forecast deviation of -2.3% . While we were much more conservative in our outlook for housing in 2013 than other forecasting firms, we were still a bit too upbeat with actual results coming in 2.3% below our expectations pronounced 12 months ahead of time.

Table 1.9 ITR Economics Forecast Accuracy 2013

	Duration	Forecast	Actuals	
U.S. GDP	12	\$15.818 trillion	\$15.966	(0.7%)
U.S. ind. prod.	10	99.9 (12MMA)	99.6	(-0.3%)
EU ind. prod.	20	101.9 (12MMA)	100.6	(-1.3%)
CA ind. prod.	15	98.7 (12MMA)	97.8	(-0.8%)
China ind. prod.	9	522.6 (12MMA)	520.1	(-0.5%)
Housing	12	945 Ths units	923	(-2.3%)
Retail sales	18	\$2.189 trillion	\$2.200	(0.5%)
Employment	24	\$144.3 million	143.9	(-0.3%)

