ERIE
Economic Research Institute of Erie
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ELI
Erie Leading Index

4TH QUARTER 2018 REPORT

ELI Keeps Calm and Carries On

ELI remains stable despite decreases in Erie manufacturing employment and the U.S. interest rate spread.

ELI Keeps Composure Despite Decreases in Manufacturing Employment and Interest Rate Spread

Even before the polar vortex arrived this winter, it appears that the Erie Leading Index (ELI) was already bracing itself to withstand the howling winds. For ELI stood firm to keep its value unchanged as we headed towards the end of the year, despite a slight decline in the index in the preceding quarter.

That's good news because ELI's movements provide important clues about the state of the local economy in the months ahead.

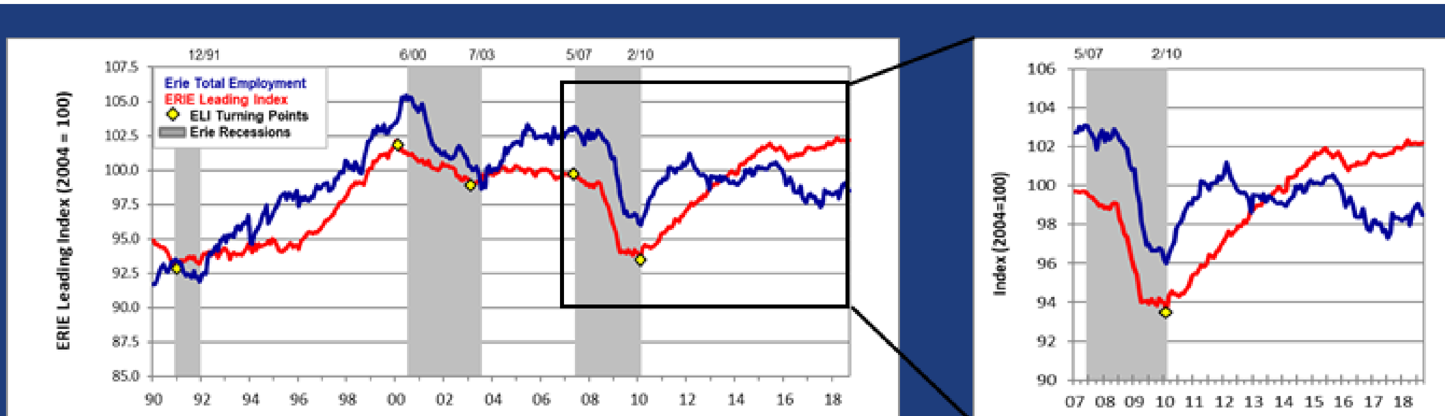
While an increase in ELI would have been even better, the fact that ELI is holding its own suggests that the local economy appears to be stable for now. Of course, it remains to be seen whether ELI will remain steadfast, and perhaps even turn upward once again. ELI's current steady position is still somewhat precarious, however, as the Erie economy continues to adapt to ongoing economic challenges posed by technological change, globalization, and the attendant employment losses, especially in the manufacturing sector.

Indeed, Erie's labor market continues to be somewhat weak. According to end-of-year statistics from the Pennsylvania Department of Labor and Industry, total nonfarm employment in Erie fell by 0.7% (900 jobs) year-over-year in December. During the same period, Erie manufacturing employment fell by 1.1% (200 jobs). After reaching a peak for the year of 19,000 in July, manufacturing employment fell by 0.5% (100 jobs) in the last three months of 2018 to its December level of 18,600.

When these data are adjusted to take account of seasonal patterns in employment, the year-over-year decline in total nonfarm employment is slightly smaller, at 0.6% (800 jobs). However, on a seasonally adjusted basis, Erie manufacturing employment fell by 2.1% (400 jobs) year-over-year in September of 2018.

In addition to manufacturing, several other local sectors also experienced year-over-year employment declines in December: information (– 9.1% or – 100 jobs); retail trade (– 5.2% or – 800 jobs); other services (– 4.9% or – 300 jobs); wholesale trade (– 2.9% or – 100 jobs); transportation & utilities (– 2.9% or – 100 jobs); and local government (– 2.9% or – 300 jobs). Partially offsetting these job losses was some job growth in three other sectors of the local economy year-over-year in December: leisure & hospitality (+2.8% or 400 jobs); mining, logging & construction (+2.4% or 100 jobs); and education & health services (+1.7% or 500 jobs).

Some good news is that the latest preliminary statistics for January 2019 do indicate modest job growth in the local economy compared to a year ago. If this trend continues, it will help further stabilize ELI. In addition, Erie's seasonally adjusted unemployment rate fell from 4.7% in December to 4.1% in January. This was the same as that in Pennsylvania, but slightly higher than the 4.0% rate for the nation as a whole.



*Data through September 2018

Components of ELI

Variable	June	July	August	Sept.	June-Sept.	% Change*	Weights
ERIE Leading Index	**102.20**	**102.15**	**102.16**	**102.20**	**0.00**	**0.00**	**1.000**
U.S. Interest Rate Spread (%)	1.1	1.0	1.0	1.1	-0.04	-3.67	0.304
U.S. Index of Coincident Indicators (2004=100)	103.9	104.1	104.4	104.5	0.60	0.58	0.267
U.S. Real Money Supply (M2) (bill of chained 2009 $)	13,044.7	13,057.7	13,105.0	13,116.8	72.10	0.55	0.182
PA Avg Weekly Hours in Manufacturing (hours)	41.5	41.4	41.2	41.2	-0.25	-0.60	0.073
Erie Manufacturing Employment (thou of jobs)	18.8	18.8	18.7	18.6	-0.14	-0.73	0.086
U.S. TS Freight Index (2000=100)	136.3	135.3	135.3	136.1	-0.20	-0.15	0.050
S&P 500 Stock Index (1941-43=10)	2,754.4	2,793.6	2,857.8	2,901.5	147.15	5.34	0.022
U.S. Building Permits (thou of units)	1,292	1,303	1,249	1,270	-22.00	-1.70	0.016

**Symmetric % change, using the average value of the series in the last quarter as the base. *Changes may differ from hand calculations due to rounding.*

While five ELI components decreased between June and September, the index held steady as the economy headed toward the end of the year.

Like last quarter, the ELI component experiencing the biggest decrease was the U.S. Interest Rate Spread, although the 3.7% decrease in the spread was much smaller than the 18.1% decrease we saw in the previous quarter.

Still, it is key to track this indicator, measured as the difference between the 10-year Treasury bond yield and the short-term federal funds rate. Past research shows a negative interest rate spread (i.e., when short-term rates are higher than long-term rates) may signal an economic downturn.

In the near term, the interest rate spread's decrease may slow since the Fed indicated that fewer short-term interest rate hikes are likely in 2019 due to decreased U.S. economic growth and inflation staying within the target of 2%. Last year, the Fed raised its benchmark federal funds rate four times, but it left rates unchanged in January. It is uncertain whether the Fed will increase short-term interest rates later this year.

Two other components reflecting the national economy also acted to restrain ELI this quarter: the number of U.S. Building Permits fell by 1.7% and the U.S. Transportation Services Freight Index decreased by 0.15%.

Two components reflecting the state and local economy also affected ELI: on a seasonally adjusted basis, Erie Manufacturing Employment fell by 0.7% (137 jobs) and PA Average Weekly Work Hours in Manufacturing fell by 0.6%.

The component that most offset the negatives was an increase in the S&P 500 Stock Index by 5.3%. It's uncertain whether this can continue to boost ELI, since U.S. financial markets displayed more volatility at the year's end.

Also keeping ELI steady and preventing it from falling were modest increases in the U.S. Index of Coincident Indicators and the U.S. Real Money Supply.

One factor that can push ELI in either direction is the national economy. Continued strength of the U.S. economy would generate positive spillover effects on the Erie economy, while a slowing national economy could create adverse consequences. That's because the national economy tends to lead the local economy.

The U.S. economy is still showing considerable, albeit attenuated, strength. Early estimates by the U.S. Bureau of Economic Analysis indicate that U.S. real gross domestic product or GDP, a broad measure of aggregate production and output, increased at an annual rate of 2.6% in the fourth quarter of 2018, following a 3.4% increase in the third quarter and a 4.2% increase in the second quarter.

If the pace of U.S. economic growth continues to slow, this may add to existing uncertainties in the coming months related to international issues such as trade and Brexit and domestic debates over fiscal and regulatory policy.

Fed: Fewer interest rate hikes are likely in 2019!

Trends and Implications for Different Sectors of the Erie Economy

Goods-Producing Sectors

Mining, Logging, and Construction:

After rising by 27% (1,000 jobs) in the first eight months of 2018, employment in this sector fell by 10.6% (500 jobs) by December, as winter approached. However, employment is still up by 2.4% (100 jobs) year-over-year in December and currently stands at 4,200. Regulatory, environmental, and trade policy, including the new US-Mexico-Canada trade agreement, may affect this sector.

Manufacturing:

Employment in this sector rose to a peak for the year of 19,000 by July, but has fallen back to 18,600 in December. This represents a decline of 1.1% (200 jobs) compared to a year ago. Rapid changes in technology, globalization, and government policy will continue to affect this sector, as will the new US-Mexico-Canada trade agreement.

Plastics & Rubber Products Mfg:

Employment in this sector remained quite stable throughout 2018 and stood at 4,400 in December, unchanged compared to a year ago. Just as in manufacturing overall, technology, globalization, and government policy can affect this sector. The new Shell cracker plant is expected to boost employment in the long run.

Private Service-Providing Sectors

Wholesale Trade:

Employment in this sector was stable at 3,500 in the first nine months of 2018, but fell in the 4th quarter to 3,400, leading to a year-over-year decline of 2.9% in December. Seasonal expenditure patterns can affect this sector, as can government fiscal, monetary, and trade policies that influence the global supply chain, such as the new US-Mexico-Canada trade agreement.

Retail Trade:

Employment in this sector rose by 3.5% (500 jobs) between January and November of 2018, but dipped in December to 14,600, yielding a year-over-year decline of 5.2% (800 jobs). Government fiscal and monetary policies that affect household disposable incomes can influence this sector, as can growth in the popularity of internet commerce.

Transportation, Warehousing, Utilities:

Despite a few slight dips, employment in this sector began and ended 2018 at 3,300 jobs. However, this represents a year-over-year decline of 2.9% (100 jobs). Seasonal factors, government fiscal and regulatory policies, as well as new technologies that affect the global supply chain can influence this sector.

Information:

This broad sector encompasses the following industries: publishing (including software, traditional, and Internet publishing), motion picture and sound recording, broadcasting (including traditional and Internet), data processing, and information services. In December, sector employment was 1,000, down 9.1% (100 jobs) compared to a year ago. Changes in technology will continue to affect this sector.

Financial Activities:

This sector has been very stable throughout 2018, with the current level of employment remaining at 6,300, unchanged compared to a year ago. Innovations in the financial services industry as well as those in data and information processing will affect this sector, along with government fiscal, monetary, regulatory, and trade policies that affect household and corporate financial decisions.

Professional and Business Services:

Employment in this sector reached 10,500 in May and October of 2018, but fell back to 10,100 in December, unchanged compared to a year ago. Employment in this sector can be affected by changes in government fiscal, monetary, regulatory, and trade policies, as well as structural changes in the local economy that alter the demand for professional services.

Education and Health Services:

Between January and December 2018, employment in this sector rose by 2.8% (800 jobs). Moreover, the current employment level of 29,500 represents a year-over-year increase of 1.7% (500 jobs). This continues to be the largest sector (by employment) in the local economy. Education and health care policy, educational and medical technology, and shifting demographics in the local region, are all likely to affect this sector.

Leisure and Hospitality:

Employment in this sector increased by a robust 7.3% (1,000 jobs) between January and December 2018, reaching a peak of 17,000 in July. The current employment level of 14,700 represents a year-over-year increase of 2.8% (400 jobs). In addition to seasonal patterns, employment is likely to expand with the continued development of the Bayfront and other efforts to promote the Erie region.

Other Services:

Employment in this sector rose in 2018 from 5,900 in January to a peak level of 6,200 in June. But it fell back to 5,800 in December, a decline of 4.9% (300 jobs) compared to a year ago. Changes in the industrial structure of the local economy as well as government policies that affect household disposable incomes and consumption patterns will affect this sector.

Government Sector

As of December 2018, Erie employment in the government sector stood at 16,300, down 1.8% (300 jobs) compared to a year ago. Federal government employment remained unchanged at 1,600 throughout the year and was also unchanged compared to a year ago. Changes in state and local government employment normally occur over the course of the school year. State government employment fell by 18.8% (900 jobs) between April and August before rising back to 4,800 in December, the same level compared to a year ago. Local government employment has also fluctuated during the year, falling during the summer months, with the December employment level of 9,900 representing a decline of 2.9% (300 jobs) compared to a year earlier. Federal as well as state education, fiscal, and regulatory policies may also affect government employment in the local area at all three levels.

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