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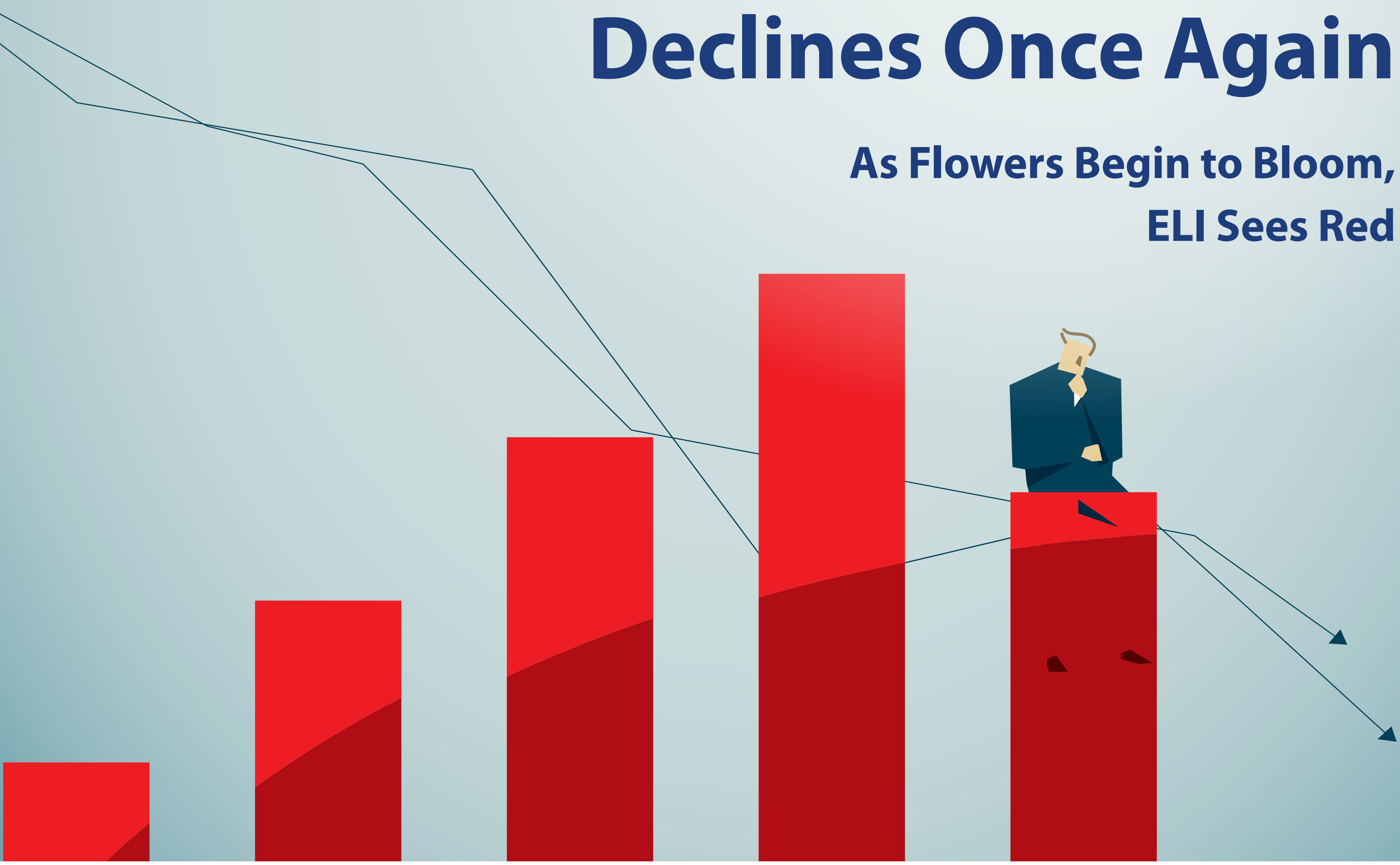
1ST QUARTER 2018 REPORT

After Recovering Last Quarter, ELI Declines Once Again

As Flowers Begin to Bloom, ELI Sees Red



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Decreases in Manufacturing Employment Contribute to ELI's Regression

While spring usually brings a burst of improving weather with slowly rising temperatures, the Erie Leading Index (ELI) has not been following suit. After recovering nicely from a slight dip in mid-2017, ELI has unfortunately reversed course once again, registering a 2.1% decline from September to December. Since ELI's movements provide important clues about the state of the local economy in the months ahead, this latest development is somewhat concerning.

However, ELI has shown remarkable resilience in the past by bouncing back after temporary setbacks. Indeed, in the 3rd quarter of 2017, ELI recorded the highest percentage increase (1.8%) in the seven years since its inception after having fallen by almost one full percentage point in the previous quarter.

A major reason for ELI's most recent decline appears to be the continuing job losses in the local manufacturing sector. The latest statistics released by the Pennsylvania Department of Labor and Industry indicate that employment in Erie's manufacturing sector fell by 2.6% (500 jobs) year-over-year in February. Between September and December of 2017 alone, Erie manufacturing employment fell by 1.2% (220 jobs) on a seasonally adjusted basis. And as G.E. moves locomotive production to Fort Worth, Texas, additional layoffs are expected in Erie this year, along with further uncertainty due to the parent company's plans to sell G.E. Transportation.

The silver lining is that, on a seasonally adjusted basis, the total number of nonfarm jobs in Erie County did grow by a modest 0.4% (500 jobs) year-over-year in February. However, compared to December, the current level of nonfarm employment has fallen by 100 jobs to 128,200.

Overall, these trends reflect the continuing evolution of the Erie economy, as shrinking manufacturing employment is gradually offset by job growth in other local sectors. Erie's manufacturing sector still produces the largest share of the region's total output, accounting for 22.2% ($2.2 billion) of the local economy's real gross domestic product (GDP) in 2016. In contrast, manufacturing output accounts for less than 12% of real GDP at both the state and national levels. However, technological advances, increases in productivity, and globalization have all contributed to reducing manufacturing's share of local employment to 12.8% in 2016 compared to 19.6% in 2001.

The following sectors in the local economy experienced job growth year-over-year in February: mining, logging, and construction (+8.8% or 300 jobs); federal government (+6.7% or 100 jobs); state government (+2.1% or 100 jobs); and education and health services (+1.0% or 300 jobs).

Erie's seasonally adjusted unemployment rate edged up slightly to 5.4% in February, though this is still lower than the 5.9% from a year ago. Erie's labor force also shrank during the year, falling by 1.7% (2,200 individuals) year-over-year in February. Compared to Erie, the seasonally adjusted February unemployment rate continued to be lower in Pennsylvania (4.8%) and the nation as a whole (4.1%).

*Data through December 2017

Components of ELI

Variable	Sept.	Oct.	Nov.	Dec.	Sept.-Dec.	% Change*	Weights
ERIE Leading Index	**97.78**	**97.55**	**96.40**	**95.70**	**-2.08**	**-2.13**	**1.000**
U.S. Interest Rate Spread (%)	1.1	1.2	1.2	1.1	0.05	4.76	0.330
U.S. Index of Coincident Indicators (2004=100)	102.0	102.4	102.6	102.9	0.90	0.88	0.262
U.S. Real Money Supply (M2) (bill of chained 2009 $)	12,121.7	12,146.0	12,141.9	12,172.7	51.00	0.42	0.142
PA Avg Weekly Hours in Manufacturing (hours)	41.8	41.2	41.4	41.0	-0.83	-1.99	0.086
Erie Manufacturing Employment (thou of jobs)	19.3	19.4	19.3	19.1	-0.22	-1.15	0.080
U.S. TS Freight Index (2000=100)	128.4	130.3	131.1	132.0	3.60	2.80	0.057
S&P 500 Stock Index (1941-43=10)	2,492.8	2,557.0	2,593.6	2,664.3	171.50	6.88	0.025
U.S. Building Permits (thou of units)	1,225	1,316	1,303	1,300	75.00	6.12	0.017

**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.*

Given the continued strength of the U.S. economy, it is not surprising that the six ELI components which increased between September and December all measure national economic conditions.

For example, the increases in the U.S. Transportation Services Freight Index, the S&P 500 Stock Index, and the number of U.S. Building Permits all reflect the expansion of the U.S. economy. The nation's aggregate output as measured by real gross domestic product (GDP) grew at a seasonally adjusted annual rate of 3.2% in the third quarter of 2017. Furthermore, the national economic growth rate in the fourth quarter has been revised by the U.S. Bureau of Economic Analysis to 2.9% from 2.5%. These growth rates compare favorably to the U.S. economy's annual growth rate of 2.9% in 2015 and 1.5% in 2016.

This positive news was reinforced by a moderately expansionary monetary policy, which increased the U.S. Real Money Supply slightly (by 0.4%), and by an increase in the U.S. Interest Rate Spread, which rose by 4.8% this quarter after three previous declines. The interest rate spread, which measures the difference between the 10-year Treasury bond yield and the short-term federal funds rate, is key to watch because the U.S. Federal Reserve is expected to nudge up short-term interest rates to prevent the national economy from generating excessive inflationary pressures. Under new chairman Jerome H. Powell, the Fed has already raised the target for its benchmark federal funds rate to a range of 1.5% to 1.75%, and plans to increase interest rates twice more this year. If the recently passed Tax Cuts and Jobs Act provides more fiscal stimulus nationally, this may pressure the Fed to intensify its contractionary policy stance. Increases in short-term interest rates may narrow the interest rate spread. Research has shown that, if the interest rate spread narrows to the point where it becomes negative, this may signal an economic downturn.

Notwithstanding the Fed's policy moves to restrain the economy in order to maintain stable prices (which is part of the Fed's statutory objectives), overall the U.S. economy remains strong.

Unfortunately, the positive trends in the national-level components did not prevent ELI from declining this quarter. That's because the two ELI components that most reflect local economic trends both contracted. On a seasonally adjusted basis, Erie Manufacturing Employment fell by 1.2% while Pennsylvania Average Weekly Hours in Manufacturing shrank by 2.0%.

Despite the drop in ELI, it is too early to sound the alarm bells to warn of an impending recession in the Erie economy. ERIE research suggests that a downturn in the local economy is likely if the 3-month moving average for ELI declines for at least five straight months and is accompanied by a range of other negative factors, including a downturn in the national economy. The good news is that, for now at least, we are not yet at that point.

ELI declines despite continued strength of the national economy.

Trends and Implications for Different Sectors of the Erie Economy

Mining, Logging, and Construction:

As expected, employment in this sector fell as winter arrived. Between December and February, employment fell by 9.8% (400 jobs), but jobs are likely to return when weather warms up. The good news is that employment is up by 8.8% (300 jobs) year-over-year in February and currently stands at 3,700. Changes in regulatory, environmental, and fiscal policy, including the new tax law, may affect this sector.

Manufacturing:

Erie's manufacturing sector employed over 33,000 workers in 2000, but only 18,800 currently. While employment held steady between December and February, it fell by 2.6% (500 jobs) compared to a year ago. A further decline is likely later this year as GE transfers locomotive production from Erie to Fort Worth, TX. Rapid changes in technology, globalization, and government policy also affect this sector.

Plastics & Rubber Products Mfg:

This sector continues to be fairly stable, with employment remaining unchanged between December and February. Employment was also unchanged year-over-year in February and currently stands at 4,400. Just as for the manufacturing sector overall, changes in technology, globalization, and government policy can affect this sector.

Private Service-Providing Sectors

Wholesale Trade:

The wholesale trade sector continues to be stable, as employment remained at 3,700 between December and February. However, employment fell by 2.8% (100 jobs) year-over-year in February. Seasonal spending can affect this sector, as can government fiscal and trade policies. Policies or new technologies that affect the global supply chain can also influence this sector.

Retail Trade:

Employment in this sector fell after the holidays, declining by 7.8% (1,200 jobs) between December and February. Employment also fell year-over-year in February, declining by 2.1% (300 jobs) to its current level of 14,200. Manufacturing job losses and policies that affect disposable incomes, such as the newly-passed Tax Cuts and Jobs Act, can influence this sector.

Transportation, Warehousing, Utilities:

Employment in this sector fell by 5.9% (200 jobs) between December and February, and by 3.0% (100 jobs) year-over-year in February to its current level of 3,200. In addition to seasonal factors, changes in fiscal, trade, regulatory, and environmental policy, as well as events or new technologies that influence or disrupt the global supply chain, can affect this sector.

Information:

This broad sector includes the following industries: publishing (including software, traditional, and online publishing), motion picture and sound recording, broadcasting (including traditional and online broadcasting), data processing, and information services. Employment in this sector fell by 9.1% (100 jobs) year-over-year in February to 1,000. Technology changes will continue to affect this sector.

Financial Activities:

This sector has been stable, with its current employment level of 6,300 remaining unchanged between December and February as well as compared to a year ago. Innovations in data and information processing, as well as changes in U.S. fiscal, monetary, and regulatory policies that affect household and corporate financial decisions, such as the newly-passed Tax Cuts and Jobs Act, will affect this sector.

Professional and Business Services:

Employment in this sector fell slightly by 1.0% (100 jobs) between December and February. Employment also fell by 1.0% (100 jobs) year-over-year in February and currently stands at 10,000. As in most other sectors, employment in this sector can be affected by government regulatory and fiscal policies such as the newly-passed Tax Cuts and Jobs Act.

Education and Health Services:

Employment in this sector has been gradually increasing, rising by 1.4% (400 jobs) between December and February. Employment also increased by 1.0% (300 jobs) year-over-year in February to its current level of 29,400. This is 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:

In addition to the usual seasonal variation, the recent record snowfall may have contributed to the decline in employment in this sector by 3.5% (500 jobs) between December and February. However, employment has grown by 4.5% (600 jobs) year-over-year in February and currently stands at 13,800. Job growth is likely to escalate with the summer tourist season as well as with Bayfront development and other efforts to promote the Erie region.

Other Services:

Employment in this sector dipped by 1.6% (100 jobs) between December and February. However, employment was unchanged year-over-year in February and currently stands at 6,000. Changes in government policy and other events affecting household disposable incomes as well as business and household consumption patterns are likely to influence this sector.

Government Sector

As of February 2018, Erie employment in the government sector stood at 16,500, down 0.6% (100 jobs) compared to December, but up 1.2% (200 jobs) compared to a year ago. Federal government employment remained unchanged between December and February, but increased by 6.7% (100 jobs) to 1,600 compared to a year ago. Changes in state and local government employment normally occur over the course of the school year. For example, both state and local government employment fell between December and January, but rebounded in February. Compared to a year ago, state government employment has increased by 2.1% (100 jobs) to 4,800 while local government employment remained unchanged at 10,100. Federal as well as state education, fiscal, and regulatory policies may also affect local government employment at all three levels.

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