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Canisius College Richard J. Wehle School of Business

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The BEA earnings report, which has historically served as the basis for our projection of the region's economic health, has been released for the year 2013. This issue of *WNY Economic News* focuses on the relationship between the regional economies of Western New York and the national economy. The internet links for this newsletter are available at http://www.canisius.edu/wnyeconomicnews.

The National Economic Outlook

The advance estimate of 2015:Q1 real GDP growth was only 0.2% after having increased by 2.2% during 2014:Q4. Growth rates of real GDP from 2007:Q1 to the present are shown in Figure 1. The economy's poor performance can be blamed on three factors. The first is the impact that the appreciating dollar has had on imports and exports. The deterioration in the trade balance during the quarter compared to 2014:Q4 shows exports declining by \$39 billion while imports increased by \$11 billion. The second factor is the poor winter weather with the series of east coast storms that slowed business. The third factor cited for the slow growth is the rapid decline in the price of crude oil that brought declining oil sector investment and an associated loss of jobs. The price per barrel of West Texas Intermediate crude since July 1, 2014 is shown in Figure 2. Crude prices declined by more than 59% from their June 20, 2014 peak of \$107.95 per barrel to their trough of \$44.08 on January 28, 2015. Prices then recovered before reaching a second trough of \$44.02 on March 19, 2015. This rapid decline caused US oil producers to curtail operations as crude prices declined to levels that made production unprofitable.

The economy's job creation slowed over the first three months of 2015 to an average of 197,000 jobs per month after having added 260,000 jobs per month in 2014 (see Figure 3). This pattern was reversed with the April jobs report that showed employment increased by 223,000 accompanied by the unemployment rate falling to 5.4%. Monthly payroll employment in the Western New York region over the first three months of 2015 has grown by an average of 7,633 compared to the employment levels in the first three months of 2014. Previously, the WNY economy added an average of 3,400 jobs per month in 2014 compared to 2013. The national unemployment rate stood at 5.5% in March 2015 and was 5.9% in the Buffalo area. Labor force participation rates have continued to decline both nationally and locally, casting doubt on the reliability unemployment rates as an indicator of the health of labor markets.

The Wehle School of Business at Canisius College publishes the *Western New York Economic News* as a public service to the Western New York community with research and analysis performed by **George Palumbo, Ph.D. - Professor of Economics & Finance** email: palumbo@canisius.edu **Mark P. Zaporowski, Ph.D. - Professor of Economics & Finance** email: zaporowm@canisius.edu

Figure 1. Real GDP Growth Rates: 2007:Q1 - 2015:Q1

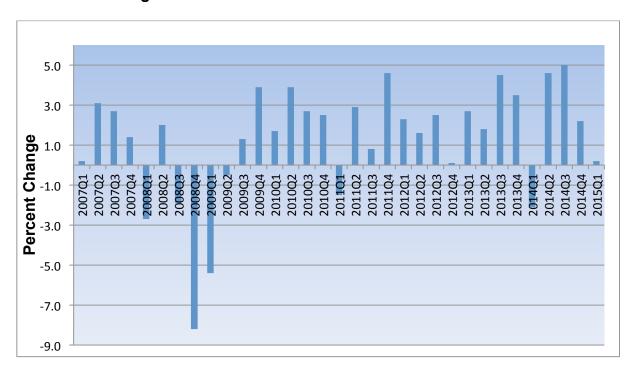


Figure 2. Price of West Texas Intermediate Crude Oil

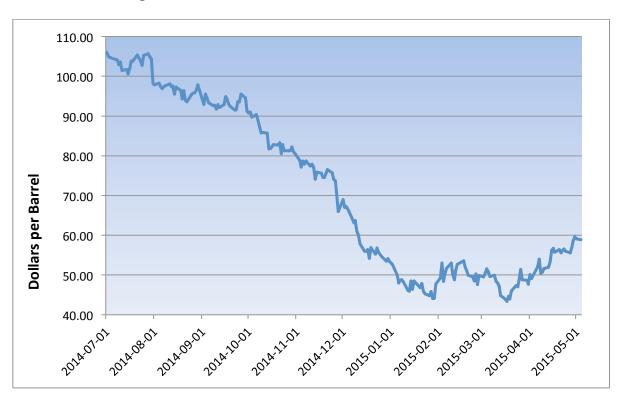


Figure 3. Monthly Change in Total Non-Agricultural Employment (2008-2015)

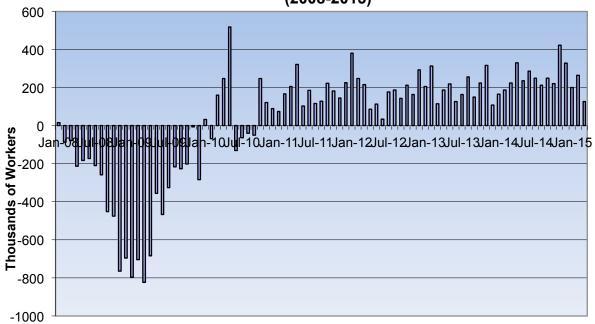
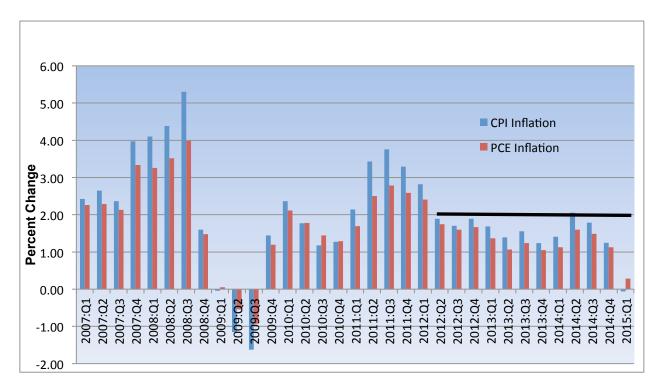


Figure 4. Consumer Price Index & Personal Consumption Expenditure Inflation Rates: 2007-2015



Financial markets continue to keep a close watch on the Federal Reserve for indications of when interest rates will return to more normal levels. Yields on 10 year U.S. Treasuries have remained in the 2% range due to a subdued inflation outlook and Federal Reserve policy that remains accommodative. The CPI inflation rate has been negative (-.06%) over the first three months of 2015 while the Personal Consumption Expenditure Deflator showed an inflation rate of only .28% (see Figure 4). These inflation rates are significantly below the FED's comfort zone of 2% and raise the specter of deflation.

The Economic Outlook for the Buffalo Region

Regional personal income figures for the year 2013 were recently released by the BEA http://www.bea.gov/regional. Real Personal income growth rates (2009\$) over the period 2007-2013 are shown in Table 1 along with 2013 per capita income. Both Buffalo and Rochester weathered the Great Recession of 2008-2009 better than the nation as a whole on the basis of real personal income growth. For Buffalo, this trend continued in 2010 though it returned to its historic pattern of growing more slowly than the rest of the nation subsequent to 2010. Rochester's personal income growth was worse than the nation in 2010, 2011 and 2013, but outperformed the nation in 2012.

Table 1

Real Personal Income Growth Rates: U.S. Buffalo & Rochester MSAs

		Buffalo	Rochester
Year	US	MSA	MSA
2007	2.40	2.66	2.50
2008	-0.21	0.34	1.85
2009	-2.41	1.17	-0.54
2010	1.17	1.31	0.84
2011	2.97	2.46	2.67
2012	3.06	2.54	4.08
2013	0.54	-0.37	-0.27
2014	2.31	1.51	1.43
2013 per capita	** ** ** ** ** ** ** **	* 44.004	\$45.000
income	\$44,713	\$44,301	\$45,692

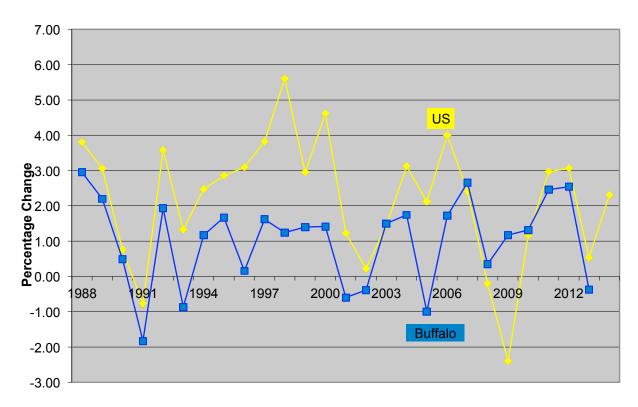
Real personal income growth rates for the Buffalo and Rochester MSA's since 1988 are shown in Figures 5a and 5b. It is likely that both Buffalo and Rochester experienced moderate real personal income growth in 2014, although at a slower rate than the nation. A prediction for 2015 is difficult due to the poor US economic performance in 2015:Q1, which is alternatively explained as a reflection of a very harsh winter, or the beginning of a stagnant economy. In either event, it seems imprudent to base annual projections for 2015 on first quarter performance.

To forecast real personal income growth in Buffalo and Rochester, two least squares regressions were performed where the Buffalo and Rochester growth rates were regressed on the U.S. growth rate. The data contained annual observations over the period 1980-2013. The results of these regressions are as follows:

Buffalo Growth_t = -.52 + .65 US Growth_t
$$R^2 = .50$$
 (1.54) (5.68)
Rochester Growth_t = .06 + .62 US Growth_t $R^2 = .45$ (.17) (5.13)

The numbers in parentheses are absolute values of the t-ratios. The R² is the coefficient of variation, representing the proportion of local growth in real personal income that is explained by national growth rate. The slope coefficients are statistically different from zero at the 1% significance level in both regressions, but the intercepts are not. The projected growth rates for real personal income in 2014 for Buffalo and Rochester appear in blue script in Table 1.





7.00 6.00 5.00 4.00 US Percentage Change 3.00 2.00 1.00 Rochester 0.00 988 1991 1994 1997 2000 2003 2006 2009 2012 -1.00 -2.00 -3.00

Figure 5b. Real Personal Income Growth Rates: US v. Rochester

Per capita personal income for Buffalo and the U.S. is shown in Figure 6a. Buffalo per capita income caught up to the nation in 2009 and has closely mirrored it since. Rochester per capita personal income caught up to the nation in 2009 and has grown faster than the nation since (see Figure 6b).

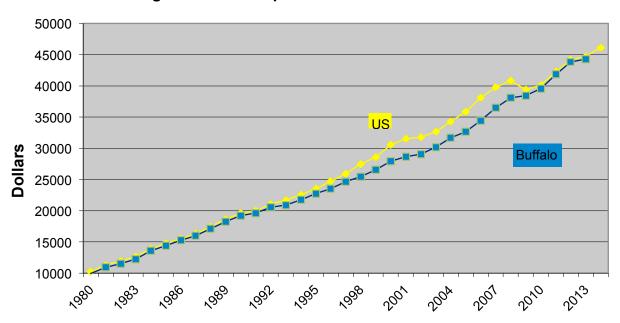


Figure 6a. Per Capita Personal Income: US v. Buffalo

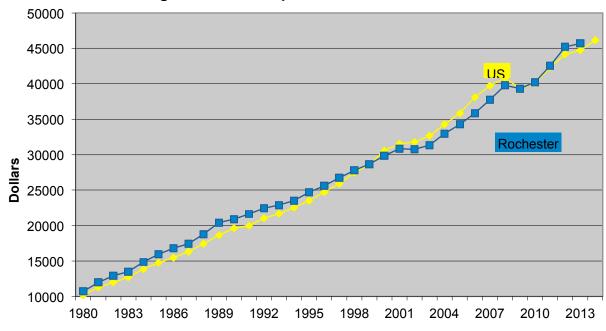


Figure 6b. Per Capita Personal Income: US v. Rochester

The relationship between average weekly wages in the Western New York regional economies and the nation for 2001-2014 is presented in Figure 7. The chart uses BLS data from the most recent *Quarterly Census of Employment and Wages (QCEW)*, http://www.bls.gov/cew/. The data is for the central counties of the Buffalo and Rochester MSAs and is compared to national totals. Over the period 2002-2008, the gap between weekly earnings in Erie and Monroe Counties versus the U.S widened. The gaps narrowed slightly in 2009, widened over the period 2010-2012, and narrowed in 2013 and 2014.

QCEW data for Erie County shows that over the period 2001 - 2014, the average annual growth rate in wages per worker was 2.45% for all industries in the region versus 2.49% for the nation as a whole. The average rate of change in annual employment over the period 2001 - 2013 was 0.1% in Erie County versus 0.44% in the nation as a whole. For Monroe County, the average annual growth in wages per worker amounted to 1.97%, while the rate of change in annual employment amounted to -0.45%.

The changing nature of the Buffalo and Rochester metropolitan areas is show in Table 2 below. The often discussed decline in the manufacturing sector is evidenced by 40% and 36% declines in durable goods activity for Buffalo and Rochester respectively. Interestingly, non-durable goods activity fell by 41% in the Rochester MSA compared to a 13% decline in Buffalo. Strong growth sectors include professional services as well as educational and health services, which had growth in activity between 20% and 30% over the period. Finance, insurance and real estate grew 6% in Buffalo and 17% in the Rochester MSA.

Figure 7. Average Weekly Wages: U.S., Erie County, Monroe County (2001-2014)

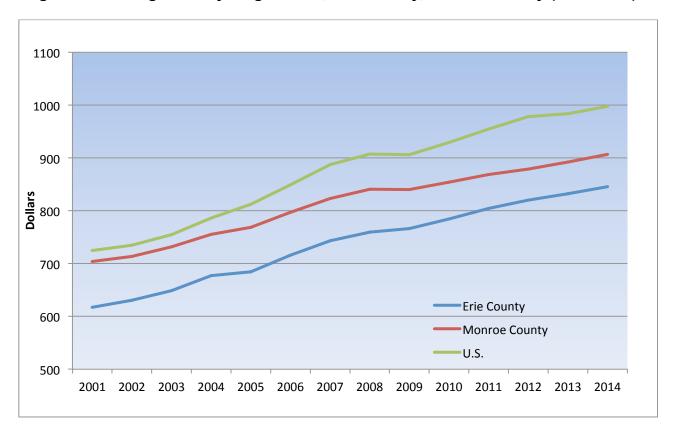


Table 2
Changing Patterns of Industrial Concentration in the Buffalo and Rochester MSAs

	% of TOTAL PRODUCT			
	Buffalo MSA		Rochester MSA	
	2001	2013	2001	2013
Industrial Sector				
Construction	3.5%	3.5%	3.81%	4.52%
Manufacturing	20.4%	14.8%	28.00%	17.13%
Durable goods manufacturing	11.1%	6.6%	12.47%	7.98%
Nondurable goods manufacturing	9.3%	8.1%	15.5%	9.2%
Finance, insurance, real estate, rental, and leasing	15.7%	16.7%	11.3%	13.2%
Professional and business services	9.5%	12.1%	9.6%	11.8%
Educational services, health care, and social assistance	8.6%	10.4%	9.6%	12.7%
Government	15.6%	16.2%	11.6%	12.8%

NATIONAL, STA	TE & LOCAL	. DUSINES	INDICATO	JNO	0/ -1
NATIONAL INDICATORS					% change
NATIONAL INDICATORS	2014:1	2014:III	2014:IV	2045.1	2014:I - 2015:I
Deal CDD (billions of shained 2000th) (1)(a)				2015:I	
Real GDP (billions of chained 2009\$) (1)(a)	15,831.7	16,205.6	16,294.7	16,304.8	3.0
US Personal Income (billions of \$)	14,484.7	14,811.2	14,958.1	15,106.7	4.3
					% change
					Mar-14 -
	Mar-14	Jan-15	Feb-15	Mar-15	Mar-15
Consumer Price Index (1982-84=100) (2)	236.293	233.707	234.722	236.119	-0.07
Exchange Rate Canadian cents/US \$ (3) (b)	110.510	127.310	125.120	126.850	14.79
10 Year Treasury Note Yield (%) (3) (b)	2.721	1.644	1.995	1.925	-0.796
3 Month Treasury Bill Yield (%) (3) (b)	0.036	0.015	0.018	0.038	0.002
S&P 500 Stock Index (3) (b)	1,872.34	1,994.99	2,104.50	2,067.89	10.44
Dow-Jones Industrial Average (3) (b)	16,457.66	17,164.95	18,132.70	17,776.12	8.01
LABOR MARKET TRENDS (2)	0000000		0000		
Nonag Civilian Employment					
US (1000's)(a)	138,055.0	140,793.0	141,057.0	141,183.0	2.27
NY State (1000's)(a)	9,041.3	9,168.2	9,182.1	9,190.3	1.65
WNY (1000's)	543.7	545.2	549.5	551.6	1.45
Unemployment Rate (%)					
US (a)	6.6	5.7	5.5	5.5	-1.1
NY State (a)	6.6	5.8	5.8	5.7	-0.9
WNY	7.0	6.7	6.4	5.9	-1.1
Ave. Weekly Hours in Mfg. US (a)	42.0	42.1	41.9	41.8	-0.48
Ave. Weekly. Earnings in Mfg. US (\$)(a)	819.84	826.84	824.59	823.88	0.49
US Private Employment (1000's)(a)	116,229	118,892	119,156	119,285	2.63
WNY EMPLOYMENT BY SECTOR (1000's)	(2)				
Mining, Logging & Construction	16.8	18.0	17.8	18.4	9.52
Manufacturing	51.9	51.0	51.1	51.8	-0.19
Trade, Transportation & Utilities	99.9	102.6	101.3	101.2	1.30
Durable Goods	32.2	32.1	32.2	32.7	1.55
Finance Activities	32.0	33.0	32.8	32.6	1.88
Government	90.9	88.3	90.3	90.3	-0.66
(1) US Dept. of Commerce	(a) Seasonally Adjusted				
2) US Dept. of Labor (b) End of month data		nth data			
(3) Wall Street Journal					