Report of the
CONSENSUS ECONOMIC FORECASTING COMMISSION
February 1, 2018

Commissioners

John C. Atkinson

Dr. Sheena S. Bunnell
Professor of Business Economics
University of Maine Farmington

Andrew N. Marden
Buyer/Merchandiser
Marden's

Eric N. Stinneford, Chair
Vice President – Controller and Treasurer
Central Maine Power Company

Summary

The Maine Consensus Economic Forecasting Commission (CEFC) convened on January 26, 2018, to review and revise the forecast through 2021 and to additionally forecast through 2023. Two additional recession scenarios of varying severity were identified to meet the Commission's new statutory requirement. This report provides a summary of the Commission's findings.

Both the national and state economies appear to have had a good year in 2017. There are limited new data points available since the CEFC last met in October 2017, but additional data on the performance of the economy last year indicates that GDP and personal income both grew. However, oil and gasoline prices have been trending upward recently as well.

The Commission made modest changes to the existing forecast for employment and more substantial revisions to the forecast for personal income, while leaving forecasts for inflation and corporate profits largely untouched. Many of the revisions to personal income components were based on anticipated results from the Tax Cuts and Jobs Act. While there has been more positive data on in-migration recently, the Commission remains concerned about the demographic situation in Maine and the resulting impacts on workforce availability.

The forecast for wage and salary employment growth was left unchanged for 2017, 2020, and 2021 and revised upward for 2018 and 2019 based on data showing stronger than expected recent in-migration and employment growth. The new forecast reaches 627,100 in 2019 and remains at that level for 2020-2023. CPI was revised slightly downward for 2017, from 2.4 percent to 2.1 percent, with the release of actual 2017 data from the U.S. Bureau of Labor Statistics, while the remaining years through 2021 were left unchanged and both 2022 and 2023 were forecast at 2.2 percent. Total personal income was revised upward by 0.4 percentage points in 2017 based on information from Maine Revenue Services and Maine Department of Labor regarding wage growth through the year. The forecasts for 2018, 2019, and 2020 were revised upward by 1.3, 0.8, and 0.1 percentage points, respectively, largely due to influences of the Tax Cuts and Jobs Act. 2021 was revised downward by 0.1 percentage point. Both 2022 and 2023 were forecast at 3.1 percent. Wage and salary income growth for 2017 was revised upward by 1.0 percentage points due to preliminary data from Maine Revenue Services and Maine Department of Labor. The forecasts for 2018 and 2019 were revised upward by 1.4 and 0.2 percentage points, respectively, due to the reasons outlined above. The forecast for 2020 was left unchanged and the forecast for 2021 was revised downward by 0.2 percentage points. Both 2022 and 2023 were forecast at 3.0 percent.

The table below provides the forecast's major indicators.

Calendar Years	*2016*	2017	2018	2019	2020	2021	2022	2023
Wage & Salary Employment (Annual Percentage Change)								
CEFC Forecast 11/2017	*1.1*	0.8	0.2	0.0	0.0	0.0		
CEFC Forecast 02/2018	*1.1*	0.8	0.4	0.4	0.0	0.0	0.0	0.0
Personal Income (Annual Percentage Change)								
CEFC Forecast 11/2017	*3.0*	3.0	3.1	3.5	3.8	3.8		
CEFC Forecast 02/2018	*3.0*	3.4	4.4	4.3	3.9	3.7	3.1	3.1
Wage and Salary Income (Annual Percentage Change)								
CEFC Forecast 11/2017	*3.2*	3.0	2.9	3.7	3.7	3.7		
CEFC Forecast 02/2018	*3.2*	4.0	4.3	3.9	3.7	3.5	3.0	3.0
CPI (Annual Percentage Change)								
CEFC Forecast 11/2017	*1.3*	2.4	2.5	2.3	2.5	2.4		
CEFC Forecast 02/2018	*1.3*	2.1	2.5	2.3	2.5	2.4	2.2	2.2

In deliberations leading to consensus, the CEFC considered information presented by several state agencies, including the Maine Department of Labor, Maine Revenue Services, and by the Maine State Economist at the Department of Administrative and Financial Services (DAFS). The following sections summarize these reports.

Maine State Economist (Department of Administrative and Financial Services)

Maine's real GDP grew 0.5% in the second quarter of 2017. Personal income in Maine grew 2.0% from the first three quarters of 2016 to the first three quarters of 2017, while wage and salary income, which is the largest component of total personal income, grew 1.8% over the same period. The debt-to-income level for Maine businesses and households continued to rise to new levels in the third quarter of 2017. The Consumer Price Index was up 2.1% in December 2017 from a year ago, boosted by recent increases in energy prices.

Nationwide, consumer sentiment has remained relatively stable in recent months. The December 2017 level was down 2.3% from a year ago and down 2.6% from November 2017. Small business optimism has also been fairly stable in recent months, down 2.4% from the previous month in December 2017 and down 0.9% year over year.

The price of crude oil has continued increasing recently with prices in the fourth quarter of 2017 up 17%. As a result, heating oil prices and gasoline prices have been higher as well. Heating oil is around $2.96 per gallon while gasoline is currently averaging $2.67 per gallon.

Existing single-family home sales in Maine were up 11.5% in November 2017 compared to the same month last year and housing permits for the December 2016 – November 2017 year were 9.4% higher than the previous 12-month period. The median home price in the Portland-South Portland Metropolitan Statistical Area (which encompasses all of York, Cumberland, and Sagadahoc counties) increased 6.0% year-over-year in the third quarter of 2017. Mortgage delinquency rates in Maine have been declining but remain higher than the national rate. The foreclosure rate in Maine was 0.38% in the third quarter of 2017.

Full background materials are available at:
http://www.maine.gov/economist/state/forecast.html

Maine Department of Labor

Labor market conditions in Maine are very tight. December's 3.0% unemployment rate estimate was historically low, at or below 4.0% for the 27th consecutive month, the second longest such stretch on record. All six measures of labor underutilization for Maine reached series lows in 2017. Labor market tightness appears to be the reason the rate of job growth has slowed over the last two years.

Total wages paid (not inflation adjusted) were up 3.8% in the first three quarters of 2017 compared to the same period a year earlier. If the fourth quarter rise is similar to previous years, the total may reach $26.7 billion for the year. Adjusted for inflation, the average wage per job continues to rise at the fastest rate in nearly two decades.

The minimum wage increased to $10 per hour on January 1. The number of workers earning less than $10 per hour has declined sharply since 2013. In 2016 there were an average of 59,000 workers who earned less than $10 per hour in their primary job. Data for 2017 is not yet available. We estimate there were 52,000 workers who earned less than $10 per hour who received an increase in their hourly rate of pay at the beginning of the year.

The natural change in the population (births minus deaths) remains negative, a trend we expect to continue for some time. There will be record numbers of retirements over the next 15 years – the point at which more people will retire than enter the workforce is getting closer. More positively, net-migration to the state has been on the upswing, likely driven by higher wages and stepped-up efforts by companies and business associations to recruit working-age people to the state.

The Center for Workforce Research is currently developing a 10 year workforce forecast for the period from 2016 to 2026. The job growth outlook depends on changes in the rate of labor force participation and in net-migration among those age cohorts that are most attached to the labor market. We expect rising labor force participation in nearly all age groups, but declining total participation rates as a rising share of the population reaches retirement. There are a number of plausible scenarios on participation and migration. In the ones that seem most plausible, employment rises modestly over the next few years, followed by a period of little change.

The presentation is available at
www.maine.gov/labor/cwri/publications/pdf/CEFC%20January%202018.pdf.

Maine Revenue Services - Office of Tax Policy

December General Fund revenues were over budget by $26.9 million or 10.7 percent. For the first half of fiscal year 2018, General Fund revenues are $39.6 million over budget (+2.3 percent). Compared to the same six-month period of last fiscal year, fiscal year 2018 General Fund revenues are up by 3.2 percent (+$55.7 million).

November taxable sales (December revenue) increased 8.3 percent over last year. For the month, sales and use and service provider taxes, combined, were $4.9 million over budget. It appears that the robust taxable sales growth in November was aided by sales related to the wind storm at the end of October. Building supply sales increased by 12.4 percent, year-over-year, and lodging sales increased by 24 percent. Lodging sales were up across many parts of the state, and there is no other explanation for November sales growth of that magnitude. Many automobiles were severely damaged in the storm and may have helped push sales up by 7.2 percent. Areas traditionally associated with holiday shopping, such as general merchandise and other retail sales, were up 14.4 and 4.8 percent, respectively. Restaurant sales also were solid in November, increasing by 7.1 percent compared to a year ago. Overall year-over-year consumer sales growth of 8.8 percent in November, even after adjusting for the effects of the wind storm, was strong and indicative of a good start to the holiday shopping season.

Individual income tax revenues were over budget in December by $21.4 million. Estimated payments were the major source of the monthly positive variance, over budget by $16.6 million; a 50 percent increase over last December's payments. The final estimated payment is not due until January 15, 2018, but many taxpayers pre-pay their state estimated payment in December to get the itemized deduction on their federal tax return. The limitation on the state and local tax (SALT) deduction included in the federal Tax Cuts and Jobs Act resulted in many taxpayers expecting to be subject to that limitation deciding to shift payments into December. Estimated payments postmarked by December 31, 2017, and received during the first week of January were up over 200 percent compared to the same period a year ago. It is unclear how much of these payments are based on stronger than projected 2017 taxable income versus a timing in payments that will reduce budgeted final payments in April. Withholding payments accounted for most of the remaining monthly surplus, coming in $4 million over budget.

Macroeconomic Assumptions

Two different baseline economic forecasts were examined at the meeting: the Moody's Analytics baseline scenario for January 2018 and the IHS Economics baseline scenario for January 2018. Additionally, DAFS provided an alternative scenario based on demographic assumptions that limit employment growth. Each forecast was based on a different set of national macroeconomic assumptions. The DAFS scenario was based on the Moody's Analytics baseline scenario with industry sector employment growth adjustments by the State Economist. These three forecasts were then compared to the CEFC's November 2017 forecast. The key assumptions made by the CEFC are below.

- Maine population growth is likely to limit employment growth in the coming years, particularly as the baby boom generation continues to move into retirement age. The employment forecast adopted by the CEFC assumes that Maine has seen stronger in-migration recently and this will continue for at least the next few years. Additionally, tightening in the labor market will put upward pressure on wages.

- The federal Tax Cuts and Jobs Act will result in increased growth in personal income and corporate profits in 2018 and 2019 before tapering off.

Consensus Forecast

IHS now has employment peaking in 2020 before beginning a slight decline. Maine has seen robust employment growth in 2017, although not as strong as 2016, and will likely see some growth for the next couple of years before demographic forces create too much of an opposing headwind.

Employment growth rates were left unchanged for 2017, 2020, and 2021, while 2019 and 2020 were revised upward slightly. Employment reaches a peak level of 627,100 in 2019 and stays at that level throughout the rest of the forecast period.

Revisions to wage and salary income growth were driven by two primary factors: preliminary reports from Maine Revenue Services and Maine Department of Labor showing 2017 year to date wage growth that has been much stronger than the figures reported by the Bureau of Economic Analysis as well as effects from the Tax Cuts and Jobs Act. Wage and salary income growth for 2017, 2018, and 2019 were revised upward by 1.0, 1.4, and 0.2 percentage points, respectively. The forecast for 2020 was left unchanged while the forecast for 2021 was revised downward by 0.2 percentage points. Both 2022 and 2023 were forecast at 3.0 percent growth.

The forecast for supplements to wages and salaries was revised upward by 0.9 percentage points in 2018, while all other years were left unchanged. 2022 was forecast at 2.9 percent and 2023 was forecast at 3.1 percent growth. The growth rate for nonfarm proprietors' income was revised upward by 0.8 percentage points in 2018 and downward by 0.3 percentage points in 2021, while the remaining years were left unchanged. 2022 and 2023 were both forecast at 2.5 percent growth. The forecast for dividends, interest, and rent was left unchanged for 2017 with all remaining years revised upward: 2018 by 2.5 percentage points, 2019 by 2.7 percentage points, 2020 by 1.0 percentage points, and 2021 by 0.2 percentage points. 2022 was forecast at 2.3 percent growth and 2023 was forecast at 2.2 percent. The forecast for personal current transfer receipts was left unchanged for all years. 2022 and 2023 were both forecast at 4.5 percent growth.

The overall result for total personal income was a 0.4 percentage point revision upward for 2017, a 1.3 percentage point revision upward for 2018, a 0.8 percentage point revision upward for 2019, a 0.1 percentage point revision upward for 2020, and a 0.1 percentage point revision downward for 2021. Both 2022 and 2023 were forecast at 3.1 percent growth.

The U.S. Bureau of Labor Statistics released 2017 growth in the Consumer Price Index resulting in a downward revision of 0.3 percentage points in that year. The CEFC left the remaining years unchanged from the previous forecast and forecast both 2022 and 2023 at 2.2 percent.

The forecast for corporate profits was left unchanged for all years, as the previous forecast already reflected the possibility of corporate tax cuts that were subsequently passed in the Tax Cuts and Jobs Act and there is too little additional information available at this time to warrant changes in the forecast. 2022 was forecast at 3.7 percent growth and 2023 was forecast at 2.7 percent growth.

Overall, the primary source of concern for the CEFC continues to be Maine's demographic situation, with an aging population and limited population growth, although there has been a recent increase in in-migration. There were significant increases to many lines of the forecast in 2018 and 2019 following the passage of the Tax Cuts and Jobs Act.

The following page provides the full forecast.

Maine Consensus Economic Forecasting Commission								
February 2018 Forecast	History	Forecast						
	2016	2017	2018	2019	2020	2021	2022	2023
CPI-U* (Annual Change)	1.3%	2.1%	2.5%	2.3%	2.5%	2.4%	2.2%	2.2%
CPI for Energy Prices** (Annual Change)	-6.4%	8.1%	6.1%	2.3%	2.1%	2.6%	2.6%	2.6%
CPI for New Vehicles** (Annual Change)	0.1%	-0.3%	-0.6%	0.0%	-0.3%	0.2%	0.3%	0.1%
New Vehicle Registrations** (Annual Change)	1.7%	-1.4%	-7.0%	-2.3%	-1.4%	-1.8%	-1.8%	0.0%
Personal Savings Rate**	4.9%	3.5%	4.3%	5.3%	5.5%	5.8%	5.9%	5.8%
Maine Unemployment Rate**	3.9%	3.4%	3.3%	3.2%	3.3%	3.5%	3.7%	3.8%
3-Month Treasury Bill Rate**	0.32%	0.93%	1.69%	2.28%	2.78%	3.10%	3.10%	2.98%
10-Year Treasury Note Rate**	1.84%	2.33%	3.01%	3.54%	3.72%	3.72%	3.69%	3.67%
Before-Tax Corporate Profits* (Annual Change)	0.0%	4.5%	6.0%	4.8%	3.2%	3.5%	3.7%	2.7%
Maine Wage & Salary Employment* (thousands)	617.2	622.1	624.6	627.1	627.1	627.1	627.1	627.1
Natural Resources	2.3	2.4	2.4	2.4	2.4	2.5	2.5	2.5
Construction	27.4	28.7	28.3	28.4	28.8	29.1	29.3	29.5
Manufacturing	50.7	50.5	51.0	51.1	51.2	51.2	51.1	51.1
Trade/Trans./Public Utils.	120.6	121.2	121.2	121.6	120.9	120.4	119.3	118.1
Information	7.7	7.5	7.4	7.4	7.4	7.4	7.4	7.4
Financial Activities	31.0	30.6	30.6	30.7	30.6	30.4	30.2	30.1
Prof. & Business Services	65.5	65.6	67.6	68.1	68.5	69.2	70.4	71.7
Education & Health Services	125.2	127.9	129.0	129.7	129.4	129.6	129.7	129.8
Leisure & Hospitality Services	65.3	66.2	66.2	66.4	66.2	66.3	66.2	66.1
Other Services	21.7	21.3	21.2	21.3	21.0	20.8	20.5	20.3
Government	99.9	100.3	99.6	100.0	100.8	100.2	100.4	100.5
Maine Wage & Salary Employment* (Annual Change)	1.1%	0.8%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%
Natural Resources	-5.9%	6.0%	1.1%	0.5%	0.2%	1.0%	1.1%	0.4%
Construction	3.0%	4.9%	-1.6%	0.6%	1.3%	1.2%	0.7%	0.6%
Manufacturing	0.1%	-0.4%	0.9%	0.2%	0.2%	0.0%	-0.1%	0.0%
Trade/Trans./Public Utils.	0.7%	0.6%	0.0%	0.3%	-0.6%	-0.4%	-0.9%	-1.0%
Information	1.2%	-3.5%	-1.2%	0.2%	-0.1%	0.6%	0.3%	0.0%
Financial Activities	0.9%	-1.2%	0.1%	0.2%	-0.4%	-0.4%	-0.7%	-0.5%
Prof. & Business Services	1.1%	0.1%	3.2%	0.7%	0.5%	1.0%	1.8%	1.8%
Education & Health Services	1.6%	2.2%	0.9%	0.5%	-0.2%	0.2%	0.1%	0.1%
Leisure & Hospitality Services	1.8%	1.4%	0.0%	0.3%	-0.3%	0.2%	-0.2%	-0.2%
Other Services	1.7%	-2.0%	-0.2%	0.3%	-1.5%	-1.0%	-1.1%	-1.3%
Government	0.4%	0.3%	-0.6%	0.4%	0.8%	-0.6%	0.2%	0.1%
	2016	2017	2018	2019	2020	2021	2022	2023
Personal Income* ($ million)	58,655	60,639	63,300	66,011	68,616	71,153	73,377	75,670
Wages & Salaries*	27,705	28,813	30,052	31,224	32,379	33,513	34,518	35,554
Supplements to Wages & Salaries*	6,939	7,214	7,503	7,820	8,139	8,400	8,645	8,911
Nonfarm Proprietors' Income*	4,341	4,493	4,785	4,993	5,153	5,308	5,440	5,576
Farm Proprietors' Income**	-14	-15	12	54	73	70	68	69
Dividends, Interest, & Rent*	10,264	10,511	11,036	11,588	11,959	12,318	12,601	12,878
Dividends	2,899	2,882	2,947	3,082	3,160	3,215	3,274	3,309
Interest	4,719	4,866	5,168	5,412	5,704	6,060	6,351	6,622
Rent	2,646	2,765	2,925	3,092	3,097	3,044	2,977	2,949
Personal Current Transfer Receipts*	13,130	13,458	13,848	14,402	15,137	15,909	16,624	17,373
Less: Contributions for Social Ins.**	4,625	4,770	4,911	5,090	5,284	5,465	5,661	5,874
Adjustment for Residence**	915	936	974	1,019	1,059	1,102	1,141	1,183
Personal Income* (Annual Change)	3.0%	3.4%	4.4%	4.3%	3.9%	3.7%	3.1%	3.1%
Wages & Salaries*	3.2%	4.0%	4.3%	3.9%	3.7%	3.5%	3.0%	3.0%
Supplements to Wages & Salaries*	3.4%	4.0%	4.0%	4.2%	4.1%	3.2%	2.9%	3.1%
Nonfarm Proprietors' Income*	7.7%	3.5%	6.5%	4.4%	3.2%	3.0%	2.5%	2.5%
Farm Proprietors' Income**	***	***	***	365.8%	35.0%	-4.5%	-2.8%	2.0%
Dividends, Interest, & Rent*	1.6%	2.4%	5.0%	5.0%	3.2%	3.0%	2.3%	2.2%
Dividends	-5.4%	-0.6%	2.3%	4.6%	2.5%	1.7%	1.8%	1.1%
Interest	3.5%	3.1%	6.2%	4.7%	5.4%	6.2%	4.8%	4.3%
Rent	6.8%	4.5%	5.8%	5.7%	0.2%	-1.7%	-2.2%	-0.9%
Personal Current Transfer Receipts*	2.3%	2.5%	2.9%	4.0%	5.1%	5.1%	4.5%	4.5%
Less: Contributions for Social Ins.**	2.8%	3.1%	2.9%	3.6%	3.8%	3.4%	3.6%	3.8%
Adjustment for Residence**	1.0%	2.2%	4.1%	4.6%	4.0%	4.0%	3.6%	3.7%

*CEFC Forecast

**From IHS Economics (Jan. 2018), DAFS Low Emp Scenario and Moody's Analytics Baseline (Jan. 2018)

Remaining lines derived from CEFC forecast by CEFC staff and reviewed by CEFC

***Farm Proprietors' income was negative in 2015 - 2017

Alternative Economic Scenarios

Statute and Background: 5 M.R.S.A. §1710-A

***4**. **Alternative economic scenarios.** No later than February 1st of each even-numbered year the commission shall provide to the State Budget Officer, the State Economist and the Associate Commissioner for Tax Policy at least 2 additional economic forecasts that assume potential economic recession scenarios of varying levels of severity. These additional forecasts must include economic assumptions for the current fiscal biennium and the next 2 fiscal biennia. In each report the commission shall fully describe the methodology employed in reaching its recommendations.*

The Governor's biennial budget included a proposal that was subsequently enacted in Public Laws of Maine 2017, chapter 284, requiring the CEFC to provide the State Economist, the State Budget Officer, and the Associate Commissioner for Tax Policy with at least two alternative economic recession scenarios of varying levels of severity. The alternative scenarios are required to be included in the CEFC's report due February 1st of each even-numbered year and also must include assumptions for calendar years that encompass the current and next two biennia. By October 1st of each even-numbered year the CEFC and RFC will jointly issue a report to the Governor, the Legislative Council and the joint standing committee of the Legislature having jurisdiction over appropriations and financial affairs that utilizes the alternative economic scenarios recommended by the CEFC. The report will include analyses and findings that detail the stress impact such economic recession scenarios would have on the current General Fund revenue projections of sales and income tax revenues. In addition, the report must include an analysis of the sufficiency of the current level of the Budget Stabilization Fund and an estimate of the reserves in the Budget Stabilization Fund necessary to offset the declines in revenue as a result of potential economic recession scenarios.

Methodology

The Commission spent some time discussing how best to identify the alternative scenarios for use in the "stress test" report described in statute. The Commissioners decided to designate two alternative scenarios provided by Moody's Analytics in January 2018 as the moderate and severe recession scenarios. While the scenarios describe a particular set of specific events surrounding the recessions, the Commission does not ascribe to these specifics, instead selecting the scenarios based on the numbers and growth rates that seemed reasonable as generic "moderate" and "severe" recessions. These scenarios should provide plausible economic inputs for an analysis of the General Fund revenue projections in both a moderate and severe downturn. Brief descriptions of the economic conditions follow; forecast details will be included in the October 1, 2018, stress test report.

Moderate recession scenario

The moderate recession scenario selected by the Commission is the "S7" Next-Cycle Recession scenario. On a macroeconomic level, this recession lasts a full year, which is comparable to the postwar average of recessions. The national unemployment rate peaks at 8 percent and real gross domestic product declines around 2 percent. Inflation rises to 4 percent. Employment in Maine declines around 2.5 percent. Wage and salary income in Maine declines around 2 percent, while total personal income continues to grow but at a slower pace.

Severe recession scenario

The severe recession scenario selected by the Commission is the "S4" Protracted Slump scenario. On a macroeconomic level, this deep recession lasts over a year and a half. The national unemployment rate peaks near 10 percent and real gross domestic product declines around 4.5 percent. Inflation is negative in the first year of this recession. Employment in Maine declines around 5.5 percent. Wage and salary income in Maine declines around 6 percent and total personal income declines around 2.5 percent.