

CEFC Forecast Performance Measurement Error Analysis

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CEFC / RFC RETREAT
SEPTEMBER 18, 2026

Context and Scope

- 2019
 - Included analysis for CPI, wage and salary employment, total personal income, and wages and salaries
- 2022
 - Updated to include all CEFC variables and the incorporation of Moody's and S&P
- This report
 - Updated methodology
 - Examination of forecast accuracy by cycle and by variable-specific turning points

Results shown here are preliminary

Methodology: Data

Forecast data are drawn from the CEFC forecast database, covering CEFC meetings from December 1992 through the most recent February 2026 meeting. The database holds records of the CEFC's consensus forecast, the corresponding Moody's Analytics and S&P Global (formerly IHS Markit) forecasts current at the time of the meeting, and the eventual actual value once available.

Table 1. Summary of CEFC Meetings

Period	Years	Meetings	Variables Covered	Extra Meetings
1992–2001	10	17	2 (CPI-U, W&S Employment)	Yes
2002	1	6	3 (+ Total Personal Income)	Yes
2003–2006	4	8	3	-
2007–2010	4	9	8 (+5 personal income components)	Yes
2011–2019	9	18	9 (+ Before-Tax Corporate Profits)	-
2020	1	3	9	Yes
2021–2026	6	11	9	-

Methodology: Error Metrics

Mean Error (ME) measures the average signed deviation between the forecast and the historical actual value. This metric is used to evaluate whether there is a tendency of the forecast to deviate negatively or positively; in other words, whether forecasts tend to over- or under-estimate growth. Mathematically, this metric is expressed as:

$$(1) \quad ME = \frac{1}{n} \sum (F_t - Y_t)$$

Mean Absolute Error (MAE) measures average deviation regardless of direction, and is the primary measure of forecast accuracy used to compare variables and sources:

$$(2) \quad MAE = \frac{1}{n} \sum (|F_t - Y_t|)$$

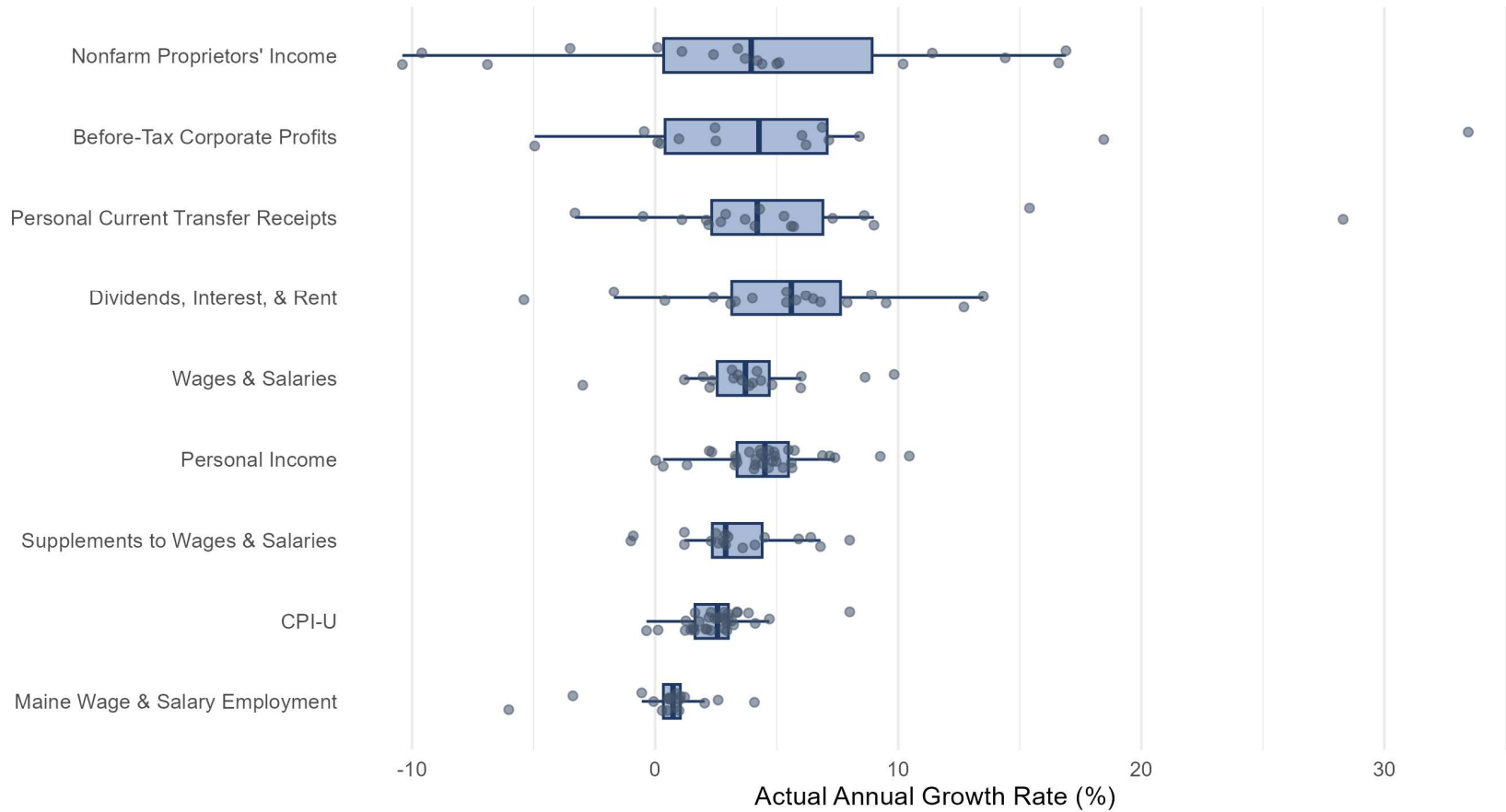
where F is the forecasted value, and Y is the observed actual value.

Methodology: Actuals Vintage

Forecast errors in this report are calculated against the most recently available actual value for each observation, not the first-published or “real-time” figure available shortly after the forecast period ended. This means the analysis measures accuracy against final, revised data – a different standard than evaluating forecasts against what was actually knowable at the time.

Distribution of Historical Actual Values, by Variable

Boxes show the interquartile range; dots show individual annual observations

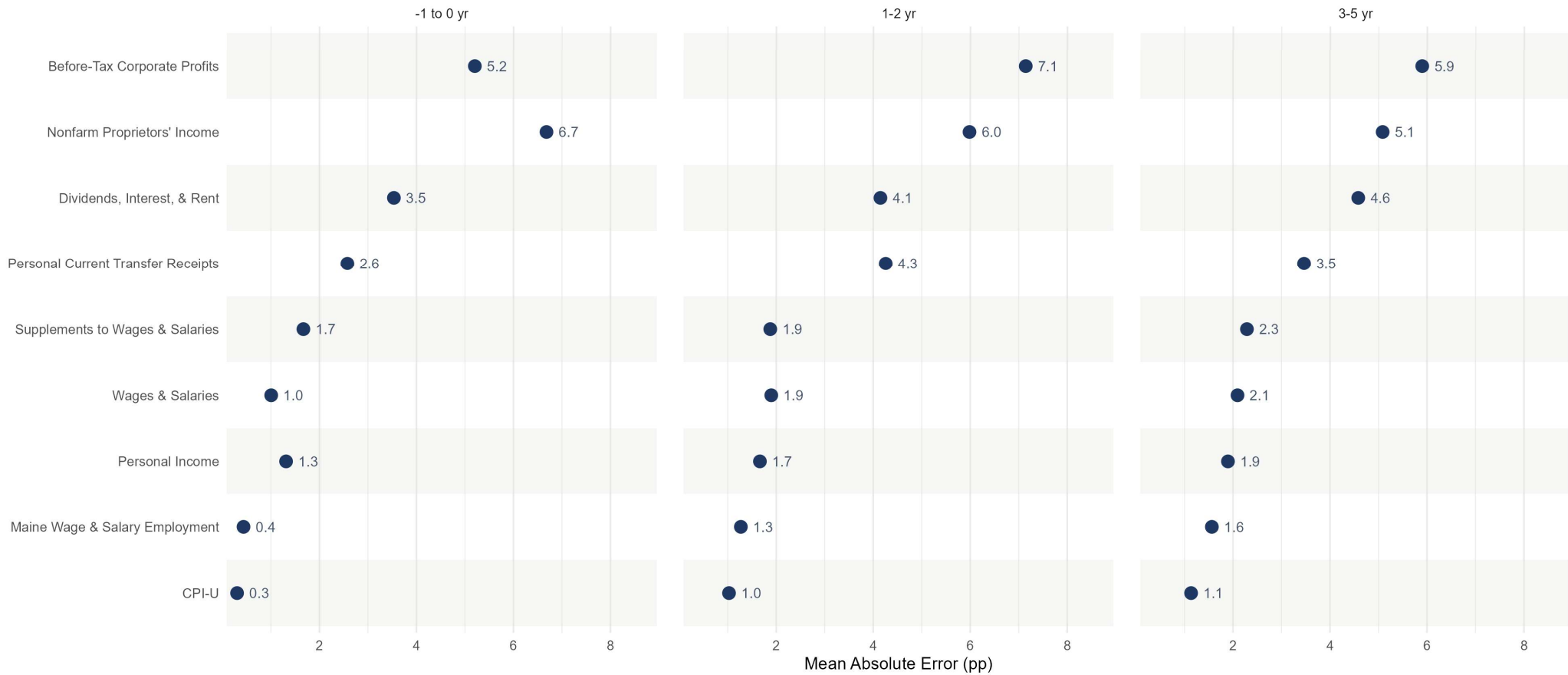


Preliminary results - actuals as of Feb 2026

Note: PRELIMINARY RESULTS

Mean Absolute Error by Variable and Lead Time

Pooled results only

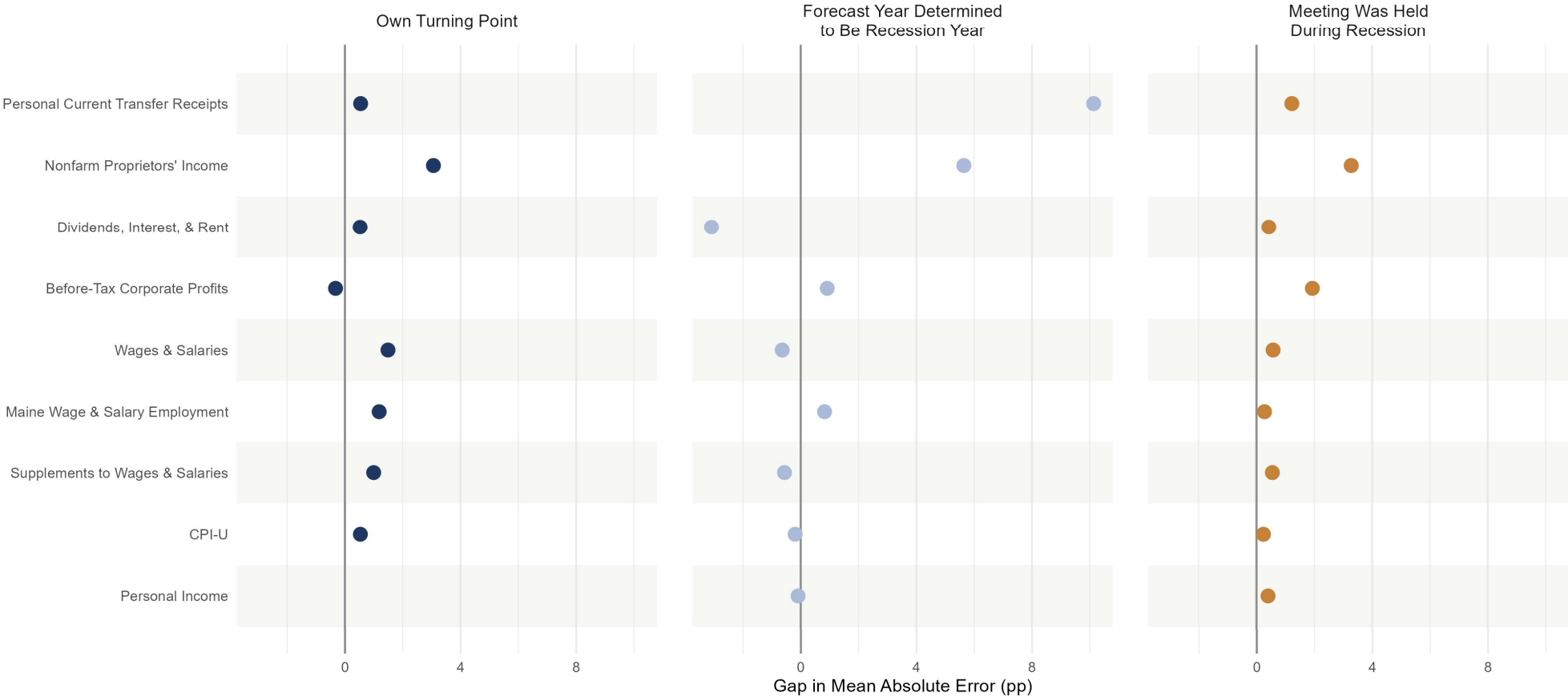


Preliminary results - actuals as of Feb 2026

Note: PRELIMINARY RESULTS

How Much Worse Is Accuracy Under Each Lens?

Gap in MAE: special-condition years minus baseline years; right of zero means higher error

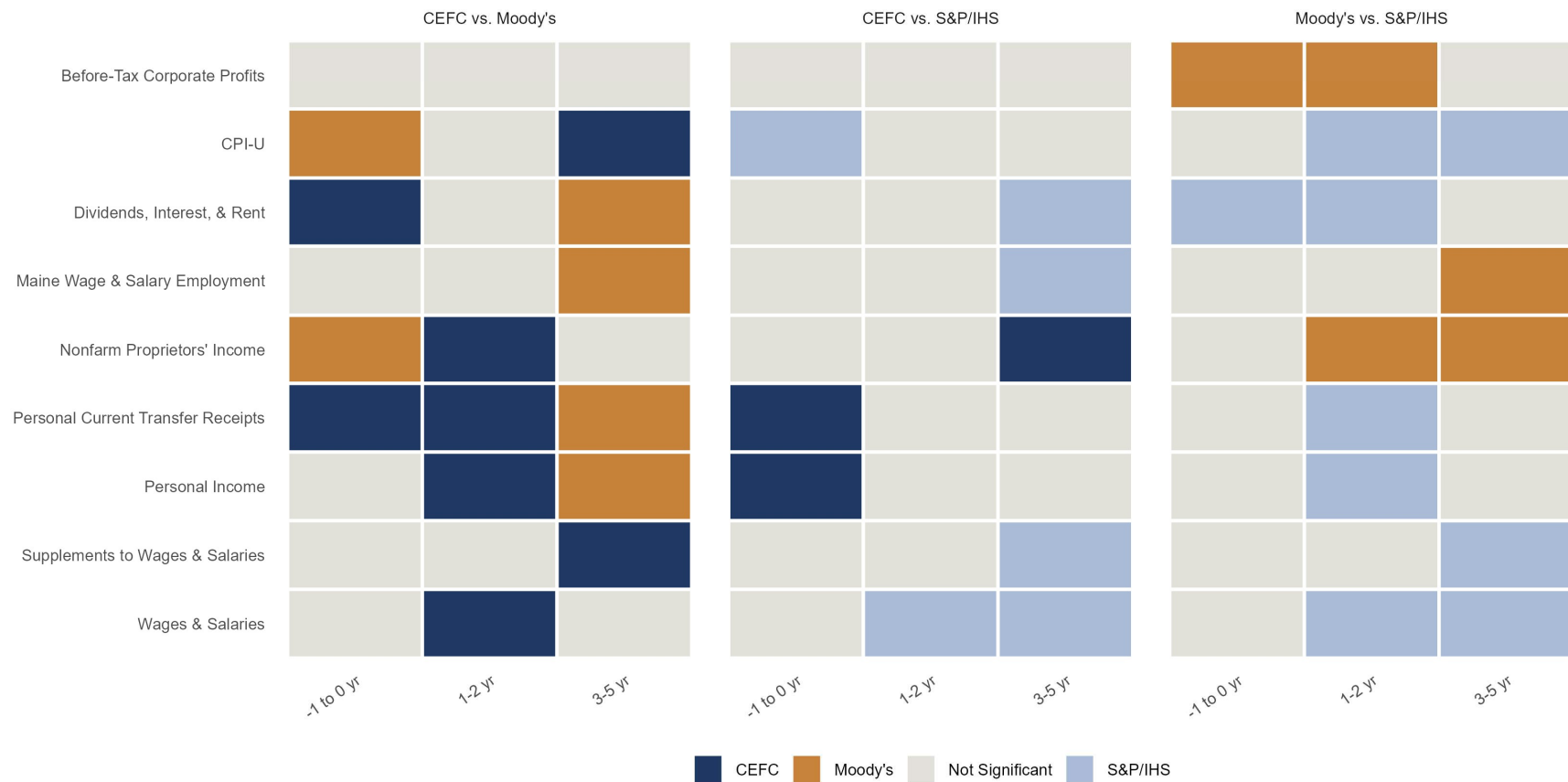


Preliminary results - actuals as of Feb 2026

Note: PRELIMINARY RESULTS

Pairwise Sign Test Results: Which Source Had Lower Forecast Error?

Colored cells indicate the source with significantly lower error ($p < 0.10$); gray = not significant



Preliminary results - actuals as of Feb 2026. 81 nonparametric pairwise sign tests are displayed. No multiple-testing adjustment is applied; some nominally significant findings may occur by chance.

Note: PRELIMINARY RESULTS

Future Work

- Finalize the analysis with revised BEA data (later this month)
- Analyze BEA revisions and impact on CEFC forecast