Economic Outlook for NY Tax Revenues

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UALBANY FORECASTING MODEL

- We have developed a New York State revenue forecasting model with many predictors related to New York State, US and the adjoining states.

- It s mixed frequency model in that we forecasts year-over-year growth in revenues using monthly and quarterly observations

- We pay special attention to probability of recessions during the period.

- We start predicting y-o-y revenue growth 18 months before the end of the fiscal year and the forecasts are updated on a monthly basis till March.

- We use two dynamic factors for NY and US using many predictors and a variable capturing experts' published evaluation of enacted or future policies on the tax revenue from NASBO, DOB, Ways & Means etc. .

- The time series dynamics of some of these variables are presented first.

- The important aspect of our model is the forecasts for the FY change in real time as new data arrives in upcoming months.

RECENTLY PUBLISHED PAPER

Boosting tax revenues with mixed-frequency data in the aftermath of COVID-19: The case of New York
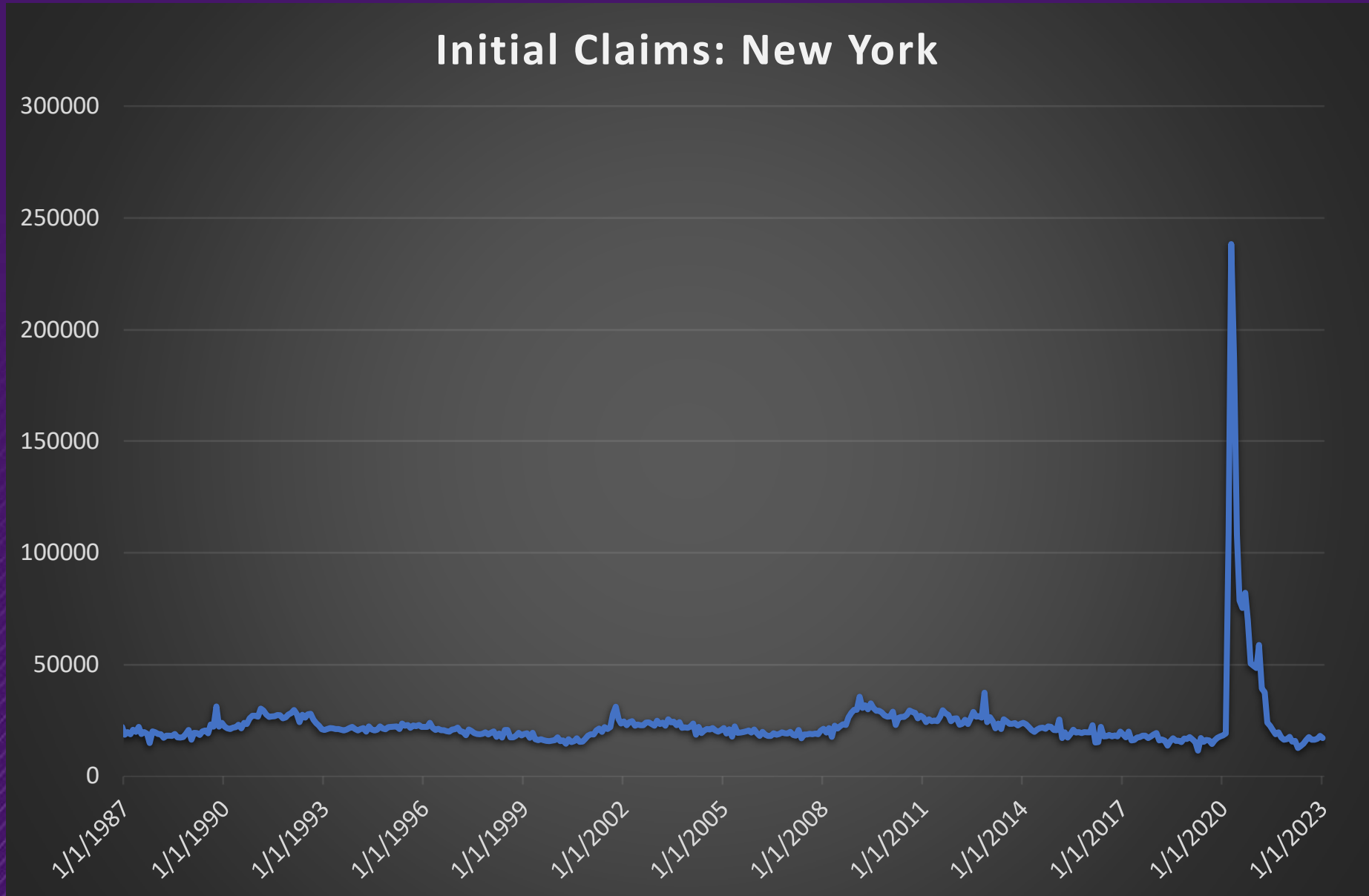
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[a] University at Albany: SUNY, Department of Economics, NY, 12222, USA
[b] Li Anmin Advanced Institute of Finance and Economics, Liaoning University, China
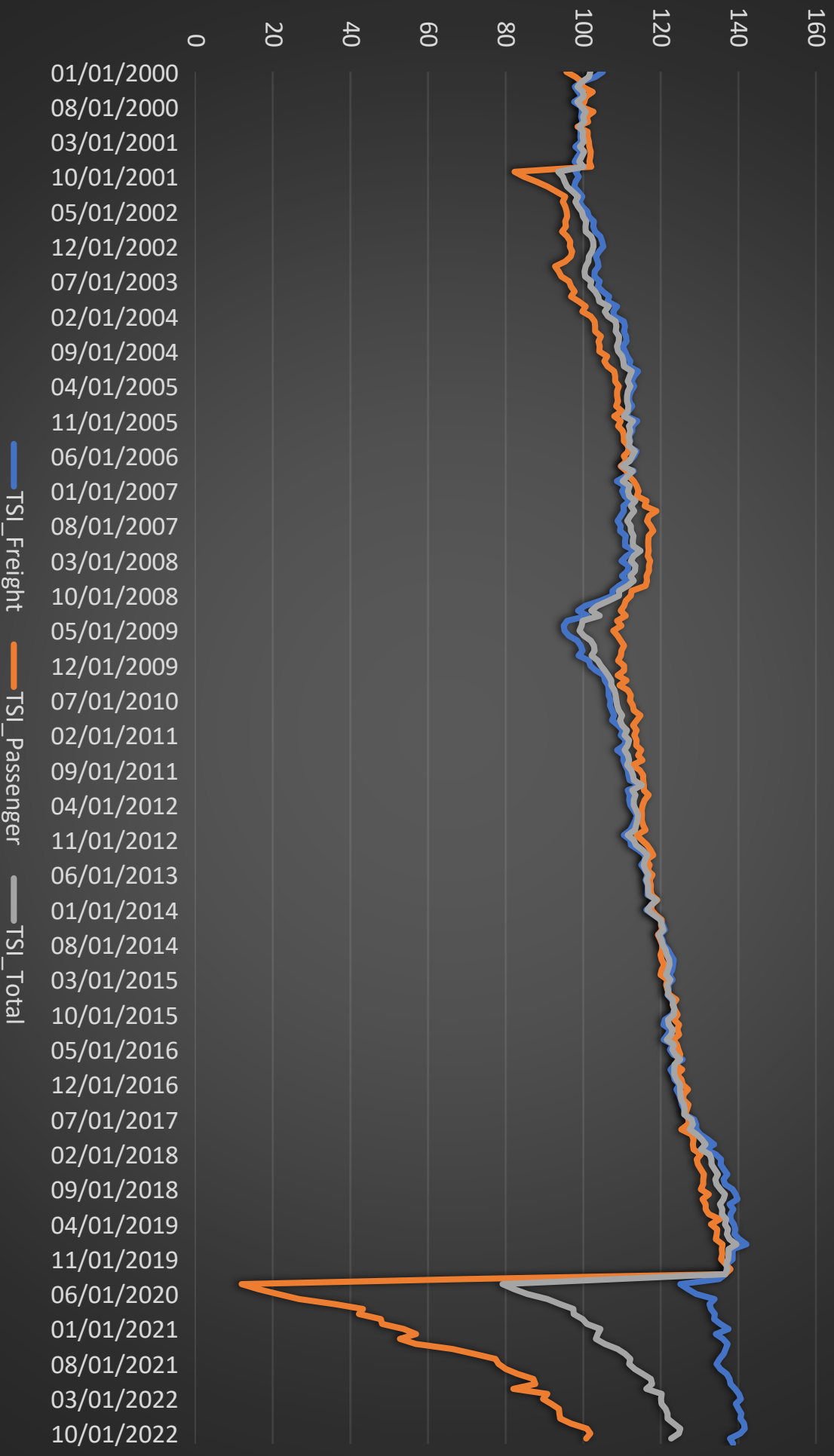
Check for updates

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State University of New York

- The value of initial claims is at pre-pandemic level.

Initial Claims: New York

- The transportation service index is not fully recovered yet, especially TSI_passenger.

Transportation Service Index

Legend: TSI_Freight — TSI_Passenger — TSI_Total
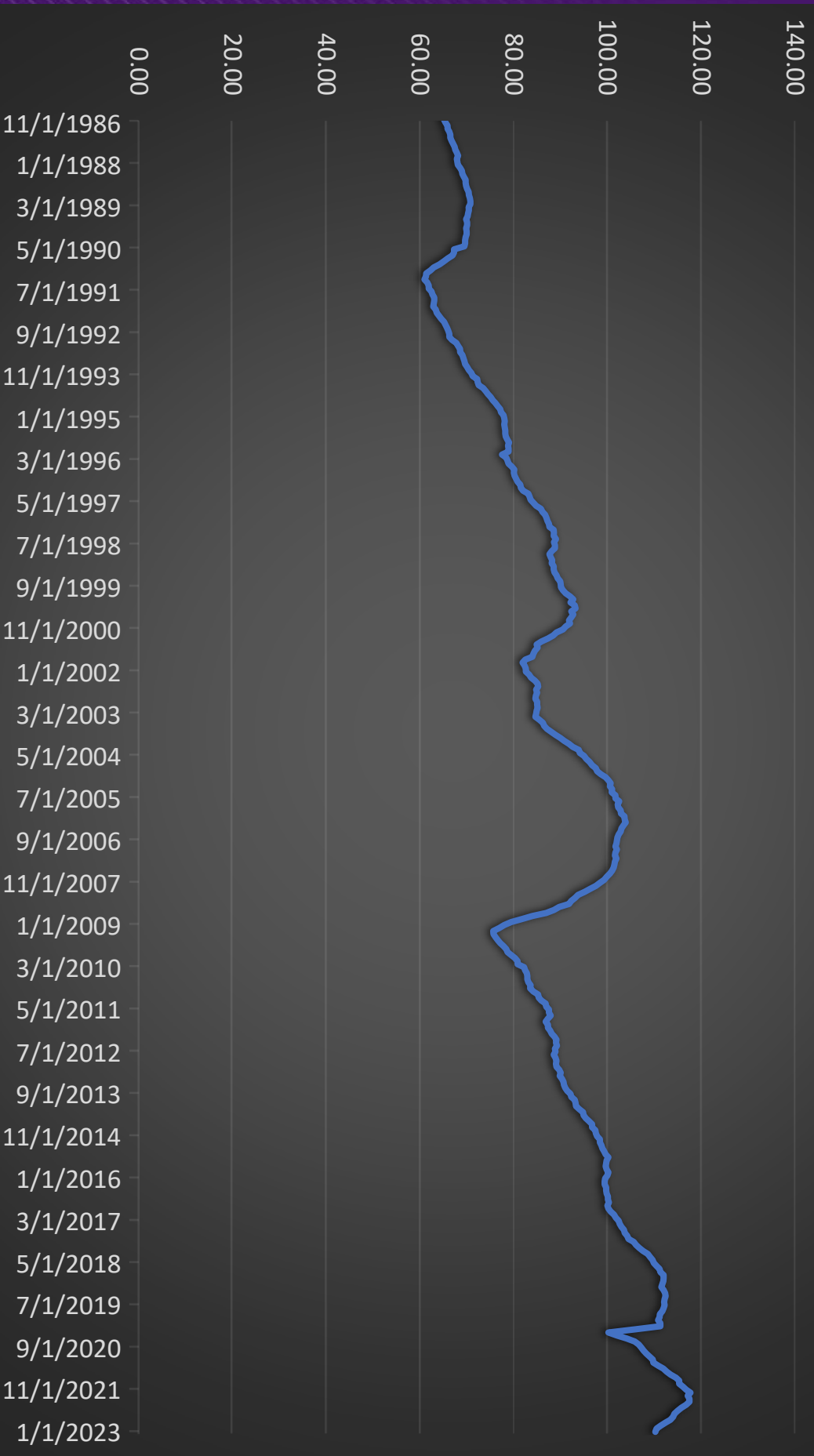
The U.S. Leading Economic Index from the Conference Board has been dropping again after the post-pandemic recovery, signaling a potential upcoming recession
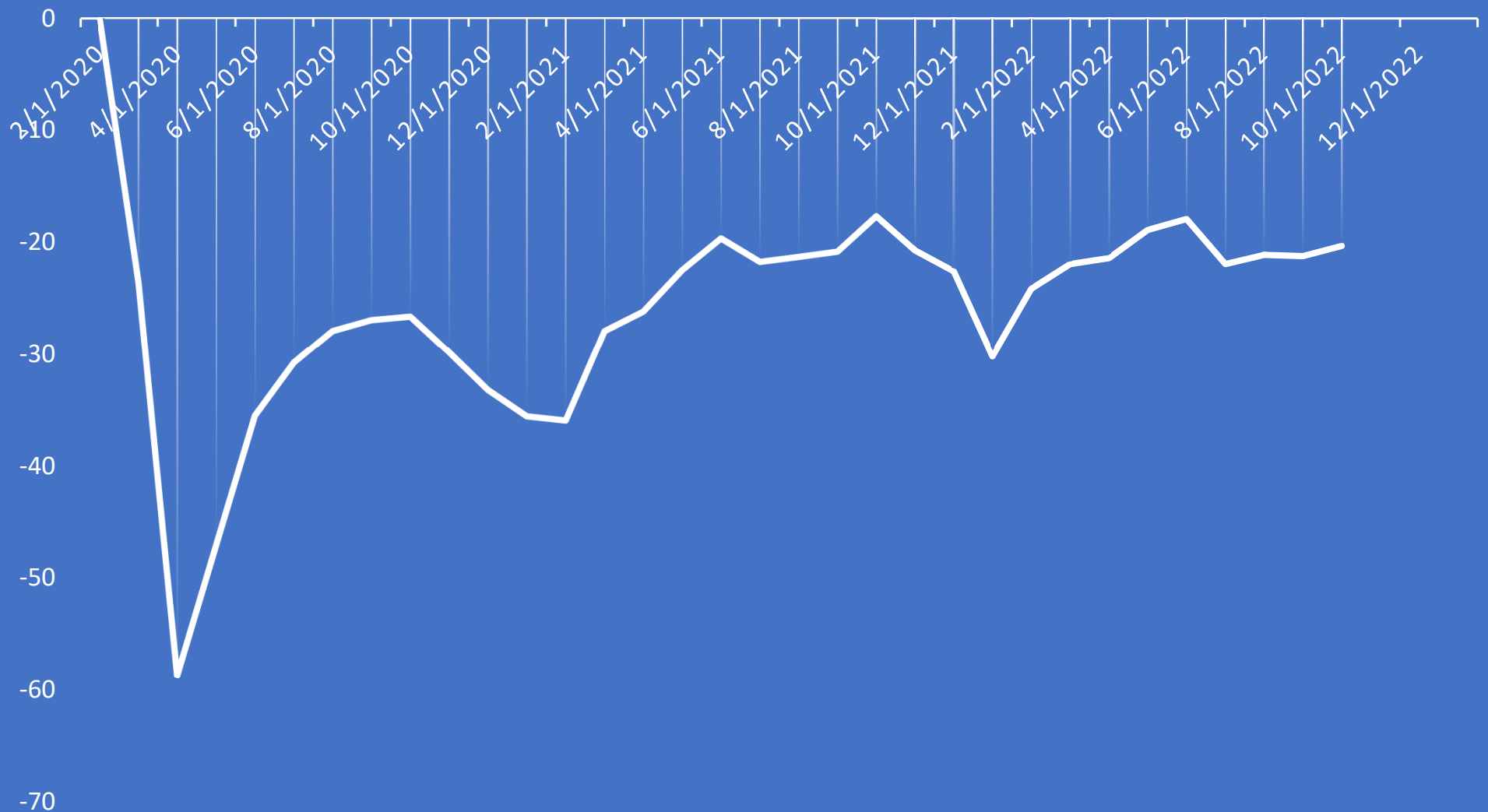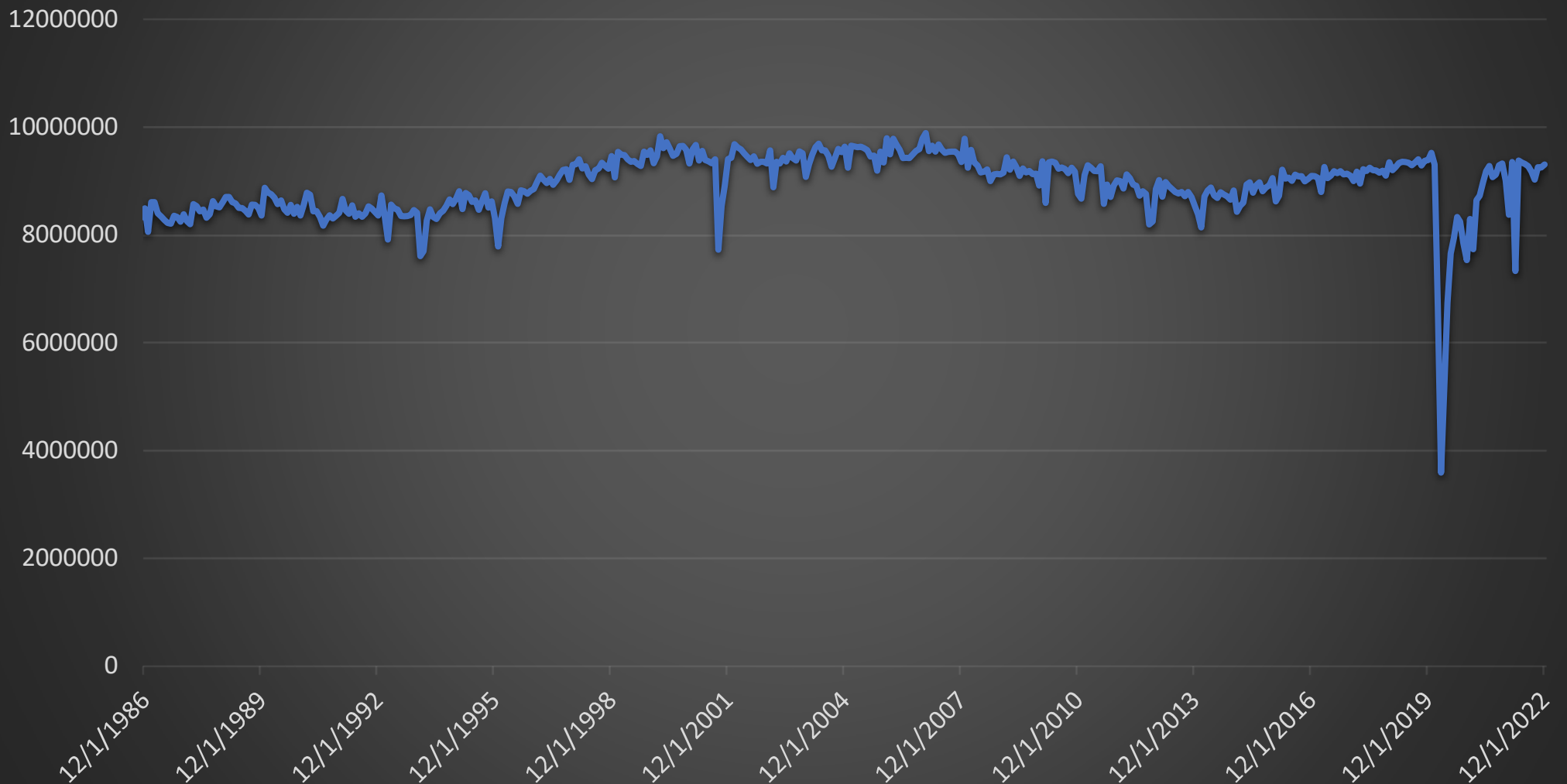
Leading Economic Index

- Google mobility for NY was recovering, but not Google has stopped updating this dataset.

GOOGLE MOBILITY: AVERAGE OF RETAIL/RECREATION AND WORKPLACE

Auto traffic has recovered but is currently volatile

Auto Traffic, Six PANYNJ Crossings

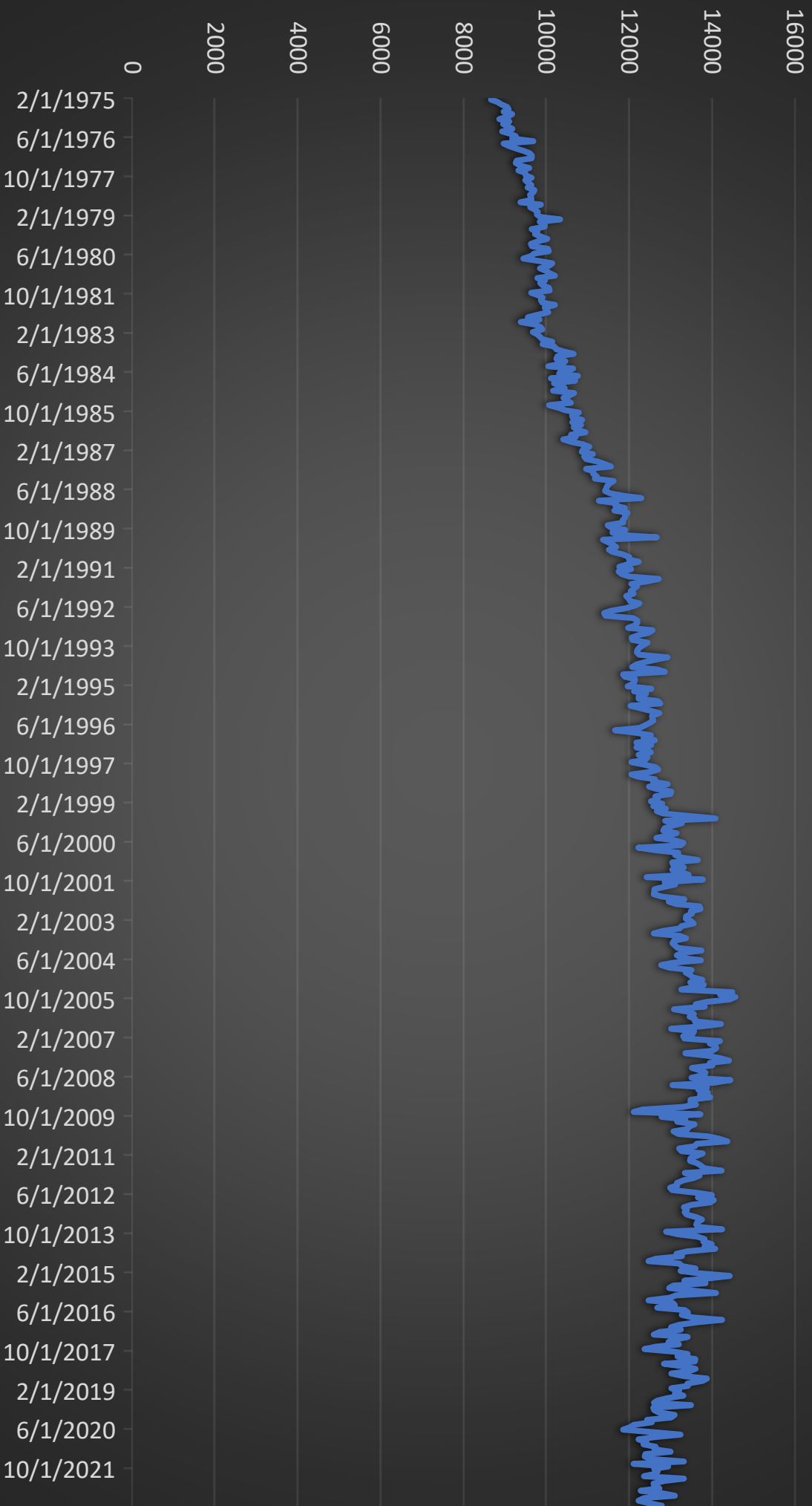- Truck traffic has been increasing post pandemic

Truck Traffic, Six PANYNJ Crossings

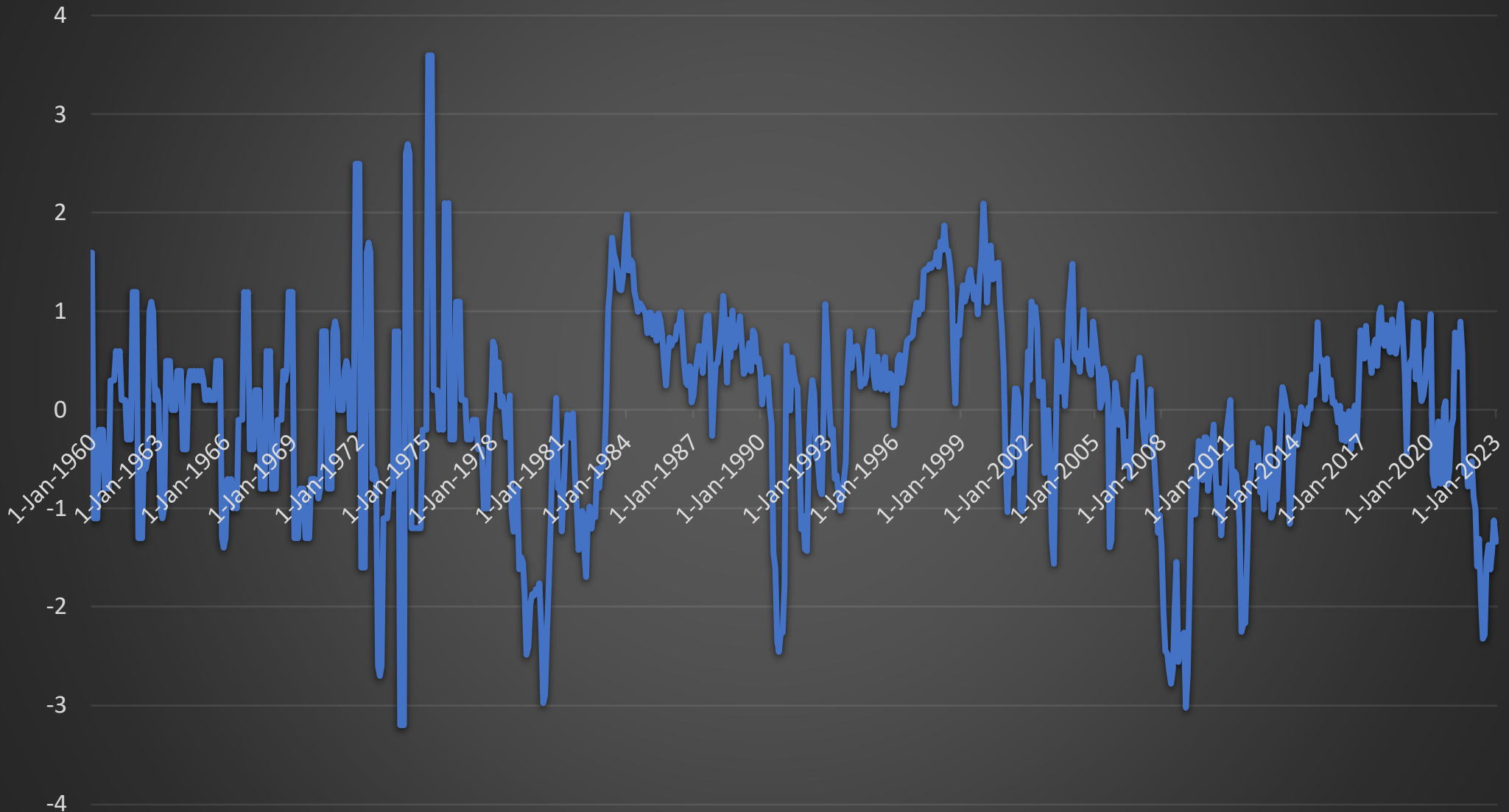- Electricity growth is slowly declining over last decade

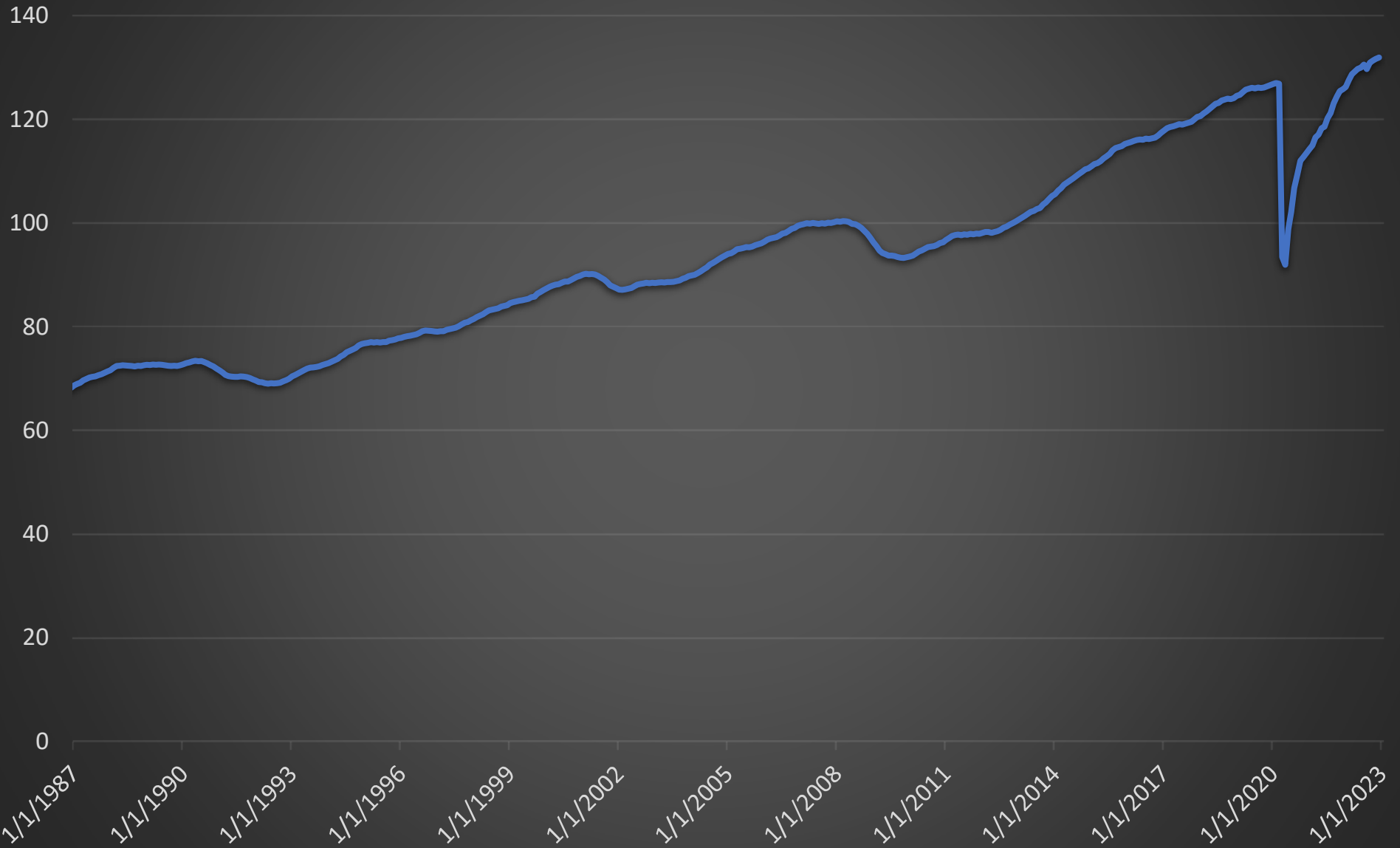**New York Electricity Generation (GWh, SA)**

- Average consumer expectation for business condition is very low.

Average Consumer Expectations for Business Conditions

- Philly Fed's New York coincident index has recovered.

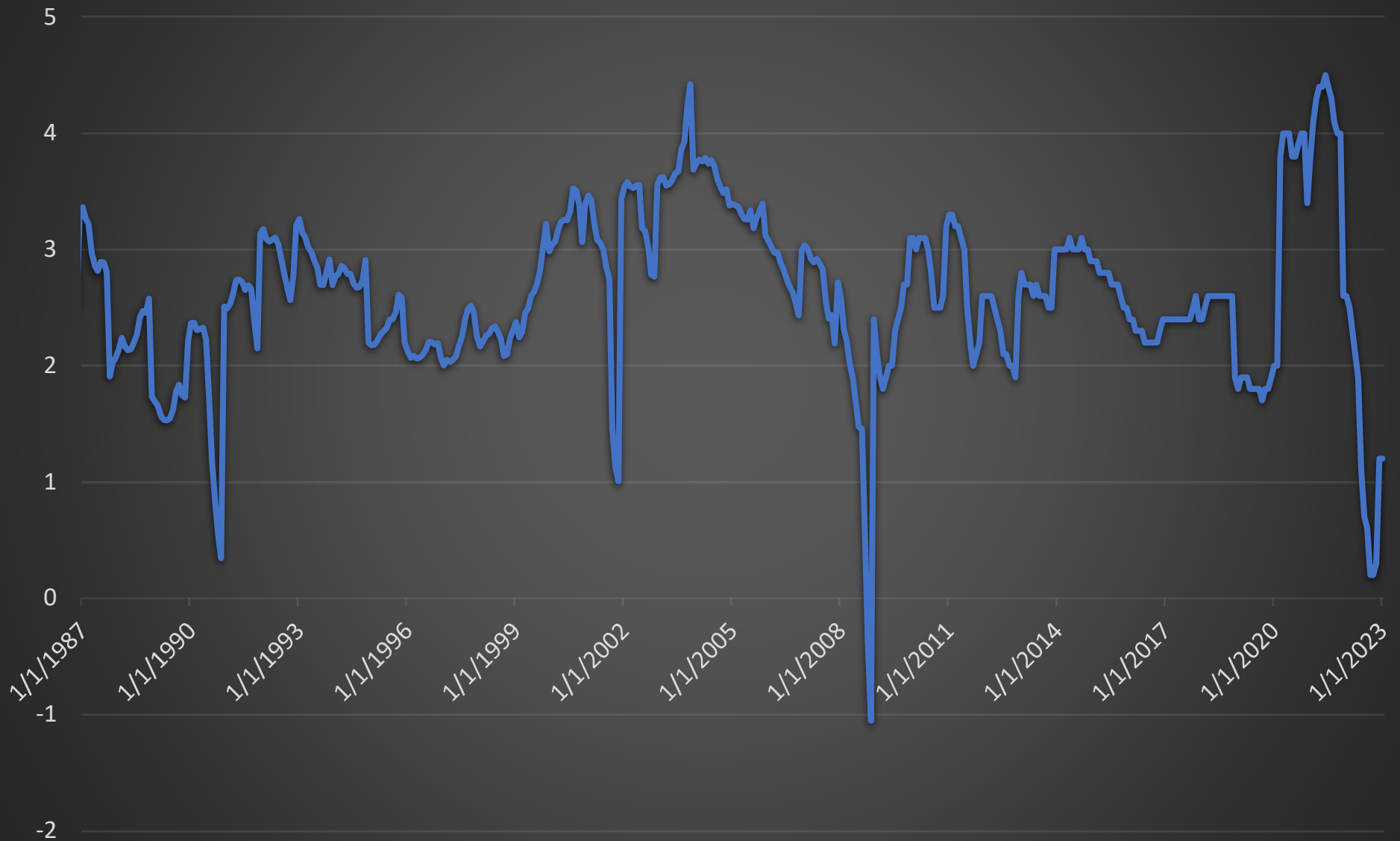### State Coincident Index

- The Blue Chip average forecast of real GDP for next year is around 1%
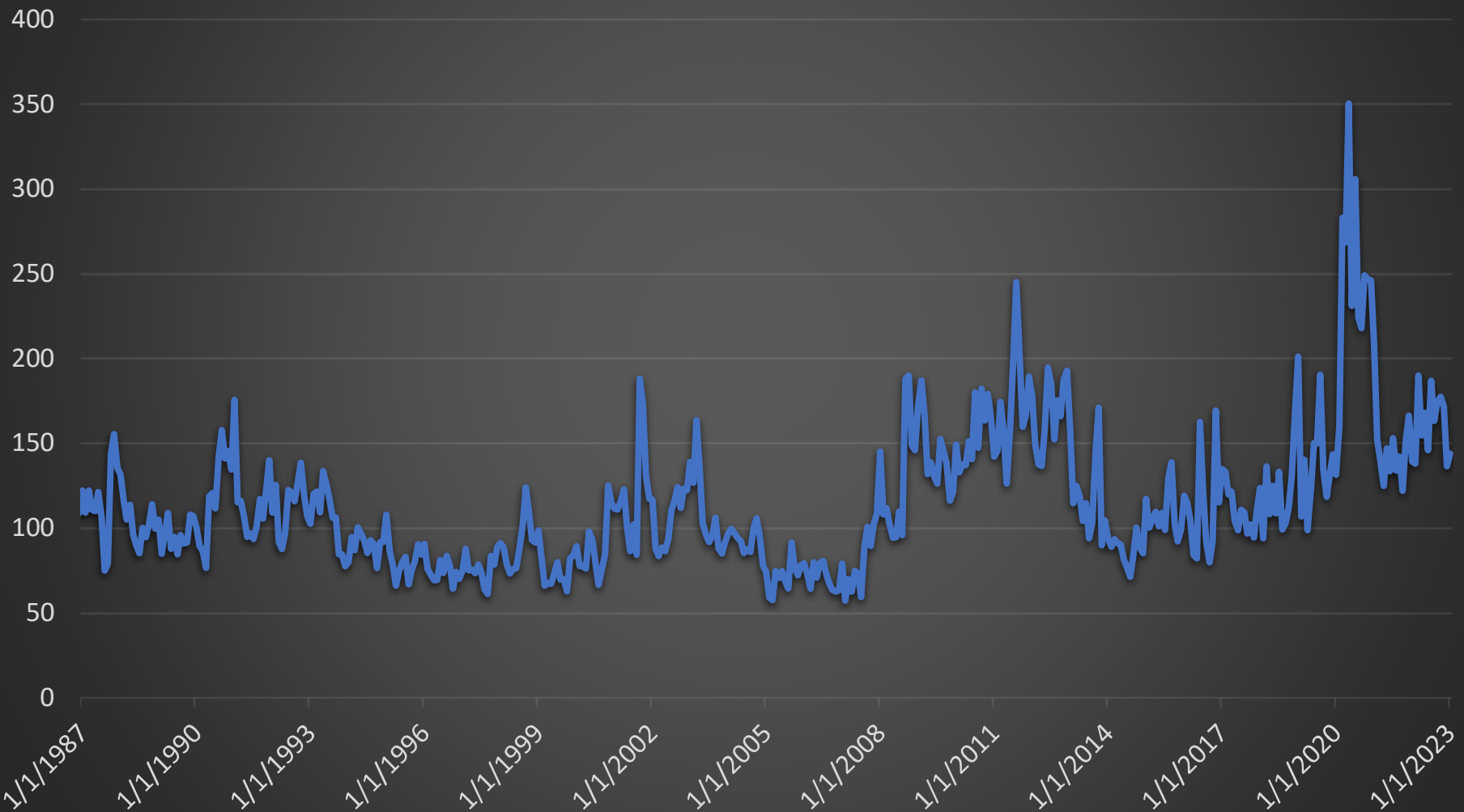

Blue Chip Average Forecast: Next-Year Real GDP

- The economic policy uncertainty index is not high, but there seems to be an upward trend in recent years.

Economic Policy Uncertainty: Three Component Index

- The monthly taxes from New York tax department has been very volatile since the pandemic.
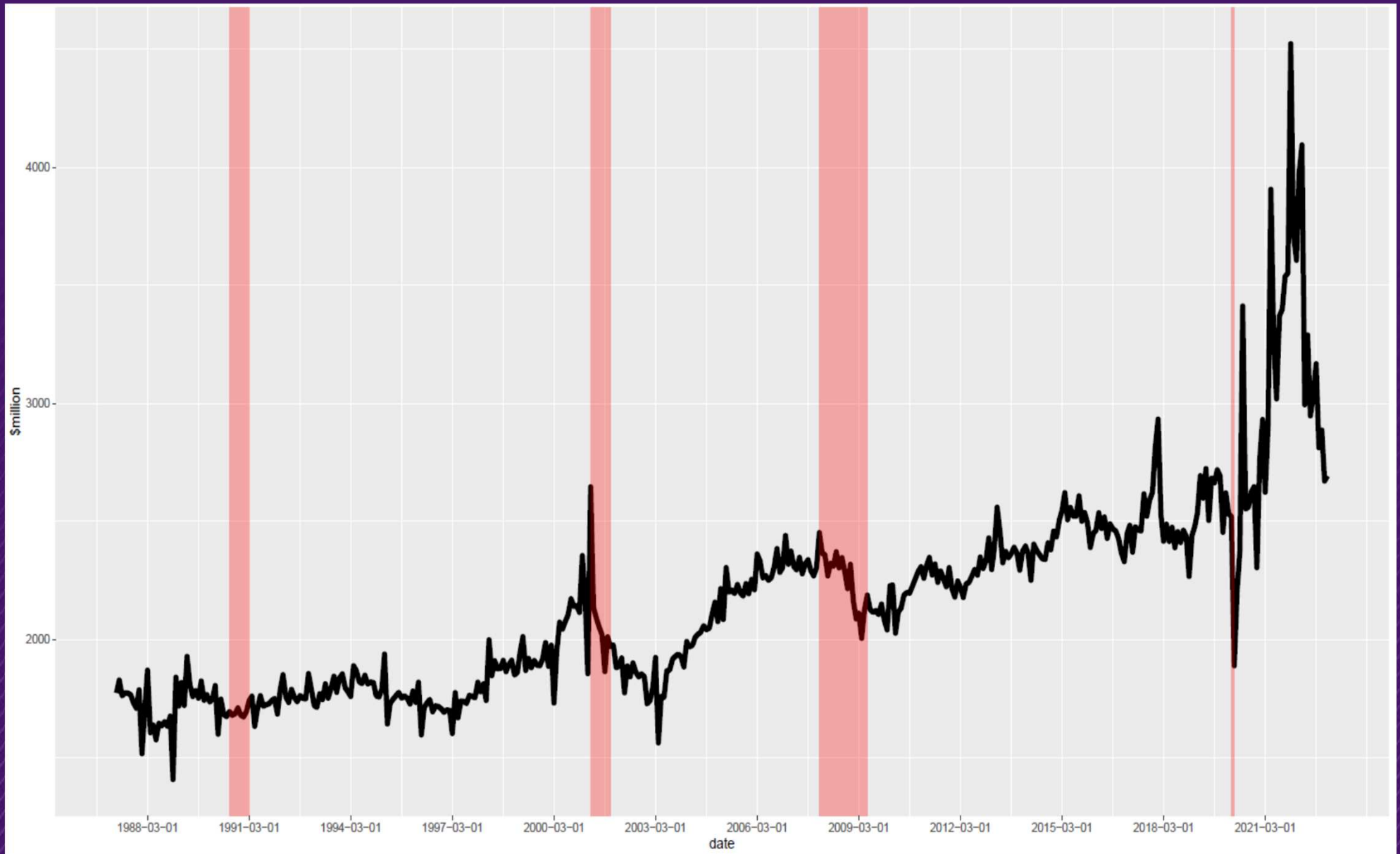
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Table 1: Variable List: U.S.

Variable	Explanation	Frequency	Source
TCU	Capacity Utilization: Total Industry	Monthly	Federal Reserve Board of Governors
PersConsExpen_real	Personal Consumption Expenditures (real)	Monthly	US. Bureau of Economic Analysis
PersInc_real	Personal Income (real)	Monthly	US. Bureau of Economic Analysis
PersSaveR	Personal Saving Rate	Monthly	US. Bureau of Economic Analysis
LeadCompIndic	Leading Economic Index	Monthly	Conference Board
TSI_T	Transportation Service Index_total	Monthly	Bureau of Transportation Statistics
BlueC	Blue Chip Real GDP Forecast: Current Year	Monthly	Blue Chip Economic Indicators
BlueN	Blue Chip Real GDP Forecast: Next Year	Monthly	Blue Chip Economic Indicators
RECESS2	Probability of Decline in Real GNP/GDP in next quarter	Quarterly	Federal Reserve Bank of Philadelphia
SEN	Confidence Index: U.S.	Monthly	Organisation for Economic Co-operation and Development
EPU_3C	Overall Economic Policy Uncertainty Index	Monthly	Economic Policy Uncertainty
EMP_WRO	Total Employees: Whole Sales Trade, Retail Trade and Other Services	Monthly	Bureau of Labor Statistics
AAADGS10	Moody's Seasoned Baa Corporate Bond Minus 10-Year Treasury Constant Maturity Rate	Monthly	Moody's; Board of Governors of the Federal Reserve System (US)
TVT	Travel in Millions of Vehicle Miles	Monthly	U.S. Department of Transportation
ISM_MEI	ISM Manufacturing Employment Index	Monthly	Institute for Supply Management
ISM_MII	ISM Manufacturing Inventory Index	Monthly	Institute for Supply Management
ISM_MPI	ISM Manufacturing Prices Index	Monthly	Institute for Supply Management
ISM_MNEOI	ISM Manufacturing New Export Orders Index	Monthly	Institute for Supply Management
ISM_MNIOI	ISM Manufacturing Imports Index	Monthly	Institute for Supply Management
ISM_NMNOI	ISM Non-Manufacturing New Orders Index	Monthly	Institute for Supply Management
ISM_NMEI	ISM Non-Manufacturing Employment Index	Monthly	Institute for Supply Management
FedTxWithold	Withheld Income and Employment Federal Taxes	Monthly/Daily	U.S. Treasury
CCLAIM	Continued Claims	Monthly	U.S. Employment and Training Administration

Table 2: Variable List: New York

| Variable	Explanation	Frequency	Source
HX1M.CNER	Existing Home Sales: Single-Family Northeast Census Region	Monthly	National Association of Realtors
HX1MEDM.CNER_real	Median Sales Price Single Family Homes: Northeast Census Region (real)	Monthly	National Association of Realtors
HOFHOPIQ.NY	FHFA House Price Index, Existing Single-Family Homes: New York	Quarterly	U.S. Federal Housing Finance Agency
ELEC.NY	New York State Total Electric Generation	Monthly	New York Independent System Operator
NYOTOT_PC1_real	Personal Income (real): New York	Quarterly	U.S. Bureau of Economic Analysis
autotraf	Truck Traffic, Six PANYNJ Crossings	Monthly	New York State Port Authority
trucktraf	Auto Traffic, Six PANYNJ Crossings	Monthly	New York State Port Authority
SCLNY	State coincident Index: New York	Monthly	Federal Reserve Bank of Philadelphia
RHPNRM.NY	Total Housing Permits: New York	Monthly	U.S. Census Bureau
NYICLAIMS	Initial Claims in New York	Monthly	U.S. Employment and Training Administration
BAFDINA	Business Leaders Survey: Future Business Activity	Monthly	Federal Reserve Bank of New York
NY_Bench	Early Benchmarked Employment: New York State	Monthly	Federal Reserve Bank of New York
ret_rec_work_NY	Community Mobility: Average of Retail/Recreation and Workplace-New York	Monthly/Daily	Google

US Composite Factor is falling
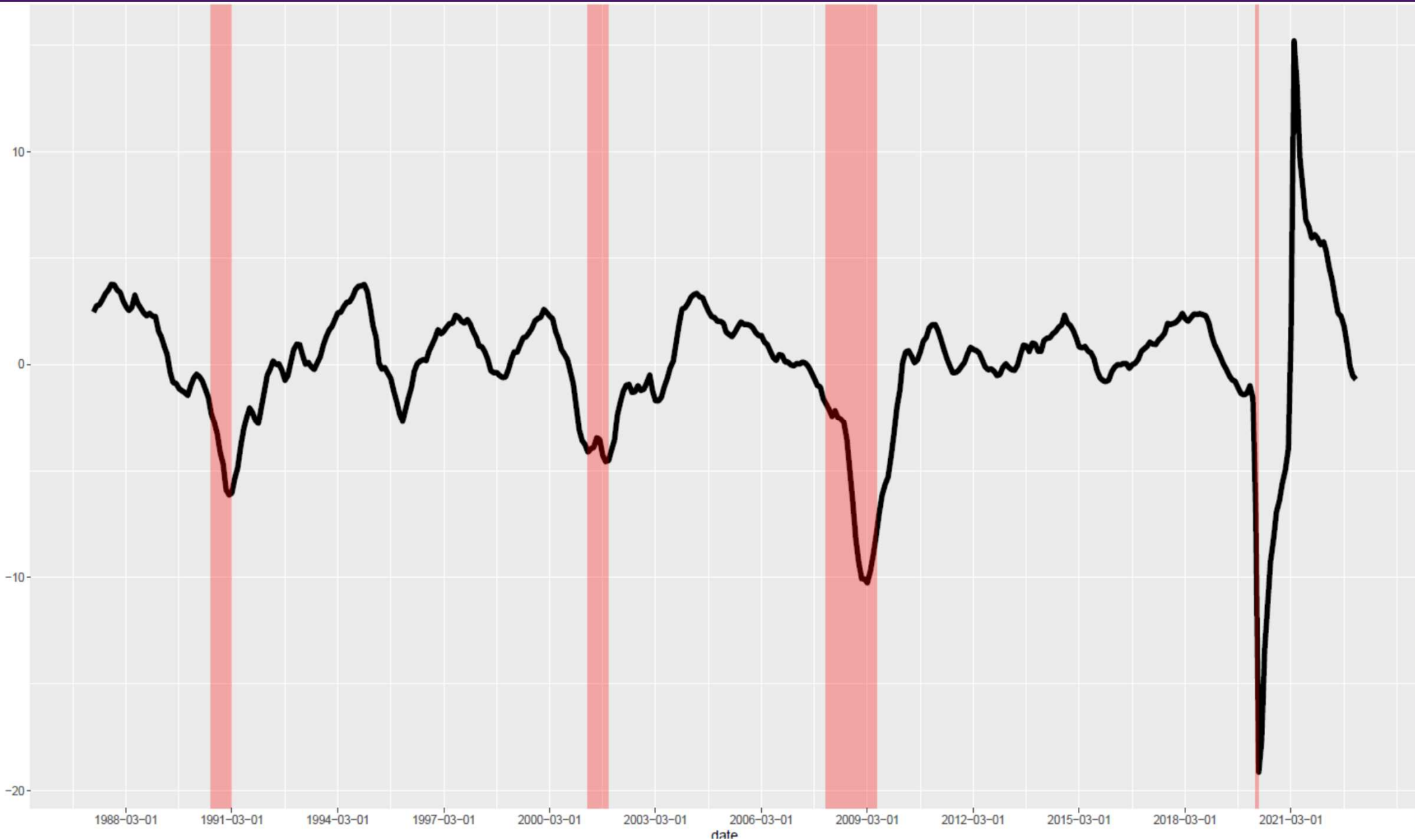
New York Composite Factor is falling similarly
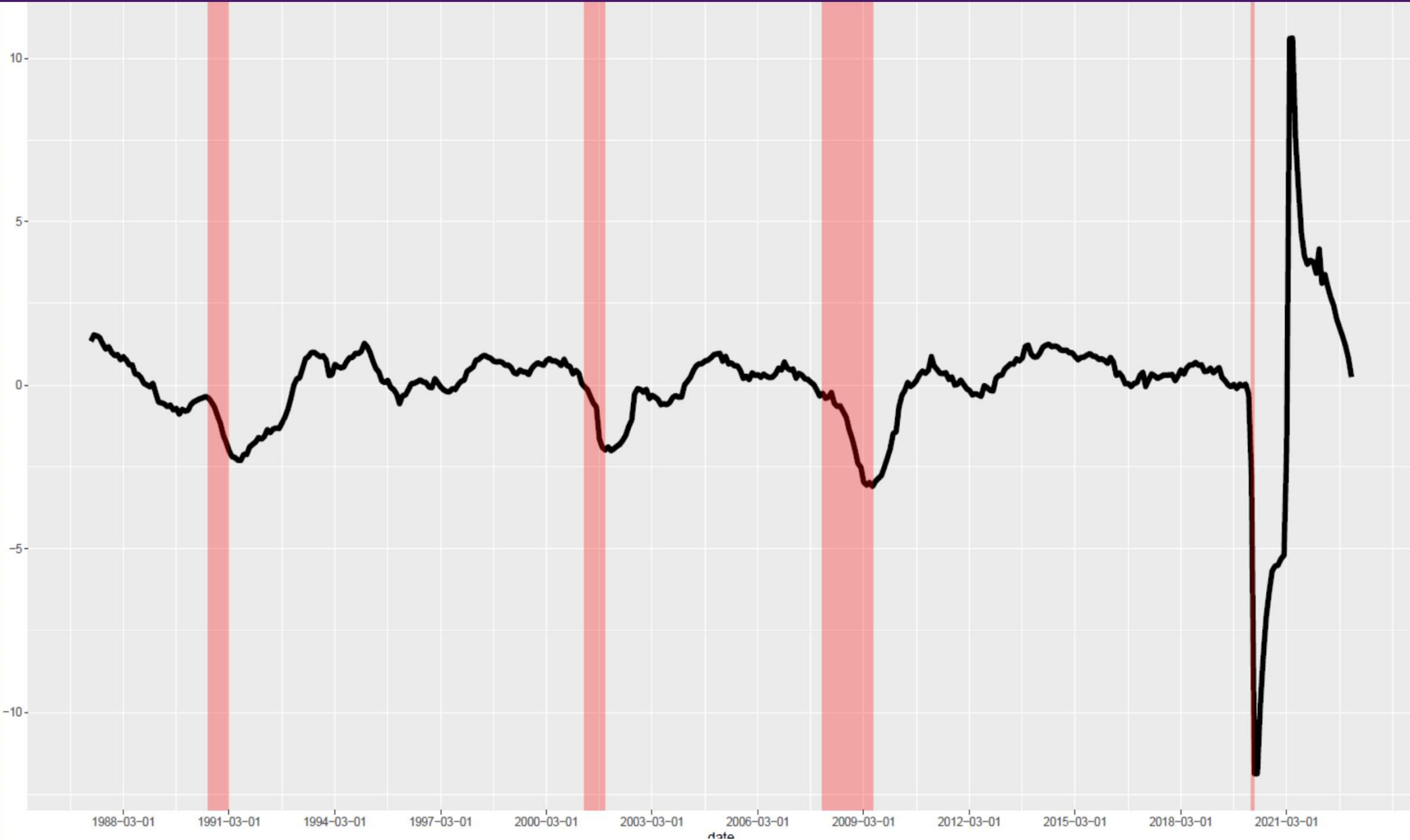
- Building on multiple sources (NASBO, DOB, Ways and Means etc.), we created an additional "policy change" variable that captures experts' forecasts of the effects of recent tax policy changes on tax revenues for the next FY, and used it as one of the predictors in our model

- We also estimate the forecast uncertainty with bootstrap.

- Our real-growth forecast of tax revenues for FY2023 is currently -14.3% (-7.4% nominal, or $109.7 billion)
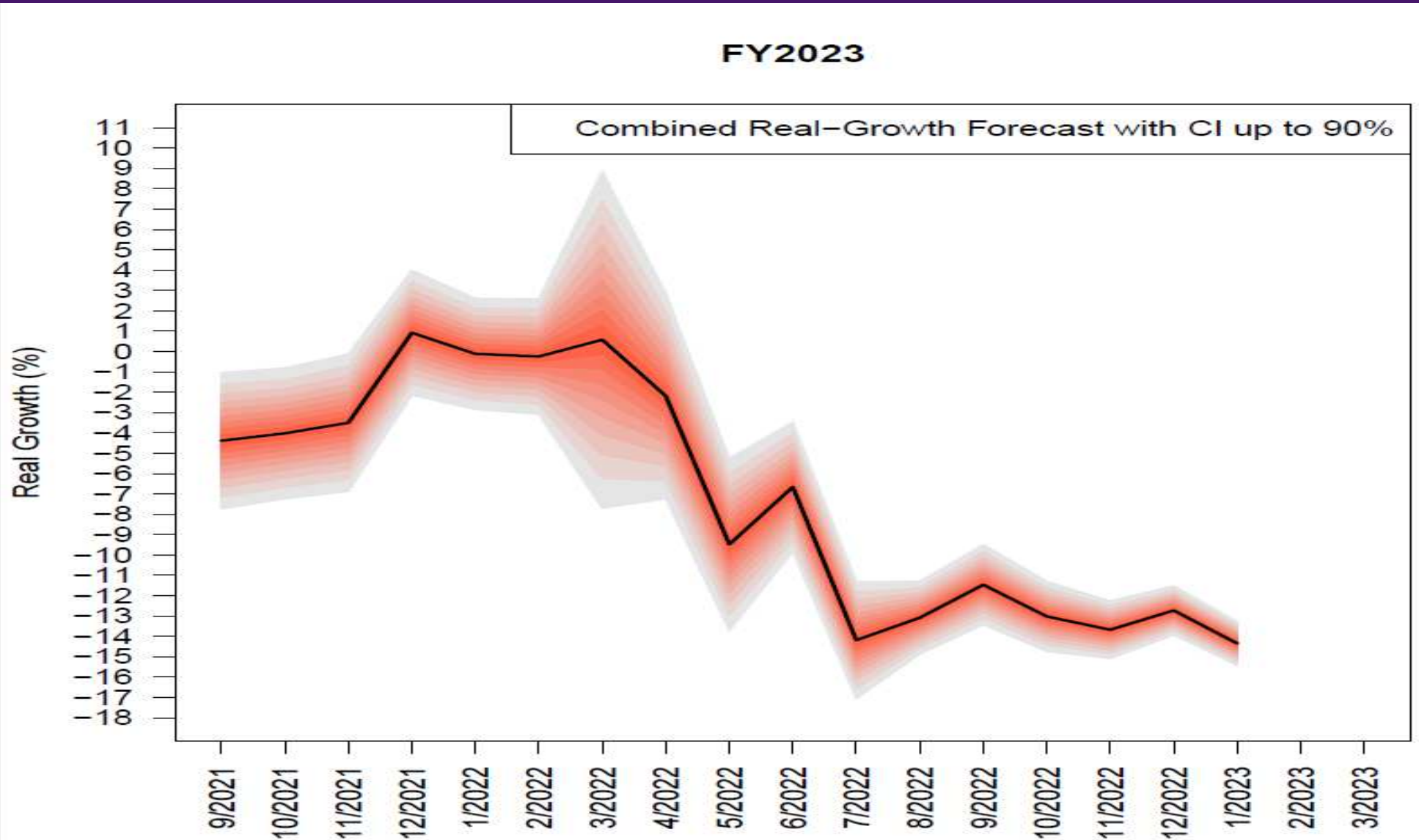
FY2023

- Our real-growth forecast of tax revenues for FY2024 is currently -6.0% (-2.6% nominal), but the forecast uncertainty is quite high due to high economic uncertainty and high forecast errors in recent a few years.

FY2024
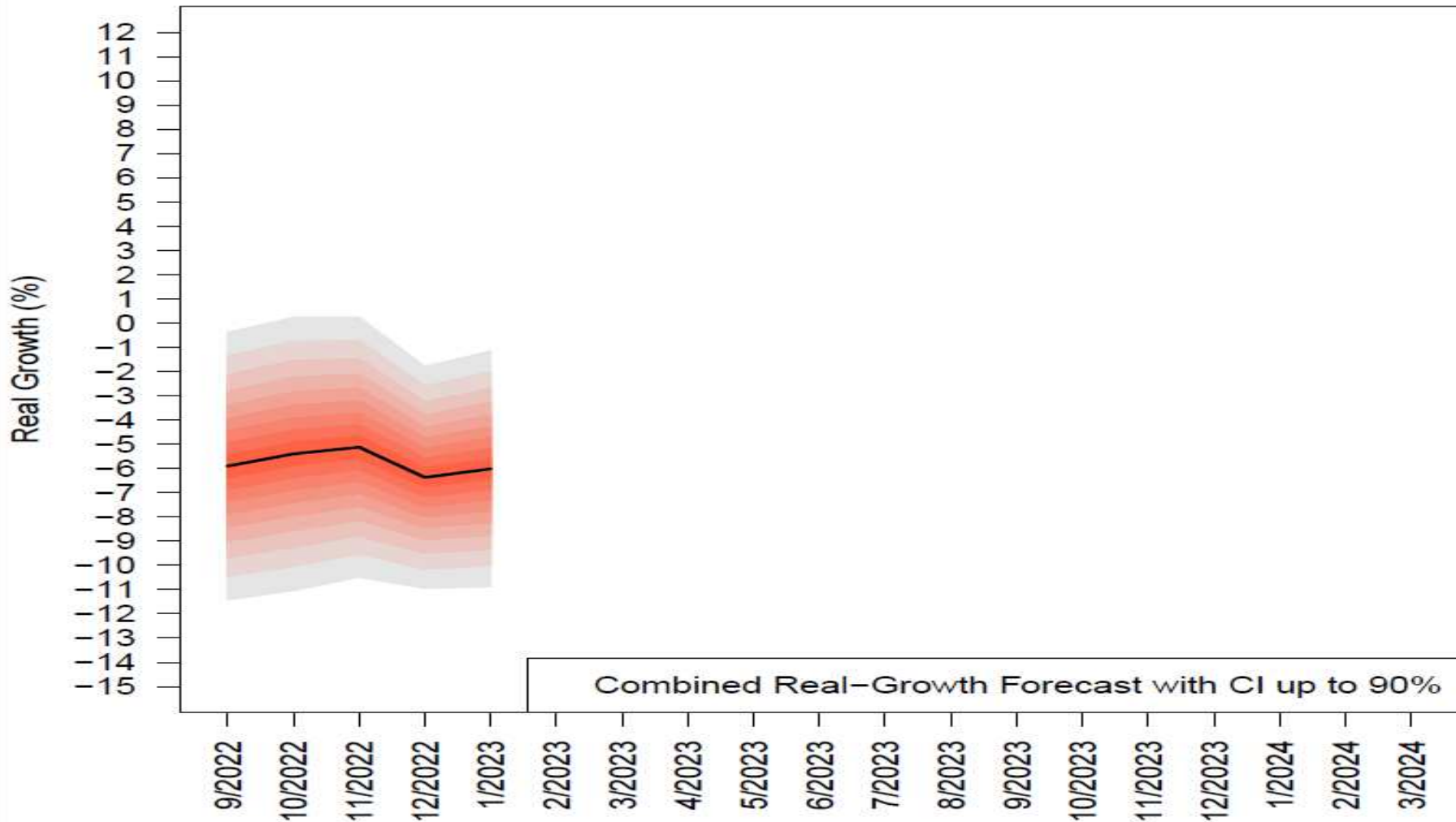
- Our current 14-month-ahead forecast for FY 2024 is -2.6% (nominal growth), or $106.8 billion based on the $109.7 billion nowcast for FY 2023 (using tax department data that includes PTET)

- Currently the forecast uncertainty is high, and a potential effect of an upcoming recession should be factored in. In few months a clearer picture will emerge as new data comes in.