



# 2025 WICPA FINANCIAL INSTITUTIONS CONFERENCE

YOUR SOURCE FOR KEY UPDATES & INSIGHTS ON TIMELY ISSUES

## HIGHLIGHTED TOPICS:



### ARTIFICIAL INTELLIGENCE: IMPACTS FOR COMMUNITY FINANCIAL INSTITUTIONS

Review the opportunities and risks of leveraging different types of AI in financial services



### ECONOMIC & FINANCIAL MARKETS OUTLOOK

Gain insights into forecasts on GDP, Fed policy, interest rates and investment opportunities in the fixed-income market



### AML IN FINTECH: COMPLIANCE & RISK MANAGEMENT ESSENTIALS

Explore the risks of fintech companies and their banking partners under the Bank Secrecy Act and anti-money laundering regulations

TUESDAY, MAY 13 | WICPA CPE LIVESTREAM ONLY

## CONFERENCE AT A GLANCE

**TUESDAY, MAY 13**

WICPA CPE Livestream Only

**8 – 8:10 a.m.**

Welcome & Opening Remarks

**8:10 – 9:20 a.m.**

GENERAL SESSION

Economic & Financial Markets  
Outlook

**9:20 – 9:30 a.m.**

Break

**9:30 – 10:20 a.m.**

GENERAL SESSION

Navigating Current Tax  
Developments & Accounting  
Changes

**10:20 – 10:30 a.m.**

Break

**10:30 – 11:20 a.m.**

GENERAL SESSION

AML in Fintech: Compliance  
& Risk Management Essentials

**11:20 – 11:30 a.m.**

Break

**11:30 a.m. – 12:20 p.m.**

GENERAL SESSION

Leveraging the Changing  
Regulatory Environment

**12:20 – 1:10 p.m.**

Lunch

**1:10 – 2:10 p.m.**

GENERAL SESSION

Artificial Intelligence:  
Impacts for Community  
Financial Institutions

**2:10 – 2:20 p.m.**

Break

**2:20 – 3:20 p.m.**

GENERAL SESSION

ALM Hot Buttons & Strategies  
for Success

**3:20 – 3:30 p.m.**

Break

**3:30 – 4:45 p.m.**

GENERAL SESSION

Ethics & Decision Making

**4:45 p.m.**

Closing Remarks

# 2025 WICPA GOLF OUTING

FRIDAY, SEPT. 19 – Ironwood Golf Course, Sussex



## 4-PERSON SCRAMBLE

\$95 per Golfer  
\$380 for Foursome

## REGISTRATION INCLUDES

18 Holes of Golf With Cart  
Practice Greens & Driving Range  
Continental Breakfast & Lunch  
Beverage Vouchers  
Hole & Event Contests  
Entry in Prize Drawings  
Awards Reception & Appetizers

## SCHEDULE

8:30 a.m.  
Check-In & Breakfast  
  
9:00 a.m.  
Practice Greens  
& Driving Range  
  
10:00 a.m.  
Shotgun Start  
  
4:00 p.m.  
Awards Reception,  
Prize Drawings & Appetizers

## HOLE & EVENT PRIZES

\$1,000+ in Drawing Prizes  
\$500+ in Individual Prizes  
\$500+ in Team Prizes  
\$500 Inside the Circle Contest

Scan the QR code or visit [wicpa.org/GolfOuting](http://wicpa.org/GolfOuting) to register.



# SAVE THE DATE!

## UPCOMING WICPA CONFERENCES & SPECIAL EVENTS



### CONFERENCES

WICPA conferences are your source for key updates and insights on timely issues. As a WICPA member, you can save up to \$150 on registration!

#### **Business & Industry Spring Conference**

Thursday, March 20  
Brookfield Conference Center & WICPA CPE Livestream

#### **Financial Institutions Conference**

Tuesday, May 13  
WICPA Office & WICPA CPE Livestream

#### **School District Audit Conference**

Thursday, May 29  
WICPA CPE Livestream Only

#### **Business & Industry Fall Conference**

Tuesday, Sept. 9  
Brookfield Conference Center & WICPA CPE Livestream

#### **Not-for-Profit Accounting Conference**

Tuesday, Sept. 16  
WICPA Office & WICPA CPE Livestream

#### **Tax Conference**

Monday, Nov. 10 - Tuesday, Nov. 11  
Brookfield Conference Center & WICPA CPE Livestream

#### **Accounting & Auditing Conference**

Thursday, Nov. 20  
WICPA Office & WICPA CPE Livestream

#### **Accounting Technology Conference**

Thursday, Dec. 4  
WICPA Office & WICPA CPE Livestream

### SPECIAL EVENTS

WICPA special events are unique opportunities to connect with fellow members and provide a great way to socialize and have fun!

#### **Member Recognition Banquet & Annual Business Meeting**

Friday, May 9  
Brookfield Conference Center

#### **New CPA Banquet**

Friday, June 13  
Brookfield Conference Center

#### **Golf Outing**

Friday, Sept. 19  
Ironwood Golf Course

#### **Bowling Night**

Thursday, April 30, 2026  
New Berlin Ale House

Conveniently attend WICPA conferences from anywhere with an internet connection!

[wicpa.org/Livestream](http://wicpa.org/Livestream)

[wicpa.org/OnDemand](http://wicpa.org/OnDemand)

Registration opens approximately eight weeks prior. For more details about each and to register, visit [wicpa.org/conferences](http://wicpa.org/conferences) and [wicpa.org/events](http://wicpa.org/events).

# JOIN A CONFERENCE PLANNING COMMITTEE

## Participate in planning a WICPA conference and enjoy:

- ⦿ FREE registration\*  
(a \$300-\$400 value!)
- ⦿ Exclusive networking
- ⦿ Leadership skill development
- ⦿ Recognition for your WICPA involvement
- ⦿ Informal CPE credit

\* To receive free conference registration:

- attend one planning meeting ~ 2 hours
- select topics
- contact speakers
- introduce speakers at conferences

## 2025 CONFERENCES Accepting Volunteers

SEPT.  
9

BUSINESS &  
INDUSTRY FALL  
CONFERENCE

SEPT.  
16

NOT-FOR-PROFIT  
ACCOUNTING  
CONFERENCE

NOV.  
10-11

TAX  
CONFERENCE

NOV.  
20

ACCOUNTING &  
AUDITING  
CONFERENCE

For more information or to join, email [tammy@wicpa.org](mailto:tammy@wicpa.org).



# TRACK YOUR CPE WITH THE WICPA'S CPE TRACKER

The CPE Tracker is an easy to use tool created to keep track of all your CPE in one convenient location.

- Automatically tracks WICPA formal learning activities
- Add any non-WICPA CPE courses
- Print reports for any reporting period

**To get started, visit  
[wicpa.org/cpetracker](http://wicpa.org/cpetracker)**



8:10 – 9:20 a.m.

# Economic & Financial Markets Outlook

**Jordan Jackson**, *Executive Director, Global Market Strategist,*  
*J.P. Morgan Asset Management*



# Guide to the Markets<sup>®</sup>

Jordan Jackson,  
Global Market Strategist

U.S. | 2Q 2025  
As of April 30, 2025



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ASSET MANAGEMENT



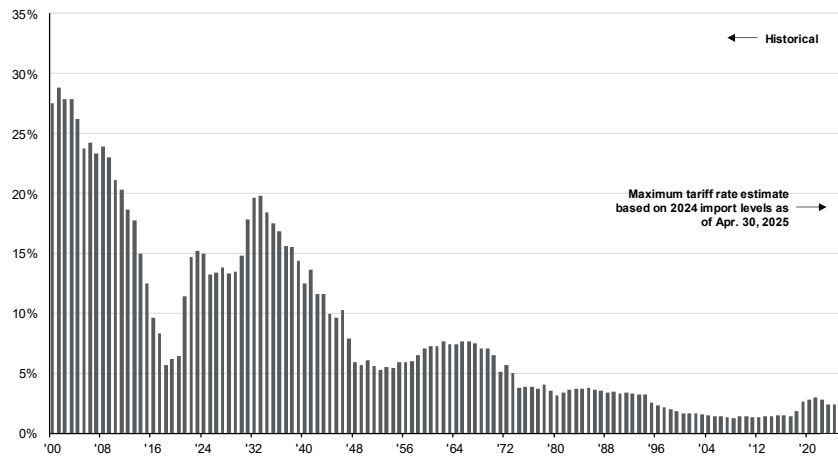
## We are now experiencing the highest tariff rate since the 1930's

GTM U.S. 31

### Average tariff rate on U.S. goods imports for consumption

Duties collected / value of total goods imports for consumption

Economy



Source: Goldman Sachs Investment Research, United States International Trade Commission, J.P. Morgan Asset Management. For illustrative purposes only. Estimates about which goods are USMCA compliant come from Goldman Sachs Investment Research. Imports for consumption: goods brought into a country for direct use or sale in the domestic market. The estimate does not consider non-tariff barriers, such as value-added taxes. Figures are based on 2024 import levels and assume no change in demand due to tariff increases. Forecasts are based on current data and assumptions about future economic conditions. Actual results may differ materially due to changes in economic, market, and other conditions. Guide to the Markets – U.S. data as of April 30, 2025.

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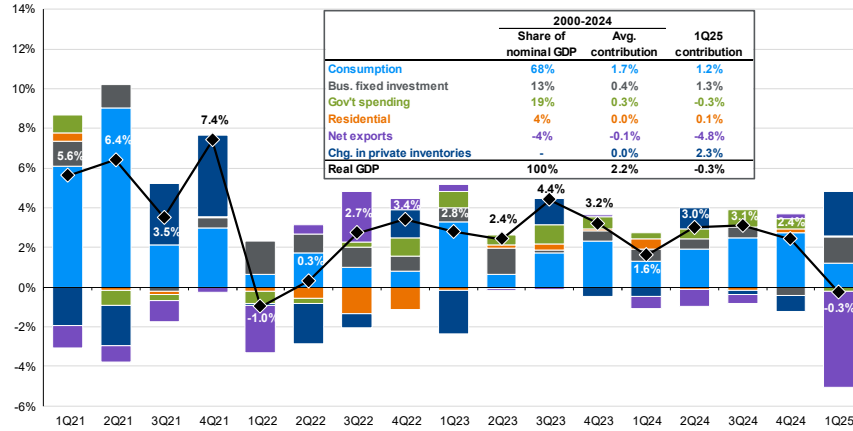


## 1Q25 growth was heavily impacted by the pulling forward of purchases ahead of tariffs

GTM U.S. 18

### Contributors to real GDP growth

Quarter-over-quarter, seasonally adjusted annualized rate



Source: BEA, FactSet, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of April 30, 2025.

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## Consumer and business confidence continues to wane suggesting further softening in the economy

GTM U.S. 32

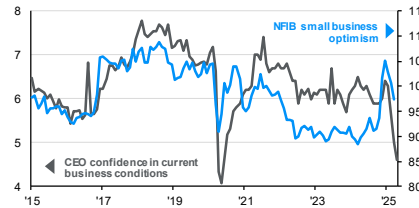
### ISM manufacturing and services PMIs

Index value, below 50 = contraction, above 50 = expansion



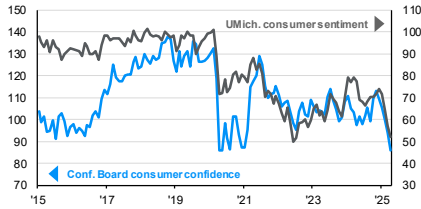
### Business confidence

Index value



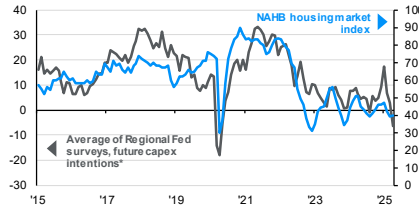
### Consumer confidence

Index value



### Capex intentions and homebuilder sentiment

Index value



Source: BLS, Chief Executive Group, Conference Board, Federal Reserve Bank of Chicago, Federal Reserve Bank of Dallas, Federal Reserve Bank of Kansas City, Federal Reserve Bank of Philadelphia, Federal Reserve Bank of New York, Federal Reserve Bank of Richmond, ISM, NFB, University of Michigan, J.P. Morgan Asset Management. \*Average includes the Chicago Fed, Philly Fed, Richmond Fed, Dallas Fed, Kansas City Fed and NY Fed manufacturing surveys of future capital expenditures. All surveys collect capital expenditure intentions for the next 6 months besides the Chicago Fed survey, which collects capital expenditure intentions for the next 12 months. Guide to the Markets – U.S. Data are as of April 30, 2025.

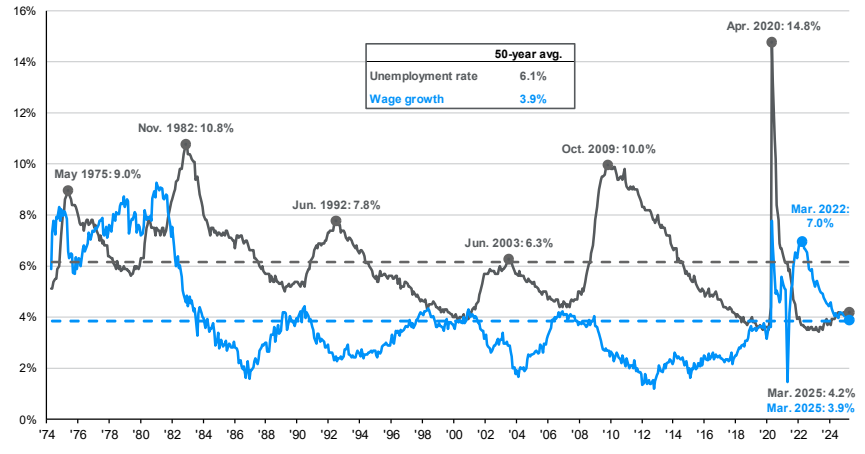
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## After a strong March employment report, labor markets are poised to weaken going forward.

GTM U.S. 24

**Civilian unemployment rate and year-over-year wage growth**  
Private production and non-supervisory workers, seasonally adjusted, percent



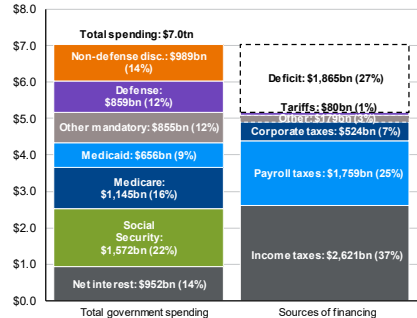
Source: BLS, FactSet, J.P. Morgan Asset Management. Private production and non-supervisory jobs represent just over 80% of total private nonfarm jobs. Guide to the Markets – U.S. Data are as of April 30, 2025.

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## Weakening growth/recession gives the administration the green light to increase fiscal stimulus next year

GTM U.S. 23

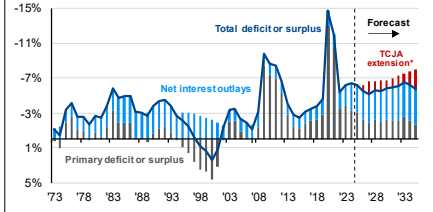
**The 2025 federal budget**  
USD trillions



**CBO's Baseline economic assumptions**

	2025	'26-'27	'28-'29	'30-'35
Real GDP growth	2.2%	1.8%	1.8%	1.8%
10-year Treasury	4.1%	3.9%	3.9%	3.8%
Headline inflation (CPI)	2.3%	2.4%	2.3%	2.2%
Unemployment	4.2%	4.4%	4.4%	4.4%

**Federal deficit and net interest outlays**  
% of GDP, 1973-2035, CBO Baseline Forecast



**Federal net debt (accumulated deficits)**  
% of GDP, 1940-2035, CBO Baseline Forecast, end of fiscal year



Source: CBO, J.P. Morgan Asset Management; (Left) Numbers may not sum to 100% due to rounding; (Top and bottom right) BEA, Treasury Department. Estimates are from the Congressional Budget Office (CBO) January 2025 An Update to the Budget Outlook: 2025 to 2035. "Other" spending includes, but is not limited to, health insurance subsidies, income security and federal civilian and military retirement. Years shown are fiscal years. \*Adjusted by JPMAM to include estimates from the CBO March 2025 report "Projections of Deficits and Debt Under Alternative Scenarios for the Budget and Interest Rates" on the extension of TCJA provisions. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated. Guide to the Markets – U.S. Data are as of April 30, 2025.

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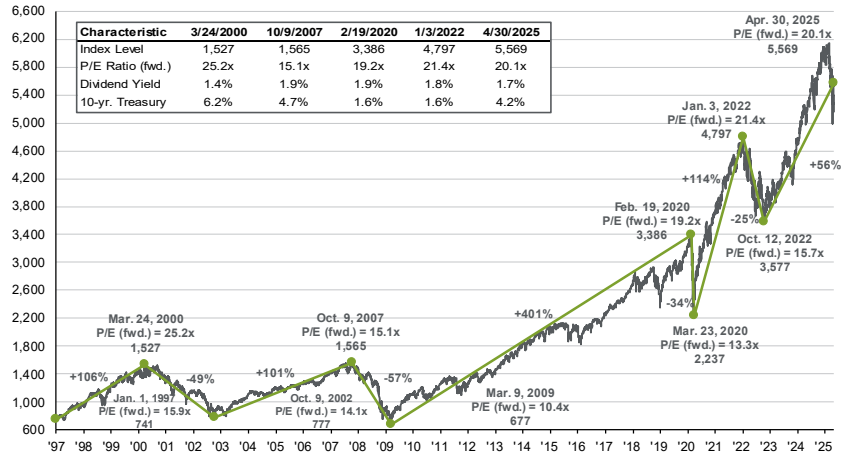


## Elevated uncertainty have led equities to correct quickly via valuations

GTM U.S. 4

Equities

### S&P 500 Price Index



Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.  
 Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price-to-earnings ratio is a bottom-up calculation based on I/B/E/S estimates and FactSet estimates since January 2022. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.  
 Guide to the Markets – U.S. Data as of April 30, 2025.

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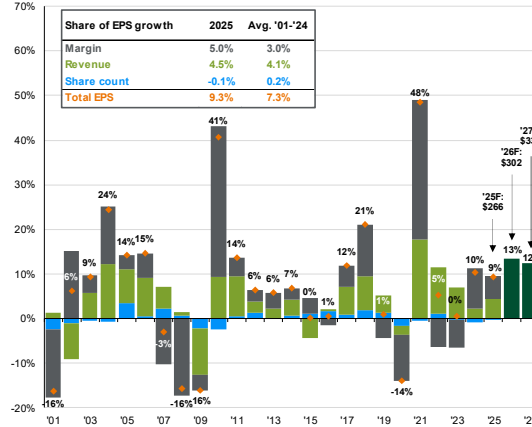
## EPS outlook remains too rosy

GTM U.S. 7

Equities

### S&P 500 year-over-year pro forma EPS growth

Annual growth broken into changes in revenue, profit margin and share count



Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.  
 Historical EPS levels are based on annual pro forma earnings per share. 2025, 2026 and 2027 EPS growth are based on consensus analyst estimates for each calendar year. Past performance is not indicative of future returns.  
 Guide to the Markets – U.S. Data as of April 30, 2025.

### S&P 500 profit margins

Quarterly earnings/sales

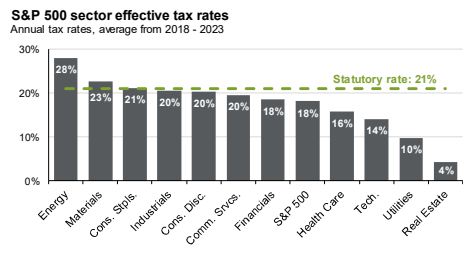
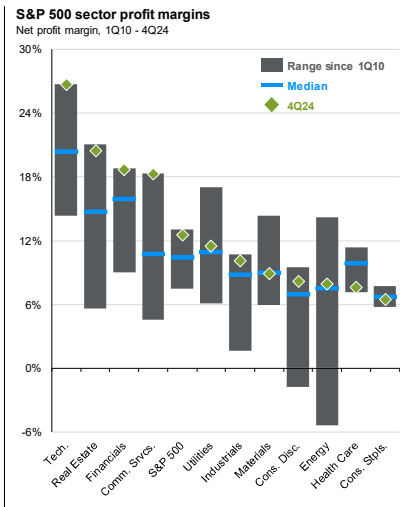
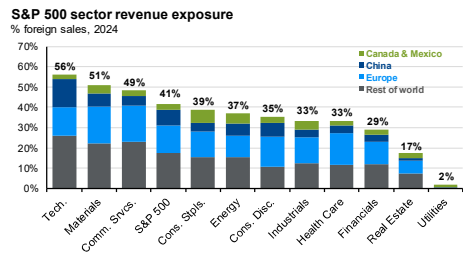


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## The negative effect of trade policy changes will far outweigh any corporate tax cuts

GTM U.S. 9

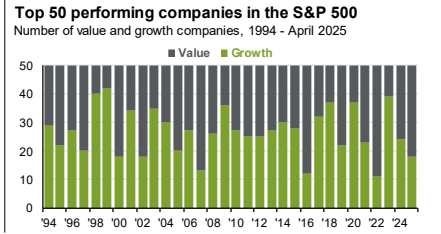
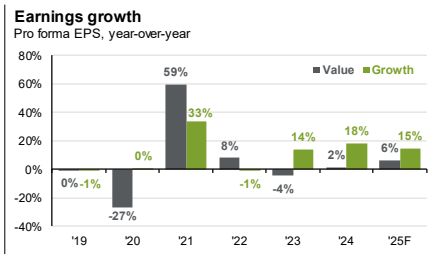
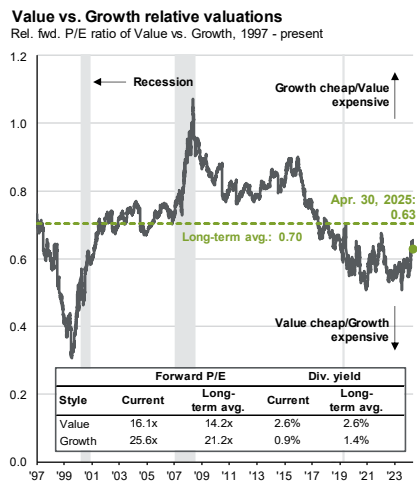


Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management. (Bottom left) Tax rates are effective federal, state and local rates. Real estate effective tax rate average from 2018 to 2023 is a bottoms-up calculation due to data availability limitations. (Right) Real estate receives taxation benefits by distributing most of its profits.

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## Value has fared the sell off better

GTM U.S. 10



Source: FactSet, FTSE Russell, NBER, J.P. Morgan Asset Management. Growth is represented by the Russell 1000 Growth Index and Value is represented by the Russell 1000 Value Index. (Left) Long-term averages are calculated monthly since December 1997. Dividend yield is calculated as the next 12-month consensus dividend divided by most recent price. (Top Right) Earnings estimates for 2025 are forecasts based on consensus analyst expectations. (Bottom Right) Graph was made by ranking the S&P 500 constituents by total return on a yearly basis. On average, 23 of the top 50 performing companies are value and 27 are growth.

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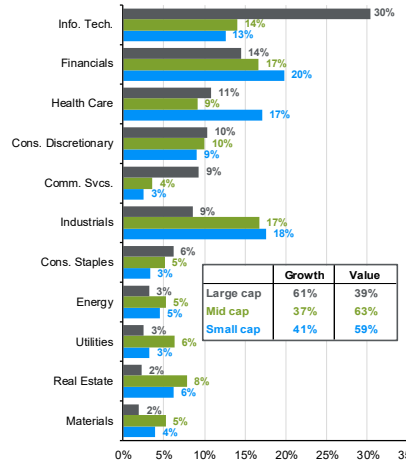
## Small caps may continue to underperform given weakening growth prospects

GTM U.S. 13

Equities

### Sector composition

% of index market capitalization

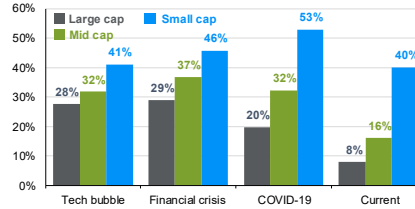


Source: Compustat, FactSet, FTSE Russell, NBER, J.P. Morgan Asset Management.

The S&P 500 is used for large cap. The Russell Mid Cap is used for mid cap. The Russell 2000 is used for small cap. Data for the percent of unprofitable companies in each index are from the following quarters: Tech bubble = 4Q01, Financial crisis = 4Q08, COVID-19 = 1Q20 and Current = 4Q24. Guide to the Markets - U.S. Data as of April 30, 2025.

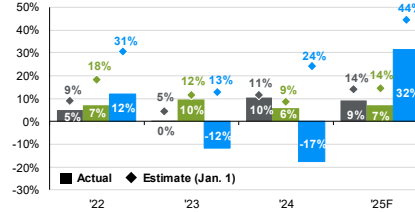
### Percent of unprofitable companies

Pro forma EPS



### Earnings growth

Pro forma EPS, year-over-year, actuals vs. consensus estimates



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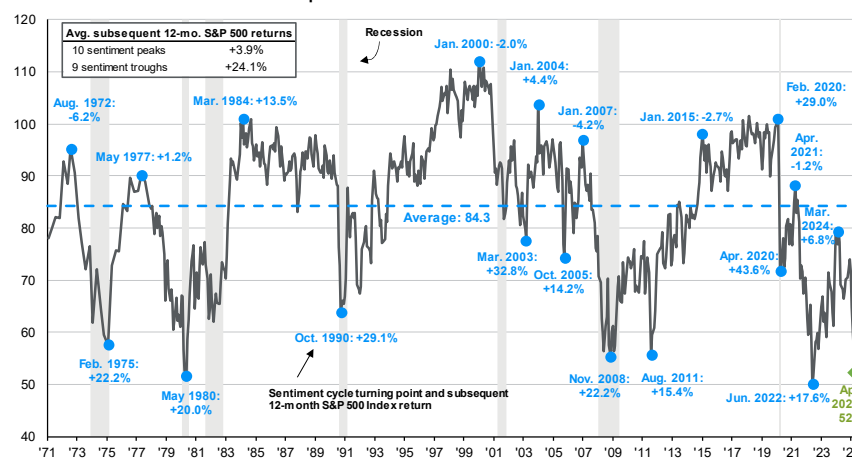


## However, depressed consumer sentiment has historically been a good time to buy

GTM U.S. 20

Economy

### Consumer Sentiment Index and subsequent 12-month S&P 500 returns



Source: FactSet, Standard & Poor's, University of Michigan, J.P. Morgan Asset Management.

Peak is defined as the highest index value before a series of lower lows, while a trough is defined as the lowest index value before a series of higher highs. Subsequent 12-month S&P 500 returns are price returns only starting from the end of the month and excluding dividends. Past performance is not a reliable indicator of current and future results. Guide to the Markets - U.S. Data as of April 30, 2025.

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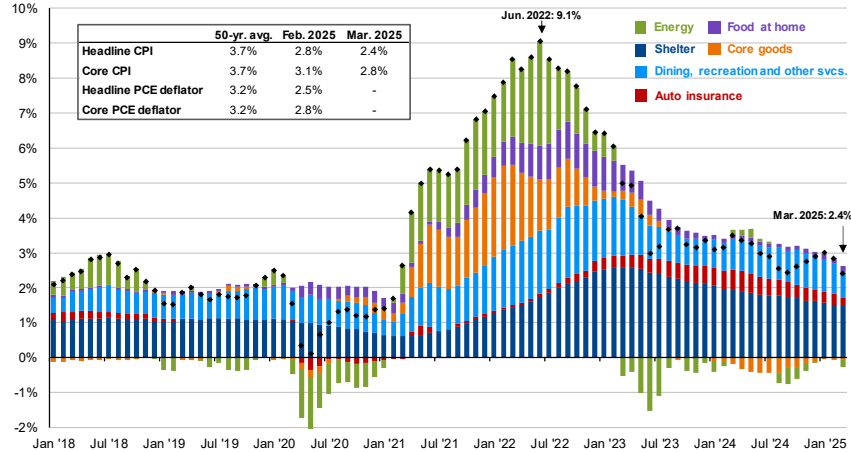
## The broad disinflationary trend likely to stall out in the near term

GTM U.S. 27

Economy

### Contributors to headline CPI inflation

Contribution to y/y % change in CPI, non-seasonally adjusted



Source: BLS, FactSet, J.P. Morgan Asset Management. Contributions mirror the BLS methodology on Table 7 of the CPI report. Values may not sum to headline CPI figures due to rounding and underlying calculations. "Shelter" includes owners' equivalent rent, rent of primary residence and home insurance. "Food at home" includes alcoholic beverages. Guide to the Markets - U.S. Data as of April 30, 2025.

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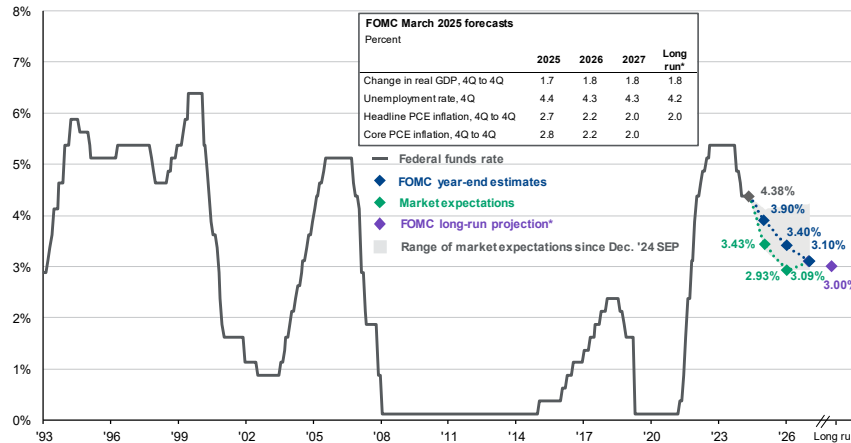
## Markets now anticipate ~4 cuts this year

GTM U.S. 33

Fixed Income

### Federal funds rate expectations

FOMC and market expectations for the federal funds rate



Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management. Market expectations are based off of USD Overnight Index Swaps. \*Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated. Guide to the Markets - U.S. Data as of April 30, 2025.

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## Bonds have proven their worth as a ballast to portfolio returns this year

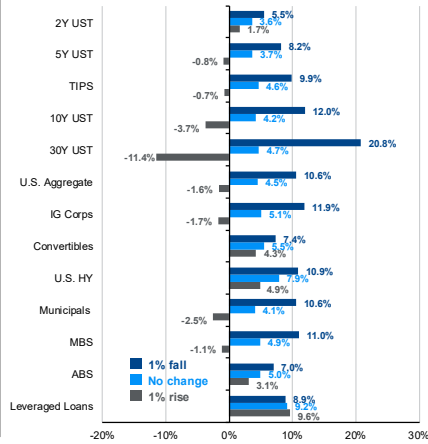
GTM U.S. 36

Fixed Income

	Yield			Return		
	4/30/2025	12/31/2024	2025	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
<b>U.S. Treasuries</b>						
2-Year	3.60%	4.25%	2.44%	2 years	0.74	0.00
5-Year	3.72%	4.38%	4.46%	5	0.94	-0.02
TIPS	1.70%	2.13%	4.29%	7.3	0.73	0.34
10-Year	4.17%	4.56%	4.85%	10	1.00	-0.07
30-Year	4.66%	4.78%	2.99%	30	0.93	-0.10
<b>Sector</b>						
U.S. Aggregate	4.51%	4.91%	3.18%	8.4	0.90	0.25
IG Corps	5.14%	5.33%	2.27%	10.4	0.69	0.47
Convertibles	5.54%	6.13%	-0.26%	-	-0.03	0.86
U.S. HY	7.90%	7.49%	0.98%	4.7	0.09	0.79
Municipals	4.06%	3.74%	-1.03%	13.4	0.73	0.27
MBS	4.93%	5.27%	3.35%	7.9	0.81	0.26
ABS	5.01%	5.38%	2.19%	2.2	0.42	0.23
Leveraged Loans	9.25%	8.68%	0.41%	4.7	-0.22	0.62

### Fixed income returns in different interest rate scenarios

Total return, assumes a parallel shift in the yield curve



Source: Bloomberg, FactSet, Federal Reserve Bank of Cleveland, Standard & Poor's, U.S. Treasury, J.P. Morgan Asset Management. Sectors shown above are provided by Bloomberg unless otherwise noted and are represented by - U.S. Aggregate; MBS: U.S. Aggregate Securitized; ABS: J.P. Morgan ABS Index; IG Corporates: U.S. Corporates; Municipals: Muni Bond; High Yield: Corporate High Yield; Leveraged Loans: J.P. Morgan Leveraged Loan Index; TIPS: Treasury Inflation-Protected Securities; Convertibles: U.S. Convertibles Composite. Convertibles yield is as of most recent month-end and is based on U.S. portion of Bloomberg Global Convertibles Index. Yield and return information based on beliefweathers for Treasury securities. Yields shown for TIPS are real yields. TIPS returns consider the impact that inflation could have on returns by assuming the Cleveland Fed's 1-year inflation expectation forecasts are realized. Sector yields reflect yield-to-worst. Leveraged loan yields reflect the yield to 3Y takeout. Correlations are based on 15-years of monthly returns for all sectors. ABS returns prior to June 2021 are sourced from Bloomberg. Past performance is not indicative of future results. Guide to the Markets - U.S. Data are as of April 30, 2025.

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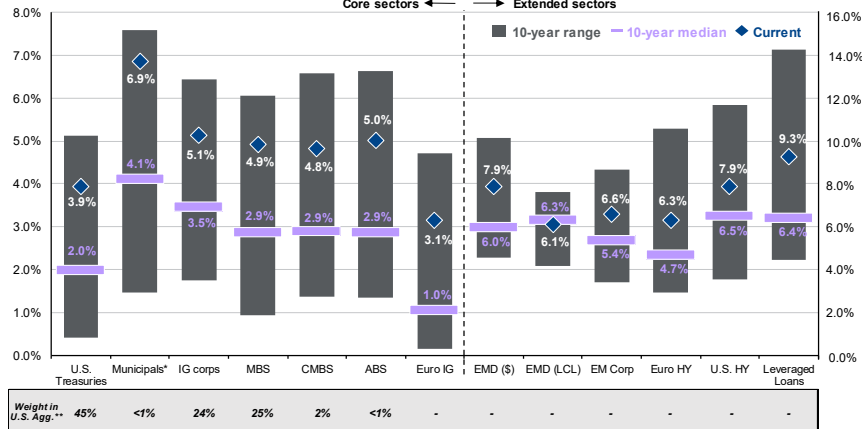
## Bond yields still look attractive

GTM U.S. 39

Fixed Income

### Yield-to-worst across fixed income sectors

Percent, past 10 years



Source: Bloomberg, FactSet, J.P. Morgan Credit Research, J.P. Morgan Asset Management. Indices used are Bloomberg except for ABS, emerging market debt and leveraged loans: ABS: J.P. Morgan ABS Index; CMBS: Bloomberg Investment Grade CMBS Index; EMD (USD): J.P. Morgan EMDGLOBAL Diversified Index; EMD (LCL): J.P. Morgan GBI-EM Global Diversified Index; EM Corp.: J.P. Morgan CEMBI Broad Diversified; Leveraged Loans: JPM Leveraged Loan Index; Euro IG: Bloomberg Euro Aggregate Corporate Index; Euro HY: Bloomberg Pan-European High Yield Index. Yield-to-worst is the lowest possible yield that can be received on a bond apart from the company defaulting and considers factors like call provisions, prepayments and other features that may affect the bonds' cash flows. \*All sectors shown are yield-to-worst except for Municipals, which is based on the tax-equivalent yield-to-worst assuming a top-income tax bracket rate of 37% plus a Medicare tax rate of 3.8%. \*\*Sectors shown may not exactly match all sectors represented in the Bloomberg U.S. Aggregate Index. Sector level weights are shown, and index constituents may not match. Guide to the Markets - U.S. Data are as of April 30, 2025.

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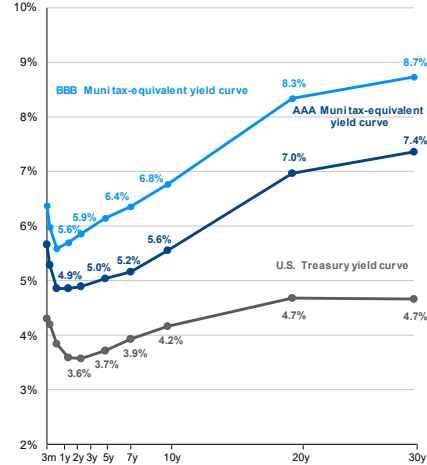


## Particularly, in the municipal bond market.

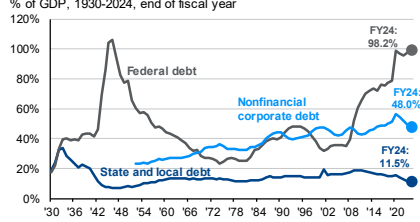
GTM U.S. 41

Fixed Income

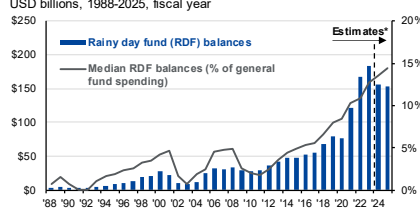
### Muni tax-equivalent and Treasury yield curves



### State and local, federal and corporate debt



### State Rainy Day Fund balances



Source: J.P. Morgan Asset Management; (Left) Bloomberg, FactSet, Federal Reserve, S&P Global; (Top right) Census Bureau, Congressional Budget Office (CBO), Federal Reserve; (Bottom right) NASBO Fiscal Survey of States Fall 2024. Municipal tax-equivalent yields are calculated based on municipal bond curves for each credit rating according to S&P Global and assume a top-income tax bracket rate of 37% plus a Medicare tax rate of 3.8% for a total tax rate of 40.8%. State and local debt are based on the Census Bureau's Annual Survey of State and Local Government Finances. A rainy day fund, also known as a budget stabilization fund or reserve fund, is a collection of funds that local governments use to prepare for financial emergencies and future stability. \*Estimates are sourced from NASBO's Fall 2024 Fiscal Survey of States. Figures for FY 2024 are preliminary while figures for FY 2025 are projected based on states' enacted budgets. Guide to the Markets - U.S. Data as of April 30, 2025.

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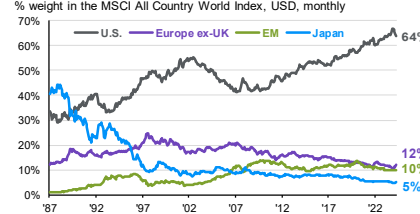
## Global equities have held up a bit better, especially in dollar terms

GTM U.S. 44

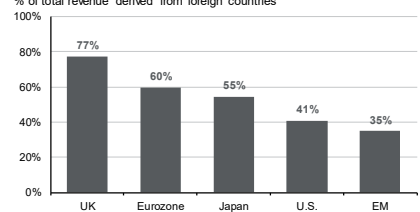
International

Returns	YTD 2025		2024		15-years Ann.	Beta
	Local	USD	Local	USD		
<b>Regions</b>						
U.S. (S&P 500)	-	-4.9	-	25.0	13.0	1.0
AC World ex-U.S.	2.8	9.3	13.2	6.1	5.7	1.0
EAFE	3.1	12.0	11.8	4.3	6.6	1.0
Eurozone	8.0	18.5	10.3	3.4	6.9	1.2
Emerging markets	2.5	4.4	13.7	8.1	3.4	1.0
<b>Selected Countries</b>						
Japan	-4.0	5.8	21.2	8.7	6.2	0.7
United Kingdom	5.6	12.6	9.5	7.5	5.8	1.0
France	4.1	14.2	1.8	-4.6	7.4	1.2
Canada	1.6	5.8	23.0	12.7	5.8	1.1
Germany	13.3	24.4	18.4	11.0	7.5	1.3
China	9.9	10.2	19.8	19.7	3.3	0.9
Taiwan	-12.6	-10.4	44.3	35.1	11.3	1.0
India	0.4	1.8	15.7	12.4	6.5	0.9
Brazil	11.2	19.9	-11.4	-29.5	-1.3	1.3

### Share of global market capitalization



### Revenue exposure vs. country of listing



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. (Left) All return values are MSCI Total Return Index (Gross) data. 15-year history based on USD returns. 15-year return and beta figures are calculated using a rolling 12-month period ending with the previous month-end. Beta is for monthly returns relative to the MSCI All Country World Index. Annualized volatility is calculated as the standard deviation of quarterly returns multiplied by the square root of four. Chart is for illustrative purposes only. Please see disclosure page for index definitions. Past performance is not a reliable indicator of current and future results. (Bottom right) Revenue exposure data are as of the previous quarter-end. Guide to the Markets - U.S. Data as of April 30, 2025.

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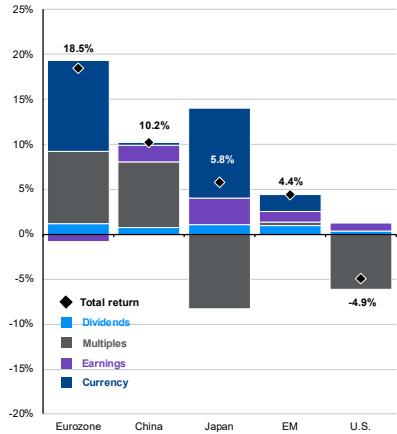


## Driven by positive earnings revisions and improving growth relative to the U.S.

GTM U.S. 45

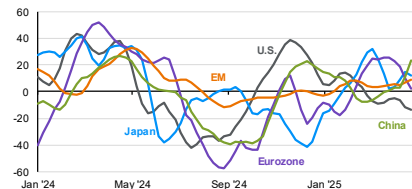
### Global equity return decomposition\*

Total return, year-to-date, USD



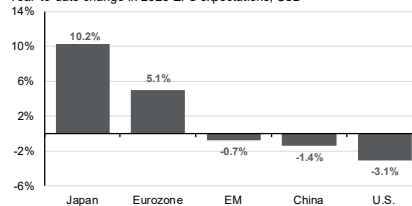
### Economic surprises

Citi Economic Surprises Index, 3-week moving average



### Earnings revisions

Year-to-date change in 2025 EPS expectations, USD



Source: FactSet, J.P. Morgan Asset Management. (Left) All return values are MSCI Gross Index data, except the U.S., which is the S&P 500. \*Multiple expansion is based on the forward P/E ratio, and EPS growth outlook is based on NTMA earnings estimates. Chart is for illustrative purposes only. Past performance is not indicative of future results. (Top right) Citibank. (Bottom right) All return values are MSCI Gross Index data, except the U.S., which is the S&P 500. Guide to the Markets – U.S. Data are as of April 30, 2025.

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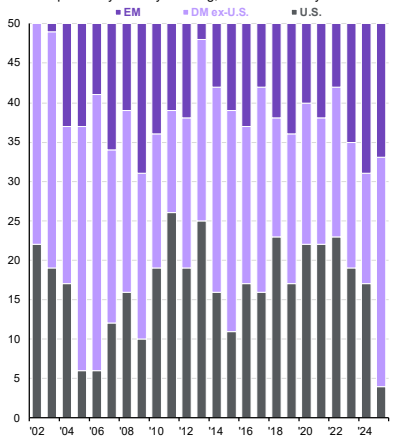


## U.S. performance has arguably been a “one trick” pony/one stock story

GTM U.S. 48

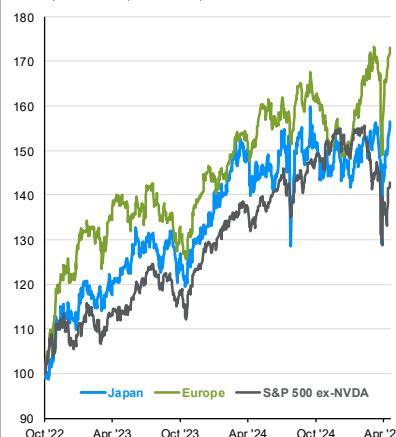
### Top 50 performing companies globally

# of companies by country of listing, MSCI All Country World Index



### S&P 500 ex-NVDA vs. international developed markets

Oct. 12, 2022 = 100, total return, USD



Source: FactSet, MSCI, J.P. Morgan Asset Management. (Left) Graph was made by ranking all the companies in the MSCI All Country World Index by performance on a yearly basis and determining the top 50 performers using their total return in USD. Companies are listed in no particular order. Excluding companies with a market capitalization that does not make up at least 0.01% of the MSCI All Country World Index in the year shown. (Right) Oct. 12, 2022, was the market bottom for U.S. equities. Guide to the Markets – U.S. Data are as of April 30, 2025.

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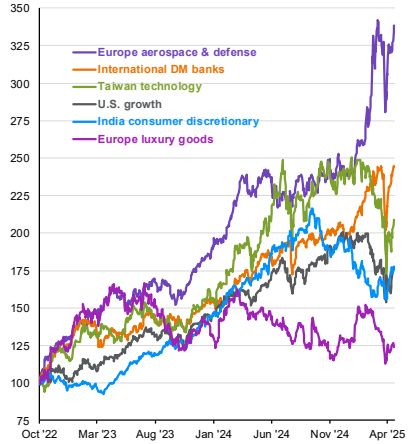


## Specific international themes may be poised to continue to outperform US growth

GTM U.S. 49

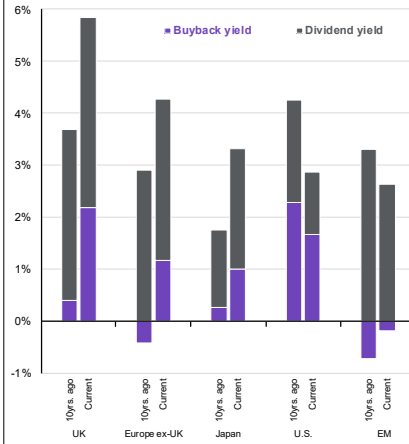
### International thematic performance vs. U.S. growth

Oct. 12, 2022 = 100, total return, USD



### Total shareholder yield by market

10 years ago vs. current, previous quarter-end\*



Source: MSCI, J.P. Morgan Asset Management. (Left) Russell. Each country/sector/industry is represented by its respective MSCI index except U.S. growth which is represented by the Russell 1000 Growth Index. International DM banks = MSCI EAFE / Banks Index. Oct. 12, 2022, was the market bottom for U.S. equities. (Right) Bloomberg, FTSE, Standard & Poor's. \*Buyback yield for S&P 500 is as of the latest available. U.S.: S&P 500, Europe ex-UK: MSCI Europe ex-UK, UK: FTSE 100, EM: MSCI EM, Japan: TOPIX. Net buyback yield adjusts for share issuance. Past performance is not a reliable indicator of current and future results. Guide to the Markets - U.S. Data as of April 30, 2025.

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International



## The best defense against uncertainty is diversification.

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2010-2024		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD																	
Large Cap	13.9%	Small Cap	20.6%	REITs	27.9%	REITs	8.3%	REITs	18.7%	Small Cap	38.8%	REITs	28.0%	2.6%	Small Cap	21.3%	EM	37.5%	Cash	1.6%	Large Cap	31.5%	Small Cap	20.0%	REITs	41.3%	Comdty.	16.1%	Large Cap	26.3%	Large Cap	25.0%	EM	12.0%
Small Cap	10.3%	EM	17.9%	Small Cap	25.9%	Fixed Income	7.8%	High Yield	19.6%	Large Cap	32.4%	Large Cap	13.7%	1.4%	High Yield	14.3%	DM	25.6%	Fixed Income	0.0%	REITs	28.7%	EM	18.7%	Large Cap	28.7%	1.5%	DM	18.9%	Small Cap	11.5%	EM	4.4%	
REITs	9.4%	REITs	16.8%	EM	19.2%	High Yield	3.1%	EM	18.6%	DM	23.3%	Fixed Income	6.0%	0.5%	Large Cap	12.0%	Large Cap	21.9%	Large Cap	-4.0%	REITs	25.5%	Small Cap	18.4%	Large Cap	27.1%	Comdty.	High Yield	Small Cap	Asset Alloc.	High Yield	Comdty.	3.6%	
Asset Alloc.	7.2%	DM	16.5%	Comdty.	16.8%	Large Cap	2.1%	DM	17.9%	Asset Alloc.	5.2%	Asset Alloc.	0.0%	0.0%	Cash	0.0%	Cash	11.8%	Small Cap	14.5%	High Yield	14.5%	DM	Asset Alloc.	Small Cap	14.8%	Asset Alloc.	Small Cap	Fixed Income	Asset Alloc.	High Yield	Fixed Income	3.2%	
High Yield	5.9%	Comdty.	16.1%	Large Cap	15.1%	Cash	0.1%	Small Cap	16.3%	High Yield	7.3%	Small Cap	4.9%	0.4%	DM	Equity	EM	11.6%	Asset Alloc.	14.6%	Large Cap	Asset Alloc.	DM	Asset Alloc.	DM	Asset Alloc.	Asset Alloc.	Asset Alloc.	High Yield	EM	High Yield	EM	2.7%	
DM	5.7%	Large Cap	15.1%	High Yield	14.8%	Asset Alloc.	-0.7%	Large Cap	16.0%	REITs	2.9%	0.0%	0.0%	-2.0%	Asset Alloc.	REITs	DM	11.8%	High Yield	10.4%	Asset Alloc.	EM	Fixed Income	DM	DM	DM	DM	REITs	Comdty.	Cash	1.4%			
EM	3.4%	Asset Alloc.	10.4%	Asset Alloc.	13.3%	Small Cap	-4.2%	Asset Alloc.	12.2%	Cash	0.0%	0.0%	0.0%	0.0%	High Yield	DM	High Yield	Asset Alloc.	8.3%	REITs	8.7%	Small Cap	High Yield	High Yield	High Yield	High Yield	High Yield	High Yield	Large Cap	EM	Cash	Asset Alloc.	0.9%	
Fixed Income	2.4%	High Yield	9.4%	DM	8.2%	DM	-11.7%	DM	Equity	Fixed Income	4.2%	Fixed Income	-2.0%	-1.8%	EM	Small Cap	Fixed Income	DM	Fixed Income	2.6%	Fixed Income	3.5%	Fixed Income	Comdty.	Fixed Income	Cash	Cash	EM	Fixed Income	REITs	REITs	0.7%		
Cash	1.2%	Fixed Income	4.7%	Comdty.	6.5%	Comdty.	-13.3%	Cash	EM	Equity	0.1%	0.1%	0.3%	-4.9%	DM	Equity	DM	Equity	1.7%	Comdty.	DM	Comdty.	DM	Comdty.	Fixed Income	Cash	Comdty.	Fixed Income	Small Cap	DM	Large Cap	4.9%		
Comdty.	-1.0%	Cash	0.9%	Cash	Equity	-18.2%	-1.1%	Comdty.	Comdty.	Comdty.	Comdty.	Comdty.	Comdty.	Comdty.	Cash	Cash	Cash	0.3%	Cash	0.8%	Cash	Equity	Cash	REITs	REITs	REITs	REITs	Comdty.	Fixed Income	Small Cap	DM	Large Cap	-11.6%	

Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management. Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Fixed Income: Bloomberg U.S. Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Bloomberg U.S. Aggregate, 5% in the Bloomberg 1-3m Treasury, 5% in the Bloomberg Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period from 12/31/2009 to 12/31/2024. Please see disclosure page at end for index definitions. All data represents total return for stated period. The "Asset Allocation" portfolio is for illustrative purposes only. Past performance is not indicative of future returns. Guide to the Markets - U.S. Data as of April 30, 2025.

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Investing Principles



## J.P. Morgan Asset Management – Index definitions

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All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

### Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (All Country World Index)** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.

The **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index** measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index** measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index** measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 2000 Index** measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **Russell 2000 Growth Index** measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index** measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index** measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index** measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index** measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth Index.

The **Russell Midcap Value Index** measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value Index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

### Fixed income:

The **Bloomberg 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have \$250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non-convertible.

The **Bloomberg Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBIS high yield securities.

The **Bloomberg Municipal Index** consists of a broad selection of investment-grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Bloomberg US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Ba3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least \$250 million per amount outstanding. To qualify, bonds must be SEC-registered.

The **Bloomberg US High Yield Index** covers the universe of fixed rate, non-investment grade debt, Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Ba1/BBB+ or below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EM3 countries are included.

The **Bloomberg US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Bloomberg US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

The **J.P. Morgan Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI). The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan Global Emerging Markets Bond Index Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.

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## J.P. Morgan Asset Management – Definitions

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### Other asset classes:

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc.

The **Cambridge Associates U.S. Global Buyout and Growth Index** is based on data compiled from 1,768 global (U.S. & ex-U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2015.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US\$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Index (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub-strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internet HFRI Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index-Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

**Definitions:**

Investing in **alternative assets** involves higher risks than traditional investments and is suitable only for sophisticated investors. Alternative investments involve greater risk than traditional investments and should not be deemed a complete investment program. They are not as efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

**Bonds** are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

**Derivatives** may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

**Distressed Restructuring Strategies** employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for foreign investment or private property.

The price of **equity securities** may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

**Equity market neutral strategies** employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

**Global macro strategies** take a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

**International investing** involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

**Merger arbitrage strategies** which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

**Mid-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

**Price to forward earnings** is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

**Real estate** investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

**Relative Value Strategies** maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

**Small-capitalization** investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.

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## J.P. Morgan Asset Management – Risks & disclosures

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The Market Insights program provides comprehensive data and commentary on global markets without reference to products. Designed as a tool to help clients understand the markets and support investment decision-making, the program explores the implications of current economic data and changing market conditions.

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Unless otherwise stated, all data are as of March 28, 2025 or most recently available.

Guide to the Markets – U.S.

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**J.P.Morgan**  
ASSET MANAGEMENT

9:30 – 10:20 a.m.

# Navigating Current Tax Developments & Accounting Changes

**Lindsey Sabelko, CPA, Partner, Wipfli LLP**

**Brett Schwantes, CPA, Director, Wipfli LLP**

# Navigating Current Tax Developments & Accounting Changes

May 13, 2025

wipfli.com

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## Agenda

### Accounting Update

- New Accounting Standards Updates (ASUs)
- Troubled loan modification and CECL considerations
- FASB's Purchased Financial Assets project

### Tax Update

- Tax extender items
- Tax planning in a high-interest rate environment
- State and local tax issues
- Miscellaneous updates



**ASU 2023-09**

PBEs: Years beginning after December 15, 2024

Non-PBEs: Years beginning after December 15, 2025

Early adoption is permitted

**Improvements to Income Tax Disclosures**

Enhances income tax disclosures by requiring:

- More detailed reconciliation of the effective tax rate to the statutory rate with greater disaggregation required.
- Additional disaggregation of income taxes paid
- Disclosure levels vary significantly for PBE's compared to non-PBE's
  - ▶ Replaces the term "public entity" with "public business entity"



## Improvements to Income Tax Disclosures – PBE’s

- PBE’s must include the following categories in tabular rate recon:
  - ▶ State and local taxes, net
    - Qualitative description of states that make up the majority of the effect
  - ▶ Foreign taxes – Disaggregation for individual items over 5%
  - ▶ Effect of change in tax laws
  - ▶ Effect of cross-border laws – Disaggregation for individual items over 5%
  - ▶ Tax credits – Disaggregation for individual items over 5%
  - ▶ Change in valuation allowance
  - ▶ Nontaxable or nondeductible items – Disaggregation for individual items over 5%
  - ▶ Changes in unrecognized tax benefits
- 5% threshold based on multiplying pretax income by the applicable statutory income tax rate

## Improvements to Income Tax Disclosures – PBE’s

	Year Ended December 31, 20X2			Year Ended December 31, 20X1			Year Ended December 31, 20X0		
	Amount	Percent		Amount	Percent		Amount	Percent	
	\$ AA	aa %		\$ BB	bb %		\$ CC	cc %	
<b>U.S. Federal Statutory Tax Rate</b>									
<b>State and Local Income Taxes, Net of Federal Income Tax Effect <sup>(a)</sup></b>									
<b>Foreign Tax Effects</b>									
United Kingdom									
Statutory tax rate difference between United Kingdom and United States	(AA)	(aa)		(BB)	(bb)		(CC)	(cc)	
Share-based payment awards	AA	aa		BB	bb		CC	cc	
Research and development tax credits	(AA)	(aa)		(BB)	(bb)		(CC)	(cc)	
Other	(AA)	(aa)		BB	bb		(CC)	(cc)	
Ireland									
Statutory tax rate difference between Ireland and United States	(AA)	(aa)		(BB)	(bb)		(CC)	(cc)	
Changes in valuation allowances	(AA)	(aa)		(BB)	(bb)		CC	cc	
Enacted changes in tax laws or rates	-	-		BB	bb		-	-	
Other	AA	aa		(BB)	(bb)		(CC)	(cc)	
Switzerland	(AA)	(aa)		(BB)	(bb)		(CC)	(cc)	
Mexico	AA	aa		BB	bb		CC	cc	
Other foreign jurisdictions	(AA)	(aa)		(BB)	(bb)		CC	cc	
<b>Effect of Changes in Tax Laws or Rates Enacted in the Current Period</b>	-	-		-	-		(CC)	(cc)	
<b>Effect of Cross-Border Tax Laws</b>									
Global intangible low-taxed income	AA	aa		BB	bb		CC	cc	
Foreign-derived intangible income	(AA)	(aa)		(BB)	(bb)		(CC)	(cc)	
Base erosion and anti-abuse tax	AA	aa		BB	bb		CC	cc	
Other	AA	aa		-	-		-	-	
<b>Tax Credits</b>									
Research and development tax credits	-	-		(BB)	(bb)		(CC)	(cc)	
Energy-related tax credits	(AA)	(aa)		-	-		-	-	
Other	-	-		(BB)	(bb)		-	-	
<b>Changes in Valuation Allowances</b>	AA	aa		(BB)	(bb)		(CC)	(cc)	
<b>Nontaxable or Nondeductible Items</b>									
Share-based payment awards	AA	aa		BB	bb		CC	cc	
Goodwill impairment	AA	aa		BB	bb		-	-	
Other	AA	aa		(BB)	(bb)		CC	cc	
<b>Changes in Unrecognized Tax Benefits</b>	(AA)	(aa)		BB	bb		(CC)	(cc)	
<b>Other Adjustments</b>	AA	aa		(BB)	(bb)		(CC)	(cc)	
<b>Effective Tax Rate</b>	\$ AA	aa %		\$ BB	bb %		\$ CC	cc %	

<sup>(a)</sup> State taxes in California and New York made up the majority (greater than 50 percent) of the tax effect in this category.

## Improvements to Income Tax Disclosures – non PBE's

- Non-PBE's do not require a tabular presentation
  - ▶ Must provide qualitative disclosure about specific categories of reconciling items and individual jurisdictions that result in a difference between the statutory and effective tax rates.
  
- Example: The difference between Entity W's effective tax rate and its statutory tax rate is primarily attributed to tax credits, state taxes, and foreign taxes. More specifically, the foreign tax effects of Entity W's operations in Ireland had a decreasing effect on its effective tax rate, while the foreign tax effects of Entity W's operations in France had an increasing effect on its effective tax rate. Entity W received federal research and development tax credits, which decreased its effective tax rate, while state taxes in California increased its effective tax rate.

## Improvements to Income Tax Disclosures – (ALL)

- Income Taxes Paid:
  - ▶ All entities must disclose amount of income taxes paid (net of refunds received) disaggregated by federal, state, and foreign jurisdictions
  - ▶ Further disaggregation required where amount is at least 5% of total income taxes paid
  
- Eliminates disclosures for:
  - ▶ Unrecognized tax benefits having a reasonable possibility of significantly increasing or decreasing in next 12 months

## ASU 2024-03

Years beginning after December 15, 2026

Interim periods beginning after December 15, 2027

Early adoption is permitted

## Income Statement - Expense Disaggregation Disclosure

### *Only applies to public business entities*

- Additional applicability in other industries
- Financial institutions required to present/disclose separately:
  - ▶ Employee compensation
  - ▶ Depreciation
  - ▶ Intangible asset amortization
  - ▶ Certain other expenses included in relevant expense captions
  - ▶ Qualitative description of amounts remaining in relevant expense captions that are not separately disclosed
  - ▶ Disclosures around selling expenses, including a definition

## Income Statement - Expense Disaggregation Disclosure

Required to be disaggregated	Example “other expenses” <sup>(1)</sup>
Purchases of inventory	Impairment loss – intangibles
Employee compensation	Impairment loss – long-lived assets
Depreciation	Gain/loss on sale of long-lived assets
Intangible asset amortization	Gain/loss on derivative instruments
Certain oil- and gas-producing activities	Components of net benefit cost (other than service cost)
	Amortization – hosting arrangement
	Lease costs (disaggregated by type)

<sup>(1)</sup> “Other expenses” are disclosed separately if they are included in a relevant expense line item

## Example Expense Disaggregation Disclosure

### Disaggregation of Relevant Expense Captions

	20X4	20X3	20X2
<b>Occupancy and depreciation expense</b>			
<i>Occupancy and depreciation expense</i>			
Depreciation	\$ 164,232	\$ 146,403	\$ 145,907
Operating lease expense	152,445	103,239	149,842
Other occupancy expenses <sup>(a)</sup>	59,910	30,233	53,930
Total occupancy and depreciation expense	<u>\$ 376,587</u>	<u>\$ 279,875</u>	<u>\$ 349,679</u>

(a) Other occupancy expenses consist primarily of repair and maintenance expense for the years ended December 31, 20X4, 20X3, and 20X2.

#### Other

<i>Other</i>			
Intangible asset amortization	\$ 13,139	\$ 10,980	\$ 10,068
Other <sup>(b)</sup>	17,374	10,419	14,736
Total other	<u>\$ 30,513</u>	<u>\$ 21,399</u>	<u>\$ 24,804</u>

(b) Other consists primarily of regulatory licensing fees and charitable contributions for the years ended December 31, 20X4, 20X3, and 20X2.

## ASU 2023-08

PBEs: Years  
beginning after  
December 15, 2024

Non-PBEs: Years  
beginning after  
December 15, 2024

Early adoption is  
permitted

## Accounting for Certain Crypto Assets

- Certain crypto assets are measured at fair value
- Requires entities to present applicable crypto assets separately from other intangible assets on the balance sheet
- Gains and losses from subsequent measurement would be presented in the income statement separate from changes in carrying value of intangible assets

## Crypto Assets

- ASU 2023-08 applies to crypto assets meeting all of the following criteria:
  - ▶ Meet the definition of an intangible asset
  - ▶ Do not provide rights to underlying goods or services
  - ▶ Created or reside on a distributed ledger or “blockchain”
  - ▶ Secured through cryptography
  - ▶ Fungible
  - ▶ Is not created or issued by the reporting entity or its related parties



## ASU 2022-02

Other considerations

### Troubled loan modification (TLM) considerations:

- What modifications are in scope?
- “Once a TLM, always a TLM?”
- How do TLMs work under CECL?
- Regulatory reporting

## CECL Information

### Implemented – Ongoing Maintenance

- Consider new data, evaluate key inputs and assumptions
- Can have changes to methodology
  - ▶ Models will probably evolve
- Consider whether any changes are:
  - ▶ Change in estimate (this will usually be the answer)
  - ▶ Correction of an error (rare)
  - ▶ Change in accounting principal (unlikely)

## Call Report – Other Liability Changes

### CECL Information

#### Schedule RC-G—Other Liabilities

Dollar Amounts in Thousands	RCON	Amount	
1. a. Interest accrued and unpaid on deposits in domestic offices <sup>6</sup> .....	3645		1.a.
	RCFD		
b. Other expenses accrued and unpaid (includes accrued income taxes payable).....	3646		1.b.
2. Net deferred tax liabilities <sup>3</sup> .....	3049		2.
3. Allowance for credit losses on off-balance-sheet credit exposures .....	B557		3.
4. All other liabilities (itemize and describe amounts greater than \$100,000 that exceed 25 percent			



## FASB Project

Acquired loans

### Existing GAAP

- Acquired loans (non-PCD) are measured at fair value
  - ▶ Fair value discount (premium) is amortized to interest income
- After acquisition, must recognize allowance for credit losses
  - ▶ Charge to earnings (provision for loan losses)

### Tentative Changes

- Acquired loans are measured at fair value
  - ▶ Fair value component related to discount for credit losses would be recognized as an allowance for credit losses
  - ▶ No charge to earnings would be necessary upon acquisition

## FASB Project

Acquired loans

### Feedback from Comment Letters

- Complexity in applying gross-up approach to credit card and other revolving credit facilities
- Application of seasoning criteria
- Application of retrospective lookback (widely disliked)
- Application to securities available for sale





Extending the 2017  
Tax Cuts

- **The Trump administration is pushing to solidify the tax cuts introduced in the 2017 Tax Cuts and Jobs Act (TCJA)**
- **Unless Congress extends or modifies the law, most of the TCJA's provisions are set to expire on December 31, 2025**

**199A – Qualified  
Business Income  
Deduction**

- Top extension priority
- This is to “match” the 21% corporate federal rate for passthrough entities
- Additionally, individual tax rates revert back to pre-TCJA levels at this time
- Top effective rate for federal tax goes from 29.6% to 39.6% for trust & individual shareholders

**100% Bonus  
Depreciation**

- Bonus depreciation began phase out in 2023
  - 80% in 2023
  - 60% in 2024
  - **40% in 2025**
  - 20% in 2026
- Bipartisan support to extend 100%

### **SALT Cap Deduction**

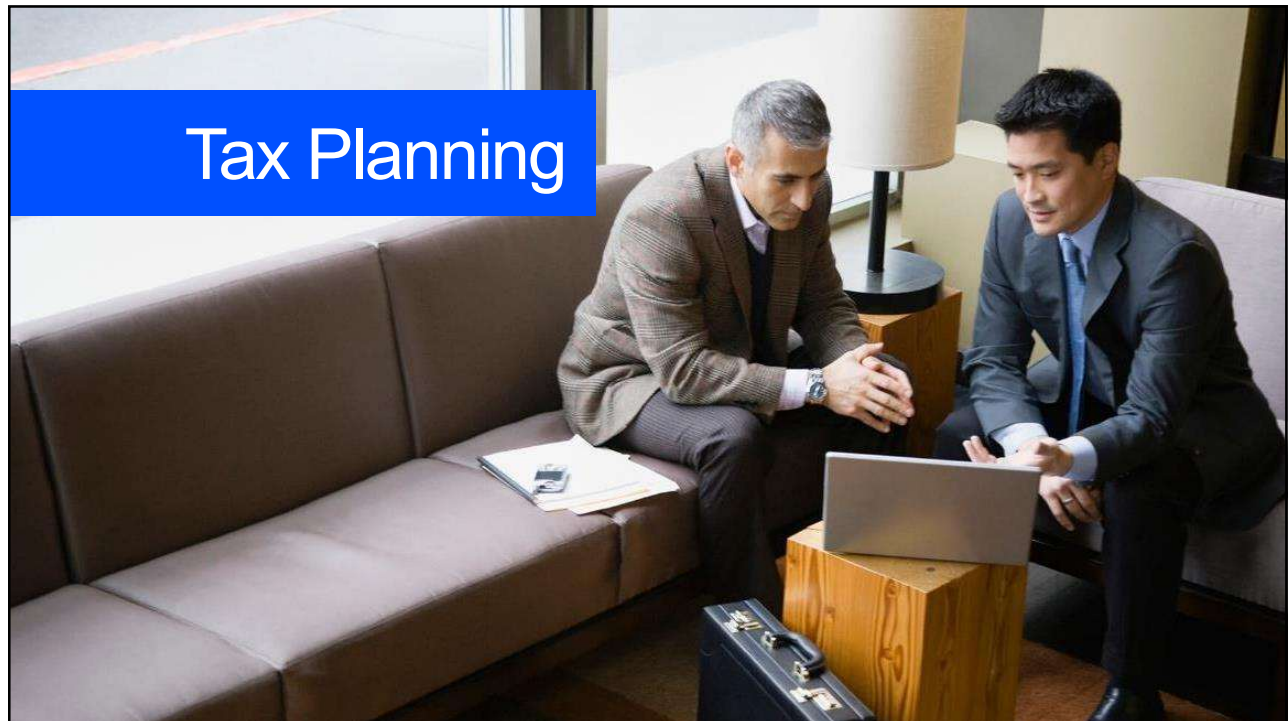
- Current SALT deduction cap is \$10,000 for individuals who itemize on their individual returns
- In 2026, SALT deduction reverts to pre-TCJA rules
- If not extended, SALT deduction limited by AGI, but no dollar cap

### **Estate and Gift Tax Exemption**

- “Double exemption” set to expire 12/31/25
- In 2024, the exemption is \$13,610,000 (\$27,220,000 per couple) with no transfer tax consequences
- In 2025, exemption increases to \$14,100,000 and \$28,200,000, respectively
- In 2026, exemption estimated to be between \$7,000,000 - \$7,250,000 depending on inflation
- Portability between spouses remains after 2025

**Other Items on  
Trumps Agenda**

- Reduction of Corporate Tax Rate
  - Lowering the rate from 21% to 20%, with a 15% rate for US manufacturers
- No taxes on tips and overtime
- No taxes on Social Security Benefits
- Introduction of Tariffs



## Tax Planning

### ▪ TEFRA – Interest Expense Disallowance

- Minimize TEFRA disallowance as interest expense increases
  - Calculated as a percentage of total interest expenses/avg total assets x average municipals
  - S Corporations 20% disallowance on bank qualified municipal investments for first 3 years
  - C Corporations 20% disallowance on bank qualified municipals
  - C Corp and S Corp 100% disallowance on **non-bank qualified municipals**
  - Minimize NBQ bonds
  - TEFRA interest expense disallowance generally does not apply to tax-exempt obligations held by an investment subsidiary
    - There are other tax implication to consider with an investment subsidiary – please consult your tax advisor if you are considering

## Tax Planning

### Gross Receipts and Cash Basis Tax Returns

- In times of higher interest rates gross income increases
  - C Corps
    - 2025 - \$31 million average annual gross receipts over 3 year rolling period
    - Average gross receipts exceeding \$31 million – convert to accrual basis tax return
  - S Corps
    - Generally, no gross receipt limitation
    - Automatic change to cash method with \$50 million or less average annual gross receipts

### **Other tax strategies to increase expense and/or defer income recognition**

#### **Tax Planning**

- Cost segregation studies on constructed or purchased buildings
- Accelerated depreciation on fixed assets
  - Bonus depreciation- 40% in 2025, 20% in 2026, 0% 2027 and on
  - Section 179 – 100% on qualifying assets, limited to \$1,250,000 for 2025 (begins to phase out if 179 purchases exceed \$3,130,000)
- Prepaid expense 12-month rule – Automatic accounting method change
  - Once elected, can determine whether to accelerate deduction each year

### **Bad debt conformity election [Reg. 1.1662(d)(3)] - Current**

#### **Tax Planning**

- Any bank can make the conformity election
- Considered a method of accounting change (automatic) and must be formally elected (Form 3115)
- Thought of as “Audit insurance”
  - Election protects bad debts charged-off and deducted as being in compliance with regulatory standards
  - Need express determination letter from Federal examiner
- Protects from IRS audit on bank’s nonaccrual interest

### **Proposed bad debt regulations**

#### **Tax Planning**

- Section 166 introduces new method of accounting for bad debts, “Allowance Charge-off Method”
  - Provides “conclusive presumption of worthlessness” for bad debts charged off on books against the allowance for credit losses (ACL)
  - Replaces the “Conformity Method” where an express determination letter was required
  - Form 3115 will be needed for this method change
- Unclear how nonaccrual loan interest is to be treated under proposed regulations
- Final regulations anticipated for summer of 2025

### **Expiration of Section 199A and potential tax rate increases**

#### **Long Term Tax Planning**

- S Corporation vs. C Corporation Analysis
  - C Corp tax rate is 21%, currently no expiration date
  - S Corp highest individual tax rate 37%, on 80% of entity earnings (29.6% effective federal rate)
    - High income passive shareholders also pay 3.8% Net Investment Income Tax
- As of 2025 top tax rate increases back to 39.6% with no 20% deduction if TCJA is not extended (3.8% NIIT still applies)

**Long Term Tax  
Planning**

### C Corporation

- Bank's priority is capital retention and growth
- Double Taxation - Dividends are taxed at the individual level
- Stock basis does not increase in value based on annual activity

### S Corporation

- Bank's priority is return of profits to Shareholders
- S Corp distributions generally not taxable to Shareholders
- Stock basis is adjusted each year based on annual activity

**S Corporation  
Revocation**

- Can be done at anytime, but only retroactive if done by March 15th
- Greater than 50% written shareholder consent required
- Must wait 5 years to reelect S corporation status
- Subject to built-in gains (BIG) tax for 5 years after reelection
- Termination of S election will require booking of deferred tax assets/liabilities





## State and Local Tax Issues

### State Nexus and VDAs

#### Having nexus in other states

- Remote employees in another state
- Physical property in another state
- Income derived from activity in another state

#### VDAs (Voluntary Disclosure Agreements)

- Submitting a VDA is useful for limiting lookback periods and reducing or eliminating penalties during tax reviews

### International Issues

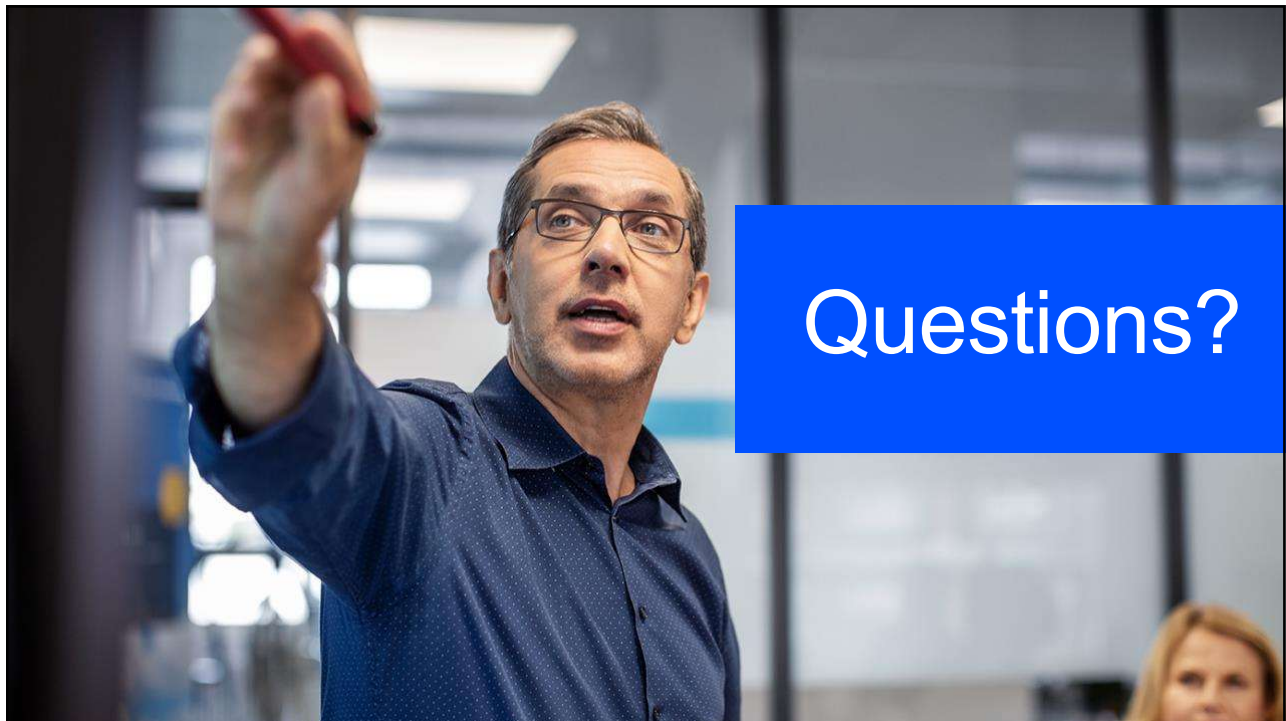
- Remote work gives many of us flexibility to login from vacation
- However international travel should be closely monitored
- Have you considered locking employees out while abroad?



## Excise Tax on Stock Repurchases

### Miscellaneous Updates

- Applies to stock of domestic corporations that are traded on an established securities market, including national securities exchange, foreign securities exchange, and regional or local securities exchange (e.g. NYSE, NASDAQ, OTC)
- Excise tax rate is 1 percent of fair value of stock repurchased by the corporation during the year
- Not applicable if the value of stock repurchased does not exceed \$1 million
- Repurchased stock is reduced by fair value of any stock issued during the tax year
- No income tax deduction is permitted for the excise tax
- Reported on Form 720, Quarterly Federal Excise Tax Return
  - Include Form 7208, Excise Tax of Repurchase of Corporate Stock



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## Appendix

WIPFLI

## Accounting Standards Updates (ASUs) Effective Dates

Standard	SEC filers	PBEs	Non PBEs
ASU 2023-02 <i>Investments in Tax Credit Structures</i>			Years beginning after December 15, 2024
ASU 2023-08 <i>Crypto Assets</i>	Years beginning after December 15, 2024	Years beginning after December 15, 2024	Years beginning after December 15, 2024
ASU 2023-09 <i>Improvements to Income Tax Disclosures</i>	Years beginning after December 15, 2024	Years beginning after December 15, 2024	Years beginning after December 15, 2025
ASU 2024-03 <i>Disaggregation of Income Statement Expenses</i>	Years beginning after December 15, 2026	Years beginning after December 15, 2026	N/A
ASU 2024-04 <i>Induced Conversions of Convertible Debt Instruments</i>	Years beginning after December 15, 2025	Years beginning after December 15, 2025	Years beginning after December 15, 2025

## Post-2025 TCJA Changes

Provision	Change under TCJA (that would be reversed after 2025)	2026 law if no action taken
Income tax rates	10%, 12%, 22%, 24%, 32%, 35%, 37%	10%, 15%, 25%, 28%, 33%, 35%, 39.6%
Child tax credit	\$2,000 credit, \$1,400 refundability cap, higher income phaseout	\$1,000, \$1,000 refundability cap
Employer FMLA Credit	General business credit based on wages paid during family & medical leave	No credit
Individual AMT	Exemption \$126,500/ married, \$81,300 otherwise (inflation adjusted)	\$84,500/ married, \$54,300/individual
Standard deduction	\$12,000/single, \$24,000/married filing jointly	\$6,350/single, \$12,700/married
Itemized deductions	Suspension of certain itemized deductions	Itemized deductions reinstated
Housing deduction caps	Deduction cap of \$750,000, home equity interest suspended	\$1m, home equity interest reinstated
SALT deduction cap	\$10,000	No cap
Limit on wagering losses	Applies not only to wagers, but other expenses incurred in connection	Applies only to wagers
Charitable contributions	AGI limitation for charitable contributions increased to 60%	50%
199A deduction	20% deduction on certain pass-through income	No deduction
Moving expenses	Suspension of deduction	Reinstated
Employer meals	50% deduction for employer de minimis food and beverage expenses	Not deductible
ABLE Accounts	Contributions eligible for saver's credit, rollovers from 529 plans permitted, contribution increase	No saver's credit, 529 rollover, or contribution increase
Estate tax	Exemption \$12.92m (inflation adjusted )	\$5.49m (pre-2018 \$5m inflation adjusted)
International provision	Change after 2025	
GILTI	Deduction reduced from 50% to 37.5%	
FDII	Deduction reduced from 37.5% to 21.875%	
BEAT	Rate increased from 10% or 11% for banks/dealers to 12.5% & 13.5% and base expands with modifications to regular tax (i.e., the allowance for credits that reduces regular tax expands)	

10:30 – 11:20 a.m.

# AML in Fintech: Compliance & Risk Management Essentials

**David Twomey, CAMS**, *Senior Manager, Baker Tilly*



# AML in Fintech: Compliance & Risk Management Essentials

Wisconsin Institute of CPAs (WICPA)

## Meet our presenter



**David Twomey**  
SENIOR MANAGER

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## Intro to fintech partnerships

Understand the structure of bank-fintech partnerships and AML compliance requirements.

Explore the key AML and sanctions regulations affecting these relationships.

Discuss the inherent risks and operational challenges in these partnerships.

Examine fintech AML program expectations and enforcement case studies.

Identify best practices for oversight and collaboration.



## Structure of bank-fintech agreements

Bank-fintech collaborations take various forms, including:



Banking-as-a-Service (BaaS)



Payment processing



Lending

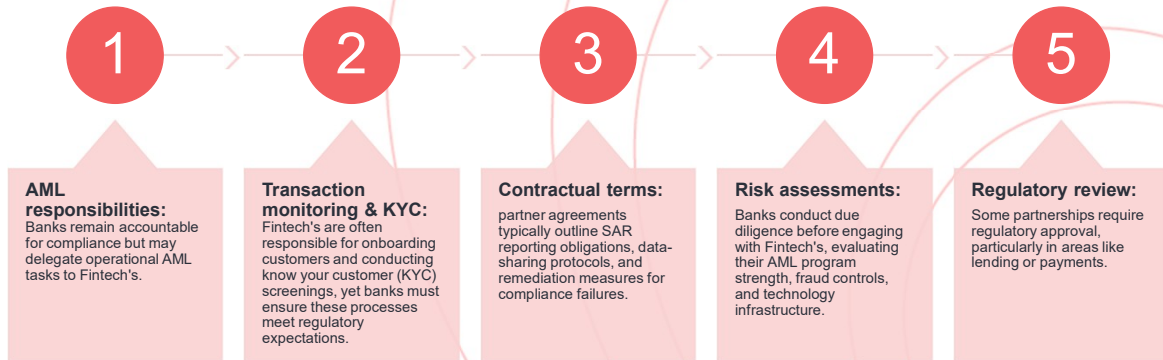


Cryptocurrency services










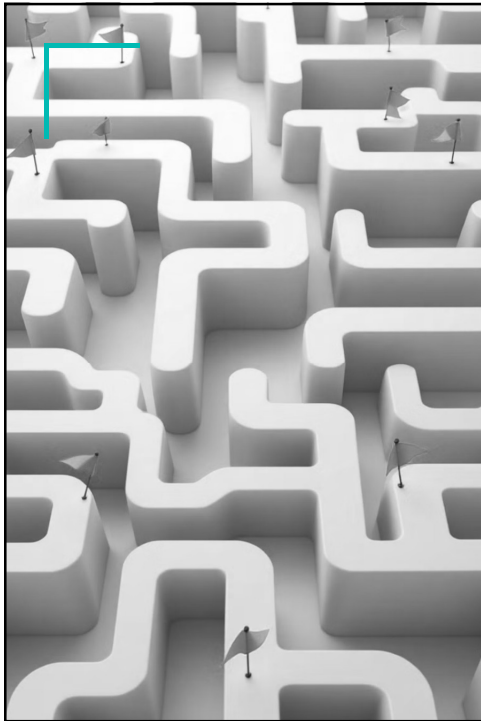
## Key components of partnership agreements



## AML and sanctions regulations impacting institutions

Several regulations govern AML compliance within fintech partnerships:

-  **Bank Secrecy Act (BSA):** Mandates financial institutions to implement AML programs, report suspicious transactions and maintain customer identification programs.
-  **FinCEN's AML and CDD rule:** Requires Fintech's to establish risk-based customer due diligence (CDD) and monitor transactions for illicit activities.
-  **Office of Foreign Assets Control (OFAC):** Imposes sanctions compliance obligations, requiring Fintech's to screen customers and transactions against global sanctions lists.
-  **Regulatory trends:** Agencies like the OCC, CFPB and federal reserve are increasingly scrutinizing fintech partnerships, ensuring banks maintain adequate oversight.
-  **Enforcement actions:** Regulators are ramping up penalties, especially where banks fail to monitor fintech AML deficiencies.



## Key risk factors in the fintech landscape

Rapid customer growth



Anonymity of online transactions



Speed of transactions



Cross border transactions



Untested business models



Insufficient resources



AML IN FINTECH: COMPLIANCE & RISK MANAGEMENT ESSENTIALS

## Risks associated with bank-fintech partnerships

The evolving nature of bank-fintech partnerships introduces unique **AML risks**:

### Third-party risk management:

Banks remain accountable for their fintech partners' compliance failures. Weak AML programs in fintechs can expose banks to regulatory fines.

### Compliance gaps:

Fintechs may lack **robust AML training, internal controls, and transaction monitoring systems**, leaving gaps in compliance.

### Data security & fraud:

Fintechs handling high-risk transactions—such as remittances or cryptocurrency—face greater exposure to **fraud, money laundering, and cyber threats**.

### Regulatory scrutiny:

Regulators demand banks demonstrate **effective oversight** over their fintech partners. Inadequate oversight may result in **reputational damage and enforcement actions**.



## Challenges in bank-fintech partnerships

AML compliance in fintech partnerships faces **operational and strategic challenges**:

### Risk appetite misalignment:

Banks prioritize compliance, while Fintech's may emphasize speed and innovation.

### Technology integration issues:

Fintechs often use modern, API-driven **systems**, which may not seamlessly integrate with legacy bank compliance infrastructure.

### Regulatory ambiguity:

Fintech licensing and compliance expectations remain **constantly evolving**, creating uncertainty around enforcement actions.

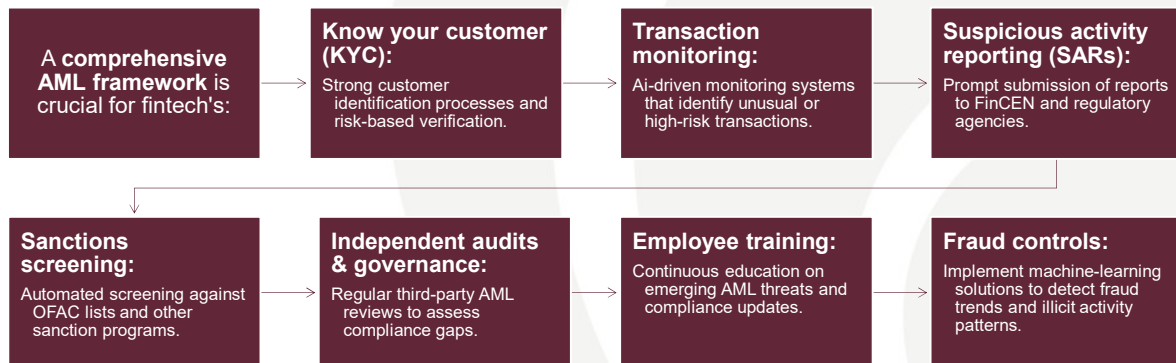
### Customer onboarding risks:

Some fintechs offer instant onboarding with limited KYC procedures, increasing exposure to illicit transactions.

9



## What a fintech's AML program should look like

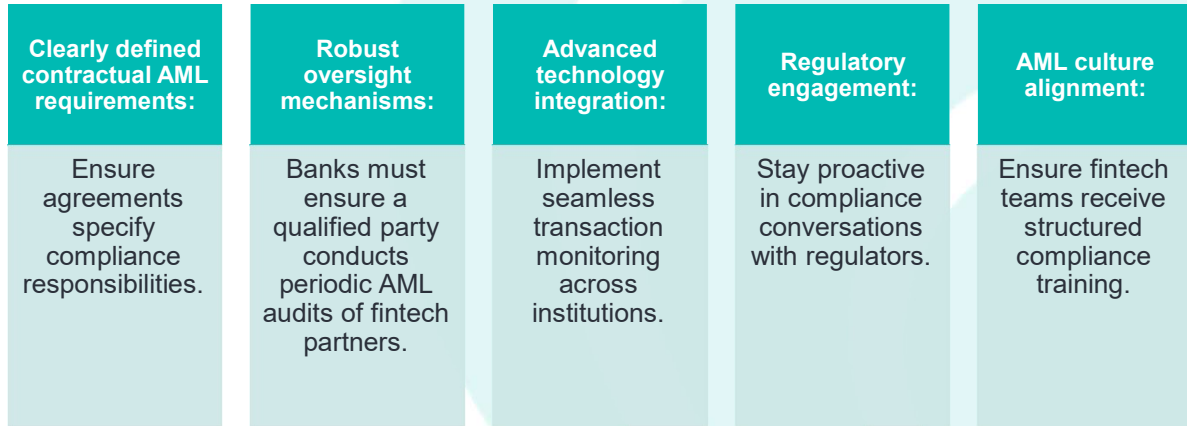


10



## Best practices for bank-fintech relationships and oversight

To mitigate AML risks, institutions should adopt best practices:



### CASE STUDY

## Block (Cash App) – NYDFS Enforcement Action (2025)

**Regulatory body:** New York State Department of Financial Services (NYDFS).

### Key issues:

**Weak KYC & transaction monitoring:** block failed to implement sufficient know-your-customer (KYC) and transaction monitoring controls.

**Backlog of suspicious activity reports (SARs):** delays in filing SARs created a high-risk environment for illicit transactions.

**Crypto compliance failures:** block's cash app bitcoin transactions lacked proper AML oversight.

**Outcome:** Regulatory investigation led to enforcement action, requiring Block to **enhance AML controls and compliance governance.**

# Hatch bank

## Key details of the consent order:

<b>Regulatory findings:</b> The order follows a march 2024 report of examination by the DFPI and FDIC, which identified unsafe or unsound banking practices related to hatch bank's third-party fintech partnerships.	<b>AML/CFT compliance issues:</b> Hatch bank's board of directors is required to strengthen its oversight of the bank's AML/CFT program, ensuring compliance with risk assessments, transaction monitoring, SAR filings and fintech partner reviews.	<b>Short remediation timeline:</b> The bank must revise its AML/CFT risk assessment within 60 days and enhance policies for internal controls, transaction monitoring, and staffing within 90 days.	<b>Fintech oversight requirements:</b> Hatch bank must conduct periodic reviews of every vendor or fintech partner that provides BSA functions such as customer due diligence, monitoring and case management.
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## Implications for Fintech partners & sponsor banks:

<b>Regulatory precedent:</b> This may be one of the first times a state regulator has pursued a BaaS sponsor bank independently, rather than jointly with a federal agency.	<b>Increased scrutiny on fintech-bank relationships:</b> Banks offering BaaS services must ensure strong AML controls and proactive oversight of fintech partners to avoid similar enforcement actions.	<b>Potential industry-wide impact:</b> The DFPI's aggressive timeline for remediation signals stricter enforcement trends for fintech-bank partnerships moving forward.
--	--	--



# Questions?

# Let's connect!



**David Twomey**  
SENIOR MANAGER

E: [david.twomey@bakertilly.com](mailto:david.twomey@bakertilly.com)



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11:30 – 12:20 p.m.

# Leveraging the Changing Regulatory Environment

**Bart Smith**, *Partner & Managing Director, Performance Trust  
Capital Partners*

*Presentation materials not available.*

1:10 – 2:10 p.m.

# Artificial Intelligence: Impacts for Community Financial Institutions

**Cortney Arnold**, *Community Development Director, Filene  
Research Institute*




MAY 2025

# Artificial Intelligence: Impacts for Community Financial Institutions



Cortney Arnold  
Community Development Director  
Filene Research Institute

Filene Research Institute 

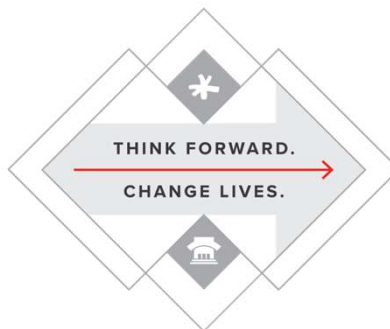


ABOUT FILENE

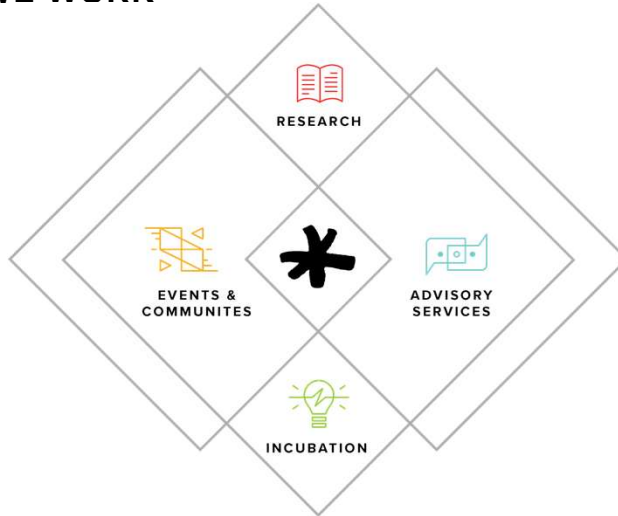
## WHO WE ARE

**FILENE RESEARCH INSTITUTE** strengthens organizations and the people they serve through innovative research and incubation.

We conduct research, pilot and test new ideas, build dynamic communities, and offer proven and sustainable solutions that create meaningful impact for credit unions and drive positive change for credit union members.



## HOW WE WORK



## TODAY'S AGENDA

- 1** Understanding What AI Is and Is Not
- 2** Features, Abilities, and Threats of Generative AI
- 3** Use Cases for Generative AI for Financial Services

1

# WHAT IS AI?



WHAT IS AI?

## ARTIFICIAL INTELLIGENCE (AI)

- Exhibiting or simulating intelligent behavior (while not being intelligent).



Artificial Intelligence: Impacts for Community Financial Institutions

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WHAT IS AI?

## WHAT COUNTS AS "AI" IS CHANGING



Artificial intelligence (AI) is an umbrella term encompassing a range of technologies that try to replicate human reasoning, learning, or decision-making. AI relies on algorithms that prioritize, classify, associate, and filter information.

### YESTERDAY'S AI

- Deductive and rule-bound.
- Little need to learn or reason on its own, because it does not encounter new situations that require adaptation.
- Think of pre-programmed software, such as a computer that plays chess.

### TODAY'S AI

- Inductive and open-ended.
- Learns and adapts through trial and error, probabilistic guesswork, and iterated pattern recognition as it incorporates new information from new situations.
- Think of a baby encountering the world for the first time.

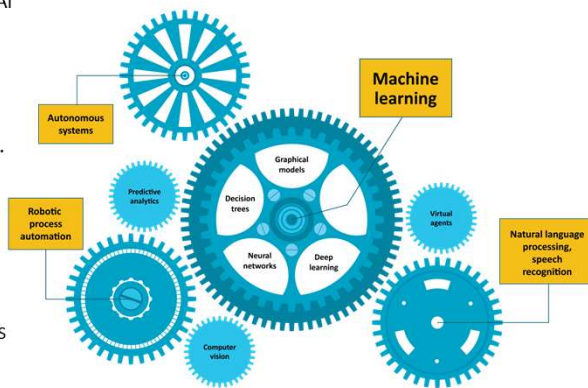
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WHAT IS AI?

## THERE IS NO ONE AI TECHNOLOGY

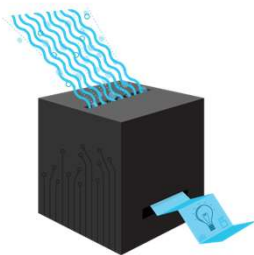
- **ChatGPT:** a text-generative AI tool based on an underlying LLM that summarizes the English language (and other languages) in the form of statistical word distributions.
- **Generative AI:** machine-learning algorithms trained with vast datasets that have the capability to automate complex tasks
- **LLMs:** large language models that typically power the algorithms behind text-generative AI



WHAT IS AI?

## “ALGORITHMIC OPERATIONS ARE MORE HUMAN THAN WE HAVE BEEN LED TO BELIEVE.”<sup>1</sup>

**THE ASSUMPTION**  
a neutral, non-human  
black box



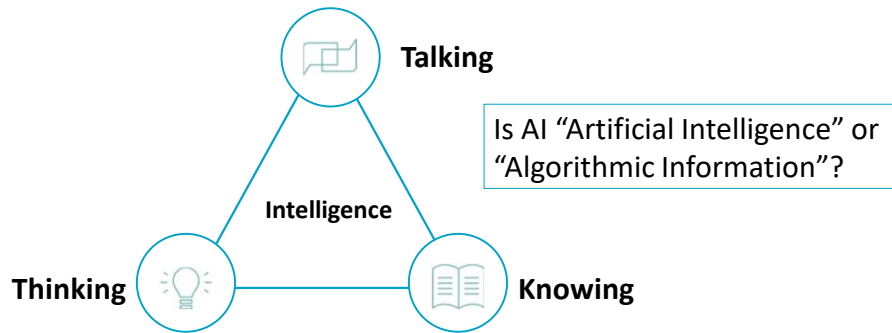
**THE REALITY**  
decisions and  
opinions  
embedded in  
computer code  
and  
mathematics



<sup>1</sup> Seaver, 2018, "What Should an Anthropology of Algorithms Do?" *Cultural Anthropology* 33(3): 375-389. <https://culanth.org/fieldsites/566-what-should-an-anthropology-of-algorithms-do>

WHAT IS AI?

## “INTELLIGENCE” ICEBERG



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2

## FEATURES, ABILITIES, AND THREATS OF GENERATIVE AI

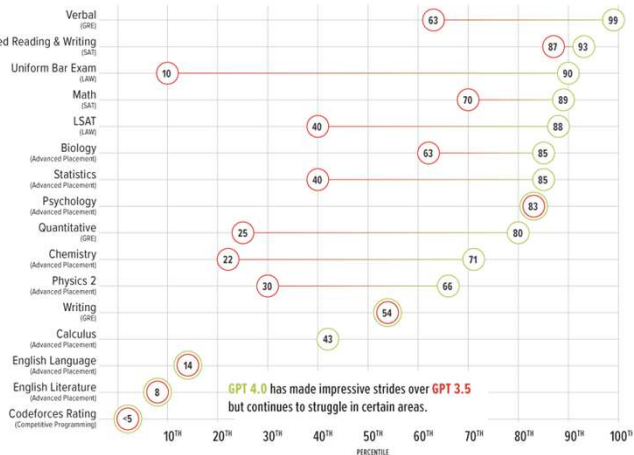
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## How Smart Is ChatGPT?

FEATURES, ABILITIES, AND THREATS OF GENERATIVE AI

- OpenAI's latest large language model, GPT-4, is capable of human level performance in many professional and academic exams.
- But it still struggles to create and comprehend.



Source: Visual Capitalist, OpenAI (2023)

## The AI revolution peaked in 2022-2023.

FEATURES, ABILITIES, AND THREATS OF GENERATIVE AI



- Technological “Gold Rush” and a pivotal period for AI advancements
- Adoption and engagement
- Key applications?
  - Marketing, sales, product development, service operations
  - Significant value delivery through generative AI, typically realized through efficiency gains

## The tipping point? AI that is user-friendly.

FEATURES, ABILITIES, AND THREATS OF GENERATIVE AI

- Although AI for chatbots, fraud detection, and other uses has been around for several years, DALL-E and ChatGPT in 2022 were game-changers, because they made gen AI widely accessible.
- Now we are all asking questions about applications ...
  - Boards: “What are we doing with AI?”
  - Leadership teams: “Don’t we need to do something with AI?”

### USER INPUT

“How do I calculate the correlation between the variables TextSentiment and ReviewScore in the attached database?”

[ChatGPT understands the question as one that requires computation]

### EXTERNAL INPUT

Functionalities provided by Python packages and basic code functions.

[ChatGPT opens an execution environment for Python, writes and runs the code, treating its outcome as additional input for its answer]

[ChatGPT shows the code used and integrates the results in its reply, translating them into natural language to best answer the user input request]

### CHATGPT OUTPUT

“To calculate the correlation between two variables in Python, we can use the `corrcoef` function from the NumPy library.”

```
import numpy as np
import pandas as pd
#Load data from database into a pandas dataframe
df=pd.read_csv(FILE, usecols=['TextSentiment', 'ReviewScore'])
#Calculate correlation coefficient
np.corrcoef(df['TextSentiment'], df['ReviewScore'])[0,1]
```

“In this case, the correlation between TextSentiment and ReviewScore is 0.342.”

## AI Risks, Ethics, and Governance

FEATURES, ABILITIES, AND THREATS OF GENERATIVE AI

- There are no accepted regulatory or compliance frameworks for generative AI, yet
- Focus for financial services is increasingly on **EXPLAINABLE AI** to provide transparency in understanding AI outputs and AI-driven decisions
- Explainable AI should empower stakeholders to understand **not just intention but impact**




“So, while AI can allow credit unions to achieve great efficiencies and provide innovative services, we must tread carefully to ensure that our pursuit of technological advancement does not compromise our core values of fairness, transparency, and consumer protection.”

CHAIRMAN HARPER



# AI Risks, Ethics, and Governance


FEATURES, ABILITIES, AND THREATS OF GENERATIVE AI

 <p><b>AUTHORSHIP</b></p>	 <p><b>OWNERSHIP</b></p>	 <p><b>PRIVACY</b></p>
<p>The current trend seems to be to push authorship (and responsibility) onto the final user. So, while institutions can benefit from the wealth of easily generated content, the bigger question is whether they should let AI technologies be the voice of their institutions.</p> <p><small>Source: Hurland Manushi (2023).</small></p>	<p>Institutions using text AI services should expect information they input into their models to be shared by the AI service providers with unspecified third parties for business purposes.<sup>1</sup> Ownership of the output of TextGen AI is important, but it also pays to consider matters of privacy and ownership over the input a user enters into these models.</p>	<p>If your institution has a website, your organization's branding, social media activity, products list, and everything else you have listed have most likely been digested by one LLM or another. The only reasonable assumption is that everything freely available can be used, and probably has been used, to train TextGen AIs.</p>


# What will AI become?

FEATURES, ABILITIES, AND THREATS OF GENERATIVE AI


**THE PERSONAL ASSISTANT**



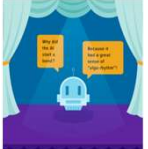
**THE PARROT**




**THE COPILOT**




**THE PARTY TRICK**



**THE ORACLE**



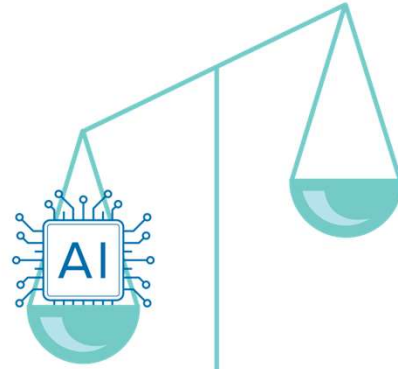
**THE MONSTER**



## The Imperative of AI Ethics in Financial Institutions

FEATURES, ABILITIES, AND THREATS OF GENERATIVE AI

- Introduction to the critical importance of AI ethics in the integration within financial systems.
- Core principles of AI ethics: adherence to legal, moral, and societal standards.
- The essential role of leaders in ensuring AI fosters fairness, accountability, and privacy.



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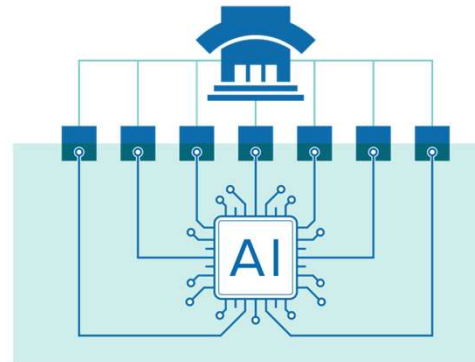
## WHAT CAN FINANCIAL SERVICES DO WITH AI IN 2025?

20 Artificial Intelligence: Impacts for Community Financial Institutions

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## What Can Financial Services Do With AI in 2025?

1. Get Organized
2. Start Listening
3. Empower Your Employees
4. Access Your Knowledge
5. Explore Use Cases
6. Collaborate With Others
7. Create Customer/User Value



## Get Organized

- 1 • Every initiative benefits from a champion and a committed group.
- 2
- 3 • AI cannot be a bolt-on agenda item.
- 4 • Create processes for working together as an organization (e.g. committee).
- 5 • Identify and categorize your existing tools similar to AI.
  - RPA
  - Machine Learning
- 6
- 7 • Build on the work you've been doing

*"AI is the new automation."*



## Start Listening

1

2

- Many of your employees are already using ChatGPT.
- Form a listening group — Why are these tools helpful?
- Create a *working* policy document around ChatGPT usage (good vs. bad).
- Iterate on the policy and *learn* from your employees.
- Start curating and sharing these ideas for AI use cases (**ideation sessions**).

3

4

5

6

7

## Empower Your Employees

1

2

3

- Explore use of Microsoft CoPilot

*("Your organization has given you the ability to use Microsoft Copilot with Commercial Data Protection.")*

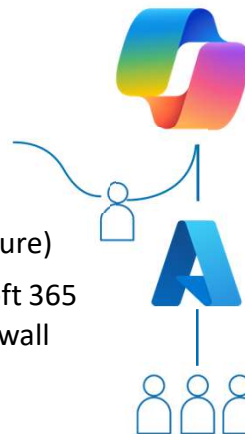
4

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7

- How does it work? Azure OpenAI Service (secure)
- Employees use the LLM to work with Microsoft 365 (Word, Excel, etc) and your data behind a firewall



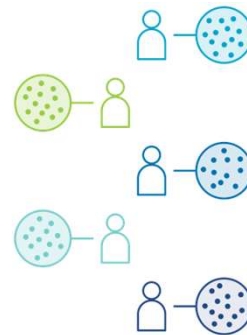
## Access Your Knowledge

- 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
- “knowledge bases” are often an open-ended collection of files.
  - What is your “search engine”? (e.g. for contact center)
  - AI can be used to access shared knowledge more easily.
  - ChatGPT is a large language model trained on the internet.
  - Retrieval Augmented Generation (RAG) is AI trained more narrowly.
  - **Use AI to make your knowledge base relevant and accessible.**



## Explore Use Cases

- 1
  - 2
  - 3
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  - 5
  - 6
  - 7
- AI is technology. It must be applied to the right business problem.
  - **Example:** Contact Center Overload
  - What can an LLM do for your organization?
    - Empower your **members** to self-service (virtual assistant).
    - Empower your **employees** to serve your members (virtual assistant).
    - Empower your **leaders** to identify frictions and address them.
  - LLMs facilitate **people interacting with information.**



USE CASES

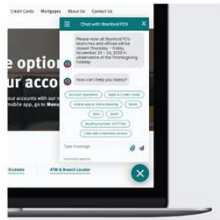
# AgentIQ

- 1
- 2
- 3
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- 6
- 7

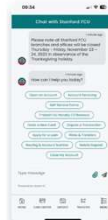


## Stanford roll-out

Web chat with self-service



Member services integrated within Q2



Conversational SMS



USE CASES

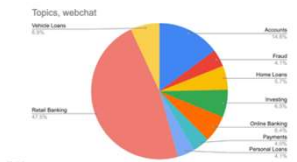
# AI is a Discipline

- 1
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- 6
- 7



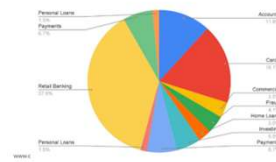
## Adoption, unauthenticated

- No active marketing
- Available on website
- Stan now handles **88% of all conversations**



## Adoption, authenticated

- No active marketing
- Available within mobile and OLB
- Stan now handles **52% of all conversations**



## GenAI Transcript Review

- 1 This is an example of GenAI for **operations** (a credit union team)
- 2 Transcripts from your contact/call center are worth **gold**
- 3
  - *Why is the person reaching out?*
  - *What was the issue?*
  - *How was it resolved?*
- 5 GenAI can help you answer all these questions
- 6 **Note:** This isn't a chatbot. It's about becoming **data-driven**.  
Better than NPS?
- 7

## Collaborate with Others

- 1 • There are many vendors providing AI solutions
  - Virtual Assistants/Knowledge Base (*Eltropy, Glia, Posh, Senso*)
- 2
- 3 • Widen your view to consider other predictive modeling tools:
  - Actionable Recommendations (*Exagens, VerticeAI*)
  - Lending (*ZestAI*)
- 4
- 5 • Explore what you can do through vendor partnerships.
- 6 • And explore **collaboration with other likeminded organizations** around AI!
- 7



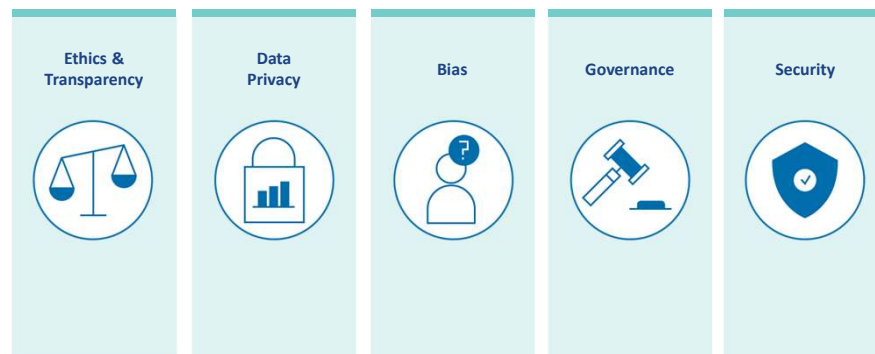
## Create Customer Value

- 1 • AI is a tool to *empower* customers/users not “deflect” them.
- 2
- 3 • This is not just back-office efficiency.
- 4 • How can we empower customers/users to achieve *financial well-being*?
- 5
- 6 • AI (predictive analytics) tailors services to the person.
- 7 • **Personalization** is the **future of financial services**.



## Building an AI Policy that Works

The proper implementation of an AI policy will not only drive innovation but also ensure that AI technology is used responsibly and in alignment with organizational mission and goals.





## Actionable Steps for AI Integration in Credit Unions

### DEVELOP A COMPREHENSIVE AI STRATEGY

- Define the AI strategy specific to your organizational needs and goals.
- Identify starting points and assess the risk of different approaches.
- Emphasize the importance of a thoughtful strategy that includes where to start.

### ESTABLISH AI ETHICS WITH BOARD INVOLVEMENT

- Engage your board in developing a code of ethics for AI usage.
- This proactive measure allows the organization to navigate AI use cases with a pre-approved list of opportunities, rather than reacting to market pressures.

### BALANCE RISK AND INNOVATION

- Address the risk-averse nature that may hinder AI adoption.
- Encourage a balanced approach to AI use, cautioning against draconian measures that fully ban AI, emphasizing the importance of not missing out on valuable innovation.

### CONCLUSION

## Key Points

Adapting to AI: Do or Die

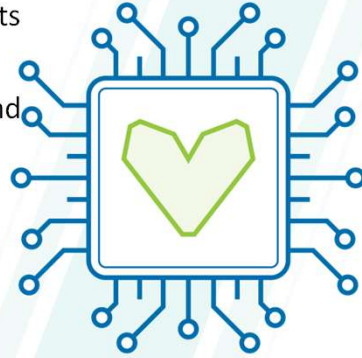
AI: A Handy Tool, Not Our Replacement

AI's Role: From the Member to the Board Member

AI & Risk: Finding the Sweet Spot

## AI for Social Good

- AI is full of risks (security, bias, hallucination, etc.).
- AI is full of ethical dilemmas (like robots replacing people).
- But the growing policy debate is around *responsible AI*.
- Credit unions have an opportunity to develop *people-centered* use cases.
- AI that *improves the lives of people*.



## AI for Social Dysfunction

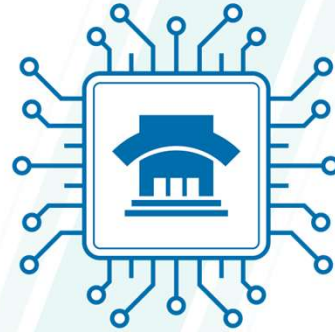
- AI introduces security challenges, amplifying cyber risks.
- Unchecked AI can deepen societal biases, challenging fairness.
- AI's unpredictability risks data accuracy and trust.
- The debate intensifies around crafting responsible AI frameworks and designing AI with humanity at the forefront, ensuring technology serves to uplift rather than undermine.



CONCLUSION

## Financial Services and AI in 2025

- This is not the time to get stuck debating a dystopian future.
- AI is tool that can be used today.
- Let's learn how to *empower employees* with AI.
- Let's explore ways to *create value* with AI.
- Let's *advocate for social good* in the future of AI.



CLOSING THOUGHTS

## AI IS A DISCIPLINE NOT A PRODUCT

### Empower Your Future with Organized Data

- Preparing your data today ensures that AI can deliver personalized services, enhance operational efficiency, and provide robust risk management for your organization tomorrow.

### Tailor Your AI Approach

- Whether you choose to build, buy, or configure AI solutions, there's no one-size-fits-all. Assess your organization's unique needs, resources, and expertise to find the best path forward.

### Leverage AI for Innovation and Growth

- By strategically implementing AI, your organization can stay competitive, improve customer and user experiences, and drive future growth in an evolving financial landscape.

THANK YOU

## Acknowledgements

Filene thanks its strategic partners supporting the Center for The Credit Union of the Future, and for helping make this research possible.



**Filene** \*

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## QUESTIONS?

[filene.org](http://filene.org)

Cortney Arnold

[CortneyA@filene.org](mailto:CortneyA@filene.org)

2:20 – 3:20 p.m.

# ALM Hot Buttons & Strategies for Success

**Marc Gall**, *Senior Vice President, BOK Financial*

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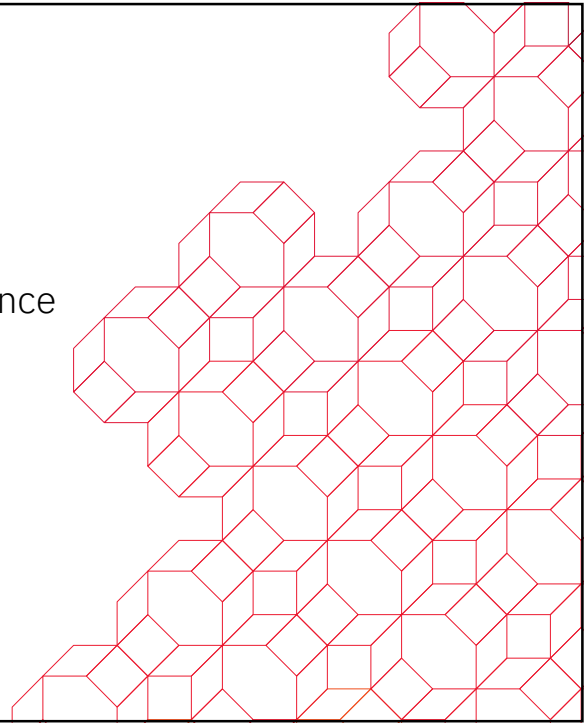
# ALM Hot Buttons and Strategies for Success

WICPA / Financial Institutions Conference

May 13, 2025



Marc Gall  
Senior Vice President  
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# About BOK Financial

[BOKFinancial.com/Institutions](https://BOKFinancial.com/Institutions)

BOKF, NA is the bank subsidiary of BOK Financial Corporation (BOKF), a \$50 billion regional financial services holding company based in Tulsa, Oklahoma (NASDAQ:BOKF). BOKF offers trust and wealth management services through its subsidiaries including BOKF, NA (and its banking divisions Bank of Oklahoma, Bank of Texas, Bank of Albuquerque, and BOK Financial) and investment advisory services through its non-bank subsidiaries, Cavanal Hill Investment Management, Inc., and BOK Financial Private Wealth, Inc., each an SEC registered investment adviser, and BOK Financial Securities, Inc., also an SEC registered investment adviser and registered broker/dealer, member FINRA/SIPC.

BOK Financial Capital Markets is a separately identifiable department (“Bank Dealer”) of BOKF, NA, the national banking subsidiary of BOK Financial. Our Financial Institutions Group, primarily based in Milwaukee, WI, specializes in financial institution management, assisting clients with a variety of services including:

- Interest Rate Risk Management
- Independent Model Validations
- Deposit/Decay Studies
- Investment Portfolio Management
- Asset / Liability Management (ALCO) Consulting

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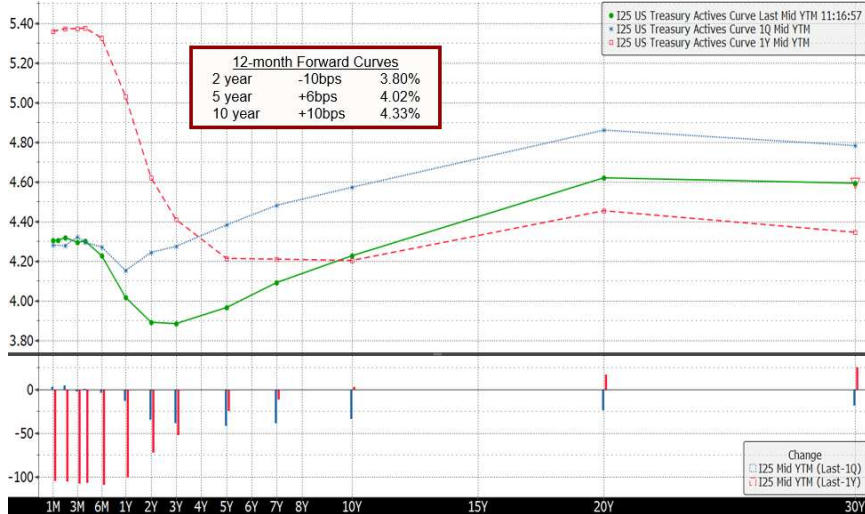
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## Session topics

1. Interest rate environment
2. Key assumptions in IRR modeling
3. Liquidity management and monitoring
4. Driving performance in 2025
5. Securities portfolio – investment allocation, possible sales / restructuring

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# Treasury yield curve



Source: Bloomberg as of 3-31-25

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# Key takeaways from March FOMC meeting

- Downgraded GDP Growth to 1.7% in 2025 & 1.8% in 2026
- Continues to project unemployment to be relatively steady
- Median forecast for PCE inflation, the Fed's preferred gauge, settles in the 2.0% range, but remains elevated in 2025 (Projected 2.8% vs December projection of 2.5%)
- Fed funds forecast the same as December at 3.9% year-end 2025, and 3.40% end of 2026

Table 1. Economic projections of Federal Reserve Board members and Federal Reserve Bank presidents, under their individual assumptions of projected appropriate monetary policy, March 2025

Variable	Median <sup>1</sup>				Central Tendency <sup>2</sup>				Range <sup>3</sup>			
	2025	2026	2027	Longer run	2025	2026	2027	Longer run	2025	2026	2027	Longer run
Change in real GDP	1.7	1.8	1.8	1.8	1.5-1.9	1.6-1.9	1.6-2.0	1.7-2.0	1.0-2.4	0.6-2.5	0.6-2.5	1.5-2.5
December projection	2.1	2.0	1.9	1.8	1.8-2.2	1.9-2.1	1.8-2.0	1.7-2.0	1.6-2.5	1.4-2.5	1.5-2.5	1.7-2.5
Unemployment rate	4.4	4.3	4.3	4.2	4.3-4.4	4.2-4.5	4.1-4.4	3.9-4.3	4.1-4.6	4.1-4.7	3.9-4.7	3.5-4.5
December projection	4.3	4.3	4.3	4.2	4.2-4.5	4.1-4.4	4.0-4.4	3.9-4.3	4.2-4.5	3.9-4.6	3.8-4.5	3.5-4.5
PCE inflation	2.7	2.2	2.0	2.0	2.6-2.9	2.1-2.3	2.0-2.1	2.0	2.5-3.4	2.0-3.1	1.9-2.8	2.0
December projection	2.5	2.1	2.0	2.0	2.3-2.6	2.0-2.2	2.0	2.0	2.1-2.9	2.0-2.6	2.0-2.4	2.0
Core PCE inflation <sup>4</sup>	2.8	2.2	2.0		2.7-3.0	2.1-2.4	2.0-2.1		2.5-3.5	2.1-3.2	2.0-2.9	
December projection	2.5	2.2	2.0		2.5-2.7	2.0-2.3	2.0		2.1-3.2	2.0-2.7	2.0-2.6	
Memo: Projected appropriate policy path												
Federal funds rate	3.9	3.4	3.1	3.0	3.9-4.4	3.1-3.9	2.9-3.6	2.6-3.6	3.6-4.4	2.9-4.1	2.6-3.9	2.5-3.9
December projection	3.9	3.4	3.1	3.0	3.6-4.1	3.1-3.6	2.9-3.6	2.8-3.6	3.1-4.4	2.4-3.9	2.4-3.9	2.4-3.9

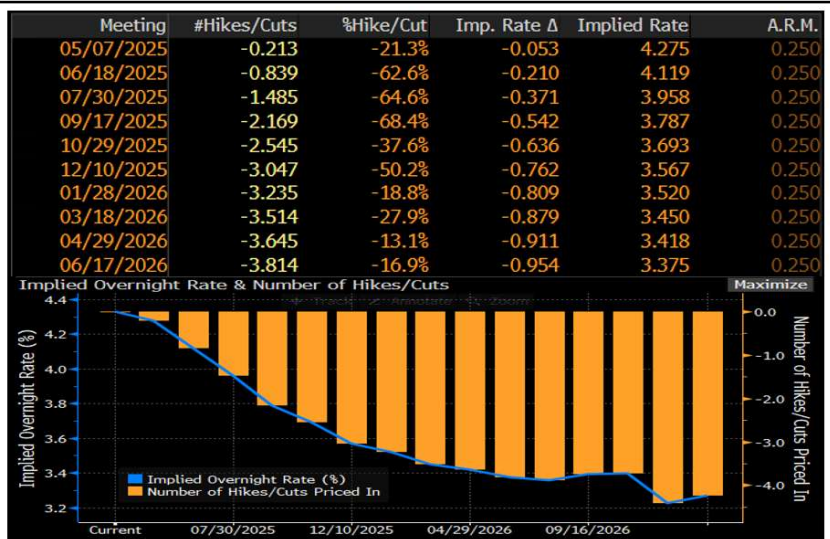
Source: Federal Reserve

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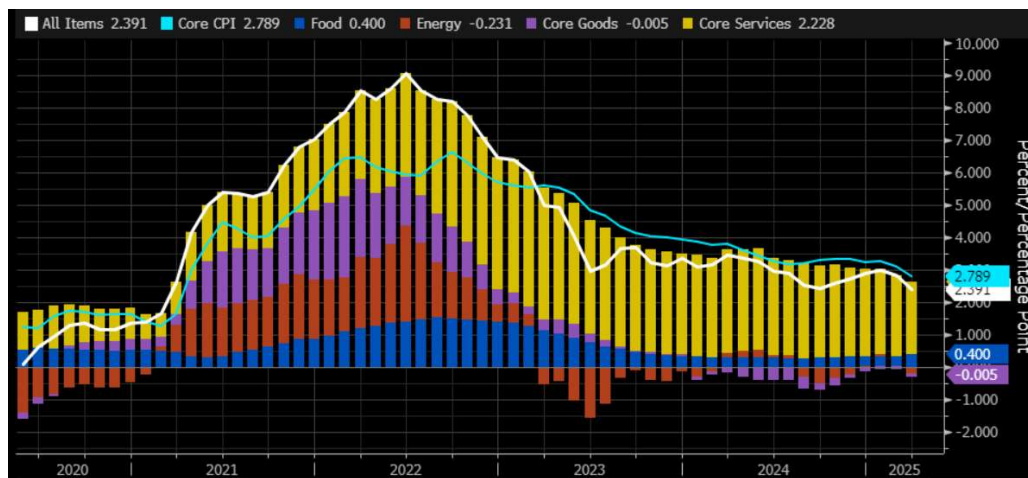
# Fed funds futures – a closer look



Source: Bloomberg as of 3-31-25

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# Why does inflation get so much attention?



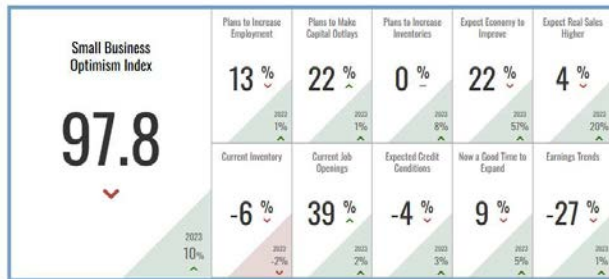
Source: Bloomberg

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# Small business optimism index – March 2025

- Month over month index dropped by 3.3 points

## Index Component Levels and Percentage Change from Prior Year



Source: NFIB

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# #2

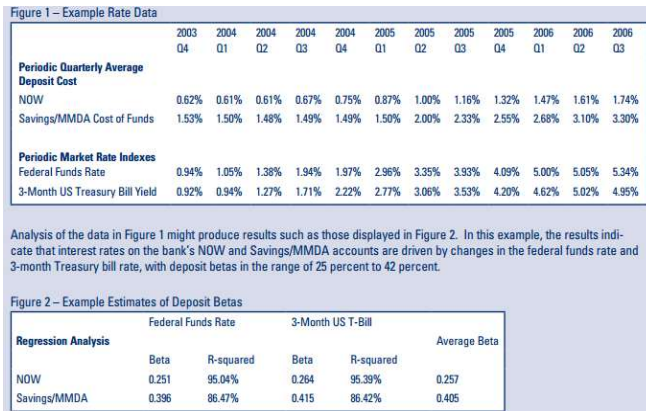
## Key assumptions in IRR models



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# Interest rate risk - assumption review

Deposit beta calculation, supporting data



Example summary of results:

Jan 2016 - Jun 2019 (Rising Beta)	Beta
NOW Accounts	-0.01
HSA Checking	0.01
Money Market Accounts	0.43
Savings Accounts	0.07

Jul 2019 - Mar 2021 (Falling Beta)	Beta
NOW Accounts	0.02
HSA Checking	0.07
Money Market Accounts	0.52
Savings Accounts	0.14

- How do you model in migration risk?

Source: FDIC

# Market value of equity – conceptual example

## Asset

- › The bank makes a \$1 million 5 year fixed rate loan today at 7.00%.
- › Market rates on 5 year loans rise next year to 8.00%
- › If the bank had to sell the loan to someone else, the investor would not be willing to pay \$1 million for the 7.00% loan. They would pay something less, because new loans are at 8.00%. \*Loss\*

## Liability

- › The bank funds the loan above with a \$1 million 3 year FHLB borrowing at 4.00%
- › FHLB advances rates rise next year to 5.00%
- › If the bank could sell the advance to someone else, the investor would be willing to pay more than \$1 million for the borrowing at 4.00% because the new borrowing cost is 5.00%. \*Gain\*
- › Market value of equity uses the same idea on every item of the balance sheet. Asset Value – Liability Value = Equity. (Rearranged A = L + E)
- › Why look at MVE? Rate shock of income generally looks at a one – two year “window”. What risk exists outside of that window?

# What's decay?

- "Institution specific" as this assumption is critical in market value of equity calculation
- One possible approach:
  - › Ideally review over a 10-year period (rising and falling rate cycles)
    - › Should more recent period be weighted more or only considered for assumption?
  - › Measure number of accounts closing in comparison to total at beginning of period
  - › Measure balance of closed accounts vs. total balance for that account type
  - › Need to take "surge" balances into account (assign shorter decay to these balances)
  - › Should a cap / max term be applied to results?
- Analysis is completed for non-maturing deposit accounts
  - › Money Market Accounts
  - › Savings Accounts
  - › NOW Accounts
  - › Checking Accounts

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# How are NMD assumptions used?

- Economic value of equity (net economic value) analysis is similar to a present value calculation
- Present value calculation uses:
  - Cashflow over future time horizons
  - Interest rate
  - Discount rate – typically an alternate funding cost (ex. if we did not have these deposits, what would the rate be on a like term deposit/funding option?)

## Hypothetical example

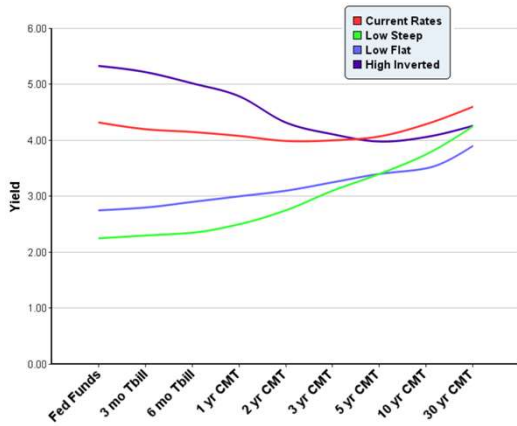
Period	Total Maturity	Interest Payment	Total Cashflow	Discount Rate	Discount Period	Discount Factor	Discounted Cashflow	Cashflow x Period
30 Jun 27	469	68	538	4.18	27	0.91039	489	13,214
31 Jul 27	469	70	539	4.18	28	0.90723	489	13,692
60 Dec 29	469	46	515	4.18	57	0.82020	422	24,078
61 2034	25,799	1,227	27,026	4.18	87	0.73895	19,971	1,737,493
	52,536						47,726	2,504,936
<b>Current Balance:</b>	<b>52,536</b>				<b>Macaulay's Duration:</b>		<b>52.486</b>	<b>months</b>
<b>Current Yield:</b>	<b>1.89</b>				<b>Modified Duration:</b>		<b>52.395</b>	<b>months</b>
<b>Market Rate:</b>	<b>2.08</b>							

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# Hypothetical non-parallel curve simulations

What could yield curve do from here?



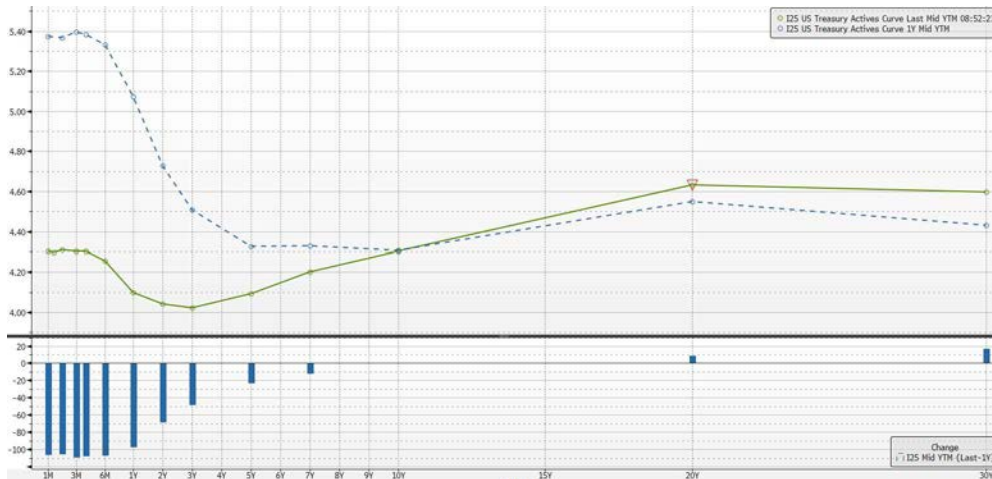
- While parallel +/- yield curve simulations are standard runs in IRR models, is an inverted yield curve likely to persist?

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# Historical reference

Vs. 1 year ago



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Source: Bloomberg

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# #3

## Liquidity monitoring and stress testing



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## Liquidity management

Hypothetical example of internal liquidity monitoring

<b>Actual Fed Funds Sold 1-10-25</b>	<b>7,876,000</b>
Securities Cash Flows (1/15)	101,658
Securities Cash Flows (1/16)	30,988
Securities Maturity	0
Investment Sales Settling	0
Loan cash flows	633,953
Loan Closings	-2,723,687
Loan Closings - SI (1/15)	-5,324,000
Investment Purchases Settling	0
Quickrate settling	0
DTC Settling--	0
Payoffs - HC	3,335,015
Brokered CD Maturities	0
<b>Estimated Fed Funds Sold 1-17-25</b>	<b>3,731,926</b>
Securities Cash Flows (1/21)	1,076
Securities Maturity	0
Investment Sales Settling	0
Loan cash flows	633,953
Loan Closings	-2,723,687
Investment Purchases Settling	0
Quickrate settling	0
DTC Settling--	0
Payoffs	0
Brokered CD Maturities (1/23) 1-DTC	-1,500,000
Brokered CD Maturities (1/23) 1-OR	-124,500
<b>Estimated Fed Funds Sold 1-24-25</b>	<b>18,770</b>
Securities Cash Flows (1/27)	210,236
Securities Maturity	0
Investment Sales Settling	0
Loan cash flows	633,953
Loan Closings	-2,723,687
Investment Purchases Settling	0
Quickrate settling	0
DTC Settling--	0
Payoffs	0
Brokered CD Maturities	0

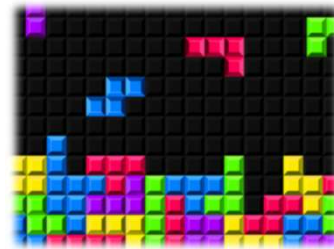
- Simple format of tracking sources and uses of funds internally
- Helps monitor liquidity needs internally on a more frequent basis than an ALCO model may be updated and be proactive in decision making/planning
- Examiners may ask for your internal sources and uses documentation/forecasting

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# Maximizing availability and collateral value

- Brokered / internet deposits – does not require collateral
  - Are you set up to use these sources?
- Municipal, large deposits – may require collateral, but some are not specific as to what type of collateral
  - Consider municipal securities for pledging, unless they can be used elsewhere
  - FHLB letter of credit for municipal deposits
- FHLB, Fed Discount Window may accept many types of loans as collateral (may take time to set up)



# Liquidity stress testing, early warning indicators

- Stress testing frequency – more than just annual exercise
- Develop scenarios that would negatively impact the bank's ability to operate
  - Core deposit loss
  - Loss of large depositor (s)
  - Increase of loan funding
  - Impacts of falling below well capitalized
- Vary timing of events – short term vs. long term horizons

Hypothetical Early Warning Indicators

	Mar-24	Level 1	Level 2	Level 3
<b>Liquidity and Funding Needs</b>				
Primary Liquidity (On Balance Sheet)	29.15%	12.00%	10.00%	8.00%
Total Liquidity (On and Off Balance Sheet)	55.86%	20.00%	15.00%	10.00%
Net Loans to Deposits	73.32%	90.00%	95.00%	100.00%
Net Noncore Funding Dependence (\$250M)	0.00%	25.00%	30.00%	35.00%
Short Term Noncore Funding Dependence (\$250M)	0.00%	20.00%	25.00%	30.00%
Brokered Deposits to Deposits	0.00%	10.00%	12.50%	15.00%
Brokered Deposits to Assets	0.00%	15.00%	20.00%	30.00%
Listing Service Deposits to Deposits	0.00%	10.00%	12.50%	15.00%
FHLB Borrowings to Assets	0.00%	10.00%	15.00%	20.00%
FF Purchased to Deposits	0.00%	3.00%	5.00%	7.00%
<b>Capital</b>				
Common Equity Tier One Capital Ratio	15.76%	8.50%	6.50%	4.50%
Tier One Leverage Capital Ratio	10.25%	8.00%	7.00%	5.00%
Tier One Risk Based Capital Ratio	15.76%	12.00%	10.00%	8.00%
Total Risk Based Capital Ratio	17.01%	14.00%	12.00%	10.00%
<b>Capital at Risk</b>				
Classified Assets to Total Capital	1.06%	15.00%	25.00%	35.00%
Nonperforming Loans to Total Loans	0.20%	2.50%	3.50%	5.00%
Net Income (Loss) - Six Months	4,568,513	1,000,000	500,000	250,000

# #4

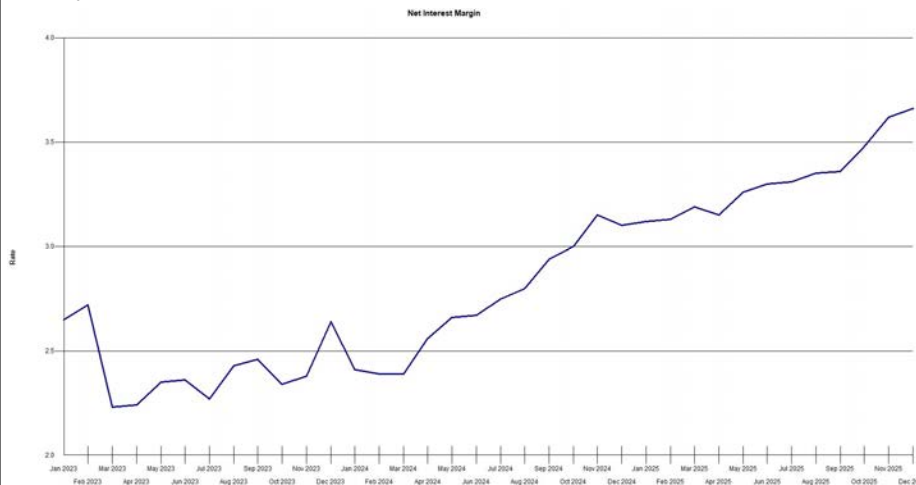
## Driving performance in 2025



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## Income tailwind due to repricing?

Hypothetical example #1



Margin profile could represent a bank with:

- Relatively higher cost of funds – which can fall due to recent Fed cuts
  - Could be heavier in higher cost money markets, CDs, municipal funds
- Loan / investment portfolio repricing to greater magnitude in later 2024 and 2025

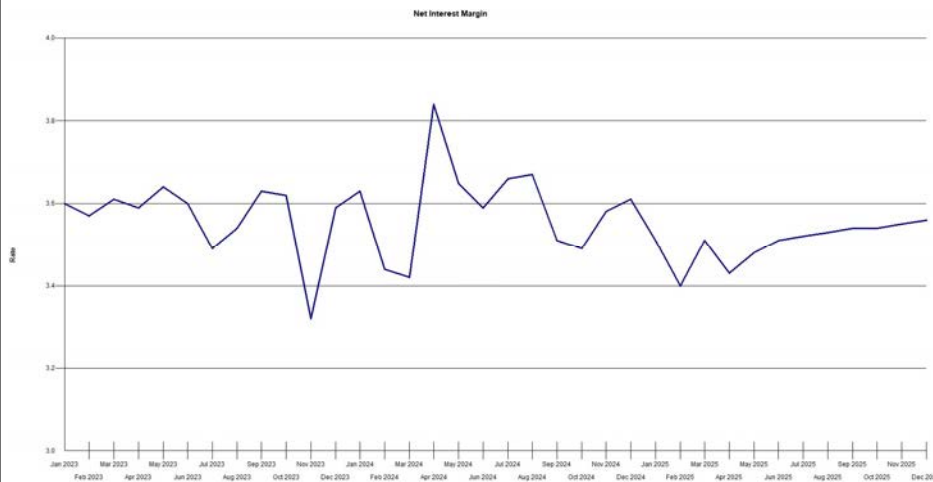
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# Income tailwind due to repricing?

Hypothetical example #2



Margin profile could represent a bank with:

- Moderate cost of funds
- Shorter duration loan portfolio (more variable vs. fixed) and excess cash on balance sheet

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# Drivers of performance - loans

How can your institution maximize opportunity this year?

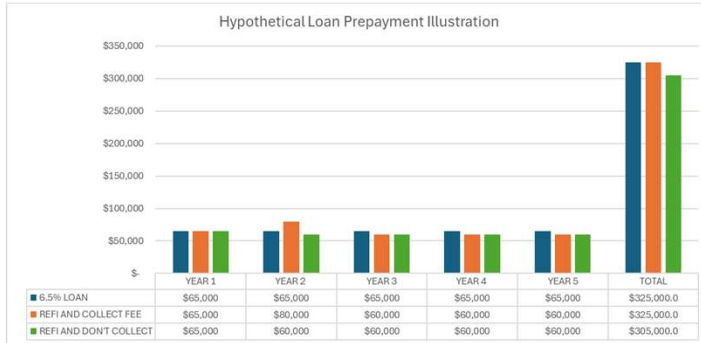
- Every basis point counts!
- As loans come up for renewal (balloon maturities), are loans being fully brought “up to market”?
  - Hypothetical example – maturity at 4.00%. Your typical pricing for credit/structure would be 7.25%.
    - Do lenders “meet in the middle” or raise the rate, but not as much to try and keep a client from having “too much” rate increase?
  - If interest rates fall, will your institution keep a consistent spread vs. index?
- Implementing and holding prepayment penalties in loans
  - In lieu of prepayment penalty, loan rate should reflect the option the client has to refi/payoff early

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# Prepayment penalty in practice

- Does your institution enforce a prepayment penalty if refinanced at your institution?
- If your penalty is 2%, how much of an impediment to refinance is that?



## Hypothetical Example:

- Make a loan at 6.50%
- Solving for breakeven with a 2% penalty, after year 1...
- 2% penalty / 4 remaining years = 50 bps per year of savings to breakeven. (3%/4 years = 75 bps lower rate to breakeven)
- If customer can refinance at 6.00% or lower **and** the bank actually charges the 2% penalty (\$20,000), the customer would be in the money to refinance if rates fall below 6.00%

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# Drivers of performance - deposits

How can your institution maximize opportunity this year?

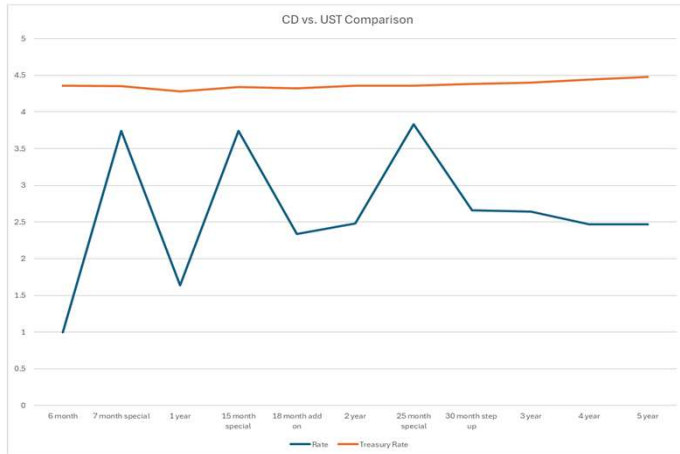
- Deposit pricing can be more art than science
- Do your rates need to be "highest in market?"
  - How close is good enough?
- Core deposit acquisition and growth
  - Does your institution have a strategy to grow core deposits
  - Potential replacement of higher cost wholesale with lower cost core deposits
- CD specials – how to get a reprieve from short and frequent repricing of CD specials?
- Every basis point counts!

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# CD rate sheet

When did you last adjust your “standard rates?”



Hypothetical illustration

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# Discussion on deposit products

1. Review your deposit account lineup
2. Examine how customers use your accounts (what is the purpose/utility for each?)
3. Differentiate rate on account based on #2
4. How much emphasis is placed on business/commercial deposits?
5. Does your institution selectively match rates (individually by customer?)
6. Prepare pricing plan if Fed continues to cut rates

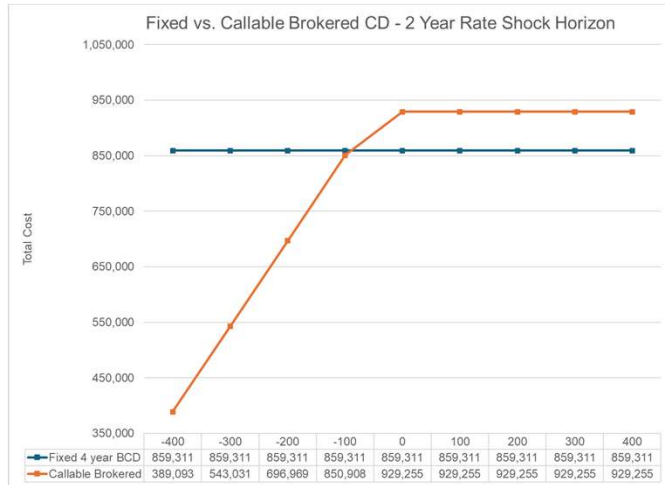
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# Callable brokered CD

Hypothetical illustration of \$10mm callable vs. non callable brokered CD

- 4 year non-callable brokered CD – 4.30%
- 4 year non-call 6 month brokered CD – 4.65%
- While the cost is higher for a callable compared to non-callable, the benefit is significant *if* interest rates fall and the call is exercised (callable cost includes amortizing the placement fee during this period)
- For interest rate risk position, this structure would help protect against rising rates, while providing cost savings in lower rate scenarios



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# FHLB fixed, callable and putable options

“Bank” in this example is FHLB, “Member” is your institution

Fixed Rate Advances					
Term	Community Advances	Regular Advances	All-in After Dividend*	Forward-Starting	
1 week		4.46%	4.28%		
2 weeks		4.46%	4.28%		
3 weeks		4.46%	4.28%		
1 month	4.36%	4.46%	4.28%	<i>Advances settle one year forward from today and then have stated term to maturity</i>	
3 months	4.36%	4.46%	4.28%		
6 months	4.27%	4.37%	4.19%		
9 months	4.18%	4.28%	4.10%		
1 year	4.02%	4.13%	3.95%		3.98%
1.5 years	4.00%	4.10%	3.92%		4.02%
2 years	3.95%	4.06%	3.88%		4.08%
2.5 years	3.95%	4.06%	3.88%		4.13%
3 years	3.99%	4.09%	3.91%		4.19%
3.5 years	4.02%	4.12%	3.95%		4.24%

Fixed Rate Callable Advances (Member-Owned Embedded Option)				
Term	Lockout	Bermudan	All-in After Dividend*	Option Cost
2 years	6 months	4.70%	4.53%	0.65%
2 years	1 year	4.28%	4.10%	0.23%
3 years	6 months	4.85%	4.67%	0.76%
3 years	1 year	4.54%	4.37%	0.45%
5 years	6 months	5.20%	5.02%	0.96%
5 years	1 year	4.90%	4.72%	0.65%
5 years	2 year	4.61%	4.43%	0.37%

Fixed Rate Putable Advances (Bank-Owned Embedded Option)				
Term	Lockout	European	All-in After Dividend*	Option Value
3 years	6 months	3.56%	3.38%	-0.81%
5 years	6 months	3.44%	3.26%	-0.93%
7 years	6 months	3.42%	3.24%	-0.95%
10 years	6 months	3.47%	3.29%	-0.90%
3 years	1 year	3.61%	3.43%	-0.51%
5 years	1 year	3.46%	3.28%	-0.67%
7 years	1 year	3.42%	3.24%	-0.70%
10 years	1 year	3.45%	3.27%	-0.68%
5 years	2 years	3.61%	3.43%	-0.45%
7 years	2 years	3.51%	3.33%	-0.55%
10 years	2 years	3.48%	3.30%	-0.58%
7 years	3 years	3.67%	3.49%	-0.42%
10 years	3 years	3.64%	3.66%	-0.40%

Fixed Rate Putable Advances (Bank-Owned Embedded Option)				
Term	Lockout	Bermudan	All-in After Dividend*	Option Value
5 years	6 months	3.13%	2.95%	-1.24%
7 years	6 months	2.95%	2.77%	-1.42%
10 years	3 months	2.74%	2.56%	-1.72%

Example, compare three year terms for illustration of value to the balance sheet, income statement

Source: FHLBC 4/14/25

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# #5

## Securities portfolio



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## Role of the investment portfolio

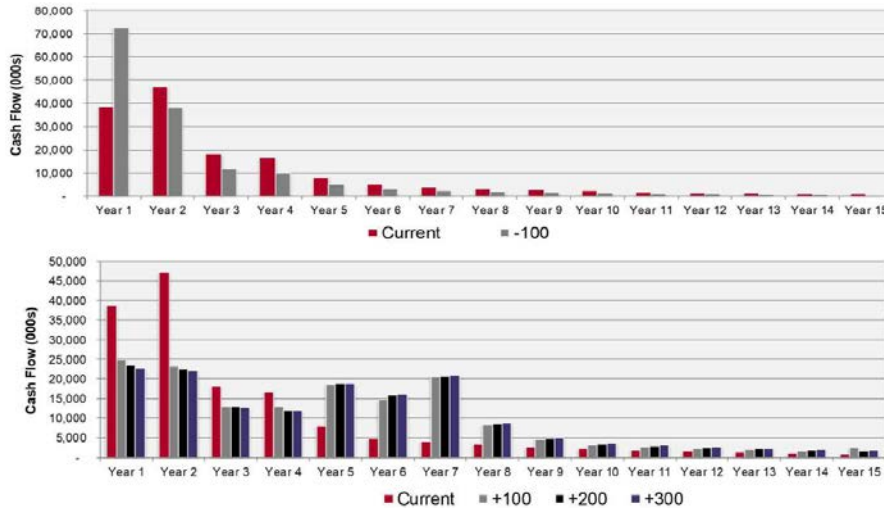
- **Liquidity source**
  - Place to earn on excess liquidity while waiting for loan demand to materialize
  - On – balance sheet store of liquidity
    - Unlike borrowing sources, bank’s ability to use portfolio for funding is not contingent on the bank’s credit position
  - When viewing portfolio within liquidity context, understand:
    - Cash flows
    - Extension/contraction risk
- **Earning asset**
  - Lower yield than loan portfolio, but higher liquidity and lower risk
  - View earnings/yield relative to holding cash vs. comparing to loan alternatives
- **Other Benefits**
  - Collateral for deposits or borrowing
  - Portfolio is a tool for managing interest rate risk

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# Diversification in the investment portfolio

Hypothetical illustration

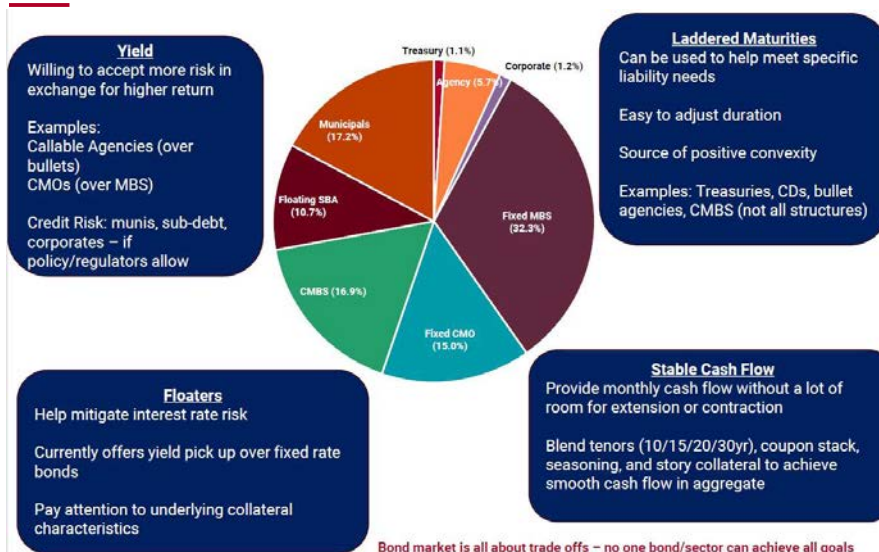


- Callable agency securities have very wide spreads and high relative yields... Why?
- At the money mortgages offer higher yields and spreads as well... Why?
- If interest rates fall from here, limiting optionality in bond purchases will help lock in these higher yields
- When do you want to receive cash back?

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# Considerations for portfolio allocation



Bond market is all about trade offs – no one bond/sector can achieve all goals

Hypothetical illustration

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# To reinvest or not...

- **Consider identifying a target portfolio size**
- **If you are not currently investing, when will be the “right” time to invest?**
  - If your institution has a portfolio with substantial cashflow over the next 12-24 months, what may the rate environment be like when bonds need to be reinvested?
  - Adding in all rate environments may help average into the market
    - Market timing is extremely difficult to get right everytime
- **Set a quarterly strategy to determine what types of securities and maturities fit the balance sheet position best**
  - Strategy can adjust from quarter to quarter

# Now what?

## Hypothetical investment sale for funding

### Analysis of current holdings

Bank owns \$3 million of agency maturing Dec 2026

Current book yield = 0.75%

Book price = \$100

Sell in the current market at \$94.25

Sale yield/market yield/give up yield = 4.18%

Loss on sale: \$172,500

### Review of alternatives

1.75 year funding cost at FHLB (Chicago) = 4.14%

1.75 year brokered CD cost = 4.18%

Over next 1.75 years, the interest cost on new funding nearly equivalent to selling investment (loss + foregone income)

However, taking loss could be unappealing for budget reasons.

2025: Loss on sale \$172,500

2025: Interest cost on new CD: \$94,050

# Now what?

## Hypothetical loan funding example

### Sale option

Bank owns \$3 million of agency maturing Dec 2026

Current book yield = 0.75%

Book price = \$100

Sell in the current market at \$94.25

Sale yield/market yield/give up yield = 4.18%

Loss on sale: \$172,500

### Reinvestment option

5 year loan = 7.00% reinvestment yield

Time to "recapture loss":

$\frac{\$172,500 \text{ (loss on sale)}}{7.00\% \text{ (reinvestment yield)} - 0.75\% \text{ (book yield)} * \text{principal proceeds}}$

= 0.97 years to recapture loss

## Interest rate risk checklist

### Interest rate risk reporting with comparison to policy limits

- Include 1 year and 2 year rate shock of income, EVE
- *Is a non-parallel now most likely? Are our assumptions reasonable?*

### Listing of key assumptions used in the model and supporting documentation

- Pricing assumptions, deposit decay rates, prepayment assumptions
- With a recent rising rate cycle complete, confirm and update assumptions
- Need to be reviewed/approved by the board

### Alternative assumption testing

- How sensitive are model results to the assumptions used (input different assumptions and compare results)

### Liquidity stress testing

- Include sufficiently severe scenarios restricting use of brokered deposits, FF lines
- Review contingency funding plan, including any early warning indicators

### Independent Model Validation

- Completed by a party independent of the ALCO meeting
- Report with findings provided to the board



## Key takeaways

- Understand where your income is headed, even without change in rates
- Is your balance sheet duration changing, by design or by demand?
- Examine deposit strategy for retention and cost of funds management
- Develop a mindset to maximize margin – every basis point counts!
- Consider taking losses in the portfolio as a funding option or to reposition for higher income
- Ensure completion and documentation of expected interest rate risk and liquidity management process

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Marc Gall  
Senior Vice President  
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3:30 – 4:45 p.m.

# Ethics & Decision Making

**George Heyman, CPA, CGMA**, *Professor Emeritus of  
Accounting & Economics, Oakton College*

# An Ethical Culture

## WICPA- FINANCIAL INSTITUTIONS CONFERENCE

13 May 2025

George A Heyman, CPA, CGMA  
Professor Emeritus, Accounting and Economics  
[gheyman@me.com](mailto:gheyman@me.com)  
847.553.6118

### RULES OF ENGAGEMENT (The Engagement Letter)

1. No Smartphones or Computers (confidentiality)
2. Make Connections – Network
3. Ask Questions
4. Consider Takeaways for Your Practice
5. Have a Good Time



## CULTURE

- Beliefs - Implicit assumptions (What are they?)
- Values – Norms, principles, and standards (AICPA Code of Ethics) (The story)
- Behavior – What we actually do
- Comfort – Fair and equitable treatment
- Belonging - Need to feel you belong because the culture is ethical

**“It is our choices that show what we truly are, far more than our abilities.”**

- *Harry Potter and the Chamber of Secrets*, by J. K. Rowling



## PROFESSIONAL CONDUCT

### Principles and Rules

- Integrity – trust , judgment, observation
- Objectivity – influence and unbiasedness
- Confidentiality – information – personal gain
- Competency – Channel your inner Sherlock  
a questioning attitude

## Making Decisions



1. People face trade-offs.
2. What people get is the cost of what they give-up.
3. Rational people make decisions on the margin.
4. People react to incentives.

Ethical decisions include:  
observation and prediction

## **SHERLOCK HOLMES**

KNOWLEDGE

OBSERVATION

DEDUCTIVE REASONING

INQUIRY



## **Making Decisions**



Act as if everything depends on you.

Ethical people are aware and  
observant – they notice.

Influence and Accountability

## Ethical Behavior

- Rewarding ethical behavior
- Developing intrinsic ethical behavior
  - Can an ethical person have unethical behaviors?
  - Can guidelines keep people ethical?

## ETHICAL DIFFERENCE

I did **NOTHING WRONG**

VERSUS

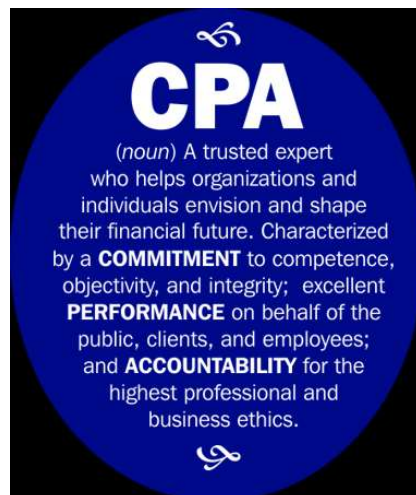
I did the **RIGHT THING**

“While I do not believe I ever did anything illegal...I’ve done an awful, awful lot that was wrong.”

John Edwards on his acquittal/mistrial

100% legal – 10% ethical?  
Is doing the right thing the same as saying, “I did nothing wrong?”

## Description Of CPA Ethics





## ICPAS's *INSIGHT* Magazine

Spring 2013 Article, "Are You Ethical?"

1. Know thyself
  - [www.lifevaluesinventory.org](http://www.lifevaluesinventory.org)
2. Anticipate questionable scenarios
  - Talk about ethics with others
3. Get the facts
  - Ethical dilemma or misunderstanding?
4. Consider the consequences
  - Think short-term and long-term
5. Evaluate the tone at the top
  - Help create the tone
6. Be proactive
  - Act immediately



## ACCOUNTING ETHICS

Accounting means financial information

Reliable financial information helps educated investors and aids in decision-making

We are the guardians of reliable financial information

Accountability – authority and responsibility



# UNETHICAL ACCOUNTING

1. Exaggerate revenue
2. Provide misleading information regarding business expenses
3. Misuse funds
4. Misappropriation



## PURPOSE

Oversight bodies, those charged with governance.

- Entities manage resources & use authority properly in compliance
- Programs are achieving objectives
- Programs are effective, efficient, and ethical
- Accountability – responsibility and authority

## PROFESSIONAL CONDUCT

Accountability

Tone from the top → Modeling, Decision-Making, Hiring

Making decisions consistent with public interest → Integrity

Auditors place priority on responsibility to public

Proper use and prudent management of resources

Transparency → What, How, Why

## ETHICAL BACKGROUND

Ethics – From the Greek ethos, meaning character.  
Ethics is the study of how we make decisions

Intent and expectations

Ethics are the values by which human beings live in relation to other human beings, themselves and/or nature.

## RULE ETHICS

Emanuel Kant would say that consequences can't make actions right or wrong.  
The key question is: "What would happen if everyone acted this way?"  
Excuse – "everyone does it"

A good rule is one that:

Becomes universal and can be applied consistently  
and  
Is respectful of the autonomy and rationality of all human beings

Trade offs:

Promotion of self interest  
vs  
Protection of rights

**Does having rules make someone ethical?**

An ethical person will want to know the rules so that he/she can make informed ethical choices.

**The question is whether or not the rules and procedures are being applied ethically.**

## LAWRENCE KOHLBERG'S MODEL

1. Pre-conventional Level:

- People act out of fear of punishment  
There is no morality.

2. Conventional Level:

- People act to conform their behavior to the expectations of the group to which they belong.  
**"I did nothing wrong."**  
**"Everyone one else does it."**

3. Post-conventional Level"

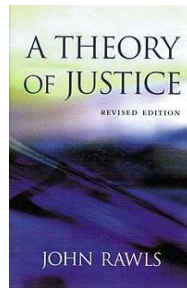
- The individual understands the reasoning behind a moral principle.

**"I did the right thing."**

## CONTRACT THEORY

John Rawls – American Philosopher 1921 – 2002

1. SOCIAL JUSTICE – All jobs should be open to talent (equal opportunity)
2. DECISIONS – Made behind a veil of ignorance
  - This "veil" blinds people to all facts about themselves and others so they cannot tailor principles to their advantage



## DISCRIMINATION

(1.400.10, 2.400.10, 3.400.10)

Violates any antidiscrimination laws

Includes sexual and other types of harassment

Is an act discreditable.

## PSYCHOLOGY

Ann Tenbrunsel – Current Notre Dame Researcher

Business professionals rationalize a “business” decision instead of an “ethical” decision; framework is everything

Business Decision

What might I gain?

How will it affect the future?

Ethical Decision

Is this decision fair?

Will people be hurt?

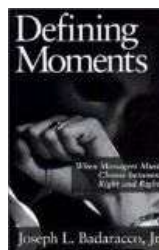


## ETHICS AND DECISION-MAKING

Ethics is not always making a decision between right and wrong

Ethics is also about making the key decisions between right and right

*Defining Moments: When Managers Must Choose Between Right and Right*



# Ethical Behavior

## GOLDEN RULE

Do unto others as you would have them do unto you.

What you want may not be what others want or need.

We would want people to ask us what we want or need so we should ask them.

Fairness is not equality. I am short if you have not noticed.

Equity and Equality. Wages.

## THE CODE OF PROFESSIONAL CONDUCT

1. Principles are ideal standards and are not enforceable. (Based in Philosophy)
2. Rules of Conduct are minimal standards of ethical conduct stated as specific rules. They are enforceable. (Ex. Independence)\*
3. Interpretations of rules of conduct. Not enforceable but you must justify departure. (Ex. Can an auditor accept a gift?)
4. Ethical rulings. Published explanations of questions asked to the AICPA. Not enforceable but you must justify departure.

## GENERAL STANDARDS

### Internal auditor's rules of conduct:

Integrity – perform with honesty, diligence and responsibility

Objectivity – appearance and fact

Confidentiality – prudent in use of information (protect it.)

Competency – necessary knowledge, skills and experience.

Professional Behavior

## GENERAL STANDARDS

- All things “technical!” When we think of ethics, rarely do we think technical standards.
  - ❖ Professional Competence
  - ❖ Due Professional Care (professional judgment & skepticism)
  - ❖ Planning and Supervision
  - ❖ Sufficient Relevant Data
  - ❖ GAAP
  - ❖ GAAS



## PROFESSIONAL CONDUCT

- The Public Interest (trust and responsibility)
- Integrity (can accommodate the inadvertent error and honest difference of opinion; it cannot accommodate deceit or subordination of principle)
- Due Care “The **quest for excellence** is the essence of due care.” – Professional judgment and skepticism
- Prudence

## CODE OF CONDUCT UPDATE

- Reorganize the Code of Conduct
  - Part 1: Public practice
  - Part 2: Industry
  - Part 3: Between jobs, retired, other
- Topics and Subtopics
  - Non-authoritative guidance issued by the AICPA will appear next to authoritative standards



Public – Ethical Conflicts

Business – Conflicts of Interest

Others – Acts Discreditable

## INDEPENDENCE

- Conceptual Framework
  - ❖ Independence of Mind
  - ❖ Independence of Appearance
- The most detailed section of our Code of Conduct

## Ethical Conflicts - Threats to Independence

- Obstacles created by internal or external pressures
- Conflicts in applying relevant professional and/or legal standards. (Fraud and confidentiality).
- Response: relevant facts and circumstances (including rules), issues, established internal procedures

ethical

## Public & Business – Ethical Conflicts Threats to Independence

- Adverse Interest – members interest opposed to employer (ex. Lawsuit against client)
- Advocacy – promote employer interest or position (IPO, expert witness, tax)
- Familiarity – too accepting of a person’s word or sympathetic to a person (Close relationship)

### **Warning Unconscious biasness**

(Initial reaction - You can not tell me what to do! OR Don't tell me what to do.)

- Self-interest – benefit financially or otherwise (Loan)

## Public – Ethical Conflicts Threats to Independence (2)

- Self-review – will not evaluate work appropriately (previously made judgments)
- Undue influence – a member will subordinate his/her judgment and integrity to an individual due to that individual's position, reputation, or aggressive (dominating) personality
- Management Participation (old 101-3) – Directorship, client employees, responsible for client internal control

## Client and Customer Acceptance and Retention

1. Set expectations from the beginning
2. Client meetings should be two way interviews
3. Bullying



# Discussion

Your boss says to you...

“I am not telling you to do anything illegal. I am just telling you what I want done. It is up to you to figure out how to do it.”

Friend in Government

## Safeguards

- Legislative
- Training
- Culture – Expectations
- How and by whom the safeguard is applied – internal control
- Policies and procedures against discrimination and harassment
- Tone from the top
- Skepticism

## ETHICAL CASE FOR CONSIDERATION

Role → You are Mayor and as such, Liquor  
Commissioner...

Decision → Do you accept a gift from a tavern  
or not?



### Gifts – Judgement Concerning Relevant Facts

- Nature of the gift or entertainment
- The occasion of giving rise to the gift
- The cost or value of the gift or entertainment (Cubs vs. Sox)
- The nature frequency, and value of other gifts or entertainment
- A designated person in your firm to ask about any gift.

## ETHICAL BACKGROUND

Ethics – adherence to applicable regulations, laws, and professional standards

Be proactive – Hasbro and lead

Communication – policies and procedures

Documentation – who, what, when, how and why

Accountability – responsibility and authority

## Ethical Challenges

- Conflicts of interest
- Disagreement over a tax/accounting position
- Integrity
- Due diligence
- Reckless or intentional disregard of rules, laws, or regulations
- Client acceptance – Knowledge of client's error
- Confidentiality

# The Job

- Do it right the first time (saves time fixing issues later)
- Provide higher level of uniform quality\*
- Experience less conflict
- Keeping reputation intact leads to new and repeat business

\*W. Edwards Deming

# The Aura

1. Take accountability from the top-down
2. Make the message consistent
3. Encourage skepticism
4. Facilitate ethical behavior
5. Don't create a home for the 'Fraud Diamond'



## Accountability from Top-down

- Common vision and mission
- Prevent, detect, and correct with internal controls
- Prevent, detect, and respond to compliance and fraud issues

## Consistent Message

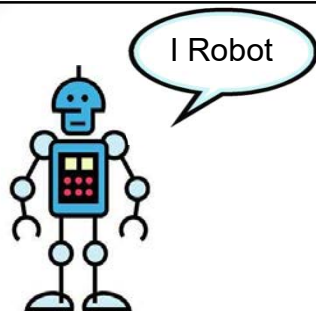
- Ask employees to repeat the mission to ensure consistency within the company
- Ensure employees know what is expected of them and where the **boundaries** are
- Let clients and customers know what your message is  
(Ex. Engagement letter, contracts, website, marketing materials)

# AI and CHATGPT

They can make useful suggestions.

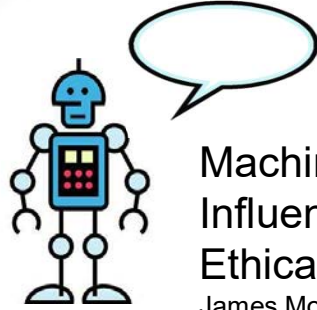
You need to make the decisions. They do not incorporate your personality or organizational culture.

A questioning attitude using complex problem solving, critical thinking, creativity and emotional intelligence is needed more than ever.



## Asimov Rules!

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey the orders given to it by human beings, except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.



## Machines with Ethical Influences Ethical Agents

James Moor

1. Impact Agents: influence-intended or not – clock on time.
2. Implicit Agents: designed to avoid unethical and negative outcomes-security or safety-"the door is ajar."
3. Explicit Agents: algorithms to act ethically-drone to destroy military targets but must avoid nearby humans.
4. Full Agents: AI-machine that can make moral decisions and And can understand why it makes those decisions.

## REMOTE WORK

Confidentiality - passwords, public places, apartments

Productivity – clear goals and expectations

Equipment usage – business only?

Wellness – a mentor or someone to run ideas by

Fraud – segregation of duties

# Navy Commander

About mission commander on two boats  
accidentally entering Iran's waters

“He lacked a questioning attitude, failed to promote a culture of safety, and disregarded appropriate backup from his staff and subordinate commands.”

July 1, 2016

- What HAS Changed?
- What SHOULD HAVE Changed?
- Does it cause a Risk?
- **What is going to be your RESPONSE?**

## Danger, Accountant, Danger

It is most dangerous not to know  
what you do not know!!!!



## How do we know we are acting ethically?

*“Judge a man by the questions he asks –  
not by the answers he gives.”*

Voltaire

Ask yourself:

Who will the decision help?  
Who will the decision harm?  
Why is the decision appropriate for the  
situation/time?

Sometimes the choice is between right and right!

## MORE QUESTIONS

Who am I? (Psychological)

How does it work? (Physical)

How do I make decisions? (Ethical)

People make bad decisions because they are pressured to do something that may be wrong.

They may have a bad attitude because they may feel things are not fair.

Also, they may have the opportunity.

How do I relate to other people? (Sociological)

## Four step ethical decision framework

**Step 1: Identify the dilemma and assess the potential risk to the organization, others and yourself.**

- What is the dilemma?
- What is the potential risk to others (clients, coworkers, your family, etc.)?
- What is the potential risk to the organization?
- What is the potential risk to you?

## MORAL HAZARDS

1. SEAT BELTS
2. BLOCK CHAIN
3. INTERNAL CONTROL
4. DRIVERLESS CARS – TESLA



## ETHICS OF DRIVING

1. Don't hit anything
2. Be aware – notice things (Bus)
3. Don't get hit by anything
4. Stay out of other peoples' way
5. Know what others expect you to do
6. Let others know what you are doing- Be Transparent!
7. Your decisions impact others
8. For backseat driving...



## PRACTICAL BEHAVIOR

An Ethical Person:

I messed up.

It won't happen again.

## ETHICAL PEOPLE

Can an ethical person have unethical behaviors?

Can guidelines keep people ethical?





Being ethical is doing the right thing...  
Even when no one else knows.



**Do the Right Thing!**

