
Investment Challenge Program

2024 Annual Conference

April 2 - 3, 2024

Nashville, TN

WELCOME

Ben Duby, CPA

Sr. Program Manager, Corporate Investments, TVA

Agenda

Day 1

12:30 pm – Welcome Session: TVA Overview and ICP – History & Performance

1:15 pm – Break (Group Photo)

1:30 pm – Student Presentation Breakout Session

3:00 pm – Break

3:45 pm – Economic Outlook and Portfolio Construction

5:00 pm – Student Networking and Professor Breakout Session

6:30 pm – Dinner and Awards Ceremony

Agenda

Day 2

7:45 am – Breakfast Opens

8:30 am – Public Markets Investment Manager Panel

9:40 am – Break

9:55 am – Presentation of CY23 Top Performing Universities

11:15 am – Private Markets Investment Manager Panel

12:30 pm – Lunch and Wrap Up

*Conference material available on tva.com/investment-challenge/conference
QR code on name badge*

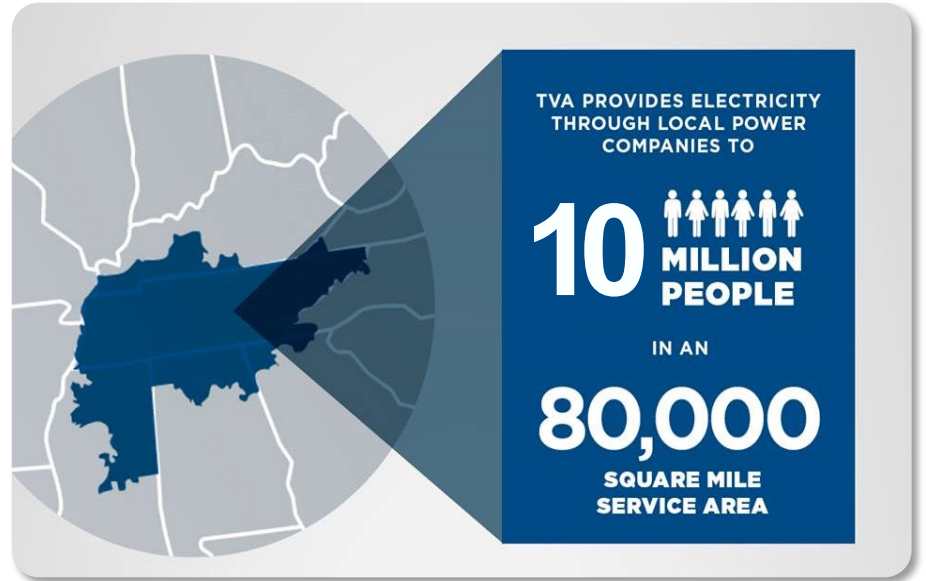
TVA OVERVIEW

Nick Newton, CFA
Analyst, Corporate Investments, TVA

Mission To Serve

TVA was established by the U.S. Congress in 1933 to address a wide range of environmental, economic, and technological issues in the TN Valley region of the United States, including the need for low-cost electricity and navigation and flood control along the TN River system.

- Profit-neutral, self-funded
- AAA/Aaa/AA+ credit ratings
- \$10+ billion annual revenue
- \$50+ billion total assets
- 153 Local Power Companies and various directly-served customers
- 35,000+ MW power capacity
- 9 Member Board of Directors
- 10,000 employees



The TVA Mission

Energy



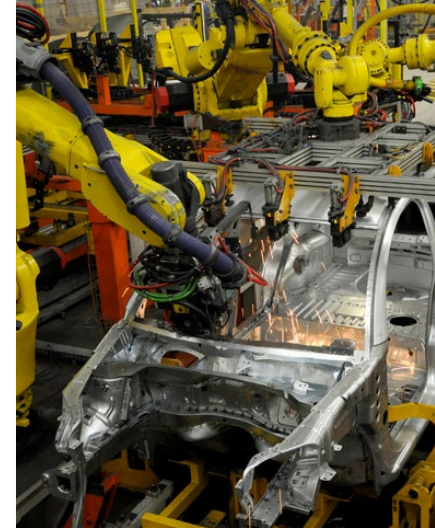
Provide affordable electric power throughout the Tennessee Valley

Environment



Act as a steward of the Valley's natural resources

Economic Development



Serve as a catalyst for sustainable economic development

Strategic Priorities

Focused on key priorities that will help TVA continue to achieve its mission



People Advantage

Amplifying the energy, passion, and creativity within us all.



Operational Excellence

Building on our best-in-class reputation for reliable service and competitively priced power.



Financial Strength

Investing in the future while keeping energy costs as low as possible.



Powerful Partnerships

Promoting progress through the shared success of our customers and stakeholders.



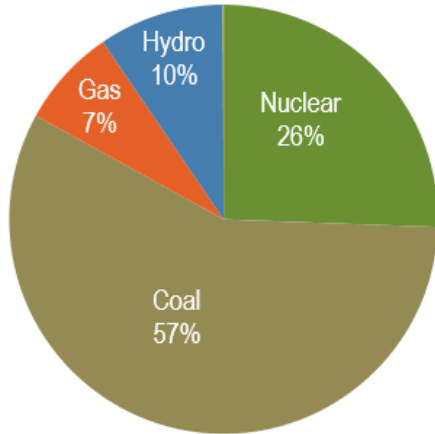
Igniting Innovation

Pursuing innovative solutions for TVA and our customers and communities.

Energy: *Low cost, Reliable, Diverse and Clean Portfolio*

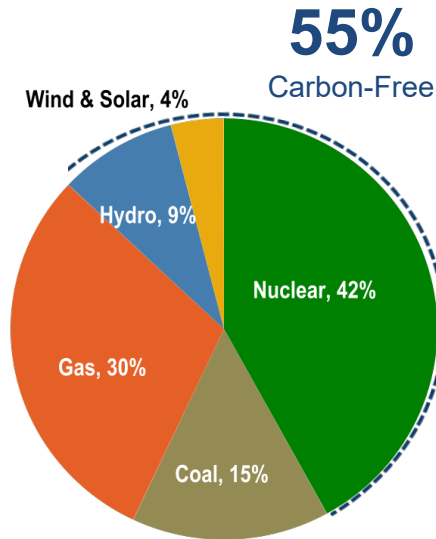
FY 2005

177 TWh



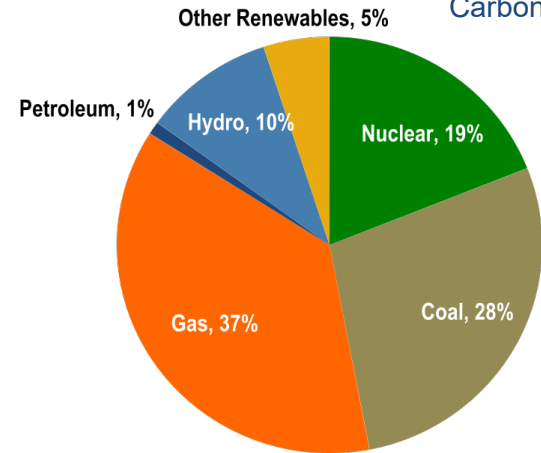
FY 2023

163 TWh



**National
Average**

~34%
Carbon-Free



Building the Energy System of the Future

AFFORDABLE / RELIABLE / RESILIENT / CLEAN



National Leader in Carbon Reduction

Sources of Funding

Debt

Debt is primarily issued to fund large capital projects (e.g., new generating assets). Repayment through rates over time.

- *Statutory debt limit of \$30 billion*

Revenues (Rates)

Primarily used to fund day-to-day operations (e.g., operating and maintenance expenses) – keeping in mind intergenerational fairness

- *Required by TVA Act to keep rates as low as feasible*

Investments

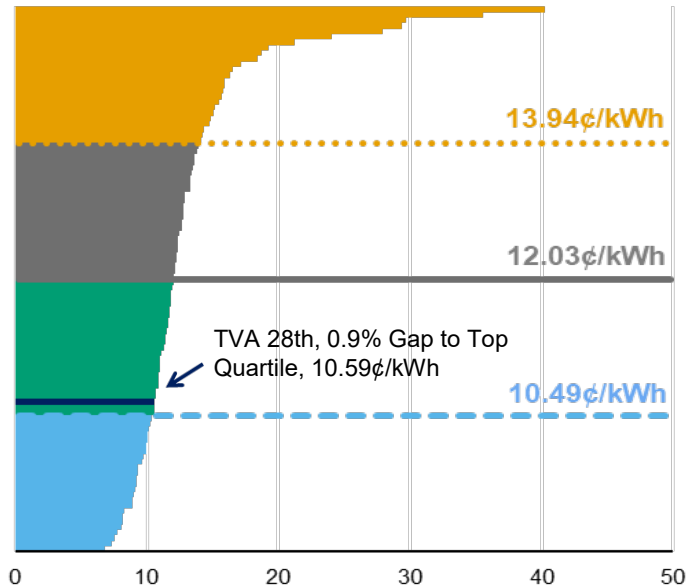
Allocated portion of rates invested to offset future obligations that would otherwise be collected through rates or debt – keeping in mind intergenerational fairness

Repayment

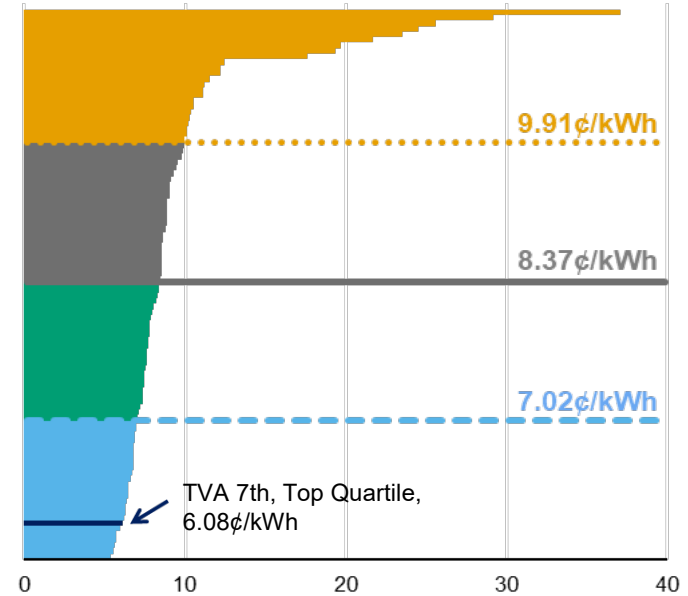
Reduction

Power Rates Among the Lowest in the Nation

**Average Retail Rate (¢/kWh)
Among Top 100 U.S. Utilities**

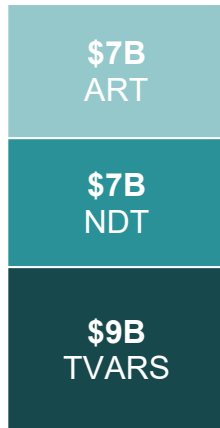


**Average Industrial Rate (¢/kWh)
Among Top 100 U.S. Utilities**

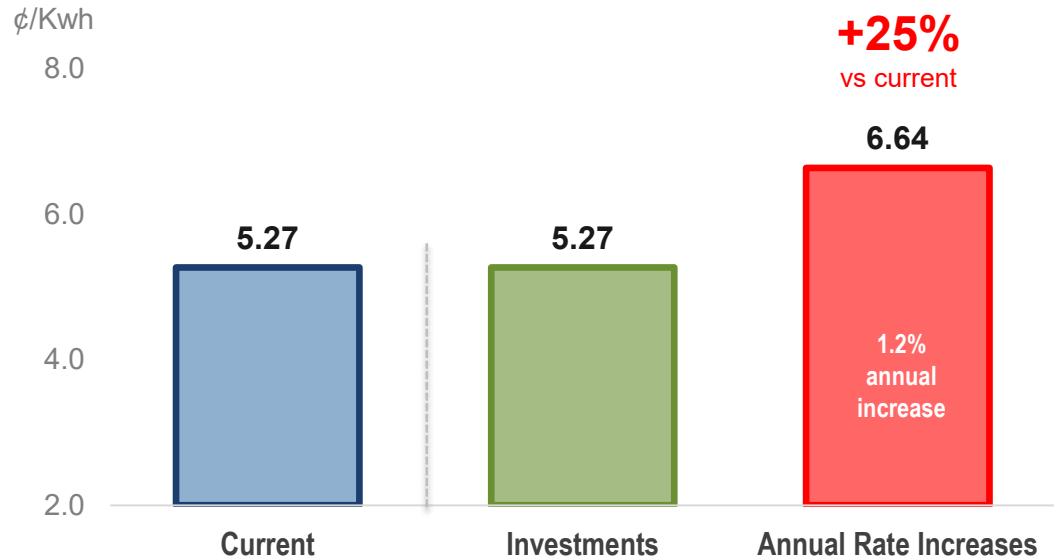


Impact of Investments on Rates

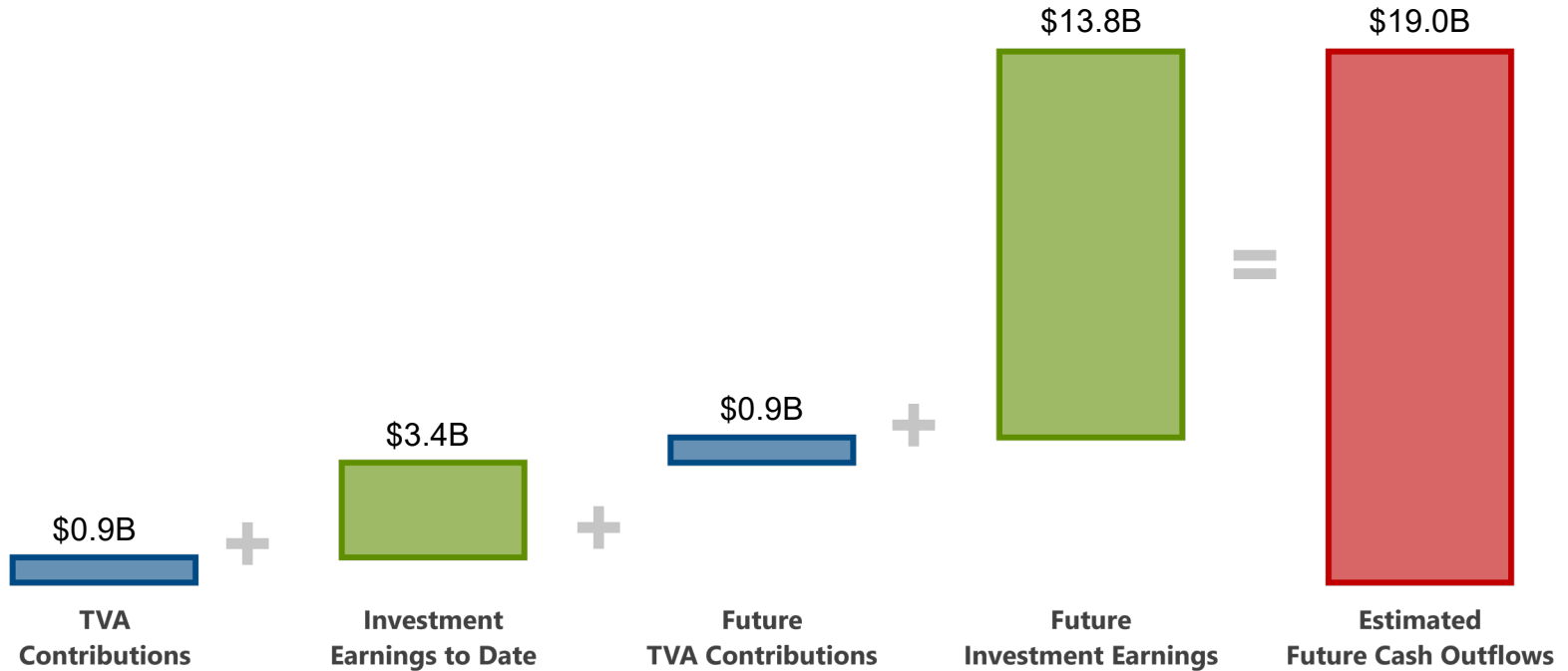
Additional Funds
Required to Meet
Obligations
\$23B



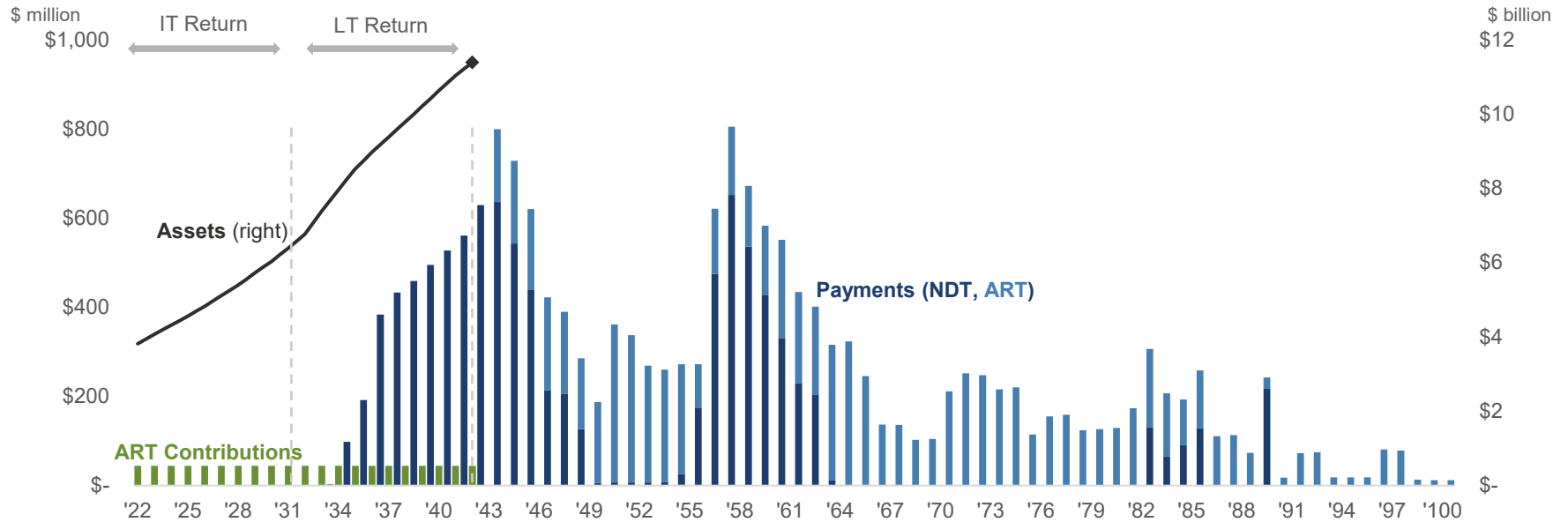
Impact to base rates at FY2043 if funded by...



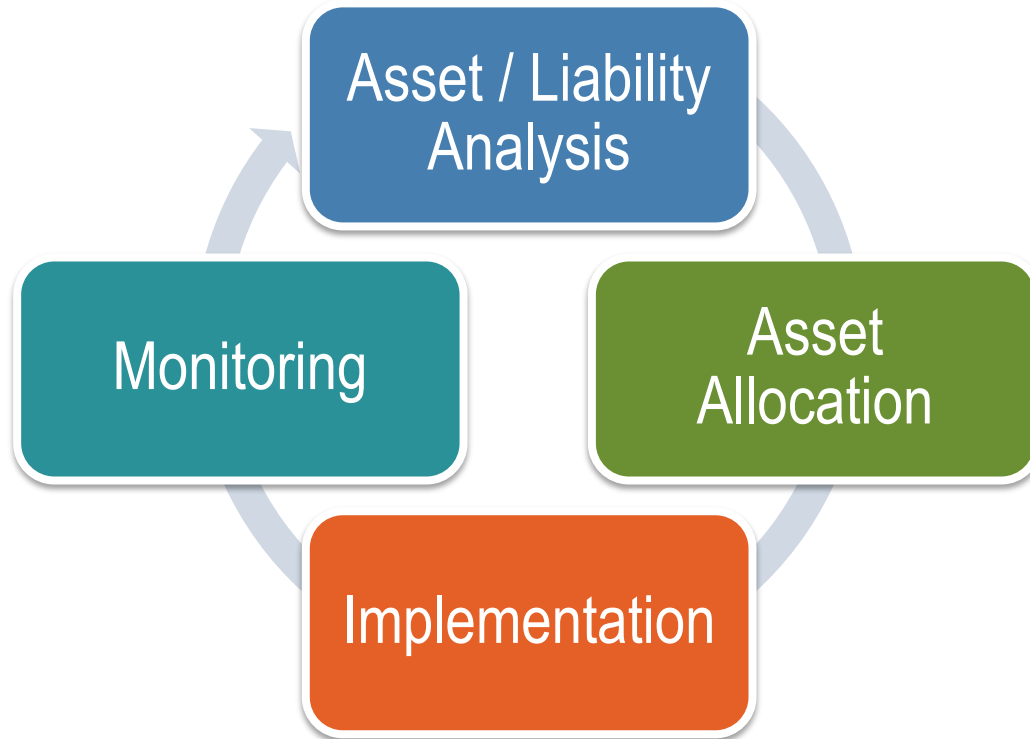
Impact of Trusts' Investment Returns



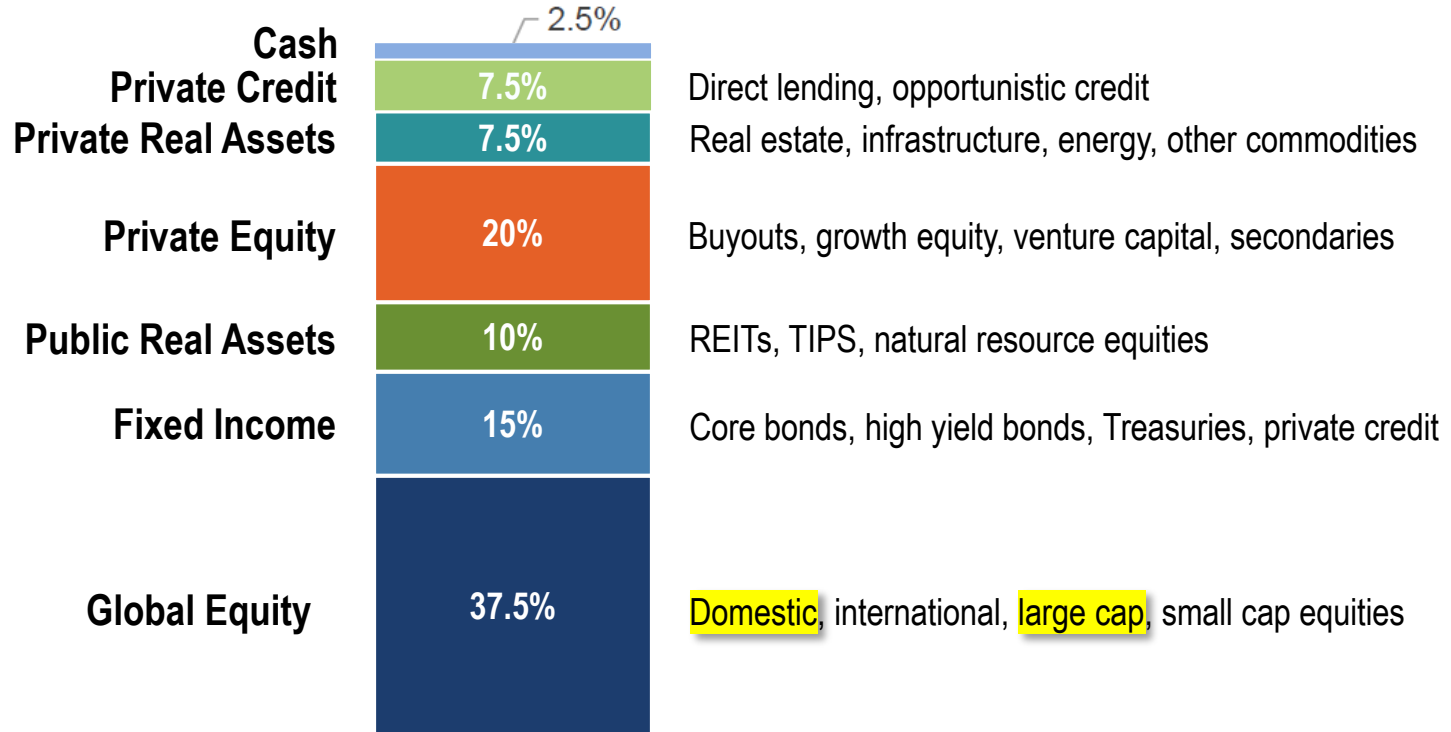
Where Do You fit in?



Investment Process



Asset Allocation



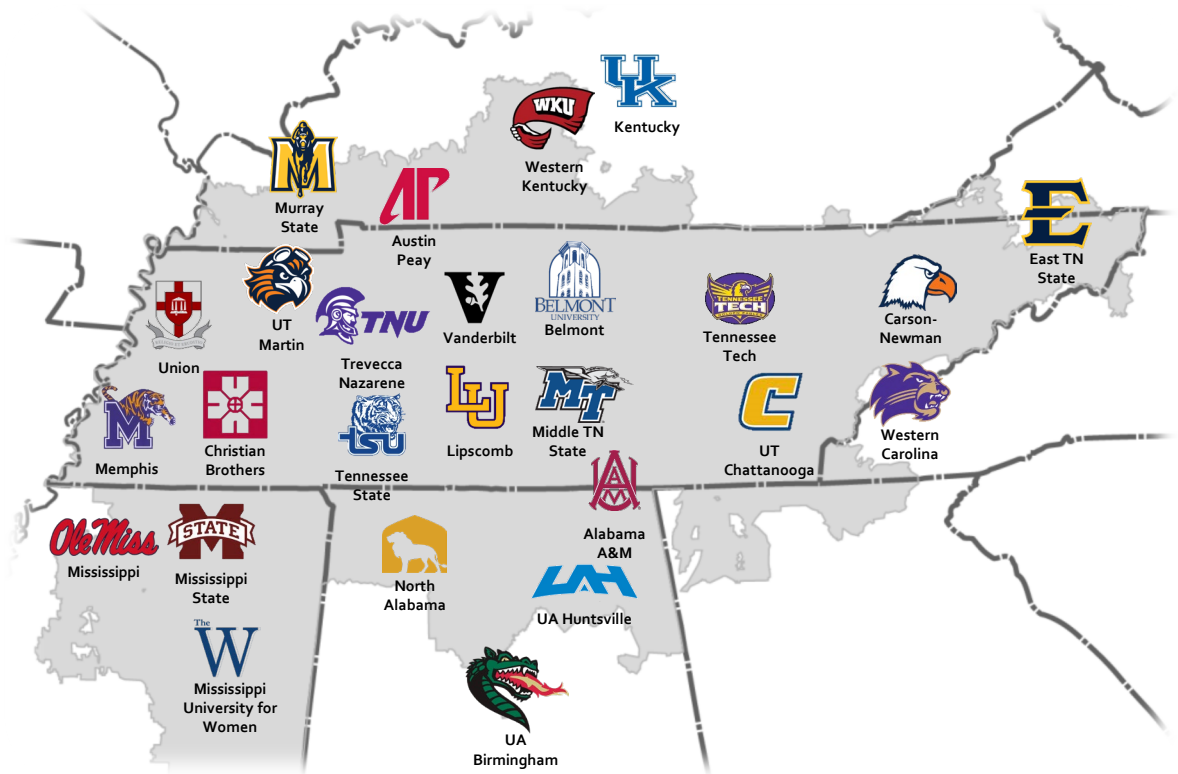
NDT / ART Asset Allocation

Investment Challenge Program

- Partnership with **26 universities** that provides students a **real-world experience**
- One of the **largest and longest running** student-managed investment programs in the United States
- Students manage **\$13 million** in a strategic **domestic equity** allocation as part of a \$1.4 billion trust
- More than **10,000 students** have participated in the program since it began in 1998
- Students have **exceeded** the return of the **S&P 500** since the program's inception

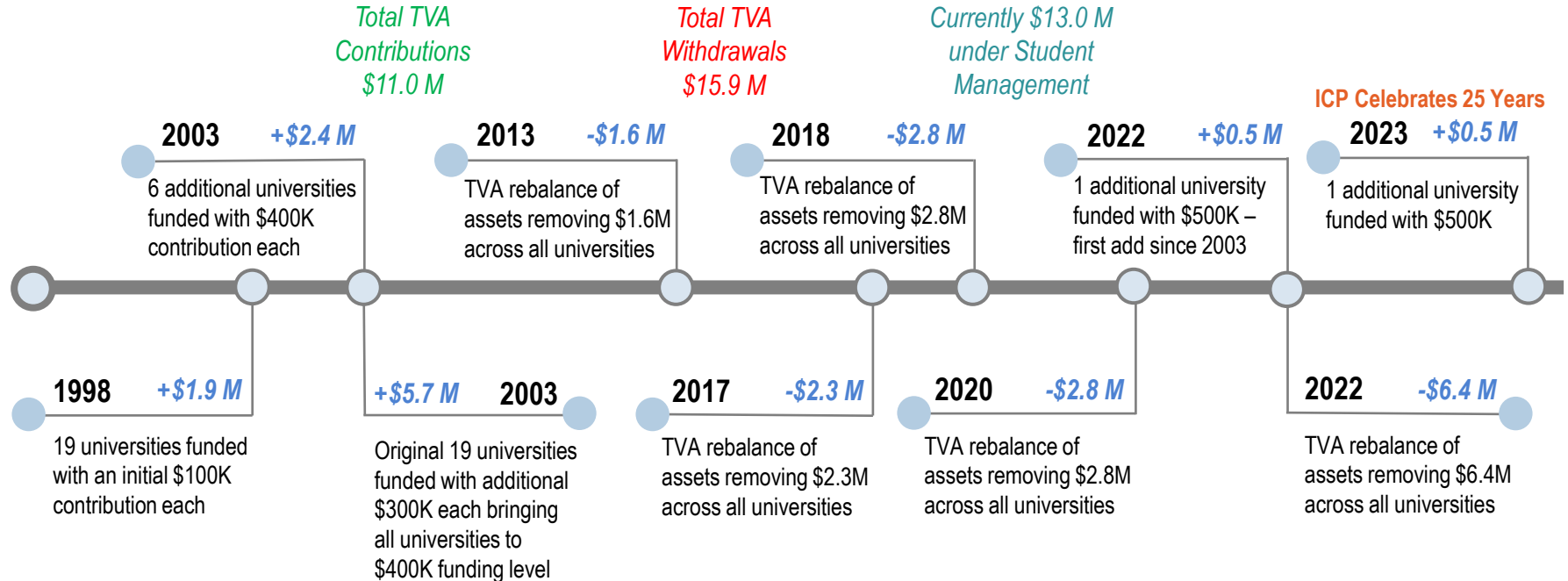
Investment Challenge Program

- This is where you...
live,
learn,
work,
and play
- Your work promotes **low rates** for everyone
- You are the **future leaders** of the communities that TVA serves

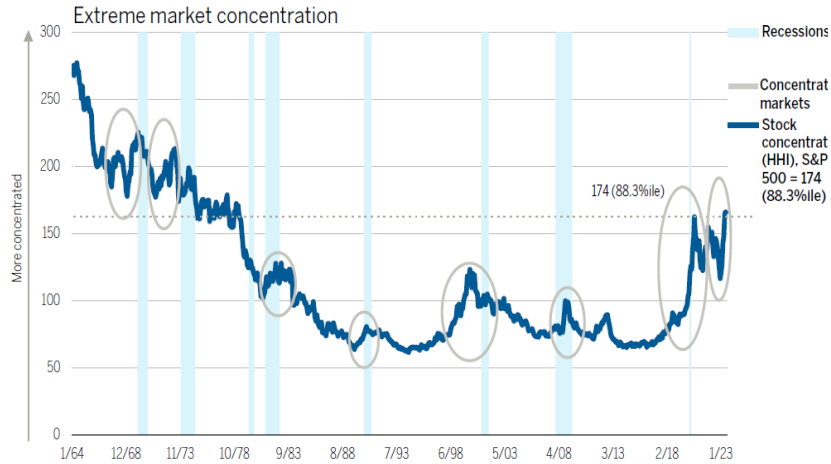


Investment Challenge Program History & Performance

History and Growth of the Investment Challenge Program

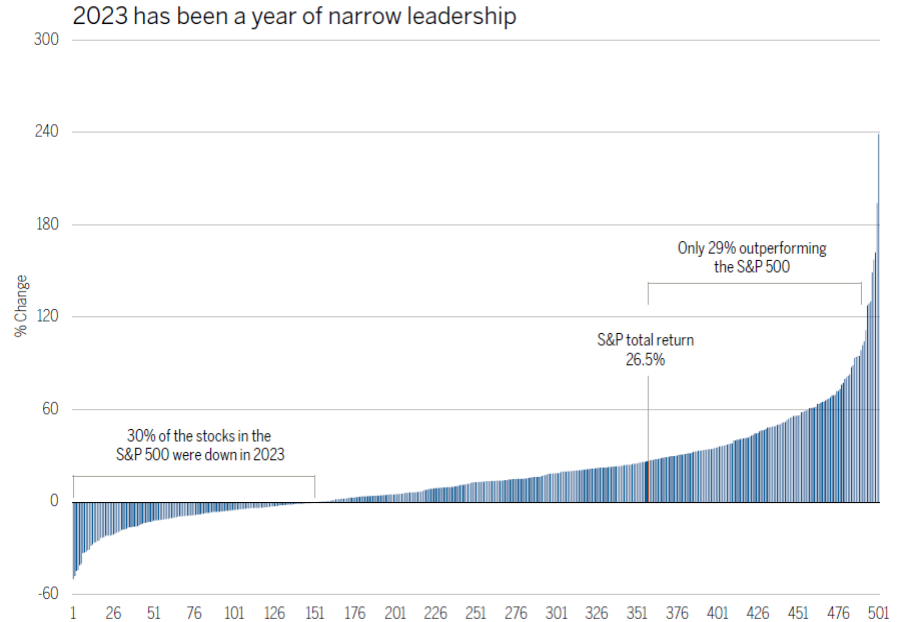


2023 Market Conditions



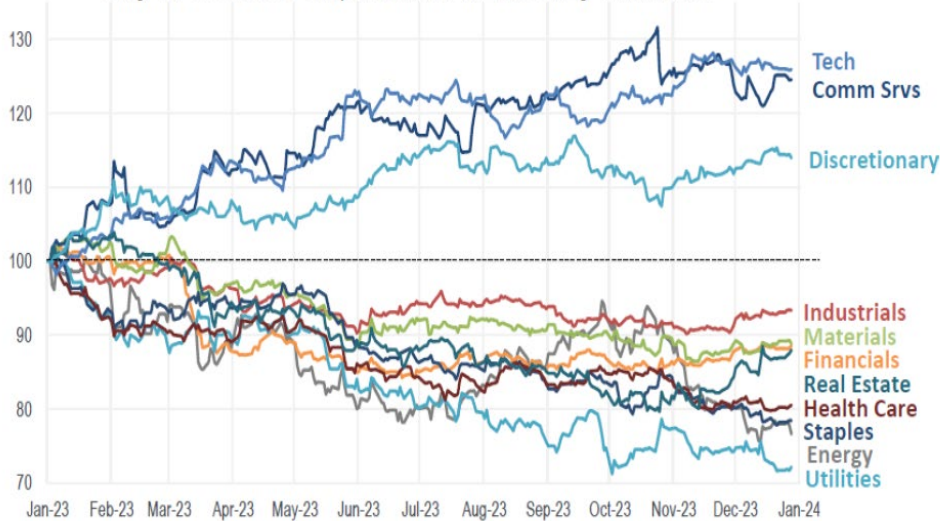
Key observations

- The US market is currently the most concentrated since the early 1970's
- Historically US market concentration has increased with economic uncertainty
- Periods of sharp increases in concentration tend to not persist as macro confidence improves
- Increased market breadth can come from mega-caps going down or everything else moving up – history is 50/50

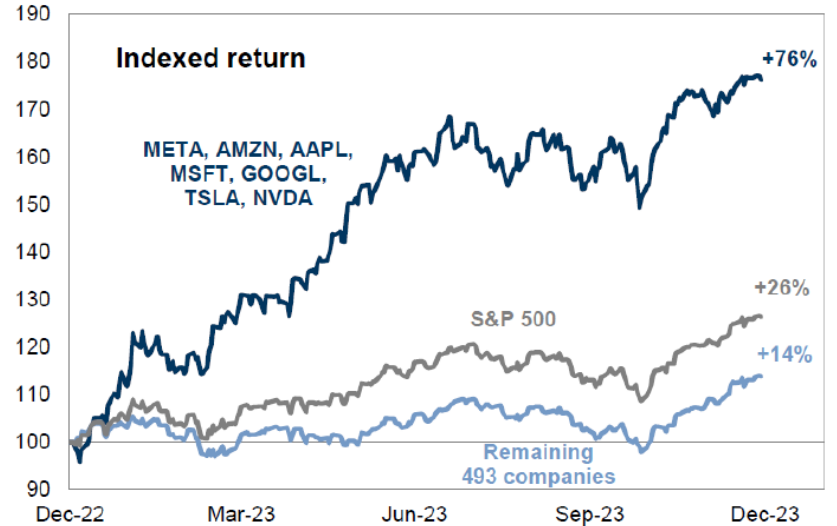


2023 Market Performance

Only three sectors outperformed in 2023 ...By a landslide



Indexed return



ICP Performance Dashboard – ICP Composite

CY2023 Summary

Performance

| Portfolio AUM | | \$13.5 million | | |
|--------------------|-----------|-----------------------|----------|--|
| | Portfolio | S&P 500 | Excess | |
| YTD | 25.92 % | 26.29 % | - 0.37 % | |
| 1 Year | 25.92 % | 26.29 % | - 0.37 % | |
| 3 Year | 8.77 % | 10.00 % | - 1.23 % | |
| 5 Year | 15.63 % | 15.69 % | - 0.06 % | |
| ITD | 8.46 % | 8.00 % | 0.46 % | |
| Portfolio Holdings | | 423 unique securities | | |

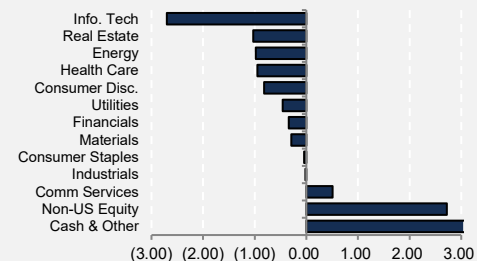
Remarks

- Security selection contribution: +175 bps FY23
- Sector allocation contribution: -184 bps FY23

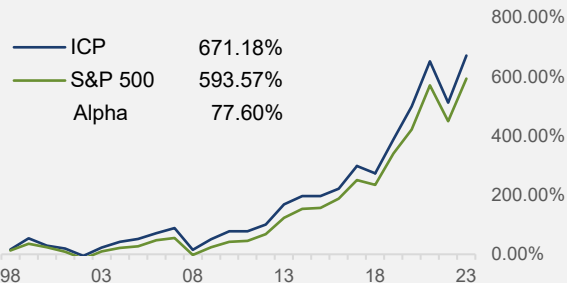
Top Contributors / Detractors

| | | | |
|-----------|---------|----------------|----------|
| Apple | 269 bps | Pfizer | - 44 bps |
| Nvidia | 261 bps | Dollar Genera | - 37 bps |
| Microsoft | 208 bps | NextEra Energy | - 33 bps |
| Amazon | 176 bps | J & J | - 19 bps |
| Meta | 126 bps | Moderna | - 16 bps |

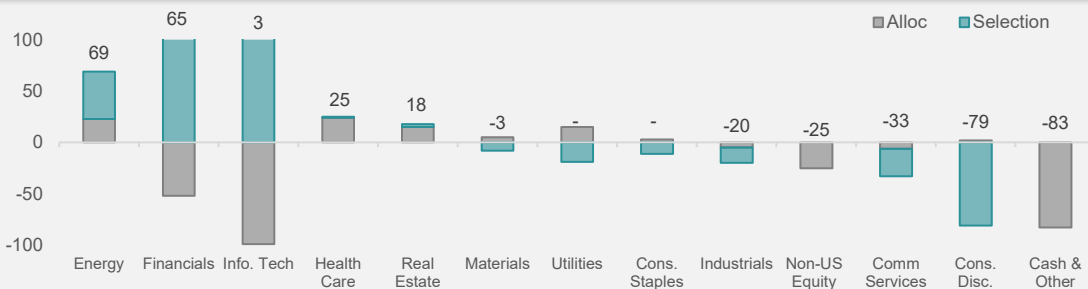
Portfolio Sector Weight v. Benchmark (%)



Cumulative Performance



Contribution to active return (bps)



Next: Group Photo & Student Presentation Breakouts

Breakout Room Assignments

| Room | Universities |
|-------------|---|
| Armstrong 1 | TN State, Middle TN State, MS State, Covenant |
| Armstrong 2 | Vanderbilt, North Alabama, Austin Peay |
| McKissack 1 | Univ. of KY, Univ. of TN at Chatt., Univ. of TN at Martin |
| McKissack 2 | Carson Newman, AL at Birmingham, Union, Lipscomb |
| Robertson | East TN State, Murray State, MS Univ. for Women |
| Ryman 1 | Univ. of MS, Trevecca, TN Tech |
| Ryman 2 | AL A&M, AL in Huntsville, Belmont, Memphis |
| Ryman 3 | Western KY, Christian Brothers, Western Carolina |

TVA

**TENNESSEE
VALLEY
AUTHORITY**