

**November 18<sup>th</sup>, 2024**

Grant Dechert, Vice President

Daphne Tai, Director

Alli Leiva, Associate

**BlackRock**

**Ventura County  
Employees' Retirement  
Association**

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# **I. Relationship Summary**

# **i. BlackRock Relationship Management Team**

# BlackRock Relationship Team

Function	Contact	Location	Telephone	Email
Americas Institutional Business – Lead	Grant Dechert, Vice President	San Francisco	415.670.4339	<a href="mailto:Grant.Dechert@blackrock.com">Grant.Dechert@blackrock.com</a>
Client Experience Management	Victor Serrano, Associate	San Francisco	415.670.4284	<a href="mailto:Victor.Serrano@blackrock.com">Victor.Serrano@blackrock.com</a>
Americas Institutional Business	Helena Moreno, Analyst	San Francisco	415.670.2194	<a href="mailto:Helena.Moreno@blackrock.com">Helena.Moreno@blackrock.com</a>

# Relationship Team Biographies



**Grant Dechert**, Vice President, is a member of the Pensions team in San Francisco within BlackRock's Americas Institutional Business (AIB). He is responsible for developing and maintaining relationships with institutional investors, primarily public and private pension plans.

Previously, Grant was an associate Investment Strategist on the U.S. ETF Investment Strategy team where he was responsible for conducting multi-asset research, delivering macro thought leadership, investment insights and content to both retail and institutional clients of the firm.

Grant joined BlackRock as a Summer Analyst in the BlackRock Investment Institute (BII). He earned a B.S. in Finance and a B.A. in Economics from California State University, Chico.



**Victor Serrano**, Associate, is part of the CEM AMRS team based in San Francisco. Victor is responsible for leading the Client Experience effort for our clients on the West Coast. He is responsible for service delivery, developing service solutions and identifying opportunities to enhance the client experience.

Victor joins BlackRock from State Street Bank & Trust Co. where he most recently served as a Client Service Officer supporting Latin America and Caribbean clients. Victor received a Bachelor of Science (BS), Accountancy and International Business, graduating in 2016.



**Helena Moreno**, Analyst, is a member of the Pensions team in San Francisco within BlackRock's Americas Institutional Business (AIB). Helena is responsible for developing and maintaining relationships with institutional clients, focusing on corporate and public pension plans.

Helena graduated from Harvard University in 2022, where she studied Economics with a minor in History.

# Presenter Biographies



**Alli Leiva**, Associate, is a member of the Product Strategy Team within BlackRock Systematic Fixed Income. She is responsible for covering institutional clients investing in US indexed and active systematic fixed income strategies.

Prior to joining BlackRock full-time, Alli spent the summer of 2019 with BlackRock as a Summer Analyst with the Systematic Product Strategy Team.

Alli graduated from Duke University with a BS in Economics and a BA in History, concentrating in Law and Governance. While in school, Alli worked for Duke Women's Basketball as a student manager under Coach Joanne P. McCallie.



**Daphne Tai, CFA**, Director, is a member of the Americas Institutional Index Equity Product Strategy team within the Global Product Solutions (GPS) organization. She's currently leading the Sub-Advised segment across the Retirement Group and USWA as well as Defined Benefits segment covering our Pension, Foundation & Endowment clients.

Prior to her current role, Ms. Tai was a Portfolio Manager for eight years within EII Americas Portfolio Management group. She was responsible for Emerging Markets iShares funds. In addition, she was also a Senior Portfolio Manager on the Index Asset Allocation team, managing LifePath, Target Allocation, iShares 529, and other multi-asset fund of funds for defined contribution and defined benefit plans in the Americas.

Ms. Tai started her career at BlackRock as an Investment Risk Manager within the Risk & Quantitative Analysis (RQA) group, focusing on developing risk analytics and performance attribution and providing independent risk oversight of various strategies ranging from iShares, LifePath, and Alternatives.

Ms. Tai earned a BA degree in Economics from University of California, Berkeley in 2009.

## **ii. VCERA Investments with BlackRock**

# Ventura County Employees' Retirement Association Relationship Summary

Ventura County Employees' Retirement System	AUM
Russell 1000 Index Fund	\$2,070,430,608
Russell 2500 Index Fund	\$107,248,804
ACWI Equity Index Fund	\$838,763,875
ACWI ex-US IMI Index Fund	\$631,766,445
U.S. Debt Index Fund	\$169,757,643
<b>Total AUM</b>	<b>\$3,817,967,375</b>

# Ventura County Employees' Retirement Association

## Performance

Russell 1000 Index Fund							
Performance	Q3%	Fiscal YTD %	1-yr %	3-yr %	5-yr %	10-yr%	Since Inception %
Russell 1000 Index Fund (gross)	6.08	21.19	35.73	10.86	15.67	13.14	10.81
Russell 1000 Index Fund (net)	6.08	21.18	35.72	10.85	15.66	13.13	10.80
Russell 1000 Index	6.08	21.19	35.68	10.83	15.64	13.10	10.78
<b>Difference (net)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.04</b>	<b>0.02</b>	<b>0.02</b>	<b>0.03</b>	<b>0.02</b>

Russell 2500 Index Fund							
Performance	Q3%	Fiscal YTD %	1-yr %	3-yr %	5-yr %	10-yr%	Since Inception %
Russell 2500 Index Fund (gross)	8.79	11.37	26.28	3.59	10.52	9.62	9.30
Russell 2500 Index Fund (net)	8.79	11.35	26.25	3.57	10.50	9.60	9.28
Russell 2500 Index	8.75	11.30	26.17	3.47	10.43	9.50	9.18
<b>Difference (net)</b>	<b>0.04</b>	<b>0.05</b>	<b>0.09</b>	<b>0.10</b>	<b>0.07</b>	<b>0.11</b>	<b>0.10</b>

MSCI ACWI Equity Index Fund							
Performance	Q3%	Fiscal YTD %	1-yr %	3-yr %	5-yr %	10-yr%	Since Inception %
MSCI ACWI Equity Index Fund (gross)	6.65	18.93	32.12	8.50	12.62	9.85	9.77
MSCI ACWI Equity Index Fund (net)	6.63	18.89	32.07	8.45	12.57	9.80	9.73
MSCI ACWI Net Dividend Return Index	6.61	18.66	31.76	8.09	12.19	9.39	9.31
<b>Difference (net)</b>	<b>0.02</b>	<b>0.23</b>	<b>0.31</b>	<b>0.36</b>	<b>0.38</b>	<b>0.38</b>	<b>0.42</b>

\*Net of Fees is based on an estimated annual fee calculation, which uses the effective fee rate as of 7/01/2022. Since inception is as of overall fund's inception date.

\*Performance greater than 1 year annualized

# Ventura County Employees' Retirement Association

## Performance

MSCI ACWI ex-US IMI Index Fund							
Performance	Q3%	Fiscal YTD %	1-yr %	3-yr %	5-yr %	10-yr%	Since Inception %
MSCI ACWI ex-US IMI Index Fund (gross)	8.07	13.97	24.99	3.96	7.89	5.61	4.48
MSCI ACWI ex-US IMI Index Fund (net)	8.06	13.93	24.94	3.92	7.85	5.57	4.44
MSCI ACWI ex-US IMI Net Dividend Index	8.18	13.90	25.06	3.74	7.66	5.33	4.21
<b>Difference (net)</b>	<b>-0.12</b>	<b>0.04</b>	<b>-0.12</b>	<b>0.17</b>	<b>0.18</b>	<b>0.24</b>	<b>0.23</b>

U.S. Debt Index Fund							
Performance	Q3%	Fiscal YTD %	1-yr %	3-yr %	5-yr %	10-yr%	Since Inception %
U.S. Debt Index Fund (gross)	5.20	4.58	11.61	-1.32	0.41	1.93	5.52
U.S. Debt Index Fund (net)	5.19	4.56	11.57	-1.35	0.38	1.90	5.48
Bloomberg Barclays U.S. Agg Bond Index	5.20	4.45	11.57	-1.39	0.33	1.84	5.46
<b>Difference (net)</b>	<b>0.00</b>	<b>0.11</b>	<b>0.00</b>	<b>0.04</b>	<b>0.05</b>	<b>0.05</b>	<b>0.03</b>

\*Net of Fees is based on an estimated annual fee calculation, which uses the effective fee rate as of 7/01/2022. Since inception is as of overall fund's inception date.

\*Performance greater than 1 year annualized

## **II. Equity Index Overview**

# BlackRock's Index Equity Platform: Global leader in Index Equity assets<sup>1</sup>

## Focus on consistent performance with efficient outcomes for clients

- Thousands of skillful and thoughtful decisions made annually in each portfolio in seeking to achieve the precise performance that clients demand

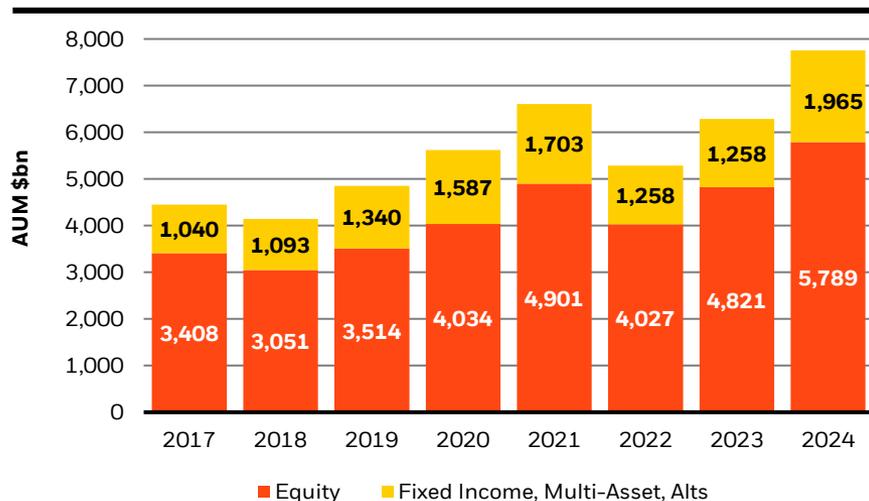
## Extensive and flexible platform for index strategies

- Over 2,500 funds managed against 900+ benchmarks, including: factors, ESG, liquidity strategies and index plus

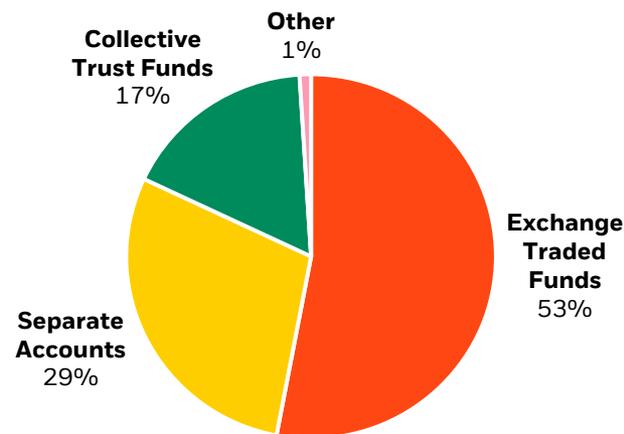
## Sophisticated technology and risk management

- The Aladdin® platform seamlessly integrates the capabilities of our dedicated portfolio management, research, trading and risk management teams

### Index and ETF assets as of Q3 2024: \$7.75 trillion



### Distribution of assets by vehicle type as of Q3 2024



Source: BlackRock as of 30 September 2024

<sup>1</sup> In terms of AUM. Source: Pensions & Investments as of 30 September 2024

All dollar amounts referenced in this presentation are in USD

# Current Indexing Landscape



### Trending / Ongoing Interests

- China
- Enhanced Indexing Strategies
- Geopolitical Risk
- Lending vs. Non-Lending
- Index Concentration
- Digital Assets

### Global Index Flows<sup>1,2</sup>

- Total 2024 index flows of +\$229B
- iShares represented >90% of the equity inflows, remainder into institutional strategies

## Recent and Upcoming Index Events

<b>Nov 2024</b>	<b>Dec 2024</b>	<b>Feb 2025</b>	<b>Mar 2025</b>	<b>May 2025</b>	<b>Jun 2025</b>	<b>Aug 2025</b>	<b>Sep 2025</b>
<b>(MSCI)</b>	<b>(S&amp;P)</b>	<b>(MSCI)</b>	<b>(S&amp;P)</b>	<b>(MSCI)</b>	<b>(Russell)</b>	<b>(MSCI)</b>	<b>(S&amp;P)</b>
Quarterly index review	Rebalance	Quarterly index review	Rebalance	Quarterly index review	Annual index Reconstitution <b>(S&amp;P)</b> Rebalance	Quarterly index review	Rebalance

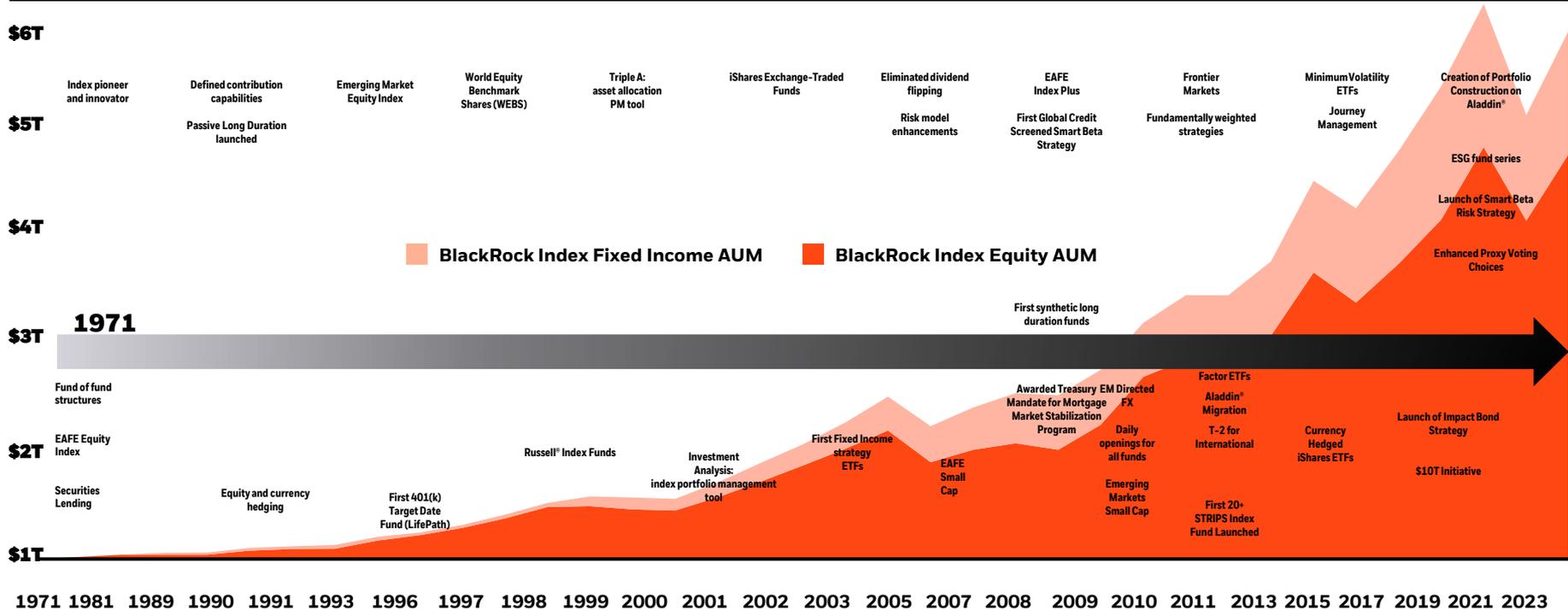
<sup>1</sup> Flows are from January 1, 2024 –September 30, 2024. Data includes BlackRock institutional index and ETF asset flows  
<sup>2</sup> Non-ETF flows includes flows into commingled trust funds, mutual funds and separately managed accounts as of September 2024.

# Over 50 years of experience driving index forward

## Creating solutions so our clients have access to high quality index exposures

- Drive the industry forward through our ability to create specialized, innovative investments afforded by our scale & depth of expertise
- Forge new ground for clients
- Evolve capabilities to continuously deliver on emerging trends – smart beta, global benchmarking, overlay strategies
- Serve as an index advocate on behalf of asset owners and act a key partner to index providers seeking our practitioner knowledge

## Over 50 years of Index Equity – Continual evolution of products, technology and capabilities

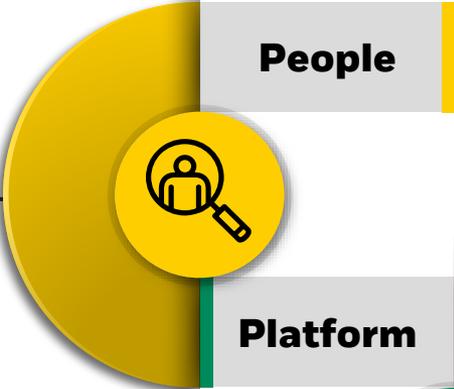


AUM as of 31 December 2023

# BlackRock's vision for the future of indexing

**We continue to invest in a scalable investment engine through a focus on:**

**Building diverse teams who can sit at the intersection of portfolio management and technology**

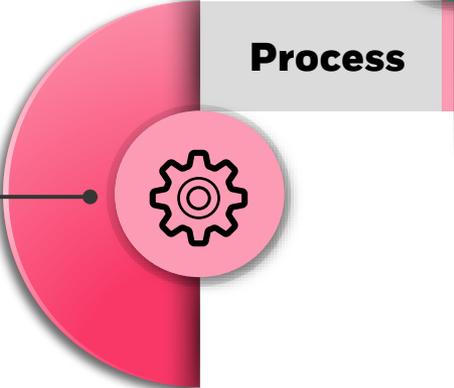


**Platform**

**Leveraging Aladdin<sup>®</sup> platform and the new technologies to build scale**



**Developing a systems-driven and rules-based investment process**



# Americas Index Equity Team

**Samara Cohen**  
Chief Investment Officer of ETF and Index Investments

## Index Equity

**Jennifer Hsui, CFA**  
Global Head of Index Equity Investments

### CIO Office

**Tim Parsons, CFA**  
Deputy CIO  
+5 Portfolio Managers

**Steven White**  
CIO Global Head of Performance, Risk & Index Advocacy

### Platform

**Rajesh Nagella**  
Global Head of Investment Process & Platform  
+11 Platform Managers

### Portfolio and Transition Management

**Paul Whitehead**  
Deputy Head of Index Equity

#### Americas Portfolio Management

**Matthew Waldron, CFA**  
Head of International PM  
+17 Portfolio Managers

**Peter Sietsema, CFA**  
Head of North America PM  
+25 Portfolio Managers

**Steven White**  
Head of Active Risk Index ETF PM  
+ 5 Portfolio Managers

#### Index Asset Allocation & Synthetics

**Greg Savage, CFA**  
Head of Global IAA & Synthetics  
+20 Portfolio Managers

#### Derivative ETFs

**Matthew DeCicco**  
Global Head of Derivative ETFs

#### Transition Management

**Nick Hogwood**  
Global Transition Management  
+50 Transition Specialists

## Global Research

**Nogie Udevbulu**  
Global Head of Research and Analytics

**Index & Quantitative Research**  
+18 Researchers

**Data Analytics**  
+47 Technologists

### Business Development

**Scott Dohemann, CFA**  
Head of US Index Business Development  
+3 Strategists

### Product Strategy

**MJ Kim**  
Head of Americas Index Product Strategy  
+5 Strategists

As of September 30, 2024

# Index Provider Engagements and Portfolio Integrity

**BlackRock makes consistent, focused efforts to protect index portfolios and the overall index ecosystem.**

## Index Monitoring

Inclusions, methodology, turnover, liquidity



## Systematic Approach

Order Generation algorithms, optimal futures basket refresh



## Index Advocacy and Market Consultation

Engaging with index providers on rebalances, reconstitution, methodology changes



## Ongoing Research Efforts

Corporate action research, global rebalance coordination, illiquid security divestment



# **Process and Philosophy**

# Why BlackRock for indexing?

As a BlackRock index client, you receive an excellent indexing experience with the following:

<b>1</b>	<b>Index Research Expertise</b>	Detailed knowledge of index methodologies and experience with projecting index changes
<b>2</b>	<b>Skilled Portfolio Management</b>	Dedicated portfolio managers with deep local market and index expertise
<b>3</b>	<b>Extensive Trading Capabilities &amp; Research</b>	Scale and breadth of our global trading platform helps minimize transaction costs
<b>4</b>	<b>Sophisticated Operating Platform</b>	Proprietary end-to-end Aladdin® platform integrates portfolio management, risk analytics, trading and operations
<b>5</b>	<b>Robust Securities Lending Benefit</b>	Global focus on extracting premiums and negotiating securities loans in order to add value to index portfolios

## Leveraging the Power of the BlackRock Platform

<p><b>Risk &amp; Quantitative Analysis</b></p> <p>Specialized Risk &amp; Quantitative Analysis Team (RQA) monitors risk factors globally on a continuous basis</p>	<p><b>Fiduciary</b></p> <p>With no cross subsidization between business units or affiliate broker-dealers acting as principal, we have an investment-only focus</p>	<p><b>Proxy Voting Choice</b></p> <p>Eligible institutional index commingled trust fund and separate account clients can leverage BlackRock Investment Stewardship for proxy voting or choose to own their proxy voting</p>	<p><b>BlackRock Investment Institute</b></p> <p>Internal forum facilitates idea sharing, debates economic implications and publishes firm wide thought leadership</p>	<p><b>Index Provider Relationships</b></p> <p>Allows for access to a broad index data set, with the ability to customize indices as needed. BlackRock acts as a steward of the indexing ecosystem</p>
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Source: BlackRock. Investment process is shown for illustrative purposes only and is subject to change.

# Focus on efficient performance outcomes

## Supported by proprietary Aladdin® technology

- BlackRock's disciplined index portfolio management is focused on optimally balancing return, risk and cost in seeking to deliver effective outcomes to clients
- Our portfolio managers specialize in financial markets, supported by BlackRock's extensive global trading platform and market leading analytics, to provide a high-quality index experience



### What is Aladdin® ?

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- A sophisticated operating system that connects information, people and technology to support the entire investment lifecycle

### Aladdin® helps solve investing challenges:

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- Technology does the 'heavy-lifting', enabling portfolio managers to focus on key drivers affecting portfolio return
- Offers process scalability and efficiency
- Includes consistency across product types and functions

Source: BlackRock. Investment process is shown for illustrative purposes only and is subject to change.

# Index Investment Management Cycle – dedicated expertise and resources

## Performance & Oversight

- Review cumulative effect of investment decisions to help identify factors contributing to/detracting from portfolio performance
- Risk & Quantitative Analysis Team (RQA) monitors dozens of risk factors globally on a continuous basis
- **Aladdin® Platform Advantage:** Portfolio Management tools are integrated on the same platform as risk monitoring tools, making it easy for RQA to provide a third-party risk assessment on portfolios

## Efficient Trading

- Global trading infrastructure allows for real time oversight of all trades in all regions
- Smart trading strategies are designed to access optimal liquidity
- One of the industry's largest internal marketplace for potential netting of client flows
- Focused trading research and systems
- **Aladdin® Platform Advantage:** Extensive global trading platform helps ensure low costs and optimal access to liquidity

## Benchmark Knowledge

- Detailed knowledge of index methodologies
- Experience with predicting and projecting index changes
- Focused on optimal treatment of corporate actions
- Continual research into index events
- **Aladdin® Platform Advantage:** Proprietary Aladdin® 'Index Pro' application makes analyzing benchmark changes a clean and efficient process

## Portfolio Construction

- Significant investment in technology
- Market leading portfolio and risk tools provided by our Aladdin® platform
- Integrated cost, risk, and liquidity analysis
- Access to sophisticated optimization tools
- **Aladdin® Platform Advantage:** Custom 'Portfolio Construction' application built by our Portfolio Management Team designed specially for index management



Source: BlackRock. Investment process is shown for illustrative purposes only and is subject to change.

# Efficient Trading:

## Adding value through core activities

### An Industry Leader

Tier 1 client to all major counterparties, giving us deep access to liquidity

Trader expertise across all major asset classes with ~\$104.1T of annual volume (\$3.0T equity notional)

### A Focus on Costs

Large and diverse client base results in a robust marketplace for potential netting of client flows

Trading footprint allows us to negotiate extremely competitive commission rates

### Research Driven

Comprehensive database of metrics, including a tick database and >\$259T USD of trading history across >222M transaction records

## BlackRock's Global Coverage

24 hour a day, 5.5 days per week coverage



**One Order Management System platform: Aladdin® Dashboard**

Regional hubs for each asset class with local market knowledge and sector expertise

Common technology enables us to pass the book with embedded business continuity plan

All data as of September 30, 2024; Figures show in USD; Source: BlackRock. Inclusive of internal crossing opportunities. BlackRock Execution Cost is the average difference between: the actual price achieved on the trade and the benchmark price. For Equity, BlackRock calculates Market Expected Cost using an average of multiple independent broker models. There is no guarantee that a positive investment outcome will be achieved. Subject to Change.

**Index events**

# August 2024 MSCI Quarterly Comprehensive Index Review

BlackRock Global Markets Index Equity PM team generated orders totaling \$67 billion for the close of August 30th

- ▶ The overall trade size was about 65% larger than the trade in August 2023.
- ▶ Across the MSCI-benchmarked assets that BlackRock manages, one-way turnover was expected to be 1.6%.

## Highlights

- ▶ MSCI Brazil saw 5 US-listed adds at a total weight of 14%, with Nu Holdings being the largest at 11%. Brazil now meets MSCI's **Foreign Listing** Materiality Requirements, as MSCI has determined that foreign-listed securities account for a “material impact” on the country’s investable market.
- ▶ The largest changes to **ACWI** were the addition of Nu Holdings (+6 bps) and the downweight of Nvidia (-6 bps). Nvidia has performed stock buybacks throughout the year, resulting in a decrease in total shares outstanding.
- ▶ Flutter Entertainment (FLUT) was reclassified from UK to US after the company moved its primary listing to the US. Previously, FLUT made up 22 bps of the MSCI EAFE Index.
- ▶ Sweden met MSCI’s Foreign Listing Materiality Requirements in Q2 2024, and as a result, foreign-listings will become eligible for inclusion in MSCI Sweden starting in Q4 2024.

## MSCI index change details

Index	# Adds	# Deletes	Aug 2024 One-Way Turnover	Aug 2023 One-Way Turnover
<b>EAFE</b>	4	13	0.7%	0.7%
<b>EAFE Small Cap</b>	38	33	2.0%	3.1%
<b>EM</b>	24	75	2.0%	1.7%
<b>EM Small Cap</b>	86	54	3.6%	6.7%
<b>World</b>	5	24	0.6%	0.4%
<b>World Small Cap</b>	90	58	2.1%	3.3%
<b>ACWI</b>	29	99	0.8%	0.5%
<b>ACWI IMI</b>	169	175	0.7%	1.0%

Source: BlackRock, MSCI, FTSE Russell, Morningstar, and S&P Dow Jones as of August 2024. **Past performance is not indicative of future results.** References to specific companies should not be construed as a recommendation to buy or sell any securities. Actual BlackRock portfolios may or may not currently hold positions in the securities mentioned. Indexes are unmanaged and one cannot invest directly in an index.

# Russell Reconstitution 2024

**BlackRock Global Markets Index Equity PM team generated orders totaling \$124 billion for the close of June 28th**

- ▶ The overall trade size was about one-third larger than Russell Reconstitution 2023 (\$91B).
- ▶ Approximately 51% of the trade activity was crossed globally.
- ▶ Across the Russell-benchmarked assets that BlackRock manages, one-way turnover was 6.6%.

## Highlights

- ▶ The **largest additions** to Russell 1000 (R1000) were CRH PLC (**CRH**) at 11 bps, Dell Technologies (**DELL**) at 9 bps, Super Micro Computer (**SMCI**) at 9 bps, and MicroStrategy (**MSTR**) at 5 bps. CRH was reclassified from UK to US. DELL satisfied the Russell US Equity Indexes Methodology minimum voting rights requirement. SMCI and MSTR migrated from Russell 2000 (R2000).
- ▶ Higher **turnover** at Russell Recon 2024 versus 2023 was driven heavily by this year's size segment migrations, as SMCI was 1.68% of R2000 and MSTR was 0.95% of R2000. These were the two largest migrations from R2000 to R1000.
- ▶ Within the **Russell 1000 Growth** Index, a notable shift occurred in Technology. Weight changes were led by MSFT (+70 bps), NVDA (+62 bps), and AAPL (+58 bps). At rebalance, these three stocks now make up 34.75% of the index.
- ▶ **Concentration** at the top of the investable US equity market continues. While the total market cap of Russell 3000 was up 20% since Russell Recon 2023, the total market cap of the ten largest companies in Russell 3000 was up 41% over the same period.

## Index Changes

One-Way Turnover	2024	2023	2022
<b>Russell 1000</b>	1.3%	1.1%	1.7%
<b>Russell 2000</b>	10.2%	7.8%	9.7%
<b>Russell 3000</b>	1.1%	1.1%	1.7%

### ICB Industry Weight Changes (%) at Russell Reconstitution 2024

Industry	Russell 1000	Russell 1000 Growth	Russell 1000 Value
Basic Materials	-0.1	0.0	-0.5
Consumer Discretionary	0.1	-0.5	1.5
Consumer Staples	0.0	0.1	-0.4
Energy	0.0	-0.1	-0.5
Financials	-0.1	0.3	-1.9
Health Care	-0.2	-1.9	1.5
Industrials	0.1	-2.0	1.8
Real Estate	0.0	-0.3	0.0
Technology	0.2	4.4	-0.8
Telecommunications	0.0	-0.2	-0.1
Utilities	0.0	0.2	-0.6

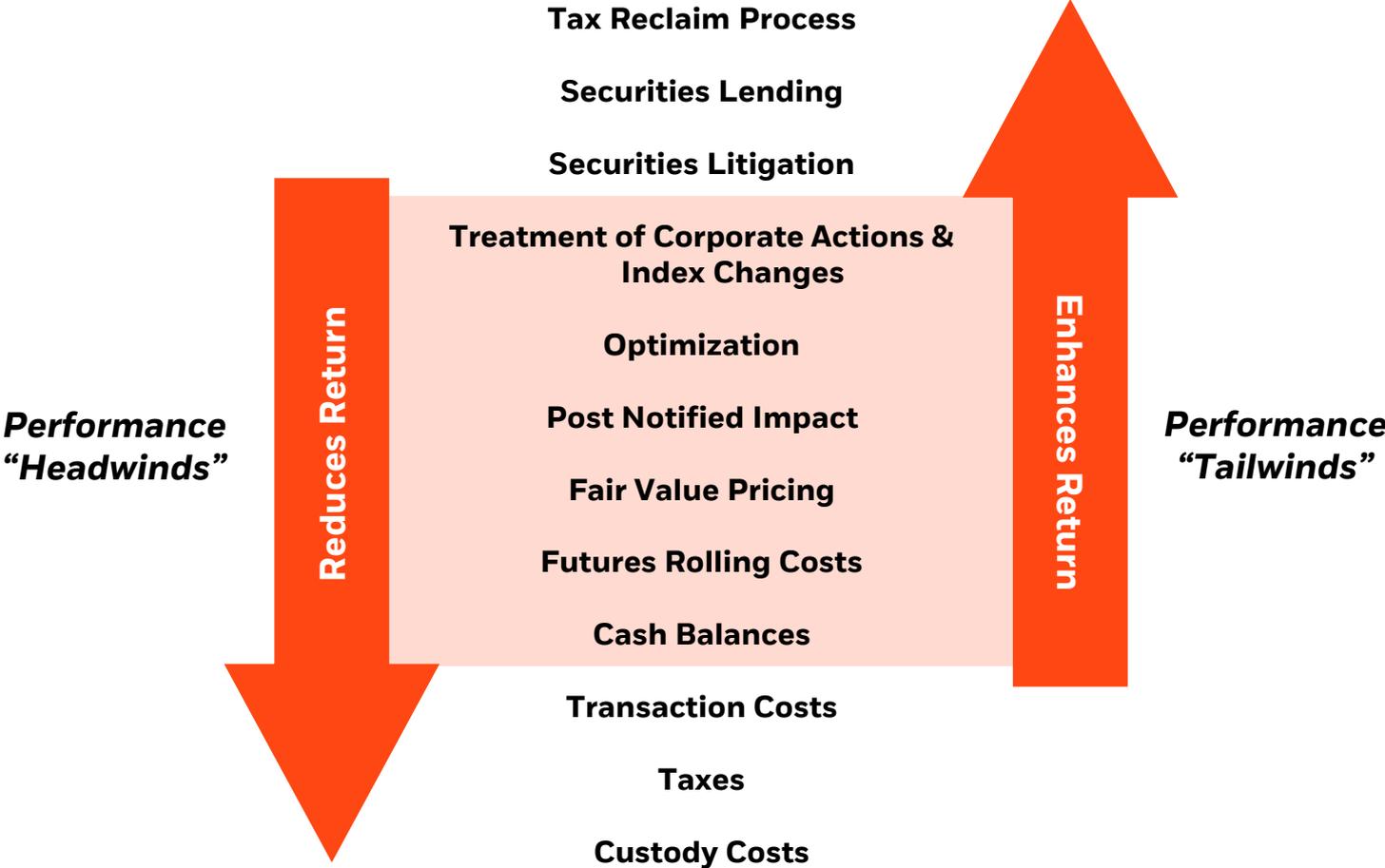
Industry	Russell 2000	Russell 2000 Growth	Russell 2000 Value
Basic Materials	0.3	0.9	-0.3
Consumer Discretionary	-0.6	-1.4	0.2
Consumer Staples	-0.3	-0.6	0.0
Energy	-0.4	-0.2	-0.6
Financials	1.1	1.9	0.5
Health Care	2.1	3.4	0.6
Industrials	-0.2	1.9	-2.4
Real Estate	0.4	0.0	0.9
Technology	-2.9	-4.8	-1.0
Telecommunications	0.2	-0.3	0.7
Utilities	0.3	-0.8	1.4

Weight change = (Industry weight at the close of June 28, 2024) - (Industry weight at the close of June 27, 2024)

Source: BlackRock, Barclays, Instinet, Bank of America, and FTSE Russell as of June 2024. **Past performance is not indicative of future results.** It is not possible to invest directly in an index. References to specific companies should not be construed as a recommendation to buy or sell any securities. Actual BlackRock portfolios may or may not currently hold positions in the securities mentioned. Industry Classification Benchmark (ICB) is a comprehensive and rules based, transparent classification methodology based on research and market trends designed to support investment solutions.

# Performance attribution

# Major sources of tracking error: Global & domestic index funds



# **Fund characteristics**

# Russell 1000<sup>®</sup> Index Fund

## Characteristics

### Fund information

Benchmark	Russell 1000 <sup>®</sup> Index
Total fund assets	\$164.47B
Number of issues in fund	1,010
Number of issues in benchmark	1,009

### Top 10 holdings

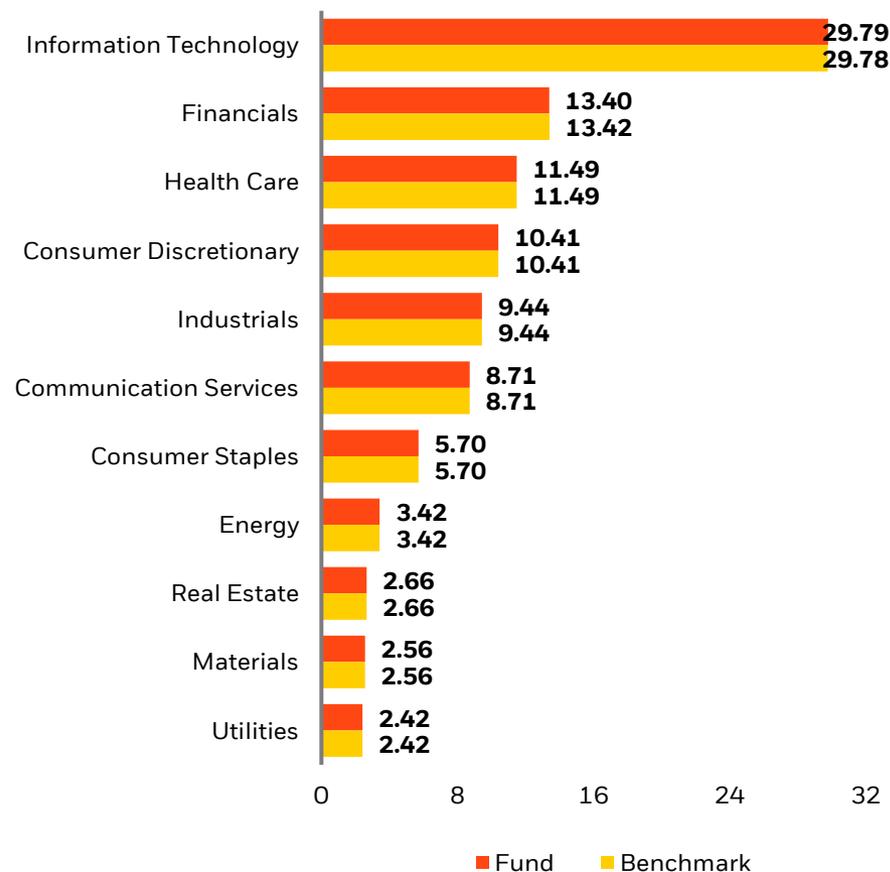
	Fund %	Index %
APPLE INC	6.42	6.42
MICROSOFT CORP	6.06	6.06
NVIDIA CORP	5.38	5.38
AMAZON COM INC	3.28	3.28
META PLATFORMS INC CLASS	2.38	2.38
ALPHABET INC CLASS A	1.85	1.85
BERKSHIRE HATHAWAY INC CL	1.60	1.60
ALPHABET INC CLASS C	1.56	1.56
BROADCOM INC	1.49	1.49
TESLA INC	1.38	1.38

Fund inception date 31 January 1987

Data is used for analytical purposes only. Index data may differ to those published by the Index due to calculation methods. Breakdowns may not sum to 100 percent due to rounding, exclusion of cash, STIF and statistically immaterial factors. Portfolio holdings are subject to change and are not intended as a recommendation of individual securities.

Sources: BlackRock, FTSE Russell

### Sector diversification



# Russell 2500™ Index Fund

## Characteristics

### Fund information

Benchmark	Russell 2500™ Index
Total fund assets	\$11.24B
Number of issues in fund	2,470
Number of issues in benchmark	2,476

### Top 10 holdings

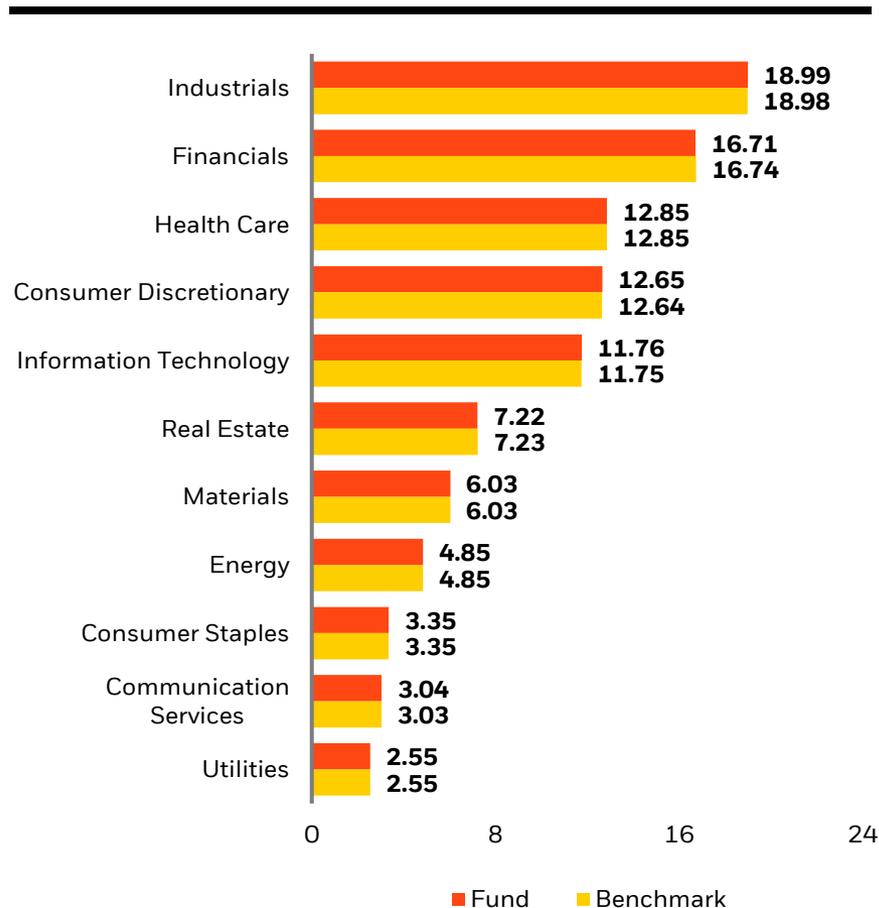
	Fund %	Index %
SMURFIT WESTROCK PLC	0.40	0.40
EQT CORP	0.34	0.34
EMCOR GROUP INC	0.32	0.32
LENNOX INTERNATIONAL INC	0.31	0.31
PACKAGING CORP OF AMERICA	0.30	0.30
NRG ENERGY INC	0.30	0.30
CARVANA CLASS A	0.30	0.30
CHESAPEAKE ENERGY CORP	0.30	0.29
AVERY DENNISON CORP	0.28	0.28
FACTSET RESEARCH SYSTEMS	0.28	0.28

Fund inception date 28 February 2001

Data is used for analytical purposes only. Index data may differ to those published by the Index due to calculation methods. Breakdowns may not sum to 100 percent due to rounding, exclusion of cash, STIF and statistically immaterial factors. Portfolio holdings are subject to change and are not intended as a recommendation of individual securities.

Sources: BlackRock, FTSE Russell

### Sector diversification



# BlackRock MSCI ACWI Equity Index Fund

## Characteristics

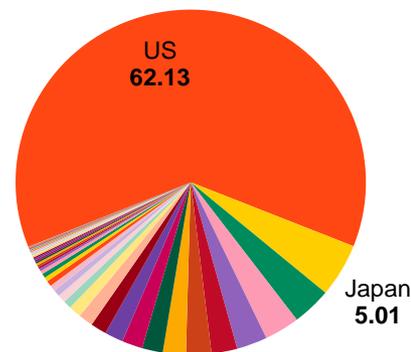
### Fund information

Benchmark	MSCI ACWI Net Dividend Return Index
Total fund value	\$14.69B
Number of issues in fund	2,694
Number of issues in benchmark	2,688

### Top 10 holdings

	Country	Weight (%)
APPLE INC	US	4.34
MICROSOFT CORP	US	3.89
NVIDIA CORP	US	3.82
AMAZON COM INC	US	2.23
META PLATFORMS INC CLASS	US	1.60
ALPHABET INC CLASS A	US	1.25
ALPHABET INC CLASS C	US	1.08
TAIWAN SEMICONDUCTOR MANU	Taiwan	0.98
BROADCOM INC	US	0.98
TESLA INC	US	0.96

### Country allocation (%)



United Kingdom	3.30	Denmark	0.75	Israel	0.17
China	2.99	Spain	0.63	Thailand	0.16
Canada	2.76	Italy	0.62	Malaysia	0.16
France	2.55	Brazil	0.52	Norway	0.13
India	2.12	Hong Kong	0.46	UAE	0.12
Switzerland	2.04	Saudi Arabia	0.40	Poland	0.09
Germany	1.92	South Africa	0.34	Qatar	0.08
Taiwan	1.91	Singapore	0.33	Kuwait	0.07
Australia	1.74	Finland	0.23	Turkey	0.07
Korea (South)	1.15	Belgium	0.22	Ireland	0.07
Netherlands	1.09	Mexico	0.20	Philippines	0.06
Sweden	0.75	Indonesia	0.18	Greece	0.05

Fund inception date 22 April 2010

Data is used for analytical purposes only. Breakdowns may not sum to 100 percent due to rounding, exclusion of cash, STIF and statistically immaterial factors. Portfolio holdings are subject to change and are not intended as a recommendation of individual securities.

Sources: BlackRock, MSCI Inc.

# BlackRock MSCI ACWI ex-U.S. IMI Index Fund Characteristics

## Fund information

Benchmark	MSCI ACWI ex USA IMI Index
Total fund value	\$22.32B
Number of issues in fund	6,527
Number of issues in benchmark	6,460

## Top 10 holdings

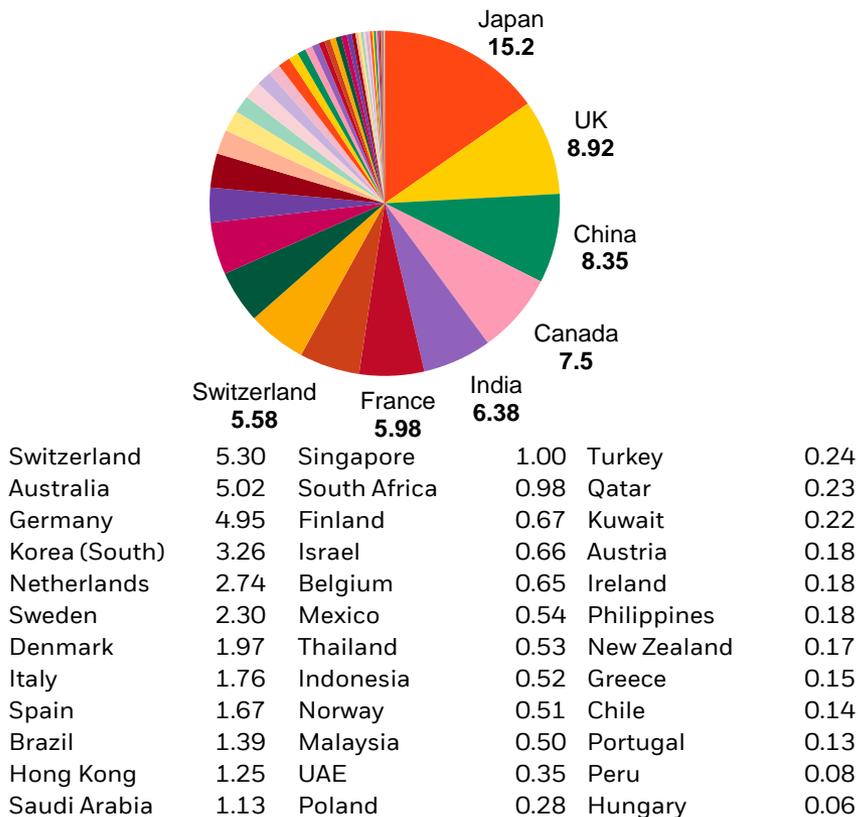
	Country	Weight (%)
TAIWAN SEMICONDUCTOR MANU	Taiwan	2.35
TENCENT HOLDINGS LTD	China	1.17
NOVO NORDISK CLASS B	Denmark	1.16
ASML HOLDING NV	Netherlands	1.02
NESTLE SA	Switzerland	0.75
ASTRAZENECA PLC	UK	0.74
SAMSUNG ELECTRONICS LTD	Korea	0.72
SAP	Germany	0.69
ALIBABA GROUP HOLDING LTD	China	0.67
LVMH	France	0.65

Fund inception date 20 March 2008

Data is used for analytical purposes only. Breakdowns may not sum to 100 percent due to rounding, exclusion of cash, STIF and statistically immaterial factors. Portfolio holdings are subject to change and are not intended as a recommendation of individual securities.

Sources: BlackRock, MSCI Inc.

## Country allocation (%)



# **III. Fixed Income Index Overview**

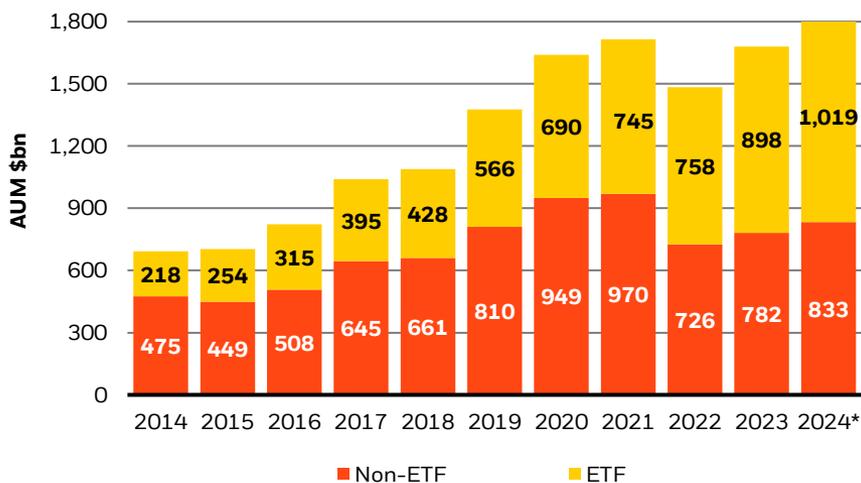
# BlackRock's Index Fixed Income Platform:

## A global leader in Index Fixed Income assets<sup>1</sup>

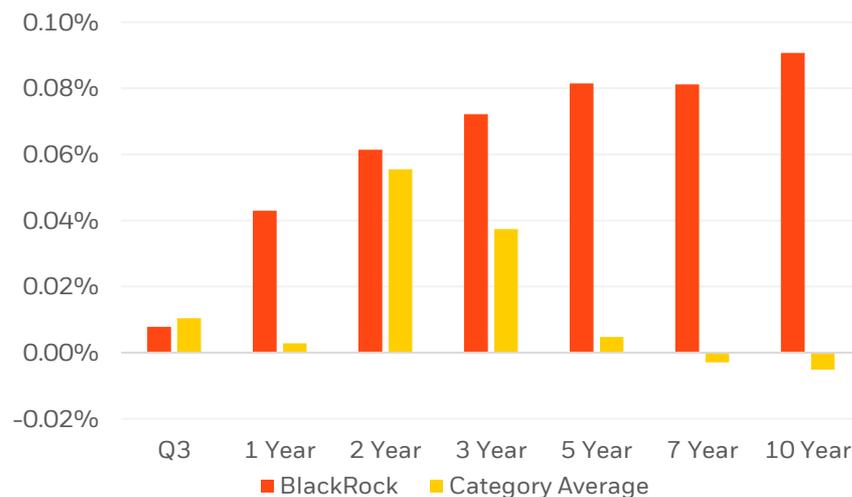
### 40 years of experience delivering fixed income beta solutions to clients

- Continued focus on evolving our platform to meet our clients' needs
- Decades of investing in our talent, technology, and trading to meet market challenges
- Transparent pricing and no cross subsidization as BlackRock has no custody business

### Total index fixed income assets of \$1.85 trillion



### Gross Tracking Difference vs. BBG Barclays US Aggregate Index<sup>2</sup>



\*Data as of 30 September 2024.

Source: BlackRock as of 30 September 2024

1 In terms of AUM. Source: Pensions & Investments as of 30 September 2023.

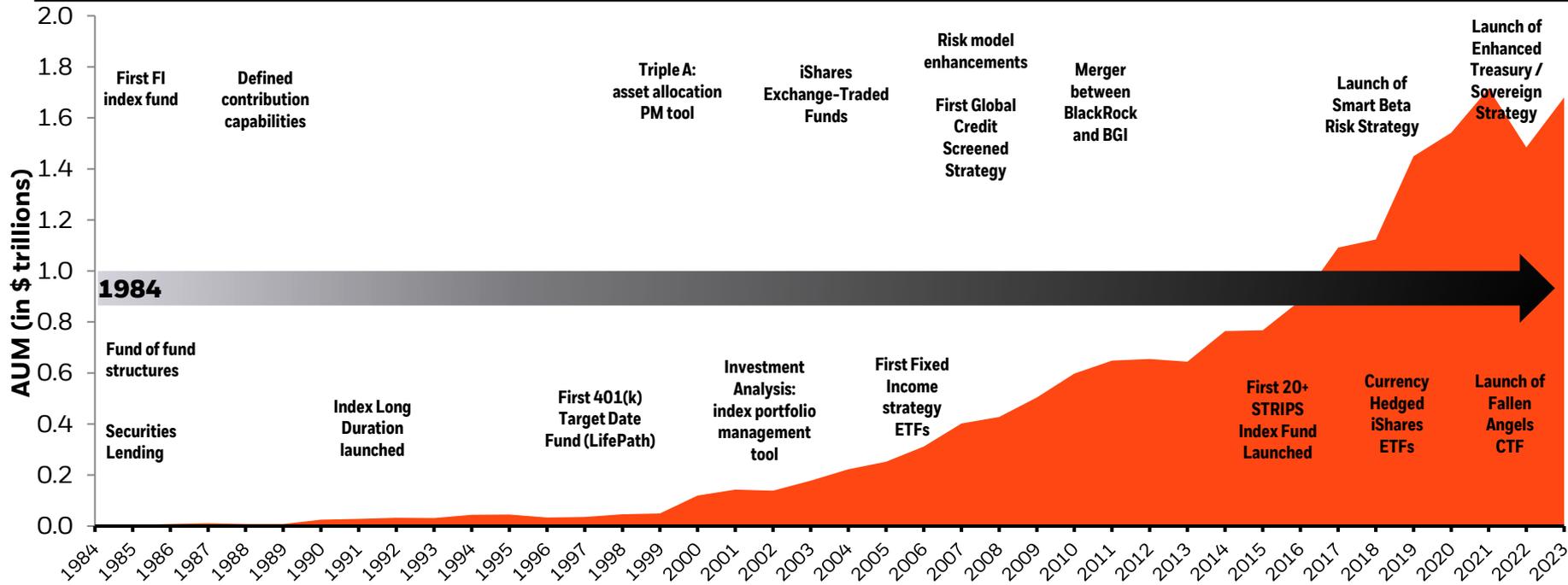
2 Source: eVestment; data as of 30 June 2024. Periods less than a year are not annualized. Indexes are unmanaged and one cannot invest directly in an index. Managers on the right are different from those with the largest Index AUM due to product availability or missing data. The Category Average includes all index funds available on eVestment managed against the Bloomberg US Aggregate Index. Category Average depicts tracking difference, defined as risk in excess of the benchmark, vs. the Bloomberg US Aggregate Index. **Past performance is not necessarily an indicator of future performance.** All periods contain 8 managers in the universe except the 10-Year period, which contains 7. BlackRock is included in the universe. Please see slide 23 for the Fund's full performance track record.

# 40 Years of Experience Driving Index Forward

Creating solutions so our clients have access to high quality index exposures

- One of the industry's first fixed income index fund
- Largest fixed income index and ETF manager globally<sup>1</sup>
- Innovative provider of synthetic, smart beta/factor based and ESG solutions

## 40 years of Index Fixed Income – Continual evolution of products, technology and capabilities



Source: BlackRock, as of 30 September 2024. AUM is shown in \$ trillions.

1. Source: Pension & Investments as of 30 June 2023.

Note: Some Innovations developed by predecessor firms.

# Current Indexing Landscape



## Notable Flows

US Government

US Aggregate

HY Credit

## YTD US Flows

- ETF flows<sup>1</sup>: +\$74bn
- Non-ETF Flows<sup>2</sup>: +\$24B

## Trending Themes

### Disaggregating the Agg

Clients rethinking their US Aggregate exposure are looking for risk-controlled solutions to replace one or more index sector exposures and seeking to enhance core fixed income returns.

### Indexing “Plus” Sectors

Index solutions that seek to offer more consistency and predictability in “plus” sector returns while maintaining a reasonable level of liquidity at attractive costs.

### Enhanced Strategies

Strategies seeking to generate high-quality, risk-adjusted alpha through our proprietary, systematic relative value security selection models while aiming to provide consistent beta exposure.

<sup>1</sup> Flows are from 1 January 2024 – 30 September 2024. Data includes BlackRock institutional index and ETF asset flows

<sup>2</sup> Non-ETF flows includes flows into commingled trust funds, mutual funds and separately managed accounts as of 30 September 2024

# **Team, Philosophy & Process**

# Americas Index Fixed Income Team

## Americas Fixed Income

### Portfolio Management

#### Jay Mauro

Head of Americas Index Fixed Income PM

#### Karen Uyehara

Deputy Head of Americas Index Fixed Income PM

#### Rates/Securitized/Outcome (8)

#### Corporate Credit/Emerging Markets/Municipals (17)

#### Multi-Sector/Canada (6)

##### Marcus Tom

Head of Atlanta &  
Rates/Securitized/Outcome

##### Jonathan Graves

Head of Corporate Credit/Emerging Markets/Municipals

##### Karen Uyehara

Head of Multi-Sector  
/Canada

##### Rates

##### Securitized

##### IG Corporate

##### HY Corporate

##### EM

##### Multi-Sector

**Jakob Hallmer**  
Portfolio Manager  
Head US Rates

**Wes George**  
Portfolio Manager  
Head US Sec.

**Allen Kwong**  
Portfolio Manager  
IG Credit

**David Dulski**  
Portfolio Manager  
HY Credit

**Gabe Shipley**  
Portfolio Manager  
Emerging Markets

**Danny Ng**  
Portfolio Manager  
Multi-Sector

**William Chen**  
Portfolio Manager  
US Rates

**Yang He**  
Portfolio Manager  
US Securitized

**Cole Bushman**  
Portfolio Manager  
IG Credit

**Ryan Connors**  
Portfolio Manager  
HY Credit

**Camila Ramirez**  
Portfolio Manager  
Emerging Markets

**Brad Chang**  
Portfolio Manager  
Multi-Sector

**Yiming Wang**  
Portfolio Manager  
US Securitized

**Fan Xu**  
Portfolio Manager  
IG Credit

**Meher Habib**  
Portfolio Manager  
HY Credit

**Dandi Li**  
Portfolio Manager  
Emerging Markets

#### Outcome Oriented Solutions

**Cheryl Chow**  
Portfolio Manager  
IG Credit

**Emily Freeman**  
Portfolio Manager  
HY Credit

#### Municipals

**Brian Venter**  
Portfolio Manager  
Outcome

**Jimmy Wang**  
Portfolio Manager  
Outcome

**Oscar Loyola**  
Portfolio Manager  
IG Credit

**Samantha Berry**  
Portfolio Manager  
Hybrid Credit

**Marlin Brown**  
Portfolio Manager  
Municipals

**Tao Chen**  
Portfolio Manager  
Municipals

**Rachel Wu**  
Portfolio Manager  
Municipals

**Jermaine Pierre**  
Portfolio Manager  
Canada

**Lip Tong**  
Portfolio Manager  
Canada

**Spencer Sheff**  
Portfolio Manager  
Canada

### Technology

#### PM Architecture

**Will Flanagan**  
Global Head of Portfolio  
Management Architecture

**Justin Graham**  
Head of Bond ETF  
Architecture

#### Technology

+ 11 Engineers

### Research

#### Global Research

**Bhupinder Bahra**  
Head of Index Fixed  
Income Research

### Strategy

#### Americas

**Gordon Readey**

**Alli Leiva**

**Laura May**

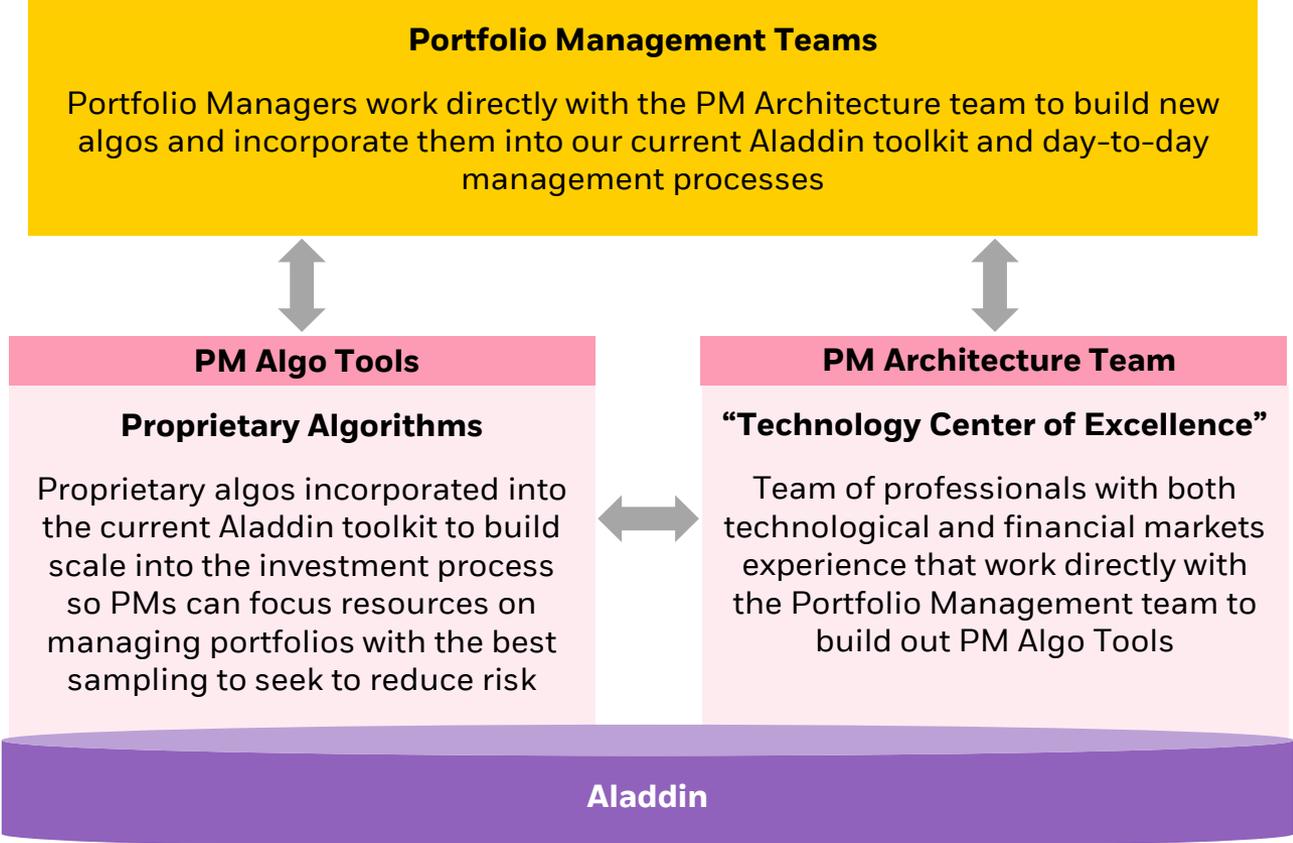
**Chloe Yeh**

**Xoshil Chen-Marquez**

As of 30 September 2024. Subject to change.

# Portfolio Management Architecture: Algorithm Platform

Portfolio managers work directly with PM Architecture team to build new algos on top of Aladdin and incorporate them into our day-to-day management processes



Source: BlackRock as of 30 September 2024. For illustrative purposes only and is subject to change. BlackRock’s Aladdin platform is a financial technology platform designed for institutional client use only and is not intended for end investor use. Aladdin users undertake sole responsibility and liability for investment or other decisions related to the technology’s calculations and for compliance with applicable laws and regulations. The technology should not be viewed or construed by any Aladdin users, or their customers or clients, as providing investment advice or investment recommendations to any parties.

# Philosophy

## Total performance management supported by proprietary Aladdin® technology

Superior investment outcomes may be best achieved through a disciplined, objective process for managing return, risk and cost

- **Return** — Performance as planned with value-added portfolio management
- **Risk** — Proprietary portfolio & risk management system helps manage investment and operational risk
- **Cost** — Trading cost integrated into portfolio construction using proprietary transaction cost models



### What is Aladdin® ?

---

- A sophisticated financial technology platform that connects information, people and technology to support the entire investment lifecycle

### Aladdin® can help solve investing challenges:

---

- Technology does the ‘heavy-lifting’, enabling portfolio managers to focus on key drivers affecting portfolio return
- Offers process scalability and efficiency
- Includes consistency across product types and functions

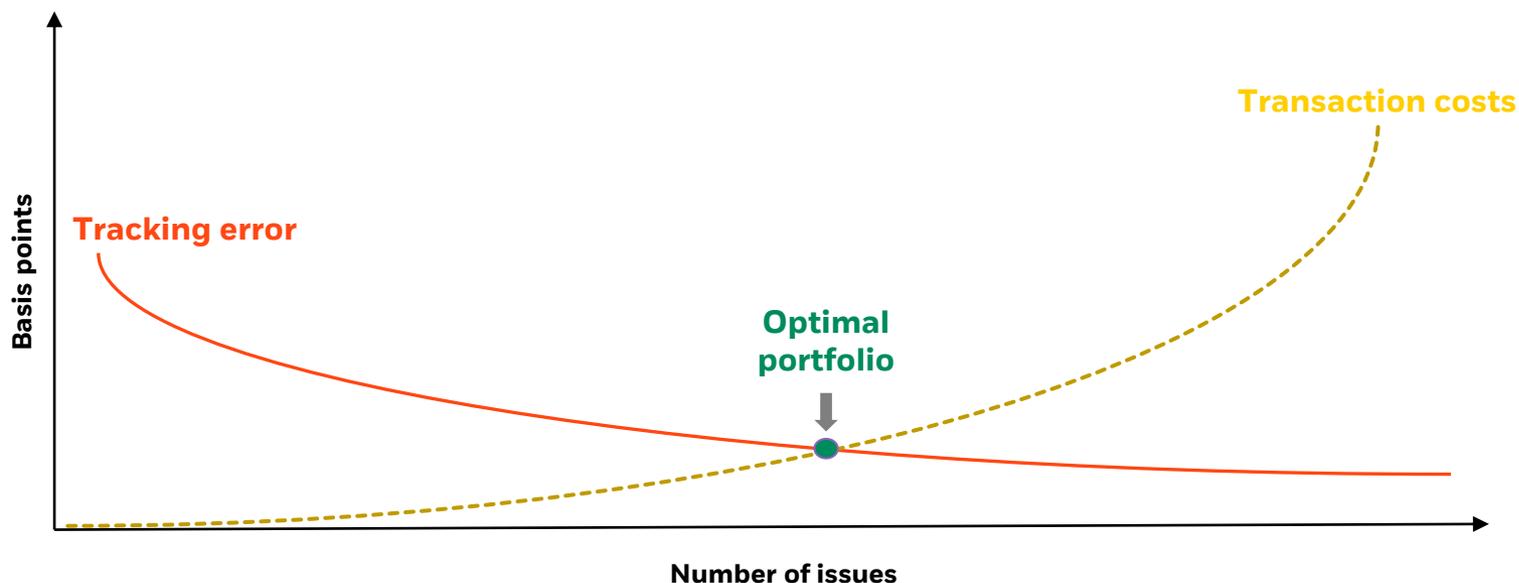
Source: BlackRock as of 30 September 2024. Investment process is shown for illustrative purposes only and is subject to change.

# Fixed Income Index Management

## OTC markets require different strategies vs. exchange traded markets

### Quantitative process balances tracking error & transaction costs

- Unlike most stocks, bonds trade “Over the Counter”
- Prohibitive costs, uncertain liquidity, and issue scarcity often makes perfect replication infeasible
- Index process optimizes marginal contribution to tracking error with T-Costs



Source: BlackRock as of 30 September 2024. For illustrative purposes only and is subject to change.

# Process

Disciplined process within a scalable, risk-managed framework underpin consistent performance

## Performance & Oversight

- Investment Review Committee
- Dedicated return attribution
- Separate group for compliance / RQA

**Aladdin Advantage:** Portfolio Management tools are integrated on the same platform as risk monitoring tools, making it simpler for RQA to provide a risk assessment on portfolios

## Efficient Trading

- Centralized trading
- Unit exchange opportunities
- Scalable trading platform

**Aladdin Advantage:** Extensive global trading platform seeks to ensure low costs and optimal access to liquidity

## Benchmark Knowledge

- Daily updates from index providers
- Index research
- Index advisory & advocacy

**Aladdin Advantage:** Proprietary Aladdin applications aim to make analyzing benchmark changes a clean and efficient process

## Portfolio Construction

- Portfolio analysis
- Stratified sampling
- Leading edge portfolio construction technology

**Aladdin Advantage:** Custom 'Portfolio Construction' applications built by our Portfolio Management Team designed specially for index management



Source: BlackRock as of 30 September 2024. Investment process is shown for illustrative purposes only and is subject to change. Risk management and due diligence processes seek to mitigate, but cannot eliminate, risk nor do they imply low risk.

# Index Investment Management Cycle

## Benchmark knowledge



### Day-to-Day Benchmark Focus

- **Team works directly with all our index vendors to:**
  - Perform the data-intensive process of combing daily index loads to provide clean fund snapshots
  - Project daily changes and rebalances
  - Field all fixed income index data requests across the firm



### Index Rebalance Optimization

- **Fixed income indices rebalance on a monthly basis**
- **Many intra-month events and month-to-month dynamics can materially drive rebalance activity**
  - Credit migration
  - Corporate actions
  - New issues
  - Maturity

### Index Methodology Recommendations

**The team coordinates across BlackRock and works closely with index providers to drive methodology improvements to the indices we utilize in our strategies**

ALADDIN®

Source: BlackRock as of 30 September 2024. Investment process is shown for illustrative purposes only and is subject to change.

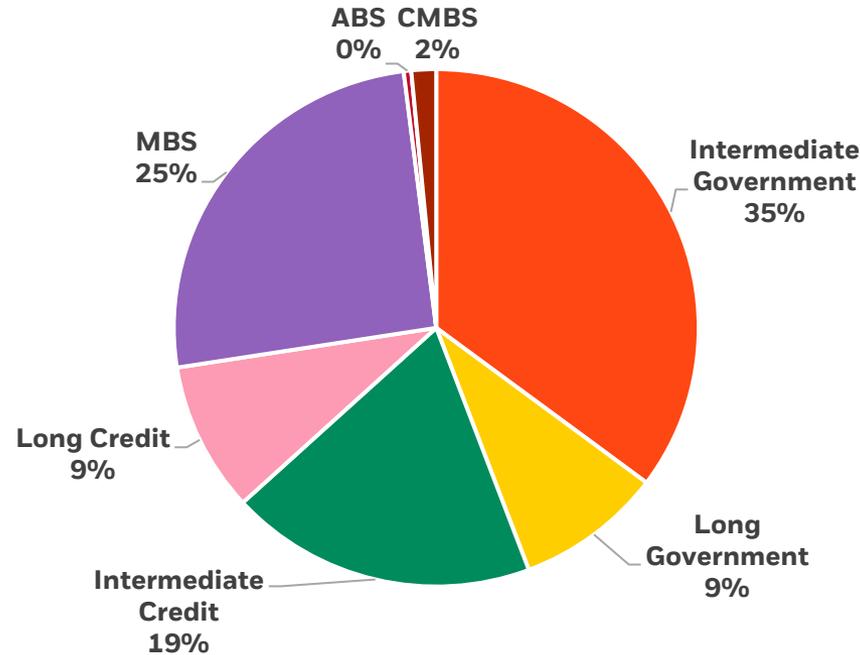
# Modular Fund Design

BlackRock's modular fund design leverages scale and facilitates crossing opportunities

## Barclays US Aggregate Index

Issues Fund: 11,696

Issues Benchmark: 13,702



**Intermediate Government**  
 Issues Fund: 279  
 Issues B'mark: 550

**Long Government**  
 Issues Fund: 162  
 Issues B'mark: 112

**Intermediate Credit**  
 Issues Fund: 5,511  
 Issues B'mark: 5,595

**Long Credit**  
 Issues Fund: 3,349  
 Issues B'mark: 3,416

**Mortgage-Backed Securities**  
 Issues Fund: 1,001  
 Issues B'mark: 1,001

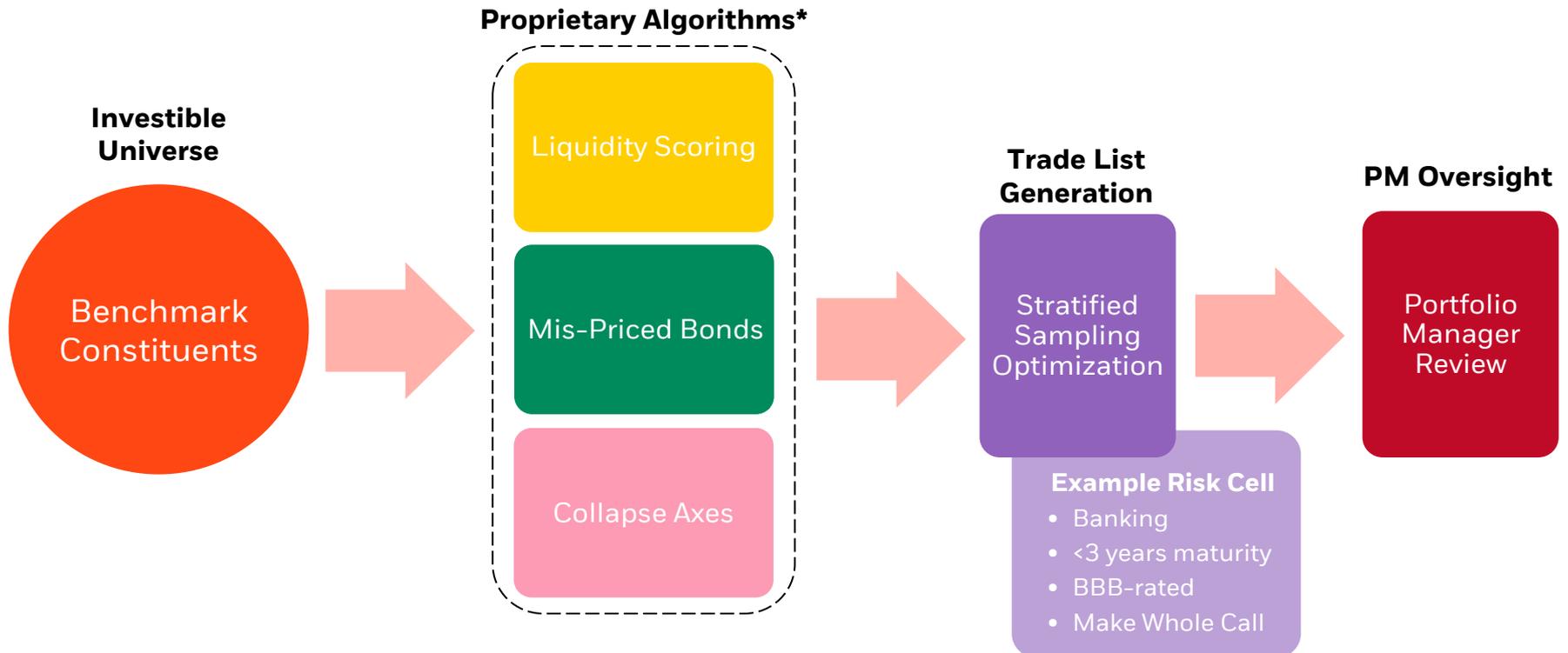
**Asset-Backed Securities**  
 Issues Fund: 341  
 Issues B'mark: 531

**CMBS**  
 Issues Fund: 665  
 Issues B'mark: 2,497

Source: Barclays and BlackRock as of 30 September 2024.  
 Funds are BlackRock CTFs. For illustrative purposes only.

# Portfolio Construction Process

Integrating Aladdin analytical and multi-factor algo capabilities to invest flows with a scalable and risk-managed approach

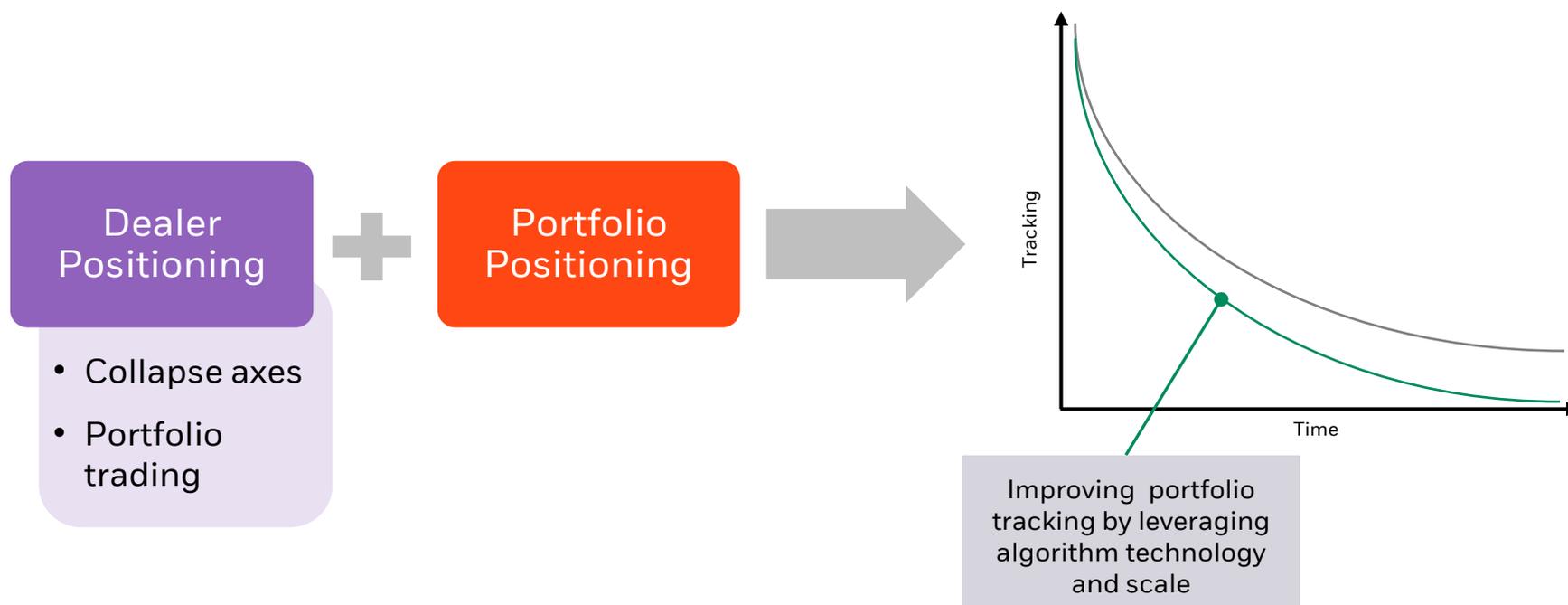


\*The listed Proprietary Algorithms are shown for illustrative purposes only and are subject to change. This is not an exhaustive list of algorithms currently utilized in the portfolio construction process.

Source: BlackRock; data as of 30 September 2024. Investment process is shown for illustrative purposes only and is subject to change. Example for illustrative purposes only and does not depict actual Collective Trust Fund data. Risk management and due diligence processes seek to mitigate, but cannot eliminate, risk nor do they imply low risk.

# Algorithms Improving Portfolio Tracking

**Systematically identify opportunities to improve portfolio tracking through algorithms that connect market liquidity with portfolio positioning to transact at favorable costs**



**Algorithms have allowed us to reverse the flow of trades by starting with dealer inventories, running our algos, and potentially saving on costs by transacting at the bid**

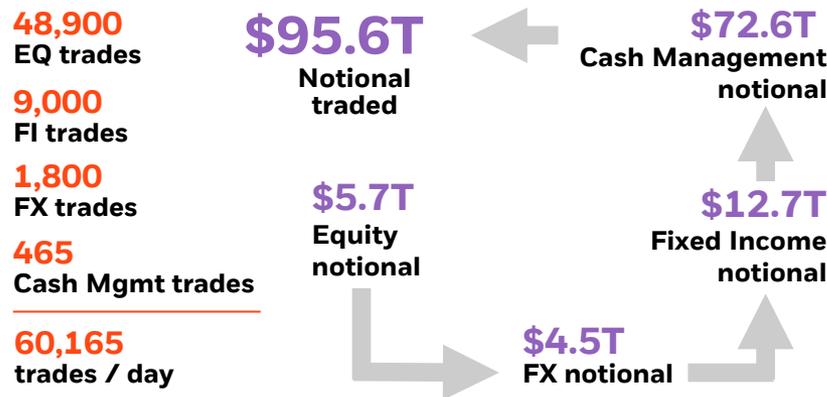
Source: BlackRock; data as of 30 September 2024. Investment process is shown for illustrative purposes only and is subject to change.

# Fixed Income Trading

## Team of approximately 95 traders globally<sup>1</sup>

- Trading sector coverage includes government, agency, supranational, sovereign and corporate cash bonds, interest rate and credit derivatives, futures, ETFs and other exchange traded derivatives and repos
- Additionally, fixed income trades may be executed by sector specialists, who are responsible for bottom-up idea generation, leveraging their experience and market knowledge to seek best execution
- BlackRock is projected to trade approximately \$12.7T in fixed income in FY 2024<sup>2</sup>, potentially making us one of the largest trading counterparties to significant broker-dealers making a market in fixed income securities

## BlackRock's Execution Activity<sup>2</sup>



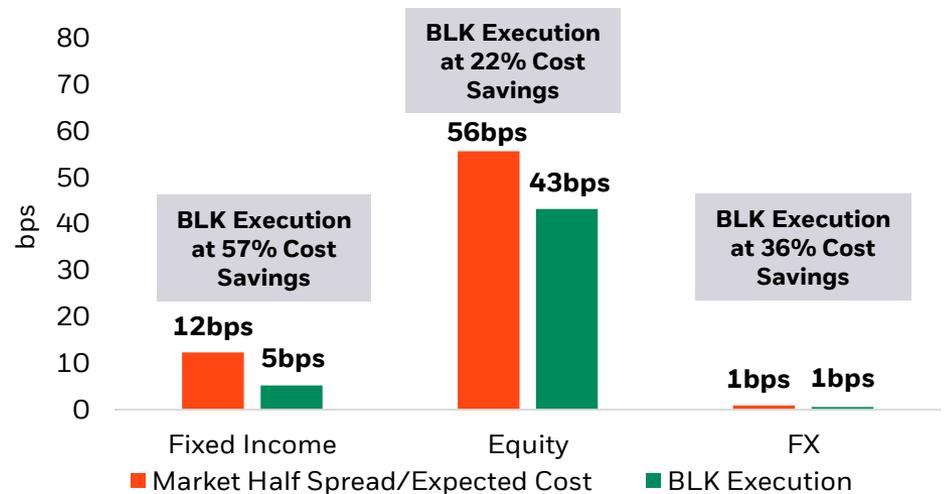
*Excludes iShares Create/Redeems activity. Notional traded includes futures and trade count represents number of block trades.*

There is no guarantee that a positive investment outcome will be achieved.

<sup>1</sup> As of June 30, 2024; <sup>2</sup> Projected annualized activity as of June 30, 2024. There is no guarantee this will be achieved; Figures shown in USD; Source: BlackRock. Inclusive of internal crossing opportunities. Numbers may not add up to total due to rounding.

<sup>3</sup> BlackRock analysis of all Fixed Income High Yield and Investment Grade Credit, FX, and Equity trades including derivatives for 2024 as of June 30, 2024. BlackRock Execution Cost is the average difference between: the actual price achieved on the trade and the benchmark price. For Equity and FX, benchmark price is the market price, based on exchange data at the time when the PM submitted the order. For Fixed Income, benchmark price is the previous day's closing price. The Market Half Spread (or Expected Cost) is an estimate of the average execution cost of a market participant. For Fixed Income, Market Half Spread is estimated quarterly for each sector and maturity bucket based on a consensus opinion of BlackRock traders as well as a set of over 10 broker dealers. For FX, brokers provide Market Half Spread quarterly on a consensus basis for each currency pair and size range. For Equity, BlackRock calculates Market Expected Cost using an average of multiple independent broker models. Subject to change.

## Execution Costs: BlackRock versus the Market<sup>3</sup>



# **Fund characteristics**

# U.S. Debt Index Fund

## Portfolio profile

	U.S. Debt Index Fund	Bloomberg U.S. Aggregate Bond Index
Market value (\$B)	8.23	26,789.12
# Issues	11,696	13,702
<b>Characteristics</b>		
Coupon (%)	3.42	3.37
Yield to maturity (YTM) (%)	4.23	4.23
Weighted avg life (yrs)	8.29	8.31
Effective duration (yrs)	5.97	5.98
Spread duration	3.44	3.42
Option adjusted spread (bps)	34	34
Convexity	0.53	0.53
<b>Quality breakdown (mkt val %)</b>		
AAA or above	3.22	3.27
AA	72.45	72.73
A	11.56	11.46
BBB	12.39	12.50
Below BBB	0.00	0.00
NR	0.37	0.03

	U.S. Debt Index Fund	Bloomberg U.S. Aggregate Bond Index
<b>Sector breakdown (mkt val %)</b>		
Treasury	43.28	43.62
Agencies	0.87	0.75
Financials	7.98	8.02
Industrials	14.27	14.25
Utilities	2.29	2.30
Taxable munis	0.50	0.51
ABS	0.45	0.45
Mortgages	25.48	25.37
Hybrid ARM	0.00	0.00
CMBS	1.54	1.51
Foreign Government	2.96	3.21
Other	0.01	0.00
Cash	0.37	0.00
<b>Weighted avg life breakdown (mkt val %)</b>		
0-1	1.16	0.20
1-2	11.20	12.24
2-3	11.52	11.45
3-5	20.47	19.99
5-7	12.01	13.26
7-10	25.33	24.25
10-20	7.48	7.70
20-30	9.96	10.12
30+	0.87	0.79

Fund inception date 30 June 1986

Data is for analytical purposes only. Index data points may differ to those published by the Index due to different calculation criteria. The credit quality of a particular security or group of securities may be based upon a rating from a nationally recognized statistical rating organization or, if unrated by a ratings organization, assigned an internal rating by BlackRock, neither of which ensures the stability or safety of an overall portfolio. Breakdowns may not sum to total due to rounding, exclusion of cash, STIF, and statistically immaterial factors. Sources: BlackRock, Bloomberg Finance L.P.

# **IV. Appendix**

# **Appendix A.**

**Equity Index**

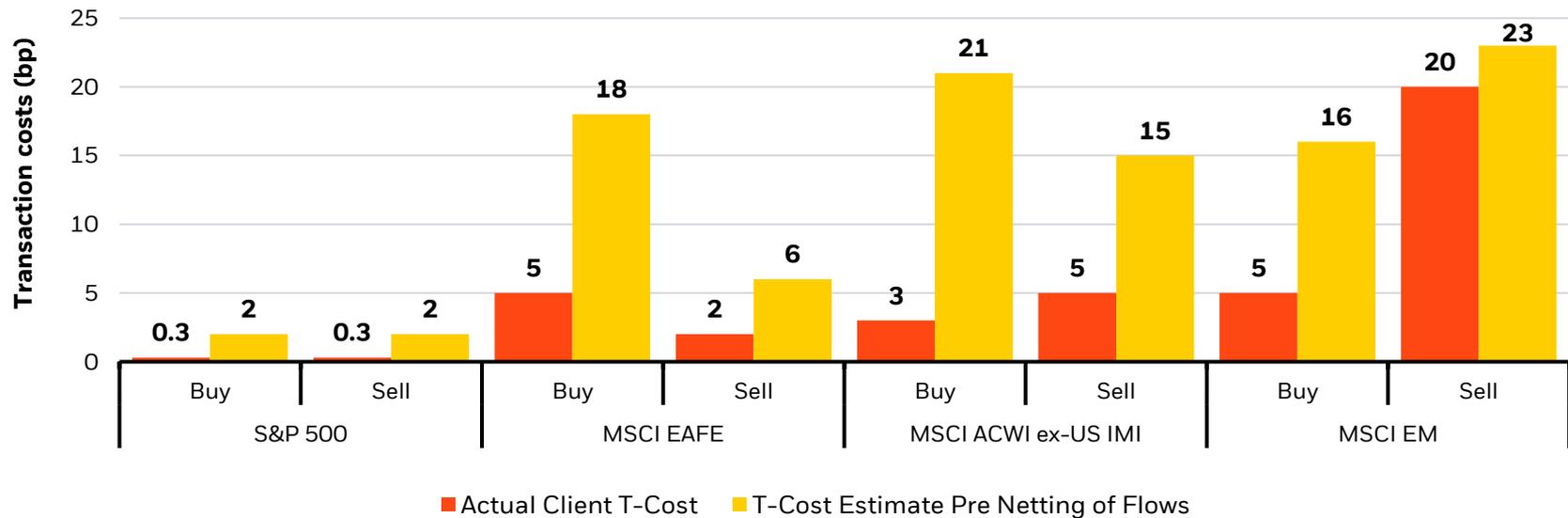
# BlackRock's scale can help drive lower costs

The scale of BlackRock's index platform can help **lower transaction costs** in the following ways:

- The size of our trading footprint allows us to negotiate low commission rates
- The diversity of our client base, coupled with the range of indices we manage assets against, facilitates one of the industry's largest internal marketplace for potential netting of client flows
- Large seasoned funds may require less market trading for flows relative to small asset pools

## BlackRock transaction costs vs. ex-ante estimates<sup>1</sup>

Average client cost in 2022, as of Dec 31, 2022



<sup>1</sup> Estimated transaction costs includes commissions and taxes based on BlackRock's current standard negotiated rates  
 Source: BlackRock. BlackRock Flagship Index Funds shown  
 Historical transaction costs are not indicative of future results •

# Platform offerings: Index strategies

## Equity

### US Equity Index Funds

- S&P 500®
  - S&P/Citigroup Value
  - S&P/Citigroup Growth
  - S&P 400 Mid Cap
  - S&P 500 Equal Weighted

### Dow Jones Indexes

- US Equity Market (DJ Total Stock Market™)
- Extended Market (DJ Completion Ttl Stk Mkt™)

### Russell® Indexes

- Russell® 3000
  - Russell® 2500
  - Russell® 1000
    - Russell® 1000 Value
    - Russell® 1000 Growth
  - Russell® 2000
    - Russell® 2000 Value
    - Russell® 2000 Growth

### MSCI Indexes

- MSCI US
- MSCI US IMI
- MSCI US Small Cap

### Developed International Index Funds

- MSCI Canada Index
- MSCI EAFE ex-Japan
- MSCI EMU and EMU IMI
- MSCI EAFE Hedged
- MSCI Europe
- MSCI Pac Rim
- MSCI World
- MSCI World ex-US
- Russell® Dev. Ex US Large Cap

### Developed International Index Funds (cont'd)

#### MSCI EAFE Index

Australia	Hong Kong	Norway
Austria	Ireland	Portugal
Belgium	Italy	Singapore
Denmark	Israel	Spain
Finland	Japan	Sweden
France	Netherlands	Switzerland
Germany	New Zealand	UK

#### Integrated International Broad & Small Cap Index Strategies

- MSCI ACWI and ACWI IMI
- MSCI ACWI ex-US & ACWI ex US IMI
- MSCI Global Investable Market Indices
  - MSCI EAFE Small Cap
  - MSCI Canada Small Cap
  - MSCI World Small Cap
  - World ex-US Small Cap
  - MSCI Emerging Markets ex China
  - MSCI Emerging Markets Small Cap
  - MSCI ACWI ex US Small Cap

#### Emerging Markets Index Funds

##### MSCI EM Index

Brazil	Hungary	South Africa
Chile	India	South Korea
China	Indonesia	Taiwan
Colombia	Kuwait	Thailand
Czech Rep.	Malaysia	Turkey
Egypt	Peru	Qatar
Greece	Philippines	
UAE	Poland	

### Sustainable Investing

- Developed ex-Fossil Fuel
- ACWI ex Fossil Fuels ESG Focus Index
- ACWI ESG Focus Index

### Index Plus Strategies

- S&P 500®
- Russell® 1000
- EAFE
- World ex-US
- EM
- World ex-US Small Cap
- ACWI ex-US
- World ex-US IMI

### Non-Lending Funds

- S&P 100®
- S&P 500®
- S&P 400®
- Russell® 1000, V, G
- Russell® 2000
- Russell® 2500
- Russell® 3000
- Russell® Midcap
- EAFE
- EAFE Small Cap
- Canada
- Canada Small Cap
- Russell® Developed ex-US Lg Cap
- EM
- EM IMI
- EM Small Cap
- ACWI
- ACWI ex-US
- ACWI ex-US IMI
- World
- World ex-US
- World ex-US Small Cap

## Alternatives

### US Commodity Funds

- S&P GSCI Total Return Indexes
- Bloomberg Commodity Index
- Commodity Smart Beta

### Real Estate Investment Trust (REITs) and Infrastructure Indices

- DJ US Real Estate Securities Index (RESI)
- MSCI US REIT Index
- FTSE EPRA/NAREIT Developed ex-US Index
- FTSE EPRA/NAREIT Developed Index
- DJ Brookfield Global Infrastructure
- Developed REIT – Non-lending
- Global Real Estate – Non-lending

### Smart Beta

- Russell® Defensive Indices
- FTSE RAFI Indices
- FTSE EDHEC Efficient US
- MSCI Minimum Volatility Indices
- MSCI Diversified Multi-Factor Indices
- Equal and GDP-Weighted Indices
- MSCI USA Risk-Weighted Index
- MSCI USA Value Index
- MSCI USA Momentum Index

Custom Strategies available

As of 30 September 2024

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# Important Notes (cont'd)

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# **Appendix B.**

**Fixed Income Index**

# Americas Index Fixed Income Platform Offerings

## Collective Trust Funds

### Aggregate

- Bloomberg US Aggregate Index
- Bloomberg Intermediate Aggregate Index

### Government

- Bloomberg Government Index
- Bloomberg Intermediate Government Index
- Bloomberg Long Government Index
- Bloomberg Government 1-3 Year Index
- Bloomberg Intermediate Treasury Index
- Bloomberg Treasury 1-3 Year Index
- Bloomberg Treasury 7-10 Year Index
- Bloomberg Treasury 10+ Year Index
- Bloomberg Treasury 20+ Year Index
- Bloomberg US TIPS Index
- Bloomberg US TIPS 0-5 Year Index
- Bloomberg Global Inflation-Linked 1-10 Year US TIPS Index
- Bloomberg STRIPS 20+ Year Index

### TURF

- ICE 5-8 Year Leveraged US Treasury STRIPS Index
- ICE 8-13 Year Leveraged US Treasury STRIPS Index
- ICE 13-18 Year Leveraged US Treasury STRIPS Index
- ICE 18-23 Year Leveraged US Treasury STRIPS Index
- ICE 23+ Year Leveraged US Treasury STRIPS Index

### Multi-Sector

- Bloomberg Government/Credit Index
- Bloomberg Government/Credit 1-3 Year Index
- Bloomberg Intermediate Government/Credit Index
- Bloomberg Long Government/Credit Index

### Investment Grade Credit

- Bloomberg Credit 1-3 Year Index
- Bloomberg Intermediate Credit Index
- Bloomberg Long Corporate Index
- Bloomberg US Long Credit Index

### High Yield Credit

- ICE BofA US High Yield Constrained Index
- Bloomberg US High Yield Fallen Angel 3% Capped Index

### Emerging Markets

- JP Morgan EMBI Global Diversified Index

### MBS

- Bloomberg MBS Index

### Securitized

- Bloomberg Securitized Index
- Bloomberg ABS Index
- Bloomberg CMBS ERISA Eligible + ABS
- Bloomberg CMBS, Eligible for US Aggregate

### FIBR

- Fixed Income Balanced Risk (MV Weighted Sector, 2x MBS Risk, 0% Leverage)

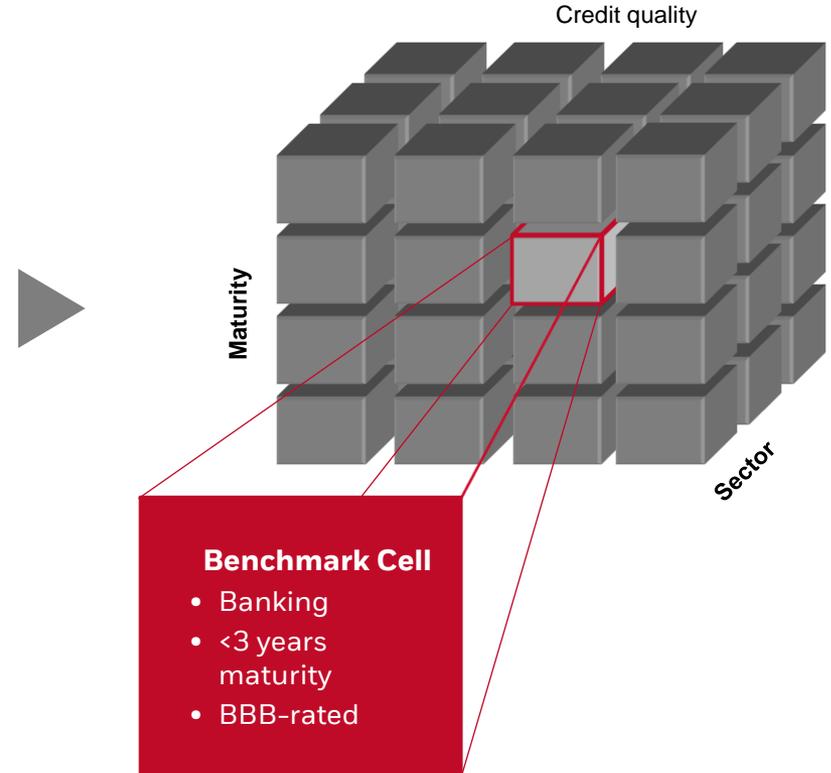
Custom solutions available too. Over 100 separately managed accounts currently on the platform.

Source: BlackRock; data as of 30 September 2024.

# Portfolio Construction

**Stratified sampling: Dividing the various indexes into subsets (cells) based upon relative parameters**

Government Bonds	Mortgage-Backed Securities	Credit & Asset-Backed Securities
Sector / Issue type	Issuer (GNMA, FNMA, FHLMC)	Sector / Issue type
Maturity	Mortgage type (30 year, 15 year, balloon)	Maturity / average life
Call Features	Coupon	Credit rating
	Age (year of issuance)	Call / payment structure
	Specified Pools "Story"	



**Portfolios are constructed by sampling bonds from each index cell**

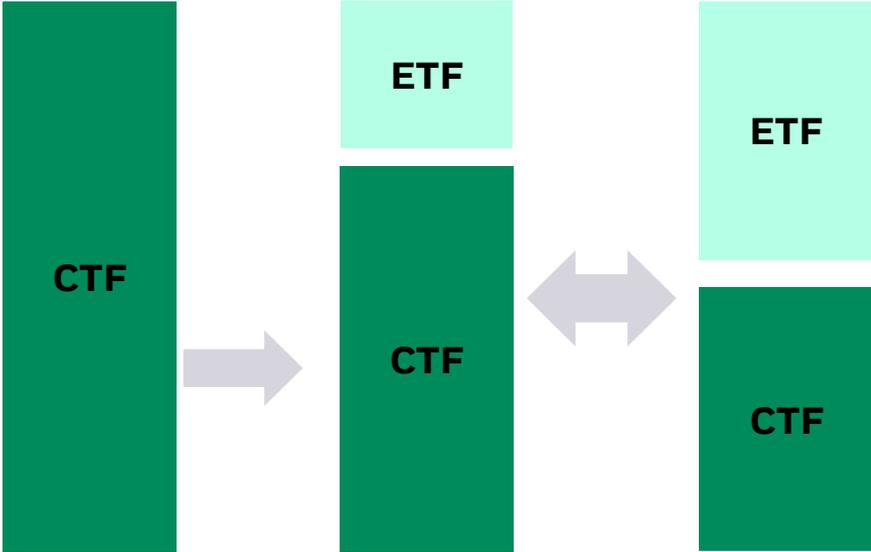
Source: BlackRock as of 30 September 2024. Investment process is shown for illustrative purposes only and is subject to change.

# Client Trend: Seeking Optimal Beta

**Some clients have been looking to:**

- 1. Increase the liquidity profile of an index exposure at a low cost
- 2. Facilitate efficient rebalance activity, capital calls, benefit payments, etc.
- 3. Reduce market entry timing risk through the option of same day trading

## Dynamic Exchange Traded Fund / Commingled Trust Fund Concept



*Clients have noticed that shifting from a static CTF allocation to a dynamic CTF/ETF blend may provide flexibility to choose the most optimal split between beta exposure vehicles, to be adjusted over time as client needs and market conditions evolve*

Source: BlackRock's observation of client trends as of 30 September 2024. For illustrative purposes only and subject to change.

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# Important notes continued

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