2023Q3 Update

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27 October 2023

Agenda

Markets

Portfolios

The Nature of Equity Returns
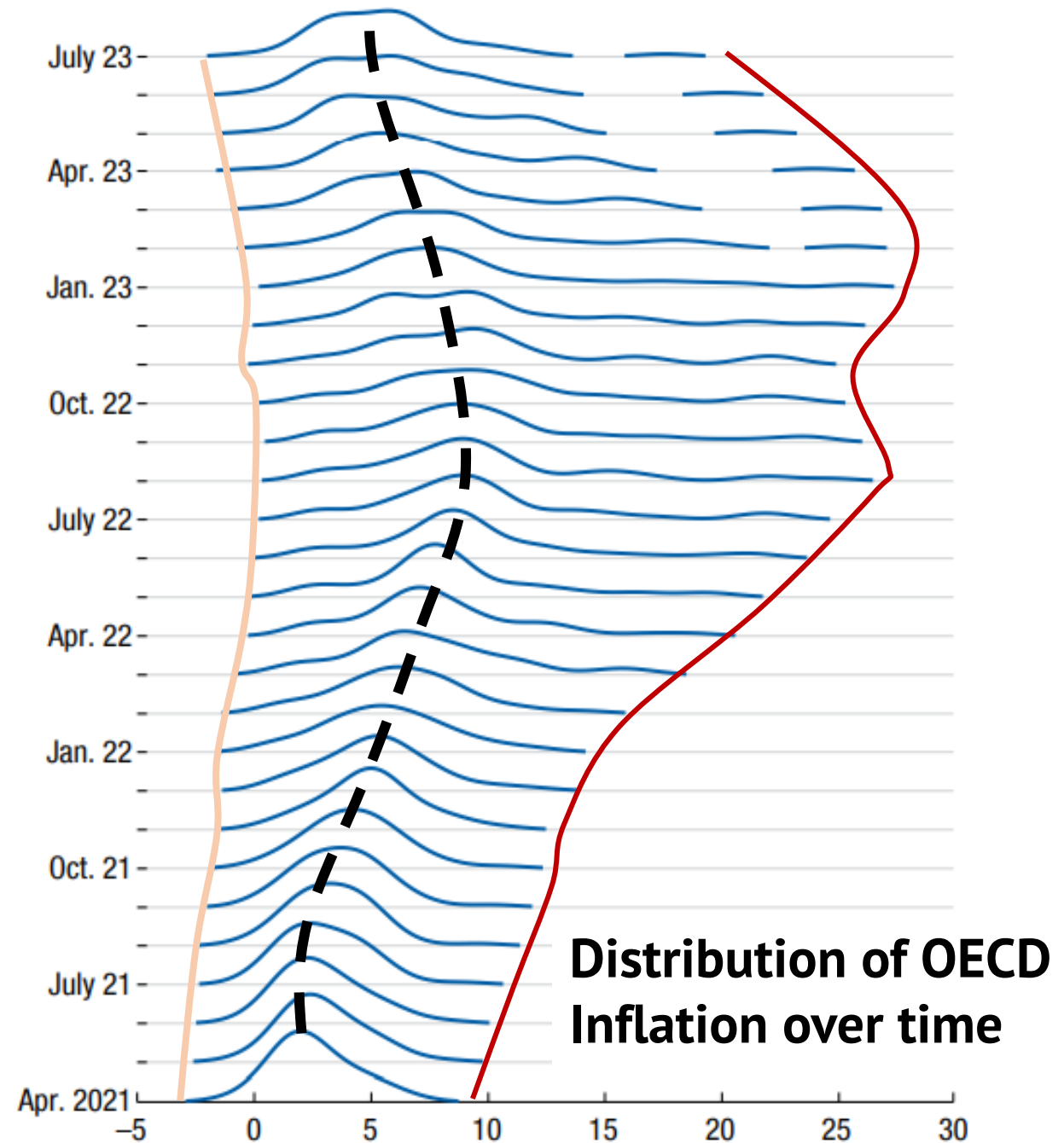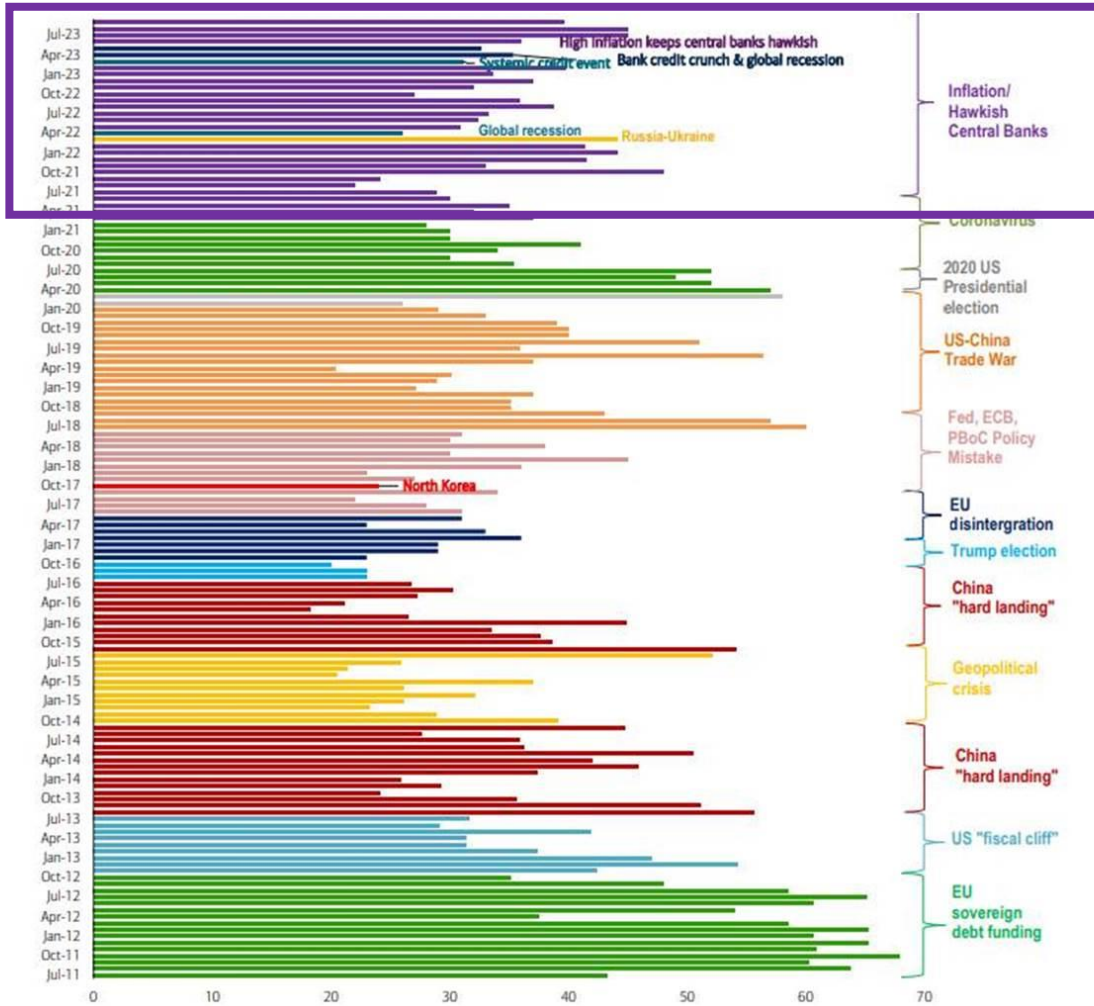
Market Themes

opportunity amidst the turmoil

Global Inflation

Distribution of OECD Inflation over time

Transmission of US inflation

	Weight	2021 Sep	Oct	Nov	Dec	2022 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2023 Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Headline CPI, y/y	100.0	5.4%	6.2%	6.9%	7.2%	7.6%	8.0%	8.5%	8.2%	8.5%	8.9%	8.4%	8.2%	8.2%	7.8%	7.1%	6.4%	6.3%	6.0%	5.0%	5.0%	4.1%	3.1%	3.3%	3.7%
Core CPI, y/y	79.6	4.0%	4.6%	5.0%	5.5%	6.1%	6.4%	6.5%	6.1%	6.0%	5.9%	5.9%	6.3%	6.6%	6.3%	6.0%	5.7%	5.5%	5.5%	5.6%	5.5%	5.3%	4.9%	4.7%	4.4%
Svcs. PCE ex-hous. & energy, y/y*	–	4.4%	4.6%	5.1%	5.2%	5.1%	5.0%	4.9%	4.9%	4.8%	4.9%	4.5%	4.7%	5.0%	5.2%	5.0%	4.8%	5.1%	5.1%	4.9%	4.8%	4.7%	4.4%	4.8%	4.4%
Headline CPI, m/m	100.0	0.4%	0.9%	0.8%	0.8%	0.6%	0.7%	1.0%	0.4%	0.9%	1.2%	0.0%	0.2%	0.4%	0.5%	0.2%	0.1%	0.5%	0.4%	0.1%	0.4%	0.1%	0.2%	0.2%	0.6%
Core CPI, m/m	79.6	0.3%	0.7%	0.6%	0.7%	0.6%	0.5%	0.3%	0.5%	0.6%	0.6%	0.3%	0.6%	0.6%	0.3%	0.3%	0.4%	0.4%	0.5%	0.4%	0.4%	0.4%	0.2%	0.2%	0.3%
Svcs. PCE ex-hous. & energy, m/m³	–	0.2%	0.3%	0.5%	0.6%	0.2%	0.3%	0.6%	0.4%	0.3%	0.5%	0.1%	0.5%	0.5%	0.5%	0.4%	0.5%	0.5%	0.4%	0.3%	0.3%	0.2%	0.2%	0.5%	0.1%
Energy	7.0	1.5%	3.6%	2.6%	2.4%	0.8%	2.7%	8.2%	-1.0%	3.4%	6.9%		-3.9%	-1.7%	1.7%	-1.4%	-3.1%	2.0%	-0.6%	-3.5%	0.6%	-3.6%	0.6%	0.1%	5.6%
Gasoline	3.4	1.5%	4.1%	4.2%	3.8%	-0.3%	4.7%	13.2%	-3.1%	3.2%	10.3%	-8.1%		-4.2%	3.4%	-2.3%	-7.0%	2.4%	1.0%	-4.6%	3.0%	-5.6%	1.0%	0.2%	10.6%
Electricity	2.6	1.0%	1.6%	0.7%	0.9%		-0.3%	1.7%	0.9%	1.3%	1.5%	1.5%	1.2%	0.8%	0.5%	0.5%	1.3%	0.5%	0.5%	-0.7%	-0.7%	-1.0%	0.9%	-0.7%	0.2%
Utility Gas	0.7	2.2%	6.7%	0.5%	0.1%								3.5%	2.2%	-3.7%	-3.4%	3.5%	6.7%	-8.0%	-7.1%	-4.9%	-2.6%	-1.7%	2.0%	0.1%
Food	13.4	0.9%	0.9%	0.8%	0.6%		1.0%	0.9%	0.8%	1.1%	1.0%	1.1%	0.8%	0.8%	0.7%	0.6%	0.4%	0.5%	0.4%	0.0%	0.0%	0.2%	0.1%	0.2%	0.2%
Food at home	8.6	1.2%	1.0%	1.0%	0.6%	0.9%	1.3%	1.3%	0.9%	1.3%	1.0%	1.3%		0.7%	0.5%	0.5%	0.4%	0.3%	-0.3%	-0.2%	0.1%	0.0%	0.3%	0.2%	
Food away from home	4.8	0.5%	0.8%	0.6%	0.6%		0.3%	0.6%	0.7%	0.9%		0.9%	0.9%	0.9%	0.5%	0.4%	0.6%	0.6%	0.6%	0.4%	0.5%	0.4%	0.2%	0.3%	
Core goods	21.3	0.3%	1.3%	1.1%	1.4%	-0.9%	0.3%	-0.4%	0.1%	0.6%	0.6%	0.1%	0.4%	0.0%	-0.1%	-0.2%	-0.1%	0.1%	0.0%	0.2%	0.6%	0.6%	-0.1%	-0.3%	-0.1%
Apparel	2.5	-0.5%					0.6%	0.3%	-0.1%	0.4%	0.7%	-0.1%	0.0%	0.0%	-0.2%	0.1%	0.2%	0.8%	0.8%	0.3%	0.3%	0.3%	0.0%	0.2%	
New vehicles	4.3	1.3%	1.5%		1.8%		0.1%	0.2%	0.4%	0.9%	0.5%	0.5%	0.8%	0.7%	0.6%	0.5%	0.6%	0.2%	0.2%	0.4%	-0.2%	-0.1%	0.0%	-0.1%	0.3%
Used cars	2.8	-0.5%			3.8%		-0.6%	-3.6%	-0.7%	1.9%	0.5%	-0.8%	-0.2%	-1.1%	-1.7%	-2.0%	-2.0%	-1.9%	-2.8%	-0.9%	4.4%	4.4%	-0.5%	-1.3%	-1.2%
Medical care commod	1.5	0.3%	0.6%	0.1%	0.0%	0.9%	0.3%	0.2%		0.3%	0.4%	0.6%	0.2%		0.0%	0.2%	0.1%	1.1%	0.1%	0.6%	0.5%	0.6%	0.2%	0.5%	0.6%
Core services	58.3	0.2%	0.4%		0.4%	0.4%	0.5%	0.6%	0.6%	0.6%	0.6%	0.4%	0.6%	0.8%	0.5%	0.5%	0.6%	0.5%	0.4%	0.4%	0.4%	0.3%	0.4%	0.4%	
Shelter	34.7	0.4%	0.4%	0.5%	0.4%	0.3%	0.6%	0.5%	0.5%	0.6%	0.6%	0.6%	0.7%	0.7%	0.7%	0.6%	0.8%	0.7%	0.8%	0.6%	0.4%	0.6%	0.4%	0.4%	0.3%
Rent of primary res.	7.6	0.4%	0.4%	0.4%	0.4%	0.6%	0.6%	0.4%	0.6%	0.6%	0.8%	0.7%	0.7%	0.8%	0.7%	0.8%	0.8%	0.7%	0.8%	0.5%	0.6%	0.5%	0.5%	0.4%	0.5%
OER	25.5	0.4%	0.4%	0.4%	0.4%	0.5%	0.4%	0.5%	0.5%	0.6%	0.7%	0.6%	0.7%	0.8%			0.8%	0.7%	0.7%	0.5%	0.5%	0.5%	0.4%	0.5%	0.4%
Medical care services	6.4	0.0%	0.6%	0.5%	0.5%	0.5%	0.1%	0.6%	0.5%	0.4%	0.7%	0.4%	0.7%	0.8%	-0.4%	-0.5%	0.3%	-0.7%	-0.7%	-0.5%	-0.1%	-0.1%	0.0%	-0.4%	0.1%
Transportation services	5.9	-0.9%	0.0%	1.2%	0.5%	0.7%	1.1%	2.1%	2.2%	1.6%		-0.4%	1.0%	1.9%	0.6%	0.3%		0.9%	1.1%	1.4%	-0.2%	0.8%	0.1%	0.3%	2.0%

Overlay labels: **Energy and Food** · **Supply vs Demand** · **Second Round**
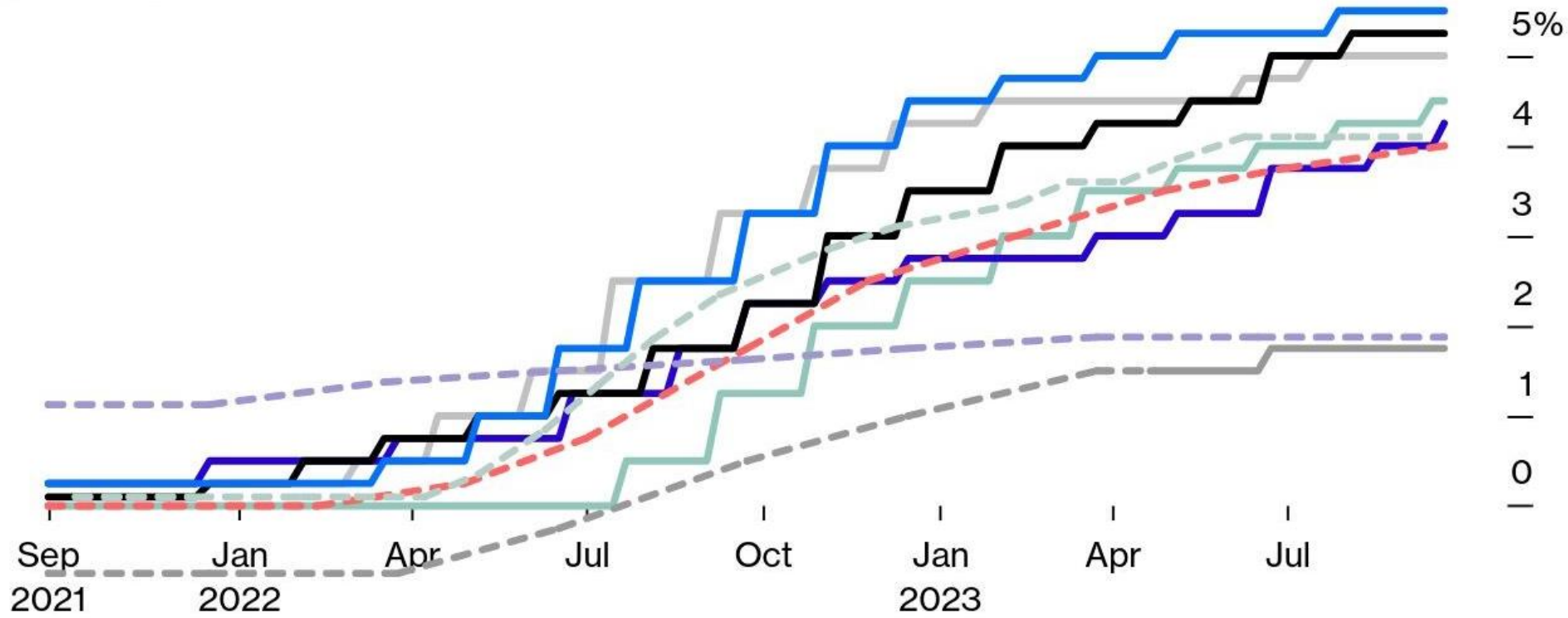
Source: BLS, FactSet, J.P. Morgan Asset Management. Heatmap shading is relative to the two-year period shown. Component weights may not add to 100. OER refers to owners' equivalent rent. *This reflects the PCE price index of services excluding energy and housing referenced in the U.S. Federal Reserve's Monetary Policy Report. It is provided by the BEA and is distinct from the CPI data provided by the BLS. "Housing" is a PCE component that is measured separately from the CPI "shelter" component. Guide to the Markets – U.S. Data are as of September 30, 2023.
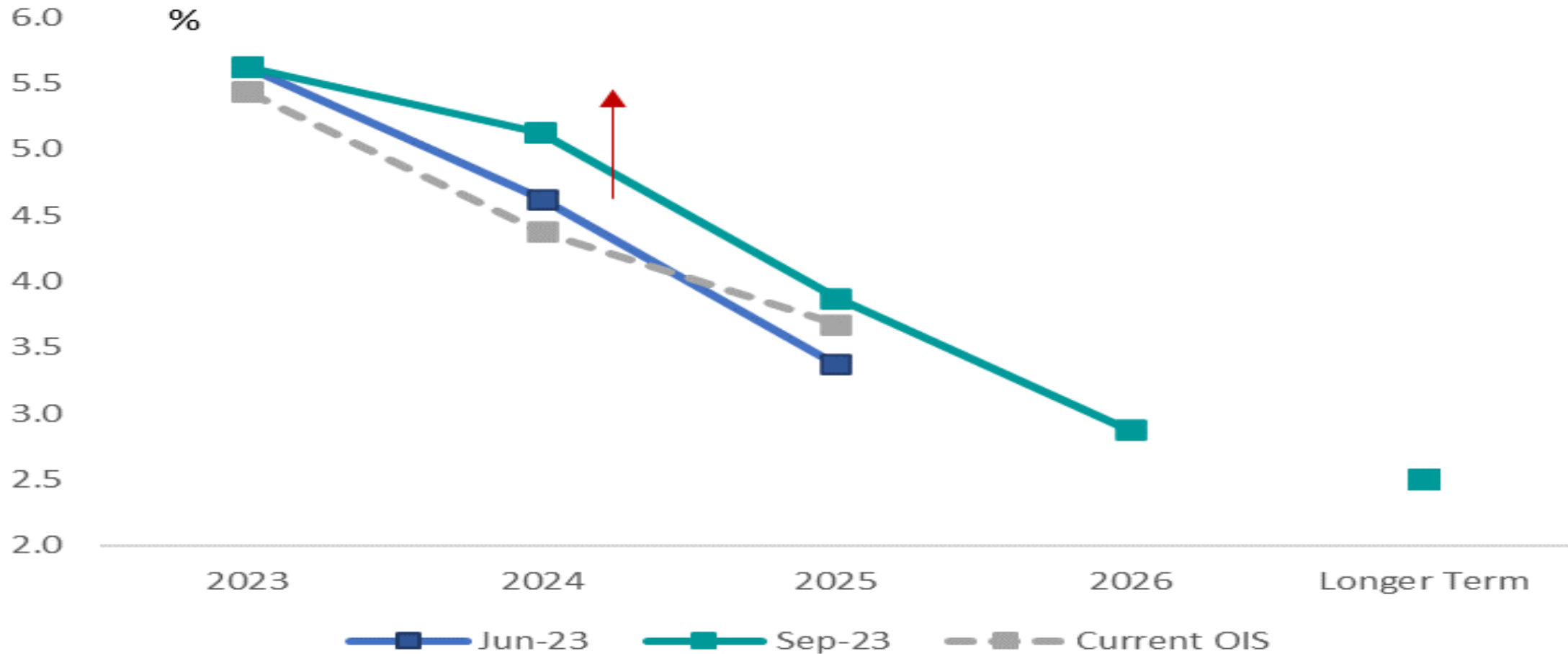
Global CB Rates

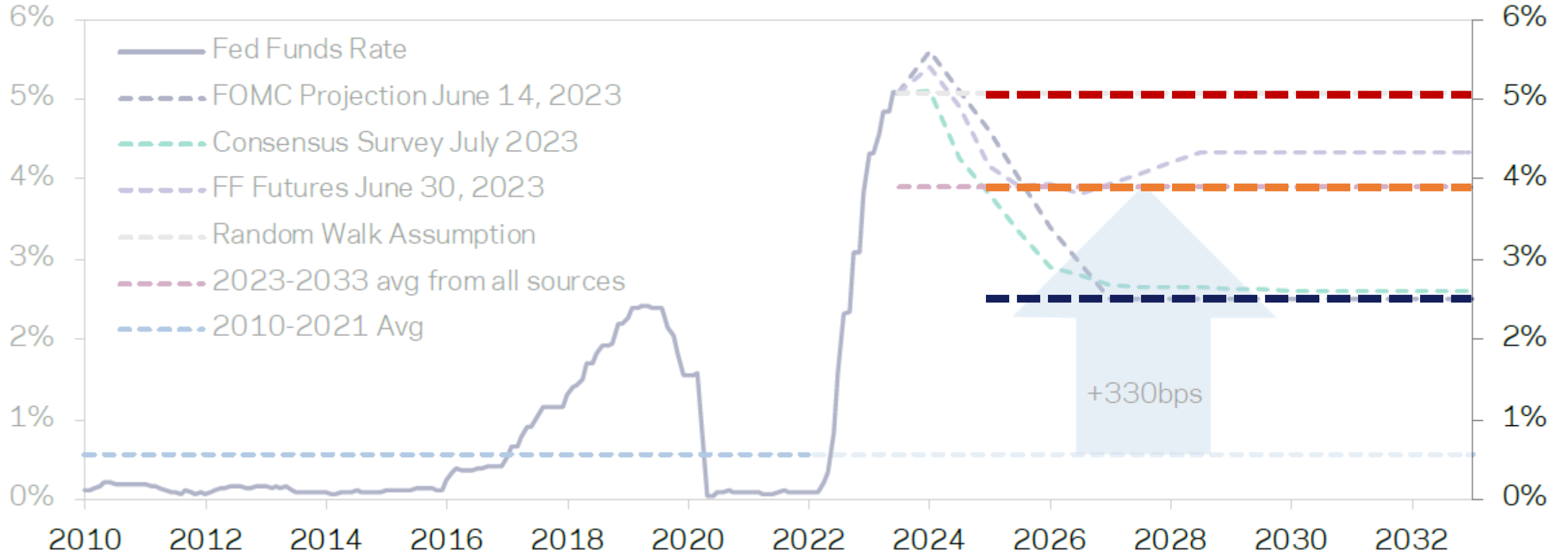Developed world central banks are retreating from hiking policy rates

US — UK — Switzerland — Sweden — Norway — Canada — Taiwan — EZ — Australia

US Rates, Fed up

US Rates

Legend:
- Fed Funds Rate
- FOMC Projection June 14, 2023
- Consensus Survey July 2023
- FF Futures June 30, 2023
- Random Walk Assumption
- 2023-2033 avg from all sources
- 2010-2021 Avg

+330bps

EM central bankers led the way

3-month cumulative policy rate hikes minus cuts: Emerging versus Developed Markets
Source: BofA Global Investment Strategy, Bloomberg

Dollar Strength

USD real effective exchange rate
Index level

Dollar Strength

Rich equity valuations?

Forward P/E Valuation
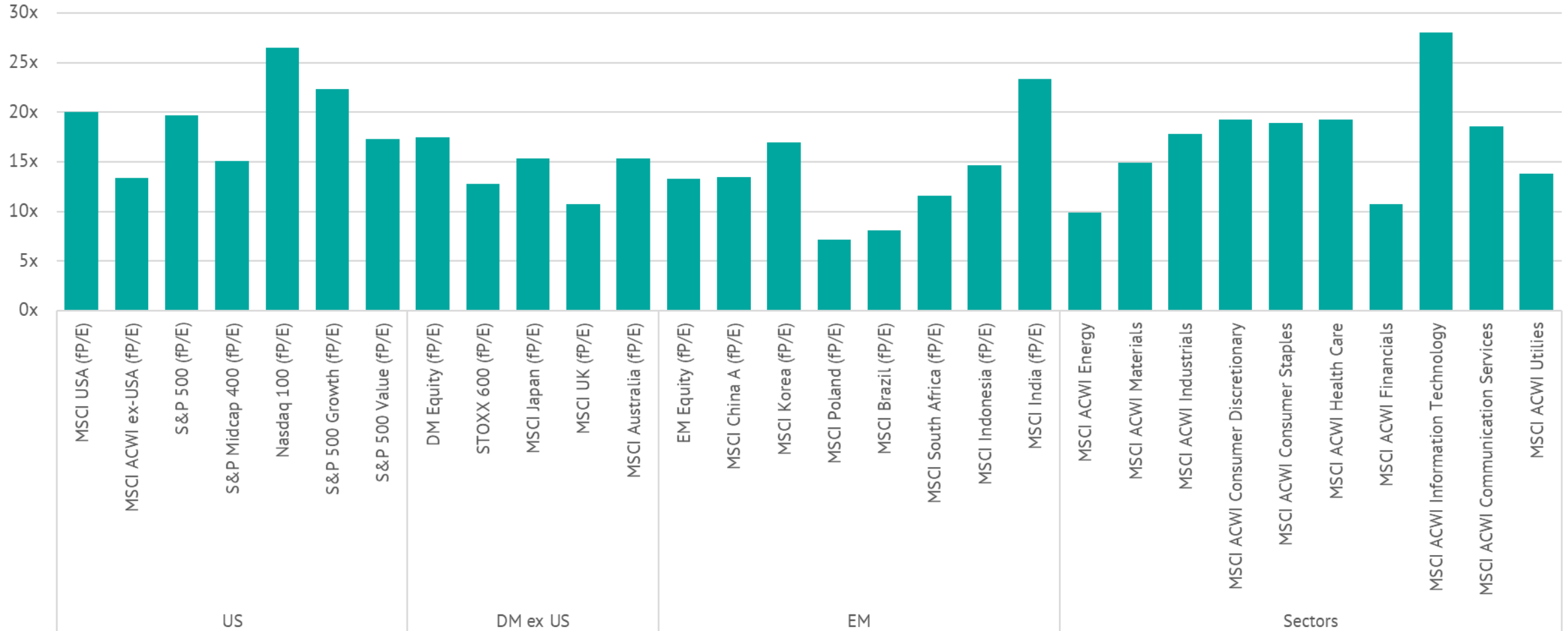
Rich equity valuations?

Z-Score of Forward P/E Valuation

Source: Bloomberg, as of 2023/09/30

Looking to the future

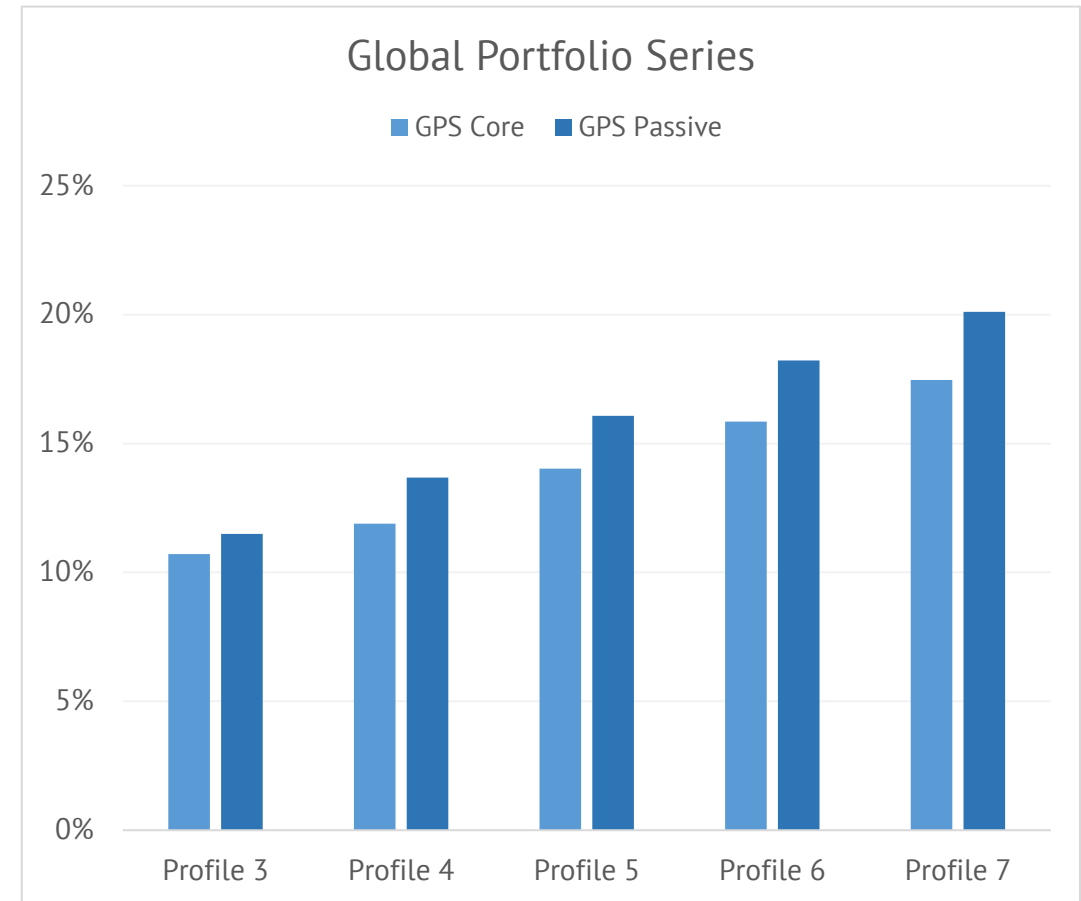Source: Apollo (September 2023)
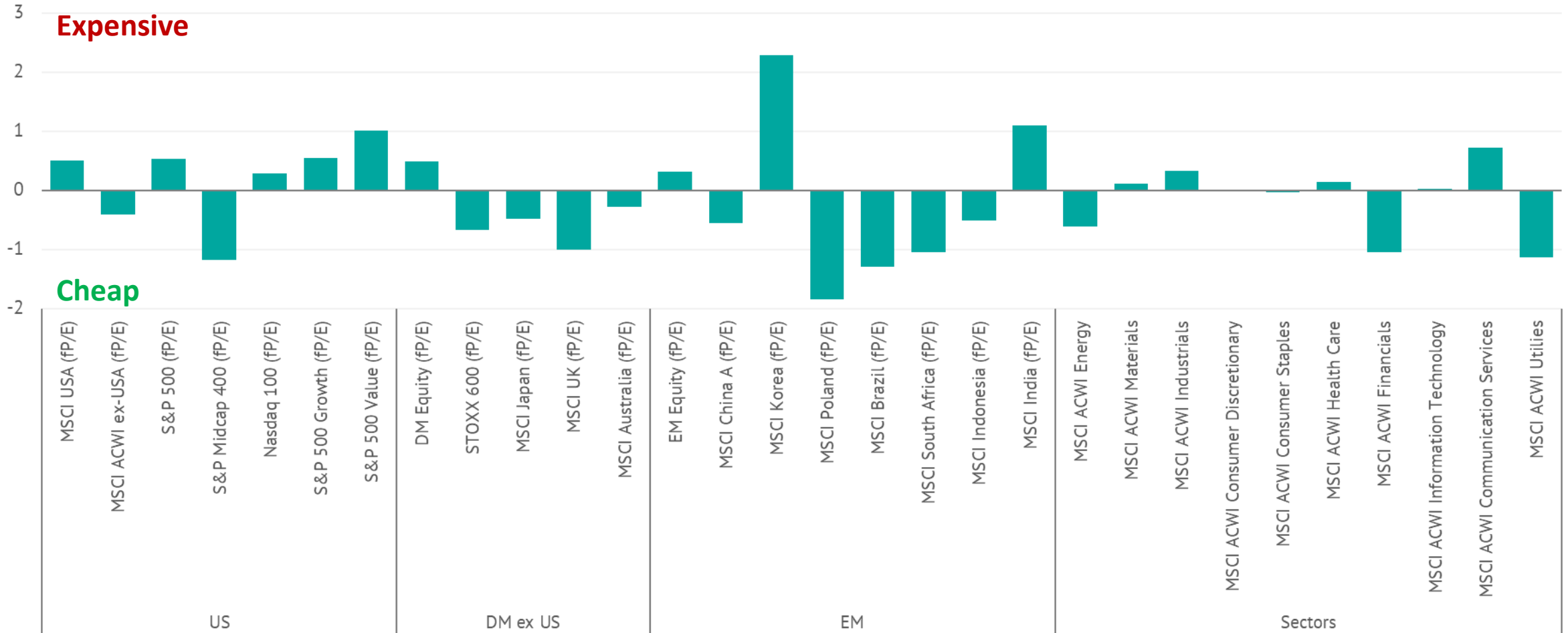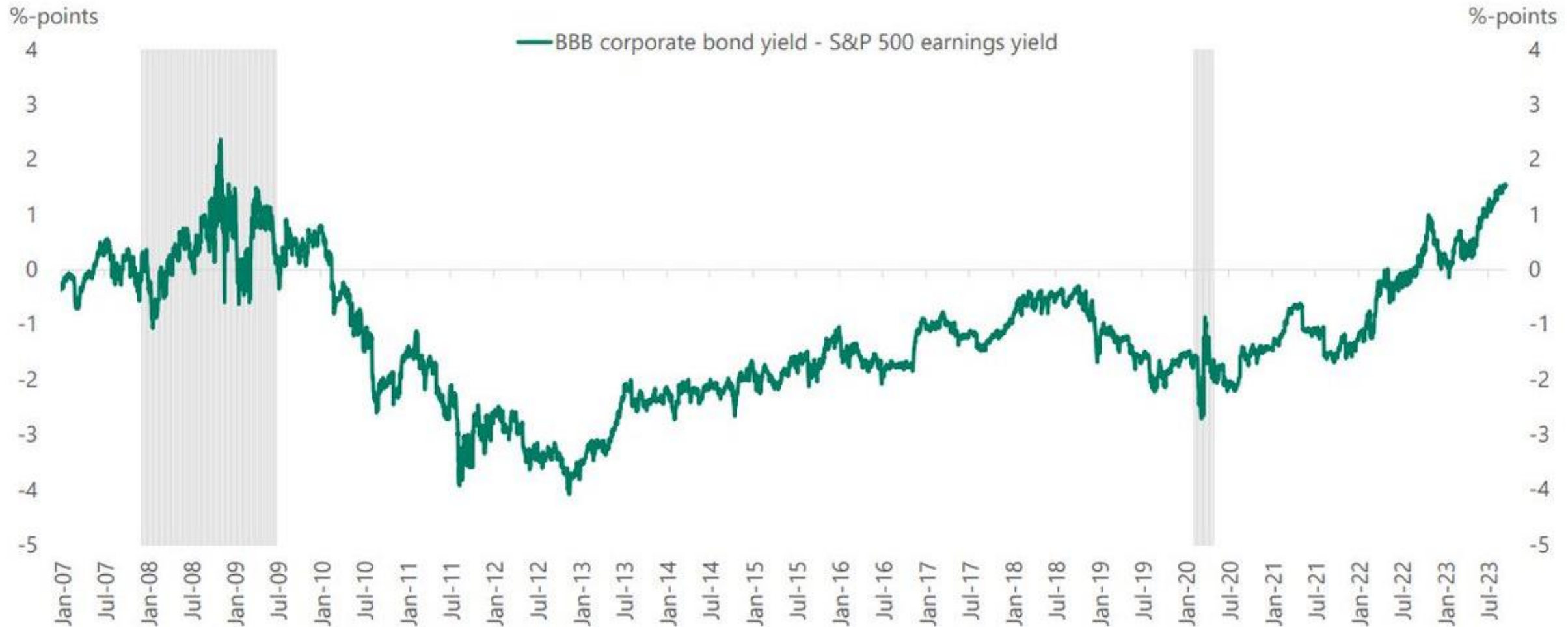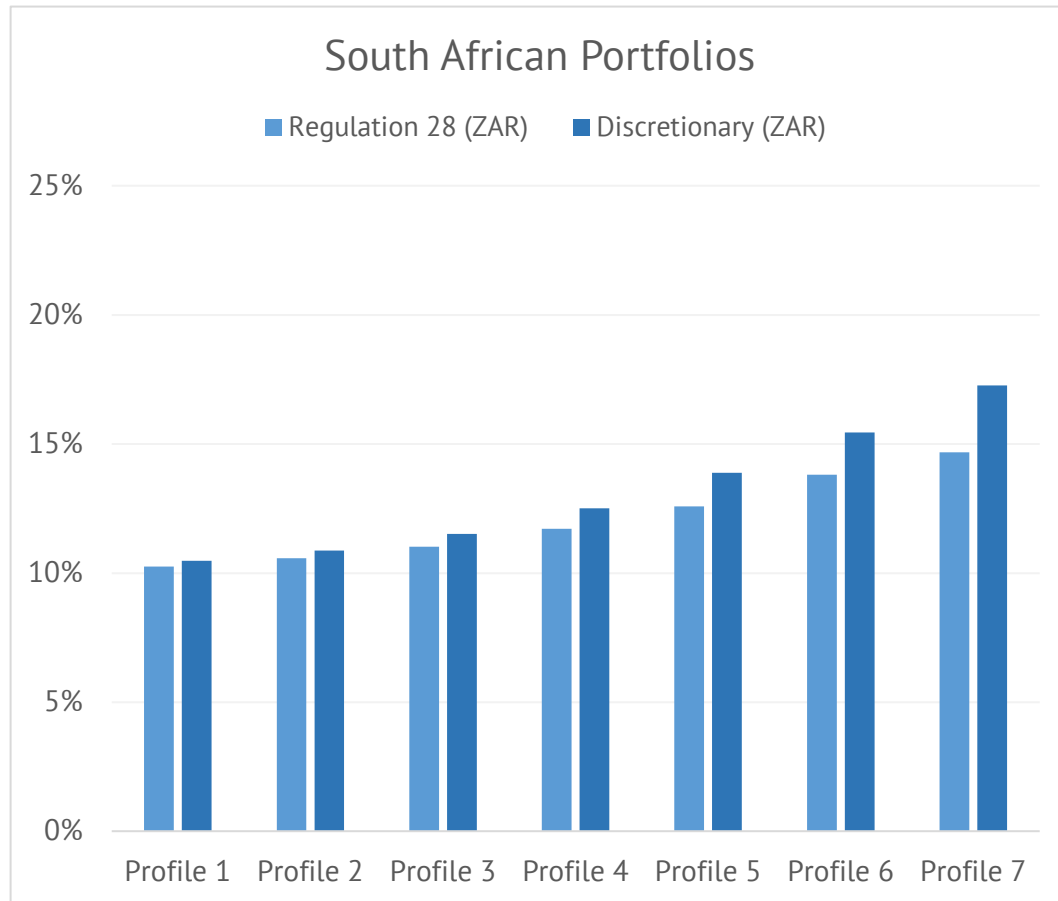
2023Q3 Asset Class Performance
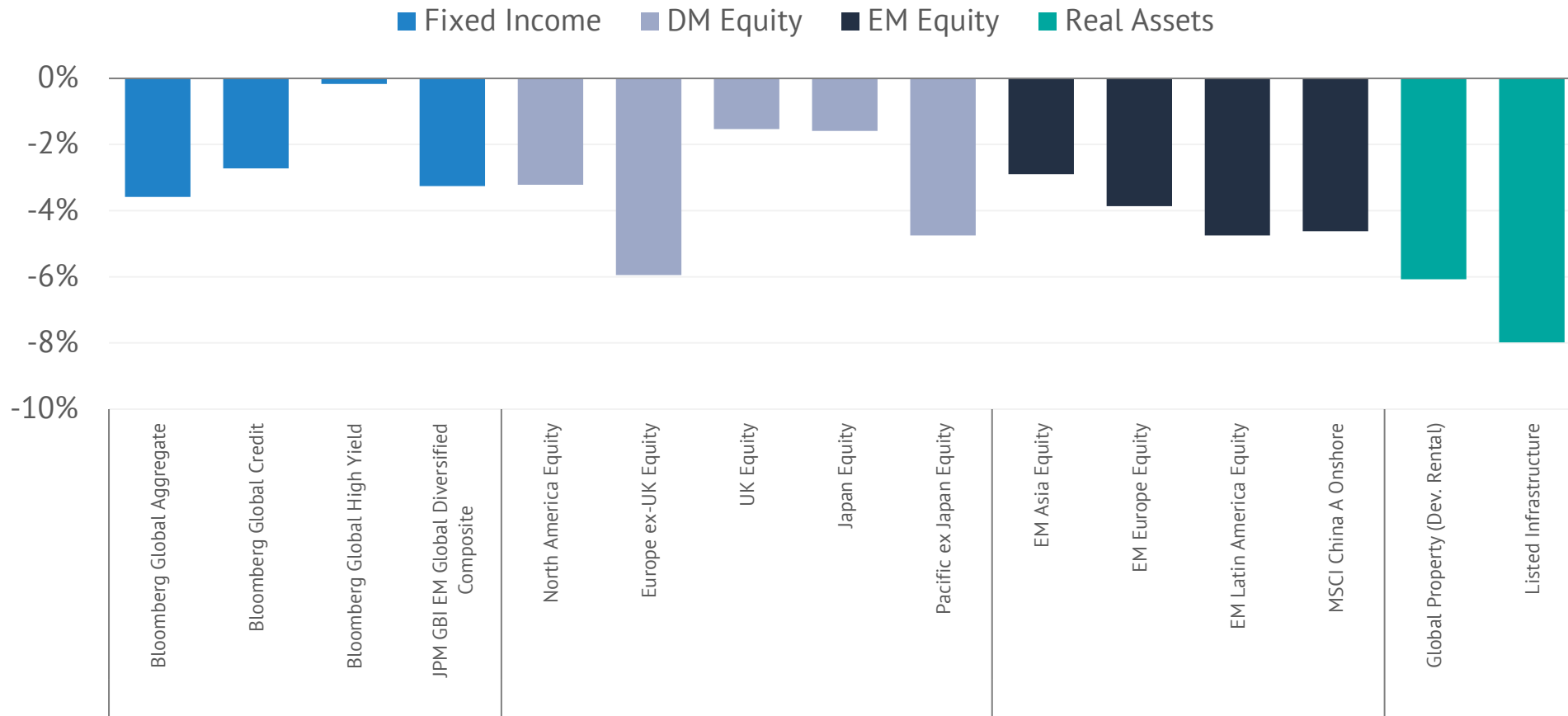
Source: JP Morgan FICC (September 2023), USD on a PPP basis, with an adjustment for structural energy independance
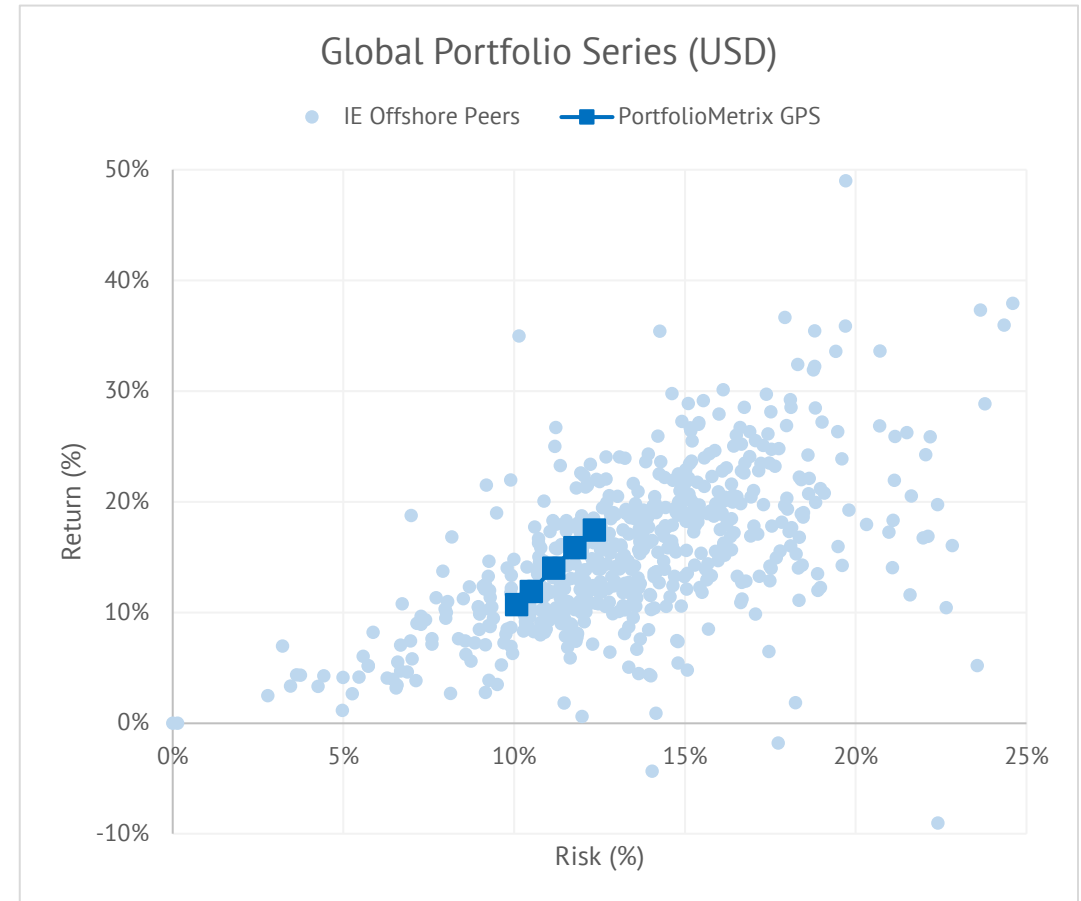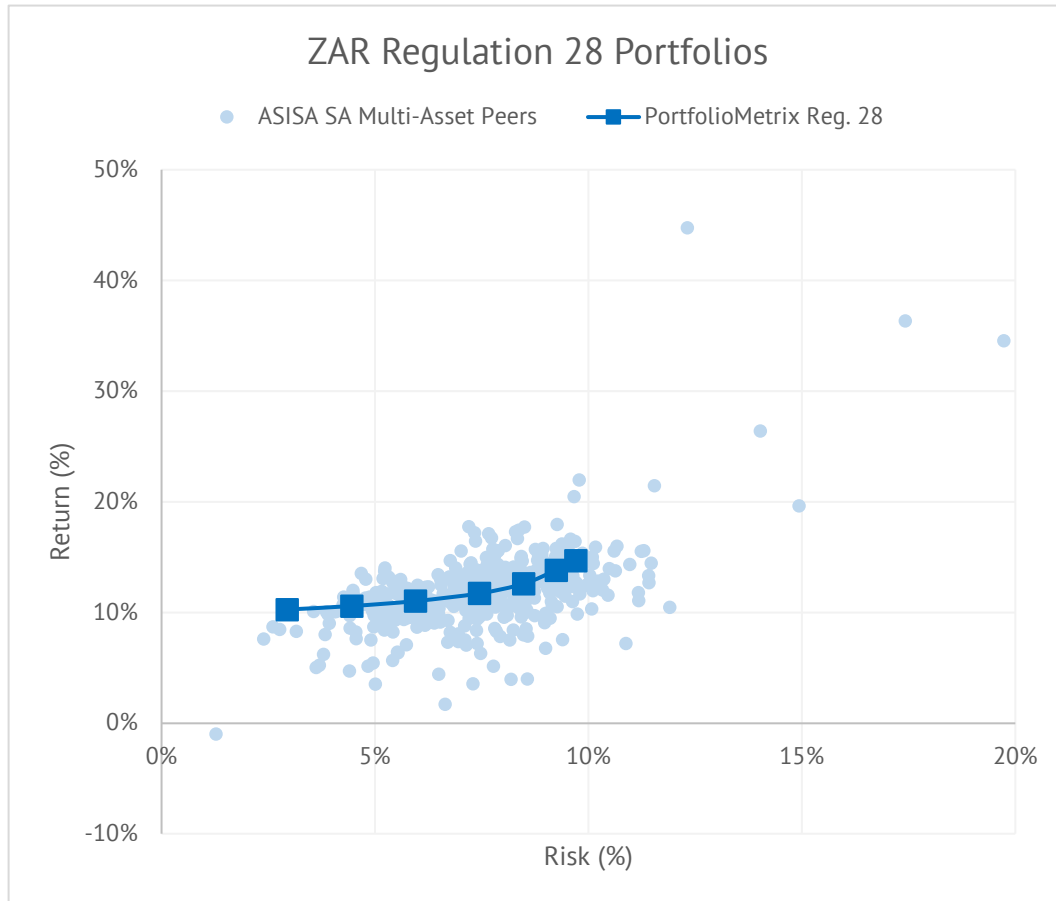
SA and Global Portfolios

diversification rules supreme

Portfolio Returns, 1 Year

PMX
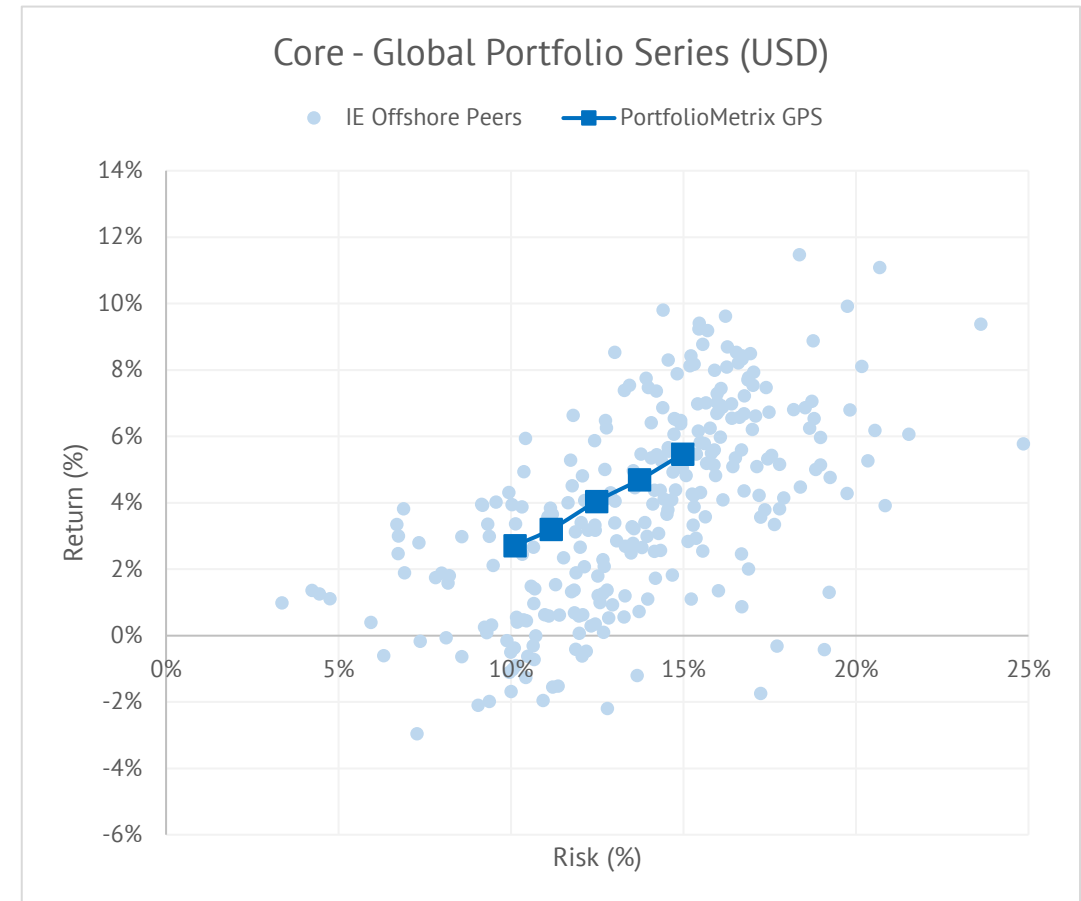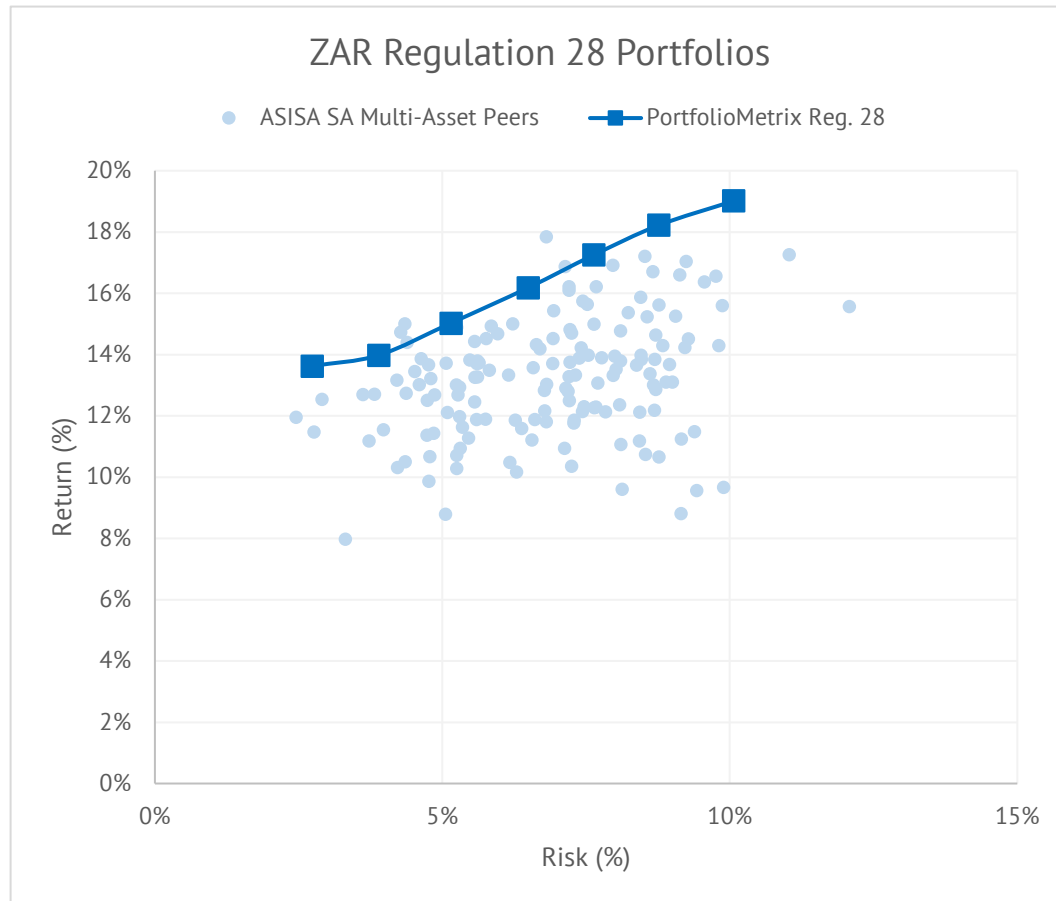
South African Portfolios

■ Regulation 28 (ZAR) ■ Discretionary (ZAR)

Global Portfolio Series

■ GPS Core ■ GPS Passive

Portfolio Returns, 1 Year

ZAR Regulation 28 Portfolios

● ASISA SA Multi-Asset Peers — ■— PortfolioMetrix Reg. 28

Global Portfolio Series (USD)

● IE Offshore Peers — ■— PortfolioMetrix GPS

Portfolio Returns, Since Inception

ZAR Regulation 28 Portfolios

● ASISA SA Multi-Asset Peers —■— PortfolioMetrix Reg. 28

Core - Global Portfolio Series (USD)

● IE Offshore Peers —■— PortfolioMetrix GPS

Portfolio Returns, Since Inception

Passive - Global Portfolio Series (USD)

Core - Global Portfolio Series (USD)
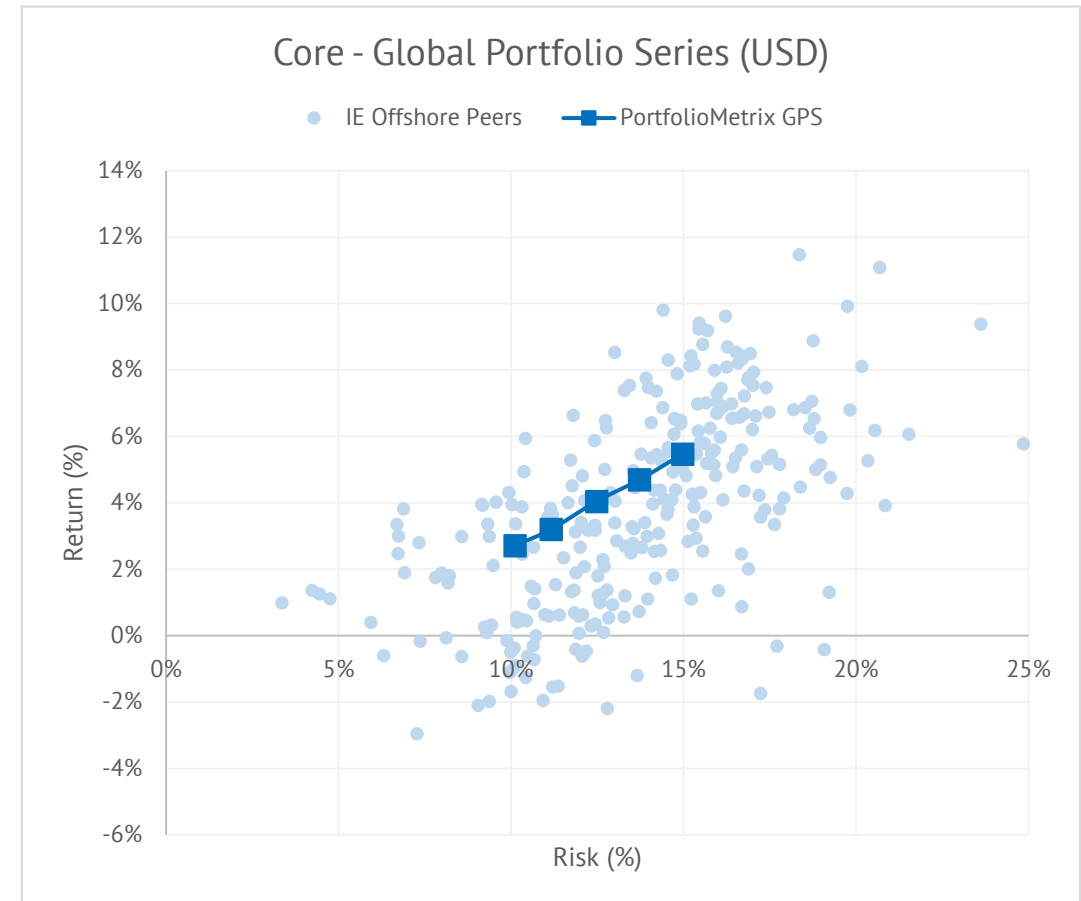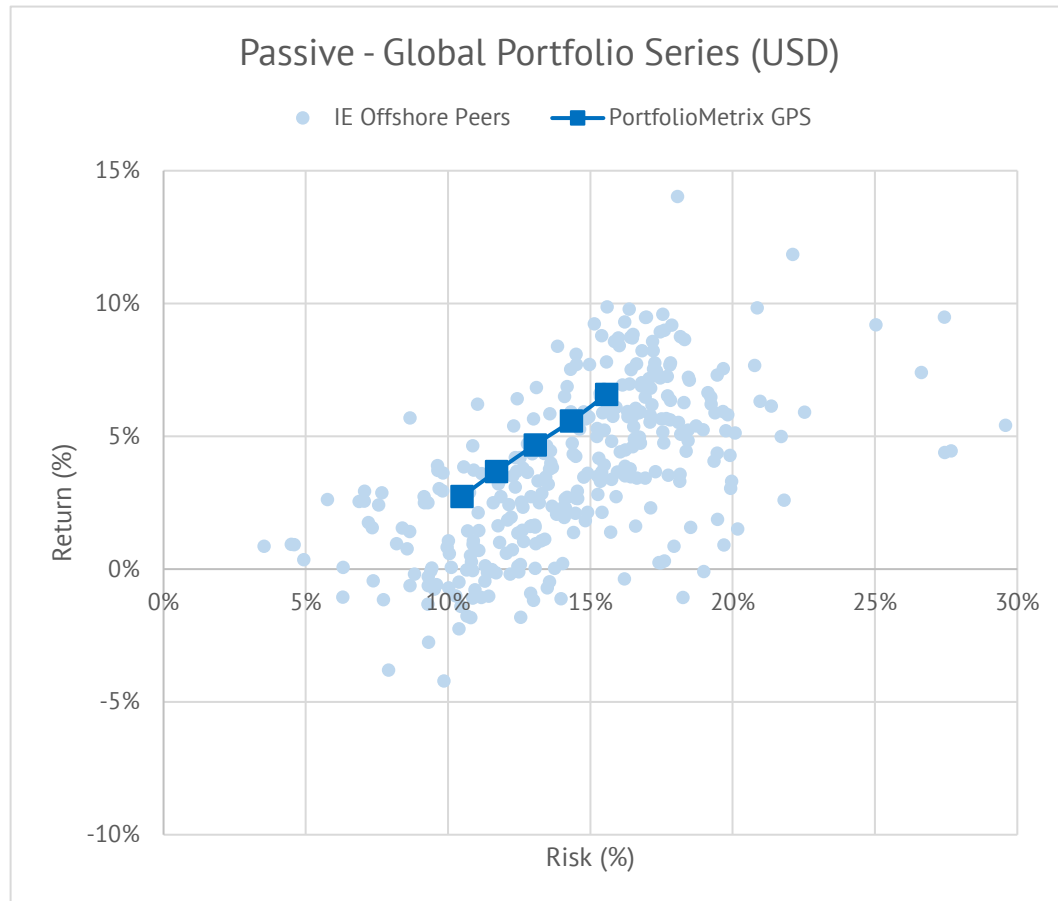
Top dogs will slow down

Today's 10 largest firms account for a fifth of the market's capitalization
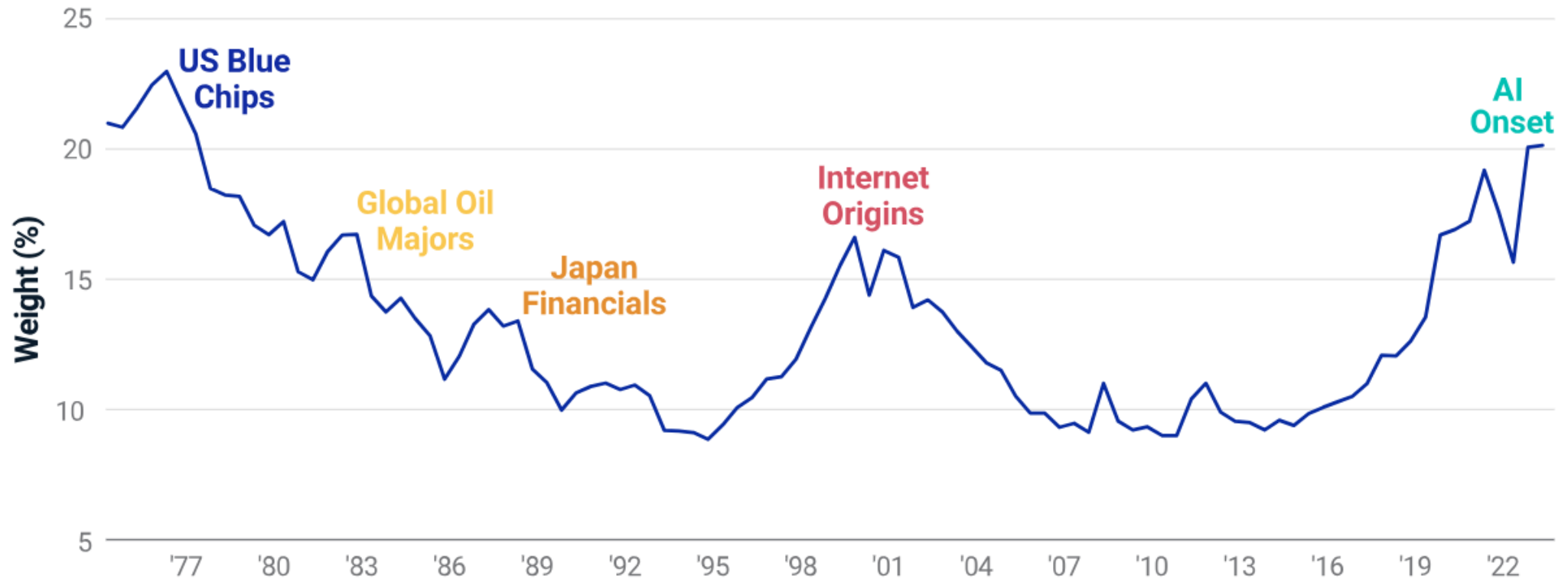
Point-in-time weight of the top 10 stocks in the MSCI World Index from December 1974 through July 2023. Labels represent periods of elevated market concentration. Weight is based on a security's free-float market capitalization. Current concentration is as of July 31, 2023.

Top dogs will slow down

Leaders from each era had a smaller market weight a decade later
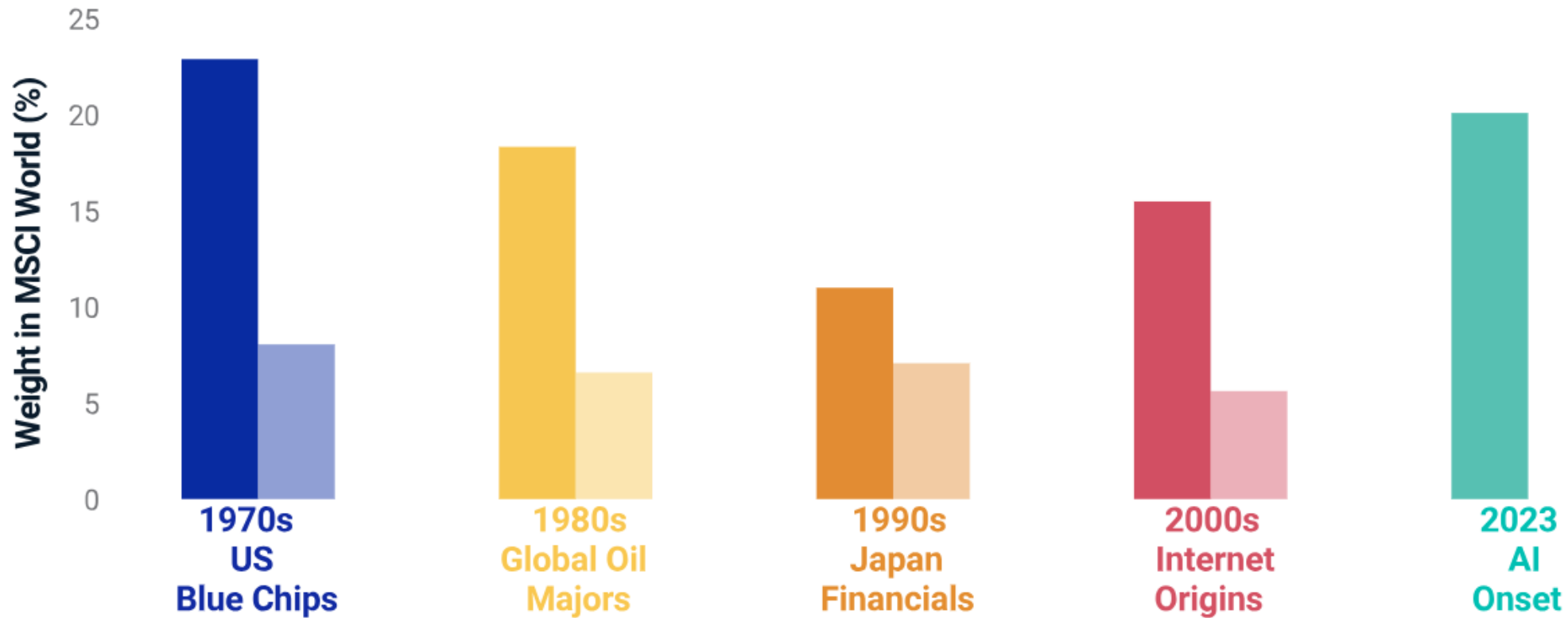
Darker shades indicate weight of 10 largest stocks at peak concentration (dates noted above). Lighter shades indicate weight of the same 10 securities one decade later.

Top dogs will slow down

Only one-quarter of leaders kept pace with the market after reaching the top 10
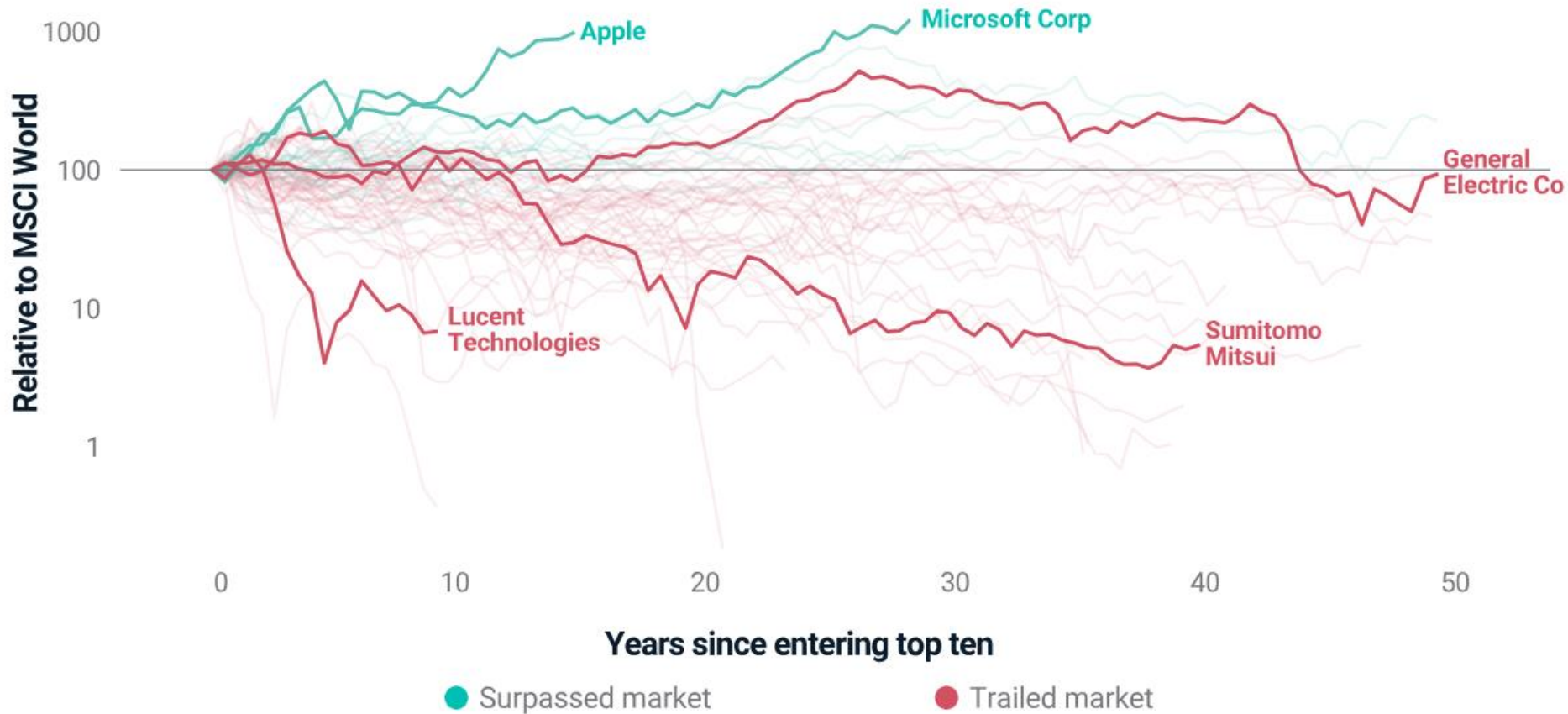
Each line represents the gross stock level in USD relative to the MSCI World Index (log-scaled) from the month following the security first making the top 10 until its most recent trade. Full period is from December 1974 through June 2023.

Looking to the future

P/E ratio of the top 10 and remaining stocks in the S&P 500
Next 12 months, 1996 - present

	Current	Average	% of avg.
Top 10	25.9x	20.2x	128%
Remaining stocks	16.8x	15.7x	106%
S&P 500	17.8x	16.5x	108%

Global forward P/E ratios
x, multiple

● Range since 1990   ● Average since 1990   ● Current
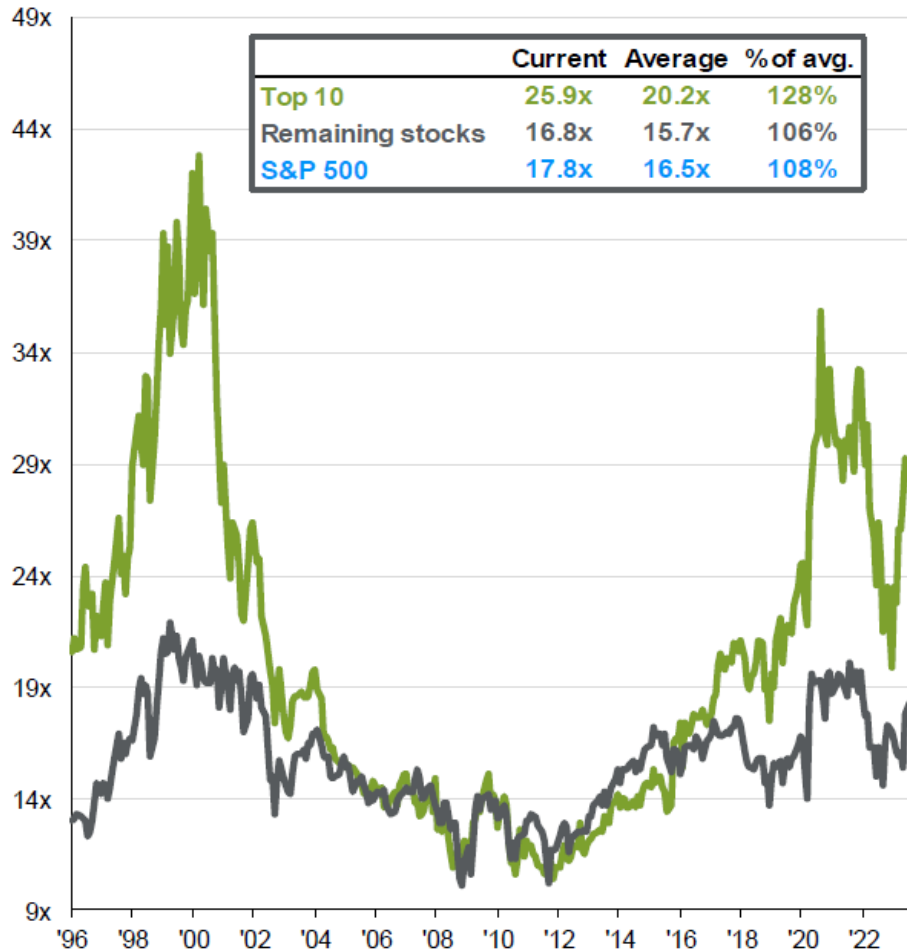
Source: JP Morgan 2023
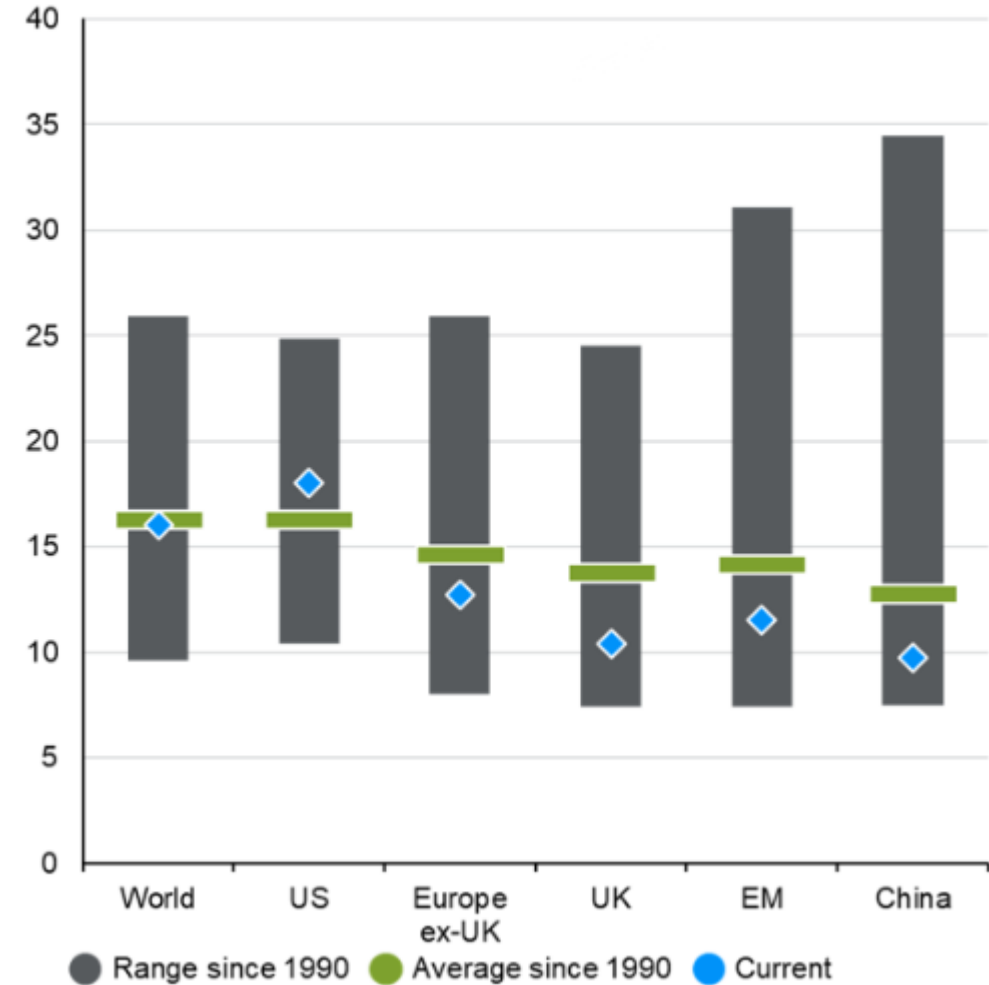
What of the Past?
We are used to seeing this...

Figure 1.4. Real Annualized Returns (%) on Equities versus Bonds and Bills Internationally, 1900–2015

Individual Stock Returns

PMX
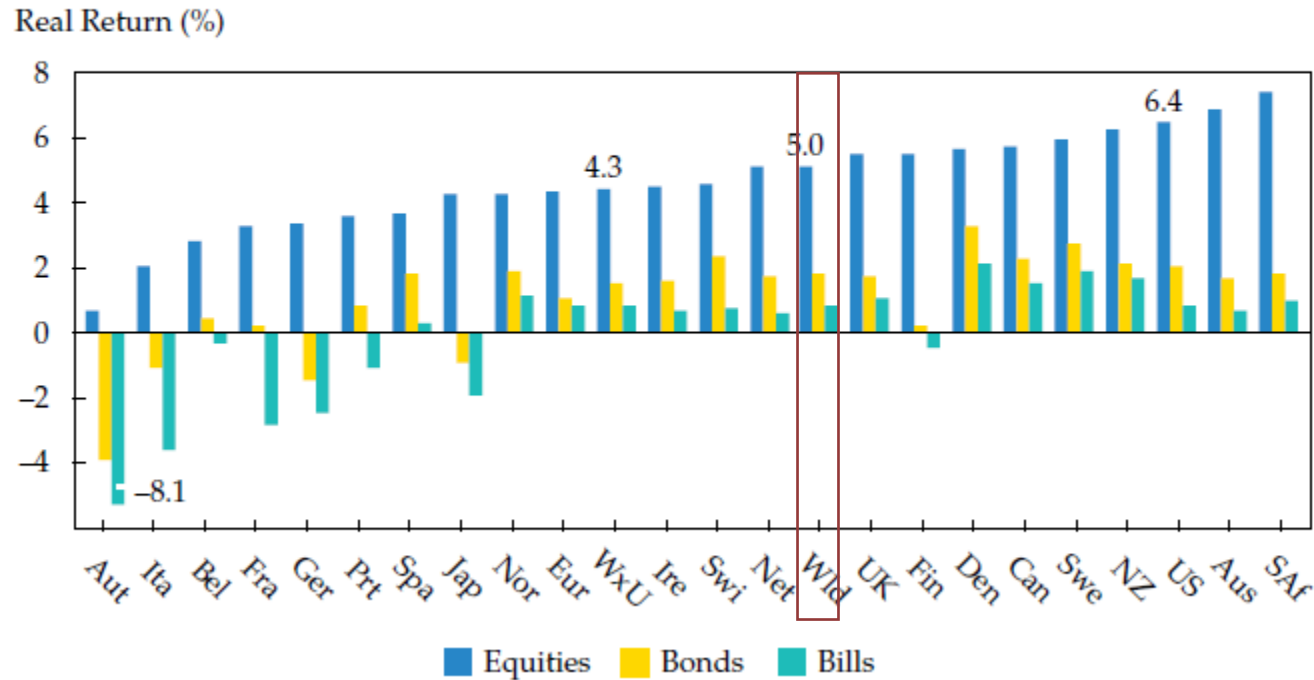
Do Stocks Outperform Treasury bills?
Market: US
1926 – 2016
25,332 companies

58% of stocks Underperform T-bills
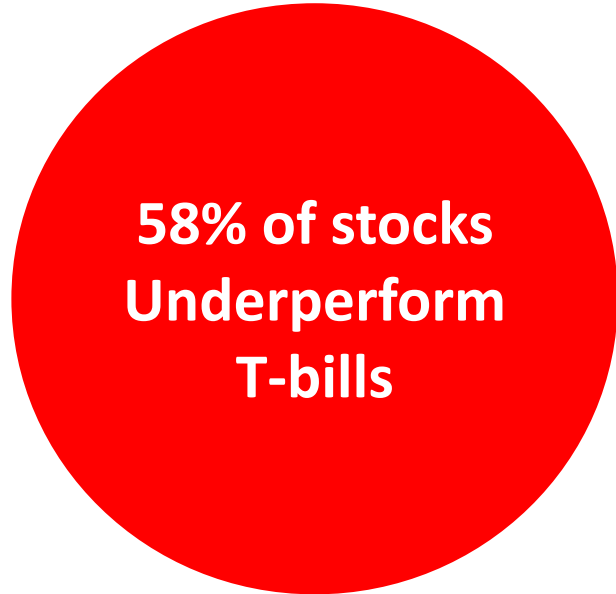
Long-term shareholder returns:
Evidence from 64,000 global stocks
Market: Global
1990 – 2020
64,738 companies

Individual Stock Returns

58% of stocks failed to beat Treasury bill returns over their lives.

38% of stocks beat Treasury bill returns by just moderate amounts.

Just over 4% of stocks are responsible for boosting the market's overall returns higher than those on Treasury bills.

$35 trillion

Bessembinder found that all of the $35 trillion in wealth that stocks created over and above Treasury bills returns between 1926 and 2016 could be attributed to just 1,092 companies, or 4.3 percent of the nearly 26,000 stocks that have been traded in the markets. More than half of the $35 trillion came from just 90 companies, or less than one-third of 1 percent.

"The results help to explain why active strategies, which tend to be poorly diversified, most often underperform." — *Bessembinder*

Source: Do Stocks Outperform Treasury Bills?

Positive Skew

How the Stock Market Outperforms when most Stocks Don't

Figure 4: Percent of Stocks with Indicated Full Sample Period Buy-and-Hold Return

Source: Long-term shareholder returns: Evidence from 64,000 global stocks

Positive Skew

Attributes consistent across time periods, regions and sectors

Analysis of lifetime returns by sector, 1980-2014

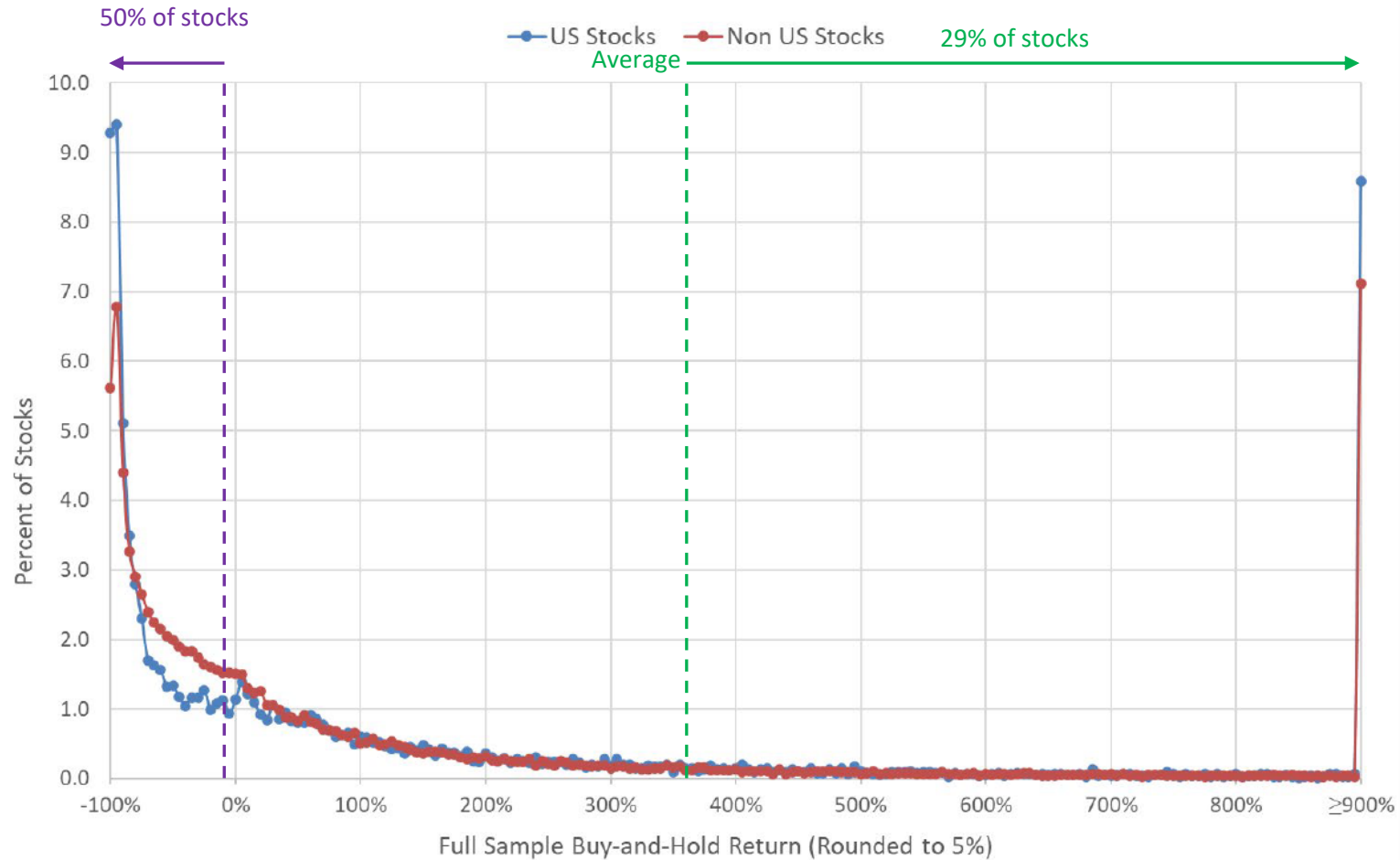| Sector	Median excess return vs Russell 3000	Percentage of stocks with negative *EXCESS* returns	Percentage of stocks with negative *ABSOLUTE* returns	Percentage of extreme winner stocks
All Sectors	-54%	64%	40%	7%
Consumer Discretionary	-62%	65%	44%	7%
Consumer Staples	-3%	51%	26%	15%
Energy	-93%	72%	48%	6%
Materials	-73%	66%	34%	8%
Industrials	-58%	64%	37%	7%
Health Care	-39%	60%	42%	8%
Financials	-21%	58%	30%	6%
Information Technology	-63%	71%	53%	6%
Telecommunication Services	-57%	68%	54%	6%
Utilities	-141%	85%	14%	0%

Source: FactSet. J.P. Morgan Asset Management.

Global Wealth Concentrated in a Few Winners

How the Stock Market Outperforms when most Stocks Don't

Global Net Wealth of $75.66 trillion

Source: Long-term shareholder returns: Evidence from 64,000 global stocks

Global Wealth Concentrated in a Few Winners

How the Stock Market Outperforms when most Stocks Don't
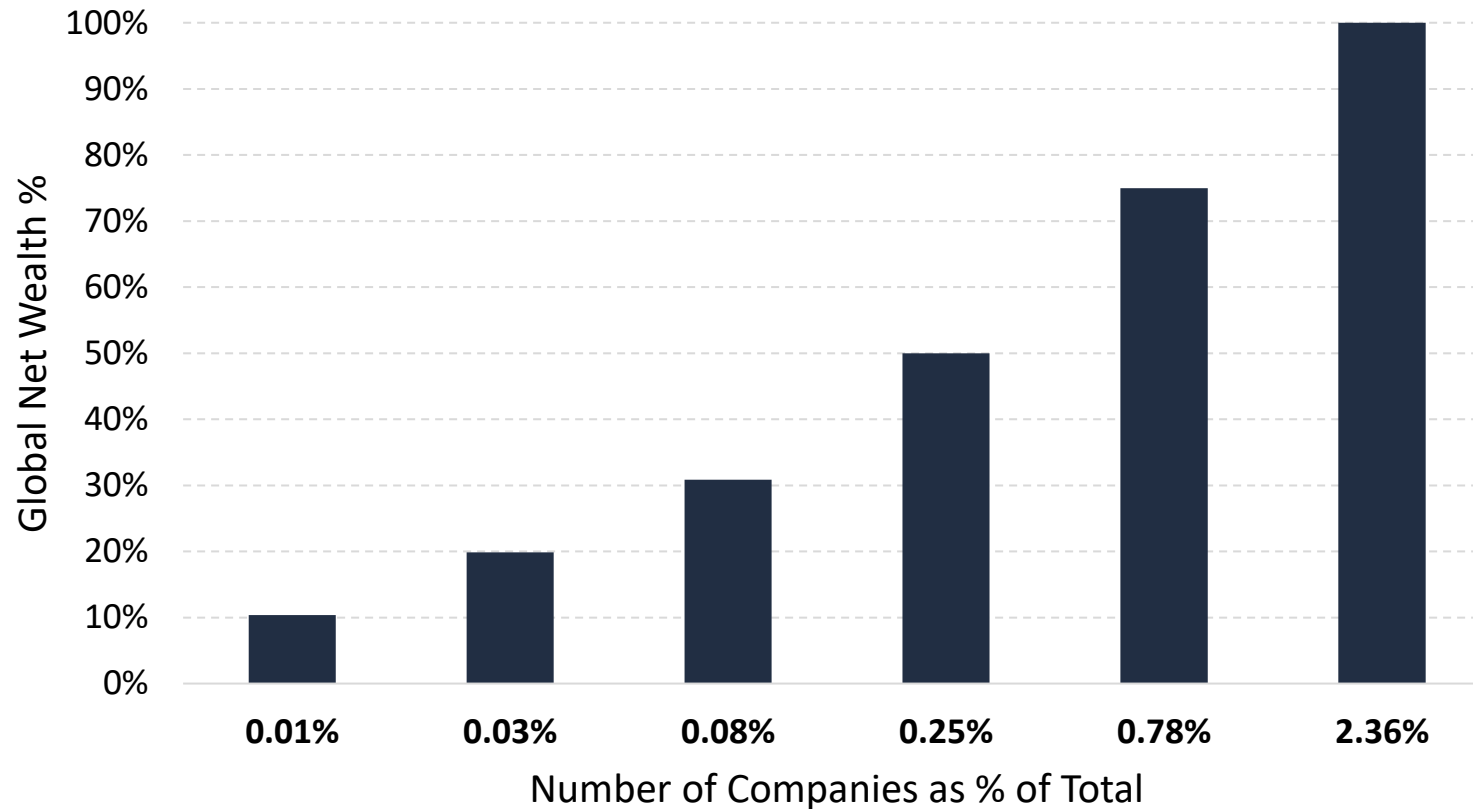
Global Net Wealth of $75.66 trillion

Source: Long-term shareholder returns: Evidence from 64,000 global stocks
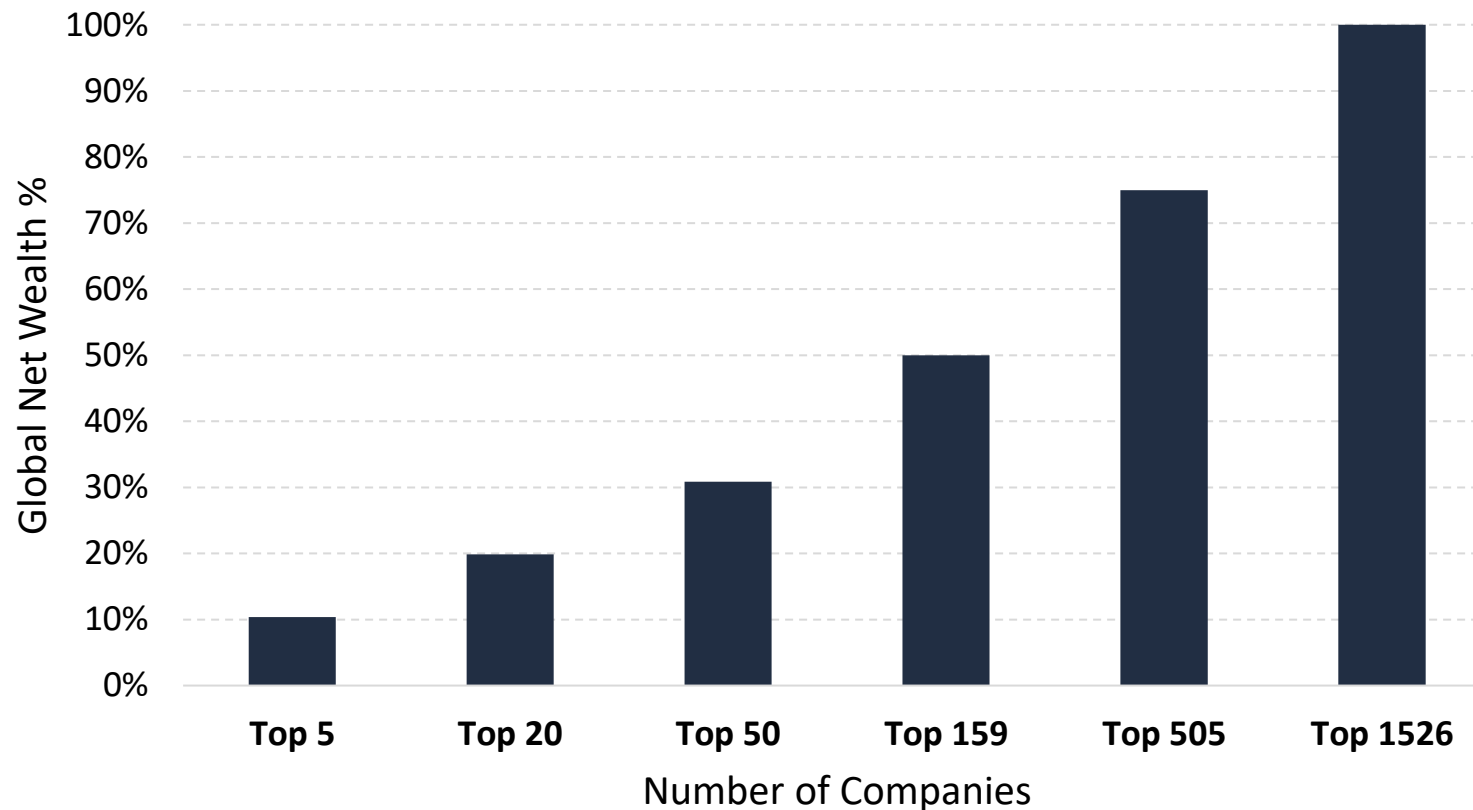
Global Wealth Concentrated in a Few Winners
Who are the Top 20 Winners

Firm Name	Market	Wealth Created ($Millions)	Accumulated % of Global Gross Wealth Creation	Annualized Dollar Weighted Return	First Month	Last Month
APPLE INC	United States	2,674,231	2.74%	23.51%	199002	202012
MICROSOFT CORP	United States	1,910,158	4.69%	19.16%	199002	202012
AMAZON COM INC	United States	1,569,085	6.30%	31.09%	199706	202012
ALPHABET INC	United States	979,133	7.30%	19.34%	200409	202012
TENCENT HOLDINGS LTD	Hong Kong SAR	691,671	8.00%	48.11%	200407	202012
TESLA INC	United States	639,266	8.66%	65.44%	201007	202012
WALMART INC	United States	568,713	9.24%	13.51%	199002	202012
FACEBOOK INC	United States	553,675	9.81%	30.39%	201206	202012
SAMSUNG ELECTRONICS CO LTD	South Korea	540,605	10.36%	20.17%	199002	202012
JOHNSON & JOHNSON	United States	535,317	10.91%	13.86%	199002	202012
TAIWAN SEMICONDUCTOR MFG CO	Taiwan	525,515	11.44%	18.30%	199502	202012
BERKSHIRE HATHAWAY INC DEL	United States	504,079	11.96%	11.68%	199002	202012
NESTLE SA/AG	Switzerland	478,110	12.45%	13.21%	199002	202012
PROCTER & GAMBLE CO	United States	451,109	12.91%	13.05%	199002	202012
EXXON MOBIL CORP	United States	437,083	13.36%	10.65%	199002	202012
JPMORGAN CHASE & CO	United States	414,080	13.78%	9.76%	199002	202012
HOME DEPOT INC	United States	399,790	14.19%	16.55%	199002	202012
KWEICHOW MOUTAI CO LTD	China	395,870	14.60%	38.98%	200205	202012
VISA INC	United States	384,977	14.99%	23.77%	200804	202012
ROCHE HOLDING AG	Switzerland	377,253	15.38%	14.09%	199002	202012

Global Wealth Concentrated in a Few Winners

The Ride is not for Free

			Maximum Drawdown Same Decade				Maximum Drawdown Prior Decade			
Company	Decade	Wealth Created ($ millions)	Percent	Start	End	Duration (Months)	Percent	Start	End	Duration (Months)
APPLE INC	2010-2019	1,468,299.2	39.52%	Sep-12	Jun-13	9	79.18%	Mar-00	Mar-03	36
MICROSOFT CORP	2010-2019	1,075,941.3	24.26%	Apr-10	Jun-10	2	63.34%	Mar-00	Feb-09	107
AMAZON COM INC	2010-2019	812,648.1	25.38%	Aug-18	Dec-18	4	91.33%	Feb-00	Sep-01	19
MICROSOFT CORP	1990-1999	775,840.1	20.54%	Nov-92	Jul-93	8	32.45%	Sep-87	Nov-87	2
GENERAL ELECTRIC CO	1990-1999	633,240.0	26.77%	Jul-90	Oct-90	3	33.97%	Aug-87	Mar-88	7
ALPHABET INC	2010-2019	629,046.9	21.54%	Mar-10	Jun-10	3	58.56%	Oct-07	Nov-08	13
CISCO SYSTEMS INC	1990-1999	454,917.9	43.05%	Feb-94	Jul-94	5				
JPMORGAN CHASE & CO	2010-2019	393,859.8	34.74%	Feb-11	Sep-11	7	64.49%	Mar-00	Sep-02	30
FACEBOOK INC	2010-2019	390,801.1	41.93%	Jun-12	Aug-12	2				
BERKSHIRE HATHAWAY INC DEL	2010-2019	385,069.7	18.64%	Feb-11	Sep-11	7	44.93%	Dec-07	Feb-09	14
WALMART INC	1990-1999	379,036.8	36.19%	Jan-93	Jan-96	36	40.74%	Aug-87	Nov-87	3
INTEL CORP	1990-1999	362,579.3	31.09%	May-90	Sep-90	4	56.55%	Dec-83	Jul-86	31
VISA INC	2010-2019	319,330.7	23.95%	Mar-10	Aug-10	5	42.66%	May-08	Jan-09	8
JOHNSON & JOHNSON	2010-2019	296,952.4	13.18%	Dec-17	May-18	5	27.79%	Aug-08	Feb-09	6
MASTERCARD INC	2010-2019	296,690.2	21.80%	Mar-10	Aug-10	5	55.89%	May-08	Jan-09	8
INTERNATIONAL BUSINESS MACHS	1960-1969	290,573.6	42.00%	Oct-61	Jun-62	8	18.45%	May-50	Jul-50	2
UNITEDHEALTH GROUP INC	2010-2019	275,053.9	21.75%	Nov-18	Sep-19	10	68.32%	Dec-05	Feb-09	38
HOME DEPOT INC	2010-2019	267,248.5	19.69%	Apr-10	Aug-10	4	67.17%	Mar-00	Jan-03	34
WALMART INC	2010-2019	253,525.7	32.92%	Nov-14	Oct-15	11	27.10%	Feb-02	Sep-05	43

Maximum Drawdowns for the 100 Firm/Decades with the Largest Shareholder Wealth Creation

The Benefits of Diversification
Spreading your bets
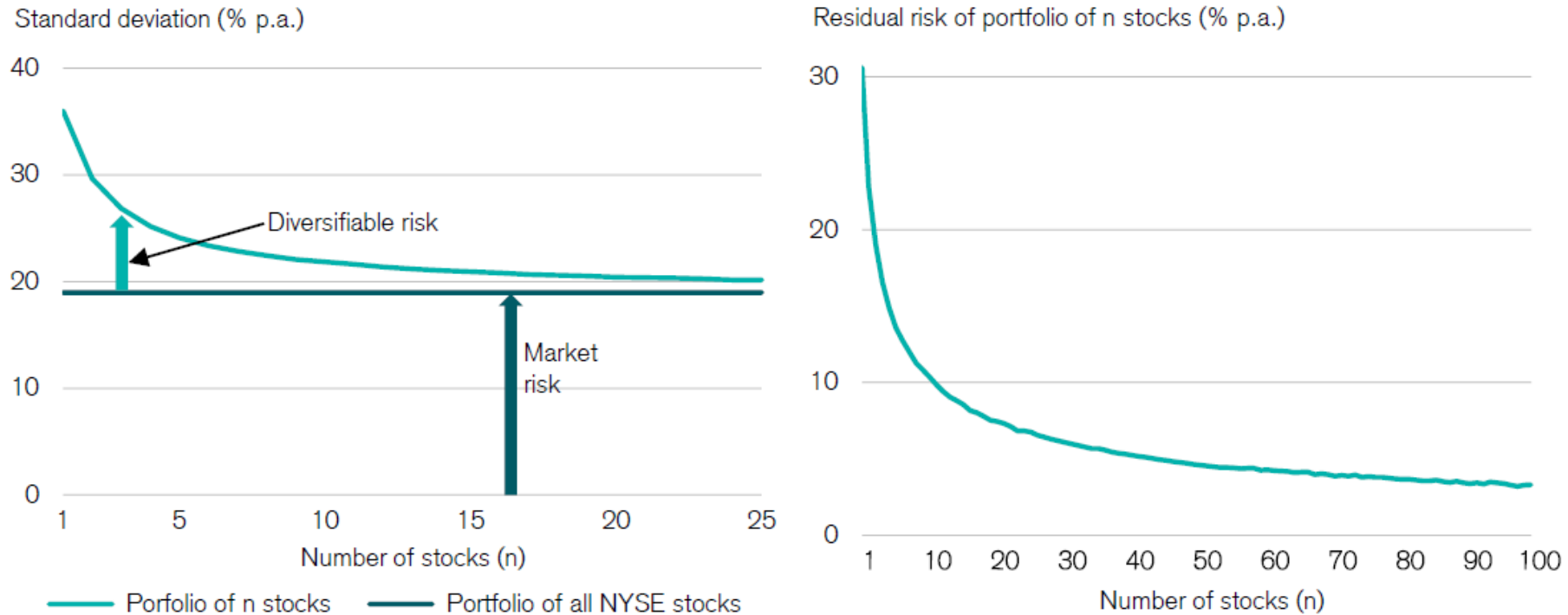
31-Year Horizon, % Outperforming
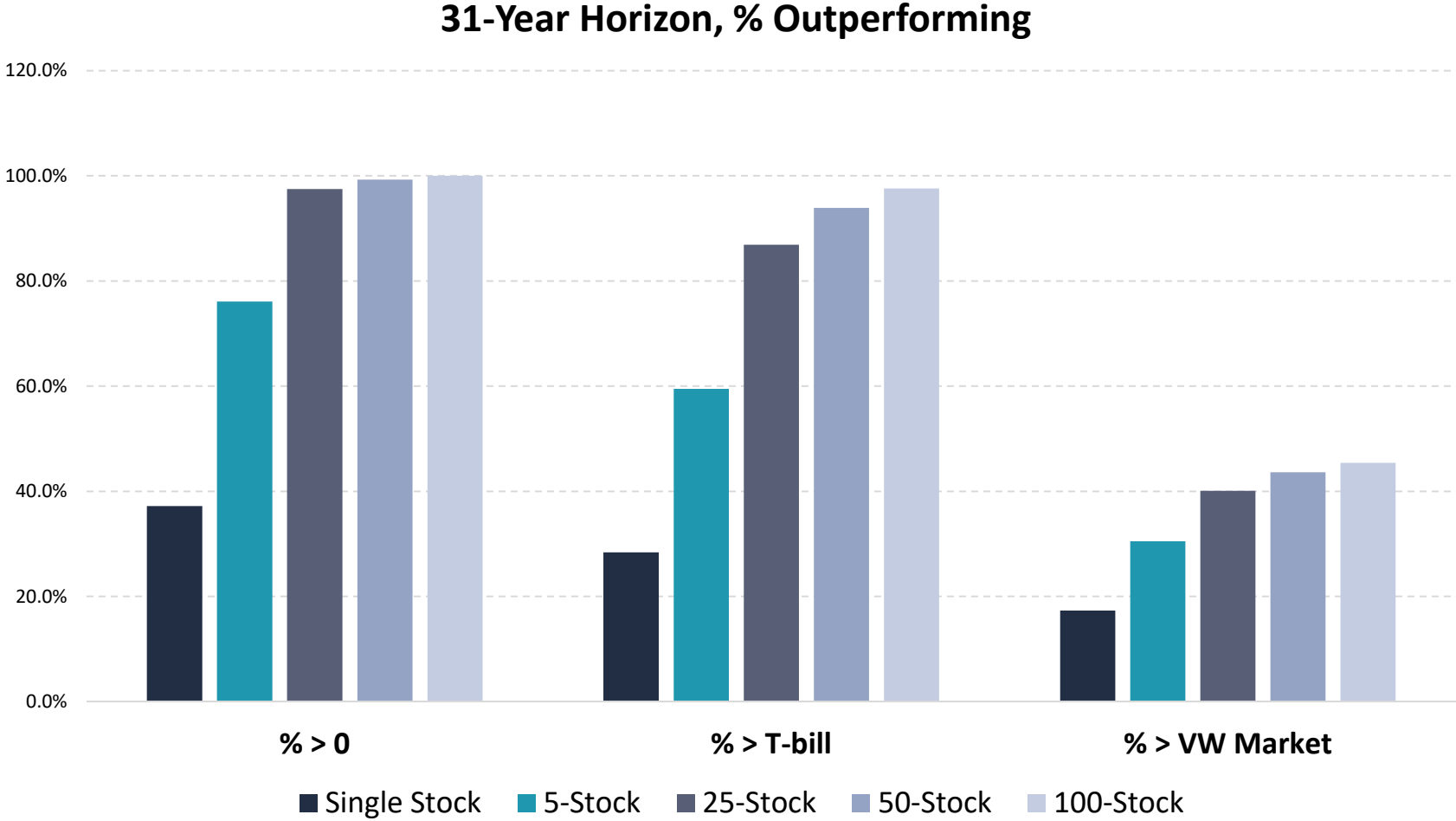
Source: Long-term shareholder returns: Evidence from 64,000 global stocks

The Benefits of Diversification
Spreading your bets

Figure 66: How overall portfolio risk (left) and residual portfolio risk (right) vary with the number of stocks

Source: Elroy Dimson, Paul Marsh, and Mike Staunton using data from Refinitiv. Not to be reproduced without express written permission of the authors.

Summary
What does it all mean

- Equity wealth is largely attributable to **extreme positive outcomes** of **relatively few stocks**

- **Concentration** increases risk but also the potential for **outsized returns**

- **Diversification** increases probability of harvesting equity risk premium at the expense of extreme outcomes

- **Positive skew** increases with time horizon and short-term risk

- Higher positive skew means (potentially large) **majority** of individual future outcomes will be **less than average**