



**RESEARCH**

**Insights**

# Primer: Global Equity Markets Comparison

Comparing Market Volumes, Capitalization, Formation, Performance, & Costs

September 2024

## SIFMA Insights Primers

The primer series from SIFMA Insights breaks down important technical and regulatory nuances. By fostering an understanding of the marketplace, we set the scene to address complex issues arising in today's markets. The primer series can be found here: [www.sifma.org/primers](http://www.sifma.org/primers)

In addition to this primer, the series includes the following reports: Capital Markets, Capital Formation and Listings Exchanges, Equities, Options, Exchange-Traded Funds (ETF), and Fixed Income Markets and Electronic Trading.

**In this primer:** We compare equities markets across the globe for 2023. We begin with a comparison of volumes; U.S. the largest at 11.0 billion shares ADV. We use market capitalization to show market size, with the U.S. the largest at \$49.0 trillion. We analyze capital formation, looking at IPOs (U.S. \$20.1 billion). We review market performance by analyzing trends in representative index prices, with the S&P 500 in the U.S. posting a +5.7% CAGR from 2000 to 2023. Then we compare market costs; U.S. total trade costs 29.68 bps, -12.2% to total global costs. Finally, we look at the ETF landscape – \$11.4 trillion global market, \$8.3 trillion U.S. – useful products for diversifying a portfolio.

# Contents

Market Volumes .....	4
Global Market Volumes .....	4
Market Size .....	5
Market Cap Overview .....	5
Global Comparison.....	6
Developed vs. Emerging Markets.....	7
Americas Comparison .....	8
EMEA Comparison.....	9
AsiaPac Comparison.....	10
Listed Companies Overview.....	11
Global Comparison.....	12
Developed vs. Emerging Markets.....	13
Americas Comparison .....	14
EMEA Comparison.....	15
AsiaPac Comparison.....	16
Domestic vs. Foreign Listings.....	17
Market Formation .....	18
IPO Deal Value Overview.....	18
Global Comparison.....	19
Developed vs. Emerging Markets.....	20
Americas Comparison .....	21
EMEA Comparison.....	22
AsiaPac Comparison.....	23
IPO Deal Count Overview .....	24
Global Comparison.....	25
Developed vs. Emerging Markets.....	26
Americas Comparison .....	27
EMEA Comparison.....	28
AsiaPac Comparison.....	29
Market Performance.....	30
Market Performance Overview .....	30
World Comparison.....	31
Americas Comparison .....	32
EMEA Comparison.....	33

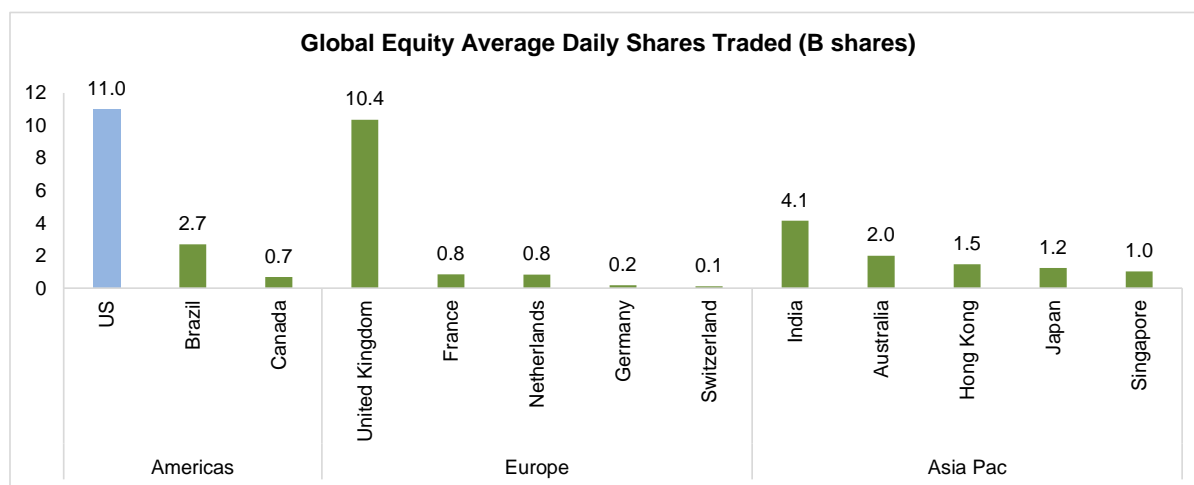
---

AsiaPac Comparison .....	35
Market Costs .....	37
Methodology Notes .....	37
Buy-Side: Total Cost Comparison .....	38
Buy-Side: Implementation Shortfall % Total Costs .....	39
Sell-Side: Broker Cost Comparison .....	40
Markets in Indexes .....	41
Investment Fund Products.....	41
Global ETF Landscape.....	42
Top 50 ETFs by AUM.....	43
ETF Country Diversification.....	44
Appendix: Regional Breakout .....	45
Appendix: Index List .....	46
Appendix: Regional Breakout – Trade Costs.....	47
Appendix: Capital Markets Terms to Know.....	48
SIFMA Insights Research Reports .....	53
Author.....	54

## Market Volumes

### Global Market Volumes

Looking at equity volumes across the globe, the U.S. held the largest average daily trading volume at 11.0 billion shares in 2023. This was followed by the UK at 10.4 billion shares. After that, there was a significant drop in volumes across the remaining countries shown.



Source: Bloomberg Intelligence, SIFMA estimates

Note: As of 2023. For countries with multiple exchanges, volumes are aggregated. Bloomberg Intelligence stopped reporting China after 1H22. For the UK, there could be reporting issues with EU trades being reported in the UK (mostly for off-exchange reported on-exchange).

---

## Market Size

---

### Market Cap Overview

Looking at market caps across the globe, we highlight the following trends for 2023.<sup>1</sup>

- **The World:** The \$114.8 trillion global equity market cap was split across the regions by Americas 47.2%, AsiaPac 29.8%, and EMEA 23.1%.
- **Developed vs. Emerging:** Aggregate market cap for all developed markets was 1.8x that of emerging markets (developed \$73.2 trillion, emerging \$41.6 trillion).
- **Largest Region:** At \$54.1 trillion, the Americas was the largest region for equity markets, 2.0x EMEA and 1.6x AsiaPac.
- **Largest Country:** At \$49.0 trillion, the U.S. equity markets are the largest in the world; 90.5% of total Americas market cap and 42.7% of total global market cap.
- **Highest Growth:** AsiaPac saw the highest growth, +594.8% since 2000 or a +8.8% CAGR (from \$4.9 trillion to \$34.2 trillion); this was driven by growth in China, +2,031.8% since 2003 or a +16.5% CAGR (from \$0.5 trillion to \$10.9 trillion).
- **Lowest Growth:** EMEA saw the slowest growth, +209.5% since 2000 or a +5.0% CAGR (from \$8.6 trillion to \$26.5 trillion); the slowest growth country was the UK, +21.7% or a +0.9% CAGR (from \$2.6 trillion to \$3.1 trillion).

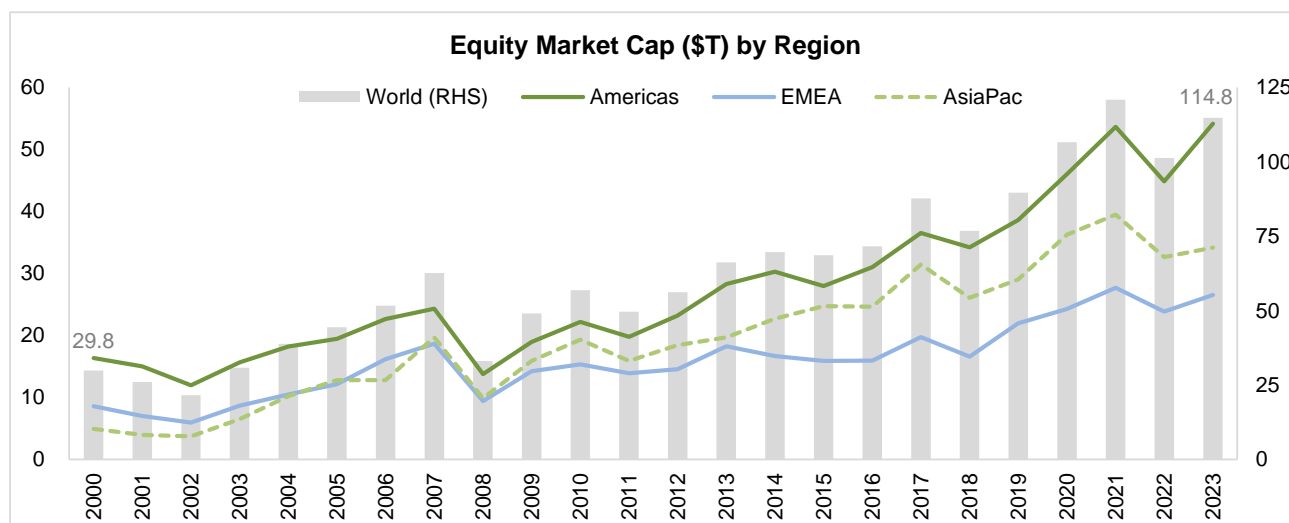
---

<sup>1</sup> Source: World Federation of Exchanges, SIFMA estimates. As of 2015, Italy and France ceased individual reporting as exchanges began reporting Pan-European results. This skewed results to show an outsized growth in this line. CAGRs from 2001; China, India from 2004.

## Global Comparison

Global market cap grew to \$114.8 trillion in 2023, from \$29.8 trillion in 2000 (+284.8%, +6.0% CAGR), with AsiaPac representing the biggest gainer over the past few decades.

- **Americas:** \$54.1T in 2023, from \$16.3T in 2000 (+231.1%, +5.3% CAGR); from 54.8% total global market cap to 47.2%.
- **EMEA:** \$26.5T in 2023, from \$8.6T in 2000 (+209.5%, +5.0% CAGR); from 28.7% total global market cap to 23.1%.
- **AsiaPac:** \$34.2T in 2023, from \$4.9T in 2000 (+594.8%, +8.8% CAGR); from 16.5% total global market cap to 29.8%.

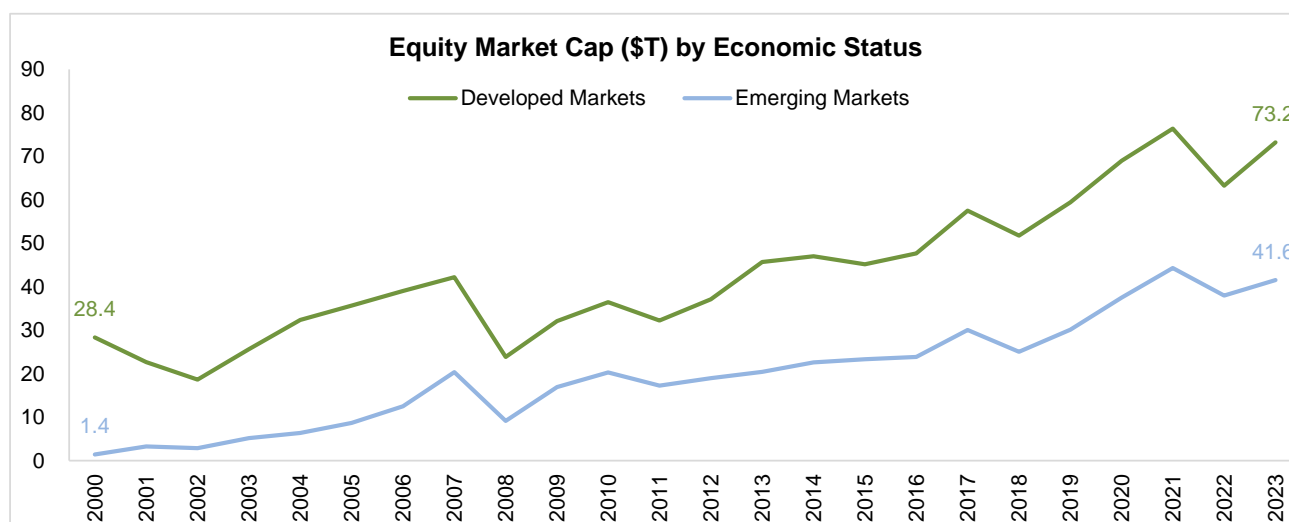


Source: World Federation of Exchanges, SIFMA estimates  
 Note: EMEA = Europe, Middle East & Africa; AsiaPac = Asia Pacific

### Developed vs. Emerging Markets

Emerging markets growth outpaced developed markets over the past few decades.

- **Developed:** \$73.2T in 2023, from \$28.4T in 2000 (+157.8%, +4.2% CAGR); from 95.2% total global market cap to 63.8%.
- **Emerging:** \$41.6T in 2023, from \$1.4T in 2000 (+2,801.4%, +15.8% CAGR); from 4.8% total global market cap to 36.2%.

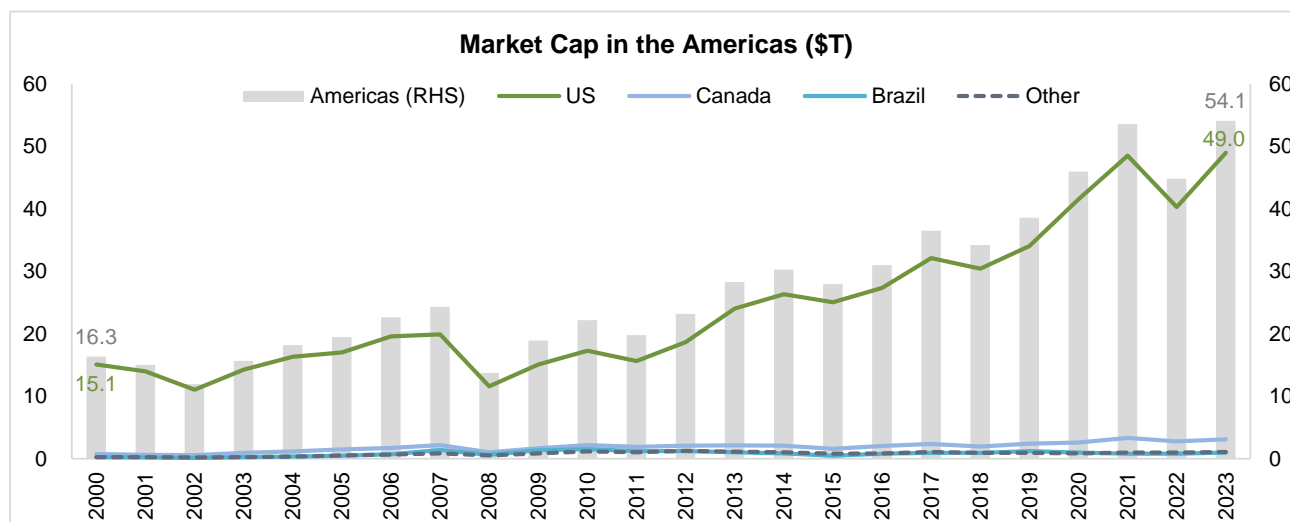


Source: World Federation of Exchanges, SIFMA estimates

### Americas Comparison

Market cap in the Americas grew to \$54.1 trillion in 2023, from \$16.3 trillion in 2000 (+231.1%, +5.3% CAGR), with Other representing the biggest gainer over the past few decades.

- **US:** \$49.0T in 2023, from \$15.1T in 2000 (+224.2%, +5.2% CAGR); from 92.4% total market cap to 90.5%.
- **Canada:** \$3.1T in 2023, from \$0.8T in 2000 (+300.6%, +6.2% CAGR); from 4.7% total market cap to 5.7%.
- **Brazil:** \$1.0T in 2023, from \$0.2T in 2000 (+338.3%, +6.6% CAGR); from 1.4% total market cap to 1.8%.
- **Other:** \$1.1T in 2023, from \$0.2T in 2000 (+337.3%, +6.6% CAGR); from 1.5% total market cap to 2.0%.



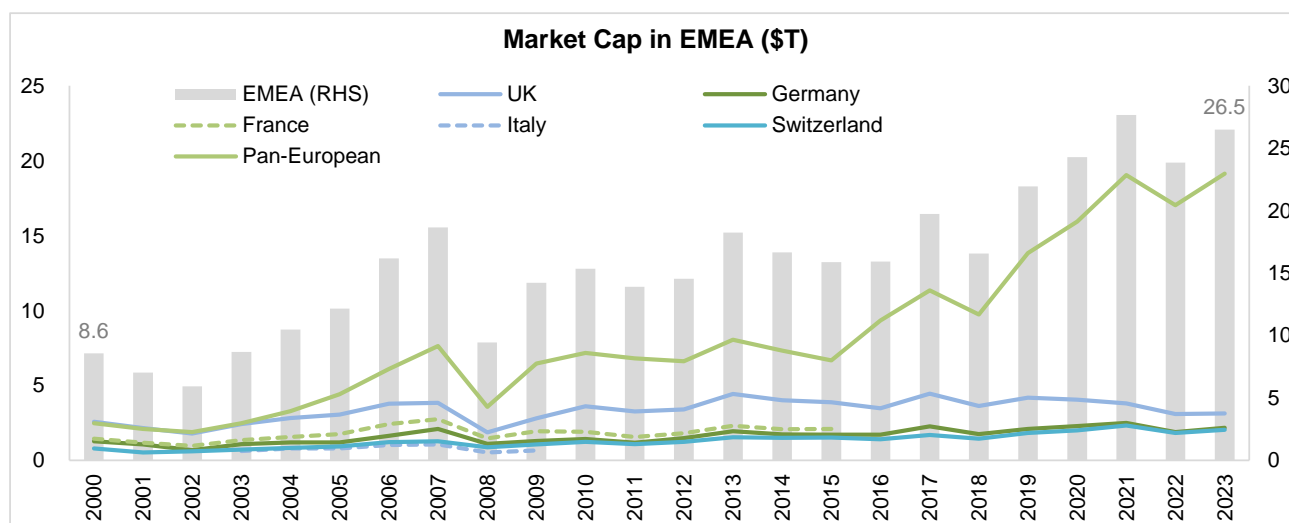
Source: World Federation of Exchanges, SIFMA estimates



### EMEA Comparison

Market cap in EMEA grew to \$26.5 trillion in 2023, from \$8.6 trillion in 2000 (+209.5%, +5.0% CAGR). As of 2015, Italy and France ceased individual reporting as exchanges began reporting Pan-European results. This skewed results to show an outsized growth in this line.

- **UK:** \$3.1T in 2023, from \$2.6T in 2000 (+21.7%, +0.9% CAGR); from 30.1% total market cap to 11.8%.
- **Germany:** \$2.2T in 2023, from \$1.3T in 2000 (+71.5%, +2.4% CAGR); from 14.8% total market cap to 8.2%.
- **Switzerland:** \$2.0T in 2023, from \$0.8T in 2000 (+158.1%, +4.2% CAGR); from 9.3% total market cap to 7.7%.
- **Pan-European:** \$19.1T in 2023, from \$2.5T in 2000 (+673.0%, +9.3% CAGR); from 28.9% total market cap to 72.2%.



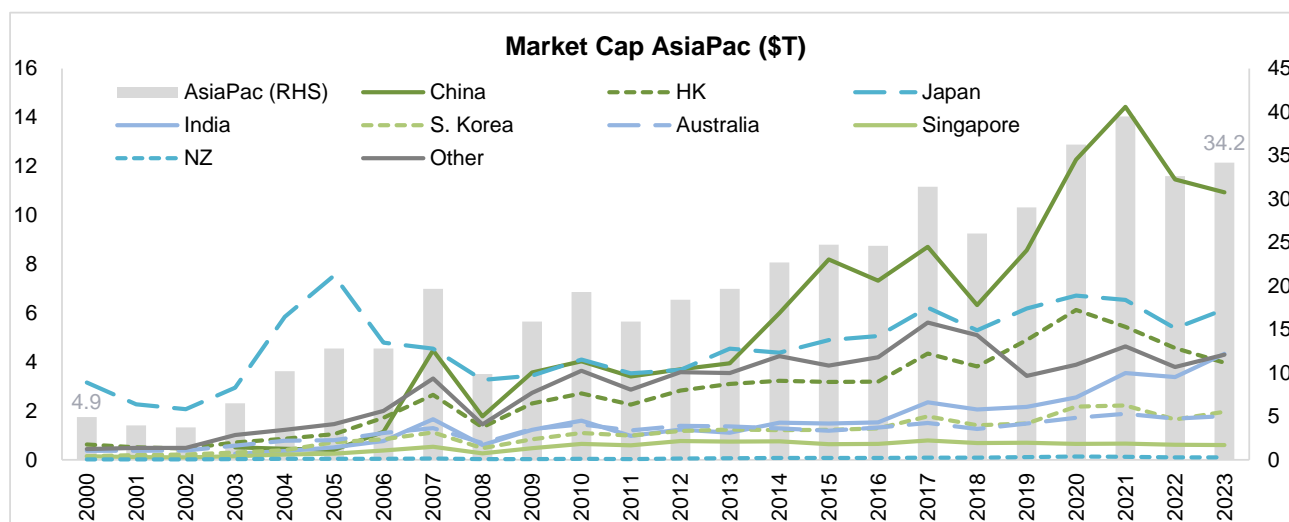
Source: World Federation of Exchanges, SIFMA estimates

Note: EMEA = Europe, Middle East & Africa. Pan-European = data from Euronext, which operates regulated exchanges in Belgium, France, Ireland, Italy, the Netherlands, Norway, and Portugal and incorporates trades from multiple European nations.

### AsiaPac Comparison

Market cap in AsiaPac grew to \$34.2 trillion in 2023, from \$4.9 trillion in 2000 (+594.8%, +8.8% CAGR), with China representing the biggest gainer over the past few decades.

- **China:** \$10.9T in 2023, from \$0.5T in 2003 (+2,031.8%, +16.5% CAGR); from 7.9% total market cap to 32.0%.
- **Hong Kong:** \$4.0T in 2023, from \$0.6T in 2000 (+537.6%, +8.4% CAGR); from 12.7% total market cap to 11.6%.
- **Japan:** \$6.1T in 2023, from \$3.2T in 2000 (+94.8%, +2.9% CAGR); from 64.2% total market cap to 18.0%.
- **Australia:** \$1.8T in 2023, from \$0.4T in 2000 (+379.8%, +7.1% CAGR); from 7.6% total market cap to 5.2%.
- **Singapore:** \$0.6T in 2023, from \$0.2T in 2000 (+298.0%, +6.2% CAGR); from 3.1% total market cap to 1.8%.



Source: World Federation of Exchanges, SIFMA estimates

Note: AsiaPac = Asia Pacific

---

## Listed Companies Overview

Looking at the number of total listed companies across the globe, we highlight the following trends for 2023.<sup>2</sup>

- **The World:** The 55.4 thousand total listed companies globally were split across the regions by AsiaPac 57.1%, EMEA 22.0%, and Americas 20.9%.
- **Developed vs. Emerging:** Total listed companies for all emerging markets was 1.4x that of developed markets (emerging 32.1 thousand, developed 23.3 thousand).
- **Largest Region:** At 31.7 thousand total listed companies, AsiaPac was the largest region; 2.7x the Americas and 2.6x EMEA.
- **Largest Country:** At 11.3 thousand, China has the highest number of total listed companies in the world; this represents 35.8% of total AsiaPac total listed companies and 20.5% of total global listed companies.
- **Highest Growth:** AsiaPac saw the highest growth, +213.4% since 2000 or a +5.1% CAGR (from 10.1 thousand to 31.7 thousand); driven by growth in China, +782.4% since 2003 or an +11.5% CAGR (from 1.3 thousand to 11.3 thousand).
- **Lowest Growth:** EMEA saw the lowest growth, -0.1% since 2000 or a -0.01% CAGR (from 12.19 thousand to 12.17 thousand); the largest country decline was Switzerland, -46.6% or a -2.7% CAGR (from 0.4 thousand to 0.2 thousand).

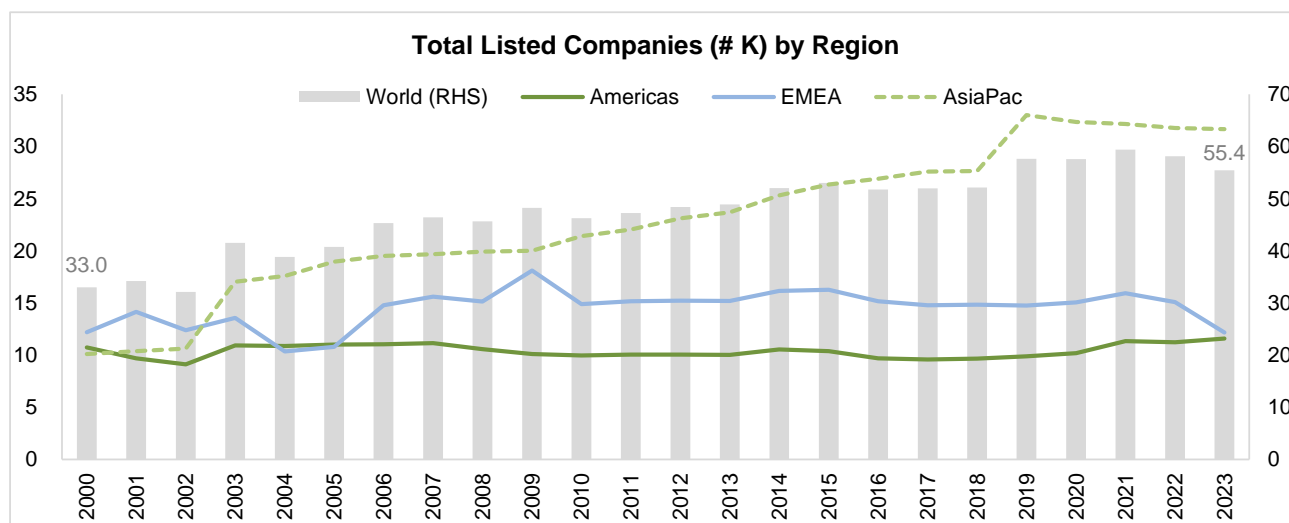
---

<sup>2</sup> Source: World Federation of Exchanges, SIFMA estimates. Note: Includes operating companies only; excludes investment funds, ETFs, unit trusts, and companies whose only business goal is to hold shares of other listed companies, such as holding companies and investment companies. As of 2015, Italy and France ceased individual reporting as exchanges began reporting Pan-European results. This skewed results to show an outsized growth in this line. CAGRs from 2001; China, India from 2004.

### Global Comparison

The number of total listed companies grew to 55.4 thousand in 2023, from 33.0 thousand in 2000 (+67.8%, +2.3% CAGR), with AsiaPac representing the biggest gainer over the past few decades.

- **Americas:** 11.6K in 2023, from 10.7K in 2000 (+8.0%, +0.3% CAGR); from 32.5% total global listed companies to 21.7%.
- **EMEA:** 12.17K in 2023, from 12.19K in 2000 (-0.1%, -0.01% CAGR); from 36.9% total global listed companies to 22.0%.
- **AsiaPac:** 31.7K in 2023, from 10.1K in 2000 (+213.4%, +5.1% CAGR); from 30.6% total global listed companies to 57.1%.

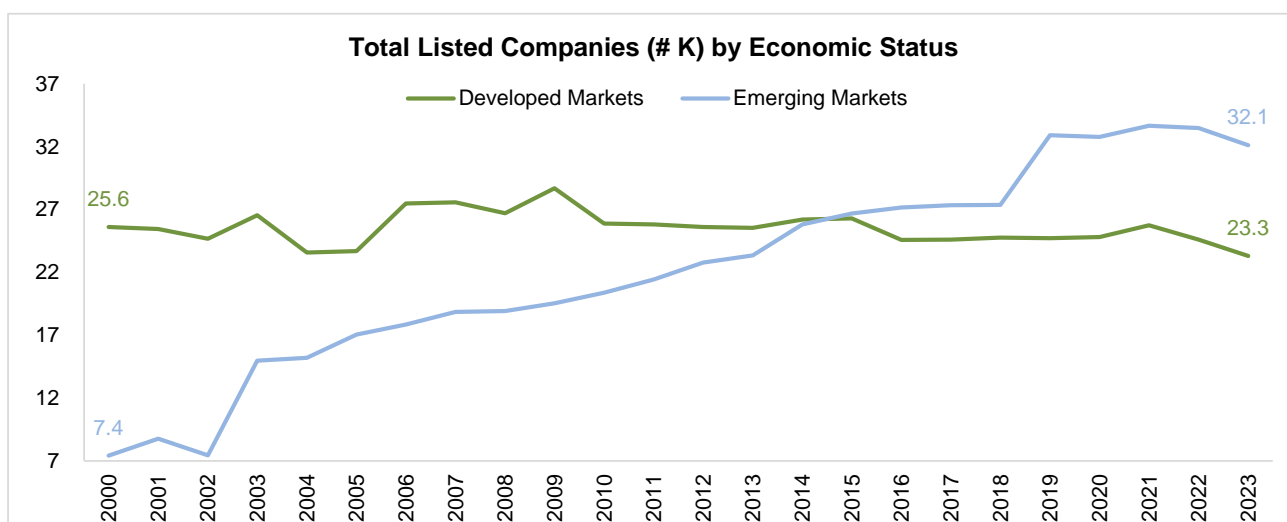


Source: World Federation of Exchanges, SIFMA estimates  
 Note: EMEA = Europe, Middle East & Africa; AsiaPac = Asia Pacific

### Developed vs. Emerging Markets

Emerging markets growth outpaced developed markets over the past few decades.

- **Developed:** 23.3K in 2023, from 25.6KT in 2000 (-9.0%, -0.4% CAGR); from 77.6% total listed companies to 42.1%.
- **Emerging:** 32.1K in 2023, from 7.4K in 2000 (+333.3%, +6.6% CAGR); from 22.4% total listed companies to 57.9%.

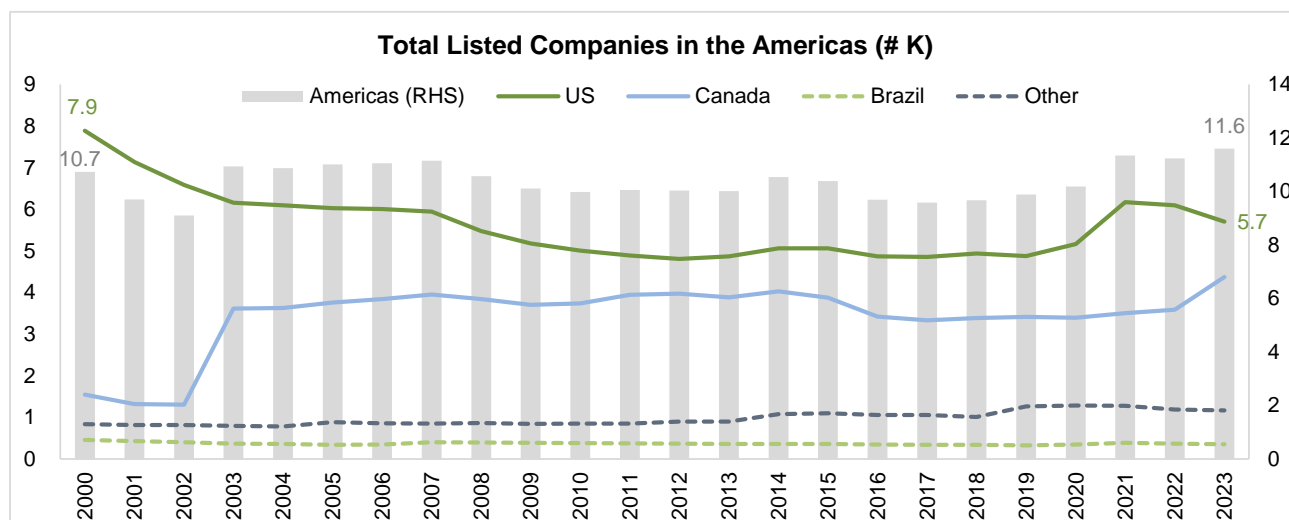


Source: World Federation of Exchanges, SIFMA estimates

### Americas Comparison

The number of total listed companies in the Americas increased to 11.6 thousand in 2023, from 10.7 thousand in 2000 (+8.0%, +0.3% CAGR), with Canada representing the biggest gainer over the past few decades.

- **US:** 5.7K in 2023, from 7.9K in 2000 (-27.7%, -1.4% CAGR); from 73.5% total listed companies to 49.2%.
- **Canada:** 4.4K in 2023, from 1.5K in 2000 (+182.3%, +4.6% CAGR); from 14.4% total listed companies to 37.7%.
- **Brazil:** 0.4K in 2023, from 0.5K in 2000 (-23.0%, -1.1% CAGR); from 4.3% total listed companies to 3.1%.
- **Other:** 1.2K in 2023, from 0.8K in 2000 (+38.9%, +1.4% CAGR); from 7.8% total listed companies to 10.0%.

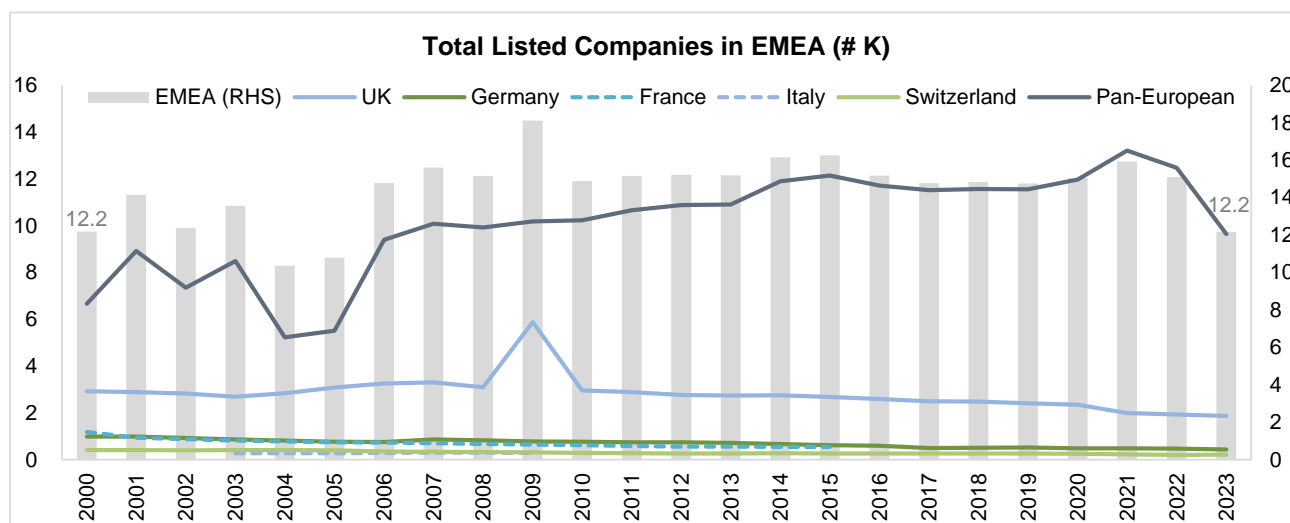


Source: World Federation of Exchanges, SIFMA estimates

### EMEA Comparison

The number of total listed companies in EMEA increased to 12.17 thousand in 2023, from 12.19 thousand in 2000 (-0.1%, -0.01% CAGR). Again, exchanges began reporting Pan-European results in 2015, skewing growth in this category.

- **UK:** 1.9K in 2023, from 2.9K in 2000 (-36.1%, -1.9% CAGR); from 24.0% total listed companies to 15.4%.
- **Germany:** 0.4K in 2023, from 1.0K in 2000 (-55.9%, -3.5% CAGR); from 8.1% total listed companies to 3.6%.
- **Switzerland:** 0.2K in 2023, from 0.4K in 2000 (-46.6%, -2.7% CAGR); from 3.4% total listed companies to 1.8%.
- **Pan-European:** 9.6K in 2023, from 6.7K in 2000 (+44.6%, +1.6% CAGR); from 54.7% total listed companies to 79.2%.



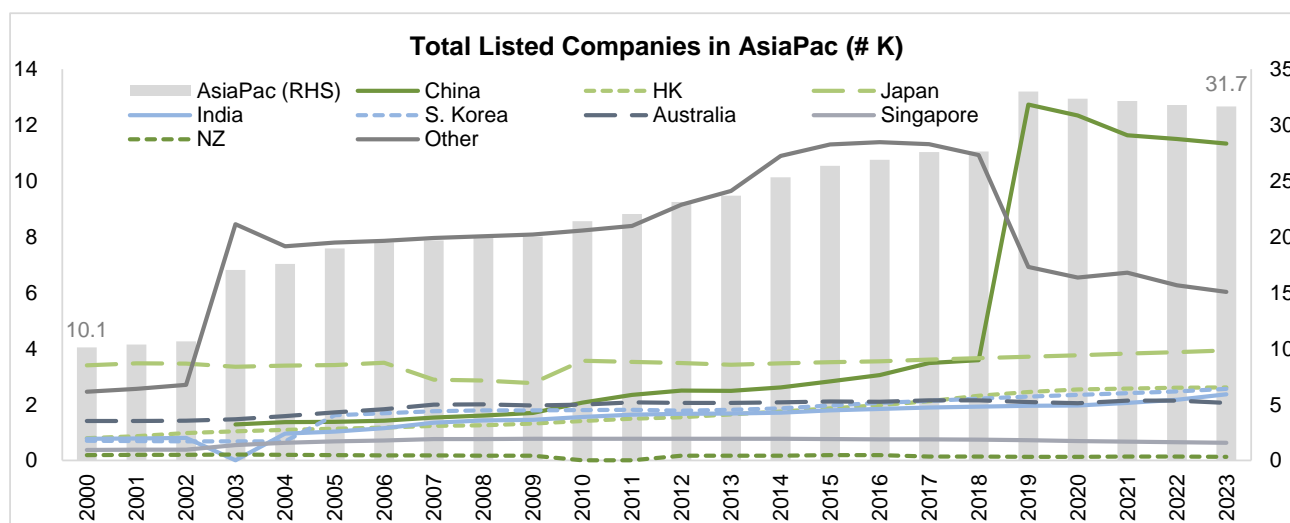
Source: World Federation of Exchanges, SIFMA estimates

Note: EMEA = Europe, Middle East & Africa. Pan-European = data from Euronext, which operates regulated exchanges in Belgium, France, Ireland, Italy, the Netherlands, Norway, and Portugal and incorporates trades from multiple European nations.

### AsiaPac Comparison

The number of total listed companies in AsiaPac grew to 31.7 thousand in 2023, from 10.1 thousand in 2000 (+213.4%, +5.1% CAGR), with China representing the biggest gainer over the past few decades.

- **China:** 11.3K in 2023, from 1.3K in 2003 (+782.4%, +11.5% CAGR); from 7.5% total listed companies to 35.8%.
- **Hong Kong:** 2.6K in 2023, from 0.8K in 2000 (+230.3%, +5.3% CAGR); from 7.8% total listed companies to 8.2%.
- **Japan:** 3.9K in 2023, from 3.4K in 2000 (+15.6%, +0.6% CAGR); from 33.7% total listed companies to 12.4%.
- **Australia:** 2.1K in 2023, from 1.4K in 2000 (+46.3%, +1.7% CAGR); from 13.9% total listed companies to 6.5%.
- **Singapore:** 0.6K in 2023, from 0.4K in 2000 (+67.6%, +2.3% CAGR); from 3.7% total listed companies to 2.0%.



Source: World Federation of Exchanges, SIFMA estimates

Note: AsiaPac = Asia Pacific



---

## Domestic vs. Foreign Listings

Finally, we analyze the breakout of listings in a region between domestic versus foreign domiciled companies (based on number of listed companies), the domestic/foreign company split. We highlight the following trends for 2023.<sup>3</sup>

- **The World:** For the 55.4 thousand total global listed companies, the domestic/foreign company split was: World 93.1%/6.9%, Americas 85.3%/14.7%, EMEA 88.4%/11.6%, and AsiaPac 97.7%/2.3%.
- **Developed vs. Emerging:** The domestic/foreign company split for all developed markets was 89.6%/10.4% versus 95.6%/4.4% in emerging markets.
- **Americas:** The percent of domestic company listings across the Americas has declined -4.7 pps since 2000; the U.S. was 75.6% domestic listings (-12.1 pps since 2000), Canada 98.6% (+1.3 pps) and Brazil 97.7% (-1.6 pps).
- **EMEA:** The percent of domestic company listings across EMEA has increased +16.0 pps since 2000; the U.K. was 83.5% domestic listings (+0.6 pps since 2000), Germany 89.7% (+14.5 pps) and Switzerland 95.9% (+35.4 pps).
- **AsiaPac:** The percent of domestic company listings across AsiaPac was essentially the same as in 2000; China was and always has been 100.0% domestic listings (no foreign listings), Hong Kong 93.1% (-5.5 pps), Japan 99.8% (+1.1 pps), Australia 92.9% (-1.7 pps), and Singapore 65.2% (-21.8 pps).

---

<sup>3</sup> Source: World Federation of Exchanges, SIFMA estimates. Note: Domestic includes companies incorporated in the country where they are listed; foreign includes companies incorporated in a different country from the one where they list.

---

## Market Formation

---

### IPO Deal Value Overview

We note that 2023 was a down year for IPOs, with total global IPO deal value down 38.0% to the three-year pre COVID average of \$186.9 billion. Looking at IPO deal value (converted to USD) across the globe, we highlight the following trends for 2023.<sup>4</sup>

- **The World:** The \$115.8 billion total IPO deal value in 2023 was split across the regions by AsiaPac 63.1%, EMEA 19.1%, and Americas 17.8%.
- **Developed vs. Emerging:** Aggregate IPO deal value for developed markets in 2023 was 0.4x that of emerging markets (developed \$30.9 billion, emerging \$84.9 billion).
- **Largest Region:** In 2023, AsiaPac was the largest region for IPO deal value at \$73.0 billion, 3.5x Americas, 3.3x EMEA.
- **Largest Country:** At \$45.9 billion, China IPO deal value was the largest in the world; 2.2x total Americas IPO deal value and 39.6% of global IPO deal value.
- **Highest Growth:** As a region, AsiaPac saw the highest growth – and was the only region with a positive growth rate – +98.4% (2000 to 2023) or a +3.0% CAGR (from \$36.8 billion to \$73.0 billion); driven by China, +470.9% (2006 to 2023) or a +10.8% CAGR (from \$8.0 billion to \$45.9 billion).
- **Largest Decline** (excluded countries with no deal value recorded): As a region, Americas saw the largest decline, -76.5% (2000 to 2023) or a -6.1% CAGR (from \$87.6 billion to \$20.6 billion); by country, France saw the worst decline, -99.3% (2000 to 2023) or a -19.4% CAGR (from \$9.4 billion to \$0.1 billion).

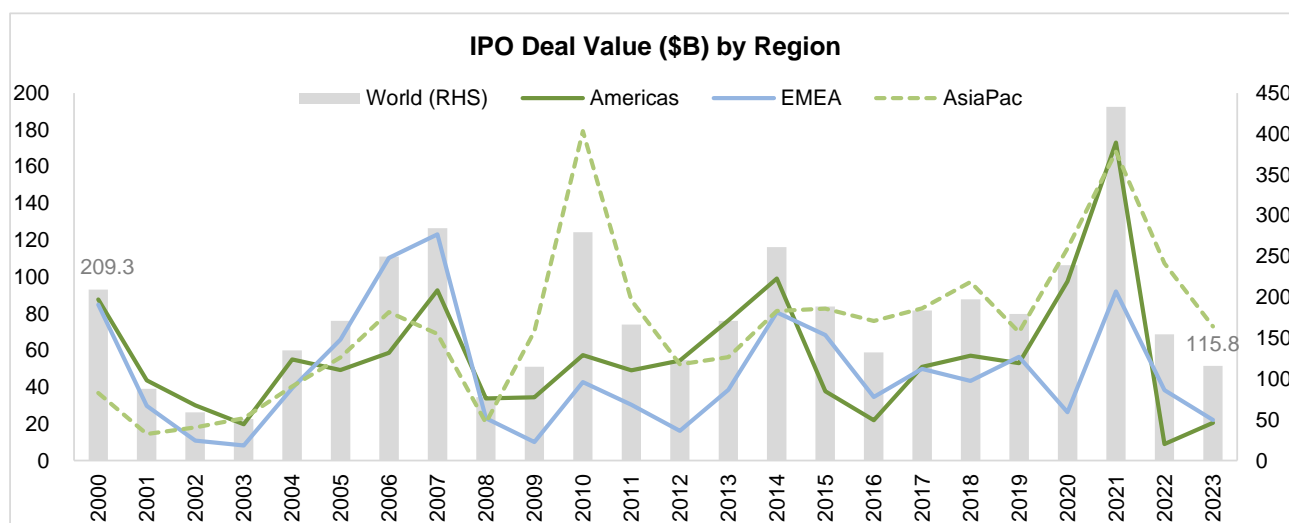
---

<sup>4</sup> Source: Dealogic, SIFMA estimates. CAGRs from 2001; China from 2007.

### Global Comparison

Global IPO deal value was \$115.8 billion in 2023, shrinking from \$209.3 billion in 2000 (-44.7%, -2.5% CAGR), with AsiaPac representing the biggest gainer over the past few decades.

- **Americas:** 2023 \$20.6B, 2000 \$87.6B (-76.5%, -6.1% CAGR), from 41.9% total global deal value to 17.8%.
- **EMEA:** 2023 \$22.2B, 2000 \$84.8B (-73.9%, -5.7% CAGR); from 40.5% total global deal value to 19.1%.
- **AsiaPac:** 2023 \$73.0B, 2000 \$36.8B (+98.4%, +3.0% CAGR); from 17.6% total global deal value to 63.0%.



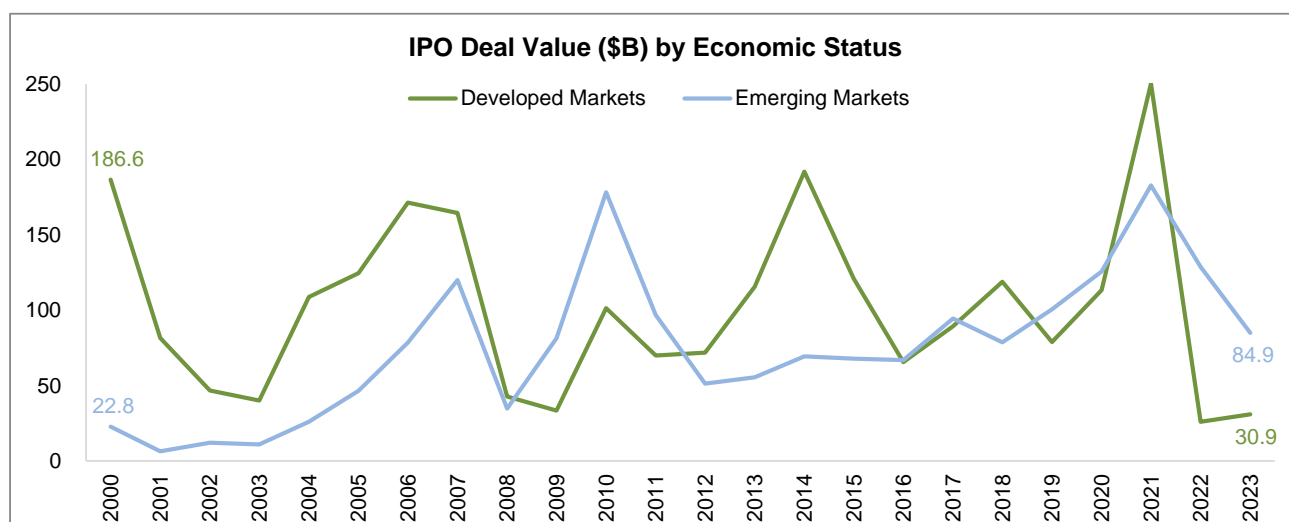
Source: Dealogic, SIFMA estimates

Note: EMEA = Europe, Middle East & Africa; AsiaPac = Asia Pacific

### Developed vs. Emerging Markets

Emerging markets growth outpaced developed markets over the past few decades.

- **Developed:** 2023 \$30.9B, 2000 \$186.6B (-83.4%, -7.5% CAGR); from 89.1% total global IPO deal value to 26.7%.
- **Emerging:** 2023 \$84.9B, 2000 \$22.8B (+272.9%, +5.9% CAGR); from 10.9% total global IPO deal value to 73.3%.

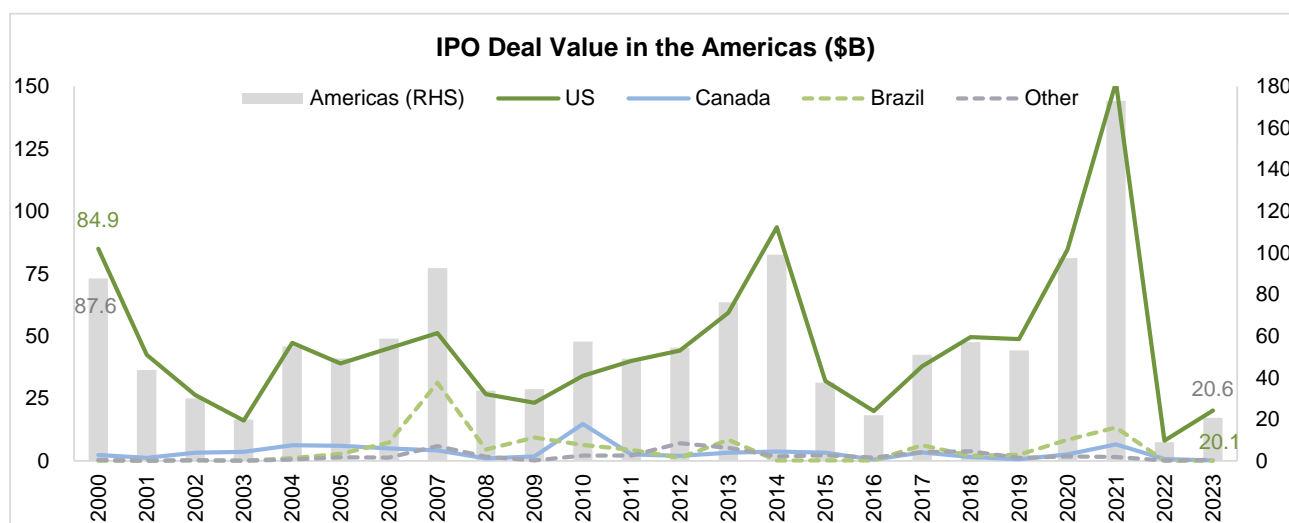


Source: Dealogic, SIFMA estimates

### Americas Comparison

IPO deal value in the Americas was \$20.6 billion in 2023, shrinking from \$87.6 billion in 2000 (-79.5%, -6.1% CAGR), with Canada representing the biggest loser over the past few decades (excludes countries with no deal value recorded).

- **US:** 2023 \$20.1B, 2000 \$84.9B (-76.3%, -6.1% CAGR); from 96.9% total IPO deal value to 97.5%.
- **Canada:** 2023 \$0.1B, 2000 \$2.3B (-93.7%, -11.3% CAGR); from 2.6% total IPO deal value to 0.7%.
- **Brazil:** 2023 \$0.0B (i.e. no deals), 2000 \$0.02B (n/a on growth rates); from 0.02% total IPO deal value to 0.0%.

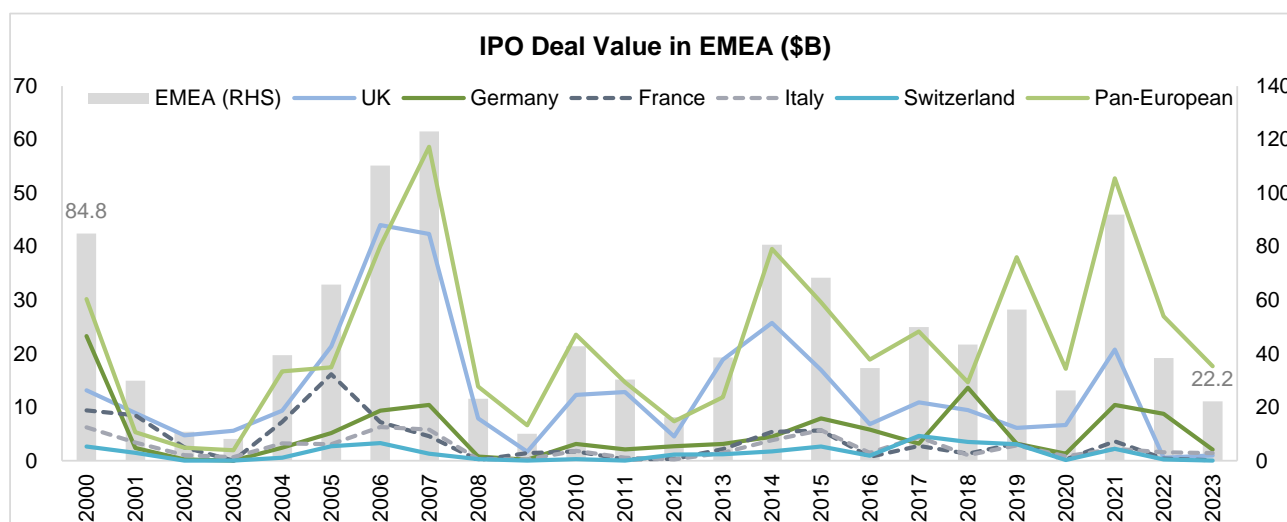


Source: Dealogic, SIFMA estimates

### EMEA Comparison

IPO deal value in EMEA was \$22.2 billion in 2023, declining from \$84.8 billion in 2000 (-73.9%, -5.7% CAGR), with France representing the biggest decliner over the past few decades (excludes countries with no deal value recorded).

- **UK:** 2023 \$1.0B, 2000 \$13.1B (-92.6%, -10.7% CAGR); from 15.5% total IPO deal value to 4.4%.
- **Germany:** 2023 \$2.1B, 2000 \$23.2B (-91.1%, -10.0% CAGR); from 27.4% total IPO deal value to 9.3%.
- **France:** 2023 \$0.1B, 2000 \$9.4B (-99.3%, -19.4% CAGR); from 11.1% total IPO deal value to 0.3%.
- **Italy:** 2023 \$1.4B, 2000 \$6.2B (-77.6%, -6.3% CAGR); from 7.4% total IPO deal value to 6.3%.
- **Switzerland:** 2023 \$0.0B (i.e. no deals), 2000 \$2.6B (n/a on growth rates); from 3.1% total IPO deal value to 0.0%.
- **Pan-European:** 2023 \$17.7B, 2000 \$30.2B (-41.5%, -2.3% CAGR); from 35.63% total IPO deal value to 79.7%.



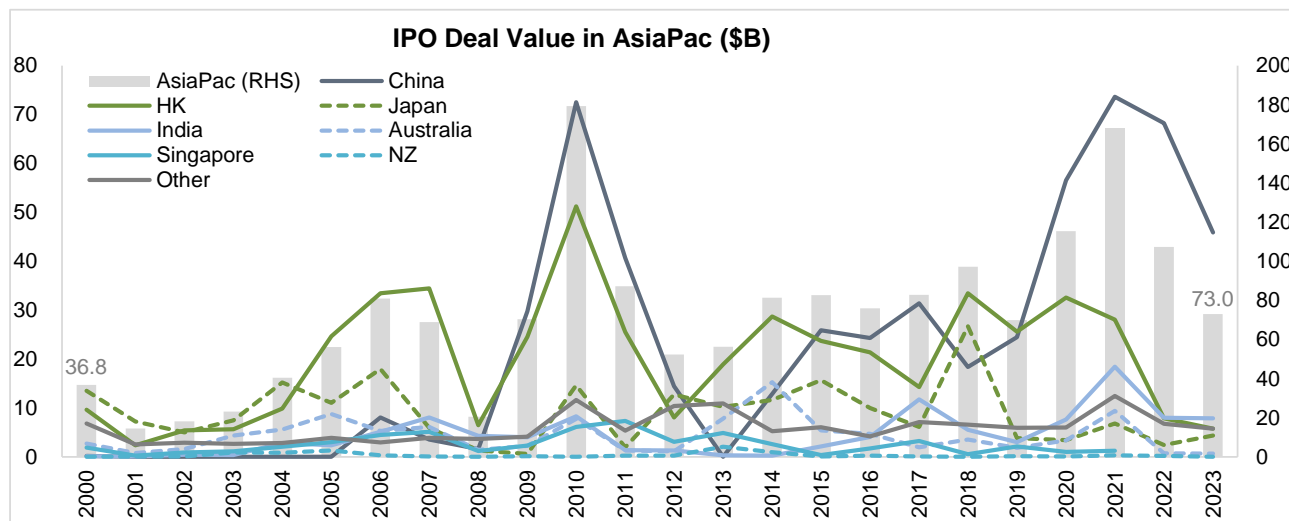
Source: Dealogic, SIFMA estimates

Note: EMEA = Europe, Middle East & Africa. Pan-European = data from Euronext, which operates regulated exchanges in Belgium, France, Ireland, Italy, the Netherlands, Norway, and Portugal and incorporates deals from multiple European nations.

### AsiaPac Comparison

IPO deal value in AsiaPac was \$73.0 billion in 2023, growing from \$36.8 billion in 2000 (+98.4%, +3.0% CAGR), with China representing the biggest gainer over the past few decades.

- **China:** 2023 \$45.9B, 2006 \$8.0B (+470.9%, +10.8% CAGR); from 9.9% total IPO deal value to 62.8%.
- **Hong Kong:** 2023 \$5.7B, 2000 \$9.6B (-40.4%, -2.2% CAGR); from 26.2% total IPO deal value to 7.9%.
- **Japan:** 2023 \$4.4B, 2000 \$13.5B (-67.6%, -4.8% CAGR); from 36.7% total IPO deal value to 6.0%.
- **Australia:** 2023 \$0.7B, 2000 \$2.7B (-74.8%, -5.8% CAGR); from 7.3% total IPO deal value to 0.9%.
- **Singapore:** 2023 \$0.04B, 2000 \$1.9B (-98.2%, -16.0% CAGR); from 5.2% total IPO deal value to 0.05%.



Source: Dealogic, SIFMA estimates

Note: AsiaPac = Asia Pacific

## IPO Deal Count Overview

Looking at IPO count (number of deals) across the globe, we highlight the following trends for 2023.<sup>5</sup>

- **The World:** The 1,253 total IPO deal count in 2023 was split across the regions by AsiaPac 71.7%, EMEA 15.3%, and Americas 13.0%.
- **Developed vs. Emerging:** Aggregate IPO deal count for all developed markets in 2023 was 0.4x that of emerging markets (developed 356, emerging 897).
- **Largest Region:** At 898 in 2023, AsiaPac was the largest region for IPO deal count; 4.7x EMEA and 5.5x the Americas.
- **Largest Country:** At 236, China's IPO deal count was the largest in the world; this represents 26.3% of total AsiaPac IPO deal count and 18.8% of total global IPO deal count.
- **Highest Growth:** AsiaPac saw the highest growth, +7.8% (2000 to 2023) or a +0.3% CAGR (from 833 to 898); driven by China, +23,500.0% (2006 to 2023) or a +37.9% CAGR (from 1 to 236).
- **Highest Decline** (excluded countries with no deal value recorded): EMEA saw the highest decline, -72.1% (2000 to 2023) or a -5.4% CAGR (from 687 to 192); Germany saw the worst decline, -98.1% (2000 to 2023) or a -16.5% CAGR (from 158 to 3).

---

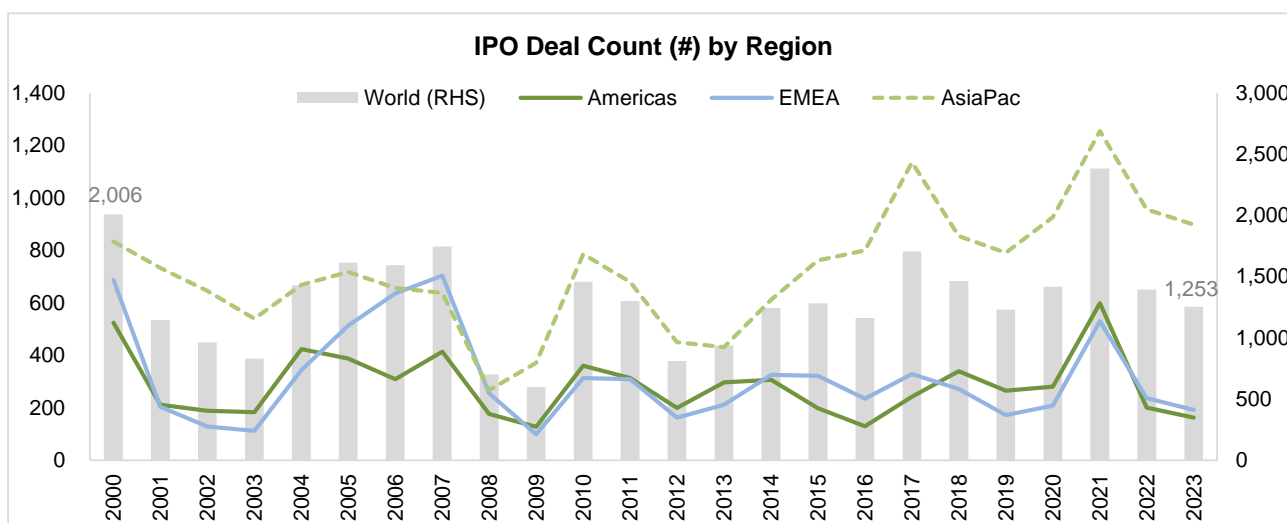
<sup>5</sup> Source: Dealogic, SIFMA estimates. CAGRs from 2001; China from 2007.



### Global Comparison

Global IPO deal count was 1,253 in 2023, declining from 2,006 in 2000 (-37.5%, -2.0% CAGR), with AsiaPac representing the biggest gainer over the past few decades.

- **Americas:** 2023 #163, 2000 #524 (-68.9%, -5.0% CAGR), from 26.1% total global deal count to 13.0%.
- **EMEA:** 2023 #192, 2000 #687 (-72.1%, -5.4% CAGR); from 34.2% total global deal count to 15.3%.
- **AsiaPac:** 2023 #898, 2000 #833 (+7.8%, +0.3% CAGR); from 41.5% total global deal count to 71.7%.



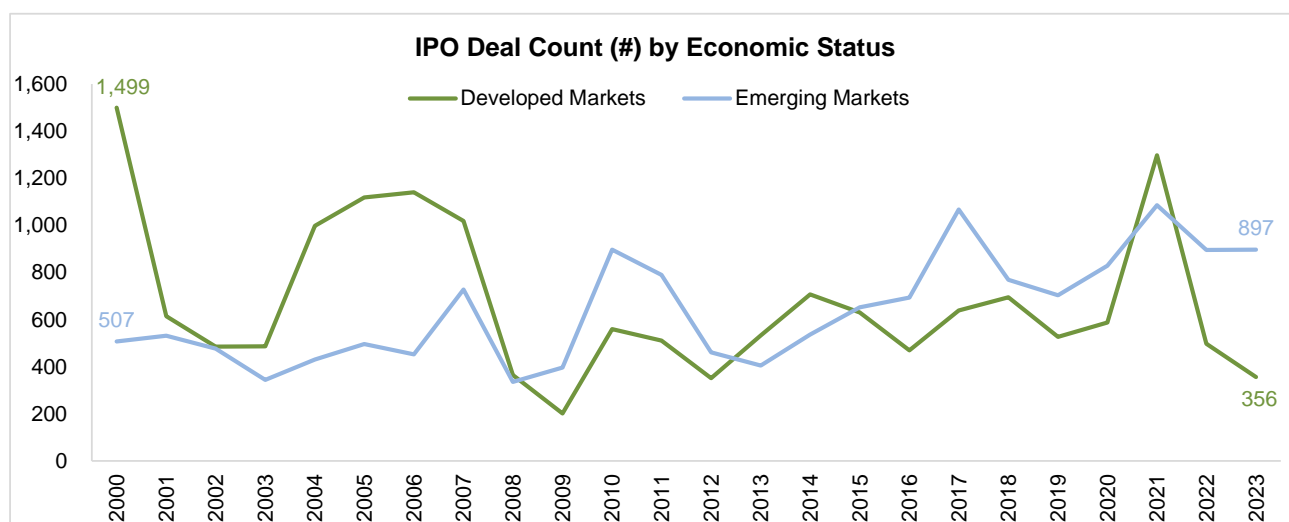
Source: Dealogic, SIFMA estimates

Note: EMEA = Europe, Middle East & Africa; AsiaPac = Asia Pacific

### Developed vs. Emerging Markets

Emerging markets growth outpaced developed markets over the past few decades.

- **Developed:** 2023 #356, 2000 #1,499 (-76.3%, -6.1% CAGR); from 74.7% total global IPO deal count to 28.4%.
- **Emerging:** 2023 #897, 2000 #507 (+76.9%, +2.5% CAGR); from 25.3% total global IPO deal count to 71.6%.

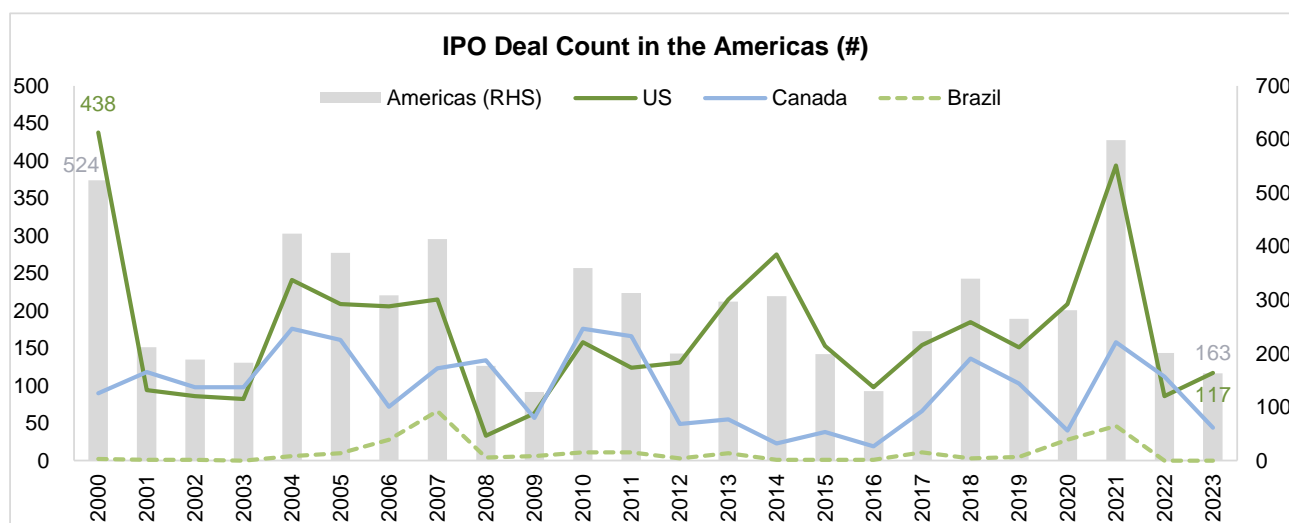


Source: Dealogic, SIFMA estimates

### Americas Comparison

IPO deal count in the Americas was 163 in 2023, declining from 524 in 2000 (-68.9%, -5.0% CAGR), with the U.S. representing the biggest loser over the past few decades (excluded countries with no deal value recorded).

- **US:** 2023 #117, 2000 #438 (-73.3, -5.6% CAGR); from 83.6% total IPO deal count to 71.8%.
- **Canada:** 2023 #44, 2000 #90 (-51.1, -3.1% CAGR); from 17.2% total IPO deal count to 27.0%.
- **Brazil:** 2023 #0, 2000 #2 (n/a for growth rates); from 0.4% total IPO deal count to 0.0%.

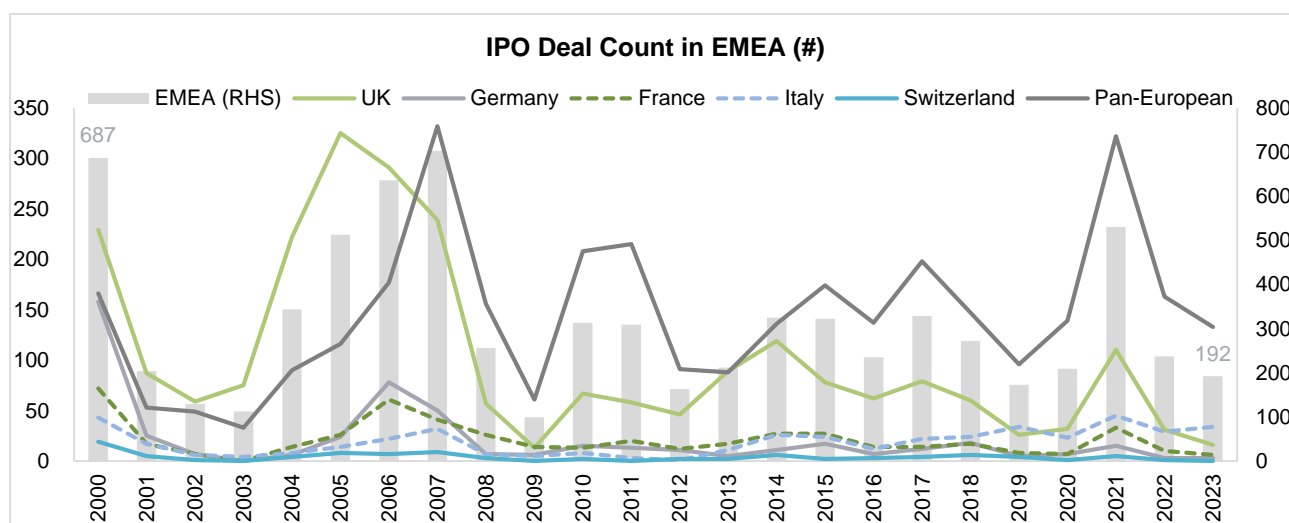


Source: Dealogic, SIFMA estimates

### EMEA Comparison

IPO deal count in EMEA was 192 in 2023, declining from 687 in 2000 (-72.1%, -5.4% CAGR), with Germany representing the biggest decliner over the past few decades.

- **UK:** 2023 #16, 2000 #229 (-93.0%, -10.9% CAGR); from 33.3% total IPO deal count to 8.3%.
- **Germany:** 2023 #3, 2000 #158 (-98.1%, -15.8% CAGR); from 23.0% total IPO deal count to 1.6%.
- **France:** 2023 #6, 2000 #72 (-91.7%, -10.2% CAGR); from 10.5% total IPO deal count to 3.1%.
- **Italy:** 2023 #34, 2000 #43 (-20.9%, -1.0% CAGR); from 6.3% total IPO deal count to 17.7%.
- **Switzerland:** 2023 #0, 2000 #19 (n/a on growth rates); from 2.8% total IPO deal count to 0.0%.
- **Pan-European:** 2023 #133, 2000 #166 (-19.9%, -1.0% CAGR); from 24.2% total IPO deal count to 69.3%.



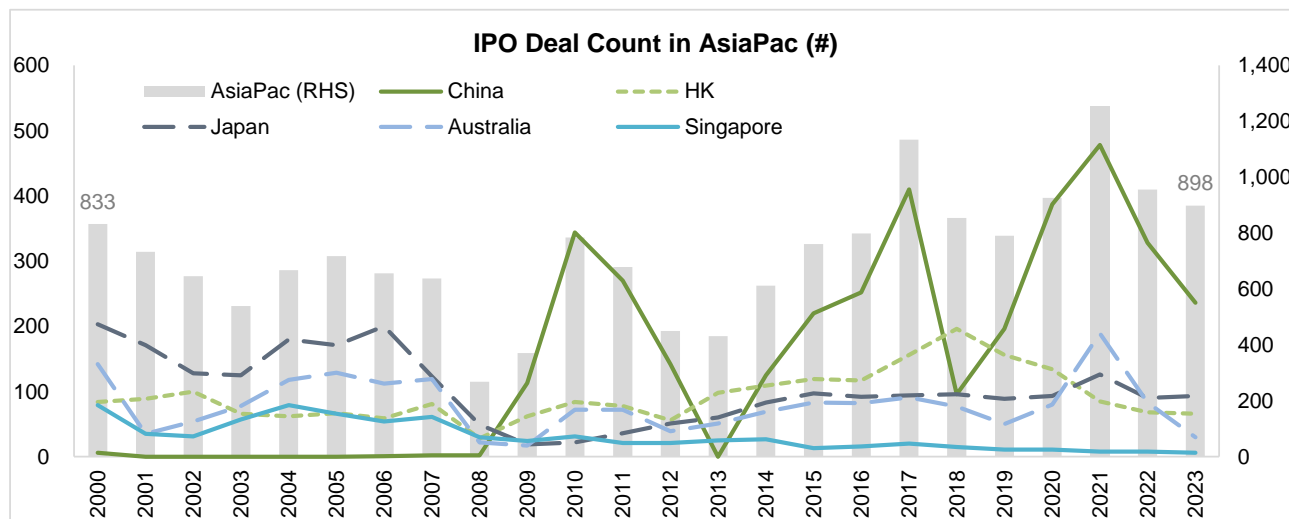
Source: Dealogic, SIFMA estimates

Note: EMEA = Europe, Middle East & Africa. Pan-European = data from Euronext, which operates regulated exchanges in Belgium, France, Ireland, Italy, the Netherlands, Norway, and Portugal and incorporates deals from multiple European nations.

### AsiaPac Comparison

IPO deal count in AsiaPac was 898 in 2023, growing from 833 in 2000 (+7.8%, +0.3% CAGR), with China representing the biggest gainer over the past few decades.

- **China:** 2023 #236, 2006 #1 (+23,500.0%, +37.9% CAGR); from 0.2% total IPO deal count to 26.3%.
- **Hong Kong:** 2023 #66, 2000 #84 (-21.4%, -1.0% CAGR); from 10.1% total IPO deal count to 7.3%.
- **Japan:** 2023 #93, 2000 #203 (-54.2%, -3.3% CAGR); from 24.4% total IPO deal count to 10.4%.
- **Australia:** 2023 #30, 2000 #142 (-78.9%, -6.5% CAGR); from 17.0% total IPO deal count to 3.3%.
- **Singapore:** 2023 #6, 2000 #79 (-92.4%, -10.6% CAGR); from 9.5% total IPO deal count to 0.7%.



Source: Dealogic, SIFMA estimates

Note: AsiaPac = Asia Pacific

---

## Market Performance

---

### Market Performance Overview

Next, we looked at stock market performance across the globe, based on representative index prices. We highlight the following trends for 2023 in index performance (prices).<sup>6</sup>

- **Developed vs. Emerging:** Emerging markets outperformed over the entire time series (2000-2023), emerging CAGR +5.5% vs. developed +4.4%; this trend reversed post COVID(2019-2023), developed CAGR +7.5% vs. -1.8% emerging.
- **Best Performing Region:** The Americas was the best performing region for both the whole time series and post COVID, +5.6% and +9.8% CAGRs, respectively.
- **Worst Performing Region:** Europe was the worst performing region for the whole time series while AsiaPac was the worst performing post COVID, -0.2% CAGRs for both.
- **Best Performing Country:** For the entire time series, Brazil was the best performing country at a +9.9% CAGR; post COVID, the U.S. was the top performer at a +10.2% CAGR.
- **Worst Performing Country:** Hong Kong was the worst performing country for the whole time series as well as the worst performing country post COVID, +0.5% and -11.8% CAGRs, respectively.

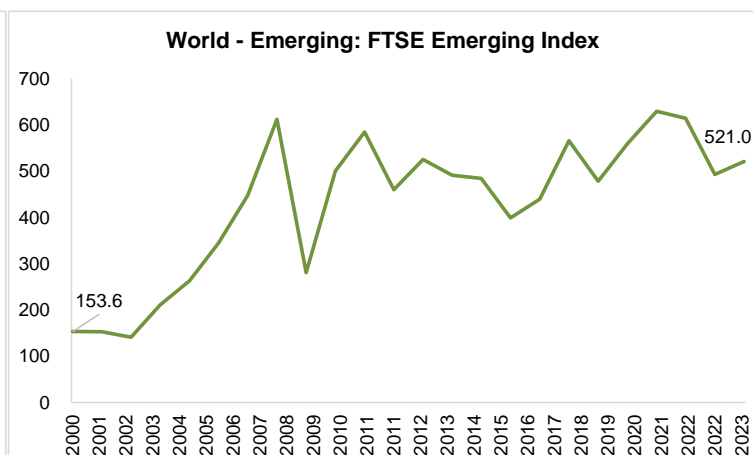
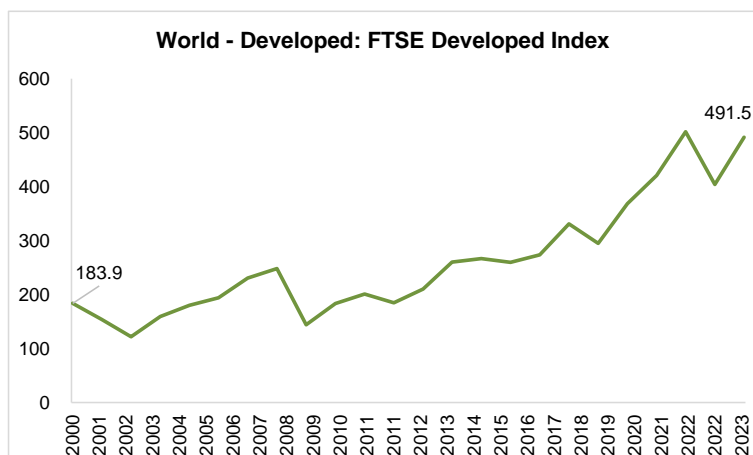
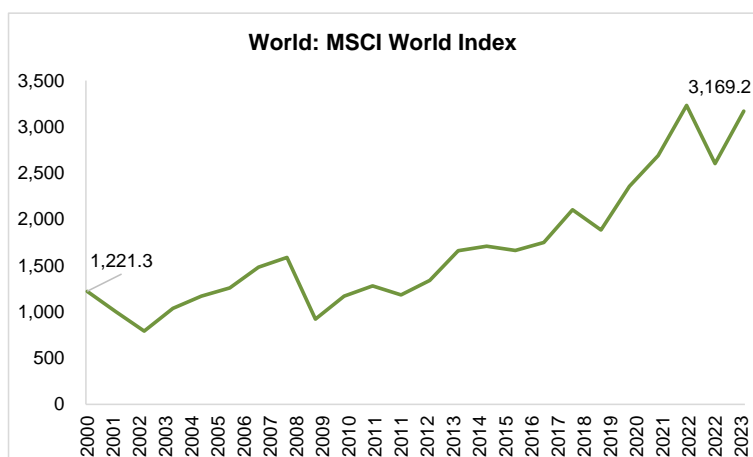
---

<sup>6</sup> Source: Bloomberg, SIFMA estimates. CAGRs from 2001, China 2003.

### World Comparison

Since the time series looked back to 2000, emerging markets outpaced developed (+5.5% CAGR vs. +4.4%) as many emerging countries like China experienced substantial growth rates. However, this trend reversed when looking at post COVID price appreciation for the representative indexes, developed +7.5% CAGR vs. emerging -1.8%.

- **World:** +159.5% from 2000 to 2023, +4.2% CAGR; +34.4% from 2019 to 2023 (vs. pre COVID), +7.7% CAGR.
- **Developed:** +167.3% from 2000 to 2023, +4.4% CAGR; +33.4% from 2019 to 2023 (vs. pre COVID), +7.5% CAGR.
- **Emerging:** +239.2% from 2000 to 2023, +5.5% CAGR; -6.8% from 2019 to 2023 (vs. pre COVID), -1.8% CAGR.

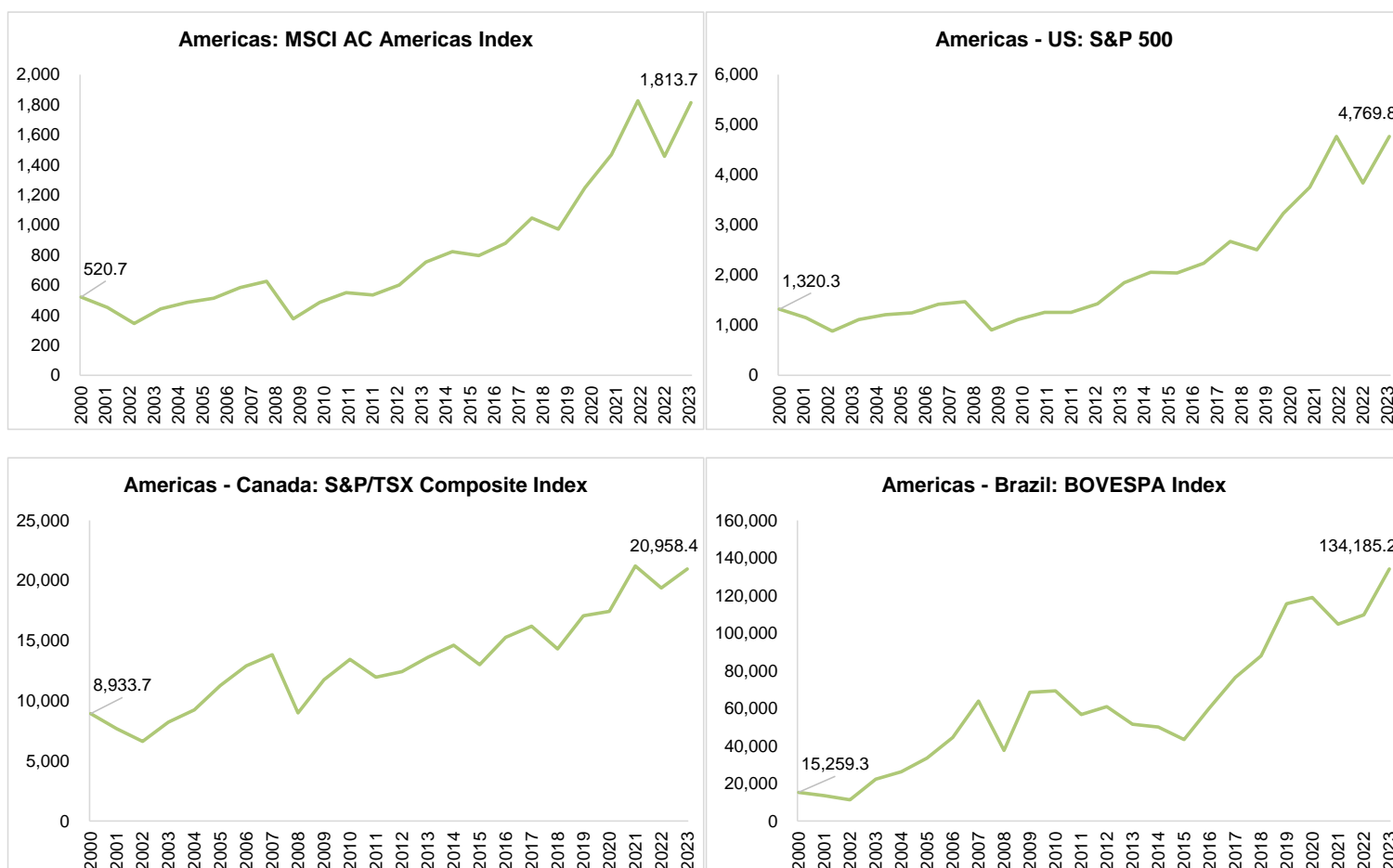


Source: Bloomberg, SIFMA estimates

### Americas Comparison

As in the world view, the emerging market, Brazil, had the largest earlier growth. Yet, as the largest market, the U.S. continued to drive growth for total Americas, particularly post COVID (+12.8% CAGR).

- **Americas:** +248.3% from 2000 to 2023, +5.6% CAGR; +45.3% from 2019 to 2023 (vs. pre COVID), +9.8% CAGR.
- **US:** +261.3% from 2000 to 2023, +5.7% CAGR; +47.6% from 2019 to 2023 (vs. pre COVID), +10.2% CAGR.
- **Canada:** +134.6% from 2000 to 2023, +3.8% CAGR; +22.8% from 2019 to 2023 (vs. pre COVID), +5.3% CAGR.
- **Brazil:** +779.4% from 2000 to 2023, +9.9% CAGR; +16.0% from 2019 to 2023 (vs. pre COVID), +3.8% CAGR.



Source: Bloomberg, SIFMA estimates



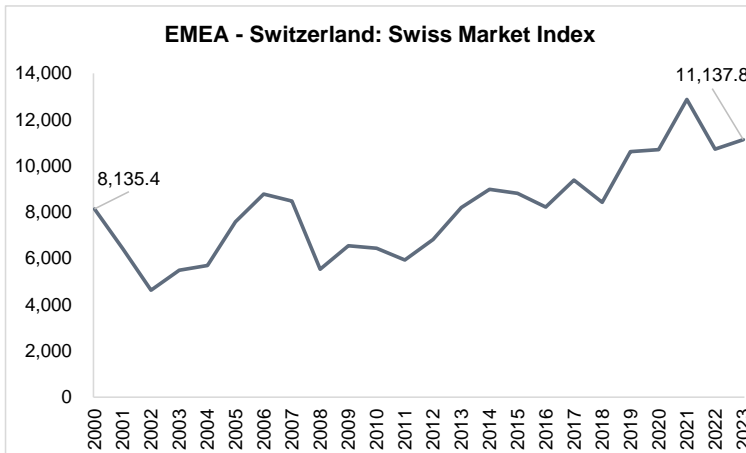
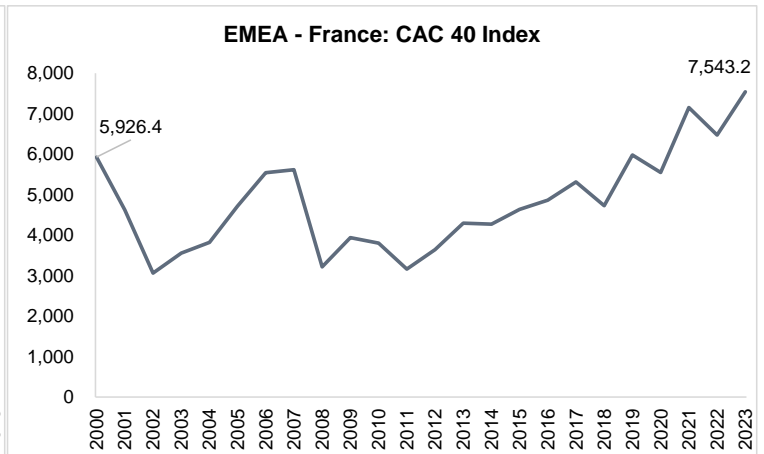
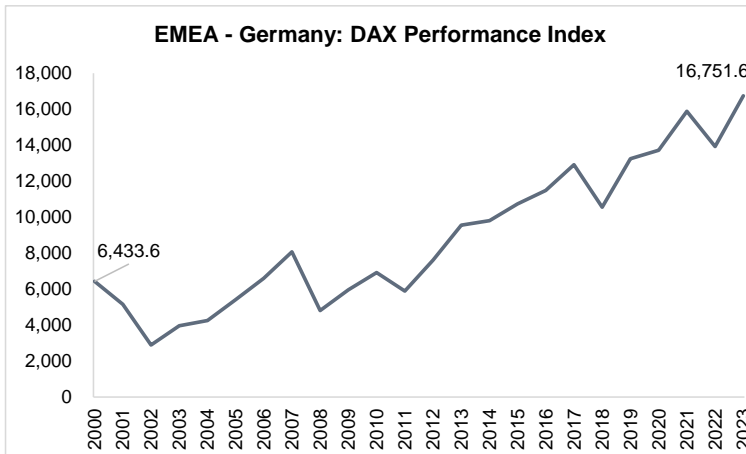
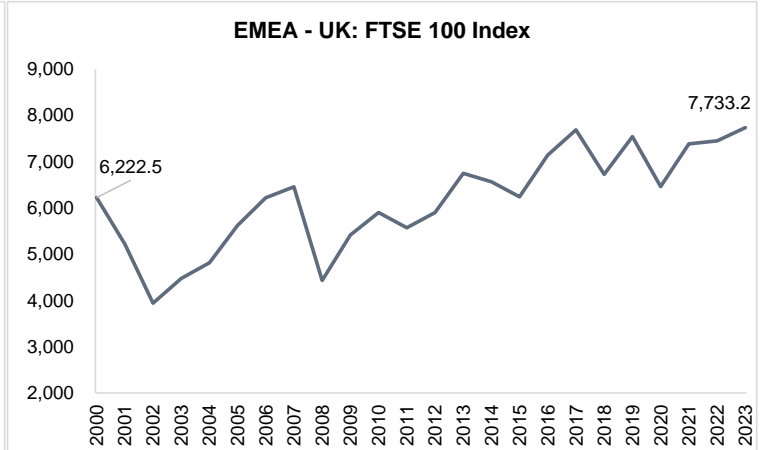
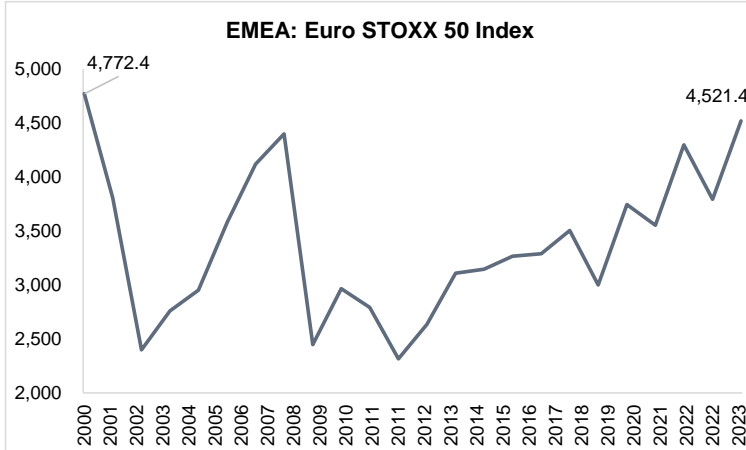
## EMEA Comparison

Germany was the outperformer, both for the whole time series and post COVID. The U.K. was still recovering post COVID versus other European markets.<sup>7</sup>

- **Europe:** -5.3% from 2000 to 2023, -0.2% CAGR; +20.7% from 2019 to 2023 (vs. pre COVID), +4.8% CAGR.
- **UK:** +24.3% from 2000 to 2023, +0.9% CAGR; +2.5% from 2019 to 2023 (vs. pre COVID), +0.6% CAGR.
- **Germany:** +160.4% from 2000 to 2023, +4.2% CAGR; +26.4% from 2019 to 2023 (vs. pre COVID), +6.0% CAGR.
- **France:** +27.3% from 2000 to 2023, +1.1% CAGR; +26.2% from 2019 to 2023 (vs. pre COVID), +6.0% CAGR.
- **Switzerland:** +36.9% from 2000 to 2023, +1.2% CAGR; +4.9% from 2019 to 2023 (vs. pre COVID), +1.2% CAGR.

---

<sup>7</sup> Source: Bloomberg, SIFMA estimates



Source: Bloomberg, SIFMA estimates

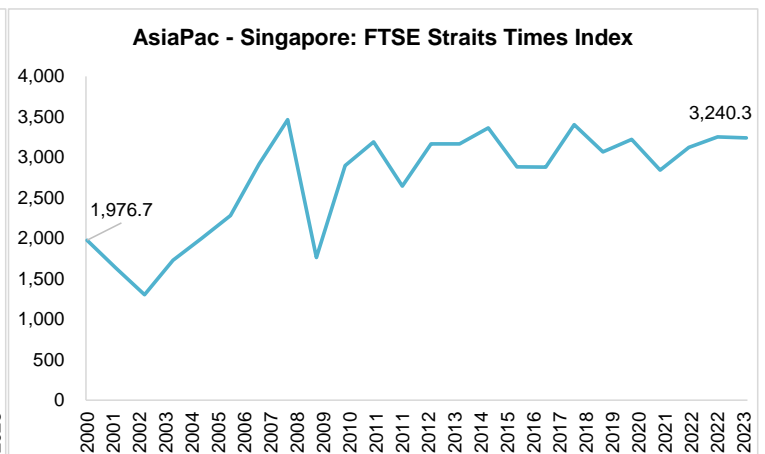
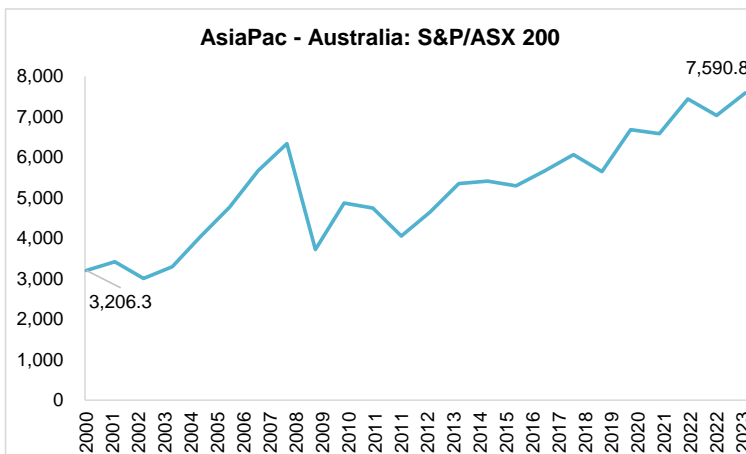
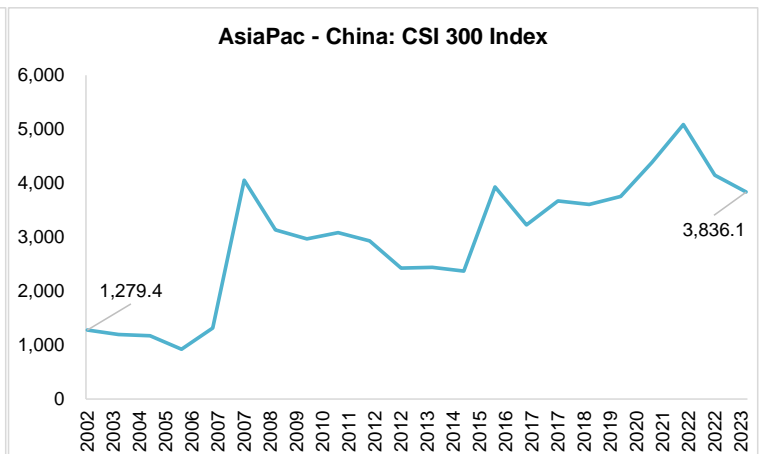
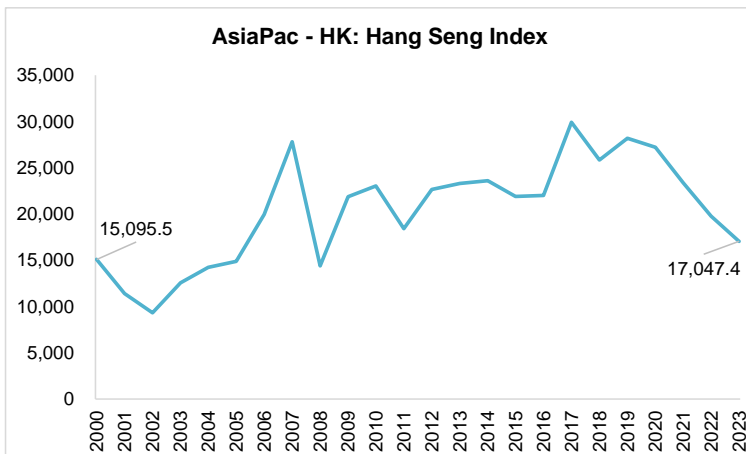
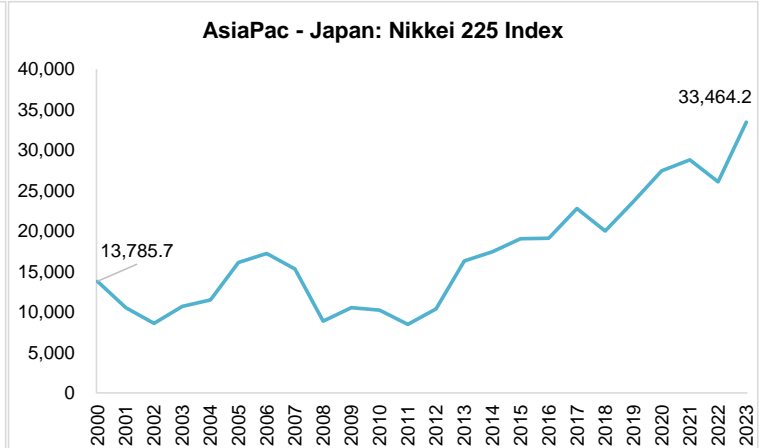
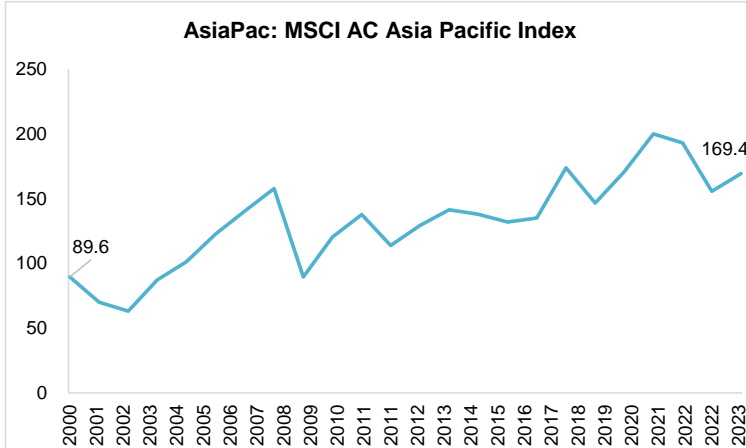
## AsiaPac Comparison

Japan performed well, outpacing post COVID growth for the aggregate region. Hong Kong's post-COVID recovery was lagging versus other AsiaPac countries.<sup>8</sup>

- **AsiaPac:** +89.2% from 2000 to 2023, +2.8% CAGR; -0.7% from 2019 to 2023 (vs. pre COVID), -0.2% CAGR.
- **Japan:** +142.7% from 2000 to 2023, +3.9% CAGR; +41.5% from 2019 to 2023 (vs. pre COVID), +9.1% CAGR.
- **Hong Kong:** +12.9% from 2000 to 2023, +0.5% CAGR; -39.5% from 2019 to 2023 (vs. pre COVID), -11.8% CAGR.
- **China:** +199.8% from 2002 to 2023, +5.4% CAGR; +2.2% from 2019 to 2023 (vs. pre COVID), +0.5% CAGR.
- **Australia:** +136.7% from 2000 to 2023, +3.8% CAGR; +13.6% from 2019 to 2023 (vs. pre COVID), +3.2% CAGR.
- **Singapore:** +63.9% from 2000 to 2023, +2.2% CAGR; +0.5% from 2019 to 2023 (pre COVID), +0.1% CAGR.

---

<sup>8</sup> Source: Bloomberg, SIFMA estimates



Source: Bloomberg, SIFMA estimates

---

## Market Costs

---

### Methodology Notes

Virtu's Global Peer database is a broker-neutral peer transactional database, providing performance insights and execution quality evaluation. Over 75% of the world's largest global asset managers leverage Virtu's multi-asset global transaction cost analysis (TCA) service which is the source of Virtu's Global Peer database<sup>9</sup>. We used the data from this source to compare trade costs across regions.<sup>10</sup>

### Costs to the buy-side trading desk

- Average Commission =  $(\text{Shares Executed} * \text{Trade Price} * \text{Commission Per Share}) / (\text{Shares Executed} * \text{Trade Price})$ .
- Implementation Shortfall (IS): The difference, or slippage, between the arrival price and the execution price for a trade.
- Total Cost = The sum of Average Commission and IS Cost.

### Costs to the sell-side trading desk

- Broker Cost: The difference, or slippage, between the broker arrival price and the execution price for a trade. The cost of trading once the order has been routed to the broker.
- Standalone measure as each buy-side trading desk order may have multiple broker routes.

---

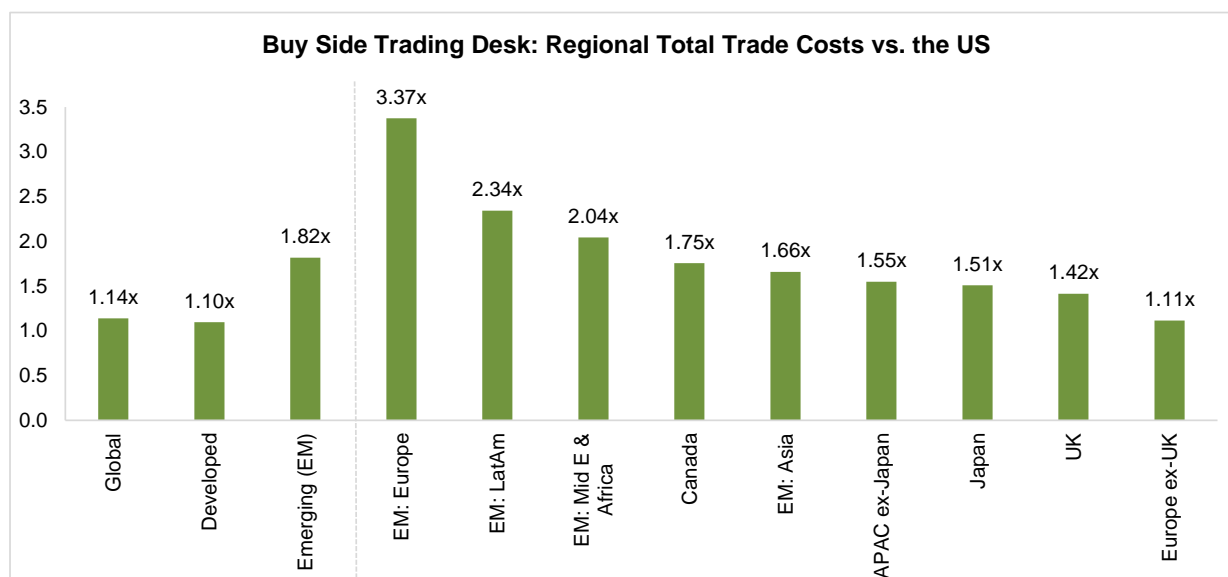
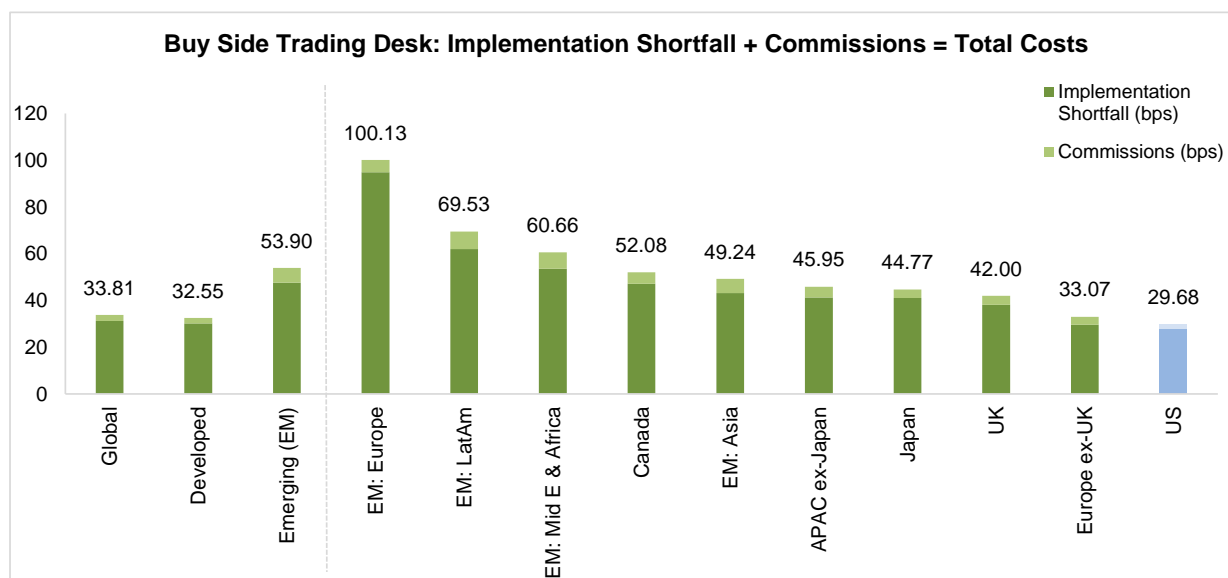
<sup>9</sup> Source: Top Asset Managers 2022 list from Investment & Pensions Europe (IPE)

<sup>10</sup> Source: Virtu Financial. Disclaimer: Many factors influence transaction cost including order size, volatility, and spread and the style and objective of the investment firm. Virtu's Global Peer universe includes a variety of investment firm types trading orders of all sizes in various market conditions which may directly influence the end transaction cost outcome. Advanced machine learning techniques are used to calculate Virtu's Peer Universe commission numbers, now representing execution-only commission rates.

### Buy-Side: Total Cost Comparison

Looking at total trade costs across regions for the buy-side trading desk, we note that the U.S. was the lowest cost region for total trade costs at 29.68 bps. For 4Q23, U.S. costs were:

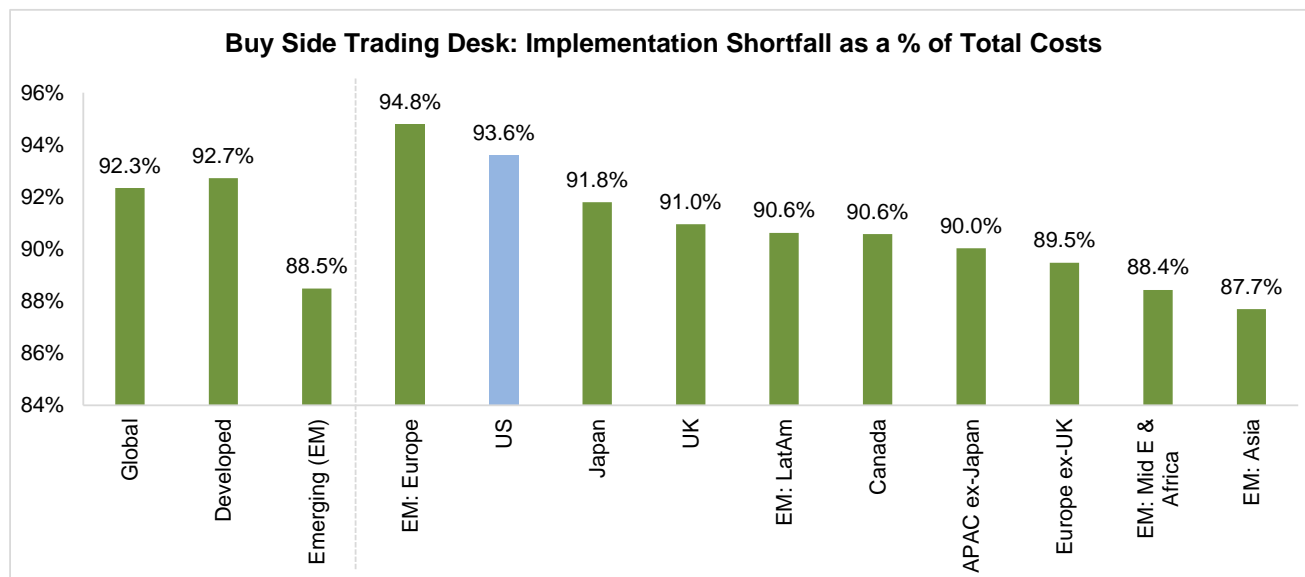
- -12.2% to total global costs
- -43.0% to Canada
- -29.3% to the UK
- -10.3% to Europe ex-UK



Source: Virtu Financial, SIFMA estimates

### Buy-Side: Implementation Shortfall % Total Costs

Next, we looked at implementation shortfall (IS) – the weighted average execution price compared to the order arrival price – as a percent of total trade costs across regions for the buy-side trading desk for 4Q23. In 4Q23, U.S. IS costs decreased 20.9% Y/Y and 22.2% Q/Q, indicating an improvement in execution quality.

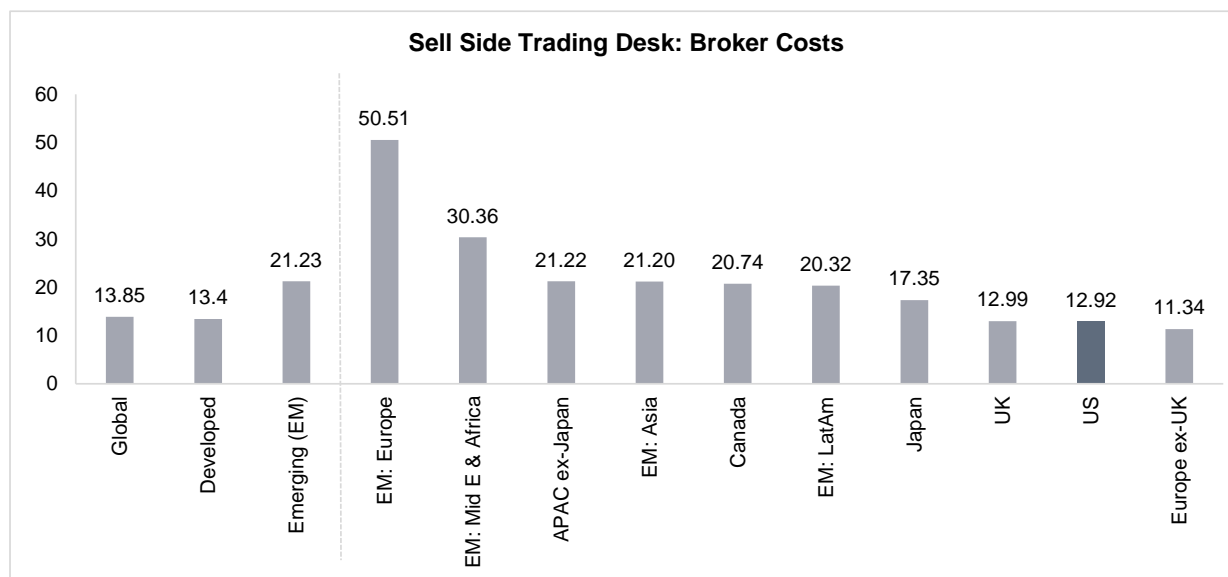


Source: Virtu Financial, SIFMA estimates

### Sell-Side: Broker Cost Comparison

Looking at trade costs across regions for the sell-side trading desk, or broker costs, the U.S. stood at the low end of peers at 12.92 bps. We highlight the following for 4Q23:

- Total global costs were 1.07x the US
- Canada was 1.61x the US
- The UK was 1.01x the US
- Europe ex-UK was 0.88x the US



Source: Virtu Financial, SIFMA estimates

Note: We note that broker costs in Europe ex-UK in 2Q23 declined 25.8% Q/Q. Costs remained low through 3Q23 then increased, with 4Q23 +23.4% Q/Q. Costs in this region averaged 13.43 bps over the last eight quarters prior to 2Q23, which would be 1.04x the US.



---

## Markets in Indexes

---

### Investment Fund Products

An investment fund – mutual fund (MF), exchange-traded fund (ETF), hedge fund, money market fund – is essentially a portfolio of stocks, bonds, or other assets. It is a supply of capital often belonging to multiple investors<sup>11</sup> used to purchase securities, providing a broader selection of investments, greater management expertise, and lower investment fees than investors might be able to obtain on their own.

While investors retain ownership and control of their own shares in the fund, they do not make decisions about how a fund's assets are invested. A fund manager decides which securities to hold in what quantities and when to buy/sell securities, typically tracking an index (but not always). Funds can be used for direct investments or in retirement accounts, where the investor originally selects the funds and then each regular contribution automatically goes into those selected funds.

Investors can achieve diversification by selecting funds offering different investment styles. Some examples of fund styles include:

- **Asset Class:** Equities, fixed income, commodities, currency, alternatives, or hybrids.
- **Region:** Domestic securities only; international securities; country specific (U.S., Australia, UK, etc.); or regional groupings (developed, emerging, frontier, etc.).
- **Sectors/Groups/Industries:** Financials, healthcare, retail, infrastructure, merger arbitrage, trend following, environment, artificial intelligence, etc.
- **Investment Style:** Broad market; market cap (large, mid, small<sup>12</sup>); high dividend yield; smart beta (rules-based strategies aiming to deliver better risk-adjusted returns than traditional market-cap-weighted indexes); etc.
- **Open- vs. Closed-End:** Open-end funds issue/retire shares as investors add/redeem money to the pool (priced at the end of the trading day based on net asset value/NAV); closed-end funds issue a fixed number of shares and trade on an exchange (potentially at a premium or a discount to NAV).

ETFs are a popular type of investment fund product, showing significant growth over the past decade. We analyzed various ETF trends and usefulness for country diversification over the next few pages.

---

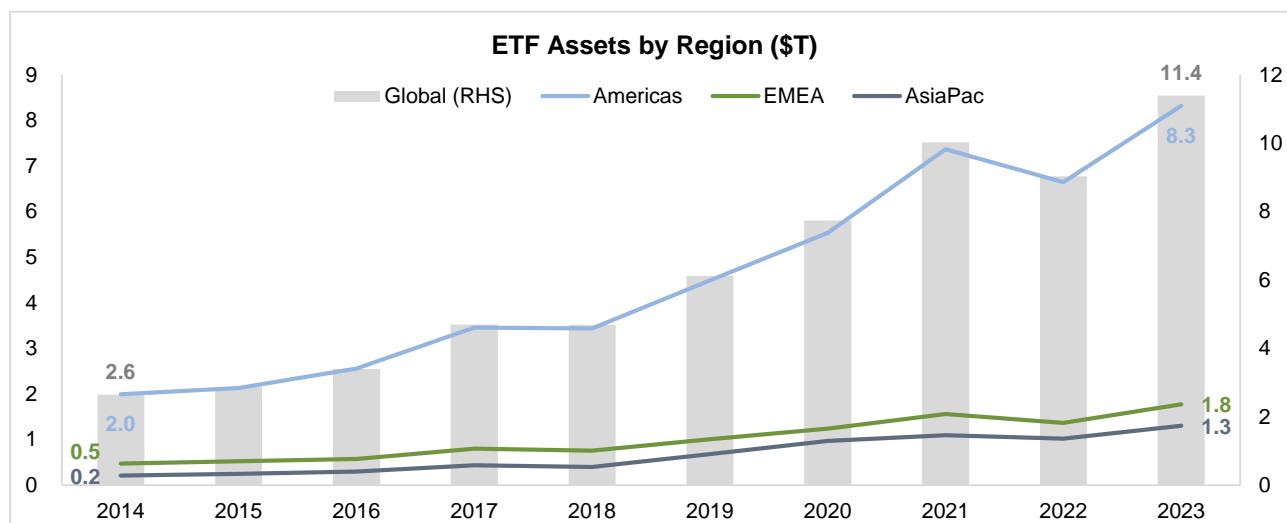
<sup>11</sup> Some funds represent single entities or persons, such as separate accounts, family offices, etc.

<sup>12</sup> Large cap \$10B+ (mega cap >\$200B), mid cap \$2B-\$10B, and small cap \$300M-\$2B (micro cap <\$300M, nano cap <\$50M)

### Global ETF Landscape

Looking at the global ETF landscape, we highlight the following:

- **Breakout:** Americas 73.0%, EMEA 15.6%, AsiaPac 11.4%
- **Global:** \$11.4 trillion; Y/Y +26.2%, 10-year CAGR +17.6%
- **Americas:** \$8.3 trillion; Y/Y +25.2%, 10-year CAGR +17.3%
- **EMEA:** \$1.8 trillion; Y/Y +29.7%, 10-year CAGR +15.2%
- **AsiaPac:** \$1.3 trillion; Y/Y +27.8%, 10-year CAGR +22.4%



Source: ETFGI Research, SIFMA estimates

## Top 50 ETFs by AUM

The top 50 ETFs represented \$4.4 trillion in AUM, 55.3% of total global AUM (\$8.0 trillion). The breakout of the top 50 ETFs was: U.S. only \$3.6 trillion, 82.4% of the top 50 and 45.6% of global; non-U.S. \$0.8 trillion, 17.6% of the top 50 and 9.7% of global. Below we list the top 50 ETFs by assets under management (AUM):

Ticker	Name	Segment	Issuer	AUM	% Top 50	% Total
Top 50				4,414.9		55.3%
SPY	SPDR S&P 500 ETF Trust	Growth&Income-Large Cap	State Street	493.5	11.2%	6.2%
IVV	iShares Core S&P 500 ETF	Growth&Income-Large Cap	Blackrock	399.9	9.1%	5.0%
VOO	Vanguard S&P 500 ETF	Growth&Income-Large Cap	Vanguard	372.4	8.4%	4.7%
VTI	Vanguard Total Stock Market ETF	Growth & Income	Vanguard	347.7	7.9%	4.4%
QQQ	Invesco QQQ Trust Series 1	Sector Fund-Technology	Invesco	230.0	5.2%	2.9%
VEA	Vanguard FTSE Developed Markets ETF	International Equity	Blackrock	122.7	2.8%	1.5%
IEFA	iShares Core MSCI EAFE ETF	International Equity	Blackrock	106.7	2.4%	1.3%
VTV	Vanguard Value ETF	Value-Large Cap	Vanguard	106.0	2.4%	1.3%
BND	Vanguard Total Bond Market ETF	Government/Corporate	Vanguard	104.7	2.4%	1.3%
VUG	Vanguard Growth ETF	Growth-Large Cap	Vanguard	104.5	2.4%	1.3%
AGG	iShares Core U.S. Aggregate Bond ETF	Government/Corporate	Blackrock	101.5	2.3%	1.3%
IWF	iShares Russell 1000 Growth ETF	Growth-Large Cap	Blackrock	81.7	1.9%	1.0%
IJR	iShares Core S&P Small-Cap ETF	Growth&Income-Small Cap	Blackrock	76.9	1.7%	1.0%
IJH	iShares Core S&P Mid-Cap ETF	Growth & Income-Mid Cap	Blackrock	76.6	1.7%	1.0%
IEMG	iShares Core MSCI Emerging Markets ETF	Emerging Market-Equity	Blackrock	74.7	1.7%	0.9%
VWO	Vanguard FTSE Emerging Markets ETF	Emerging Market-Equity	Vanguard	74.5	1.7%	0.9%
VIG	Vanguard Dividend Appreciation ETF	Aggressive Growth	Vanguard	74.2	1.7%	0.9%
IWM	iShares Russell 2000 ETF	Growth&Income-Small Cap	Blackrock	67.8	1.5%	0.9%
VXUS	Vanguard Total International Stock ETF	International Equity	Vanguard	63.2	1.4%	0.8%
VO	Vanguard Mid-Cap ETF	Growth & Income-Mid Cap	Vanguard	59.4	1.3%	0.7%
VGT	Vanguard Information Technology ETF	Sector Fund-Technology	Vanguard	59.2	1.3%	0.7%
XLK	Technology Select Sector SPDR Fund	Sector Fund-Technology	State Street	58.5	1.3%	0.7%
GLD	SPDR Gold Shares	Commodity	Invesco	58.3	1.3%	0.7%
IWD	iShares Russell 1000 Value ETF	Value-Large Cap	Blackrock	55.1	1.2%	0.7%
BNDX	Vanguard Total International Bond ETF	Global Debt	Vanguard	54.1	1.2%	0.7%
SCHD	Schwab US Dividend Equity ETF	Growth&Income-Large Cap	Charles Schwab	52.0	1.2%	0.7%
TLT	iShares 20+ Year Treasury Bond ETF	Government/Agency-LT	Blackrock	51.6	1.2%	0.6%
EFA	iShares MSCI EAFE ETF	International Equity	Blackrock	51.2	1.2%	0.6%
VYM	Vanguard High Dividend Yield ETF	Aggressive Growth	Vanguard	50.9	1.2%	0.6%
VB	Vanguard Small-Cap ETF	Growth&Income-Small Cap	Vanguard	50.4	1.1%	0.6%
RSP	Invesco S&P 500 Equal Weight ETF	Unclassified	Invesco	49.8	1.1%	0.6%
ITOT	iShares Core S&P Total U.S. Stock Market ETF	Growth & Income	Blackrock	49.5	1.1%	0.6%
VCIT	Vanguard Intermediate-Term Corporate Bond ETF	Corporate/Preferred	Vanguard	45.0	1.0%	0.6%
MUB	iShares National Muni Bond ETF	Municipal	Blackrock	38.2	0.9%	0.5%
XLV	Health Care Select Sector SPDR Fund	Health & Biotechnology	State Street	37.6	0.9%	0.5%
VEU	Vanguard FTSE All-World ex-US ETF	International Equity	Vanguard	37.3	0.8%	0.5%
IVW	iShares S&P 500 Growth ETF	Growth-Large Cap	Blackrock	36.9	0.8%	0.5%
SCHX	Schwab US Large-Cap ETF	Growth&Income-Large Cap	Charles Schwab	36.8	0.8%	0.5%
QUAL	iShares MSCI USA Quality Factor ETF	Growth&Income-Large Cap	Blackrock	36.1	0.8%	0.5%
XLE	Energy Select Sector SPDR Fund	Sector Fund-Energy	State Street	36.1	0.8%	0.5%
VCSH	Vanguard Short-Term Corporate Bond ETF	Corporate/Preferred	Vanguard	35.4	0.8%	0.4%
SCHF	Schwab International Equity ETF	International Equity	Charles Schwab	34.3	0.8%	0.4%
XLF	Financial Select Sector SPDR Fund	Financial Services	State Street	34.1	0.8%	0.4%
IXUS	iShares Core MSCI Total International Stock ETF	International Equity	Blackrock	33.9	0.8%	0.4%
VNQ	Vanguard Real Estate ETF	Sector Fund-Real Estate	Vanguard	33.5	0.8%	0.4%
DIA	SPDR Dow Jones Industrial Average ETF Trust	Growth&Income-Large Cap	State Street	32.5	0.7%	0.4%
IWB	iShares Russell 1000 ETF	Growth&Income-Large Cap	Blackrock	32.4	0.7%	0.4%
VT	Vanguard Total World Stock ETF	Global Equity	Blackrock	32.0	0.7%	0.4%
LQD	iShares iBoxx \$ Investment Grade Corporate Bond ETF	Corp/Pref-Inv Grade	Blackrock	31.9	0.7%	0.4%
BSV	Vanguard Short-Term Bond ETF	Govt/Corp Short Term	Vanguard	31.8	0.7%	0.4%

Source: Bloomberg, etf.com, ETFGI Research, SIFMA estimates (as of May 2024)

## ETF Country Diversification

ETFs can be used to gain country (or industry) diversification for an investor's portfolio. Looking at country diversification, we list the regional breakout for a few of the non-U.S. only ETFs in the top 50 ETFs by AUM versus the SPY, which is U.S. only and the most popular ETF based on AUM.

	SPY	VEA	IEFA	VWO	IEMG	VXUS	BNDX	EFA	VEU	IXUS	SCHF
# Holdings	504	4,017	2,853	4,715	2,906	8,468	6,746	785	3,784	4,344	1,524
<b>Country Breakout</b>											
United States	100.0%										
Australia		6.6%	7.8%			4.9%		7.5%	5.0%	5.0%	6.7%
Brazil				6.6%	6.6%						
Canada		9.4%				7.0%			6.3%	7.5%	8.5%
Chile							0.6%				
China					24.1%						
Colombia							4.6%				
Denmark			3.2%					3.3%			
France		8.9%	10.8%			6.6%	0.1%	12.0%	7.1%	7.0%	9.6%
Germany		6.7%	7.9%			5.0%		8.5%	5.2%	5.1%	7.0%
Hong Kong					20.5%	6.6%			7.1%	6.8%	
Hungary							0.3%				
Ireland											
India				20.5%	20.5%	5.2%			5.1%	5.1%	
Indonesia				2.1%	2.1%		69.5%				
Italy			2.7%								
Japan		20.8%	23.9%			15.4%	8.0%	22.4%	15.7%	15.4%	21.3%
Mexico				3.0%	3.0%		0.1%				
Netherlands		3.5%	4.2%					4.6%			3.8%
Saudi Arabia				4.4%	4.4%						
South Africa				3.2%	3.2%						
South Korea							16.4%				
Spain								2.7%			
Sweden		3.2%	3.8%					3.5%			3.0%
Switzerland		7.6%	9.3%			5.7%		10.0%	6.0%	6.0%	8.1%
Taiwan						4.7%			4.4%	4.7%	
Thailand				2.4%	2.4%		0.1%				
United Kingdom		12.2%	14.7%			9.1%		14.6%	9.2%	9.5%	12.4%
Other		21.1%	11.9%	57.8%	13.2%	29.9%	0.4%	11.0%	29.0%	28.0%	19.6%

Source: etf.com

Note: As of May 2024. BNDX = Vanguard Total International Bond ETF; EFA = iShares MSCI EAFE ETF; IEFA = iShares Core MSCI EAFE ETF; IEMG = iShares Core MSCI Emerging Markets ETF; IXUS = iShares Core MSCI Total International Stock ETF; SCHF = Schwab International Equity ETF; SPY = SPDR S&P 500 ETF Trust; VEA = Vanguard FTSE Developed Markets ETF; VEU = Vanguard FTSE All-World ex-US ETF; VWO = Vanguard FTSE Emerging Markets ETF; and VXUS = Vanguard Total International Stock ETF.

## Appendix: Regional Breakout

The regional breakouts in this report are essentially based on the MSCI index classifications shown below, with variations made to match data provider constraints.

Developed Markets			Emerging Markets			Frontier Markets		
Americas	EMEA	APAC	Americas	EMEA	APAC	Americas	EMEA	APAC
Canada USA	Austria Belgium Denmark Finland France Germany Ireland Israel Italy Netherlands Norway Portugal Spain Sweden Switzerland UK	Australia Hong Kong Japan New Zealand Singapore	Brazil Chile Colombia Mexico Peru	Czech Republic Egypt Greece Hungary Kuwait Poland Qatar Saudi Arabia South Africa Turkey UAE	China India Indonesia Korea Malaysia Philippines Taiwan Thailand	—	Bahrain Benin* Burkina Faso* Croatia Estonia Guinea-Bissau* Iceland Ivory Coast* Jordan Kazakhstan Kenya Latvia Lithuania Mali* Mauritius Morocco Niger* Oman Romania Senegal* Serbia Slovenia Togo Tunisia	Bangladesh Pakistan Sri Lanka Vietnam
<b>Standalone Markets<sup>1</sup></b>								
						Americas	EMEA <sup>2</sup>	APAC <sup>3</sup>
						Argentina Jamaica Panama Trinidad and Tobago	Bosnia and Herzegovina Botswana Bulgaria Lebanon Malta Nigeria Palestine Ukraine Zimbabwe	—

Source: MSCI

Note: 1. The MSCI Standalone Market Indexes are not included in the MSCI Emerging Markets Index or MSCI Frontier Markets Index. However, these indexes use either the Emerging Markets or the Frontier Markets methodological criteria concerning size and liquidity. 2. EMEA – Europe, Middle East, and Africa. 3. APAC – Asia Pacific. \*The West African Economic and Monetary Union (WAEMU) consists of the following countries: Benin, Burkina Faso, Guinea-Bissau, Ivory Coast, Mali, Niger, Senegal, and Togo. The MSCI WAEMU Indexes include only securities classified in Benin, Burkina Faso, Ivory Coast, Niger and Senegal.

## Appendix: Index List

---

The following indexes were used for the Market Performance section:

Region	Index
<b>World</b>	<b>MSCI World Index</b>
Developed	FTSE Developed Index
Emerging	FTSE Emerging Index
<b>Americas</b>	<b>MSCI AC Americas Index</b>
US	S&P 500
Canada	S&P/TSX Composite Index
Brazil	BOVESPA Index
<b>EMEA</b>	<b>Euro STOXX 50 Index</b>
UK	FTSE 100 Index
Germany	DAX Performance Index
France	CAC 40 Index
Switzerland	Swiss Market Index
<b>AsiaPac</b>	<b>MSCI AC Asia Pacific Index</b>
Japan	Nikkei 225 Index
HK	Hang Seng Index
China	CSI 300 Index
Australia	S&P/ASX 200
Singapore	FTSE Straits Times Index

## Appendix: Regional Breakout – Trade Costs

---

- APAC = Asia Pacific; APAC ex-Japan includes Australia, Hong Kong, New Zealand, Singapore
- Europe ex-U.K. includes Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland
- LatAm = Latin America; includes Argentina, Brazil, Chile, Colombia, Mexico, Peru
- Mid E & Africa = Middle East & Africa; includes Bahrain, Egypt, Israel, Jordan, Kenya, Kuwait, Morocco, Nigeria, Oman, Qatar, Saudi Arabia, South Africa, Tunisia, UAE
- EM = emerging markets
  - EM: Asia includes Bangladesh, China, India, Indonesia, Kazakhstan, Malaysia, Pakistan, Philippines, South Korea, Sri Lanka, Taiwan, Thailand, Vietnam
  - EM: EU includes Bulgaria, Croatia, Czech, Estonia, Hungary, Lithuania, Poland, Romania, Russia, Slovenia, Turkey

## Appendix: Capital Markets Terms to Know

<b>Statistics</b>	
Y/Y	Year over Year
Q/Q	Quarter over Quarter
M/M	Month over Month
W/W	Week over Week
D/D	Day over day
YTD	Year to Date
QTD	Quarter to Date
MTD	Month to Date
WTD	Week to Date
BPS	Basis Points
PPS	Percentage Points
CAGR	Compound Annual Growth Rate
RHS	Right hand side (for charts)
<b>Other</b>	
AUM	Assets Under Management
DCM	Debt Capital Markets
ECM	Equity Capital Markets
<b>Regulators</b>	
North America	
FINRA	Financial Industry Regulatory Authority (United States)
SEC	Securities and Exchange Commission (United States)
CSC	Canadian Securities Administrators
European Union	
ESMA	European Securities and Markets Authority
AMF	Autorité des marchés financiers (France)
BaFin	Federal Financial Supervisory Authority (Germany)
FINMA	Swiss Financial Market Supervisory Authority (Switzerland)
United Kingdom	
FCA	Financial Conduct Authority
AsiaPac	
ASIC	Australian Securities and Investments Commission
CSRC	China Securities Regulatory Commission
SFC	Securities and Futures Commission (Hong Kong)
SEBI	Securities and Exchange Board of India
FSA	Financial Services Agency (Japan)
MAS	Monetary Authority of Singapore



<b>Trading</b>	
ADV	Average Daily Trading Volume
Algo	Algorithm (algorithmic trading)
ATS	Alternative Trading System
Best Ex	Best Execution
BPS	Basis Points
CLOB	Central Limit Order Book
D2C	Dealer-to-Client
D2D	Dealer-to-Dealer
ECN	Electronic Communication Network
ETP	Electronic Trading Platforms
HFT	High-Frequency Trading
IDB	Inter-Dealer Broker
IOI	Indication of Interest
MM	Market Maker
OTC	Over-the-Counter
SDP	Single-dealer platform
Bid	An offer made to buy a security
Ask, Offer	The price a seller is willing to accept for a security
Spread	The difference between the bid and ask price prices for a security, an indicator of supply (ask) and demand (bid)
NBBO	National Best Bid and Offer
Locked Market	A market is locked if the bid price equals the ask price
Crossed Market	A bid is entered higher than the offer or an offer is entered lower than the bid
Opening Cross	To determine the opening price of a stock, accumulating all buy and sell interest prior to the market open
Closing Cross	To determine the closing price of a stock, accumulating all buy and sell interest prior the market close

<b>Order Types</b>	
AON	All or none; an order to buy or sell a stock that must be executed in its entirety, or not executed at all
Block	Trades with at least 10,000 shares in the order
Day	Order is good only for that trading day, else cancelled
FOK	Fill or kill; must be filled immediately and in its entirety or not at all
Limit	An order to buy or sell a security at a specific price or better
Market	An order to buy or sell a security immediately; guarantees execution but not the execution price
Stop	(or stop-loss) An order to buy or sell a stock once the price of the stock reaches the specified price, known as the stop price

<b>Post Trade</b>	
DTCC	The Depository Trust and Clearing Corporation
CSD	Central Securities Depository
CCP	Central Counterparty Clearing House
CP	Counterparty
IM	Initial Margin
VM	Variation Margin
MPR	Margin Period at Risk
T	Trade Date
T+1	Settlement Date

<b>Investors</b>	
Institutional	Asset managers, endowments, pension plans, foundations, mutual funds, hedge funds, family offices, insurance companies, banks, etc.; fewer protective regulations as assumed to be more knowledgeable and better able to protect themselves
Individual	Self-directed or advised investing

**Equities**

EMS	Equity Market Structure
NMS	National Market System
Reg NMS	Regulation National Market System
SIP	Security Information Processor; aggregates all exchange's best quotes, sent back out to the market in one data stream
PFOF	Payment For Order Flow
Tick Size	Minimum quote increment of a trading instrument
CAT	Consolidated Audit Trail
SRO	Self Regulatory Organization

**ETFs/Funds**

AP	Authorized Participant
PCF	Portfolio Composition File
NAV	Net Asset Value
IIV	Intraday Indicative Value
ETF	Exchange-Traded Fund
ETP	Exchange-Traded Product
MF	Mutual Fund
OEF	Open-End Fund
CEF	Closed-End Fund
UIT	Unit Investment Trust

**Options**

Call	The right to buy the underlying security, on or before expiration
Put	The right to sell the underlying security, on or before expiration
Holder	The buyer of the contract
Writer	The seller of the contract
American	Option may be exercised on any trading day on or before expiration
European	Option may only be exercised on expiration
Exercise	To put into effect the right specified in a contract
Underlying	The instrument on which the options contract is based; the asset/security being bought or sold upon exercise notification
Expiration	The set date at which the options contract ends, or ceases to exist, or the last day it can be traded
Stock Price	The price at which the underlying stock is trading, fluctuates continuously
Strike Price	The set price at which the options contract is exercised, or acted upon
Premium	The price the option contract trades at, or the purchase price, which fluctuates constantly
Time Decay	The time value portion of an option's premium decreases as time passes; the longer the option's life, the greater the probability the option will move in the money
Intrinsic Value	The in-the-money portion of an option's premium
Time Value	(Extrinsic value) The option premium (price) of the option minus intrinsic value; assigned by external factors (passage of time, volatility, interest rates, dividends, etc.)
In-the-Money	For a call option, when the stock price is greater than the strike price; reversed for put options
At-the Money	Stock price is identical to the strike price; the option has no intrinsic value
Out-of-the-Money	For a call option, when the stock price is less than the strike price; reversed for put options

## Appendix: Capital Markets Terms to Know

<b>Equity Capital Formation</b>	
IPO	Initial Public Offering; private company raises capital buy offering its common stock to the public for the first time in the primary markets
SPAC	Special Purpose Acquisition Company; blank check shell corporation designed to take companies public without going through the traditional IPO process
Bought Deal	Underwriter purchases a company's entire IPO issue and resells it to the investing public; underwriter bears the entire risk of selling the stock issue
Best Effort Deal	Underwriter only guarantees the issuer it will make a best effort attempt to sell the shares to investors at the best price possible; issuer can be stuck with unsold shares
Secondary	(Follow-on) Issuance of shares to investors by a public company already listed on an exchange
Direct Listing	(Direct placement, direct public offering) Existing private company shareholders sell their shares directly to the public without underwriters. Often used by startups or smaller companies as a lower cost alternative to a traditional IPO. Risks include, among others, no support for the share sale and no stock price stabilization from the underwriter after the share listing.

<b>Underwriting</b>	
Underwriting	Guarantee payment in case of damage or financial loss and accept the financial risk for liability arising from such guarantee in a financial transaction or deal
Underwriter	Investment bank administering the public issuance of securities; determines the initial offering price of the security, buys them from the issuer and sells them to investors.
Bookrunner	The main underwriter or lead manager in the deal, responsible for tracking interest in purchasing the IPO in order to help determine demand and price (can have a joint bookrunner)
Lead Left Bookrunner	Investment bank chosen by the issuer to lead the deal (identified on the offering document cover as the upper left hand bank listed)
Syndicate	Investment banks underwriting and selling all or part of an IPO
Arranger	The lead bank in the syndicate for a debt issuance deal
Greenshoe	Allows underwriters to sell more shares than originally planned by the company and then buy them back at the original IPO price if the demand for the deal is higher than expected, i.e. an over-allotment option

<b>Documentation</b>	
Pitch	Sales presentation by an investment bank to the issuer, marketing the firm's services and products to win the mandate
Mandate	The issuing company selects the investment banks to underwrite its offering
Engagement Letter	Agreement between issuer & underwriters clarifying: terms, fees, responsibilities, expense reimbursement, confidentiality, indemnity, etc.
Letter of Intent	Investment banks' commitment to the issuer to underwrite the IPO
Underwriting Agreement	Issued after the securities are priced, underwriters become contractually bound to purchase the issue from the issuer at a specific price
Registration Statement	Split into the prospectus and private filings, or information for the SEC to review but not distributed to the public, it provides investors adequate information to perform their own due diligence prior to investing
The Prospectus	Public document issued to all investors listing: financial statements, management backgrounds, insider holdings, ongoing legal issues, IPO information and the ticker to be used once listed
Red Herring Document	An initial prospectus with company details, but not inclusive of the effective date of offering price, filed with the SEC
Tombstone	An announcement that securities are available for sale. (Also a plaque awarded to celebrate the completion of a transaction or deal)

<b>Process</b>	
Roadshow	Investment bankers take issuing companies to meet institutional investors to interest them in buying the security they are bringing to market
Non-Deal Roadshow	Research analysts and sales personnel take public companies to meet institutional investors to interest them in buying a stock or update existing investors on the status of the business and current trends
Pricing	Underwriters and the issuer will determine the offer price, the price the shares will be sold to the public and the number of shares to be sold, based on demand gauged during the road show and market factors
Stabilization	Occurs for a short period of time after the IPO if order imbalances exist, i.e. the buy and sell orders do not match; underwriters will purchase shares at the offering price or below to move the stock price and rectify the imbalance
Quiet Period	(Cooling off period) The SEC mandates a quiet period on research recommendations, lasting 10 days (formerly 25 days) after the IPO

<b>SEC Filings</b>	
Reg S-K	Regulation which prescribes reporting requirements for SEC filings for public companies
Reg S-X	Regulation which lays out the specific form and content of financial reports, specifically the financial statements of public companies
Form S-1	Registration statement for U.S. companies (described above)
Form F-1	Registration statement for foreign issuers of certain securities, for which no other specialized form exists or is authorized
Form 10-Q	Quarterly report on the financial condition and state of the business (discussion of risks, legal proceedings, etc.), mandated by the SEC
Form 10-K	More detailed annual version of the 10Q, mandated by the SEC
Form 8-K	Current report to announce major events shareholders should know about (changes to business & operations, financial statements, etc.), mandated by the SEC
EGC	Emerging Growth Company; qualified companies may choose to follow disclosure requirements that are scaled for newly public

**Fixed Income**

CUSIP	Committee on Uniform Securities Identification Procedures; a nine character security identifier
FICC	Fixed Income, Currencies and Commodities
FI	Fixed Income
TRS	Total Return Swap

**Rates Markets**

UST	U.S. Treasury Securities
FRN	Floating Rate Note
T-Bill	U.S. Treasury Bill
T-Note	U.S. Treasury Note
T-Bond	U.S. Treasury Bond
TIPS	Treasury Inflation Protected Securities
Repo	Repurchase Agreement; also have reverse repos
Agency	Federal Agency Securities
FAMC	Farmer Mac/Federal Agricultural Mortgage Corporation
FCS	Farm Credit System
FHLB	Federal Home Loan Banks
FHLMC	Freddie Mac/Federal Home Loan Mortgage Corporation
FNMA	Fannie Mae/Federal National Mortgage Association
GNMA	Ginnie Mae/Government National Mortgage Association
TVA	Tennessee Valley Authority

**Credit Markets**

Corporates	Corporate Bonds
HY	High Yield Bond
IG	Investment Grade Bond
Munis	Municipal Securities
GO	General Obligation Bond
Revenue	Revenue Bond

**Securitized Products**

MBS	Mortgage-Backed Security
CMO	Collateralized Mortgage Obligation
CMBS	Commercial MBS
RMBS	Residential MBS
ABS	Asset-Backed Securities (auto, credit card, home equity, student loans, etc.)
CDO	Collateralized Debt Obligation

**Money Markets (MM)**

CP	Commercial Paper
ABCP	Asset-Backed Commercial Paper
MMF	Money Market Funds

## SIFMA Insights Research Reports

---

SIFMA Insights: [www.sifma.org/insights](http://www.sifma.org/insights)

- Ad hoc reports on timely market themes
- Annual Market Structure Compendiums: Equity and Fixed Income
- COVID Related Market Turmoil Recaps: Equities; Fixed Income and Structured Products

Monthly Market Metrics and Trends: [www.sifma.org/insights-market-metrics-and-trends](http://www.sifma.org/insights-market-metrics-and-trends)

- Statistics on volatility and equity and listed options volumes
- Highlights an interesting market trend

Market Structure Primers: [www.sifma.org/primers](http://www.sifma.org/primers)

- Capital Markets: An Overview of Capital Markets and the Role of Financial Institutions
- Global Equity Market Comparison
- Capital Formation & Listings Exchanges
- Equities
- Options
- ETFs
- Fixed Income & Electronic Trading

Conference Debriefs

- Insights from market participants into top-of-mind topics
- Pre-Conference Survey Comparison, compares survey results across various conferences

Equity Market Structure Analysis

- The ABCs of Equity Market Structure: How US Equity Markets Work and Why
- Analyzing the Meaning Behind the Level of Off-Exchange Trading, Part II
- Analyzing the Meaning Behind the Level of Off-Exchange Trading
- Why Market Structure and Liquidity Matter

Top of Mind with SIFMA Insights

- Podcasts with market participants on key market and economic themes, including reference guides defining terms and providing charts on the topics discussed on the podcast

## Author

---

### SIFMA Insights

Katie Kolchin, CFA  
Managing Director, Head of Research  
[kkolchin@sifma.org](mailto:kkolchin@sifma.org)

Disclaimer: This document is intended for general informational purposes only and is not intended to serve as investment advice to any individual or entity. The views in this report and interpretation of the data are that of SIFMA, not necessarily its member firms.

SIFMA Insights can be found at: <https://www.sifma.org/insights>

SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry's nearly 1 million employees, we advocate on legislation, regulation and business policy, affecting retail and institutional investors, equity and fixed income markets and related products and services. We serve as an industry coordinating body to promote fair and orderly markets, informed regulatory compliance, and efficient market operations and resiliency. We also provide a forum for industry policy and professional development. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit <http://www.sifma.org>.

This report is subject to the Terms of Use applicable to SIFMA's website, available at <http://www.sifma.org/legal>. Copyright © 2024