

# When Gauging the Impact of Geopolitical Risk on Equity Markets, Consider Their Revenue Sources

## Morningstar Global Markets Indexes' revenue sources are revealing.

**Morningstar Inc.**  
July 2024

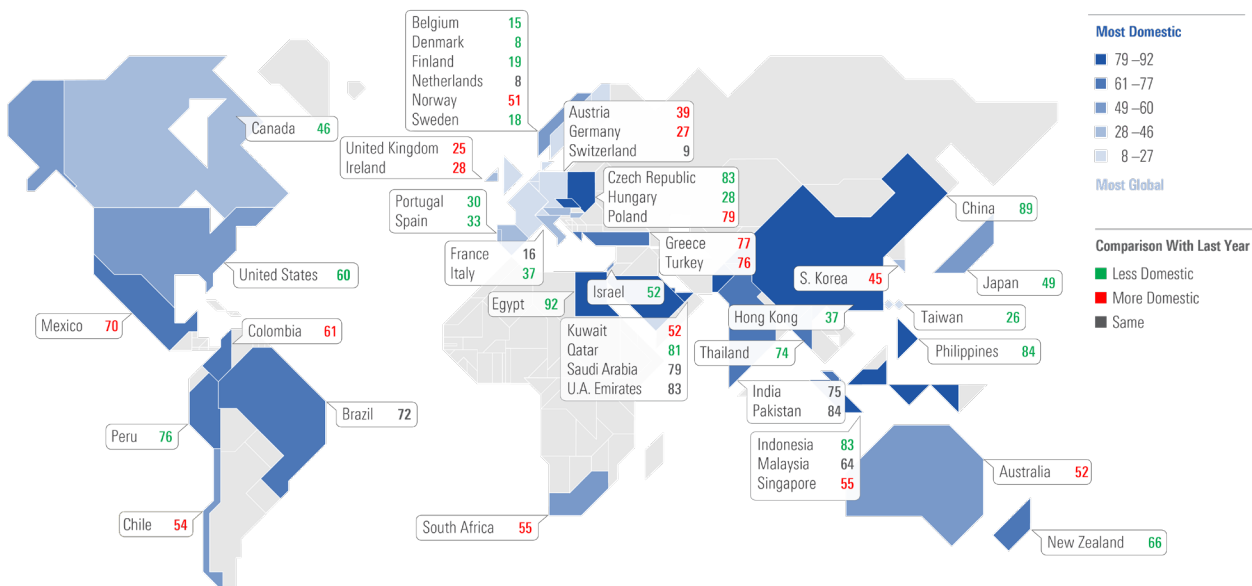
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Geopolitical risk is high on investors' minds. With wars raging, trade tensions rising, and elections challenging established orders, many are trying to gauge the investment impact of current events on markets. Revenue sources are critical to examine. When estimates of geographic sources of corporate revenue are aggregated to Morningstar's range of 48 single-country indexes, the takeaways include:

- ▶ Many national equity markets are not very national. The Morningstar US Market Index, for example, derives just 60% of revenues from the US. Western European markets are the world's most global.
- ▶ Emerging markets, especially in Asia and Eastern Europe, are the most domestic in their revenue sources. Tech-heavy Taiwan and Korea stand out as exceptions.
- ▶ Revenue sources help explain why correlations between developed markets have risen, while emerging markets tend to be less correlated with developed markets.
- ▶ Contrary to the narrative that globalization is in decline, just 16 of 48 markets became more domestic in their revenue sources compared with last year. The US, Japan, and China all became more global.
- ▶ Sector-level dynamics help explain market-level revenue trends. Technology companies tend to be more global, while the financial services sector is generally more domestic.

**Exhibit 1** Morningstar Indexes' 2024 Global Revenue Map (Domestic Revenue % for Equity Market Indexes)



Source: Morningstar Direct. Morningstar index constituent data as of May 31, 2024. Geographic segment data based on most recent corporate reporting.

## Methodology

This study examines geographic revenue sources for Morningstar Global Markets Indexes<sup>1</sup> by aggregating company-level data. The 48 single-country indexes are carve-outs from the Morningstar Global Markets Index, which represents roughly 97% of equity market capitalization across developed and emerging markets and includes large-, mid-, and small-cap equities. The index included 8,029 constituents as of May 31, 2024.

Morningstar's Geographic Segment Data, which can be found in the Morningstar Direct research platform, enables an investment's revenues to be broken down by regional source.<sup>2</sup> It leverages annual and semiannual filings for publicly listed companies across the globe. Company-level revenue data is then aggregated to understand portfolio-level exposure, for mutual funds or indexes.

Whenever possible, Morningstar uses country-specific numbers reported in corporate filings, but revenue disclosure differs by company in its granularity and in how countries and regions are classified. A company might disclose revenue sourced in specific countries or use regions like Asia Pacific, Greater China, North America, The Americas, Europe, or even Rest of the World. Regional revenue can be intermingled with functional segments spanning multiple geographies. To delineate country-level revenue sources when only regions are disclosed, Morningstar estimates country weights using gross domestic product. The country estimates are then asset-weighted for each security within a portfolio and rolled up to provide revenue-exposure indications for 13 regions, comprising more than 240 constituent countries. It is important to note that the revenue-exposure data includes estimates and should therefore be used as a directional indicator.

Data appearing in this report is based on Morningstar Global Markets Index constituents as of May 31, 2024, and reflects companies' most recent reports. Fiscal years vary. Depending on the company, the geographic segment data could be as of year-end 2023, March 31, 2024, or Sept. 30, 2023. Morningstar Equity Data covered 7,861 of the 8,029 constituents of the Morningstar Global Markets Index constituents' geographic segment data, representing 99.28% of its market capitalization.

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<sup>1</sup> For a full discussion, see: [Construction Rules for Morningstar Global Markets Indexes](#). Morningstar Indexes. February 2024

<sup>2</sup> For a full discussion, see: [Morningstar Global Geographic Segment Methodology](#). Morningstar Manager Research. Nov. 13, 2018.

## Sector Dynamics Can Drive Market-Level Revenue Exposure

Certain economic sectors are more global than others. As displayed in Exhibit 2, technology companies tend to be most global in their revenue sources, whereas sectors like financial services and utilities are largely domestic. This trend holds across sectors in the US, Europe, and Asia-Pacific when revenue sources are examined for Morningstar's range of equity sector indexes.<sup>3</sup>

**Exhibit 2** Equity Sectors Differ Widely in Their Revenue Exposures

	US Equity Sector Indexes % of US Revenues	Europe Equity Sector Indexes % of Europe Revenues	APAC Equity Sector Indexes % of APAC Revenues
 <b>Cyclical</b>			
 Basic Materials	50	35	65
 Consumer Cyclical	68	45	58
 Financial Services	75	70	75
 Real Estate	83	97	57
 <b>Sensitive</b>			
 Communication Services	52	57	63
 Energy	64	51	77
 Industrials	69	43	44
 Technology	47	26	41
 <b>Defensive</b>			
 Consumer Defensive	65	35	63
 Healthcare	67	26	37
 Utilities	94	80	80
Market Level	US Index - 60% US	Europe Index - 46% Europe	APAC Index - 57% APAC

Source: Morningstar Direct. Data as of May 31, 2024.

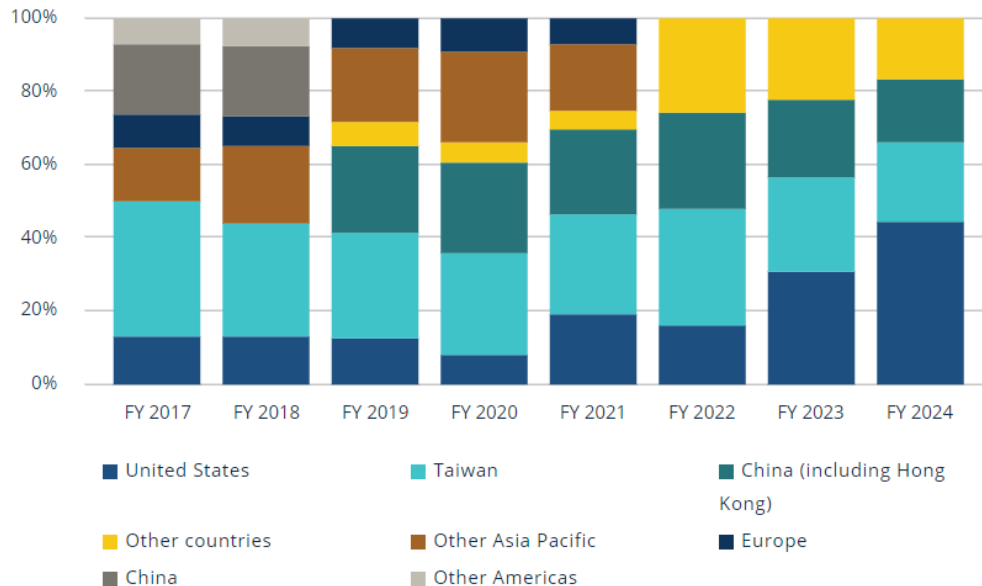
Sector dynamics help explain some of the regional trends. The Morningstar US Market Index had a 25% technology weight in 2021; today technology companies represent 32% of the index's weight. Nvidia, the semiconductor maker, grew to 5.7% of the Morningstar US Market Index as of mid-2024, up from 1.2% in mid-2021. As displayed in Exhibit 3, Nvidia actually sources a larger share of its revenue from the US than it once did, though the majority of the semiconductor maker's revenues come from outside the US. As Nvidia's share of the equity market has grown, it has pushed down the index's domestic revenues.

<sup>3</sup> For a full discussion, see: [Morningstar Global Sector Indexes](#). Morningstar Indexes. April 2024.

**Exhibit 3 Nvidia 2024 Geographic Revenue Reporting - The US Chipmaker Is Sourcing an Increased Share of Revenues Domestically**

**Nvidia (NAS: NVDA)**

**Regional Revenue (% Contribution)**



Segmentation (Fiscal Year)	FY 2024	FY 2023	FY 2022	FY 2021	FY 2020	FY 2019	FY 2018	FY 2017
Amounts in thousands (USD) or percent	End: 31-Jan-2024 Filed: 21-Feb-2024 <a href="#">View 10-K</a>	End: 31-Jan-2023 Filed: 21-Feb-2024 <a href="#">View 10-K</a>	End: 31-Jan-2022 Filed: 21-Feb-2024 <a href="#">View 10-K</a>	End: 31-Jan-2021 Filed: 18-Mar-2022 <a href="#">View 10-K</a>	End: 31-Jan-2020 Filed: 26-Feb-2021 <a href="#">View 10-K</a>	End: 31-Jan-2019 Filed: 21-Feb-2019 <a href="#">View 10-K</a>	End: 31-Jan-2018 Filed: 28-Feb-2018 <a href="#">View 10-K</a>	End: 31-Jan-2017 Filed: 01-Mar-2017 <a href="#">View 10-K</a>
<b>Amount in thousands</b>								
<b>Region</b>								
United States	26,966,000	8,292,000	4,349,000	3,214,000	886,000	1,506,000	1,274,000	904,000
Taiwan	13,405,000	6,986,000	8,544,000	4,531,000	3,025,000	3,360,000	2,991,000	2,546,000
China (including Hong Kong)	10,306,000	5,785,000	7,111,000	3,886,000	2,731,000	2,801,000		
Other countries	10,245,000	5,911,000	6,910,000		833,000	599,000		
Other Asia Pacific				3,093,000	2,685,000	2,368,000	2,066,000	1,010,000
Europe				1,118,000	992,000	914,000	768,000	659,000
China							1,896,000	1,305,000
Other Americas							719,000	486,000
<b>Percent of total</b>								
<b>Region</b>								
United States	44.26%	30.74%	16.16%	19.27%	8.12%	12.85%	13.12%	13.08%
Taiwan	22.00%	25.90%	31.75%	27.17%	27.71%	28.68%	30.79%	36.85%
China (including Hong Kong)	16.92%	21.45%	26.42%	23.30%	25.01%	23.91%		
Other countries	16.82%	21.91%	25.67%	5.00%	5.49%	6.55%		
Other Asia Pacific				18.55%	24.59%	20.21%	21.27%	14.62%
Europe				6.70%	9.09%	7.80%	7.91%	9.54%
China							19.52%	18.89%
Other Americas							7.40%	7.03%

Source: PitchBook Platform. Morningstar Equity Data.

Across the globe, technology companies contribute to international revenues. This is true of Japan's Tokyo Electron, ASML of the Netherlands, Germany's SAP, Taiwan Semiconductor, Korea's Samsung Electronics, and Canada's Shopify. The technology sector has generally performed well. As tech's share of many country indexes' market capitalization has increased, it has contributed to higher international revenues.

India is an exception to this trend. The technology sector's weight in the Morningstar India Index has fallen from more than 16% in 2021 to 10% today. India's IT outsourcing companies like Infosys and Wipro have been laggards, whereas more domestically oriented companies such as Reliance Industries and Bharti Airtel have been far stronger performers. As a result, India has become a more domestic market. Today, 75% of the revenues of the Morningstar India Index come from India. In 2021, the figure was 69%.

Sector dynamics help explain the domestic orientation of many emerging markets. The Morningstar Egypt Index, which has the highest percentage of domestic revenues of all 48 country indexes, is dominated by a bank. The domestic-trending financial services sector represents more than one third of market capitalization in Peru, Kuwait, Qatar, Indonesia, Colombia, South Africa, the Czech Republic, and Saudi Arabia, which are all fairly domestic markets.

### **Globalizing Revenue Sources Helps Explain Correlation Trends**

It stands to reason that markets comprising companies with interconnected revenues are likelier to move in the same direction. Consider the three largest constituents of the Morningstar Developed Markets ex-US Index: Novo Nordisk, the Danish pharmaceutical business specializing in diabetes and weight loss therapies, ASML, a Netherlands-based company whose equipment enables semiconductor manufacturing, and Toyota Motor. Novo Nordisk earned 55% of its revenues from the US in 2023. ASML sourced 80% of its revenues from Asia last year. Toyota earned nearly 40% of its revenues from North America, 17% from Asia outside of Japan, and 12% from Europe in the fiscal year ended March 31, 2024. The fortunes of Novo Nordisk, ASML, and Toyota Motor rest less on Denmark, the Netherlands, and Japan and more on global dynamics.

Indeed, increasingly globalized revenue sources parallel rising correlations across developed equity markets. According to the Morningstar 2024 Diversification Landscape report, correlations between global markets have climbed, especially across developed markets. Markets like the US, Europe, and Japan are more correlated with each other than emerging markets are tied to developed markets. The authors write:

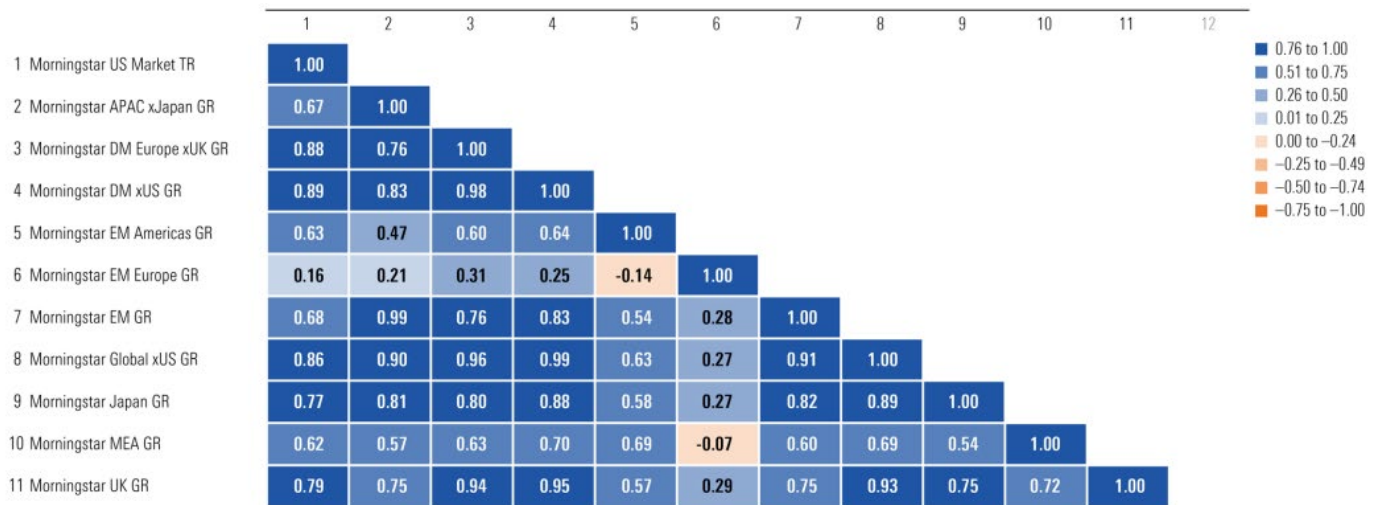
*"From a diversification perspective, most international stock benchmarks, especially those in developed markets, have been closely tied to the US market over the past three years. ... Developed-markets equities, especially European stocks, have had the tightest correlation with US equities. Meanwhile, emerging-markets stocks have tended to have lower correlations with US stocks, and those correlations have generally trended down since 2000."<sup>4</sup>*

The two largest countries in the Morningstar Emerging Markets Index are China and India. The former is 90% domestic, while the latter is 75% domestic. It's not surprising that domestically oriented markets will be less tied to global trends. As displayed in Exhibit 4, correlations across Morningstar's developed-markets indexes are higher than those between emerging and developed markets.

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<sup>4</sup> Arnott, A., Benz, C., and Zaya, K. [2024 Diversification Landscape Report](#). Morningstar. March 20, 2024.

**Exhibit 4** A Three-Year Correlation Matrix Shows Equity Markets Closely Tied, Developed Markets More So Than Emerging Markets



Source: 2024 Morningstar Diversification Landscape Report. Data as of Dec. 31, 2023. USD variants of indexes displayed.

**Globalization in Decline?**

Growing interconnectedness between markets runs counter to the popular narrative that the pandemic and geopolitical tensions are reversing globalization. Supply chains may be onshoring and countries pursuing self-sufficiency, but these trends are not being reflected in the revenue sources of public companies. Trade data and other indicators may tell different stories.

Though a country's equity index is often cited as a barometer of national economic health, markets are hardly perfect reflections of economies. Markets are collections of publicly listed businesses. Their fortunes are influenced by both macroeconomic and microeconomic factors.

As geopolitical risk is top of mind for many investors, revenue sources are important to consider. A domestically oriented market may be less exposed to conflict or trade tensions than an international one. Meanwhile, domestic election results could have more of an impact on companies that do their business at home.

From the perspective of asset allocation, globalized revenue sources blur the lines between the home market and international portions of a portfolio. While it's true that global exposure can often come through domestic companies, it's also true that leading players in an investor's home market may be based offshore. As always, a global equity portfolio offers the broadest opportunity set. ■■■

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