

Global Equity Markets Grow Ever More Global

Revenue sources for Morningstar Indexes' 48 country benchmarks show interconnectedness — at least among developed markets.

Morningstar Inc.

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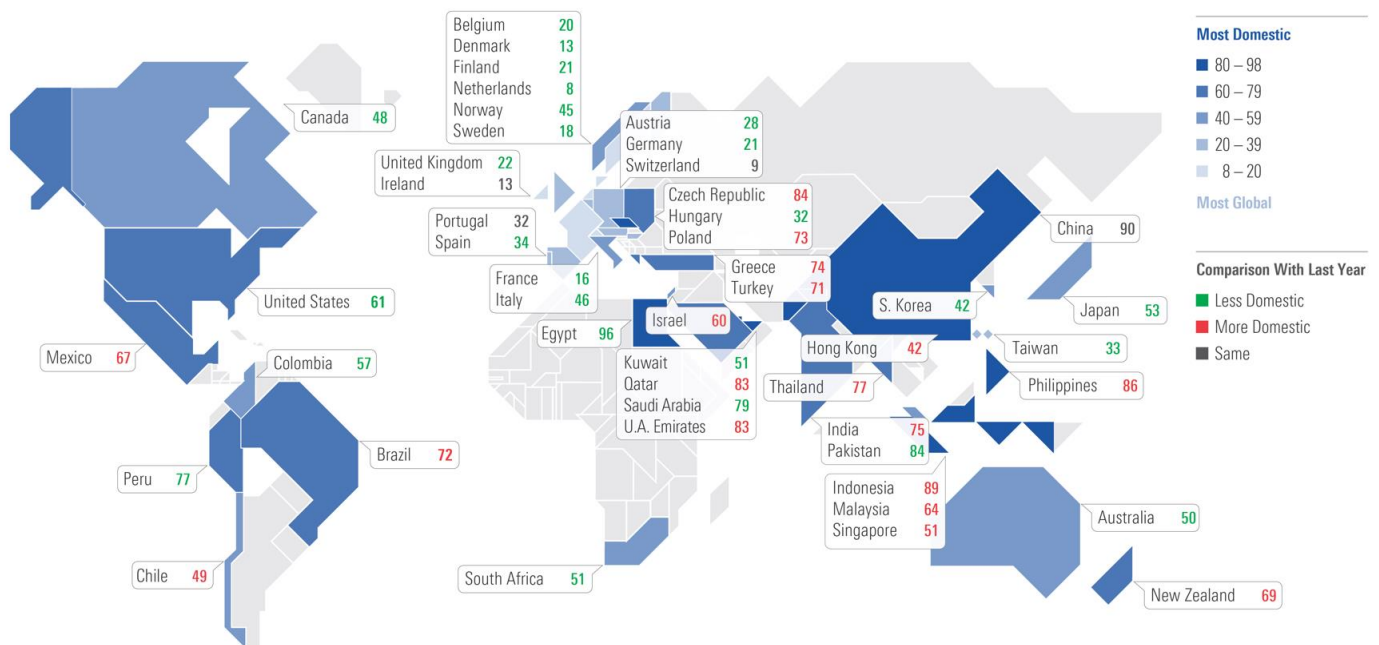
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Examining geographic revenue sources for Morningstar's 48 single-country equity indexes reveals:

- ▶ The pandemic and geopolitics have not turned the global economy inward, from the perspective of equity markets' geographic revenue sources.
- ▶ Since our 2022 study, 26 of 48 markets, including the U.S., Japan, the U.K., Canada, Australia, and almost all of Western Europe, became more global; 18 markets became more domestic; and four countries saw no change. The U.S. dropped from 62% domestic in 2022 to 61% this year, Japan from 55% to 53%, and the U.K. from 25% to 22% domestic.
- ▶ Thirty one of the 45 equity markets we have examined since 2019 have become more global over that time. The U.S. was 66% domestic in 2019, Japan 60%, and the U.K. 29%.
- ▶ Many European markets are estimated to source more revenue from the U.S. than domestically. These include Belgium, Denmark, France, Germany, Ireland, Netherlands, Switzerland, and the U.K.
- ▶ Emerging markets, China foremost among them, tend to be more domestic in their revenue sources.
- ▶ Globalization of revenues helps explain rising correlations, especially among developed equity markets.

Exhibit 1 Morningstar Indexes 2023 Global Revenue Map (Domestic Revenue % for Equity Market Indexes)



Source: Morningstar Direct. Morningstar index constituent data as of May 31, 2023. Geographic segment data based on most recent corporate reporting.

Methodology

This study examines geographic revenue sources for Morningstar Indexes' global equity benchmarks 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 7,942 constituents as of May 31, 2023.

Morningstar's Geographic Segment Data,¹ which can be found in the Morningstar Direct investment analysis platform, enables an investment's revenues to be broken down by regional source. It leverages annual and semiannual filings for publicly listed companies across the globe. 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 revenues can be intermingled with functional segments spanning multiple geographies.

It is important to note that the revenue-exposure data includes estimates and should therefore be used as a directional indicator. 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.

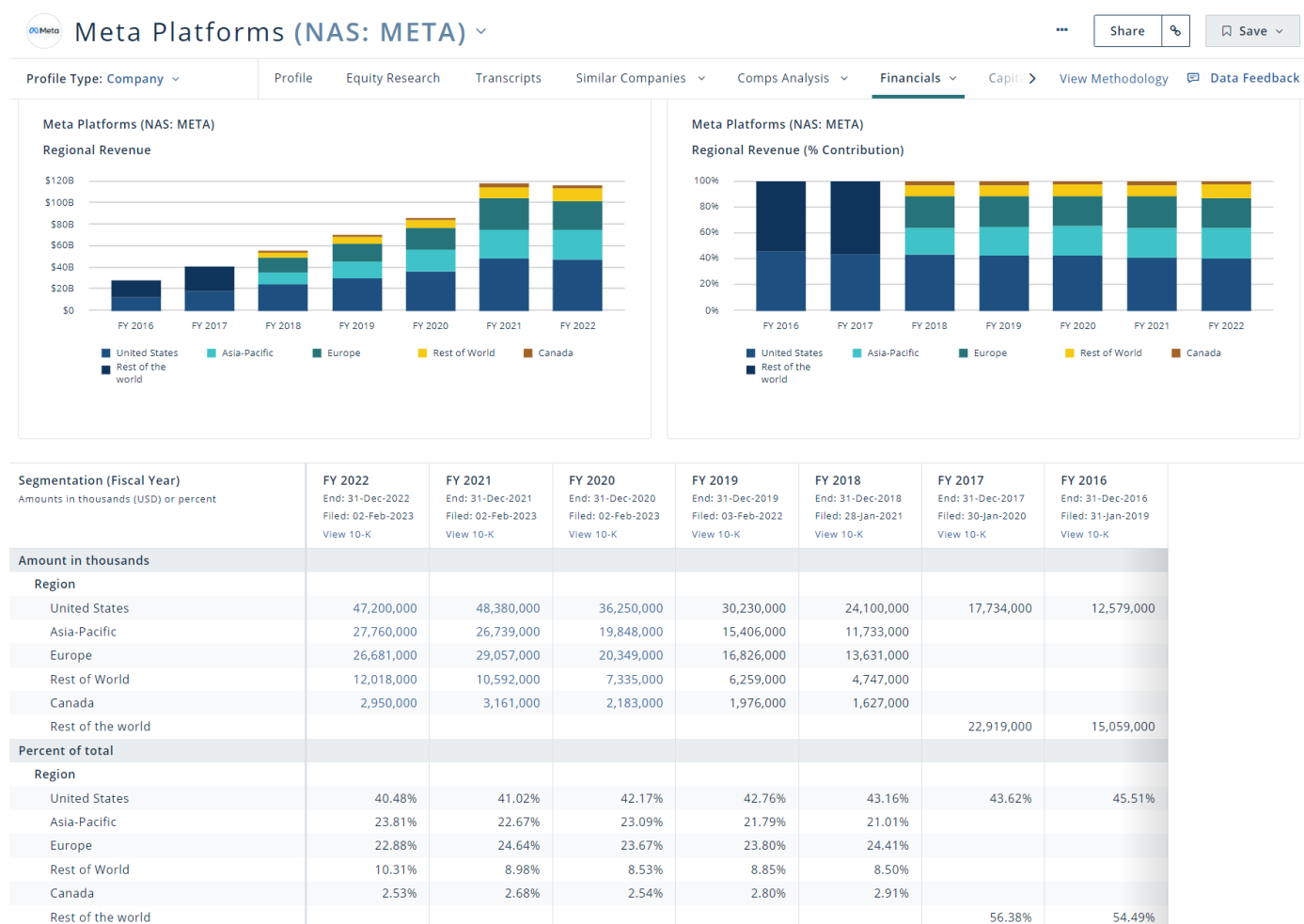
Data appearing in this report is based on Morningstar Global Markets Index constituents as of May 31, 2023. It reflects companies' most recent reports. Fiscal years vary. Depending on the company, the geographic segment data could be as of year-end 2022, March 31, 2023, or Sept. 30, 2022. Morningstar Equity Data covered 7,851 of the 7,942 constituents of the Morningstar Global Markets Index constituents' geographic segment data, representing 99.45% of equity market capitalization.

¹ For a full discussion, see: Morningstar Global Geographic Segment Methodology. Morningstar Manager Research. Nov. 13, 2018.
<https://indexes.morningstar.com/docs/calculation-and-methodology/morningstar-global-geographic-segment-data>

Countries Are Globalizing Because Companies Are Globalizing—At Least in Developed Markets

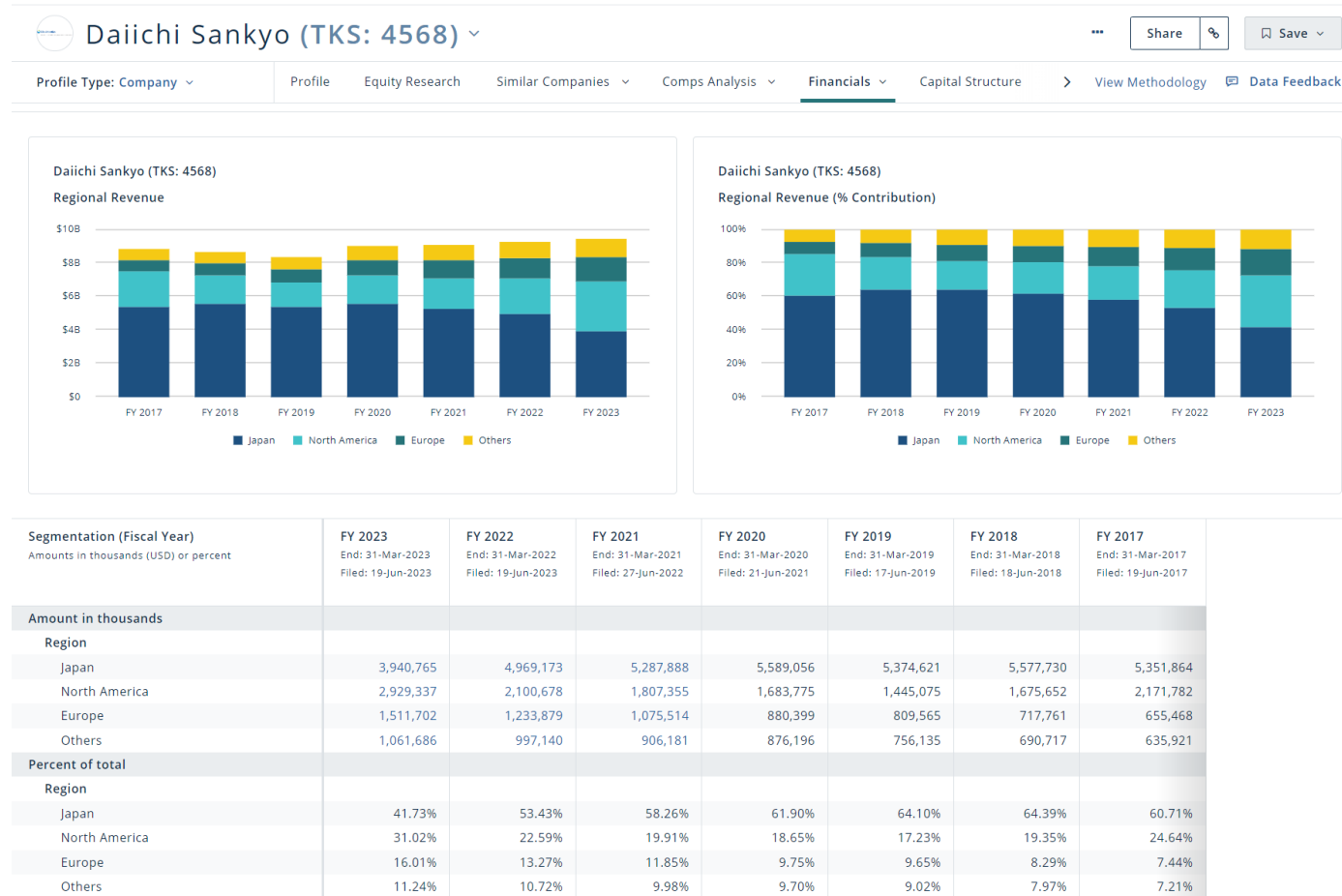
To understand how revenue streams have globalized, consider three company-level examples. The examples below span sectors but are all from developed markets, where the globalization of revenue trend is most pronounced. The first example is Meta Platforms, one of the 10 largest U.S. stocks and a global player like many tech-oriented companies. The owner of Facebook, Instagram, and WhatsApp has seen its share of revenue, sourced outside the U.S., grow over the years—the Asia Pacific region is its largest international market. Thanks to Meta and others, the Morningstar US Market Index (1,482 constituents as of May 31, 2023) has become steadily less domestic in recent years, from 66% in 2019, to 62% in 2022, to 61% today.

Exhibit 2 Meta Platforms, Like Many U.S. Multinationals, Has Become Steadily More Global in Recent Years



Source: PitchBook Platform. Morningstar Equity Data.

Japan, the world's second largest equity market, has globalized in similar fashion to the U.S. The Morningstar Japan Index is 53% domestic, down from 55% in 2022 and 60% in 2019. Daiichi Sankyo, a drugmaker specializing in cancer treatments, exemplifies the trend.

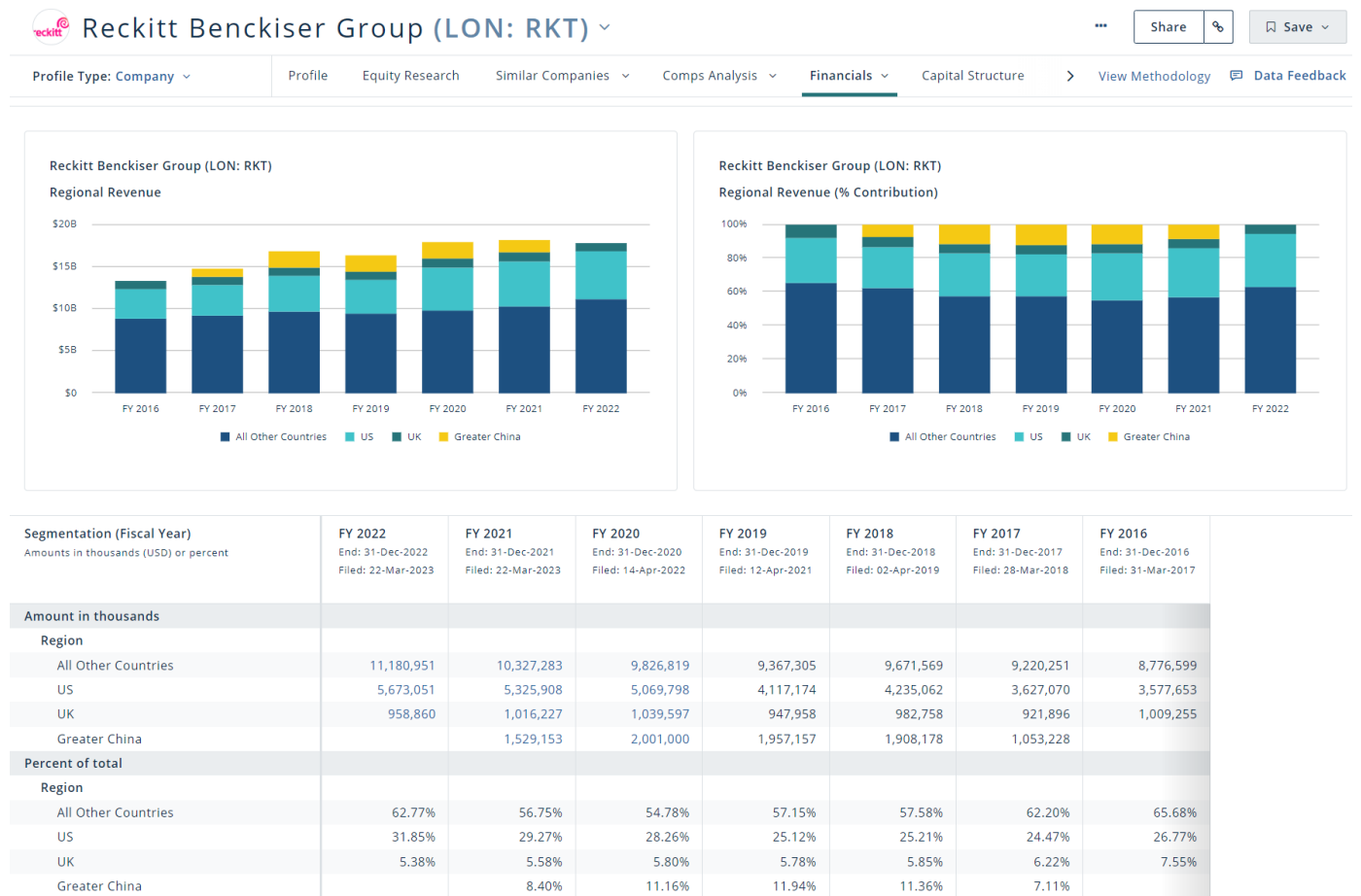
Exhibit 3 Daiichi Sankyo of Japan Has Increased Its Revenue Share From Outside of Japan in Recent Years

Source: PitchBook Platform. Morningstar Equity Data.

European markets are the world's most global in their revenue sources. The Netherlands, Switzerland, Ireland, Denmark, France, Sweden, Belgium, Germany, Finland, the U.K., Austria, and Spain all earn more than two thirds of their revenues from outside national borders. These markets have generally become even more global over the past several years. Companies like ASML Holding, Nestle, CRH, Novo Nordisk, LVMH, Atlas Copco, Anheuser-Busch InBev, Siemens, Nokia, and AstraZeneca have all diversified their revenues geographically.

Morningstar estimates that the U.S. is the largest source of revenue for European markets. In fact, several European markets earn more revenue from the U.S. than domestically. These include Ireland, Denmark, Switzerland, the U.K., Belgium, Germany, France, and the Netherlands (outside of Europe, Taiwan also joins this group thanks to its largest company Taiwan Semiconductor).

The Morningstar UK Index, representing Europe's largest equity market, sources just 22% of revenues domestically, down from 25% in 2022 and 29% in 2019. Multinationals including AstraZeneca, Shell, and Diageo, dominate the index. Increases in their global revenues could partially reflect weak domestic demand. Like many U.K.-based companies Reckitt Benckiser, a household and personal products business, has grown its business in the U.S. and other markets outside the U.K.

Exhibit 4 Reckitt Benckiser, Like Many Companies Based in the U.K. and Elsewhere in Europe, Is Far More Global Than Domestic

Source: PitchBook Platform. Morningstar Equity Data.

Emerging Markets — Less Global and Less Globalizing

Emerging markets are the least global in their revenue sources. Egypt, China, Indonesia, the Philippines, the Czech Republic, Pakistan, Qatar, and the United Arab Emirates are the most domestic in their revenue sources of the 48 countries studied. Most have not globalized in recent years. Banks, telecom, and utilities, which tend to be more domestic than technology and healthcare-related companies, largely dominate these indexes.

China's inward orientation (90% domestic revenues) may surprise some who think of the country as the "world's factory" and an export-led economy. First, it's worth remembering that a country's stock market is not a perfect reflection of its economy. China's exporters are not all publicly listed, and they may be operating in China but headquartered elsewhere.

Second, China is increasingly consumption-led. The Morningstar China Index is heavy on the consumer cyclical and communication services sectors. Alibaba, Meituan, and JD.com are classified as the former. Tencent, Baidu, and NetEase fall into the latter bucket. These are largely national players that have benefited from restrictions on foreign companies like Alphabet, Meta, and Amazon operating in China.

Two outliers among emerging markets are South Korea and Taiwan, which source the majority of their revenues internationally. These are technology-heavy markets. South Korea's international revenues are largely driven by Samsung Electronics, a global leader in smartphones, semiconductors, TVs, and more. The Morningstar Taiwan Index is dominated by Taiwan Semiconductor, the world's largest contract chip manufacturer.

Several emerging markets occupy an in-between space, with a majority of revenues sourced domestically, but a significant amount are sourced internationally. India, Brazil, Mexico, and South Africa all fall into this category. India, notably, has become more domestic (68% in 2019, 70% in 2022, and 75% in 2023). This can partly be explained by India's strong economic growth, which has boosted domestically oriented businesses at the expense of global IT service players like Infosys and Tata Consultancy, which used to represent a larger share of the market. Domestically focused players include financial-services companies like HDFC and ICICI, as well as Reliance Industries, the largest constituent of the Morningstar India Index whose operations span telecommunications, retail, and petrochemicals.

Brazil, like India, also became more domestic compared with 2022. With the pandemic subsiding, economic recovery has benefited financial-services players Itaú, Bradesco, and B3. Meanwhile, Vale, an iron ore miner and the largest constituent of the Morningstar Brazil Index, has been hurt by falling demand from China.

Globalizing Revenue Sources Helps Explain Rising Correlations — Especially in Developed Markets

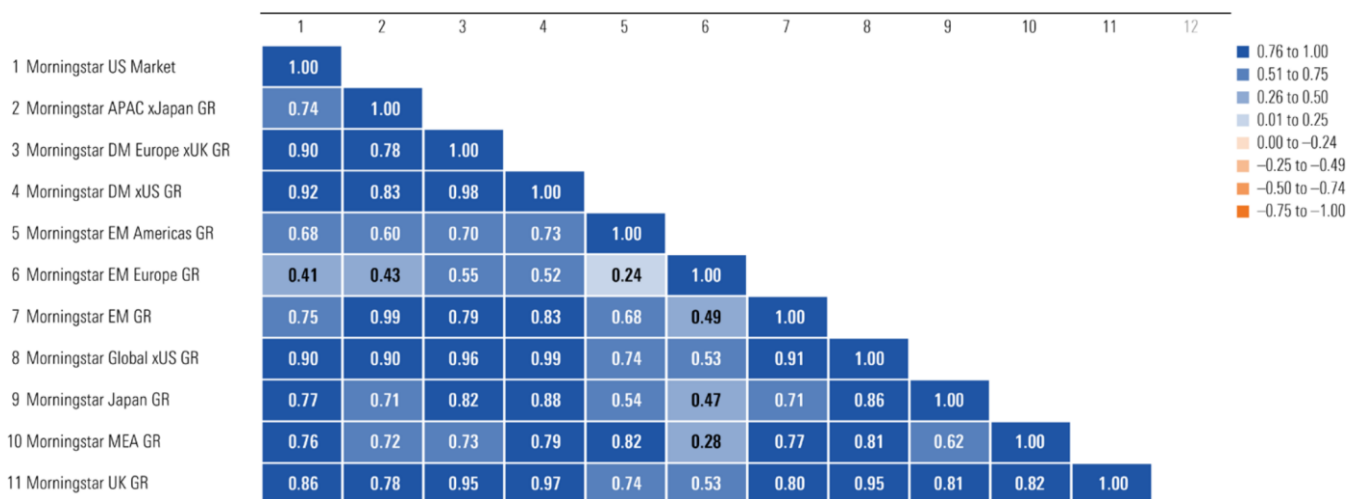
Increasingly globalized revenue sources, especially among developed markets, parallel rising correlations across equity markets. According to the Morningstar 2023 Diversification Landscape report, correlations between global markets have climbed. Developed markets like the U.S., Europe, and Japan are 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 U.S. market over the past three years, as shown in the exhibit below. Not surprisingly, developed-markets European and U.K. equities have had the tightest correlation with U.S. equities. Meanwhile, emerging-markets stocks have tended to have lower correlations with U.S. stocks."²

² Arnott, A., Benz, C., Zaya, K., and Zink, E. "2023 Diversification Landscape Report." Morningstar. April 11, 2023.

<https://assets.contentstack.io/v3/assets/blt4eb669caa7dc65b2/blt4e38f47305e9f037/643f0b22b1f4db27b0203f76/2023-Diversification-Landscape.pdf>

Exhibit 5 A Three-Year Correlation Matrix Shows Equity Markets Closely Tied, Developed More So Than Emerging



Source: 2023 Morningstar Diversification Landscape Report. Data as of Dec. 31, 2022. USD variants of indexes displayed.

Given that many European markets derive more revenues from the U.S. than their home market, the tight correlations are unsurprising. Lower correlations between developed and emerging markets are also logical, given the domestic-revenue orientation of many emerging markets.

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.

That said, it's worth reiterating that this study looks at markets as opposed to trade data and other indicators. 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 domestically based, publicly listed businesses whose fortunes are influenced by both macroeconomic and microeconomic factors. Markets are forward looking, while economic data is historical.

For investors, 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. ■■■

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors — and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

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