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2H 2023 Global Equity Team Outlook: Japan, Global AI, and an Uneven Covid Reopening

- » We remain optimistic about global equities and maintain a preference for non-US exposure, including emerging markets.
- » As the breadth of opportunities expands globally, we see encouraging trends in Japanese equities.
- » Asia's post-pandemic reopening is multispeed, with China's recovery reflecting bifurcation.
- » Reflecting our emphasis on secular growth themes, global beneficiaries of the AI value chain are well represented in our portfolios.

Japan's Resurgence: The "Yamaji Rally," Improving Fundamentals, or Both?

Looking to the second half of the year, we believe global equities will continue to advance, with non-US equities positioned for outperformance. Japan is one area where we're finding increasing reasons for optimism.

After an extended period of underperformance, the Japanese equity market has quietly emerged as one of the strongest global equity markets over the past year, with the MSCI Japan Index rising 17.2% through June 23, 2023, outperforming both the MSCI ACWI Index and the S&P 500 Index, up 13.3% and 15.4%, respectively.*

New Momentum for Market Reform. Japan has long been viewed as attractive from a valuation perspective, but we haven't seen the catalysts that could unlock and sustain this valuation opportunity ... until recently.

Catalyst 1: The TSE is influencing capital allocation policies in a shareholder-favorable way. Although the late Prime Minister Shinzo Abe's "Abenomics" plan sparked optimism for market reforms, progress sputtered. Now, however, we're seeing new momentum driven by the Tokyo Stock Exchange (TSE) and its CEO Hiromi Yamaji focused on improving governance, transparency, and ultimately the valuation of Japanese equities. The TSE's efforts carry significantly more weight and would require companies to delist if they fail to achieve or show meaningful progress toward required capital efficiency targets before March 2026. Market participants have cheered this new focus on shareholder interests—leading some to refer to this recent rally as the "Yamaji Rally."

Our conversations with company management teams also indicate that a new approach is taking hold. We recently attended a conference in Tokyo, and the tone has clearly changed since our pre-Covid visits. We heard from management teams across industries who were excited to share examples of improved corporate governance, streamlined reporting structures and business segments, rationalized non-core assets, and increased share buy-backs and progress in capital allocation plans. During one meeting with a small-cap

*USD terms

Japanese construction company, management brought an independent member of its board along to attest to their optimistic outlook for the construction industry and to illustrate the improved transparency and independent oversight this company was embracing. This sort of forthright participation with a board member would have been unheard of in years past.

Catalyst 2: A shift in business and consumer mindsets amid signs of waning deflation. Japan's economy also benefits from an improving fundamental outlook. For several decades, Japan struggled with deflation as the popping of the property bubble exacerbated demographic and leverage issues that continue today.

While most countries are concerned with elevated levels of inflation post-Covid, Japan is embracing its newfound inflation. We're seeing early signs that consumers and businesses may move out of their large savings and cash positions and make new investments if inflation persists. And, there's reason to believe that higher inflation may endure: Wages are increasing in Japan at a more significant rate than we've seen in recent history, and women's workforce participation has reached an all-time high, which is bolstering consumption.

Our recent trip gave us many opportunities to observe the strength of Japan's post-pandemic reopening. We saw much of the population unmasked, crowded streets, full restaurants, and busy stores. During one dinner, our group was asked to leave after 90 minutes so that the restaurant could seat another group. This was something we had never experienced before in Japan—typically, we have to ask for the bill, and it speaks to the increased focus on efficiency and the strong supply-demand dynamics at play today.

Many employees in Japan continue to have some work-from-home flexibility, but the working culture did not completely change as a result of the pandemic. Many workers are embracing a return to the office, which includes a return to the after-hours entertainment that is another important element in the Japan reopening story. Restaurants, shops, and bars already seemed full when we visited in May, but there may be several legs left to this reopening story as more business return to in-person work. We've yet to see the return of Chinese tour groups, which have historically provided a significant boost to the Japanese tourism industry.

Early Innings. Although the Japanese equity market has enjoyed a strong start to the year, we believe we are still in the early innings. Market reform, reflation, and reopening tailwinds should continue to support better equity performance in the upcoming years. To benefit from these tailwinds, we hold a combination of high-quality multinationals that we believe are some of the better companies globally but have historically traded at a "Japan-market" discount. We also maintain positions in companies more directly exposed to the post-Covid reopening and to companies whose balance sheets and valuations make them more likely to enjoy a boost from market reforms or reflation.

Asia's Multispeed Reopening

Covid reopening and the different speeds at which it is occurring around the world are important factors in our outlook for the second half of 2023 and beyond. The US was quick to reopen, compared to many parts of Asia, including China. This speed, combined with stimulus checks, resulted in a quick V-shaped consumer spending recovery. Many Asian countries that reopened before China have experienced strong recoveries in consumer spending, especially travel and entertainment.

On the other end of the spectrum, China was one of the last countries to end lockdowns, which leaves its recovery a few years behind the US and with negative impacts that will likely take longer to unwind. China's extended lockdown had far-reaching impacts on the average Chinese consumer who had to live on savings for almost three years. As people return to work, many want to first replenish their savings, which may lead to more cautious spending by less-wealthy individuals and contribute to an uneven consumer spending recovery.

We also see an uneven recovery in China's air travel recovery. Domestic air travel has bounced back, but international air travel is recovering slowly, hindered by international airline capacity below pre-Covid levels and a pilot shortage. In addition, many in China have had to renew passports that expired during the pandemic while others wait on visas for international travel. Most of these headwinds are a result of the logistical impacts of extended shutdowns and should prove transitory over time. Moreover, the pace of recovery in international air travel in China is not that abnormal relative to other Asian countries, and we expect continued improvements as these transitory hurdles abate.

There are many other reasons that China’s recovery has been uneven and slower than in the US or other parts of Asia. Wealthier individuals who were less affected by lockdowns have returned quickly to spending on luxury goods, travel, and gambling, providing a boost to areas like domestic tourism. However, the average Chinese consumer may take longer to recover from the pandemic given there wasn’t stimulus money to spend when the economy reopened.

The wealth effect from real estate is an important driver of consumer confidence. In contrast to the US where real estate prices are increasing, weak and volatile real estate prices in China are likely weighing on Chinese consumers. Rising youth unemployment and slowing global trade are likely contributing to the disappointing consumer recovery in China as well. We believe the Chinese recovery will likely remain bifurcated in the near term, but consumer spending will recover over time.

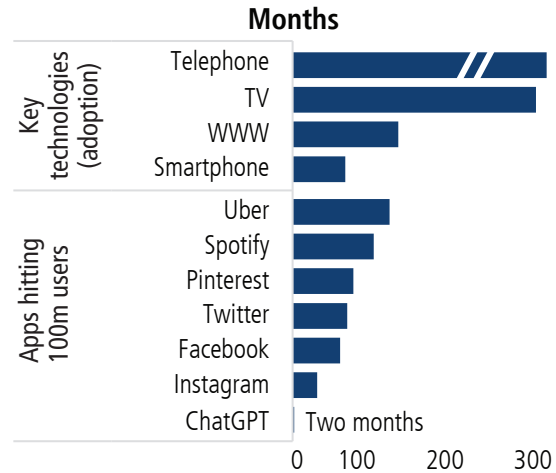
Identifying Secular Opportunities in a Global AI Value Chain

A central component of our process is identifying and investing alongside global secular growth themes. Typically, these themes are found in areas undergoing transformative innovation and disruption, and in some instances, can run for decades. Themes can intersect with one another when businesses driving innovation in one area benefit or drive innovation in adjacent areas. Well-managed companies favorably exposed to innovation and disruption can earn above-average returns on capital and see increasing opportunities for investing capital for extended periods beyond what the consensus expects. Advancements in artificial intelligence (AI) and large language models (LLM) like ChatGPT are a great example of the evolving and durable nature of a growth theme, in this case intersecting themes like increasing mobility and connectivity, mass digitization and data, and artificial intelligence.

Artificial intelligence has been around for decades, but recent breakthroughs have brought the possibilities of generative AI to the masses. Fueled by innovations such as the transformer model, massive computing power and vast amounts of data, large language models (LLM) like ChatGPT use natural language processing to understand human language and produce dialogue. The number of model parameters, which determine an LLM’s sophistication,

have grown exponentially in recent years and enable the functionality seen in ChatGPT. This in turn has led to rapid adoption and a race to build computing infrastructure to support further advances and mass usage (Figure 1).

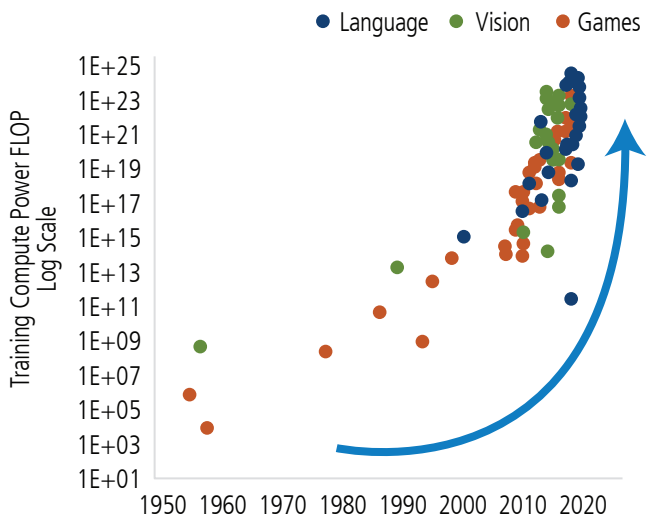
FIGURE 1. RAPID ADOPTION OF AI



Source: Deutsche Bank Research, “Generative AI and Chat GPT 101,” May 2023.

We are at the early stages of what looks to be a transformational shift, but it stands on the shoulders of advancements in computing power that have been powering a variety of other themes for more than a decade (Figure 2).

FIGURE 2. AI MODELS REQUIRE EXPONENTIALLY MORE COMPUTING POWER

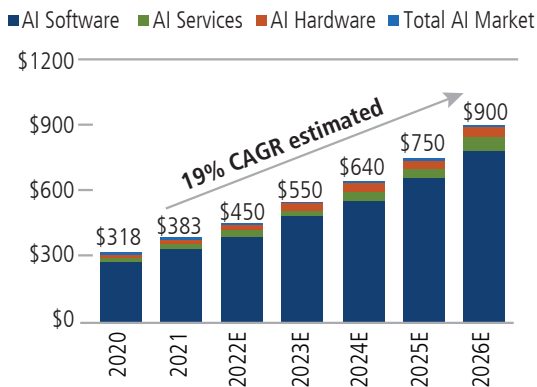


Source: Stanford AI Index, Evercore ISI Research.

Indeed, the semiconductor industry of the digital age is analogous to the pickaxe and shovel suppliers of the gold rush. And while the world is only beginning to understand the productivity-enhancing potential of generative AI for consumers and businesses, significant capital spending to build the infrastructure to train and use these huge models is already underway. BofA Global Research estimates that worldwide spending on AI hardware, software, and services will grow at a 19% compounded annual growth rate (CAGR) over the next four years, reaching more than \$900 billion (Figure 3).

FIGURE 3. GLOBAL AI MARKET IS EXPECTED TO REACH \$900 BILLION BY 2026

AI market size (US \$bn)



Source: BofA Global Research, "Me, Myself and AI-Artificial Intelligence Primer," February 28, 2023.

Cloud data center servers will be a significant part of the upfront spend, and these are increasingly going to require GPUs, chips capable of handling the tremendous amount of data and computations needed for the training and inference of these models. This will drive accelerating sales and profits for these companies which operate with limited competition at the moment. The primary chip designers are US based, but the value chain that produces the final products spans the globe and includes functions like foundry and lithography equipment, testing and packaging, and other critical components. Many of the best positioned companies in these areas are based in Europe, Japan, Taiwan, Korea, and China. Our global and international portfolios have been invested in many of these businesses for more than a decade, and we believe they will continue to provide attractive growth opportunities.

Our team is excited to watch this theme develop and create more opportunities. We are closely watching how businesses and consumers adopt and innovate around the technology. In the near term, we believe the opportunity lies with many of the companies leading computing advancements over the last decade. And that is a truly global group.

For additional insights and information on our global and international capabilities, please visit www.calamos.com.

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The **MSCI ACWI Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets and emerging markets. The **MSCI Japan Index** is a measure of the performance of Japanese equities. The **S&P 500 Index** is a measure of US equity market performance.



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