Insights
Multi-Asset

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Six Grey Swans That Could Unsettle Markets in 2023

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At State Street Global Advisors, we define a Grey Swan as a scenario that typically has a less than 20% likelihood of occurring. A Grey Swan is thus a low probability event, yet one that carries risk with potentially broad investment implications, albeit not necessarily all negative. That the future is always uncertain is a given, yet thinking about scenarios that diverge from a base case helps inform the risk-aware approaches we apply across our portfolios.

For insight on how we expect 2023 to unfold, our base case views are reflected in our 2023 Global Market Outlook. But we have also identified several alternative scenarios below that could develop and we assess their potential investment implications.

1. Outright Deflationary Bust

Despite slowing global growth and clearly easing leading inflation indicators, global central banks enter 2023 with clear hawkish intentions. In this Grey Swan, both the US Federal Reserve (Fed) and the European Central Bank (ECB) deliver multiple additional rate hikes through the second quarter. Meanwhile, a leadership change at the Bank of Japan (BOJ) presages a dramatic exit from its yield curve control (YCC) policy that jolts global bond yields higher. Meanwhile, China struggles with the health implications of its reopening policy, persistent weak domestic services demand, difficulties in reviving housing activity, and the global demand transition from goods to services. To tackle these challenges, China's leadership seeks to boost relative external competitiveness by way of aggressive price discounting (including yuan devaluation).

In the US, the housing recession turns severe and the labor market weakens. As unemployment rises, excess savings are eroded, consumer confidence slips, and consumer spending slows sharply. Goods consumption shrinks and services demand — particularly in discretionary areas like travel and entertainment — abruptly drops as consumers rebuild precautionary savings. Corporate expense budgets are slashed and capital expenditure plans are reined in amid high borrowing costs and deteriorating macroeconomic fundamentals. Hiring turns to firing as profit margins shrink and corporate earnings take a serious hit.

European consumer demand finally crashes amid high inflation. Tourism demand, which had underpinned GDP performance in 2022, is not maintained and Europe's economy shrinks about 1.0% in 2023. Constrained by the sole focus on inflation, the ECB keeps rates in restrictive territory despite a surge in peripheral debt spreads. The broad risk-off sentiment that engulfs markets is exacerbated by contentious debt ceiling negotiations in the US, triggering another spike in US yields. Amid weakening global demand, OPEC quota discipline erodes and global oil supply rises. In the US, the Biden Administration turns more friendly towards domestic oil producers, fuelling expectations of rising US supply. West Texas Intermediate (WTI) crude oil prices drop below $50 a barrel.

Against the backdrop of this dark scenario, the impact for investors would be considerable. Long-term interest rates would drop significantly, with the 10-year US Treasury yield falling below 2%, providing strong capital gains to bondholders while equities and credit deteriorate. The S&P 500 would drop below 3000, and investment grade and high yield credit spreads could reach 2.5% and 8% above Treasuries, respectively. Central banks are then forced to make a hard pivot, dropping target rates near zero and engaging in various forms of quantitative easing to support economic activity and to sow the seeds for recovery. Within portfolios, positions in long Treasuries would be rewarded as they outperform all other major asset classes and provide strong total returns. However, credit, equity and commodities all suffer continued losses (Figure 1). Investors who manage to keep powder dry through this scenario should have an opportunity to pick up long duration assets at more attractive entry points. However, the journey back to 'normality' is likely a lengthy one.

Figure 1
Deflationary Bust — Impact on Investment Assets

	S&P 500 Index (%)	S&P US Aggregate Bond Index (%)	60/40 Portfolio (%)
Deflationary Bust	-20.0	13.5	-6.6

Factor	USD Inflation 2Y	USD Treasury 2Y	USD Treasury 10Y	US Corporate Investment Grade Spread	US Corporate High Yield Spread	US Equity Return	EM Equity Return	WTI Oil
Unit	Basis points	Basis points	Basis points	Basis points	Basis points	%	%	%
Shock	-250	-300	-190	110	310	-20	-16	-30

Source: State Street Global Advisors analysis, MSCI BarraOne as of January 3, 2022.

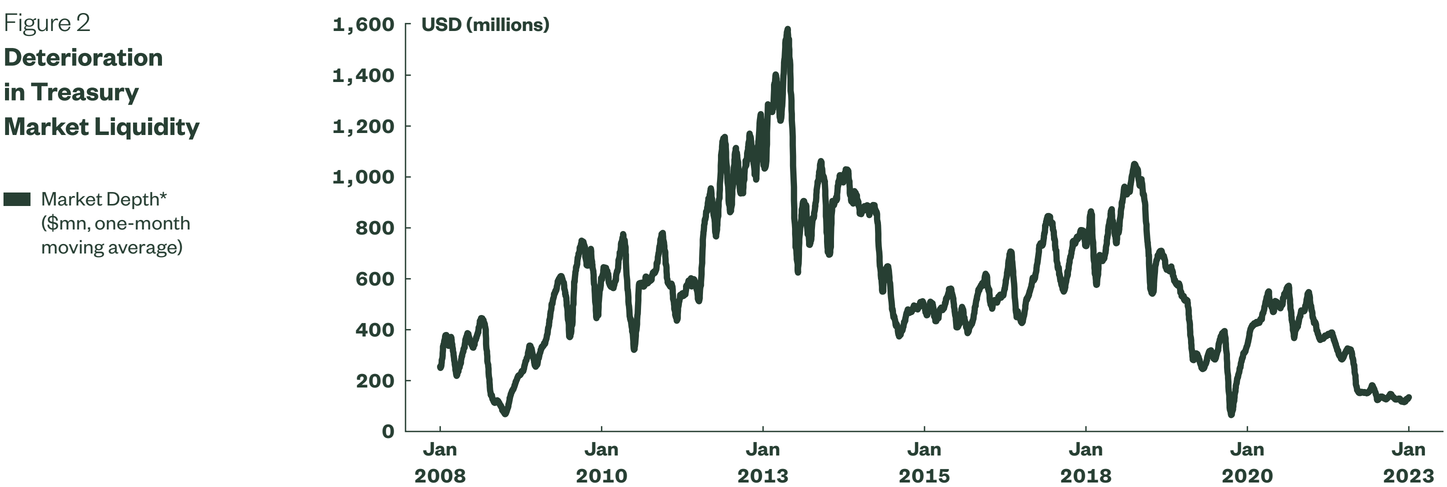
2. Scarce Liquidity Creates Rupture

Increased volatility often leads to reduced liquidity in markets and is a situation that can happen very quickly. The US Treasury market is renowned for its depth and liquidity, yet as demonstrated by the flash event in February 2021, even the world's largest and most liquid government securities market is susceptible to shocks. But what if the Federal Reserve continues on an aggressive rate-hiking cycle and the recent dip in liquidity exacerbates already-heightened market volatility? Diminished market liquidity would amplify the risk of a rupture under those circumstances. A rupture in the US Treasury market, a linchpin for all other interest rates, would not only severely disrupt mortgage markets, corporate funding, vast numbers of derivatives contracts, but would also undermine other major asset classes from stocks to commodities, real estate, and beyond.

Japan offers an alarming insight into the challenges of exiting from extreme policy settings. In December 2022, the BOJ announced that it was lifting the cap under its yield curve control policy from 0.25% to 0.50%, noting that the functioning of the bond market had deteriorated in recent months; yields almost doubled in two days to approach the new cap level. Furthermore, the UK Gilt market had a near-meltdown last September on an unexpected shift in fiscal policy, necessitating Bank of England intervention at a time when it was seeking to exit its bond purchase program. The exit from vastly inflated central bank balance sheets is a tricky one, with the potential risk of significant disruption in markets. This is pronounced when markets are skittish and dealing with less liquidity and depth than usual (Figure 2). And what if persistent and elevated inflation were to force the Fed into a 1980s-style Volcker response in the belief its credibility was in doubt? Markets could take fright — the former easing narrative would get ripped up and a major repricing of Treasuries would result in a severe rift in one of the world's leading markets.

Should a rupture happen in the lead-in to acrimonious debt ceiling talks, investors might need to brace for simultaneous sell-offs in equities and Treasuries. Pockets of the credit market could experience turmoil, particularly in less liquid spaces. The resultant jump in bond-equity correlations might see investors scrambling for second-line hedges such as gold, broad commodities, or selected alternatives. Consumers would feel the impact as everything from mortgage rates to consumer loans could be hit by sharp resets. A portfolio allocation to active fixed income in this environment could help mitigate risk given the ability to trade away from potential trouble spots. US authorities are naturally aware of the wide-reaching potential ramifications, which keeps this a low probability event. Yet missteps do happen and this Grey Swan would be very impactful.

Figure 2
Deterioration in Treasury Market Liquidity



Source: JPMorgan as of January 4, 2023. * JPMorgan metric of depth in 2-, 5-, 10-, and 30-year US Treasuries, converted to 10-year equivalents.

3. Housing Market: Abrupt and Sharp Correction

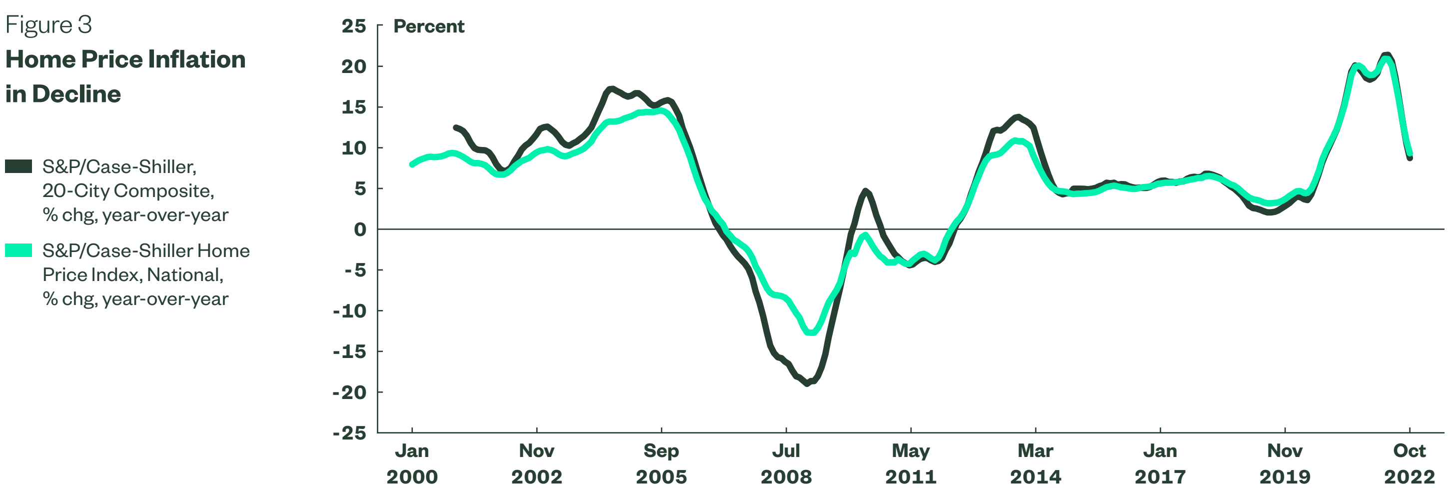
The cumulative impact of ongoing rate hikes and the accelerated pace of quantitative tightening (QT) that have already contributed to a softening US housing market are exacerbated in this Grey Swan by similarly hawkish policy shifts globally, including an abrupt end of YCC policy in Japan. US bond yields get jolted higher, triggering another surge in US mortgage rates to near 8%. Credit standards tighten and credit availability diminishes. As the US economy enters recession, the labor market softens much faster and more severely than previously anticipated.

In this scenario, the housing market correction already evident (Figure 3) takes a more ominous turn. Prices would adjust sharply lower to help clear a market suffering from record low affordability and freefalling demand. Many buyers that entered the market in 2022 could face negative equity and growing challenges in making mortgage payments. (Black Knight estimated that among homebuyers who bought in May–July 2022, 10% were already marginally underwater by October 2022 and that over 30% had less than 10% equity.)[1] The combination of higher unemployment and a record low savings rate then results in rising defaults, although a broad default would not likely be visible until the third quarter of 2023. A surge in foreclosures would boost supply in an already weak market and drive another downward price spiral in late 2023, by which time aggregate national home prices could be down by about 15–20% year-over-year.

The systemic impact of this housing correction would be less severe than that during the Global Financial Crisis (GFC), primarily because supply had been constrained for years, lagging household formation. Prices, rather than fundamental demand, is the core problem in this situation. Once prices decline enough, potential buyers would return to prevent a prolonged crisis. So while this correction could be steep (largely a function of outsized pandemic price gains), we believe it would be fairly short-lived. Builders would reorient new construction towards lower price-point offerings and away from single family to multi-family units. Declining commodity prices (energy, lumber, etc.) and easing labor shortages would minimize margin compression.

For investors, the impact on investment portfolios could be considerable. Compared to the GFC, banks today are far better capitalized to ride out this storm — profitability would be hit but existential concerns about the health of the financial sector could be limited. Other segments of the market including consumer credit, cyclicals, and housing-related assets could struggle. Exposure to anemic housing activity would likely weigh on the materials sector. Real estate makes up a relatively large proportion of middle class net worth and falling values could drive retrenchment in spending, thus favoring consumer staples over consumer discretionary stocks. However, while delinquencies and defaults would increase and corporate earnings and margins deteriorate, we do not believe this would lead to broad-based defaults, systemic risk, or market dysfunction.

Figure 3
Home Price Inflation in Decline



Source: S&P Dow Jones Indices as of January 4, 2023.

4. Euro Strikes a Record Low

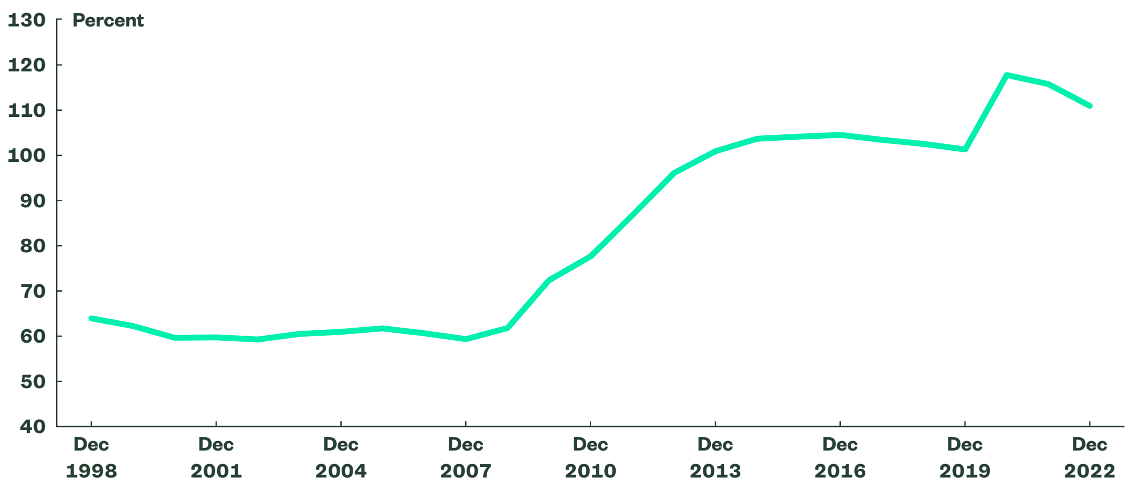
The euro has recovered from its late-2022 dip below parity with the US dollar, leaving its record low of $0.84 unchallenged. But could an event as simple as an extended cold winter be the domino that sets in motion a scenario that destabilizes the euro? In this Grey Swan, a severe depletion of natural gas reserves would drive energy prices (and overall inflation) higher and necessitate a monetary policy response. Fiscal deterioration and the ever-present risk of an escalation in the Russian-Ukraine War could raise the threat of higher eurozone policy rates that further dampens economic sentiment.

Against this backdrop, European Union ties would be tested by rising political tensions within and between member states. As the economy deteriorates and focus shifts ahead to the 2023/2024 winter, rising nationalism and the potential fragmentation of energy and immigration policy could see the euro struggle for support. A retreat to more nationalistic positions then likely results in greater pushback on plans for fiscal consolidation. Meanwhile, the lower growth environment and high ECB rates would effect renewed divergence between core/peripheral European debt as already high government debt relative to GDP rises in Italy, for example (Figure 4). With the new Italian government of Giorgia Meloni already hostile to aspects of the European Union, the euro could reach new lows amid questions around a potential Italian debt default and whether the Union can even stay together.

A breakup of the eurozone seems highly unlikely in this scenario, but the *fear* of a single country exit in an environment of recession, rising political tensions, and high debt levels could drag the euro toward its record low levels. For investors, a safety-first approach is likely triggered with core euro area debt (France/Germany) favored over peripherals such as Italy. Allocations away from euro area equities may see UK shares preferred as investors adjust European exposure.

Figure 4
High Debt (in Rising Yield/Slowing Growth Scenario) Hits Sentiment

Average Net Debt/ GDP (Italy, Spain, France, Portugal)



Source: Bloomberg Finance L.P., as of December 31, 2022.

5. Major Oil Price Spike

In our Grey Swans article released at the beginning of 2022, we posited that oil prices could reach $150 a barrel based on pandemic reopening trends and geopolitical risks (at the start of 2022, the price was around $80).[2] The price of oil did not reach those heights, but Russia's invasion of Ukraine sent the price above $100 for nearly half the year, briefly spiking to around $125. Notwithstanding considerable ongoing volatility, oil prices have trended lower — so much so that they ended 2022 close to where they started. Our analysts' base case is for oil price softness as the global economy slows, but there are ingredients in the broad macroeconomic and geopolitical landscape that could facilitate a renewed, if unlikely, move towards the $150 level.

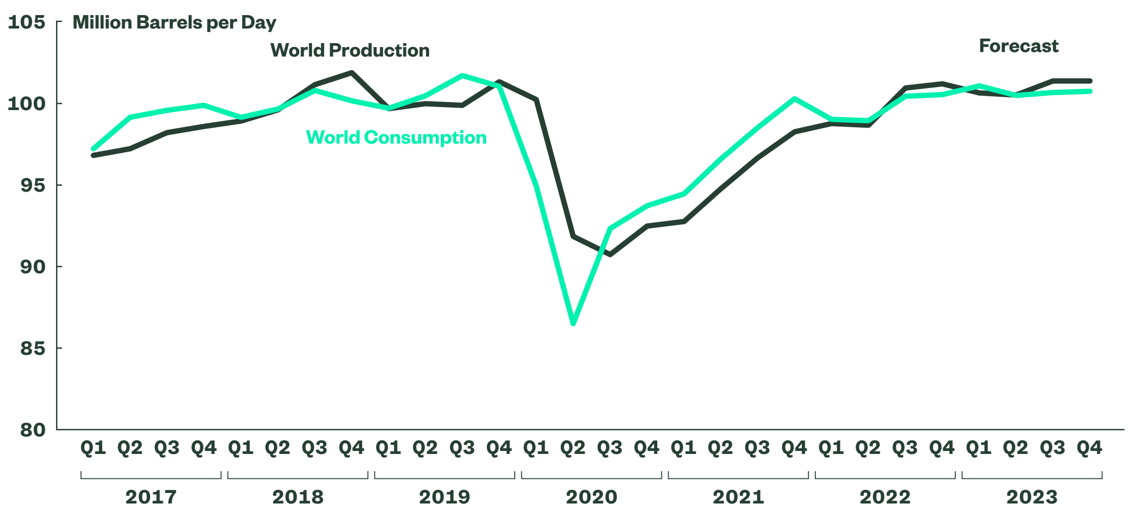
One catalyst that could make sharply higher oil prices more tangible is a larger-than-anticipated economic response to the ending of China's restrictive Covid-related policies. Not only would this stoke oil demand from Chinese industry, but it would also potentially have a positive knock-on impact on other emerging markets that have close economic relationships and supply chains with the world's second-largest economy.

In late 2022, OPEC+ reduced production to support oil prices, but it is not simply a case of opening the taps to bring more oil online to meet resurgent demand. There is limited spare capacity in the system and sanctions on Russia mean that the globe's third-largest producer carries doubts about supply reliability. The supply-demand outlook is already tight (Figure 5). G7 countries no longer import Russian oil and Western sanctions could lead to a situation in which Russia cuts its oil exports both as a retaliatory move and in the belief that higher prices would offset the loss in volume.

Finally, if simmering tensions in parts of the Middle East were to boil over into a full-scale conflict we could have the makings of a perfect storm in terms of another oil price surge. But not all elements of this trifecta (economic bounce, limited supply, and geopolitical conflict) would be necessary as each has the potential to deliver a nasty outcome (for oil consumers) on its own.

A spike in energy prices would deliver another stagflationary impulse, particularly in Europe. For investors, the impact might warrant continued use of commodities as a portfolio hedge, as well as investment in oil-related stocks, from Big Oil to energy sub-sectors.

Figure 5
World Liquid Fuels Production and Consumption Balance



Source: U.S. Energy Information Administration, Short-Term Energy Outlook, December 2022.

6. Semiconductor Drivers Bounce Back

In what was a truly volatile 2022 for US equities, the broad technology sector had a notably difficult year. Performance dispersion within the sector was high, with leadership particularly narrow. In 2022, the semiconductor industry proved to be one of the worst performers — down over 30% for the year[3] as it posted its worst performance relative to the S&P 500 Index in over a decade.[4] Historically a strong growth sector, the worldwide semiconductor market's growth is estimated to have slowed from 26.2% in 2021 to 4.4% in 2022, with a decline of 4.1% forecast for 2023.[5] And for the bottom line of firms in the industry, earnings growth estimates for 2023 have been cut by some of the largest amounts within the US equity market. But what if the drivers for the market's pessimistic assessment shifted? In short order, the semiconductor sector could swivel from market laggard to market leader.

In our final Grey Swan, the trigger for a reversal in fortunes lies in a significant US policy pivot that could further temper dollar strength and deliver a positive growth surprise. A more substantial Fed move than just slowing the pace of rate hikes (e.g., foreshadowing rate cuts) may see the US dollar continue to weaken and mean revert off 20-year peaks. This could lessen the headwind that semiconductors have experienced over the last year, given that the industry garners more than 80% of its revenue from overseas markets.[6] An economic growth surprise on more dovish Fed actions could lead to an increase in productivity and capital expenditures and, more importantly, revive sentiment for the highly cyclical semiconductor industry.

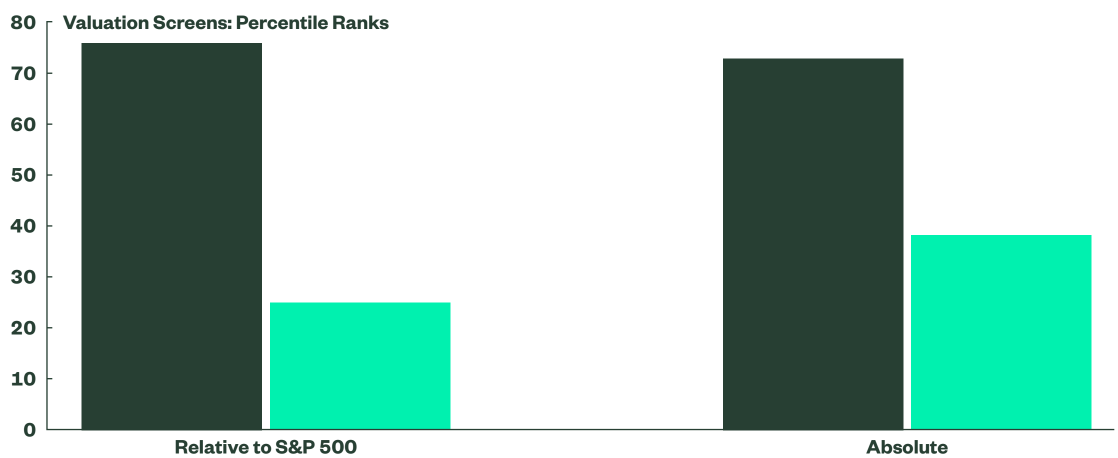
The foundation for a reversal is not that impaired either. Long-term semiconductor growth expectations remain above the S&P 500 (13% vs. 11%),[7] while absolute valuations are below historical averages over the last 10 years (Figure 6). In fact, three of the industry's valuation metrics (P/E, P/B, EV/EBITDA)[8] are in the bottom fifth percentile relative to the broader US market. Additionally, within the technology sector, the semiconductor industry has the largest percentage of firms (70%) with positive earnings-per-share figures over the last twelve months.[9] Semiconductors are *profitable* technology stocks.

Semiconductor demand is highly cyclical with a strong correlation to global GDP levels. As noted, the US industry derives significant revenues from outside the US.[10] Any upside revision to global GDP growth alongside the weak earnings sentiment for the industry may lead to a positive surprise given the starting attractive relative valuations. A glimpse of how this could play out was evident in the fourth quarter of 2022 as semiconductors outperformed the market and the broad technology sector by 3% and 6%, respectively, in the hope of a policy pivot.[11]

Figure 6
Semiconductor Valuations Lag S&P 500 and Technology Sector (2012–2022)

S&P 500 Information Technology Index

S&P Semiconductor Select Industry Index



Source: Bloomberg Finance L.P., as of December 31, 2022 based on the S&P Semiconductor Select Industry Index, the S&P 500 Information Technology Index, the S&P 500 Index based on a five-factor ensemble screen of price-to-earnings ratio, price-to-earnings-next-twelve-months ratio, price-to-book ratio, price-to-sales ratio, and enterprise-value-to-EBITDA ratio from 2012–2022.

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Endnotes

1 Black Knight's October 2022 Mortgage Monitor.

2 Price of Brent Crude per barrel. Source: Bloomberg Finance L.P.

3 Bloomberg Finance L.P., as of December 31, 2022 based on the S&P Semiconductor Select Industry Index.

4 Bloomberg Finance L.P., as of December 31, 2022 based on the S&P Semiconductor Select Industry Index.

5 World Semiconductor Trade Statistics Semiconductor Market Forecasts, Fall 2022.

6 FactSet as of December 31, 2022, based on the S&P Semiconductor Select Industry Index

7 Bloomberg Finance L.P., as of December 31, 2022 based on the S&P Semiconductor Select Industry Index and the S&P 500 Index.

8 Price/Earnings Ratio, Price/Book Ratio, Enterprise Value/Earnings Before Interest, Taxes, Depreciation, Amortization.

9 Based on the S&P Total Market Information Technology sector as of November 14, 2022 per Bloomberg Finance L.P. data.

10 Bloomberg Finance L.P., as of December 9, 2022 based on the S&P Semiconductor Select Industry Index.

11 Bloomberg Finance L.P., as of December 9, 2022 based on the S&P Semiconductor Select Industry Index and the S&P 500 Index.

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* Pensions & Investments Research Center, as of December 31, 2021.

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