Inflationary Vortex

The gravitational pull of labor, China, and energy
Deposits Surged for Silicon Valley Bank (SIVB) and Signature Bank (SBNY) as Treasury Values Declined

Data on the left as of December 31, 2022. Source: Bloomberg, WTIA. Data on the right as of March 14, 2023. Source: Bloomberg. The U.S. Treasury long index measures the U.S. dollar denominated, fixed rate, nominal debt issued by the U.S. Treasury with 10 years or more to maturity.

SIVB deposit growth topped out at over 100% (y/y) in Q3 2021…

… at the same time Treasury values declined precipitously
Concentrated Deposit Base

Deposit accounts <$250k (% of total deposits)

- RF
- FITB
- WFC
- CFG
- MTB
- PNC
- TFC
- BAC
- KEY
- USB
- JPM
- CMA
- SBNY
- SIVB

Data as of December 31, 2022. Source: Bloomberg, Citi Insights. Banks are identified by their ticker. Please refer to Appendix for more information. The banks that are represented consist of the 11 stocks in the S&P Regional Bank Index and the 5 stocks in the S&P Diversified Bank Index.
SIVB Took on High-Duration Risk

Securities as a percent of total assets

Data as of December 31, 2022. Source: Bloomberg, WTIA. The banks that are represented consist of the 11 stocks in the S&P Regional Bank Index and the 5 stocks in the S&P Diversified Bank Index.
Rising Rates Exposed Vulnerability in Capital Ratios

Impact of unrealized securities losses on capital ratios

Data as of December 31, 2022. Source: JPMAM. Calculation methodology: The goal of the chart is to illustrate the theoretical capital impact of an immediate liquidation of a bank’s entire investment securities portfolio, both HTM and AFS. For systemically important banks, no adjustment for AFS is needed since AFS unrealized gains and losses are already reflected in reported capital ratios. As a result, only gains and losses in HTM portfolios are included in our adjustment. For these four banks, we tax-adjust the difference between amortized cost and fair value of the HTM securities assuming a tax rate of 24% and subtract this amount from Common Equity Tier 1 Capital. Regional banks shown elected to add back AFS losses to regulatory capital (an option not available to larger banks). For purposes of this analysis, to make regional bank ratios comparable to larger banks, we reversed add-backs associated with unrealized AFS losses since the four larger banks have already reflected them. Direct hedging of interest rate risk in HTM portfolios is generally prohibited by rule ASC 320 since HTM treatment implies that a bank will not ever sell the bonds, in which case there is no reason to hedge variations in price as a function of changing rates. Direct hedging of interest rate risk is allowed in AFS portfolios. However, accounting treatment of these hedges requires quarterly recognition of gains and losses in the income statement and capital accounts. Therefore, under our working assumption in the chart that banks had to liquidate AFS portfolios, there would be no offsetting hedge gain to recognize at that time. BAC Bank of America; C Cit; CFG Citizens Bank; CMA Comerica; COF Capital One; FHN First Horizon; FCNCA First Citizens; FITB Fifth Third; FRC First Republic; HBAN Huntington; JPM JP Morgan; KEY Keycorp; MTB M&T; PACW PacWest; PNC PNC Bank; RF Regions; SBNY Signature; SIVB Silicon Valley Bank; TFC Trust; USB US Bancorp; WAL Western Alliance; WFC Wells Fargo; ZION Zions

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The impact of unrealized losses on SIVB was exceptionally large
Rate Expectations Whipsawed by Bank Troubles

Federal Funds Rate (%: top of target range)

- Fed funds rate
- As of 3/21/23
- As of 12/31/22
- Pre SIVB Failure 3/9/23

Data as of March 21, 2023. Sources: Macrobond, Federal Reserve, WTIA. A basis point is one hundredth of 1 percentage point.
Senior Loan Officer Survey Shows Rapid Tightening

Net percent of domestic respondents tightening standards (C&I loans for large/medium firms)

Bond Market Volatility Surges

U.S. bond market volatility (MOVE index)

U.S. stock market volatility (VIX index)

Data as of March 15, 2023. Sources: Bloomberg. The Chicago Board Options Exchange Volatility Index (VIX) is a real-time index that represents the market’s expectations for the relative strength of near-term price changes of the S&P 500 Index (SPX). The Merrill Lynch Option Volatility Estimate (MOVE) Index measures U.S. interest rate volatility. The index tracks the movement in U.S. Treasury yield volatility implied by current prices of 1-month OTC options.
Earnings Under Pressure

S&P 500 Index Adjusted EPS (Q/Q Growth)

Data as of March 31, 2023. Source: Bloomberg, WTIA. Past performance cannot guarantee future results. Indices are not available for direct investment.
# Outlook scenarios

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Soft landing</th>
<th>Mild recession</th>
<th>Severe recession</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI (y/y)</td>
<td>Slows to 2.5%–3.0% by mid-2023</td>
<td>Slows to 3.0%–4.0% by mid-2023</td>
<td>Slows to only 4.0%–5.0% by mid-2023</td>
</tr>
<tr>
<td>Peak fed funds rate</td>
<td>Below 5.0%</td>
<td>5.0%–6.0%</td>
<td>Above 6.0%</td>
</tr>
<tr>
<td>GDP</td>
<td>0.5%–1.0% for 2023</td>
<td>1 to 2 quarters of decline by 1.0%–1.5%</td>
<td>2+ quarters of declines of 2.5%–3.0% quarter-over-quarter annualized</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>4.0%–4.5%</td>
<td>5.0%–5.5%</td>
<td>5.5% and above</td>
</tr>
<tr>
<td>10-year Treasury yield</td>
<td>10-year yield has peaked</td>
<td>10-year yield declines, curve maintains inversion</td>
<td>10-year yield moves higher, curve inversion deepens</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>S&amp;P 500 climbs back toward prior high, returning 20%–25% for the year in 2023</td>
<td>S&amp;P 500 bottoms in early 2023; return is in the low-to-mid single digits for the year</td>
<td>S&amp;P 500 bottoms in mid-2023 after falling another 15%–20% from 2022 lows; return is flat to mildly negative for the year</td>
</tr>
</tbody>
</table>
Mild recession expected in 2023

U.S. real gross domestic product (GDP, %)

Data as of December 30, 2022. Sources: Macrobond, Bureau of Economic Analysis, WTIA.
Inflation going forward expected to be higher than in the post global financial crisis (GFC) era

CPI Inflation (y/y%)

- Pre-GFC average: 2.7%
- Post-GFC average: 1.7%
- Post-COVID range: 2.5%–3.5%

Our 2023 outlook

Inflationary Vortex: The gravitational pull of labor, China and energy

**Theme I**
**Labor Market Inflection**

- Reduced labor participation
- Lower productivity
- Potential GDP reduced

**Theme II**
**China’s Socioeconomic Evolution**

- Era of disinflation ending
- Zero-COVID and geopolitics
- Aging demographics

**Theme III**
**Energy’s Tenuous Transition**

- Declining capex in oil
- Surging commodity demand
- Inflationary impact
THEME I
LAbOR MARKET INFLECTION
Labor Force Depressed Relative to Pre-Pandemic Trend

Labor Force Shortfall (millions)

During COVID shutdowns labor force was 8 million below trend
Still 1.5 million below trend

U.S. Job Openings per Unemployed Person (ratio)

Accelerated retirement depressing labor force participation

Change in labor force participation rate relative February 2020 (percentage points)

THEME II

CHINA’S SOCIOECONOMIC EVOLUTION
China’s global inflationary pulse through the years

- **Disinflationary**
- **Indeterminate**
- **Inflationary**

---

**2001** - China admitted to the World Trade Organization (WTO)

**2003** - Chinese private and self-employed manufacturing more than doubles, from 11 million to almost 25 million

**2013** - Xi Jinping elected president of China by the National People’s Congress

**2015** - China growth scare and market volatility

**2016** - China lifts one-child policy

**2018** - U.S.-China trade war begins

**2020** - First COVID-19 lockdown begins in Wuhan, China

**2021** - U.S. announces restrictions on sale of semiconductors to China

**2022** - China unveils dual circulation strategy at the Politburo Standing Committee of the Chinese Communist Party (CCP) Central Committee

See Appendix for sources.
China as a central node in the global supply chain

China’s value-added to each country’s domestic final demand (%)

Source: OECD

In 1999, China’s only significant supply-chain relationship was with the small neighboring nation of Hong Kong.

Fast-forward nearly 20 years and China now contributes meaningful value add to the production of goods and services from over 30 countries, representing more than 50% of global GDP.

The larger each circle, the greater China’s contribution to the value of final goods and services demanded by a country.

- 10%-14%
- 15%-20%
- 21% +
China’s “baby bust” to restrict labor supply long term

China fertility rate, births per woman

THEME III
ENERGY'S TENUOUS TRANSITION
Decline in capex by major oil firms is a risk to future production capacity

Capital expenditures by company ($millions)

Data as of December 31, 2021. Sources: Company websites and Morningstar
Petroleum still expected to be a major source of energy

Global energy supply by source (% share of total)

<table>
<thead>
<tr>
<th>Year</th>
<th>Renewables</th>
<th>Oil</th>
<th>Natural gas</th>
<th>Coal</th>
<th>Nuclear</th>
<th>Biomass</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>12%</td>
<td>29%</td>
<td>23%</td>
<td>26%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>2030</td>
<td>17%</td>
<td>29%</td>
<td>22%</td>
<td>22%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>2050</td>
<td>29%</td>
<td>27%</td>
<td>21%</td>
<td>15%</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Sources: International Energy Agency (IEA)
## Current positioning

### High-net-worth portfolios with private markets*

<table>
<thead>
<tr>
<th></th>
<th>Tactical tilts</th>
<th>Positioning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. Large Cap</td>
<td>○ ○ ○ ○ ● ○ ○ ○</td>
<td>Underweight</td>
</tr>
<tr>
<td>U.S. Small Cap</td>
<td>○ ● ○ ○ ○ ○ ○</td>
<td></td>
</tr>
<tr>
<td>International Developed</td>
<td>○ ● ○ ○ ○ ○ ○</td>
<td></td>
</tr>
<tr>
<td>Emerging Markets</td>
<td>○ ○ ○ ○ ● ○ ○ ○</td>
<td></td>
</tr>
<tr>
<td><strong>Fixed Income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment Grade</td>
<td>○ ○ ○ ○ ● ○ ○ ○</td>
<td>Overweight</td>
</tr>
<tr>
<td>Tax-Exempt High Yield</td>
<td>○ ○ ○ ○ ○ ● ○ ○</td>
<td></td>
</tr>
<tr>
<td><strong>Real Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global REITs</td>
<td>○ ○ ○ ○ ● ○ ○ ○</td>
<td>Neutral</td>
</tr>
<tr>
<td>Other/Commodities</td>
<td>○ ○ ○ ○ ● ○ ○ ○</td>
<td></td>
</tr>
<tr>
<td><strong>Alternatives</strong></td>
<td></td>
<td></td>
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<tr>
<td>Equity Long/Short Hedge</td>
<td>○ ○ ○ ○ ● ○ ○ ○</td>
<td>Neutral</td>
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<tr>
<td><strong>Private Markets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity/Debt/Real Estate</td>
<td>○ ○ ○ ○ ● ○ ○ ○</td>
<td>Neutral</td>
</tr>
<tr>
<td><strong>Cash</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data as of April 1, 2023. Positioning reflects our monthly tactical asset allocation (TAA) versus the long-term strategic asset allocation (SAA) benchmark. For an overview of our asset allocation strategies, please see the disclosures.

*Private markets are only available to investors that meet Securities and Exchange Commission standards and are qualified and accredited. We recommend a strategic allocation to private markets we do not tactically adjust this asset class.
“Higher for longer” can create opportunities

- Higher medium-term inflation
- Higher medium-term rates
- Tighter monetary policy

**BENEFITS**
- Diversification across asset classes
- Diversification across factors & sectors
- Active management
- Quality
Thematic Investment Spotlight: Quality

The quality factor includes:

- High return on equity
- Low debt to equity
- Low earnings variability

The quality factor has been shown to:

- Outperform the equity market (after controlling for other factors) over time
- Generate higher excess return during earnings contractions

Average Annualized Excess Return for Quality Factor

During Earnings Expansion: 0.89%
During Earnings Contraction: 1.56%

Data includes monthly returns for the Barra quality factor from June 30, 1995 through December 30, 2022. Earnings expansions (contractions) are defined as a positive (negative) 3-month % change in S&P 500 EPS. The excess returns shown are the excess return generated by the quality factor over the MSCI USA index when controlling for other factors. Sources: Bloomberg, MSCI, WTIA. Past performance cannot guarantee future results. Indices are not available for direct investment. Investment in a security or strategy designed to replicate the performance of an index will incur expenses such as management fees and transaction costs which will reduce returns.
Questions?
Tony Roth
Chief Investment Officer

Tony Roth is chief investment officer for Wilmington Trust Investment Advisors, Inc, the investment advisory arm of Wilmington Trust and M&T Bank. Tony plays a key role in developing and delivering investment services for our wealth, institutional, and brokerage clients. He provides strategic direction for the firm’s asset management investment activities including asset allocation, manager research, and portfolio construction. Tony leads the firm’s Investment Committee.

Tony joined Wilmington Trust in 2014 with extensive experience in wealth management and investment advisory. Prior to joining Wilmington Trust, he was chief investment officer (CIO) for Aquitaine Management in New York. Before that, he worked for UBS Wealth Management Americas as CIO, where he founded the Ultra High Net Worth Chief Investment Office. Earlier in his career, he was founder and co-head of the Advisory Services Division at Bear, Stearns & Co. Inc., served as director of the Family Wealth Group at Sanford C. Bernstein & Co., and was a tax attorney at Cleary Gottlieb in New York.

Tony earned his law degree from Harvard Law School. He holds a master’s degree in French and international tax law from Université Panthéon Sorbonne, and graduated magna cum laude from Brown University with a degree in philosophy.

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Expertise In
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• Wealth management
• Equities
• Fixed income
• Hedge funds
• Alternative investments
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Continued

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The gold industry can be significantly affected by international monetary and political developments as well as supply and demand for gold and operational costs associated with mining.

An Overview of Our Asset Allocation Strategies

Wilmington Trust offers seven asset allocation models for taxable (high-net-worth) and tax-exempt (institutional) investors across five strategies reflecting a range of investment objectives and risk tolerances: Aggressive, Growth, Growth & Income, Income & Growth, and Conservative. The seven models are High Net Worth (HNW), HNW with Liquid Alternatives, HNW with Private Markets, HNW Tax Advantaged, Institutional, Institutional with Hedge LP, and Institutional with Private Markets. As the names imply, the strategies vary with the type and degree of exposure to hedge strategies and private market exposure, as well as with the focus on taxable or tax-exempt income. On a quarterly basis we publish the results of all of these strategy models versus benchmarks representing strategic implementation without tactical tilts.

Model Strategies may include exposure to the following asset classes: U.S. large-capitalization stocks, U.S. small-cap stocks, developed international stocks, emerging market stocks, U.S. and international real asset securities (including inflation-linked bonds and commodity-related and real estate-related securities), U.S. and international investment-grade bonds (corporate for Institutional or Tax Advantaged, municipal for other HNW), U.S. and international speculative grade (high-yield) corporate bonds and floating-rate notes, emerging markets debt, and cash equivalents. Model Strategies employing nontraditional hedge and private market investments will, naturally, carry those exposures as well. Each asset class carries a distinct set of risks, which should be reviewed and understood prior to investing.

Allocations

Each strategy is constructed with target weights for each asset class. Wilmington Trust periodically adjusts the target allocations and may shift away from the target allocations within certain ranges. Such tactical adjustments to allocations typically are considered on a monthly basis in response to market conditions. The asset classes and their current proxies are: large-cap U.S. stocks: Russell 1000® Index; small-cap U.S. stocks: Russell 2000® Index; developed international stocks: MSCI EAFE® (Net) Index; emerging market stocks: MSCI Emerging Markets Index; U.S. inflation-linked bonds: Bloomberg/Barclays US Government ILB Index; international inflation-linked bonds: Bloomberg/Barclays World exUS ILB (Hedged) Index; commodity-related securities: Bloomberg Commodity Index; U.S. REITs: S&P US REIT Index; international REITs: Dow Jones Global exUS Select RESI Index; private markets: S&P Listed Private Equity Index; hedge funds: HFR Fund of Funds Composite Index; U.S. taxable, investment-grade bonds: Bloomberg/Barclays U.S. Aggregate Index; U.S. high-yield corporate bonds: Bloomberg/Barclays U.S. Corporate High Yield Index; U.S. municipal, investment-grade bonds: S&P Municipal Bond Index; U.S. municipal high-yield bonds: Bloomberg/Barclays 60% High Yield Municipal Bond Index / 40% Municipal Bond Index; international taxable, investment-grade bonds: Bloomberg/Barclays Global Aggregate exUS; emerging bond markets: Bloomberg/Barclays EM USD Aggregate; and cash equivalents: 30-day U.S. Treasury bill rate.
Definitions

Bloomberg Commodity Total Return Index is composed of futures contracts and reflects the returns on a fully collateralized investment in the Bloomberg Commodity Index (BCOM). This combines the returns of the BCOM with the returns on cash collateral invested in 13-week (3-month) U.S. Treasury bills.

Bloomberg Municipal Bond Index measures the performance of the Bloomberg Barclays U.S. Municipal Bond Index, which cover the four main sectors of the USD denominated long-term tax-exempt bond market: state, and local, general obligation bonds, revenue bonds, insured bonds, and pre-refunded bonds.

Bloomberg US Aggregate TR Bond Index is a broad base, market capitalization weighted bond market index representing intermediate-term investment-grade bonds traded in the U.S. It is a common stand-in for measuring the performance of the U.S. bond market.

Bloomberg U.S. High Yield Corporate Index, formerly known as Lehman Brothers U.S. High Yield Corporate Index, measures the performance of taxable, fixed rate bonds issued by industrial, utility, and financial companies and rated below investment grade. Each issue in the index has at least one year left until maturity and an outstanding par value of at least $150 million.

MSCI EAFE Index is an equity index which captures large and mid-cap representation across 21 Developed Markets countries around the world, excluding the U.S. and Canada. With 902 constituents, the index covers about 85% of the free float-adjusted market capitalization in each country.

MSCI Emerging Markets Index captures large- and mid-cap representation across 27 emerging markets countries. With 1,407 constituents, the index covers about 85% of the free float-adjusted market capitalization in each country.

Russell 1000 Index measures the performance of the largest 1,000 securities by market capitalization listed on U.S. exchanges based on a combination of their market capitalization and current index membership.

Russell 2000 Index measures the performance of approximately 2,000 smallest cap American companies in the Russell 3000 Index, which is made up of 3,000 of the largest U.S. stocks.

The S&P 500, is a stock market index tracking the performance of 500 large companies listed on stock exchanges in the United States. It is one of the most commonly followed equity indices.

China timeline sources:

https://www.wto.org/english/thewto_e/countries_e/china_e.htm#:~:text=China%20has%20been%20a%20member%20of%20the%20World%20Trade%20Organization%20since%202001
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