MarketDesk Quant Pack Leading Indicators

U.S. Lending Standards Indicator

12-Month Forecast of Net % of Banks Tightening Lending Standards

Key Topics Covered

Quant Pack Overview

The Quant Pack is a data subscription with access to 20+ proprietary leading indicators built to guide asset allocation decisions, eliminate guesswork, enhance investment returns, and decrease your research workload.

Research Coverage

- Equities Markets
- Global Economics
- Credit Markets
- Asset Allocation
- Market Trading Tools

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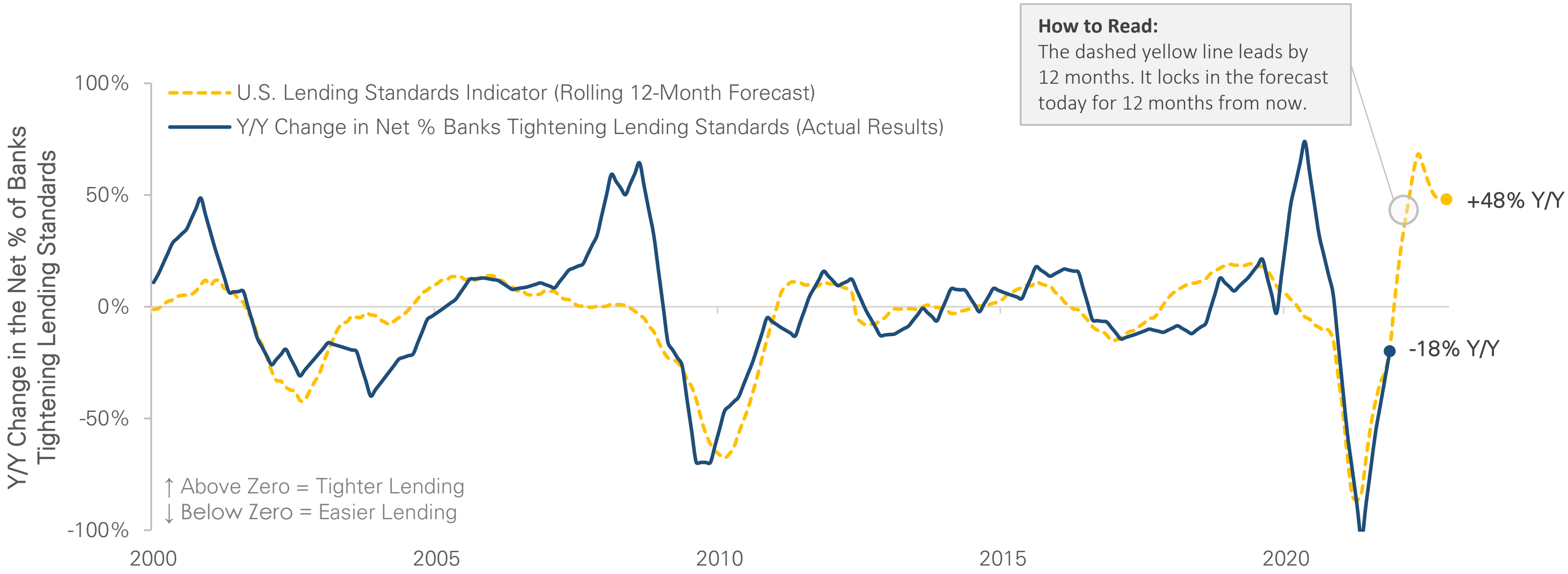
Indicator Overview

- The *U.S. Lending Standards Indicator* forecasts net % of banks tightening lending standards 12 months ahead

- Based on a composite of 6 macro inputs (interest rates, monetary policy, industrial momentum, housing activity, labor markets, etc.) that exhibit a high statistical correlation with the year-over-year change in bank lending standards.

- The leading indicator (1) forecasts the directional trend and next 12-month change in the net % of banks tightening lending standards, and (2) informs portfolio positioning across asset classes, equity sectors, and credit sectors.



Data as of 3/31/2022. Visit www.QuantPack.com/plans to see the indicator's latest forecast.

What are Bank Lending Standards?

- Bank Lending Standards = Measure of the cost and availability of obtaining a bank loan

- The *Senior Loan Officer Opinion Survey* (SLOS) is a quarterly survey of U.S. banks conducted by the Federal Reserve. The survey gathers key information on lending practices as well as changes in the supply of credit and demand for loans.

- A key measure included in the survey that is watched by economists and policymakers is the *net % of banks tightening* their lending standards. All else equal, more banks tightening (easing) lending leads to lower (higher) loan growth, which leads to slower (higher) future economic growth.

Market Impacts

Figure 1 – Business & Consumer Loan Growth

- The chart graphs the net % of U.S. banks tightening lending standards against the year-over-year change in loan growth since 2000.
- Loan growth tends to follow the path of bank lending standards with a 12-month lag. As banks tighten lending standards, loan growth decreases. As banks loosen or ease lending standards, loan growth increases.

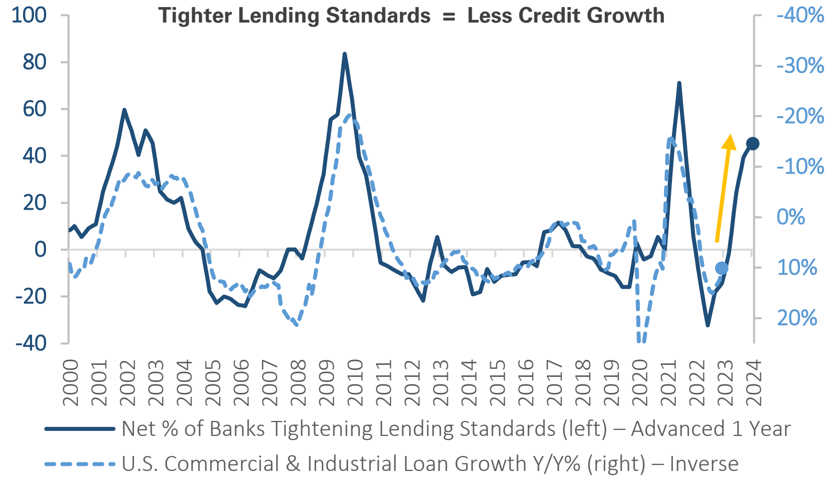
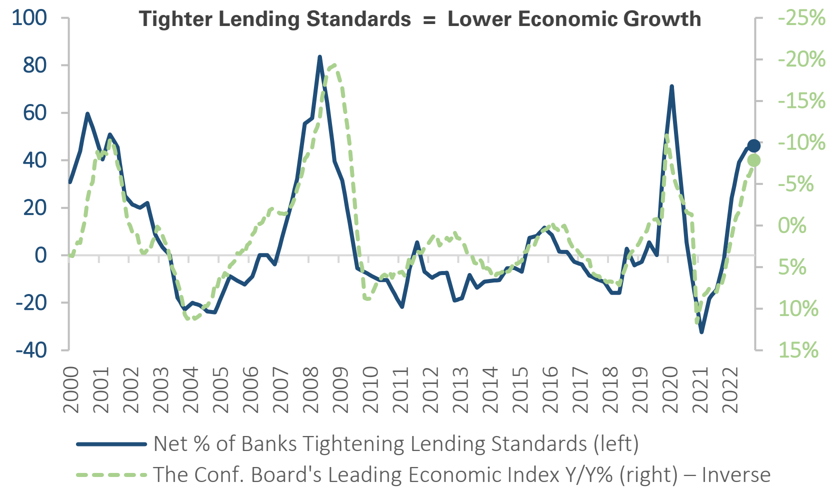


Figure 2 – Economic Activity

- The chart graphs the net % of U.S. Banks tightening lending standards against the year-over-year change in the Conference Board's Leading Economic Index (i.e., a measure of changes in the economy).
- Banks tighten lending standards as economic activity weakens. Banks then loosen or ease lending standards as economic activity improves.

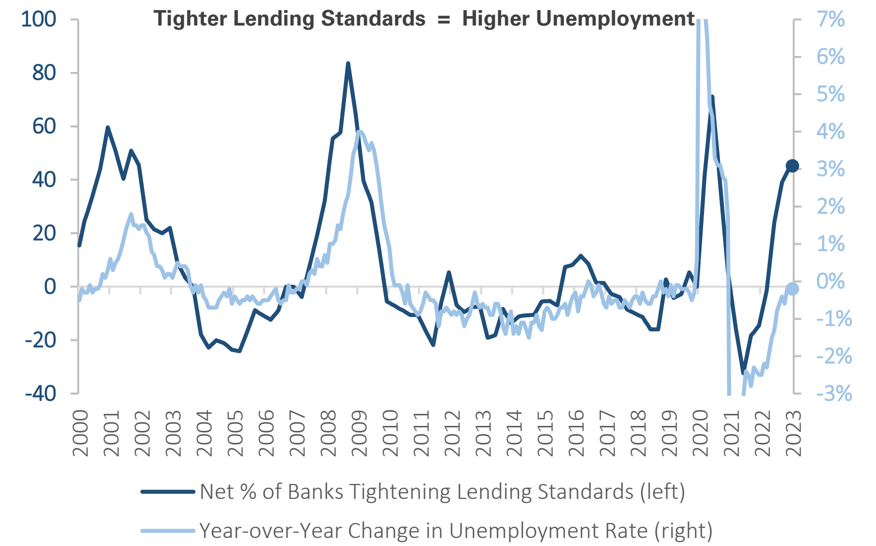


Data as of 4/30/2023

Market Impacts (continued)

Figure 3 – Unemployment Rate

- The chart graphs the net % of U.S. banks tightening lending standards against the year-over-year change in the U.S. Unemployment Rate since 2000.
- Unemployment tends to follow the path of bank lending standards with a 12-month lag. As banks tighten lending standards, unemployment increases. As banks loosen or ease lending standards, unemployment decreases.

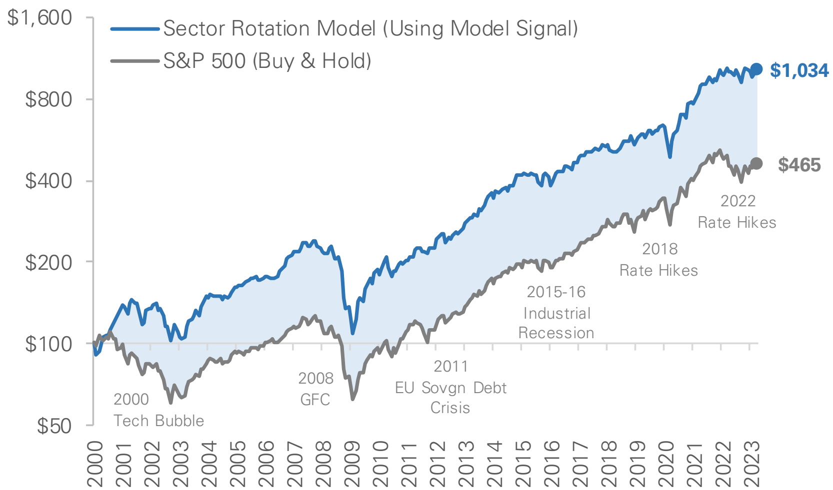


Data as of 4/30/2023

Model Signal #1 – Sector Rotation Strategy

- **Model Signal** – When *U.S. Lending Standards Indicator* is above zero (page 3), own Defensive Sector ETFs (XLU, XLV, XLP). When the indicator is below zero, own Cyclical Sector ETFs (XLB, XLI, XLY). The portfolio is rebalanced monthly to equal weight.
- Compared to a buy and hold S&P 500 strategy, the model signal produces a higher average annual return, higher percentage of positive returns, higher up capture ratio, lower down capture ratio, and higher max risk / reward ratio.

Total Returns – U.S. Sector Rotation Model



Source: MarketDesk Quant Pack. Defensive Sector ETFs: XLU, XLV, XLP. Cyclical Sector ETFs: XLB, XLI, XLY. The portfolio is rebalanced monthly to equal weight.

Performance Statistics – U.S. Sector Rotation Model

Annual Statistics of Returns & Risks	S&P 500 (Benchmark)	U.S. Sector Rotation Model
Average Return	8.2%	12.3%
Strategy CAGR	**6.8%**	**10.6%**
Max Drawdown	-51%	-55%
% of Positive Years	**73.9%**	**87.0%**
Up Capture	100%	107%
Down Capture	100%	23%
Net Capture	**-**	**+84%**
Max Positive Year	32%	37%
Max Negative Year	-37%	-40%
Max Risk / Reward	**0.88**	**0.93**

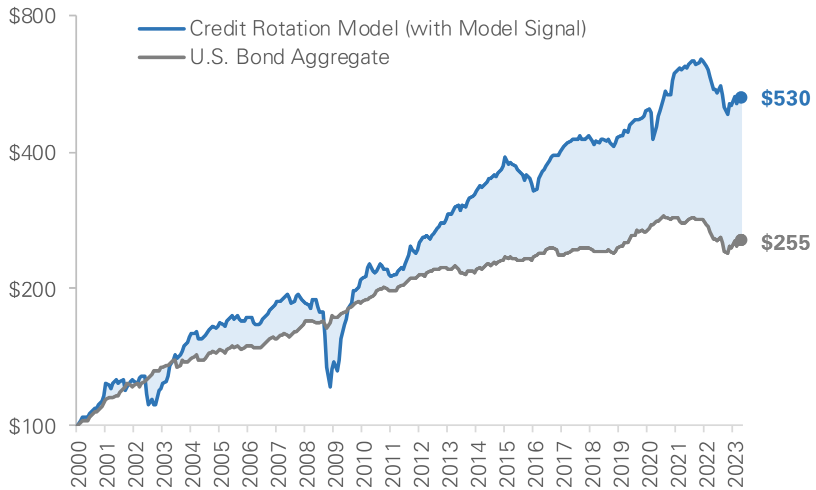
Source: MarketDesk Quant Pack. Based on annual calendar year returns.

Data as of 4/30/2023. Past performance does not guarantee future results. The performance information shown herein does not reflect the deduction of advisory and/or other fees normally incurred in the management of a portfolio. Hypothetical performance results are presented for illustrative purposes only.

Model Signal #2 – Credit Rotation Strategy

- **Model Signal** – When *U.S. Lending Standards Indicator* is above zero (see page 3), own High-Quality Credit Sectors (MBS and U.S. Treasuries). When the indicator is below zero, own Low-Quality Credit Sectors (High Yield, Fallen Angels, and Convertible Bonds). The portfolio is rebalanced monthly to equal weight.
- Compared to a buy and hold Bond Aggregate strategy, the model signal produces a higher average annual return, higher percentage of positive returns, higher up capture ratio, lower down capture ratio, and higher max risk / reward ratio.

Total Returns – Credit Sector Rotation Model



Source: MarketDesk Quant Pack. High-Quality Credit Sectors: 10Y U.S. Treasuries and Mortgage Backed Securities (MBS). Low-Quality Credit Sectors: High Yield, Fallen Angels, and Convertibles. The portfolio is rebalanced monthly.

Performance Statistics – Credit Sector Rotation Model

Annual Statistics of Returns & Risks	Bond Aggregate (Benchmark)	Credit Sector Rotation Model
Average Return	4.1%	8.6%
Strategy CAGR	**4.1%**	**7.4%**
Max Drawdown	-17%	-37%
% of Positive Years	**87.0%**	**78.3%**
Up Capture	100%	177%
Down Capture	100%	3%
Net Capture	**-**	**+174%**
Max Positive Year	12%	57%
Max Negative Year	-13%	-29%
Max Risk / Reward	**0.92**	**1.95**

Source: MarketDesk Quant Pack. Based on annual calendar year returns.

Data as of 4/30/2023. Past performance does not guarantee future results. The performance information shown herein does not reflect the deduction of advisory and/or other fees normally incurred in the management of a portfolio. Hypothetical performance results are presented for illustrative purposes only.

Key Takeaways

- Bank Lending Standards measure the cost and availability of obtaining a bank loan

- Key Market Impacts:
    1. Loan Growth (i.e., Net % of Banks Tightening Lending Standards ↑ = Loan Growth ↓)
    2. Economic Activity (i.e., Net % of Banks Tightening Lending Standards ↑ = Economic Growth ↓)
    3. Unemployment Rate (i.e., Net % of Banks Tightening Lending Standards ↑ = Unemployment ↑)

- Model Signal Average Annual Returns:
    1. Sector Rotation Strategy +12.3% (vs S&P 500 8.2%)
    2. Credit Rotation Strategy +8.6% (vs Bond Aggregate +4.1%)

- The *U.S. Lending Standards Indicator* provides a 12-month forecast of net % of banks tightening lending standards, allowing you to proactively manage risk and optimize portfolio positioning. The *Quant Pack* is a data subscription with access to 20+ proprietary leading indicators built to guide asset allocation decisions, eliminate guesswork, enhance investment returns, and decrease your research workload.

[BONUS] Free Copy of the U.S. Macro Regime Indicator

MarketDesk U.S. Macro Regime Indicator (USMRI)

Primer Report

A Framework for Managing Portfolios Throughout Economic Cycles

What is a "Macro Regime"?

Macro regime refers to the prevailing set of macroeconomic trends within a particular time frame. It represents the broader market environment, which is characterized by factors such as economic growth, inflation, interest rates, fiscal and monetary policy, and global trade. Macro regimes hold significance for investment committees, as they influence how various asset classes perform and provide a roadmap to guide asset allocation decisions.

Understanding Macro Regimes is Key to Portfolio Management

Macro regimes are classified as either "Risk-On" (i.e., increase portfolio beta) and "Risk-Off" (i.e., decrease portfolio beta). The two regime styles impact markets in different ways, including which asset classes outperform, the degree of market volatility, and the risk of a major market sell-off. The MarketDesk U.S. Macro Regime Indicator (USMRI) allows investors to manage the portfolio beta exposure of their equity (i.e., large vs small, cyclical vs defensive) and credit (i.e., investment grade vs high yield corporate bonds) allocations in response to changes in the macro regime. Aligning portfolios with the correct macro regime improves risk-adjusted returns and decreases portfolio drawdown risk, while mismanaging betas produces lower risk-adjusted returns and is the equivalent of swimming against the current. This primer explains the USMRI, discusses how the two regime styles impact financial markets, and provides a portfolio guide for each regime.

How is the USMRI Framework Different from my Current Process?

The reality is most investors incorporate data that is already known by the majority of market participants (i.e., therefore also largely priced into markets), which means its holds little to no explanatory power regarding future performance. Regardless of your investment style (i.e., Growth, Value, Momentum, or Technicals), the USMRI framework is built to be additive to your process as it solves for the above flaws. USMRI is fundamentally different in that only uses 6- to 12-month leading indicators, which have a proven track record since 1980 of accurately forecasting the trajectory of the U.S. economy. History doesn't repeat, but it often rhymes, and the USMRI's data-driven approach provides a robust, repeatable framework to manage portfolios throughout business cycles.

Table of Contents

Figure 1 – MarketDesk U.S. Macro Regime Indicator (USMRI)

Indicator Components (Equal-Weighted)	Reading	Status
Business & Consumer Demand	-1.28	Risk-Off
Manufacturing Activity	-0.87	Risk-Off
Corporate Earnings	-0.80	Risk-Off
Labor Market	-0.67	Risk-Off
Interest Rates	-0.82	Risk-Off

Source: MarketDesk Quant Pack. As of 4/9/2023.

Figure 2 – Historical U.S. Macro Regime Indicator (USMRI)

Historical USMRI Since 1980 and Next 12-Month Forecast

Source: MarketDesk Quant Pack. As of 4/9/2023. Refer to the next page for key dates.

Report Overview

This primer provides an overview of the macro regime indicator and how to implement it into your portfolio management process.

MarketDesk U.S. Macro Regime Indicator

The MarketDesk U.S. Macro Regime Indicator (USMRI) utilizes a data-driven process to (1) define the current macro environment and (2) forecast the trajectory of the U.S. economy over the next 12 months. It aggregates 20+ Quant Pack indicators to produce one straightforward signal to increase or decrease your portfolio risk.

Free Download *(No Email Required)*

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