

Box A.1: DATA OVERVIEW

Date & Time Metrics

date	Day of the week	month	Days from month end	Current quarter	days to earnings	days since last earnings	earnings today (Y/N)
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Google, Apple & NVIDIA + Neighbouring companies: Performance & Sentiment

Stock Prices: Standard Daily Metrics

Open - Opening stock price	High - Day's highest price	Low - Day's lowest price	Close - Closing stock price	Volume - Shares traded that day	Price Movement - % change from previous close	Performance vs SP - Stock 5-day return - S&P 5-day return	S&P 500 5d return - (%)
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Momentum (Position & Trend)

Current price placement in short-term bands plus the magnitude and quality of the recent trend

Volatility / Risk

The typical magnitude, asymmetry, and co-movement with the market of price moves across single-day and multi-day horizons

RSI -14-day RSI (Relative Strength Indicator)	Bollinger position - (Close - lower BB) ÷ (upper - lower)	SMA_ratio_20d - Close ÷ 20-day SMA	MACD - signal line (Moving Av. Convergence Divergence)	rv_5d - 5-day realized vol: std(1-day returns, 5d)	rv_20d: 20-day realized vol: std(1-day returns, 20d)	Bollinger_lower- 20-day SMA + 2×std dev	Bollinger_upper - (Close - lower BB) ÷ (upper - lower)
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mom_20d - sum of last 20 daily returns	mom_63d - sum of last 63 daily returns	Sharpe_20d - mean(1-day returns, 20d) ÷ std(1-day returns, 20d)	semivol_20d - 20-day downside vol: std(negative 1-day returns only, 20d)	dd_60d - 60-day drawdown: close ÷ max(close, last 60d) - 1	range_pct - intraday range % - (high - low) ÷ close	gap_ret - overnight gap return - open ÷ prior close - 1
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Liquidity / Participation

The unusualness of trading volume versus the stock's own history, summarizing participation intensity

vol_z_60d - 60-day volume z-score: (volume - mean(volume, 60d)) ÷ std(volume, 60d)	beta_sp_60d - 60-day market beta: Cov(1-day stock, 1-day S&P, 60d) ÷ Var(1-day S&P, 60d)	idio_vol_20d - 20-day idiosyncratic vol: std(stock return - $\beta_{60} \times$ market return , 20d)
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Earnings Data: Key Metrics

EPS Actual	EPS Expected	EPS surprise - (Actual - Expected EPS) ÷ Expected EPS	Quarterly Revenue (Actual Revenue)
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Financial News & Earnings Call Transcripts – Sentiment Scores

Company's Sentiment	AI Sentiment	Tariffs-Related	Other
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Macroeconomic Factors: Mixed-frequency macro matrix (no leakage)

Interest Rate	Inflation (CPI, MoM, YoY)	Unemployment Rate	Trade (balance, imports, exports)	GDP	Household Debt Service Ratio
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