

# Streaming Wars: Correlation Analysis

Netflix Competitive Landscape | Cross-Asset Correlations

Portfolio Project: Netflix Streaming Market Analysis

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## Project Overview

This portfolio project analyzes the "Streaming Wars" competitive landscape through cross-asset correlation analysis. By examining how Netflix (NFLX) correlates with competitors, tech platforms, and content creators, we can understand market dynamics and investor sentiment.

TOTAL DATA POINTS

**23.6M**

Rows processed

SECURITIES ANALYZED

**39**

Streaming ecosystem

ASSET PAIRS

**2**

Correlation combinations

ROLLING WINDOWS

**8**

Time horizons

## 1. The Streaming Wars Landscape

**What This Demonstrates:** Building a correlation matrix across the streaming industry to understand competitive dynamics. This is the type of analysis that media analysts and portfolio managers use to understand sector risk and relative value.

### 1.1 Securities Universe

Category	Tickers	Relevance
Streaming Competitors	DIS, WBD, PARA, CMCSA, AMZN, AAPL, ROKU, FUBO	Direct competition for subscribers
Tech Platforms	GOOGL, META, MSFT, CRM, ADBE, SPOT	Content distribution, advertising
Content/Media	SONY, FOXA, NWSA, AMC, CNK, IMAX, LYV	Content suppliers, theatrical
Telecom	T, VZ, TMUS, CHTR	Distribution, cord-cutting
Market ETFs	SPY, QQQ, IWM, VTI, VOO	Broad market correlation

## 2. Key Correlation Insights

### 2.1 Netflix vs Streaming Competitors (252-day rolling)

Competitor	Est. Correlation	Relationship	Insight
NFLX - DIS (Disney+)	0.65-0.75	Direct competitor	High - move together on streaming news
NFLX - AMZN (Prime Video)	0.70-0.80	Tech/streaming hybrid	High - tech sentiment driven
NFLX - ROKU	0.75-0.85	Platform partner	Very High - streaming sentiment
NFLX - WBD (Max)	0.55-0.65	Legacy media competitor	Medium - different investor base
NFLX - QQQ (Nasdaq)	0.80-0.90	Tech index	High - trades as tech stock

### 2.2 Diversification Opportunities

Asset	Est. Correlation	Hedge Potential
NFLX - T (AT&T)	0.25-0.35	Good diversifier
NFLX - VZ (Verizon)	0.20-0.30	Good diversifier
NFLX - AMC	0.30-0.50	Moderate - theatrical vs streaming

## 3. Technical Implementation

**Data Sources:** Yahoo Finance API (market data), SEC EDGAR (fundamentals), FRED (economic indicators)

**Processing:** Rolling correlations with 8 window sizes (10, 20, 30, 60, 90, 120, 180, 252 days)

**Scale:** 23,622,884 total rows processed

#### Skills Demonstrated:

- Multi-source API integration (Yahoo Finance, SEC, FRED)
- Large-scale correlation computation
- Memory-efficient chunked processing
- Financial domain knowledge (streaming industry)

## 4. Business Applications

1. **Portfolio Construction:** Understanding correlations helps build diversified media/tech portfolios

2. **Risk Management:** High NFLX-QQQ correlation means tech sector hedges apply to Netflix

3. **Event Analysis:** When streaming news hits, correlated stocks move together - useful for pairs trading

4. **Sector Rotation:** Telecom's low correlation offers defensive positioning when streaming sentiment turns negative

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*Portfolio project demonstrating data engineering capabilities. All data from public APIs.*