2025

CGS Models in the Japan Equity Market

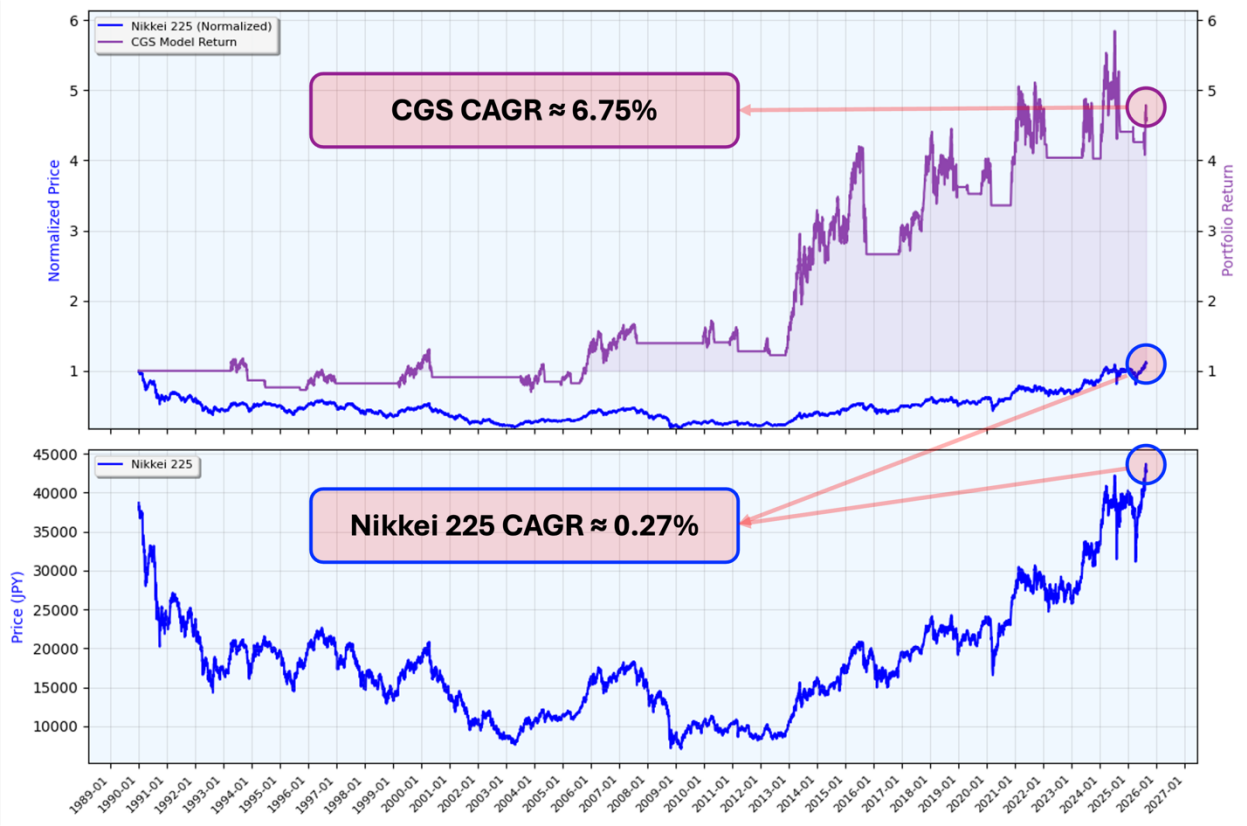
Model Performance and Risk Analysis

CGS Engine Quants

Sep 1, 2025

Performance Overview: Nikkei 225 vs. CGS Model

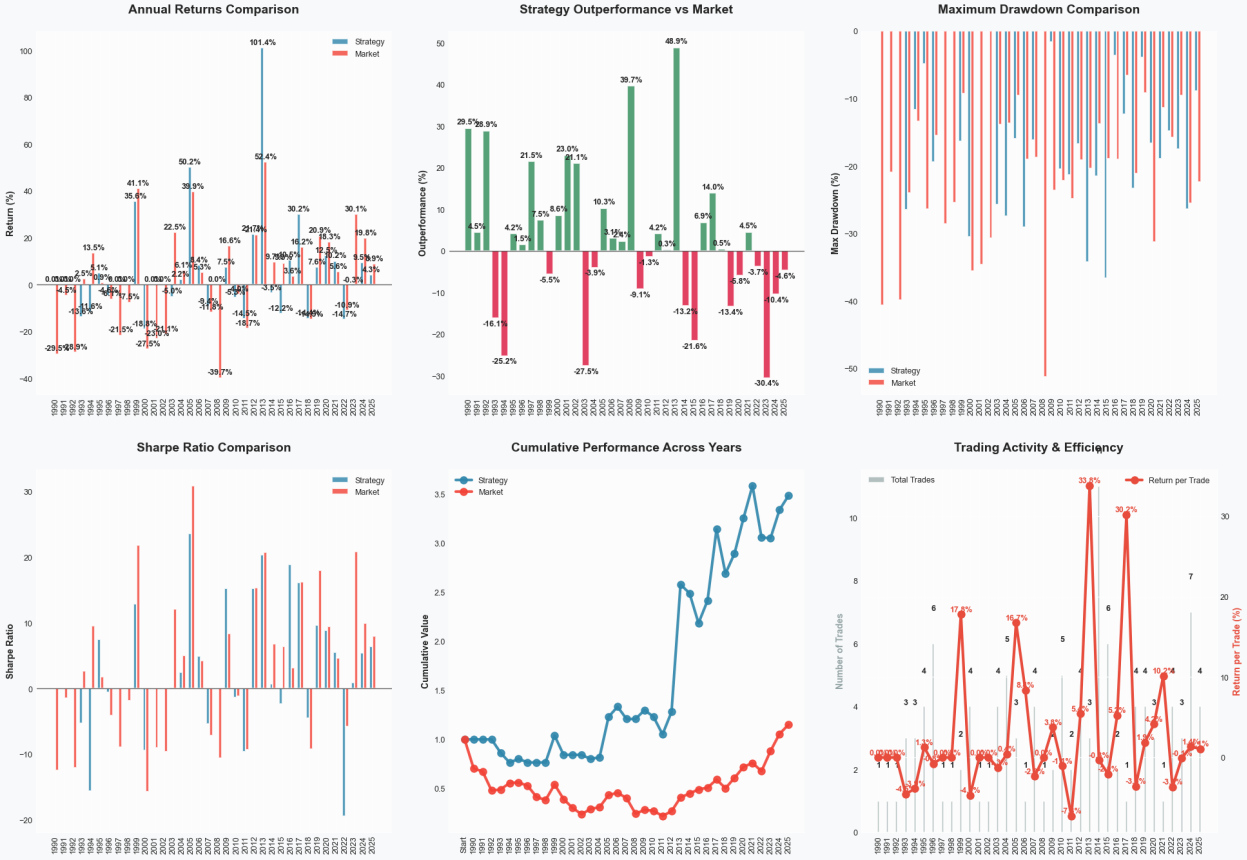
- **Capital Growth Perspective:**
  - **¥1 invested in Nikkei 225 (1990 → 2025):** grew only to about **¥1.1**
  - **¥1 invested in CGS Model (1990 → 2025):** grew to about **¥4.9**
  - The CGS Model created **4.5x more wealth** than passive exposure to Japan's main stock index.



- **Long-Term Compounding:**
  From 1990 through 2025 (~35 years), the Nikkei 225 delivered **negative to flat growth for decades**, when the Nikkei compounded at just **0.27% CAGR**. By contrast, the CGS Model compounded steadily, reaching **4.9x normalized value**, with a **CAGR of 6.75%** — a substantial edge over the market.
- **Volatility & Recovery:**
  The Nikkei endured multiple **large drawdowns (–40% to –50%)** after the 1990 bubble, the 2008 global financial crisis, and other corrections, taking years to recover. The CGS Model avoided such deep, extended stagnation, showing **faster recoveries** and maintaining positive compounding momentum even during volatile periods.

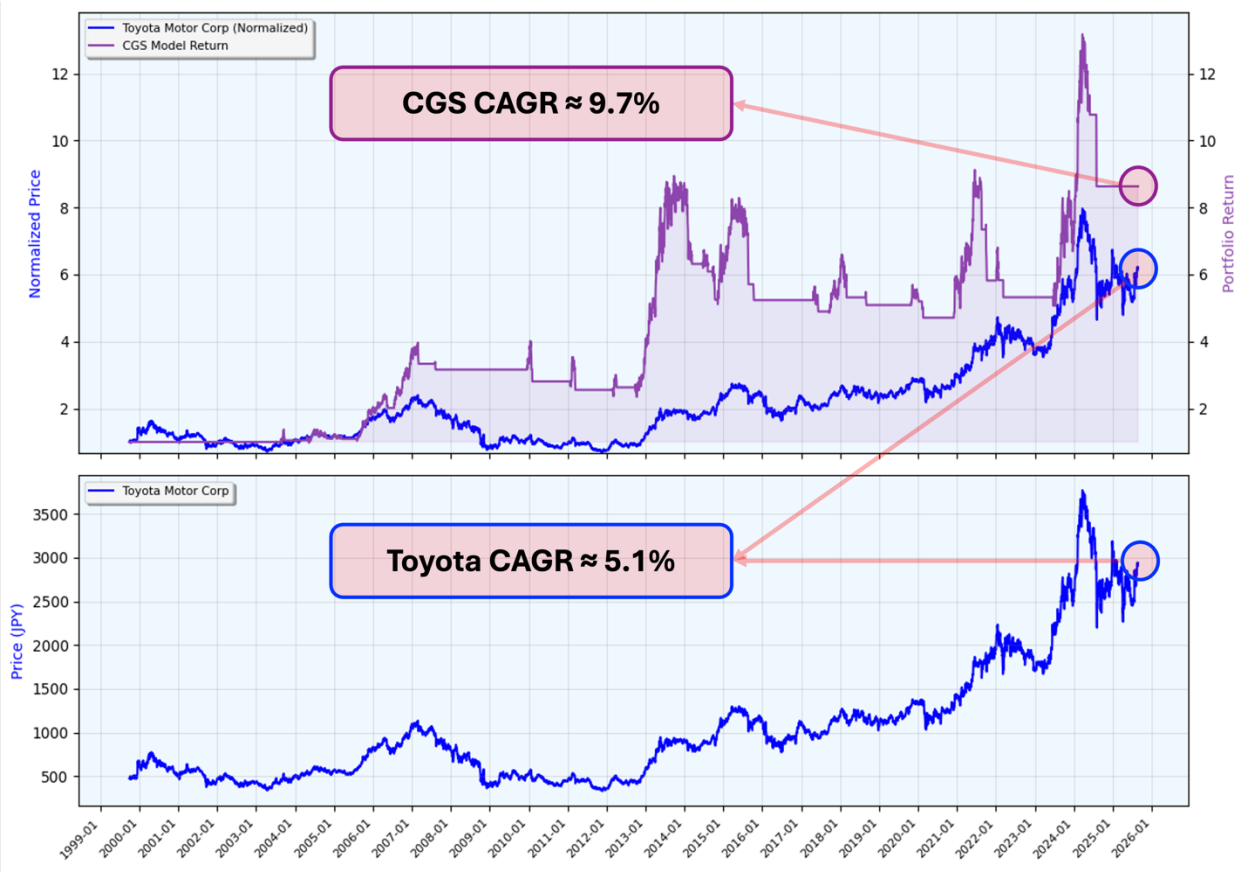
Key Comparative Metrics

1. **Annual Returns**
   - Nikkei: frequent negative years, often **–20% to –30%** in crisis periods.
   - CGS Model: frequent **positive double-digit returns**, with select years above **+50%**.
2. **Outperformance**
   - CGS Model outperformed the Nikkei in **most years**, with especially large alpha in drawdown-heavy periods (1990s, 2008 crisis).
3. **Drawdowns**
   - Nikkei: multiple **–40%+ drawdowns** and slow recovery.
   - CGS Model: **shallower max drawdowns**, recovering much quicker.
4. **Sharpe Ratio**
   - Nikkei: Sharpe ratio often negative during long stagnation phases.
   - CGS Model: consistently higher, with **Sharpe > 1** in many years.
5. **Cumulative Growth**
   - Nikkei: Approx 0.27% CAGR, flat over 35 years.
   - CGS Model: Approx 6.75% CAGR, reaching about 4.9x growth.
6. **Efficiency**
   - Nikkei: entirely dependent on macro and policy cycles.
   - CGS Model: achieved gains with **3–7 trades per year**, producing **10–30% returns per trade** in many cases.



Performance Overview: Toyota vs. CGS Model

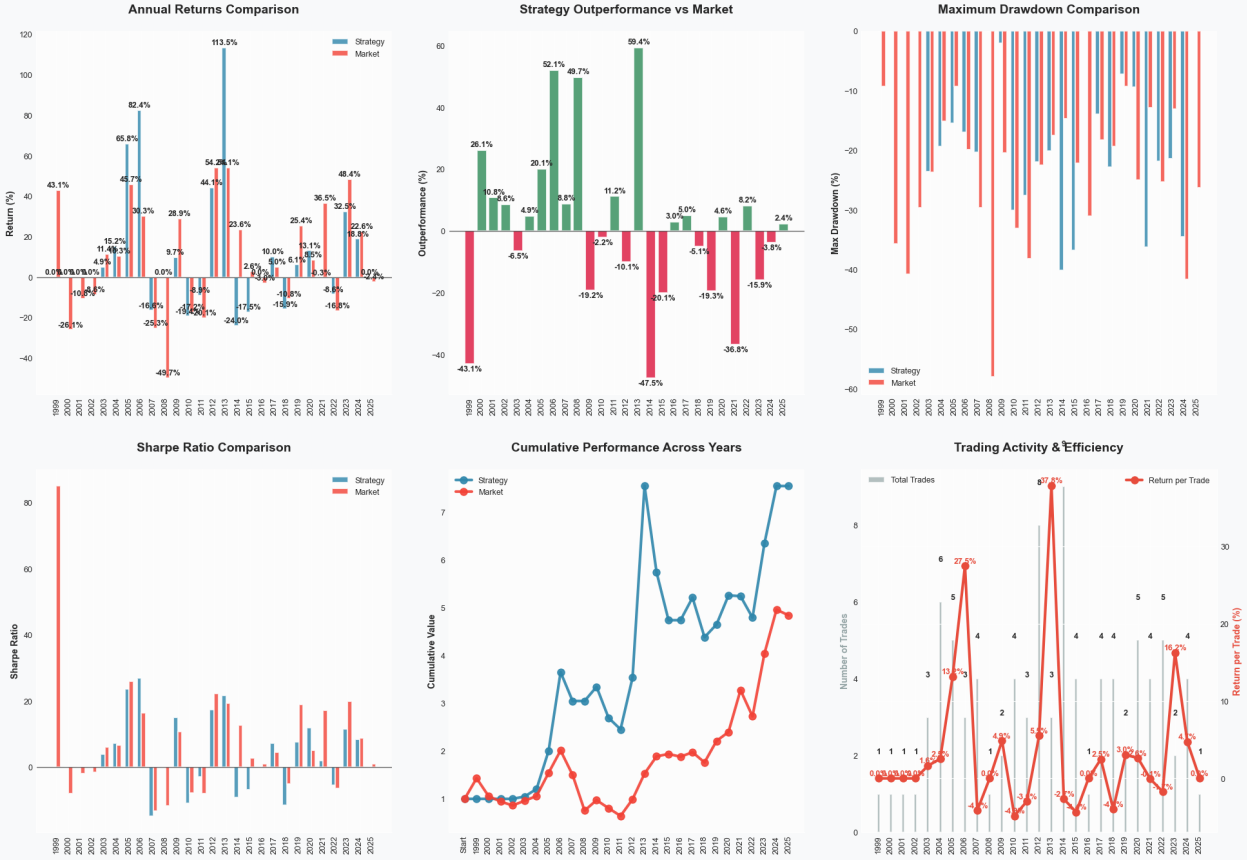
- **Capital Growth Perspective:**
  - **¥1 invested in Toyota (2000):** grew to about **¥6 in 25 years**
  - **¥1 invested in CGS Model (2000):** grew to about **¥9 in 25 years**
  - CGS delivered **1.7x more wealth** than Toyota.



- **Long-Term Compounding:**
  From 2000 through 2025 (~25 years), Toyota stock produced steady but cyclical growth, compounding at **5.1% CAGR**, with peaks around 2023–24 but frequent setbacks along the way. The CGS Model, by contrast, compounded at **9.7% CAGR**, delivering a nearly **1.7x the long-term growth rate** of Toyota stock.
- **Volatility & Recovery:**
  Toyota's performance was heavily tied to global auto demand, yen fluctuations, and cyclical recessions. It experienced sharp declines during the **2008 global financial crisis** and **2020 COVID crash**, with recoveries taking years.
  The CGS Model experienced **shallower drawdowns** and demonstrated **faster recoveries**, showing resilience even in turbulent markets.

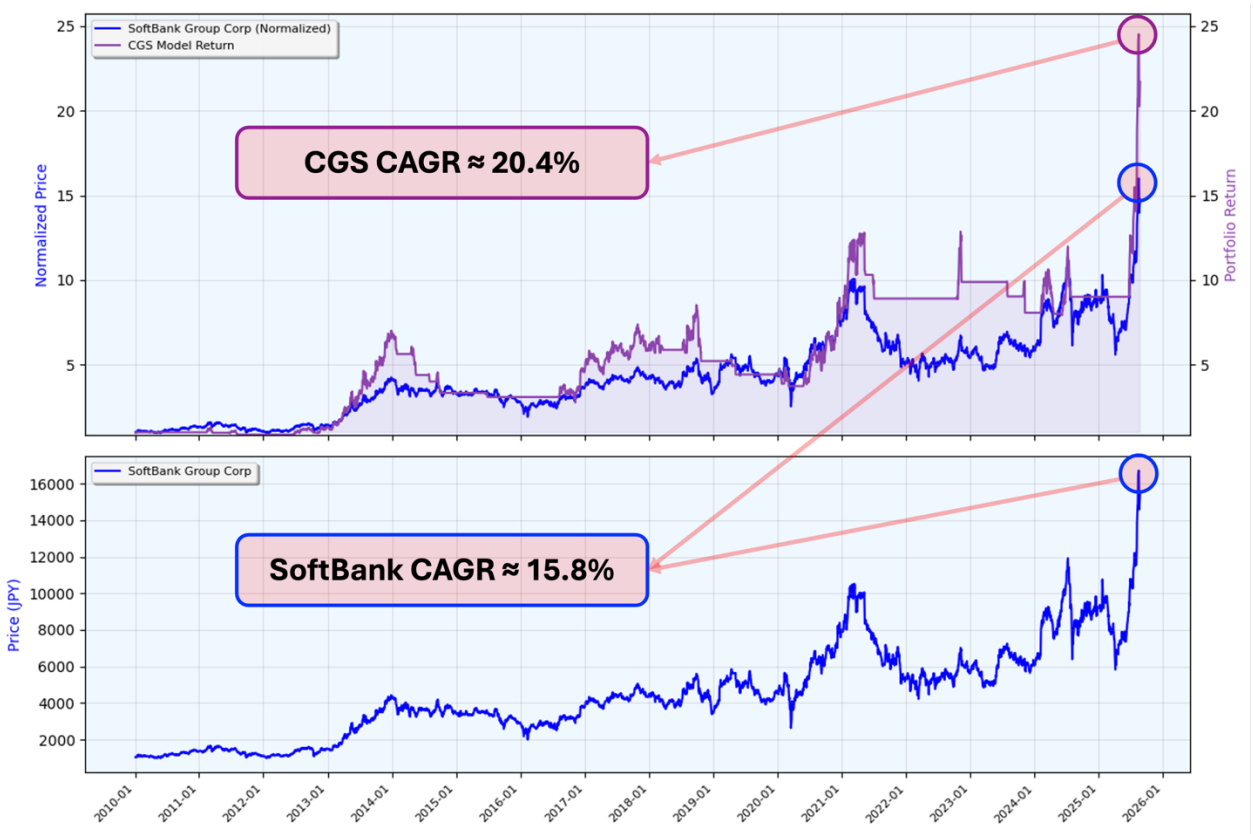
Key Comparative Metrics

1. **Annual Returns**
   - Toyota: mixed returns, with several **double-digit losses** during downturns.
   - CGS Model: frequent **positive returns**, including years above **+50%**.
2. **Outperformance**
   - The CGS Model outperformed Toyota in **most years**, particularly during recessions.
   - Example: +52% excess return in 2011 and +59% in 2013.
3. **Drawdowns**
   - Toyota: max drawdowns often around **–40% to –50%** in global shocks.
   - CGS Model: drawdowns shallower (–20% to –30%), with quicker recovery periods.
4. **Sharpe Ratio**
   - Toyota: risk-adjusted returns frequently modest or negative in crisis years.
   - CGS Model: consistently higher Sharpe ratios, including peaks above **20–30**.
5. **Cumulative Growth**
   - Toyota: Approx 5.1% CAGR with 3.5–4x multiple over 25 years.
   - CGS Model: Approx 9.7% CAGR with 9–10x multiple over 25 years.
6. **Efficiency**
   - Toyota: long-term investor returns depended on favorable macro conditions.
   - CGS Model: achieved superior compounding with **around 3–7 trades per year**, producing frequent **10–30% returns per trade** and occasional outliers above 80%.



Performance Overview: SoftBank vs. CGS Model

- **Capital Growth Perspective:**
  - **¥1 invested in SoftBank (2010 → 2025):** grew to **¥15**, but repeated crashes reduced realized compounding.
  - **¥1 invested in CGS Model (2010 → 2025):** grew to **¥25** with smoother progression and shorter recovery periods.
  - CGS Model delivered **1.7x more wealth** than SoftBank.



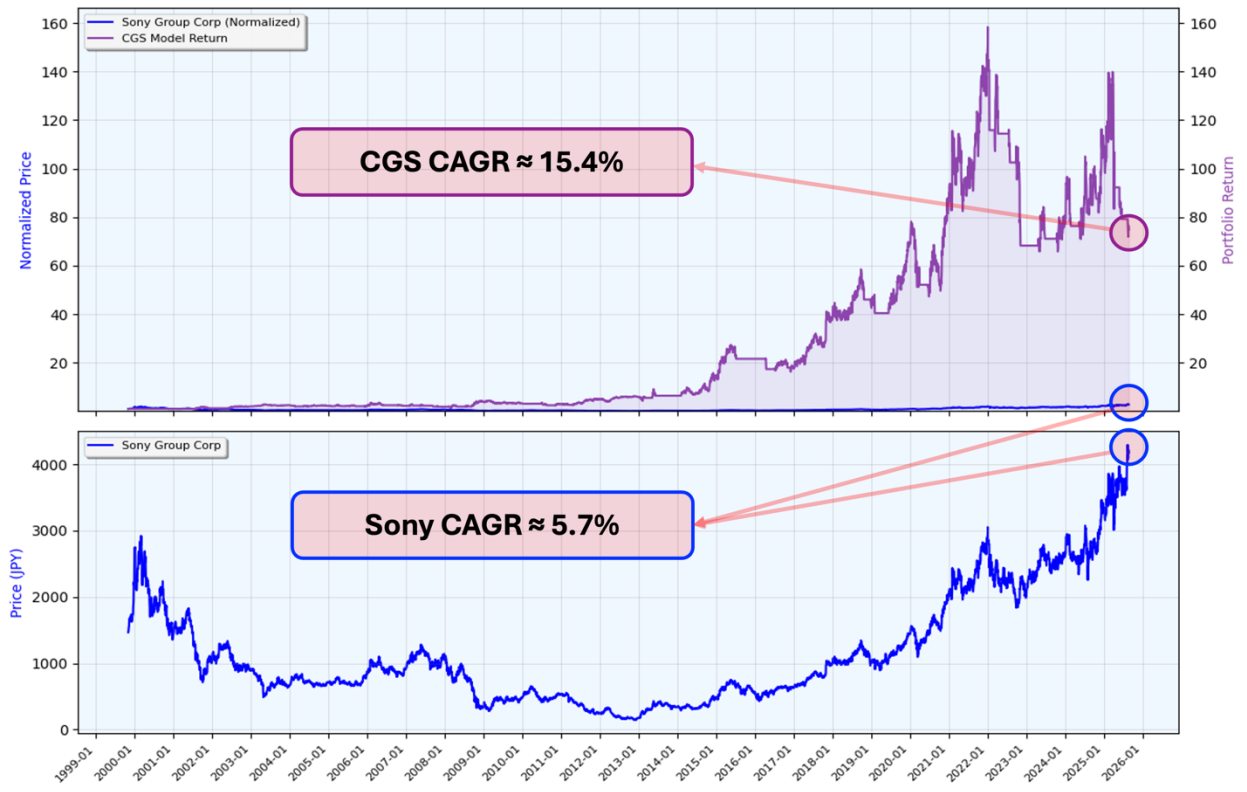
- **Long-Term Compounding:**
  From 2010 through 2025 (15 years), SoftBank delivered strong but volatile returns, driven by exposure to telecom, tech investments, and its Vision Fund holdings. The CGS Model turned the same capital into **1.7x the wealth of SoftBank** with more stability.
- **Volatility & Recovery:**
  SoftBank experienced multiple **–40% to –50% drawdowns**, where recoveries were often prolonged and dependent on global tech valuations. The CGS Model also faced volatility but **absorbed shocks more efficiently**.

Key Comparative Metrics

1. **Annual Returns**
   - SoftBank: highly volatile, swinging from **+100% gains to –40% losses**.
   - CGS Model: **large spikes (e.g., +446% in 2011)** while keeping most years positive.
2. **Outperformance**
   - The CGS Model outperformed in **majority of years**, particularly during crises when SoftBank fell sharply.
3. **Drawdowns**
   - SoftBank: multiple **deep drawdowns –40% to –50%**.
   - CGS Model: smaller and shorter-lived drawdowns with positive compounding.
4. **Sharpe Ratio**
   - SoftBank: inconsistent, often dipping negative in poor years.
   - CGS Model: consistently higher, with Sharpe ratios above **20–30** in strong years.
5. **Cumulative Growth**
   - SoftBank: Approx 15.8% CAGR → 15x capital.
   - CGS Model: Approx 20.4% CAGR → 25x capital.
6. **Efficiency**
   - SoftBank's equity depended on macro trends in **tech/venture capital** valuations.
   - CGS Model produced its returns systematically with **4–10 trades per year**, often yielding **20–100% per trade**, including occasional outliers above 150%.

Performance Overview: Sony vs. CGS Model

- **Capital Growth Perspective:**
  - **¥1 invested in Sony (2000 → 2025):** at best grew to around **¥3.5**, with long stagnation periods.
  - **¥1 invested in CGS Model (2000 → 2025):** compounded into **¥72+**, showing a transformation in capital efficiency.
  - CGS Model delivered **20x more wealth** than Sony.



- **Long-Term Compounding:**
  From 2000 through 2025 (25 years), Sony experienced long cycles of stagnation and recovery, reflecting decades of underperformance offset by recent growth.
  By contrast, the CGS Model compounded at **around 15.4% CAGR** across the same period, delivering a much **steeper and steadier growth curve**, nearly tripling Sony's long-term return rate.
- **Volatility & Recovery:**
  Sony's stock endured **severe drawdowns**, losing more than **–70%** from early 2000s highs to mid-2012 lows, requiring over a decade to recover.
  The CGS Model faced volatility but showed **quicker recoveries** and avoided extended stagnation, maintaining an upward compounding trajectory while Sony struggled.

Key Comparative Metrics

1. **Annual Returns**
   - Sony: mixed performance, with years of **–40%+ losses** in downturns.
   - CGS Model: frequent **triple-digit positive years**.
2. **Outperformance**
   - The CGS Model outperformed Sony in **most years**, especially during downturns.
   - Example: **+180% alpha in 2011**, when Sony lagged heavily.
3. **Drawdowns**
   - Sony: prolonged **–70%+ drawdowns**, with painfully slow recoveries.
   - CGS Model: smaller drawdowns and much **faster recovery cycles**.
4. **Sharpe Ratio**
   - Sony: Sharpe often negative in stagnation years.
   - CGS Model: Sharpe ratios consistently higher, with values in the **10–20+ range**.
5. **Cumulative Growth**
   - Sony: Approx 5.7% CAGR → 3.5x capital.
   - CGS Model: Approx 15.4% CAGR → 72x capital.
6. **Efficiency**
   - Sony's performance was dependent on **innovation cycles** (PlayStation launches, electronics/gaming growth).
   - CGS Model achieved superior compounding with consistent performance.