

Time-Varying Synchronicity in Individual Stock Returns: A Cross- Country Comparison

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Discussion by John Y. Campbell

Is “Synchronicity” the Right Term?

- We are talking about common (country-level) vs. idiosyncratic (firm-level) volatility
- “Synchronicity” wrongly suggests that the issue is timing (do all firms move at the same time?) rather than direction (do they move with each other or independently?)
- “Synchronicity” has unfortunate New Age connotations!

Is “Synchronicity” the Right Term?

From the website of the Synchronicity Foundation:

“Synchronicity Foundation is the parent organization for The Synchronicity Experience. The Synchronicity Experience, which is based on the Synchronicity Paradigm and includes Synchronicity Contemporary Meditation and Synchronicity Conscious Living Integrative Lifestyle, was originated by founding Spiritual Director and Mentor, Master Charles Cannon, affectionately known as Master Charles.

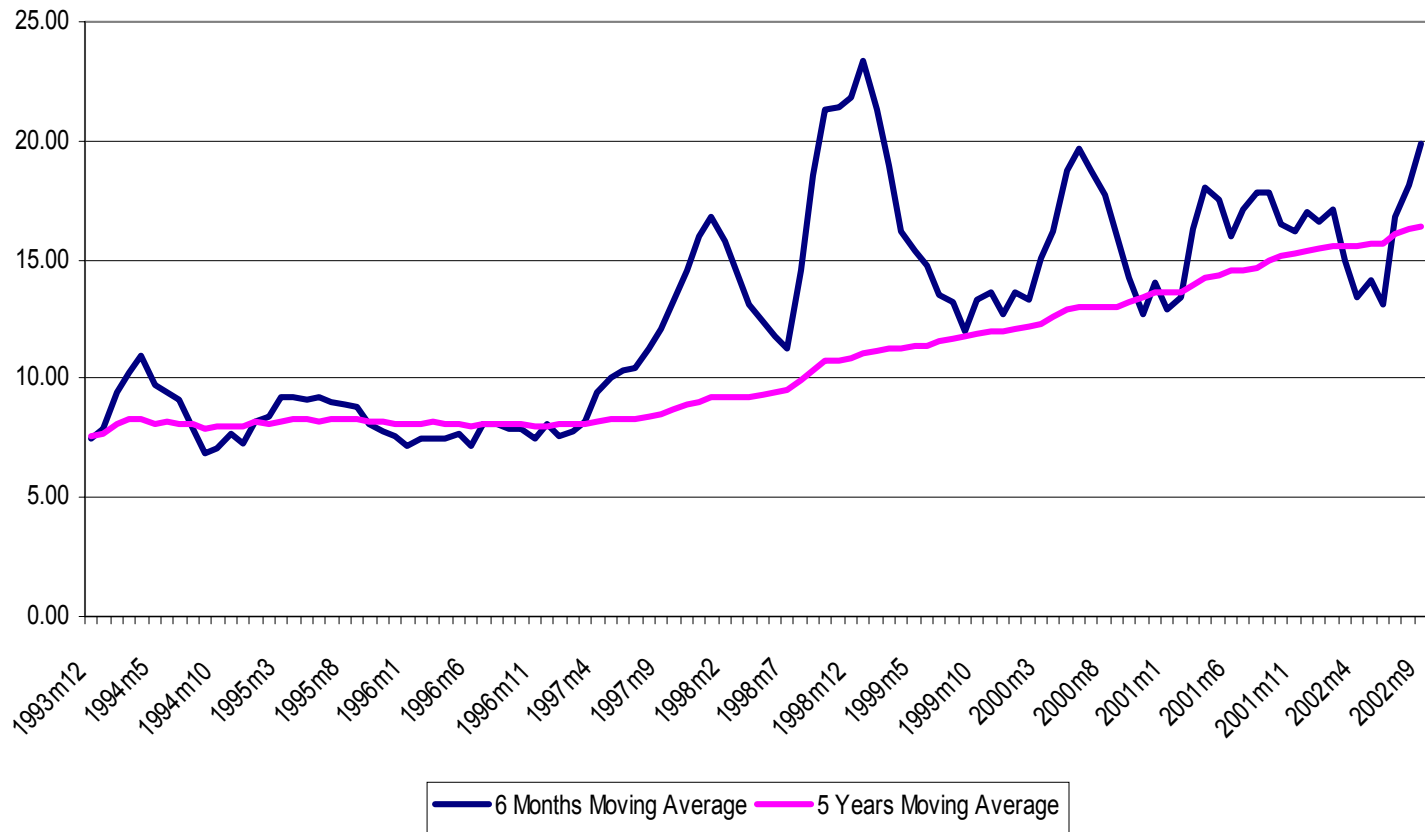
Master Charles Cannon is a contemporary American mystic and internationally acknowledged conscious living mentor and master of meditation. He is the originator of the Synchronicity Experience. Based on the Synchronicity Paradigm, it includes Synchronicity Contemporary Meditation and Synchronicity Conscious Living Integrative Lifestyle. He is considered a pioneer in the field of vibrational entrainment technology in relation to meditative experience and holistic states of awareness.”

Measurement Issues

- The sample period is 1990 through 2000. This is only a single decade, and the mid-1990's had unusually low volatility. We need to be careful about identifying “trends” over this short period.

World Volatility Since 1993

World Volatility



Measurement Issues

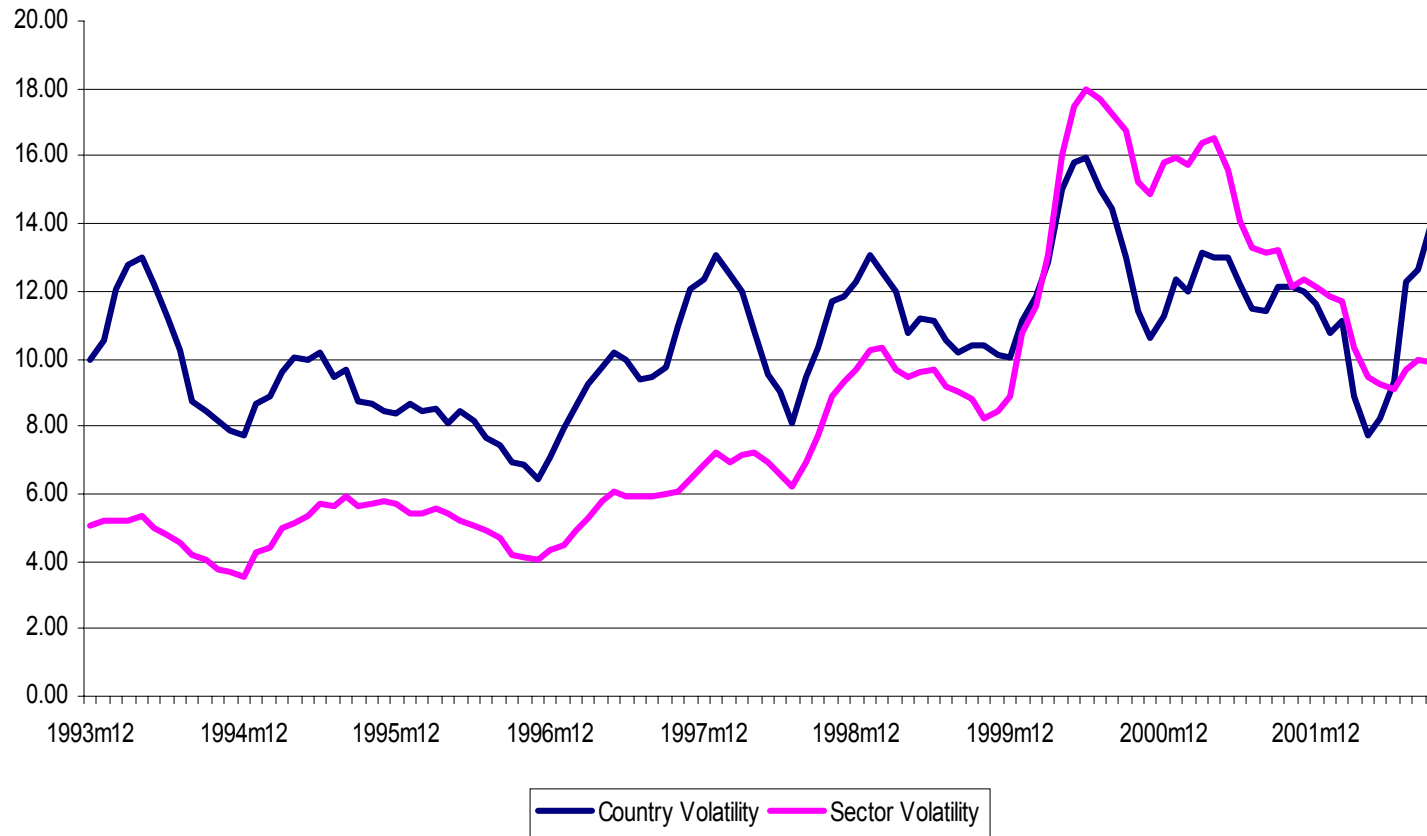
- Equal-weighted vs. value-weighted. Is the rise in volatility dominated by small firms and/or new listings?
- The market model uses both the local market and the US market. This could be a problem if the correlation of the US with other markets changes over time. Other regional indexes could also be used (particularly in Europe).

Measurement Issues

- The paper does not consider sector shocks. Are the volatile movements of firms relative to countries driven by sector movements, or firm movements relative to their sectors?
- The sample period ends in 2000, at the height of the technology bubble. There is some evidence that sector volatility has declined since then. Recent data would be informative.

Country vs. Sector Volatility

Six Months Moving Average



What Drives Idiosyncratic Risk?

We need to distinguish three channels:

- Individual companies' profits
- Information about future profits (assuming that the market processes information rationally)
- Deviations from rational stock prices (market inefficiency)

What Drives Idiosyncratic Risk?

Paper shows that good institutions and openness are correlated with increased firm-specific volatility during the 1990's. The mechanism could be:

- Greater competition causes more **profit volatility**
- Greater transparency permits better **price discovery**
- Better institutions reduce irrational **mispricing**.

Not Price Discovery

The paper emphasizes the price discovery story. But this will not work: better price discovery changes the timing of information, not the quantity of information, and thus does not change volatility!

To see this, consider a 3-period model. At time 2, future profits of X are realized. At time 0, expected future profits are normalized to 0. At time 1, information arrives and expected profits are $E_1 X$.

Not Price Discovery

- Volatility from time 0 to time 1 is $\text{Var}(E_1 X)$.
- Volatility from time 1 to time 2 is $\text{Var}(X - E_1 X)$.
- Average volatility is
$$(1/2)[\text{Var}(E_1 X) + \text{Var}(X - E_1 X)] =$$
$$(1/2)\text{Var}(E_1 X + X - E_1 X) = (1/2) \text{Var}(X)$$
which is unaffected by the timing of information.

Not Price Discovery

Of course, these calculations are oversimplified. A much more careful analysis is by Ken West (*Econometrica*, 1988). West shows that

- Adding multiple periods does not change the result.
- Allowing for discounting means that better price discovery *reduces* the volatility of returns (since news enters prices earlier and thus has a discounted impact).

Could It Be Mispricing?

- The paper considers and rejects a “more mispricing” story in which increasing volatility comes from increased noise trading.
- An alternative “less mispricing” story is that increased arbitrage reduces the underreaction to news, and increases short-term volatility. This could be tested by looking at longer-term volatility (which should not have increased) or at serial correlations of returns (which should have declined).

What About Profits?

- This is the obvious place to look. Plausibly, globalization has increased competition and therefore increased the volatility of profits for each firm within an industry.
- Preliminary research by Xavier Gabaix and Thomas Philippon at MIT suggests that this may have occurred in the US.
- A related point: Reduced “tunneling” of profits among firms with common ownership should increase firm-level volatility.