Discussion
"Unexploited Gains From International Diversification" - Didier, Rigobon and Schmukler.

Tarun Ramadorai
University of Oxford and CEPR

What Does The Paper Do?

- Introduces a dataset that documents the international stock holdings of U.S. mutual funds.
- Describes the portfolio choice in terms of number of holdings and assets under management of these funds.
- Compares the holdings of funds that are classified as 'global' with those of 'specialized' (regional or country funds).
- Investigates the factors that influence the number of holdings per fund.
- Checks whether combinations of global and specialized funds (within fund families) result in better Sharpe ratios than global funds selected in isolation.

The Data

- From Morningstar International Equity Mutual Funds. All U.S. domiciled funds investing overseas.
- Monthly reports from March 1992 to June 2006. Annual (year-end) data is used here.
- 8,547 fund-year portfolios covering 3,651 funds in 505 families. A total of 1,359,750 allocations by funds over the period.
- Comprehensive data covering an important period of globalization.

Empirical Tests

- Simple enumeration of the number of holdings and percent of local market capitalization of international mutual funds.
- Compute the percent of stocks that are held in common by funds that have different broad mandates, but belong to the same fund family. (Also an 'entropy' measure.)
- Regress number of fund holdings on number of managers, fund age, size, and fund family dummies.
- Mean-variance optimization using global fund and specialized fund returns within families as assets.

Results

- Shows that the median number of stocks a global mutual fund holds is 95.
- Shows that funds that classify themselves as 'global' hold a median of 96 stocks, while 'specialized' (regional or country funds) hold a median of 78 stocks.
- Fund holdings are strongly associated with the number of managers in a fund and the family affiliation.
- Portfolios with weights in both global and specialized funds have higher Sharpe ratios than the returns of global funds taken alone.

Questions About Interpretation - I

- **Is 95 a small number? And is diversification the right objective?**
  - Authors claim that the median of 95 stock holdings per fund represents under-diversification.
  - But they are investigating *actively managed vehicles*, *not* passive index funds.
  - Clearly diversification is *not* the objective function of actively managed mutual funds.
  - A mutual fund is essentially a firm whose two inputs are financial and human capital and whose output is a set of investments.
  - Is it fair to evaluate the diversification benefits offered by these vehicles, given that basic finance theory would suggest that diversification is value-destroying if investors can do it cheaper?
- **These questions about interpretation have other consequences for the way we view the results of this paper.**

Questions About Interpretation - II

- **Is a different theoretical framework appropriate?**
  - Berk and Green (JPE 2004):
    - Assumption: Heterogeneously talented active managers face decreasing returns to scale in deploying their ability (capacity constraints).
    - In the presence of capacity constraints, how should a mutual fund invest new money?
      1. Research a larger universe of investment ideas, hire new staff, and expand research capabilities, hence invest in more stocks… OR
      2. Continue to invest, as far as feasible, in a given set of stocks?
- **Note that this question (and this model) is also about diversification. But it is about diversification of *ideas* (active), not Markowitz diversification (passive).**

A Similar Result to This Paper

- **Pollet and Wilson (JF 2008): very similar facts in U.S. *domestic* MFs.**
  - Median holding in medium sized – 230MM (very large – 6.2BN) fund is 97.26 (143.88) stocks.
  - Clearly, scaling up of existing positions is *huge* (close to 0.75 in the panel). Funds seem to adopt method (2.)
  - Why? The authors check whether funds that hold more stocks (diversify more in the language of this paper) perform better in the future…. They do… BUT only small stock funds!
- **"..unless forced on funds through liquidity constraints, diversification is not associated with subsequent fund performance. Thus, we find that some funds are unable to generate many additional successful investment ideas and no fund need try to do so except as a response to liquidity constraints."**

Back to the International Context

- **How would we account for the differences in global and specialized funds' holdings here?**
  - Question rephrased – what is the role of the fund family in all this?
  - Intriguing result in this paper that global and specialized funds within the same fund family share very few common picks.
  - Back to Pollet and Wilson, who find, like here, that most families' combined portfolios *diversify three to four times more rapidly than individual fund portfolios in response to growth*. Large (small) fund families do this much more (less) aggressively. Similar to here: family dummies explain a large share of the number of stocks held.
- **So diversification occurs at the family level. Why? The goal seems to be product proliferation.**
- **Makes sense in an active management context with competition for market share. Reconciles the result here that global funds don't seem to diversify enough.**

Minor Comments

- Authors could attempt to get measures of transactions costs for local markets, to check about the role of liquidity. Several of the Bekaert, Harvey, Lundblad papers use these measures.
- Statistics on percentages of local market capitalization held (page 15) may be misleading unless free float is used.
- It would also be nice to look at the effect of governance on the number of holdings – a dimension unexploitable by domestic studies.
- Active strategy should also consider alpha (on global multifactor model) rather than excess over the benchmark.

Conclusion

- Nice paper – great dataset, lots of facts, careful analysis, and it reconfirms what we learn from domestic data.
- Interpretation could use some work in light of the literature on active management (in which 'diversification' performs different functions than in the standard passive context)
- Recommended reading!