

Active vs. Passive Portfolio Management: Implications for Financial Stability and Consumer Protection

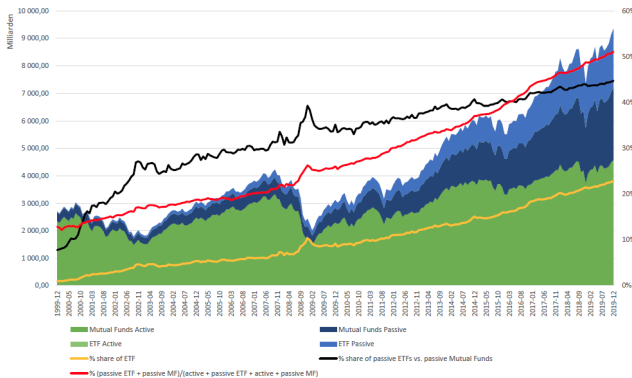
Josef Zechner, WU Wien
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1. Introduction
2. Passive portfolio management (PPM) and financial markets
 - 2.1 PPM and securities risk characteristics
 - 2.2 PPM and market disruptions
3. PPM and corporate conduct
4. Conclusion

- ▶ Financial theory:
 - ▶ Hold a combination of a broadly diversified portfolio, that is, the *market portfolio and the riskless asset!*
- ▶ Passive funds have made it much easier to follow this advice by
 - ▶ making it cheaper and simpler,
 - ▶ opening new markets.
- ▶ Passive funds are in principle a great financial innovation. But....

The following slides are partly based on Pagano, Sanchez-Serrano, Zechner (2019).

Fast growth of PPM: US equities



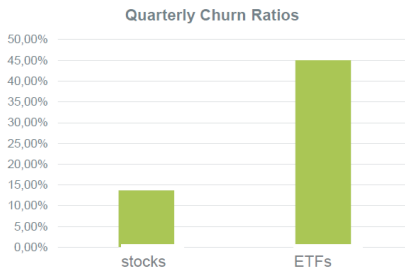
Source: Morningstar

- ▶ Given its scale, we must ask what the potential systemic effects of passive investing are.

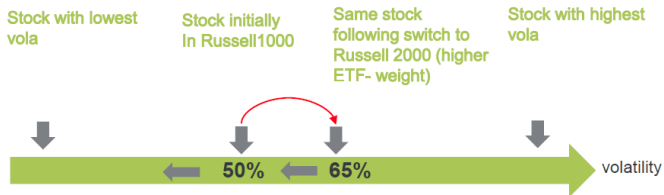


- ▶ Inclusion in an index and increased index trading leads to more co-movement among constituents: e.g. Barberis et al. (2005), Sullivan and Xiong, (2012), Sushko and Turner (2018), etc..
- ▶ Better price discovery for systematic component, but worse for idiosyncratic components (Glosten et al (2016)).
- ▶ ETF Arbitrage activities contribute to return co-movement, especially during market stress (Shim (2019)).
- ▶ PPM seems to increase liquidity comovement (Kamara et al (2008, 2010) and Bolla et al (2017)).

- ▶ High liquidity and continuous ETF trading enables investors to take large short-term directional positions on entire asset classes.
- ▶ Attracts different investor clienteles (Ben-David et al (2018)): Use for liquidity management, hedging, tactical asset allocation, short-term speculation.
- ▶ Clientele effect stronger when liquidity gap between ETF and underlying is large?

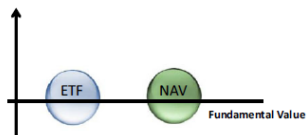


- ▶ Ben-David et al (2018): finds that a one-standarddeviation of ETF ownership leads to a 16% increase in the security's standard deviation.
- ▶ Natural experiment:

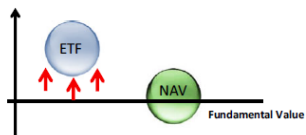


- ▶ Larger ETF holdings increase volatilities and their serial correlations (Hanaeda and Serita (2018)).

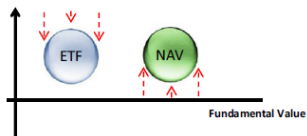
- ▶ ETF demand shocks and excess volatility (Ben-David et al (2018))



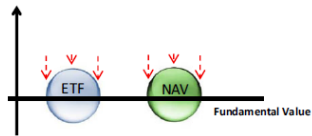
Panel A.



Panel B.



Panel C.



Panel D.

- ▶ One σ increase in corporate bond ETF outflows in the summer 2013 → 12.6 BP increase in corporate bond yield spreads (Dannhauser and Hoseinzade (2017)).
- ▶ Find positive feedback trading by bond ETF investors.
- ▶ More evidence for bond markets (Pan and Zeng 2019), commodities (Corbet and Twomey 2014).

- ▶ De-Coupling ETF price from underlying: e.g. Flash Crash May 2010, EM stress June 20 2013, August 2015.
- ▶ APs and step away risk: Pan Zeng (2019): 1 σ increase in bond market illiquidity implies up to 40% decline in AP arbitrage sensitivity.
- ▶ Potential conflicts of interest between dual role as AP and market maker in the underlying.
- ▶ Liquidity illusion may become apparent and lead to fire sales and feedback loops. Large ETF discounts may induce investors to lose faith in the market valuation of the securities as well.

	Overall market share (percent)		Passive fund AUM, December
	1999	2018	2018 (\$bill.)
Vanguard	10	24	3,323
BlackRock	1	8	1,407
State Street	0	3	585
Fidelity	14	9	449
Charles Schwab	0	1	184
<i>Totals</i>	<i>25</i>	<i>45</i>	<i>5,947</i>

Top five passive mutual fund and ETF managers as of December 2018

Source: CRSP, WRDS and Anadu et al (2019)

- ▶ Ten largest passive fund asset managers is about 90 percent of total passive-fund industry AUM (see Anadu et al 2019).
- ▶ ETF market even more concentrated: U.S.: > 75% of ETF activity handled by top 3.
- ▶ Economies of scale? Crowding-out of other passive instruments (see graph on slide 3)?
- ▶ Consequences of possible operational risks?

Passive Portfolio Management and the Objective of the Firm

Top shareholders of largest U.S. airlines:

<u>Delta Air Lines</u>	<u>[%]</u>	<u>Southwest Airlines Co.</u>	<u>[%]</u>	<u>American Airlines</u>	<u>[%]</u>
Berkshire Hathaway	7.25	Berkshire Hathaway	15.03	T. Rowe Price	12.89
Vanguard	6.13	PRIMECAP	11.87	PRIMECAP	10.46
BlackRock	5.84	Vanguard	6.28	Berkshire Hathaway	9.54
Lansdowne Partners Limited	3.90	Fidelity	5.41	Vanguard	6.15
PRIMECAP	3.75	BlackRock	5.04	BlackRock	5.20
State Street Global Advisers	3.68	State Street Global Advisers	3.69	Fidelity	3.71
J.P. Morgan Asset Mgt.	3.48	Columbia Mgt. Inv. Adv.	1.46	State Street Global Advisers	3.58
Evercore	2.09	J.P. Morgan Asset Mgt.	1.29	Geode Capital Mgt.	1.03
PAR Capital Mgt.	1.78	Egerton Capital (UK) LLP	1.26	Morgan Stanley	1.00
BNY Mellon Asset Mgt.	1.24	T. Rowe Price	1.16	Northern Trust Global Inv	0.97

Source: Schmalz (2018)

- ▶ Given such ownership, do firms maximize something like objective 1

$$\max_{x_j} \tilde{\Pi}_j = \sum_{i=1}^M \gamma_{ij} \beta_{ij} \pi_j$$

- ▶ Or do they maximize something like objective 2 (second term measures common ownership concentration (CoOCo)):

$$\max_{x_j} \tilde{\Pi}_j = \sum_{i=1}^M \gamma_{ij} \sum_{k=1}^N \beta_{ik} \pi_k = \pi_j + \sum_{k \neq j} \underbrace{\frac{\sum_i \gamma_{ij} \beta_{ik}}{\sum_i \gamma_{ij} \beta_{ij}}}_{\lambda_{jk}} \pi_k$$

(O'Brian and Salop (2000))

where x_j =firm j 's decision variable, e.g. output; π_j =firm j profit;
 β_{ik} =investor i cash flow right in firm k ; γ_{ik} =investor i control share in
firm k .

- ▶ Common ownership predicts industry margins (e.g. He and Huang (2017), Semov (2017))
- ▶ Airline ticket prices are higher when common ownership (Azar et al (2018)). Exploit quasi-exogenous variation in CoOCo.
- ▶ Pharmaceutical industry: CoOCo makes it more likely that the brand pays the generic to stay out (Gerakos and Xie (2018)) and reduces probability of a generic entrant (Newham et al).
- ▶ CoOCo and soy, corn and cotton seed prices (Torshizi and Clapp (2019)).

- ▶ CoOCo and bid rigging (Asai et al (2019))
- ▶ Antón et al (2020): CoOCo related to less performance-sensitive top management incentives, higher product prices and reduced output.
- ▶ Inclusion in S&P 500 increases CoOCo and leads to positive CARs of product market rivals (Boller et al (2019)).

- ▶ Horizontal CoOCo could help overcome contracting frictions. E.g. Lindsey (2008).
- ▶ Cici et al (2015), Freeman (2016): vertically connected firms exhibit more robust business relationships.
- ▶ Better access to bank loans if common ownership with bank (Ojeda (2017)); CoOCo may lead to more innovation. E.g. Antón et al (2018).

1. PPM and systemic risk:

- ▶ Substantially more evidence that ETFs contribute to systemic risks than index MF.
- ▶ In market stress, ETFs seem to contribute to market fragility (reversals of short-term directional trades, feedback trading, mechanical trading by levered ETFs).
- ▶ Especially when underlying is less liquid, such as for corporate bond ETFs.
- ▶ Risk of disruptions in concentrated markets: Decoupling of ETF from NAVs, operational risks.

2. PPM and corporate conduct

- ▶ Strong evidence that CoOCo via PPM changes corporate strategic behavior and equilibrium outcomes.

- ▶ Is increasing market concentration in PPM a source of systemic risk and if yes, what can policy setters do? Do ETFs crowd out other intermediated vehicles and would this have adverse effects?
- ▶ Do we need to adjust circuit breakers in ETF markets? Coordinated with underlying?
- ▶ Should certain types of ETFs be banned? E.g. leveraged loan ETFs?
- ▶ To what extent are ETFs used for liquidity management in the corporate sector? Or to take correlated market exposures (contagion)?
- ▶ Why do APs and OLPs seem to withdraw from the market in stress situations? Why have many institutions withdrawn from ETF market making? Should one disclose any connection between APs, OLPs and ETF? Is the step-away risk larger in certain markets/asset classes?
- ▶ Should ETFs primary dealing be opened up for all ETF shareholders?

- ▶ What are the mechanisms via which anti-competitive effects of CoOCo arise?
- ▶ Welfare effects of possible policy measures. E.g. (i) limiting passive asset managers' holdings in any one firm to, say 1%, (ii) to one firm per industry (iii)voting restrictions of passive asset managers, (iv) more transparency?
- ▶ Should PPMs check the political influence of companies they own? Currently they do not curb campaign contributions, lobbying expenses, other political spending – fiduciary blind spot?
- ▶ What is / should be the objective function of passive asset managers to determine their corporate governance policy?