Issues Facing the
U.S. Money Management Industry

Presentation to the
SEC Asset Management Advisory Committee

Michael L. Goldstein

FMMI Inc.
Issues Facing the U.S. Money Management Industry

Topics

• The Really Big Picture
• The Rise of Indexing and Investor Price Sensitivity
• What is Advice?
• Conclusions
The U.S. Industry is Around $45 Trillion in Size…
...And It Has a Retail Character...

The U.S. Money Management Industry Sources of Assets Under Management¹
2018

1 Not including federal government pension plans.
2 Excludes unfunded portion.
3 Excludes variable annuities held in defined-contribution and IRA retirement plans.

...That’s Increased Over Time...

1 Endowments, foundations and outsourced insurance assets.
2 Includes 401(k), 403(B), 457 and union defined-contribution plans.
3 Includes variable annuities and college savings plans.
4 Includes hedge funds and private equity funds.
...As the ERISA Era Has Come Full Circle

Corporate Defined-Benefit Plans
Number of Participants
1975 Through 2017

Active Participants 2017
The Stars Aligned to Produce a Series of Fund-Raising Booms…

Net Flows Into Mutual and Hedge Funds and ETFs and New Capital Raised by Private Equity and Venture Capital Firms Totals and as a Share of GDP Various Periods: 1979 Through Late-2019

- Money Market Mutual Funds (1979-1982)
- Equity Mutual Funds (1992-1999)
- Hedge Funds (1996-2007)
- All ETFs
- Private Equity + Venture Capital
- U.S. Equity Mutual Funds and ETFs

Net Flows/New Capital Raised: $ Billion

As a Share of GDP: %

2010 Through Late-2019

Flows/New Capital Raised: [Graph Colors]
As a Share of GDP: [Graph Colors]
The U.S. Money Management Industry
ETF and Private Equity Assets as a Share of The Industry Total
2000 Through 2019E

…That Have Once Again Transformed the Character of the Industry
...And That of Institutions as Well

U.S. Endowments
Average Spending Rates
and Composite Yield of the U.S. Bond Market¹
Years Ending June: 1998 Through 2019

¹Based on the Bloomberg Barclays US Aggregate Index.
The Aging of Boomers Has Been a Critical Dynamic…

U.S. Households Age 55 Yrs. and Older
Share of Discretionary Financial Assets
1989 Through 2016

<table>
<thead>
<tr>
<th>Year</th>
<th>55-64 Yrs.</th>
<th>65-74 Yrs.</th>
<th>≥75 Yrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1989</td>
<td>40%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>1992</td>
<td>45%</td>
<td>35%</td>
<td>20%</td>
</tr>
<tr>
<td>1995</td>
<td>50%</td>
<td>40%</td>
<td>10%</td>
</tr>
<tr>
<td>1998</td>
<td>55%</td>
<td>45%</td>
<td>0%</td>
</tr>
<tr>
<td>2001</td>
<td>60%</td>
<td>50%</td>
<td>0%</td>
</tr>
<tr>
<td>2004</td>
<td>65%</td>
<td>55%</td>
<td>0%</td>
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<tr>
<td>2007</td>
<td>70%</td>
<td>60%</td>
<td>0%</td>
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<tr>
<td>2010</td>
<td>75%</td>
<td>65%</td>
<td>0%</td>
</tr>
<tr>
<td>2013</td>
<td>80%</td>
<td>70%</td>
<td>0%</td>
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<tr>
<td>2016</td>
<td>85%</td>
<td>75%</td>
<td>0%</td>
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</tbody>
</table>
...That’s Been Boosted By Skewness in the Distribution of Wealth...
...And the Combination of the Two Has Shown Up in Inheritances

Probability of Receiving an Inheritance
By Age and Income Group
1995 Through 2016

Age

Bottom 50%
- 50th to 90th
Top 10%
Demographics Have Worked to Slow the Rates of Change

What Will be More Important in Three Years?
An Investment Professional or the Latest Investment Technology Platform
Share of Responses by Age Group
2018
The Impact of Private Capital on the System Has Been Consistent…

U.S. Private Equity and Venture Capital
New Investments as a Share of the Market Value of U.S. Publicly-Traded Equities
2006 Through September 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Equity</th>
<th>Venture Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2.8%</td>
<td>0.1%</td>
</tr>
<tr>
<td>2007</td>
<td>4.7%</td>
<td>1.3%</td>
</tr>
<tr>
<td>2008</td>
<td>2.5%</td>
<td>0.2%</td>
</tr>
<tr>
<td>2009</td>
<td>1.5%</td>
<td>0.1%</td>
</tr>
<tr>
<td>2010</td>
<td>2.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>2011</td>
<td>2.1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>2012</td>
<td>2.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>2013</td>
<td>2.0%</td>
<td>0.1%</td>
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<td>2014</td>
<td>2.0%</td>
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<td>2015</td>
<td>2.0%</td>
<td>0.1%</td>
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<td>2.0%</td>
<td>0.1%</td>
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<tr>
<td>2017</td>
<td>2.0%</td>
<td>0.1%</td>
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<tr>
<td>2018</td>
<td>2.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>2019</td>
<td>2.0%</td>
<td>0.1%</td>
</tr>
</tbody>
</table>
…And Start-Ups Have Stayed Private Longer…

Median Age of Venture Capital-Backed Start-Ups at the Time of Their IPO
...As the Investor Bases Have Converged

Venture Capital-Backed IPOs
Share of Pre-IPO Investments Coming from Mutual Funds
1995 Through 2016

(5) (10) (15) (20) (25) (30) (35) (40)
(5) 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015
The Sector Mix of the Debt Tells a Story

Sector Mix of Corporate Debt Outstanding
Leveraged Loans Compared to the Long-Term Debt of Public Companies
As of Q3 2019

1The public company data is the long-term debt of the largest 1,500 stocks.
Issues Facing the U.S. Money Management Industry

Topics

• The Really Big Picture

• The Rise of Indexing and Investor Price Sensitivity
Indexed Equity Fund and ETF Assets
Share of All Long-Term Equity Mutual Fund and ETF Assets
1993 Through November 2019

Indexed Gained Enormous Share in the 2010s…
…As There Was No Need to Venture Elsewhere

U.S. Equity ETFs
Average Morningstar Star Ranks¹
As of November 2019

1Asset-weighted averages.
The Performance of Active Managers Has Been a Big Part of the Story…

Actively-Managed Equity Mutual Funds
Share Outperforming Their Benchmarks\(^1\)
2009 Through Q2 2019

\(^1\)Includes funds that have disappeared, via merger or otherwise.
...And the Classic Rationales Tell Most of the Tale

![Chart showing annualized underperformance of actively-managed large-cap U.S. equity mutual funds from 2010 through mid-2019.](chart)

1Equally-weighted composite.
The Economy Hasn’t Cooperated…

U.S. Real-GDP Quarterly Growth Rate Forecasts
Share of Quarters Underestimated and Overestimated by Decade
1970 Through Q3 2019

<table>
<thead>
<tr>
<th>Decade</th>
<th>Underestimated</th>
<th>Overestimated</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970s</td>
<td>55%</td>
<td>45%</td>
</tr>
<tr>
<td>1980s</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>1990s</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>2000s</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>2010s</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

Legend:
- **Underestimated**
- **Overestimated**
Large-Capitalization Stocks
Correlation Between Sectors' Relative Returns and Their Tracking Error¹
1930 Through 2019

Outperforming Sectors Have Higher Tracking Errors
Outperforming Sectors Have Lower Tracking Errors

Decades

1930s 1940s 1950s 1960s 1970s 1980s 1990s 2000s 2010s Last Five Years

¹ Relative returns and tracking error computed over a trailing three-year window using monthly, capitalization-weighted data.
...As the Margins of the Largest Companies Nearly Tripled

Large-Capitalization Stocks
Free Cash Flow Margins By Quintiles of Market Capitalization¹
1953 Through Mid-December 2019

1 Measured in aggregate; trailing four-quarter data smoothed on a trailing six-month basis.
Pricing Has Become a Focus…

Actively-Managed Mutual Funds
Flows by Expense Ratios: Lowest 20% and the Rest
2000 Through 2018

$ Billion

Lowest 20%
The Rest

0 100 200 300 400


Lowest 20% The Rest
ETF Investors
Extremely Important Factors When Evaluating ETFs
Share of Respondents
2018

- Low Expense Ratio #1
- Total Costs¹ #2
- Tracks an Index #3
- Reputation of Sponsor #4
- Past Returns #5
- Morningstar Rating #10

¹ Expense ratios, commissions, bid/ask spreads.

...And Ratings Have Mattered Less Than in the Past
The Tail Doesn’t Look Large Enough to Wag the Dog…

Institutional and Retail Investors
Indexed Equity Assets
As a Share of the U.S. Large-Cap Market
2004 Through Q3 2019

Institutional Retail
%
…Although the Mistiming of Investments Remains an Issue

Mistiming by Mutual Fund and ETF Investors
Realized Versus Asset Class Returns
2007 Through 2019

Morningstar Analysis
Ten Years Ending Q1 2018

Dalbar Analysis
2007-2019
Analysis of ETFs with
Top-Quintile Inflows
Measured Over One-Year Periods
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• The Really Big Picture
• The Rise of Indexing and Investor Price Sensitivity
• What is Advice?
Financial Advisors are Now Wealth Managers…

Financial Advisor Job Descriptions
Share of Respondents
2018

- Wealth Manager
- Financial Planner
- Investment Manager
- Broker
…With Indexing at the Heart of What They Do

U.S. Equity Mutual Fund and ETF Holdings by Channel
Share in Index Funds and ETFs
As of September 2019

Four National Firms  Other Broker Dealers  RIAs  Banks and Trusts
The Price of Advice Has Gradually Come Down…

National Full Service Brokerage Firms\(^1\)
Fees for Advice Plus Mutual Fund Expense Ratios\(^2\)
Select Years: 1985 Through 2019

<table>
<thead>
<tr>
<th>Year</th>
<th>Advice Fees</th>
<th>Mutual Fund Expense Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
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<tr>
<td>2008</td>
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<td>2014</td>
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<tr>
<td>2019</td>
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</tbody>
</table>

\(^1\)Currently Morgan Stanley Smith Barney, Wells Fargo and Company, Bank of America Merrill Lynch and UBS Wealth Management.

\(^2\)Mutual fund expense ratios are asset-weighted and exclude 12B-1 fees.
…And the Pressure is from Both Outside and Within

The Price of Advice
Asset-Weighted Fees by Market Segment
2017

%  

<table>
<thead>
<tr>
<th>Market Segment</th>
<th>Fee</th>
<th>Industrywide Averages</th>
<th>National Brokerage Firm Average</th>
<th>Schwab, Vanguard and Fidelity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass Market $100,000</td>
<td>1.2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle Market $300,000</td>
<td>1.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass Affluent $750,000 to $1.5 Million</td>
<td>1.0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affluent $1.5 Million to $5 Million</td>
<td>0.9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High-Net-Worth $10 Million</td>
<td>0.8%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Firms</td>
<td>0.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Robo-Advisory Programs</td>
<td>0.6%</td>
<td></td>
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</table>
Most Robo-Advisory Asset Allocation Schemes are Similar…

Robo Advisors
Equity Allocations in Taxable Accounts and Their Domestic Shares
Q3 2019

Most Robo-Advisory Asset Allocation Schemes are Similar…

Equity Allocations
Domestic Shares of Equity Allocations
...As Apparent in the Distribution of Returns

Robo Advisors
Trailing Two-Year Annualized Returns in Taxable Accounts
As of Q3 2019

Firm 1
Firm 2
Firm 3
Firm 4
Firm 5
Firm 6
Firm 7
Firm 8
Firm 9
Firm 10
Firm 11
Firm 12
Firm 13
Std. Dev.
There's Been a Shift in the Landscape

The Vanguard Group, iShares and the National Full-Service Brokerage Firms
Retail Assets Under Management/In Custody
2007 and 2018

- Individual Investors
- Advisor Assets
- Individual Investors and Advisor Assets
- BlackRock iShares
- Bank of America Merrill Lynch
- Morgan Stanley Wealth Management
- UBS Wealth Management Americas
- Wells Fargo and Company

The Vanguard Group
Retail Assets Under Management

Retail Assets in Custody

2007  2018
The Bar for Service Keeps Moving Up

U.S. Defined- Contribution Plans
Employer Has Responsibility to Improve
Employee Financial Wellness: Share Agreeing
2018

Disagree

Somewhat/ Neutral

Agree
Issues Facing the U.S. Money Management Industry

Conclusions

- The trends in the industry are byproducts of those in the global economy. Demand fosters supply.
- The dominance of the baby boomer generation among asset holders has created inertia, thus far limiting disruption on some fronts.
- The nature of the advice proposition has changed with the shift toward indexing.
- The distinction between money managers and distributors has become increasingly blurred.
- Corporate free cash flow generation, low-cost money management/liquidity along with cheap leverage were the themes of the 2010s.