OLIVER WYMAN



Financial Services

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Standard of Care HarmonizationImpact Assessment for SEC

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Case study on impact of MiFID investor protection

Section 1

Executive summary

Summary findings (1)

- Oliver Wyman collected data from a broad selection of retail brokerage firms to assess the impact of significant changes to the existing standard of care for broker-dealers and investment advisors
 - A total of 17 firms provided data
 - These institutions serve 38.2MM households and manage \$6.8TN in client assets
 - The survey captures approximately 33% of households and 25% of retail financial assets in the US
- The primary issue at stake in the SEC 'standard of care' study is how to better protect the investor while preserving choice of relationship, product access, and affordability of advisory services
- The key insight from the survey is that broker-dealers play a critical role in the financial services industry that cannot be easily replicated with alternative services models
- Wholesale adoption of the Investment Advisers Act of 1940 for all brokerage activity is likely to have a negative impact on consumers (particularly smaller investors) across each of the following dimensions
 - Choice
 - Product access
 - Affordability of advisory services

Continued...

Summary findings (2)

Potential impact of rulemaking on retail investors

Choice

- Reduced access to the preferred 'investment and advisory model' for retail investors
 - 95% of households hold commission-based brokerage accounts today
 - The fee-based advisory platform is far less popular (only 5% of households)
 - The 'preference' for brokerage accounts is evident across all wealth segments but strongest for smaller investors with less than \$250K in assets

Product Access

- Reduced access to products distributed primarily through broker-dealers
 - Municipal and corporate bonds represent ~15% of assets held by retail investors
 - These products (among others) are generally offered on a 'principal basis'
 - Restricting principal or proprietary offerings will limit investor access to these products and possibly limit financing options for municipalities or corporates at current pricing

Affordability of Advisory Service

- Reduced access to the most affordable investment options
 - Fee-based services are 23-37 bps more expensive than brokerage¹
 - For an investor with \$200K in assets, this translates to \$460 in additional fees
 - The cost of shifting to fee-based pricing alone would reduce expected returns by more than \$20K over a 20 year horizon (assuming 5% annual returns)
- And the indirect costs of additional compliance, disclosure, and surveillance may have an even greater impact on consumers → we estimate that 12-17MM small investors 'at the margin' could lose access to current levels of advisory service if even 2 additional hours of coverage and support is required per client

^{1.} Cost expressed as a percentage of assets under management in basis points (1bp = 0.01%)

Section 2

Methodology and source data

Oliver Wyman collected data from 17 SIFMA member firms to support the impact assessment

Purpose of study

- The impact assessment that follows was designed in response to the SEC request for comment on the upcoming study of the standard of care obligations for broker-dealers and investment advisers
- Oliver Wyman gathered data from 17 SIFMA member firms to provide relevant market data for the SEC study
- The study is intended to help
 - Identify the investor segments most likely to be affected by changes to the standard of care
 - Understand the cost to the consumer (choice, product access, transaction costs) of potential changes
 - Understand the one-time and ongoing costs of compliance for advisory and brokerage firms
 - Estimate the broader market / economic impact of any changes, particularly for capital formation

Note on survey methodology

- 17 member firms participated, representing \$6.8TN in assets (approximately 27% of total U.S. household financial assets) across 38.2MM households
- To obtain a fairly representative sample of the industry, data on asset management accounts, investor profiles, and cost structure was gathered from a diverse set of brokerage firms

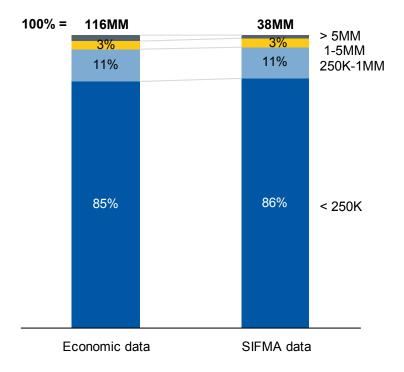
Note on confidentiality

Due to the highly sensitive nature of firm-specific information, all data is presented in aggregated form

The survey proved to be highly representative of the investor population as a whole, capturing 33% of households and 27% of financial assets

Investors by wealth segment¹

Number of U.S. households, 2009



Assets by wealth segment

Investable assets, 2009



Note: Economic data includes all investable assets whereas SIFMA data refers to managed assets, SIFMA data skews toward investors with <\$1MM in assets

^{1.} Wealth segments based on client assets under management Source: SIFMA member data, 2007 Federal Reserve Survey of Consumer Finances, Oliver Wyman analysis

Section 3

Background and context

Regulators have wide discretion in establishing a uniform 'standard of care' for the IABD industry

- Regulators have a range of options in establishing a uniform 'standard of care' for broker-dealers and investment advisers in the United States
 - Limited changes to current model
 - A 'standard of care' with disclosure / consent to conflicts that preserves commission-based brokerage
 - Wholesale adoption of the Advisers Act of 1940 for all broker-dealers and investment advisers
- A major shift in the 'standard of care' will impact individual investors in several ways
 - Choice of advisory model
 - Access to investment products
 - Cost of investment and advisory services
- Beyond these direct costs to the consumer, we also anticipate broader economic costs to the industry as a whole
 - Broker-dealers and investment advisory firms will all face one-time and ongoing costs to comply with new fiduciary, disclosure, and surveillance requirements → these may be passed on to investors
 - Potential limitations on product accessibility for retail investors will place constraints on capital formation and issuers' ability to finance at attractive rates

Our analysis will focus on the relative impact of two possible scenarios for harmonization of the standard of care

		Rule making scenarios	
Activity	STATUS QUO WITH GREATER DISCLOSURE	FIDUCIARY DUTY WITH CONSENT TO CONFLICTS	ADOPTION OF ADVISERS ACT OF 1940
	Harmonized standards that preserve existing practices but require greater disclosure	Fiduciary standard for advisory activity that preserves commission-based brokerage model	Fiduciary standard for advisory activity with fees based on assets under management
Investment planning	 Suitability for resultant securities transactions 	Best interest of the client with disclosure / consent to conflicts	■ Best interest of the client
Asset allocation advice	 Suitability for resultant securities transactions 	Best interest of the client with disclosure / consent to conflicts	Best interest of the client
Advice on client holdings	 Best interest of the client (advisory services) or suitability (brokerage services) 	 Best interest of the client, at point of sale or ongoing depending on relationship 	Best interest of the client
Proprietary product sales	 Best interest of the client (advisory services) or suitability (brokerage services) 	Best interest of the client with disclosure / consent to conflicts	■ Not available
Principal transactions	 Best interest of the client (advisory services) or suitability (brokerage services) 	Best interest of the client with disclosure / consent to conflicts	 Trade-by-trade prior consent required
IRA / retirement accounts	 Best interest of the client (advisory services) or suitability (brokerage services) 	 Best interest of the client <u>or</u> solely in the interest of the client, depending on relationship 	 Solely in the interest of the client

Baseline for impact analysis

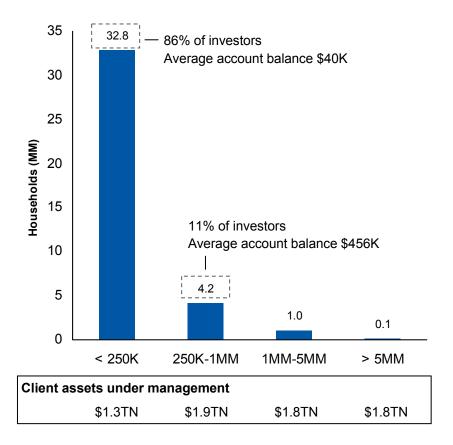
Section 4

Impact on choice

The vast majority (97%) of the US investor population holds less than \$1MM in assets with a broker-dealer or investment adviser

Investor landscape (survey population)

Number of investors by wealth segment¹, 2009



Key observations

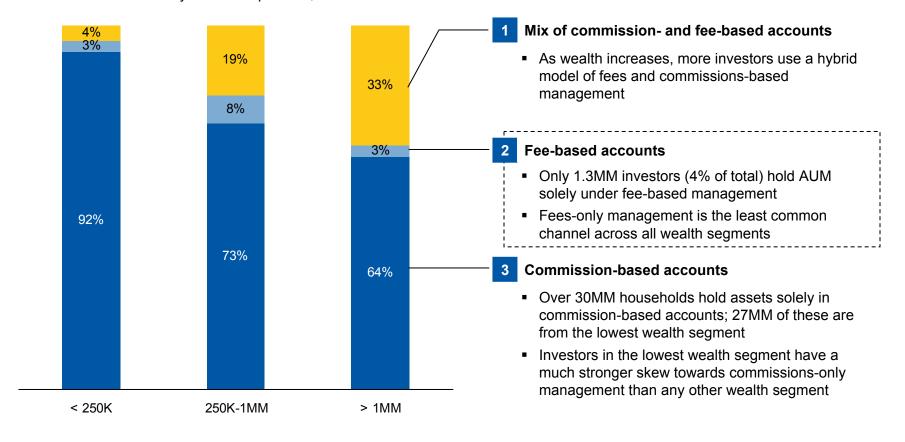
- 97% of investors in the survey (37.0MM) hold less than \$1MM in assets with broker-dealers or investment advisers
- Despite the heavy skew toward small clients, total assets are evenly distributed across the wealth spectrum (\$1.3-1.9TN in all groups)
- Average account balance for investors in the lowest wealth segment is \$40K → this is the segment most likely to be affected by a significant increase in costs

^{1.} Wealth segments based on client assets under management Source: SIFMA member data, 2007 Federal Reserve Survey of Consumer Finances, Oliver Wyman analysis

Across wealth segments, less than 5% of investors use fee-based accounts alone to serve their investment needs

Channel preference (survey population)

Number of households by relationship model, 2009



Source: SIFMA member data, 2007 Federal Reserve Survey of Consumer Finances, Oliver Wyman analysis

The current model offers investors a wide range of advisory service, product access, and pricing options

		Accou	nt Types	
Key Attributes	Fee-Based	Fees <u>and</u> Commissions	Commission-Based Advised	Commission-Based ¹ Non-Advised
Share of population	4%	7%	◆ 88	3%
Advisory needs	 Broad, portfolio-based financial planning and investment advice 	 Broad, portfolio-based financial planning and investment advice <u>plus</u> product-specific advice 	 Product-specific advice, access to principal products 	Uncertain
Investment activity	 Combination of active and passive, depending on client needs 	 Active investment 	 Combination of active and passive, depending on client choice 	 Combination of active and passive, depending on client choice
Level of service	 Highest → ongoing advice and account surveillance 	 Highest → ongoing advice and account surveillance 	■ Balanced → point in time advice on specific products	■ Limited service
Typical holdings	 Investable assets only 	Investable assetsCash and equivalentsConcentrated positions with special requirements	 Investable assets Cash and equivalents Concentrated positions with special requirements 	All investable assetsCash and equivalents
Cost	 Highest cost Range = 67-117 bps² 	 Balanced cost Range = 43-99 bps² 	■ Balanced cost ■ Range = 38-94 bps²	 Lowest cost, depending on trading activity
Common investors	Affluent and HNW	Affluent and HNW	All investors	 Predominantly lower net worth investors

^{1.} Non-advised accounts (e.g. self-directed online) were not targeted in this study but represent a significant subset of commission-based accounts

^{2.} Range dependent on wealth segment (high end of the range reflects pricing for lowest wealth segment)

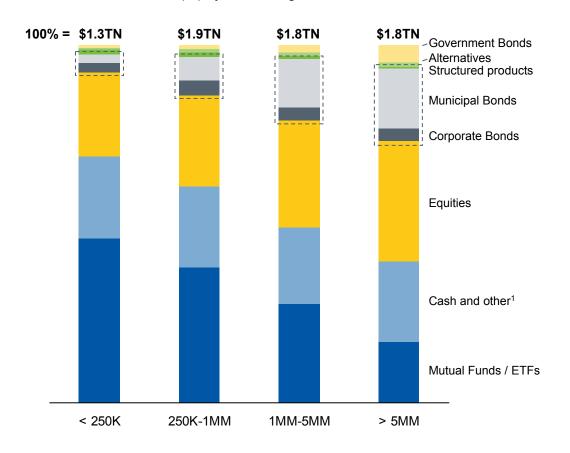
Section 5

Impact on product access

Direct holdings of individual securities (such as municipal bonds) represent an important element of investment strategy across all wealth segments

Asset allocation (survey population)

Allocation of assets (%) by wealth segment, 2009



1. Includes cash, currencies, money market funds, etc Source: SIFMA member data. Oliver Wyman analysis

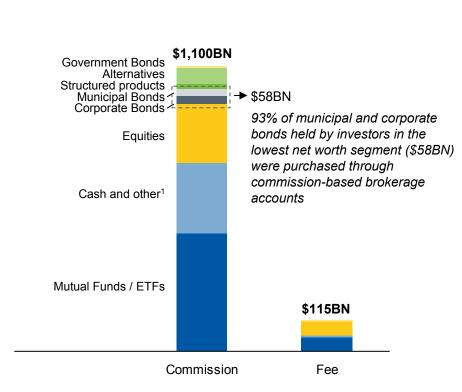
Key observations

- Investors across all wealth segments have at least 30% of their portfolio in direct holdings of individual securities
- Municipal and corporate bonds offer tax and diversification benefits that investors may be unable to access via funds
- Across all investors, municipal and corporate bonds represent 13% of total wealth and 18% of invested assets (excluding cash)
- Allocations to municipal and corporate bonds range from 7% of investable assets for low net worth accounts to as high as 26% for high net worth accounts

Commission-based brokerage is the primary channel for accessing these products today, especially for investors in the lowest wealth segment

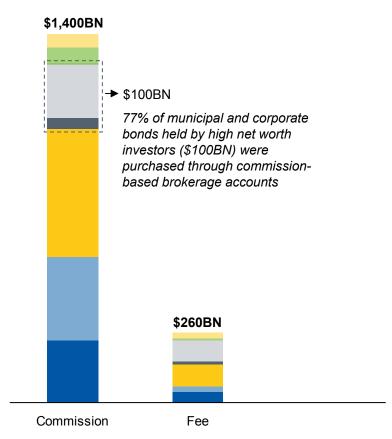
Low Net worth investors (<250K AUM)

Product access by account type²



High Net Worth Investors (>5MM AUM)

Product access by account type



^{1.} Cash and other includes cash, currencies, money market funds, etc.

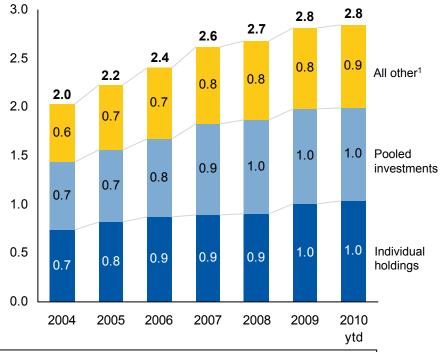
^{2.} Non-discretionary, commission accounts and discretionary, fee accounts Source: SIFMA member data, Oliver Wyman analysis

Municipal bond market

Individual investors hold 70% of municipal debt in the US today, both through direct and pooled investments

Investor demand for Municipal Securities

Holdings of Municipal Securities by segment, \$TN



Individua	Individual holdings (% of total outstanding)							
Direct								
Indirect	34%	33%	34%	36%	36%	35%	34%	

^{1.} Other sectors include corporates, financial institutions, broker-dealers, and foreign entities Source: Federal Reserve

Key observations

- The municipal securities market has grown steadily over the past several years and now provides nearly \$3TN in financing for state and local governments
- Municipalities in the U.S. have issued ~\$400BN debt annually over the past five years through these instruments
- The market is dominated by individual investors who hold ~ 70% of outstanding debt, split across direct exposures and pooled investments
- Financial institutions are relatively minor players in the space, collectively holding less than 30% of total assets (including broker-dealer inventories)
- A significant shift in the 'standard of care' required for origination and distribution of investments sold on a principal basis (as Munis are) could have a significant market impact along 2 dimensions
 - Access and cost for retail investors
 - Low cost financing for municipalities

Municipal bond market

Broker-dealers play a key role in the Munis market, providing individual investors with direct and cost effective access to new issuances of these securities

Retail Investors

Channels

Primary market

Secondary market

Pooled investment funds

- Transaction costs are built into the 'discount' or underwriting fees paid by the issuer
- Investors have access to securities with no explicit mark-up during limited retail order periods
- Securities trade on the secondary market and prices fluctuate to reflect supply and demand
- Investors have access to securities through broker-dealers who act as principals and build inventory (mark-up paid by investors)
- Securities are bought and sold by broker-dealers on behalf of pooled investment funds
- Investors pay the funds' asset management / advisory fees in addition to transaction costs / sales loads passed on by the fund



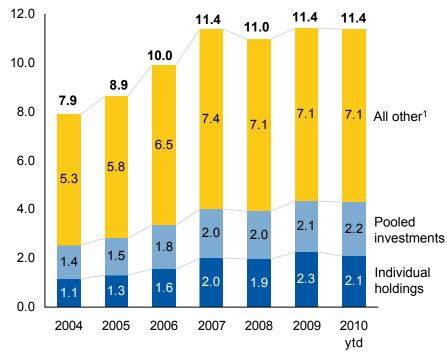
Role of the broker-dealer

■ Direct, affordable access to municipal bonds for retail investors via primary and secondary principal trading desks → mutual funds are an alternative channel to Munis but at higher cost as management fees erode returns (~1% management fees vs. 4-5% average yield)

Individual investors are also important participants in the corporate bond market

Investor demand for Corporate and Foreign Bonds

Holdings of Corporate and Foreign Securities by segment, \$TN



Individual	holding	s (% of t	otal out	standing	1)		
Direct	14%	15%	16%	18%	18%	20%	18%
Indirect	18%	17%	18%	18%	18%	18%	19%

^{1.} Other sectors include corporates, financial institutions, broker-dealers, and foreign entities Source: Federal Reserve

Key observations

- Corporations and foreign entities rapidly increased issuance of new debt between 2004-2007 and have maintained annual new bond issuance of ~ \$11TN since the financial crisis
- Individual investors (via direct holdings or pooled investments) are the largest single class of investor in the corporate and foreign bond market
- Individual investors hold \$4.3TN or nearly 40% of outstanding debt today
- In absolute terms, individual investors' share of the corporate securities market is larger than municipal securities
- Capital formation for US corporates is driven in large part by individual investment

Corporate bond market

Broker-dealers anticipate retail demand for corporate bonds and hold inventory to quickly, efficiently, and cost effectively meet client needs in the secondary market

Channels

Primary market

Secondary market

Pooled investment funds

Retail Investors

- Predominantly institutional market
- Retail investors have little to no access to primary issuance
- Primarily over-the-counter market → broker-dealers provide main point of access for retail investors to these securities
- Investors pay upfront mark-ups but no ongoing management fees that are likely to erode returns
- Securities are bought and sold by broker-dealers on behalf of pooled investment funds
- Investors pay the funds' asset management / advisory fees in addition to transaction costs / sales loads passed on by the fund



Role of the broker-dealer

■ Direct, affordable access to corporate bonds for retail investors via secondary principal trading desks → principal traders anticipate retail demand and build inventory that meets specific investment needs of clients

Section 6

Impact on cost

We have profiled three typical investors within each wealth segment to evaluate the potential costs of broad application of the Advisers Act of 1940¹

Α

'Small Investor' with commission-based accounts

77% of all investors

- \$200K in assets held exclusively in commission-based accounts
- Passive investor with less than 10 trades per year (~50% of investors in <\$250K segment)
- Pays 94 bps or \$1,890 in commissions per year
- Holds \$132K (68% of assets) in mutual funds and cash / cash equivalents
- Significant direct holdings (31% of assets), mainly in equities
- Limited investments in alternatives, fixed income, and structured products

В

'Affluent Investor' with commission-based accounts

7% of all investors

- \$500K in assets held in commission-based accounts
- Active investor with more than 10 trades per year (~75% of investors in \$250K-1MM segment)
- Pays 53 bps or \$2,650 in commissions per year
- Holds \$292K (59% of assets) in mutual funds and cash / cash equivalents
- Holds \$117.5K (23% of assets) in equities
- Hold \$90.5K (18% of assets) in fixed income, structured products and alternatives

С

'High Net Worth Investor' with commission-based accounts

2% of all investors

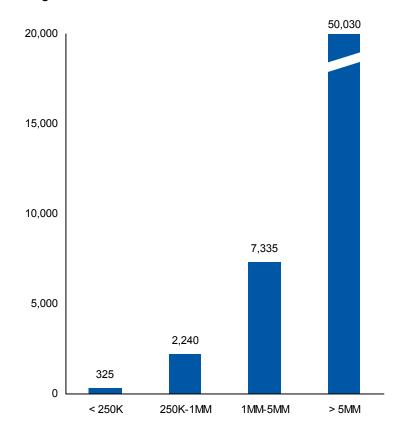
- \$10MM in assets held in commission-based accounts
- Active investor with more than 10 trades per year (~75% of investors in >\$1MM segment)
- Pays 38 bps or \$38,000 in commissions per year
- Mutual funds and cash / cash equivalents together are \$4.1MM (41% of assets)
- Equities are largest part of portfolio, with \$3.3MM invested (33% of assets)
- Fixed income, structured products and alternatives represent \$2.6MM (26% of assets)

^{1.} Asset allocation based on observed average asset allocation for each wealth segment Source: SIFMA member data, Oliver Wyman analysis

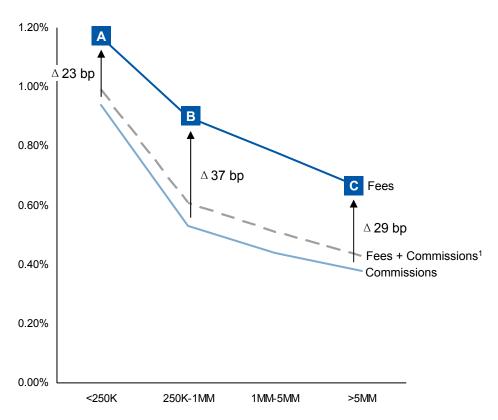
Commission-based accounts provide the most cost effective option for investors across the wealth spectrum today

Financial cost to consumer

Average annual fees and commissions, 2009



Average annual fees and commissions as % of AUM, 2009



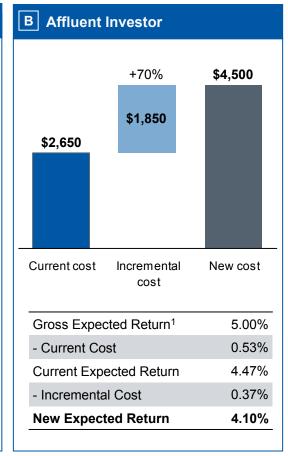
^{1.} Based on existing balance of assets between fee-based and commission-based accounts Source: SIFMA member data, Oliver Wyman analysis

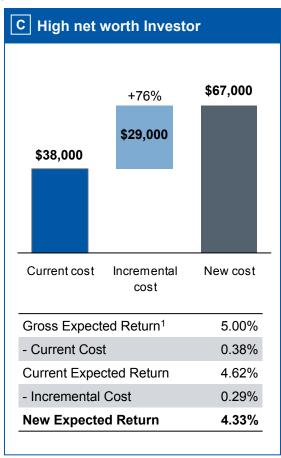
A broad shift to fee-based advisory would substantially increase costs across all wealth segments

Potential impact on advisory fees and expected returns

Pro forma impact of transition to fee-based accounts at current pricing, annual advisory costs1







Sources: SIFMA data, Oliver Wyman analysis

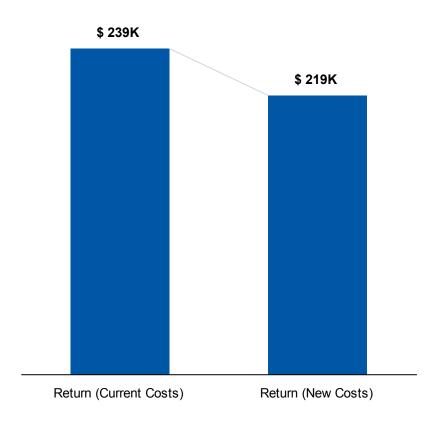
^{1.} Assumes current pricing for commission- and fee-based accounts hold for all investors

^{2.} Illustrative, not based on observed annual returns

The shift to a fee-based model would reduce cumulative returns to 'small investor' (with \$200K in assets) by \$20K over the next 20 years

Impact of cost on investor returns

Expected investment gains on \$200K portfolio, 2010-20301



Key observations

- The average investor in the lowest wealth segment trades relatively infrequently over the course of the year
- As a result, a fee-based cost structure is generally more costly for these 'passive investors' and the incremental costs (+23 bps) erode returns
- For 'small investor,' a fee-based model results in a cumulative reduction in investment gains of \$20K over 10 years, roughly 10% of the initial investment
 - 'Small investor' would pay ~ \$59K in commissions over the course of 20 years through commission-based brokerage accounts
 - Under a fee-based advisory model, 'small investor' would pay an additional \$13K in fees and lose \$7K in investment gains as a result of lower principal balances each year

^{1.} Assumes initial investment of \$200K in a balanced portfolio reflecting typical, balanced asset allocation for lower net worth investors with <\$250K AUM; based on constant annual returns of 5%, not adjusted for inflation; commissions deducted from principal balance starting at year end

However, the costs of complying with <u>and / or</u> demonstrating compliance with the new standard of care will place additional pressure on pricing

Increased activities required by shift in 'standard of care'

- Adviser training
- Increased legal and compliance
- Increased risk management and oversight
- Production and mailing of additional disclosures
- Initial client consultation
 - Review relationship
 - Obtain formal consent for existing strategy
- Investment strategy and plan
 - Evaluate portfolio
 - Assess investment objectives
 - Agree on new investment plan for client
- Documentation of client discussions
- Ongoing account surveillance

Incremental cost of compliance

Annual costs expressed as bps over assets

Additional hours	1	2	3	4	5
Estimated cost	\$200	\$400	\$600	\$800	\$1,000
A Small investor (\$200K)	10bps	20bps	30bps	40bps	50bps
B Affluent investor (\$500K)	4bps	8bps	12bps	16bps	20bps
C HNW investor (\$10MM)	2bps	4bps	6bps	8bps	10bps

Focus of analysis on following slides (conservative estimate)

Methodology for calculating hourly rate

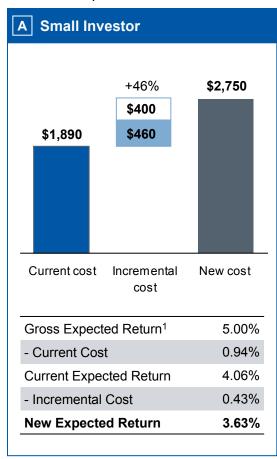
- Median income for investment advisers estimated at \$173K¹
- Adviser compensation represents 42% of fully loaded costs based on SIFMA member data
- Given 2,000 working hours per year, average hourly rate of service is \$200 / hour

^{1.} Based on 2010 annual compensation survey by Registered Rep Source: SIFMA member data, Oliver Wyman analysis

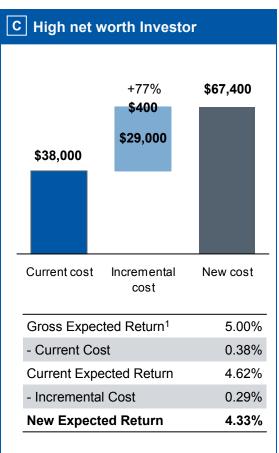
These incremental costs will disproportionately impact investors with smaller investment portfolios

Potential impact on advisory fees and expected returns

Pro forma impact of transition to fee-based accounts at new pricing, annual advisory costs







Sources: SIFMA data, Oliver Wyman analysis

^{1.} Assumes pricing for commission- and fee-based accounts rises to account for additional activity

^{2.} Illustrative, not based on observed annual returns

Consumers may also face significant adviser capacity constraints that will limit the availability of service under the new standard of care

Current state				
Investors with <\$250K in comm	ission acco	unts	2	28.4MN
Average commissions/investor		\$268		
Hourly rate for asset management		\$200		
Time spent per investor	1.	3 hours		
Time spent on all investors with	n <\$250K AL	JM	38.1MI	M hours
Minimum number of required ac	dvisers			19K
Impact of additional servi + 2 hours per investor	ce require	ements		
-	ce require	ments	90%	100%
+ 2 hours per investor	•		90% 42.3	
+ 2 hours per investor Current utilization levels Implied capacity	70%	80%		38.1
+ 2 hours per investor Current utilization levels Implied capacity (MM hours) Implied capacity	70% 54.4	80% 47.6	42.3	100% 38.1 11.4

Implications

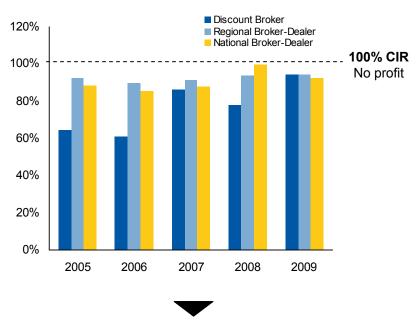
- Given current resources, we estimate that 40-57% of investors in the lowest wealth segment can be covered if advisers are required to spend 2 additional hours with each investor
- We estimate that 20-28K additional advisers will be needed to serve the 'uncovered' investors in our sample population → our sample population is 33% of US investors, which suggests that 60-84K new advisers may be needed
- Faced with this, the brokerage and investment advisory industry can respond in one of three ways
 - Increase workforce and raise prices
 - Increase workforce and absorb new costs
 - Reduce coverage for lower net worth investors whose 'personalized investment' advisory needs will exceed capacity
- While the autonomy provided by self-directed accounts is desirable for certain investors, market data suggests that investors with advised accounts
 - Make more sophisticated investment decisions
 - Achieve higher average investment returns

Source: SIFMA member data, Oliver Wyman analysis

Current economics of the IA/BD industry suggest that investors will need to accept higher costs or turn to alternative service models for investment

Industry profitability

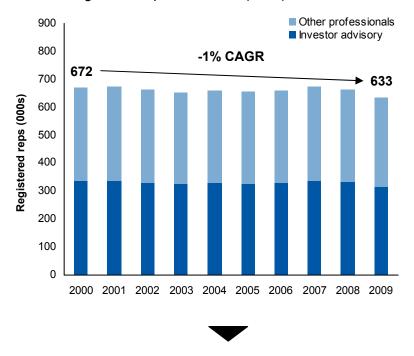
Total costs before tax over total revenues¹



Operating margins across the industry are thin and have deteriorated since 2005, leaving little room to absorb additional cost

Industry capacity

FINRA registered representatives (000s)²



Industry headcount has been flat to negative over the past ten years; the additional capacity required to cover small clients would be difficult to provide (at least in the near term)

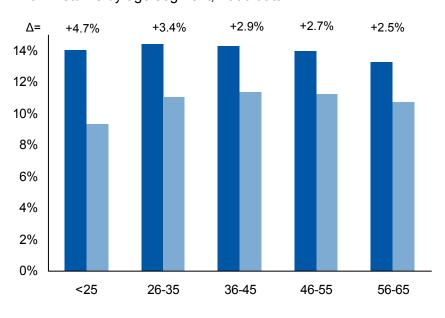
Sources: SNL Financial, FINRA

^{1.} Public data for companies within the SNL National Broker-Dealer, Regional Broker-Dealer, and Discount Broker indices

^{2.} Figures overstate actual industry capacity (approximately 50-60% of individuals who hold Series 7 licenses do not advise investors, but serve in other capacities e.g. legal, compliance, etc.)

And several recent studies suggest that investors without access to advisory services may be disadvantaged and fail to realize investment goals

Impact of professional financial advice¹ on portfolio returns 401k returns by age segment, 2006 data



- Advised portfolios
- Non-advised portfolios

Key observations

- Participants in 401k plans administered by Schwab achieved returns that were 3.3% higher on average if some level of financial advice was provided
- In addition to higher portfolio returns, professional financial advice had an impact on several dimensions
 - Savings rate → 70% of participants who received financial advice doubled their saving rates from an average of 5% to 10% of pre-tax income
 - Portfolio diversification → Participants who received financial advice held positions across 8 asset classes on average vs. self-directed investors who held positions in 3.7
 - Investor confidence → Of participants who received advice, 29% were confident of having adequate funds to retire vs. 16% of investors who did not

^{1.} Use of advisory services for >1 year, 'advisory services' include personalized investment advice online, via phone, or in person Source: Charles Schwab studies on 401(k) portfolio returns (2007) and impact of professional advisory relationships in 401(k) plans (2010)

MiFID Investor Protection

In 2007, the Markets in Financial Instruments Directive (MiFID) made significant provisions for 'investor protection'

MiFID provisions

- Regulation of alternative trading systems
 - Regulation of multi-lateral trading facilities
 - Treatment of systemic internalisers, or principal traders, as mini-exchanges
- Increased pre and post trade transparency for all trading facilities
- Passporting or development of a single market for transactions in financial instruments across a number of European Union member states
- Requirement to enhance corporate governance structures to accommodate an independent compliance function
- Investor protection

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- Appropriate client categorization and client order handling
- Best execution requirement for all trades on behalf of clients
- Robust record keeping systems for periodic statements, transaction reporting, and client contracts and agreements

MiFID relative to Advisers Act of 1940

 MiFID provisions covered a narrower range of activities and imposed a less onerous standard of care than the 'best interest' standards that would be required if the Advisers Act were adopted

	MiF	ID
	Suitability	Best interest
Investment planning	✓	×
Asset allocation advice	✓	×
Advice on client holdings	✓	×
Proprietary product sales	✓	×
Underwriting	Not co	vered
Principal trading	✓	×
IRA / retirement accounts	✓	×

Although less onerous than the 'standard of care' currently under consideration in the US, MiFID studies nonetheless show the impact of similar compliance costs on asset management firms



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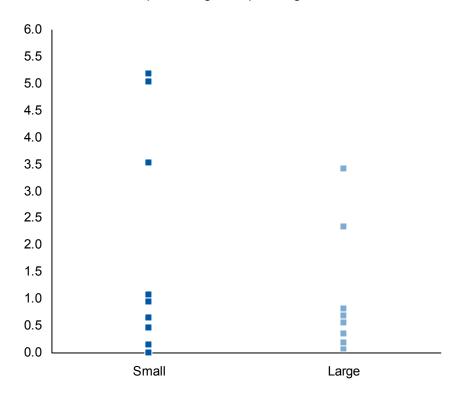
The FSA's impact studies on MiFID identified investor protection provisions as the greatest contributors to compliance costs

	Activity	Objective	Cost Factors	Cost Drivers	
	Classifying client	Categorizing clients according to	System/process to capture client data	Fixed cost	
	base	size of portfolio, # trades, etc.	Client data collection	# clients, length of client discussions	
Client Acquisition	Suitability/	Understanding needs, objectives,	System/process to capture client data	Fixed cost	
7104415161511	Appropriateness	risk profiles, experience and expertise of clients	Client data collection	# clients, level of existing	
		expertise of clients	Updated risk information on products	data	
				# products offered	
	Consent/	Disclosing information on suitability,	One time client agreements/contracts	Response rate, # of clients	
Client Management	Disclosure	best execution policy, conflicts of interest policy, principal trading, etc.	Routine disclosure	# clients, frequency of disclosure	
	Maintenance of client portfolios	Upholding suitability requirement to maintain AUM in appropriate investments	Monitoring client accounts	# clients, # products offered	
	Best execution	Achieving optimal mix of price,	Regular reviews of execution venues	# monitored execution	
		speed and likelihood of execution	Disclosure to prove best execution	venues	
			policy	# clients, frequency of disclosure	
Order	actively managing potential issues		Maintaining Chinese Walls	# departments, level of principal trading	
Execution			Documentation/database	# products offered	
	Documentation of trades	Demonstrating compliance with suitability and best execution	Electronic/voice storage	# trades, # clients, required level of detail	
		requirements	Paper document storage	# trades, # clients, required level of detail	

Source: Implementing MiFID for Firms and Markets, FSA Consultation Paper 2006

Smaller firms with a large retail client base incurred higher one-off costs of compliance as a percentage of operating costs

One-off compliance costs of MiFID by firm size¹ One-off costs as a percentage of operating costs, 2007



Determinants of one-off costs

- The study found that client profile is the most important determinant of costs, with retail clients incurring significantly more costs than institutional clients
- The biggest one-off costs arose from investment in IT and revisions of CRM systems to reflect new data points, especially for certain retail segments
- A significant portion of one-off costs were fixed, irrespective of firm size and number of clients
- Impact studies indicated that small firms would be unable to sustain large fixed costs of compliance and exit the industry
- In absolute terms, average one-off costs were
 ~€1 MM for a small firm and ~€4 MM for a large firm
- There is high variability in the level of one-off costs amongst smaller firms depending upon
 - Extent to which firms serve retail clients
 - Ability of firms to make large upfront investments

Firms with fewer than 100 employees were classified as "Small" Source: Europe Economics Study, 2007

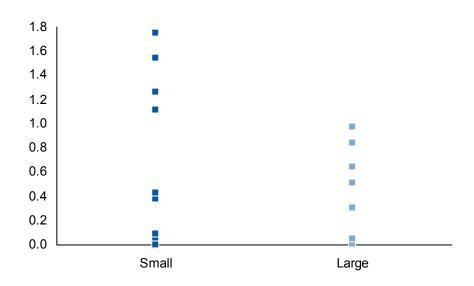
Due to their inability to make sizeable upfront investments, smaller firms typically also sustained higher ongoing costs of compliance as a percent of operating costs

On-going compliance costs of MiFID

European asset managers by firm size¹, 2007

	Small	Large
Additional staff	70%	18%
Internal reporting	9%	12%
IT	4%	30%
External reporting	12%	17%
Training	2%	7%
Audit	2%	16%

Ongoing compliance costs of MiFID by firm size Ongoing costs as a percentage of operating costs, 2007



- Whereas larger asset managers complied with MiFID by investing in automated systems, smaller firms increased headcount
- There is a trade-off between one-off and on-going costs, e.g. for smaller firms the option of updating IT systems might have been too expensive, thus on-going costs of sustaining a larger workforce are much higher
- The smallest firms in the study had no specialist compliance functions prior to MiFID, and required significant resources to cover compliance activities

^{1.} Firms with fewer than 100 employees were classified as "Small" Source: Europe Economics Study, 2007