
ACFEA
Racial Differences in Portfolio Efficiency
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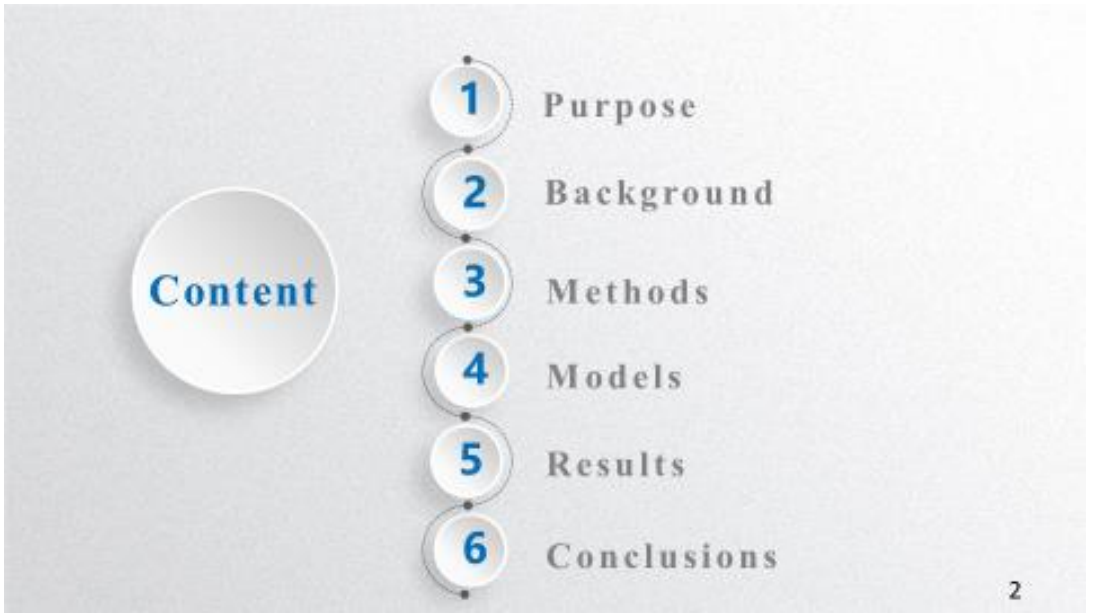
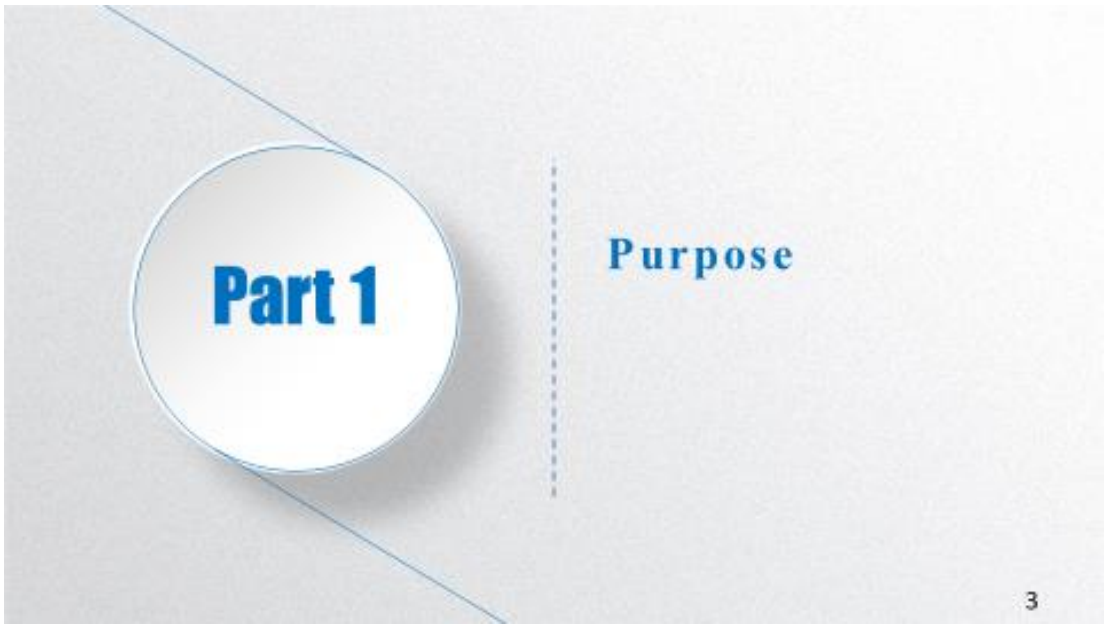
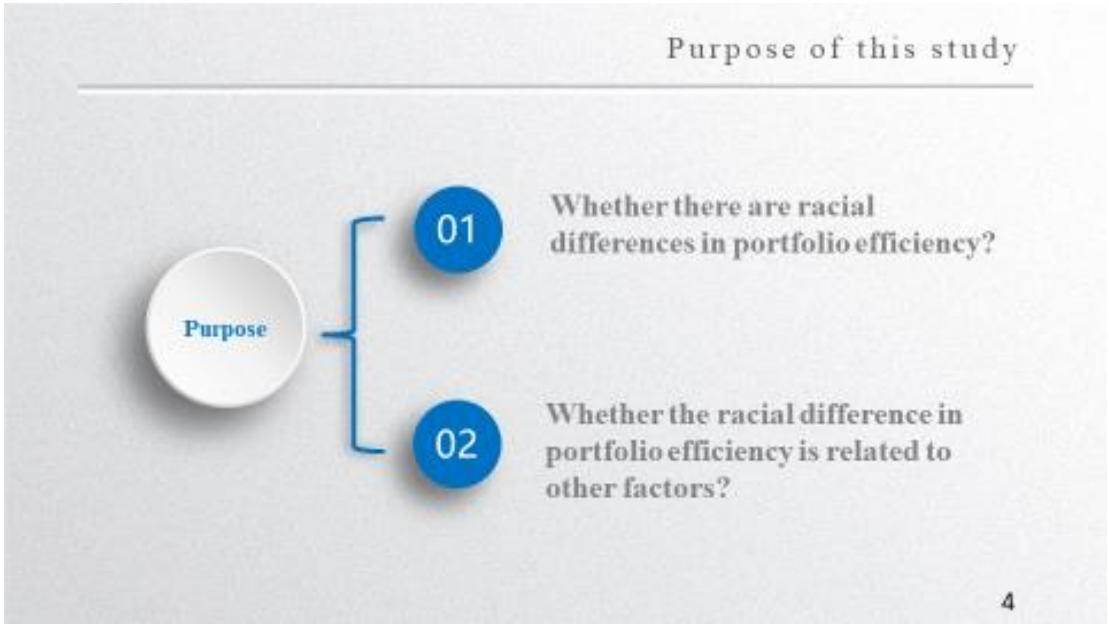
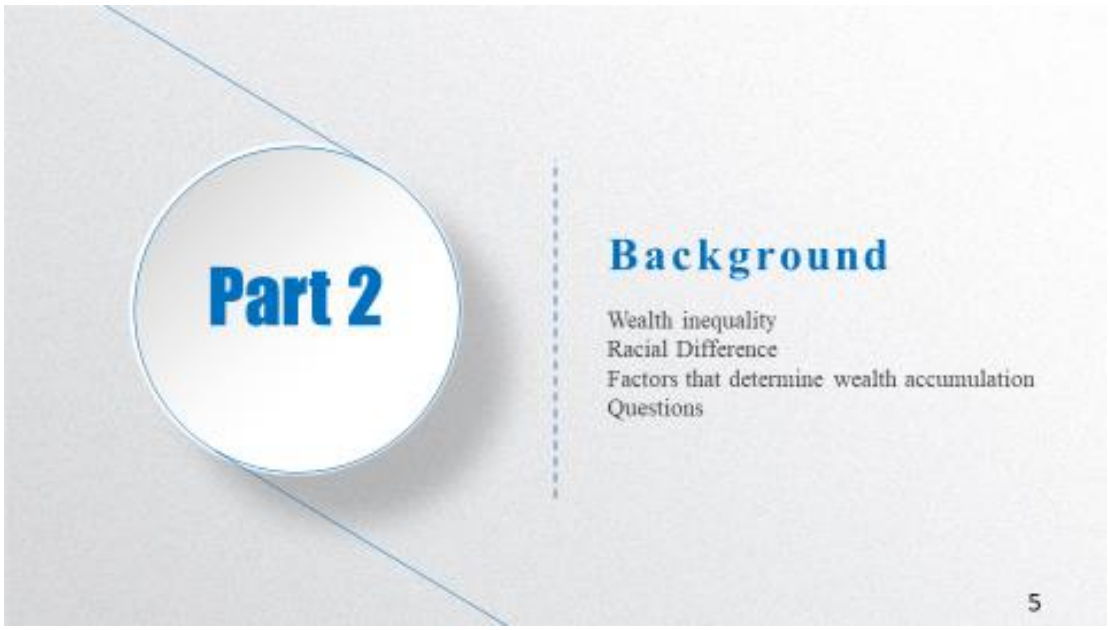
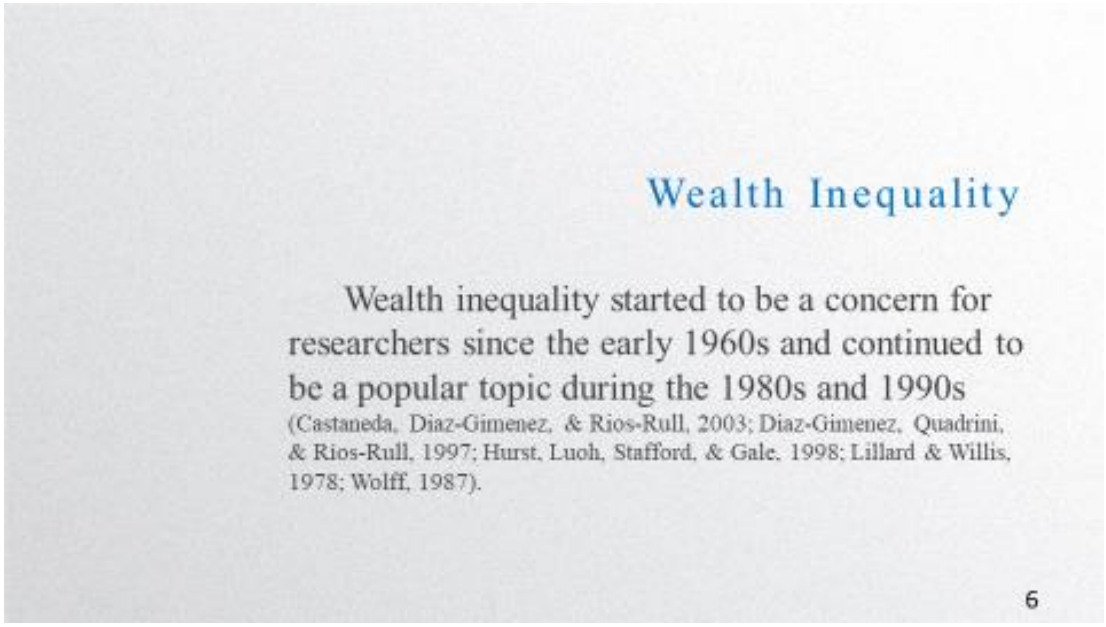

Content
1 Purpose
2 Background
3 Methods
4 Models
5 Results
6 Conclusions
2


Part 1
Purpose
3


Purpose of this study
Purpose
01
Whether there are racial differences in portfolio efficiency?
02
Whether the racial difference in portfolio efficiency is related to other factors?
4


Part 2
Background
Wealth inequality
Racial Difference
Factors that determine wealth accumulation
Questions
5


Wealth Inequality
Wealth inequality started to be a concern for researchers since the early 1960s and continued to be a popular topic during the 1980s and 1990s
(Castaneda, Diaz-Gimenez, & Rios-Rull, 2003; Diaz-Gimenez, Quadrini, & Rios-Rull, 1997; Hurst, Luoh, Stafford, & Gale, 1998; Lillard & Willis, 1978; Wolff, 1987).
6

Racial Difference

Moreover, **family wealth varies among races** (Barsky, Bound, Charles, & Lupton, 2002; Lupton, 2003; Oliver & Shapiro, 2013).

Mean Net Worth

Wealth inequality among races has been a concern for researchers and policy makers.

7

Two major factors that determine wealth accumulation:

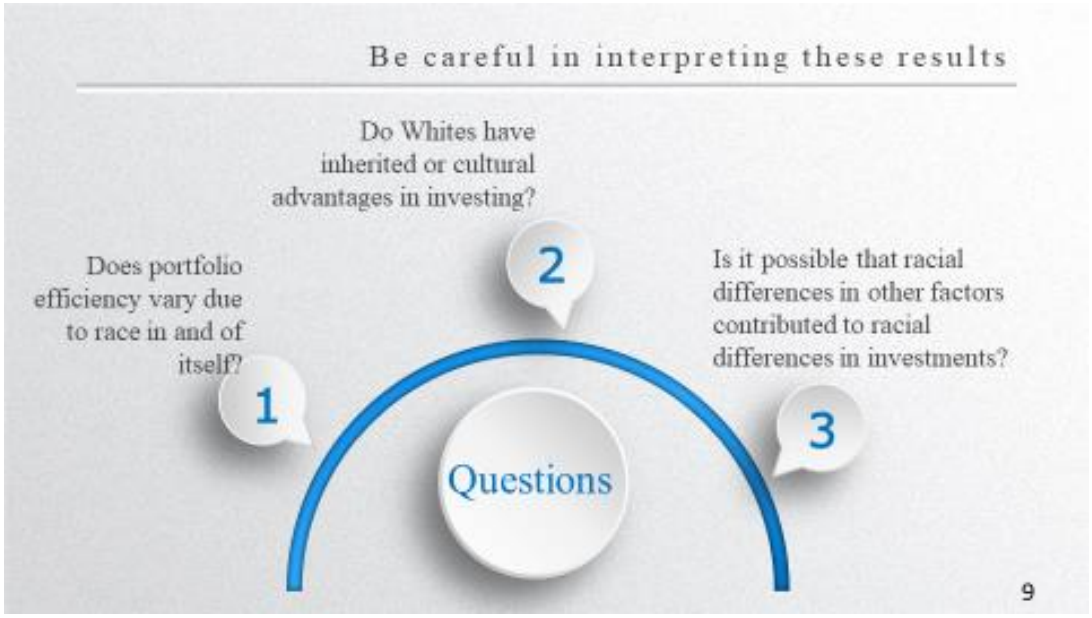
Amount of Savings

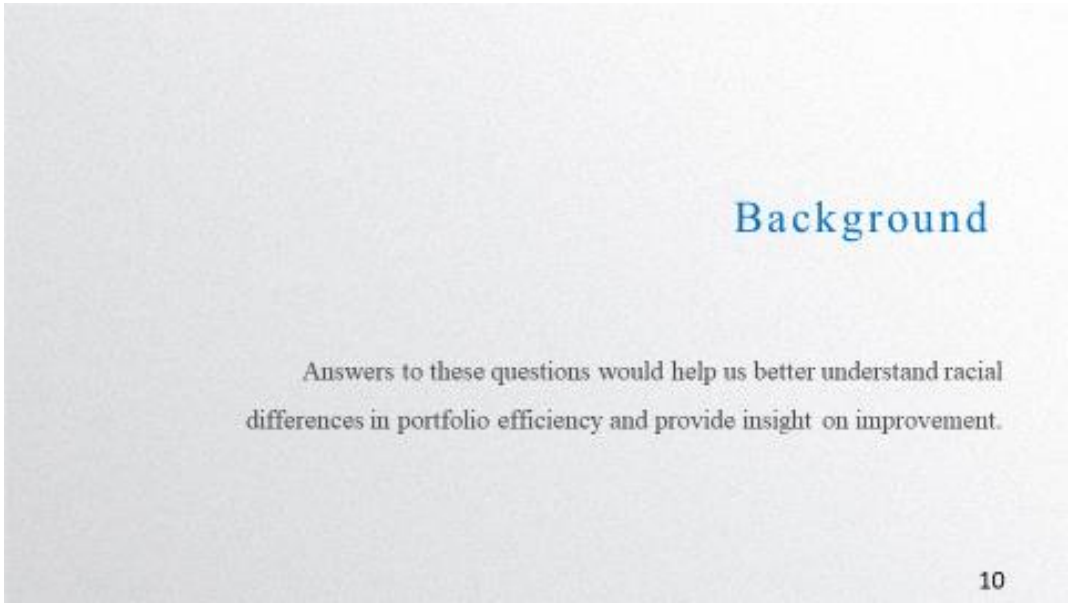
Whites set aside a greater proportion of their income for saving, but very few on racial differences in return on savings.

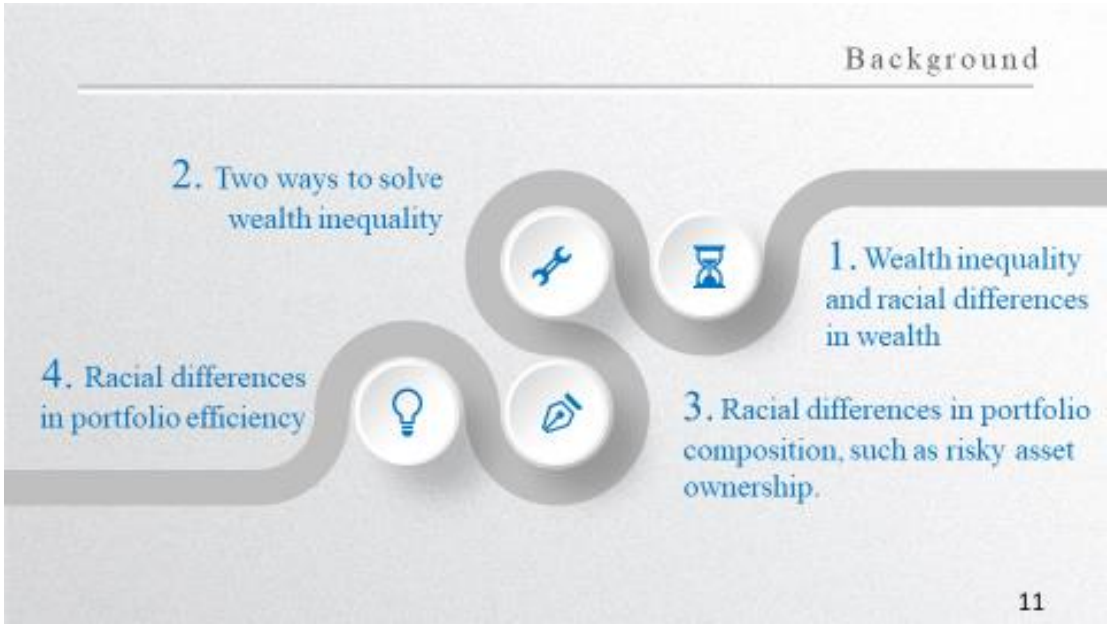
Return on Savings

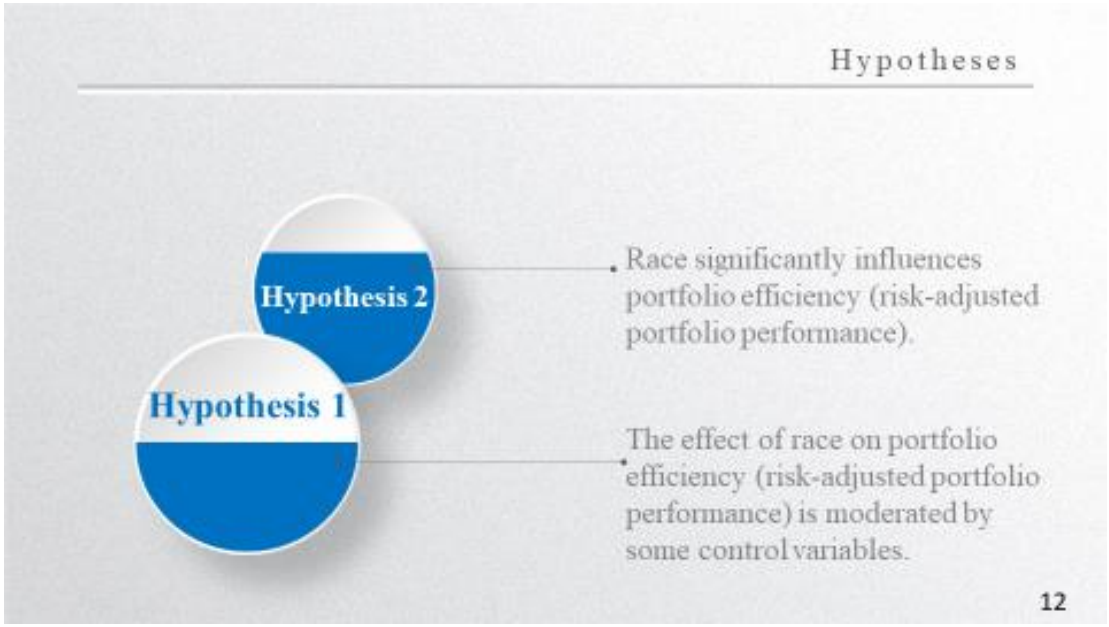
Asset allocation directly affects return on savings. Many scholars have found that race significantly affects portfolio composition and Whites are more likely to invest diversified and riskier.

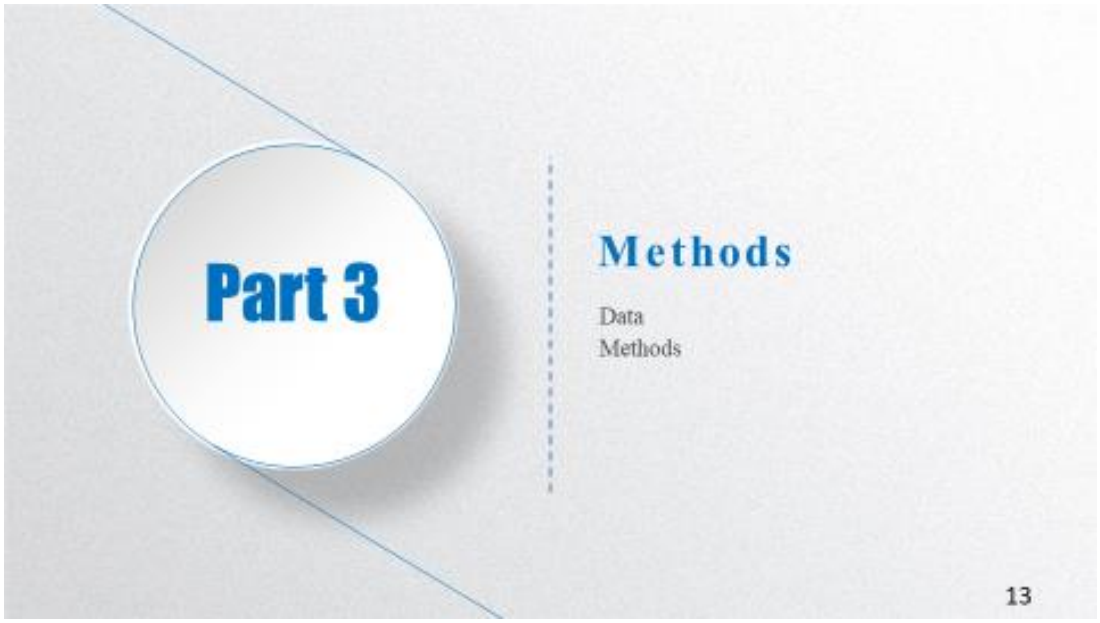
8

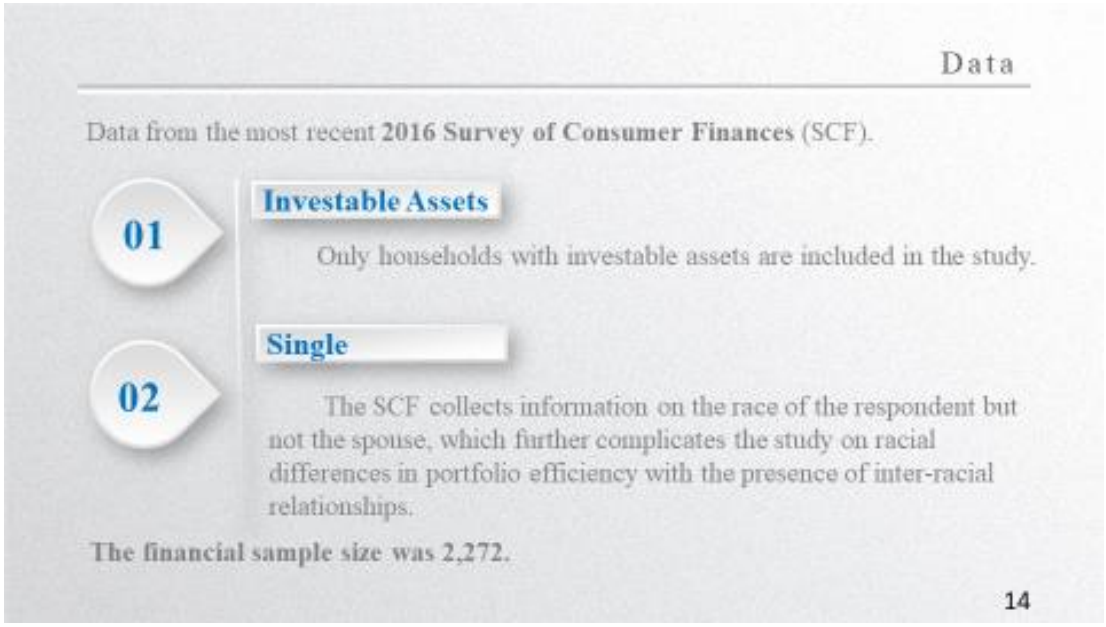

Be careful in interpreting these results
Do Whites have inherited or cultural advantages in investing?
2
Does portfolio efficiency vary due to race in and of itself?
1
Questions
Is it possible that racial differences in other factors contributed to racial differences in investments?
3
9


Background
Answers to these questions would help us better understand racial differences in portfolio efficiency and provide insight on improvement.
10


Background
2. Two ways to solve wealth inequality
1. Wealth inequality and racial differences in wealth
4. Racial differences in portfolio efficiency
3. Racial differences in portfolio composition, such as risky asset ownership.
11


Hypotheses
Hypothesis 2
Hypothesis 1
Race significantly influences portfolio efficiency (risk-adjusted portfolio performance).
The effect of race on portfolio efficiency (risk-adjusted portfolio performance) is moderated by some control variables.
12


Part 3
Methods
Data
Methods
13


Data
Data from the most recent 2016 Survey of Consumer Finances (SCF).
01
Investable Assets
Only households with investable assets are included in the study.
02
Single
The SCF collects information on the race of the respondent but not the spouse, which further complicates the study on racial differences in portfolio efficiency with the presence of inter-racial relationships.
The financial sample size was 2,272.
14

Methods

In the descriptive analysis, we **rescale weights** recommended by the Federal Reserve to our subsample in order to eliminate the effects of the non-response issue and to adjust for the systematic properties of the sample design.

The SCF **imputes 5 estimates of each missing value** to allow for an estimate of the uncertainty attributable to this type of non-response (Ackerman, Fries, & Windle, 2012).

In the multivariate analysis, we use the "**repeated-imputation inference**" techniques (Bricker et al., 2017) to include all five separate imputation replicates.

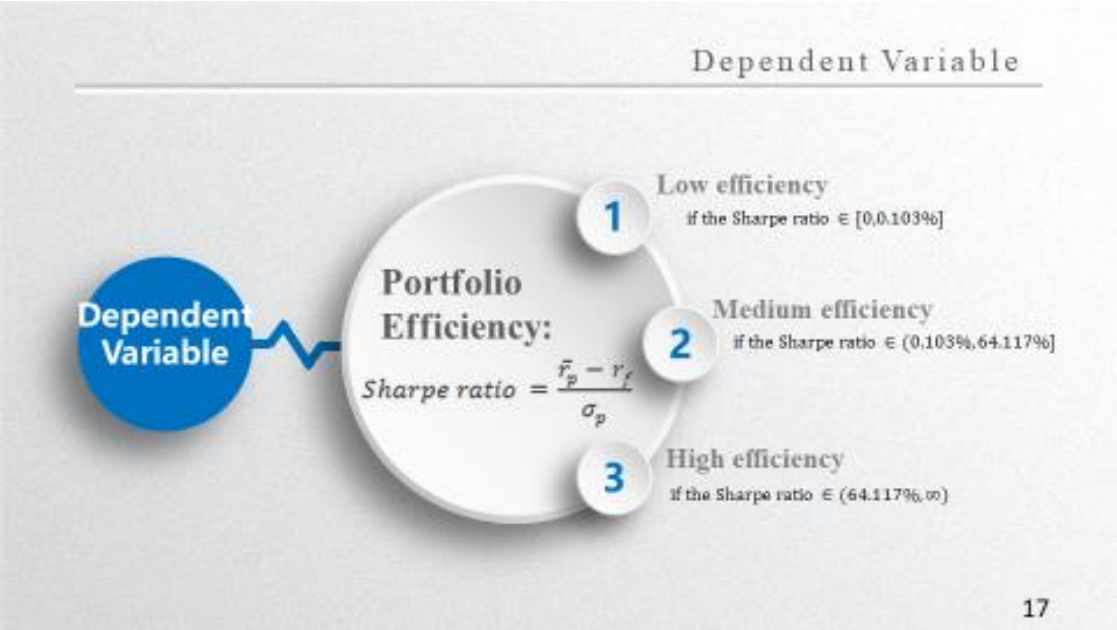
15

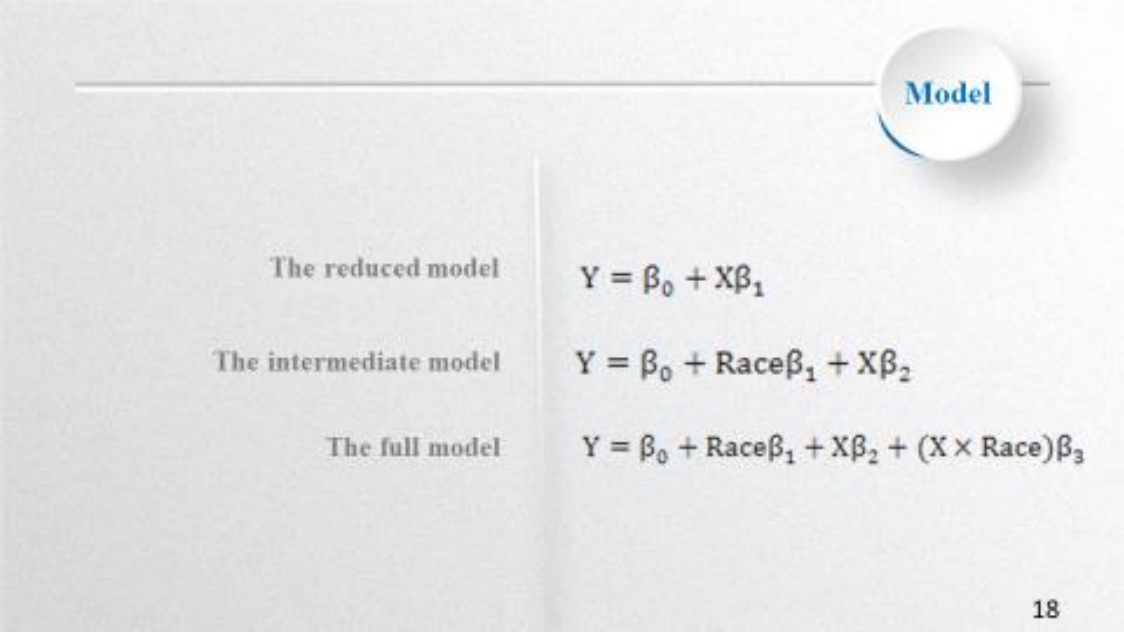
Part 4

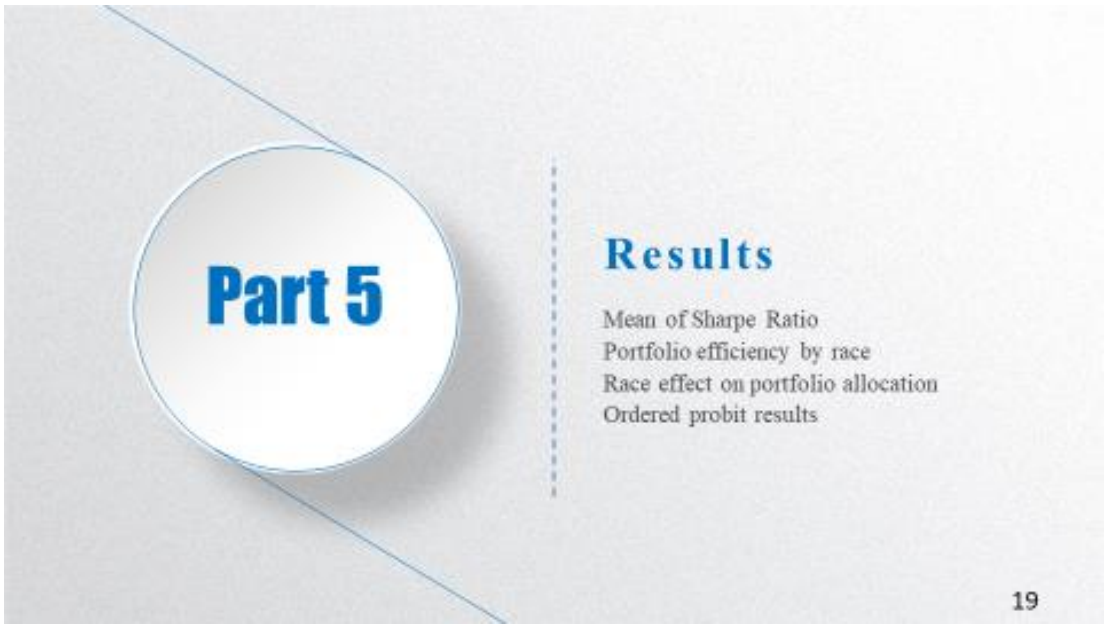
Models

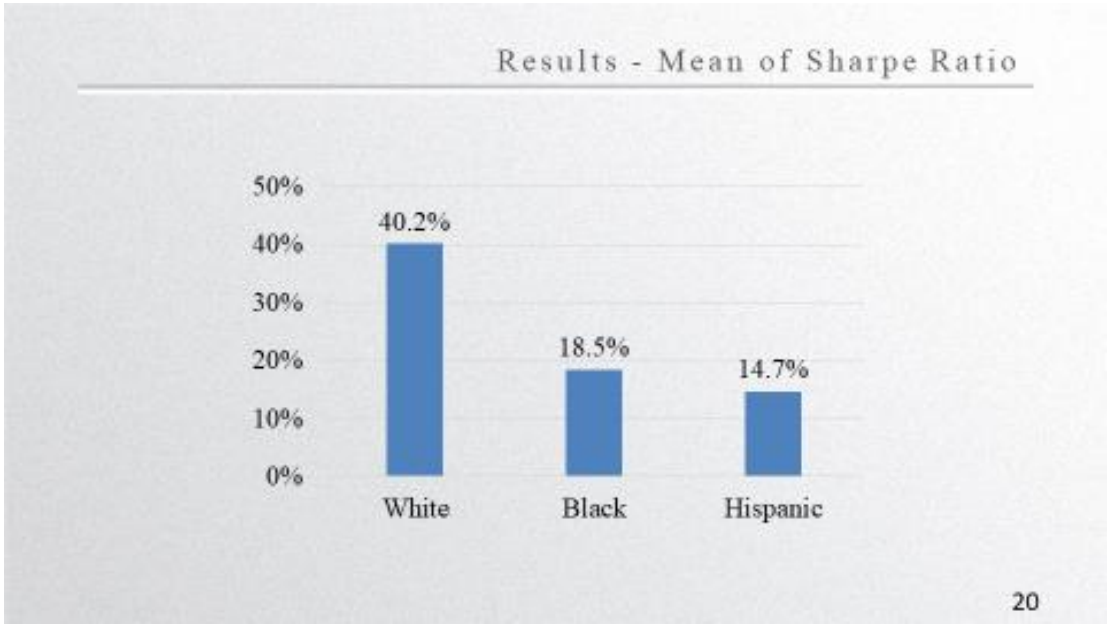
Dependent Variable Models

16


Dependent Variable
Dependent Variable
Portfolio Efficiency:
Sharpe ratio = $\frac{\bar{r}_p - r_f}{\sigma_p}$
1
Low efficiency
if the Sharpe ratio ∈ [0,0.103%]
2
Medium efficiency
if the Sharpe ratio ∈ (0.103%,64.117%]
3
High efficiency
if the Sharpe ratio ∈ (64.117%,∞)
17


Model
The reduced model
$Y = \beta_0 + X\beta_1$
The intermediate model
$Y = \beta_0 + Race\beta_1 + X\beta_2$
The full model
$Y = \beta_0 + Race\beta_1 + X\beta_2 + (X \times Race)\beta_3$
18


Part 5
Results
Mean of Sharpe Ratio
Portfolio efficiency by race
Race effect on portfolio allocation
Ordered probit results
19


Results - Mean of Sharpe Ratio
50%
40%
30%
20%
10%
0%
40.2%
18.5%
14.7%
White
Black
Hispanic
20

Results - Portfolio efficiency by race

21

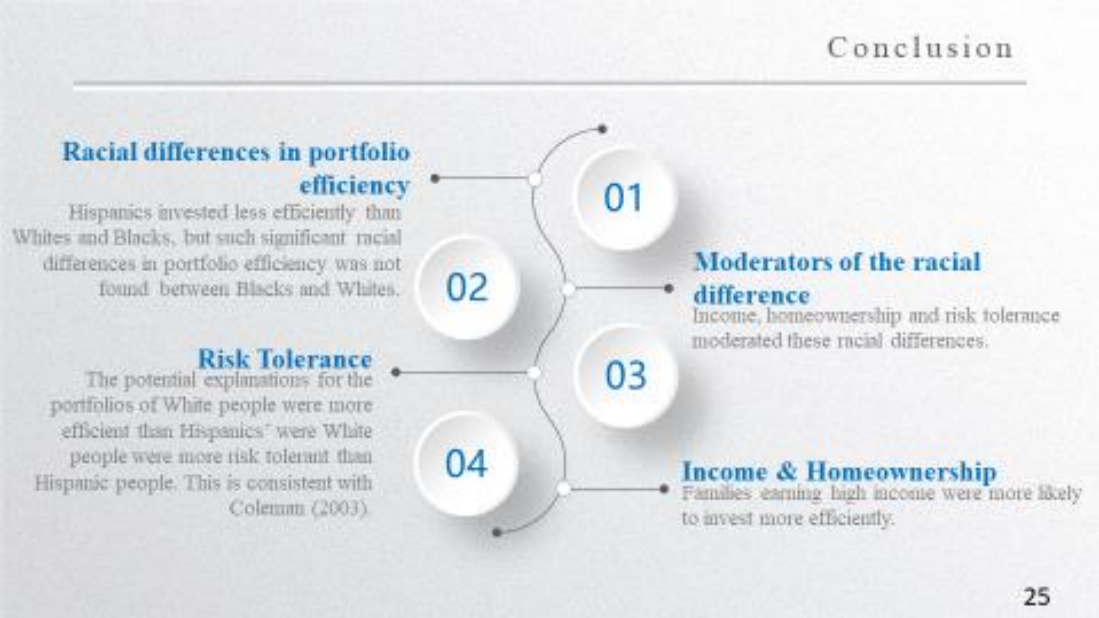
Results - Race effect on portfolio allocation

Race	Variable	Mean
White	cash portion	61%
	bond related portion	11%
	stock portion	23%
	business interests portion	5%
Black	cash portion	80%
	bond related portion	5%
	stock portion	13%
	business interests portion	2%
Hispanic	cash portion	80%
	bond related portion	3%
	stock portion	15%
	business interests portion	2%

22

Results – Ordered probit results of household portfolio efficiency (Sharpe ratio)

	Reduced Model	Intermediate Model		Full Model	
Financial Characteristics					
Income	-0.007	-0.007		5.395**	
Net Worth	0.002*	0.002*		0.274	
Homeownership	0.219**	0.212**		-0.109	
Opinions/Attitudes and others					
Financial Confidence	-0.009	-0.01		-0.068	
Risk Tolerance	0.014	0.014		-0.033	
Financial Literacy	0.151***	0.143***		0.069	
Demographic Characteristics					
Race (Hispanics, base)		Blacks	Whites	Blacks	Whites
		0.203*	0.145*	5.973	3.525
Interactions					
Financial Characteristics					
Income * Race				-11.823***	-5.402**
Homeownership * Race				0.599*	0.427*
Opinions/Attitudes and others					
Risk Tolerance * Race				0.049	0.056*


Conclusion
Racial differences in portfolio efficiency
Hispanics invested less efficiently than Whites and Blacks, but such significant racial differences in portfolio efficiency was not found between Blacks and Whites.
01
Moderators of the racial difference
Income, homeownership and risk tolerance moderated these racial differences.
02
Risk Tolerance
The potential explanations for the portfolios of White people were more efficient than Hispanics' were White people were more risk tolerant than Hispanic people. This is consistent with Coleman (2003).
03
04
Income & Homeownership
Families earning high income were more likely to invest more efficiently.
25


THANK YOU!
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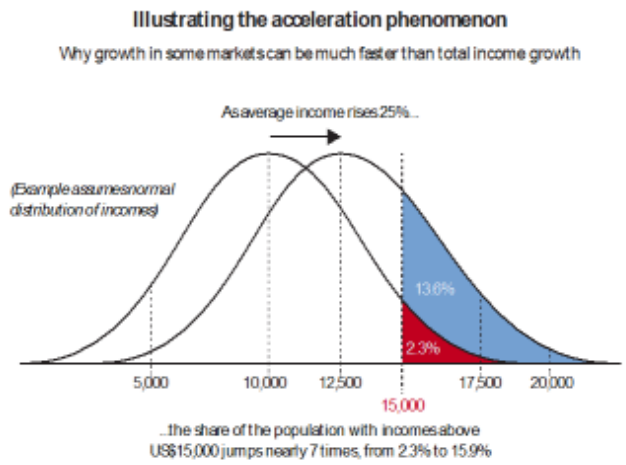
26

Introduction

- This paper generates a framework to identify winners and losers in the consumer market, providing a way of understanding which product markets are likely to outperform or underperform.
- The framework is generated based on this pattern of consumer spending: households above certain income level are much more likely to spend money on specific types of goods or services, for instance, a car, than households below it.
- We call this framework "**acceleration phenomenon**", and construct an income distribution model for Chinese households to test this theory, only to find that we're currently at the peak of market growth for what we define as "affluent consumers".

The Framework of the Acceleration Phenomenon



This framework is based on the observation that **the propensity to spend on some goods does not rise smoothly with income but moves in steps.**

This step-change in consumption is what generates the **acceleration phenomenon**: spending on particular goods and services can accelerate sharply when lots of households cross the appropriate threshold of affordability.

How this works in theory is shown in the diagram, using a stylized income distribution and an arbitrary threshold of US$15,000: a given rise in average income produces a much faster rise in the population above the threshold.

Methodology

To put this theory to work, we need to know two things

- The shape of China's income distribution curve
- The relevant thresholds for consumer spending.

- We constructed a model of the household income distribution, using official household survey data from China's National Bureau of Statistics and the World Bank along with some significant adjustments of our own.
- We use the estimated income distribution to divide China's consumer population into three major groups based on their income level, using three income thresholds that can be linked to broad categories of goods and services.

Three types of consumers

- We borrow the survey results from Boston Consulting Group (summarized in the book The $10 Trillion Prize) on the sort of products and services that people start to consume once their income passes certain key thresholds.
- We define three types of consumer groups after adjusting for 2015 constant price and exchange rates:

Type of consumers	Annual household income (RMB, constant at 2015 price)
"Emerging" consumers	54,000 ~ 89,000
"Established" consumers	89,000 ~ 136,000
"Affluent" consumers	> 136,000

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Construct China's income distribution model

Data

- Total income: income per capita of urban and rural households from the National Bureau of Statistics' household survey
  - Since 2013, NBS started to report nationwide income distribution. But we kept using urban and rural data separately for more detailed information in simulation
- Distribution: Income share by decile from World Bank's PovcalNet data
  - NBS only publishes income distribution by quintile, which is less detailed
  - PovcalNet has used the bank's access to limited amounts of NBS raw survey data to calculate a decile-by-decile income distribution, missing years requires interpolation
  - We assume that income and consumption distribution are identical, given either income or consumption distribution is available in PovcalNet for different years
  - Example: top 10% of urban households earn 28% of total household income in 2012

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Construct China's income distribution model

Adjustment

- Problem of hidden income in the household survey
  - NBS household survey has been widely blamed for missing rich household samples
  - With broader coverage (e.g. non-cash) and better sources for under-reported income, national accounts shows 30-40% higher total household income than household survey
  - The difficulty is how to allocate the additional income across different income groups
- Adjusting the problem
  - Reference to Wang Xiaolu (2010,2013), who conducted private surveys to estimate the extent of household income not reported to the government, and income distribution
  - Problem with Wang's estimation is extreme income inequality, which is 0.65 for 2010, compared to 0.46 in HS and 0.50-0.58 in independent surveys (CHIPS, CFPS, CGSS etc.)
  - Our solution is to adapt Wang's adjustments, but constrain them to make total income stays consistent with the level in national accounts, yields a Gini of 0.57 for 2010

Construct China's income distribution model

Simulation process

1. Start: multiply each decile's share by the total urban or rural income to calculate the income accruing to that group, and divide by 10% of the total urban or rural population to find the per-capita income level for that decile.
2. Adjust per capita income by decile for hidden income, for each year from 1995 to 2015, and then deflate to constant 2015 prices.
3. Simulate a frequency distribution to estimate how many individuals would be at given income levels each year. We start with 20 data points (10 deciles each for urban and rural households), and interpolate data points between the average to generate a curve.
4. Tail adjustment: lacking detailed data on the top of the income distribution, we assume the top 5% of both urban and rural households follows an exponential curve; the income of the 96th percentile is 6.4% higher than the 95th percentile, the 97th 6.5% higher than the 96th, and so on up to the top 0.1%.

Simulated income distribution curve

The main difference between theory and reality is obvious from the chart: rather than being a smooth, normally-distributed hump, China's income distribution has a long tail to the right, a reflection of income inequality.

One consequence of this is that the actual acceleration phenomenon will not be quite as dramatic as in our first, stylized diagram—although it is still substantial— because the slope of the curve is not as steep.

Projection: three scenarios

We then projected the income distribution out to 2025 using three scenarios of overall GDP growth:

1. High-growth scenario:
The government keeps GDP growth at 6.5% until 2020, which slips to 6% by 2025

2. Medium-growth scenario:
GDP growth slows gradually to 5% by 2020 and 3.5% by 2025

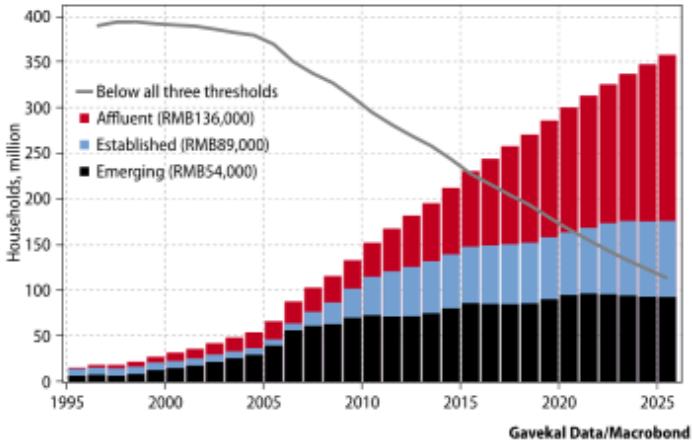
3. Low-growth scenario:
GDP growth falls to 3% in 2020, and further to 2% by 2025.

Scenarios	GDP growth by 2020	GDP growth by 2025
High	6.5%	6%
Medium	5%	3%
Low	3%	2%

Major findings I

Affluent households are now the fastest-growing consumer group

Number of households in each income group; projections for medium growth scenario



In 2015:

Emerging households: 86mn

Established : 62mn

Affluent households: 82mn

Below all: 228mn (mostly rural)

Medium scenario by 2020:

Emerging households: 95mn

Established : 69mn

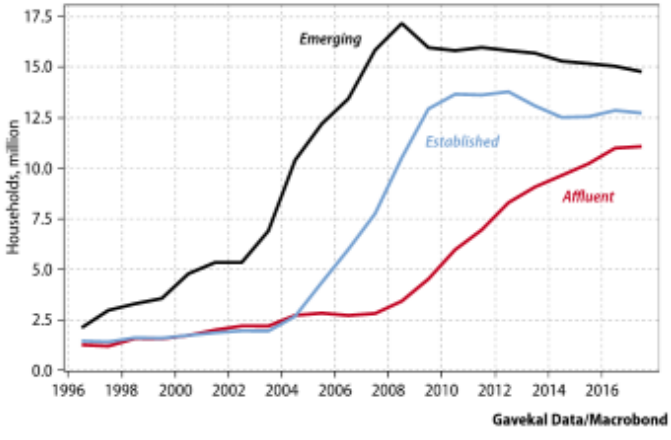
Affluent households: 137mn

The key to the acceleration phenomenon is pinpointing when growth in each group is fastest - **Affluent consumers are the fastest-growing group of households in any scenario.**

Major findings II

The three waves of the acceleration phenomenon

Number of households crossing each income threshold, 5ycma



1st wave: emerging consumers

Started in early 2000s

Peaked around 2007-08

Cross threshold: 16mn a year

2nd wave: established consumers

Started around 2004-06

Peaked around 2010-12

Cross threshold: 14mn a year

3rd wave: affluent consumers

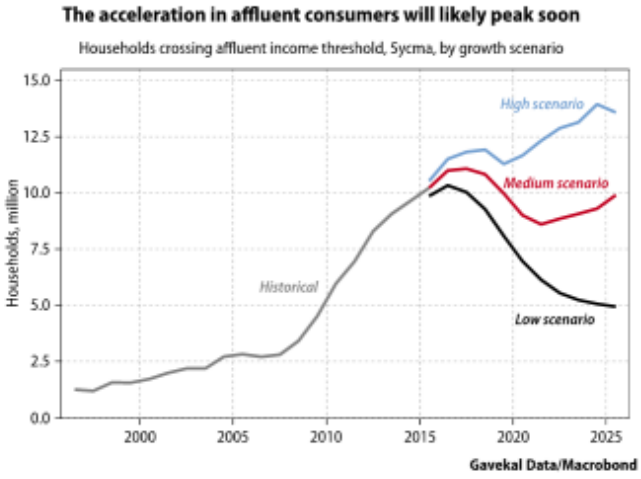
Started around 2008-10

Peaked around 2016-2017

Cross threshold: 11mn a year

The next few years should be a strong period for products favored by newly-affluent households.

Sensitivity to GDP growth: outlook in the next decade



Low-growth scenario:

The number of households crossing both the affluent and established thresholds would decline markedly.

Medium-growth scenario:

The acceleration phenomenon for affluent and established consumers still drops off, but less dramatically.

High-growth scenario: (no slowdown)

The acceleration phenomenon will reach new heights.

(Acceleration phenomenon for emerging consumers is over in all scenarios).

Where does the acceleration phenomenon go from here?

Our projections indicate that the latest wave will pass its peak in a few years.

GavekalDragonomics 13

Notes and implications

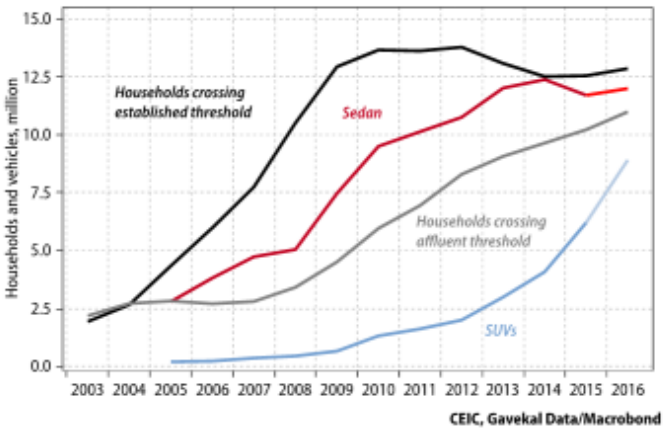
- This is not a projection of growth in total consumer spending, but of how much affluent-household spending outperforms the aggregate.
- It's important to note that the acceleration phenomenon is really about growth rates and not levels: in all three scenarios the total number of affluent households continues to grow, but the rate of growth differs. It is this change in the growth rate that is what drives the acceleration and deceleration in the growth of the things these consumers are buying.
- The acceleration phenomenon is very helpful in understanding big recent changes in consumer markets, why products outperform or underperform.

GavekalDragonomics 14

Example 1: Cars

Established households buy sedans, affluent households buy SUVs

Number of households crossing thresholds (5ycma) vs. auto sales



CEIC, Gavekal Data/Macrobond

China's car market began a rapid expansion a decade ago, the main reason was clearly that many more people could afford cars.

The acceleration phenomenon is useful for understanding market shifts as new consumers emerge.

Growth in sedan sales has slowed since 2010, at the same time acceleration phenomenon in established consumers peaked.

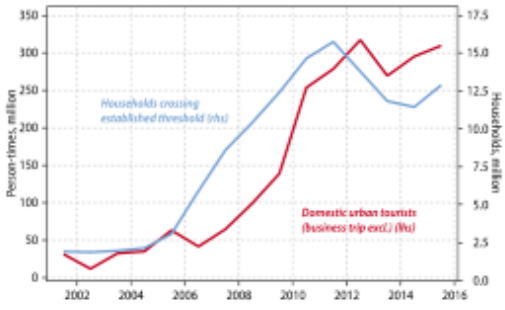
As the acceleration phenomenon has shifted to affluent households, sales of higher-end SUVs have exploded from 2010 to 2015.

The acceleration phenomenon illustrates how higher-income consumers are now dominating the auto market.

Example 2: Tourism

Domestic tourism has plateaued along with established households

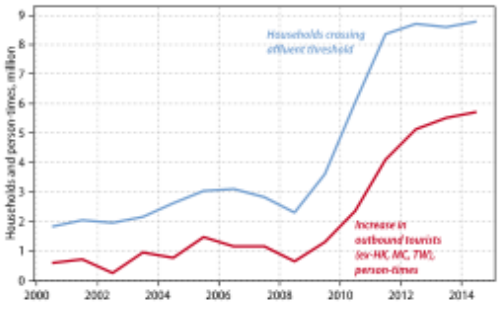
Annual increase of tourist visits vs. households crossing thresholds, 3ycma



Wind, Gavekal Data/Macrobond

Affluent households are driving the recent surge in overseas travel

Annual increase of tourist visits vs. households crossing thresholds, 3ycma

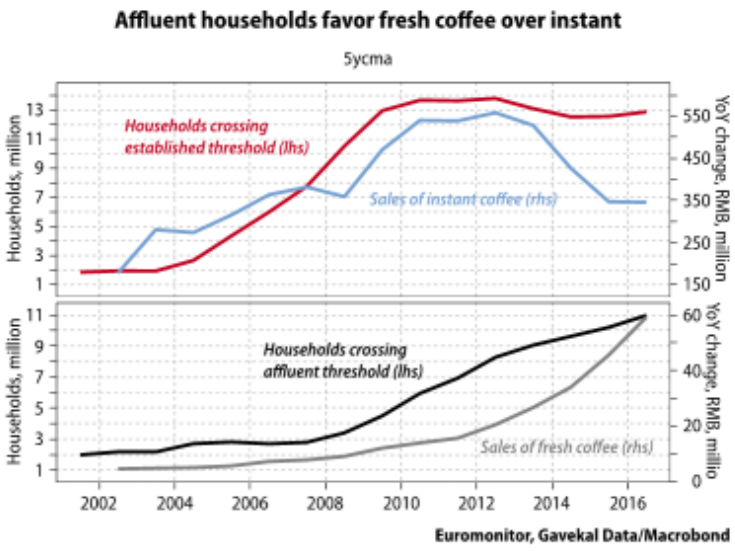


UNWTO, Wind, Gavekal Data/Macrobond

A similar dynamic is playing out in tourism, one of the biggest consumer services. Growth in domestic tourism started to take off as established consumers went through the acceleration phenomenon. But since 2010, growth in the number of established households has stopped accelerating, and so has growth in domestic tourism.

The acceleration phenomenon is now strongest for affluent households, who seem to thirst for the new experience of foreign travel. As households crossing the affluent threshold surged from around 2mn in 2008 to over 9mn since 2012, the annual growth in foreign tourists also surged from 0.6mn to nearly 6mn. The trajectory shows foreign tourism has a few more years of rapid growth before cooling down.

Example 3: Coffee



With the acceleration phenomenon shifting from established to affluent households, in most markets this means the high end will outperform the low end.

For instance, since 2010 consumption of instant coffee has slowed down, while sales of more-expensive fresh coffee have begun to surge.

That could also explain why Starbucks have achieve double-digit growth in recent years, during which time foreign fast food brands KFC or McDonald's were living much harder.

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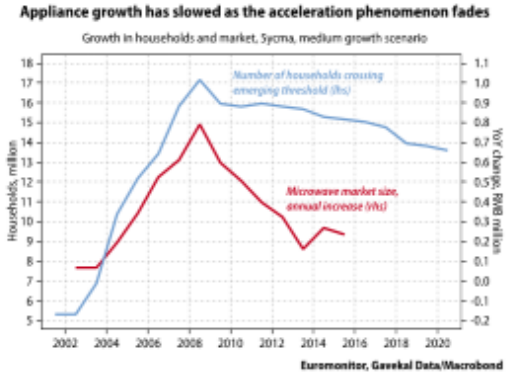
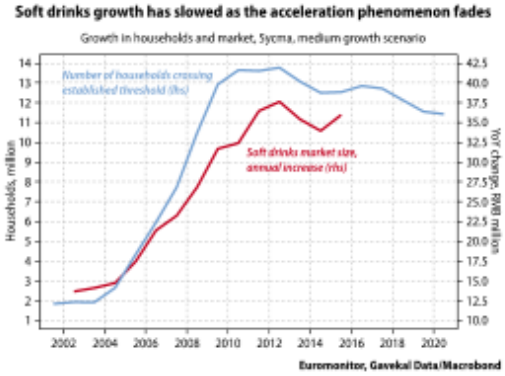
Example 4: Losers from the acceleration phenomenon





The counterpart of accelerating growth in the products favored by affluent consumers is slowing growth in products favored by emerging and established consumers. The acceleration in emerging consumers drove purchases of basic home appliances, such as microwave ovens. As the acceleration in such households is over, growth in that market has slowed.

Similarly, the acceleration phenomenon for established consumers drove particularly rapid growth in many fast-moving consumer goods, like soft drinks and other bottled drinks. The makers of such goods are now struggling to adapt to a slower-growing environment as support from the acceleration phenomenon fades.

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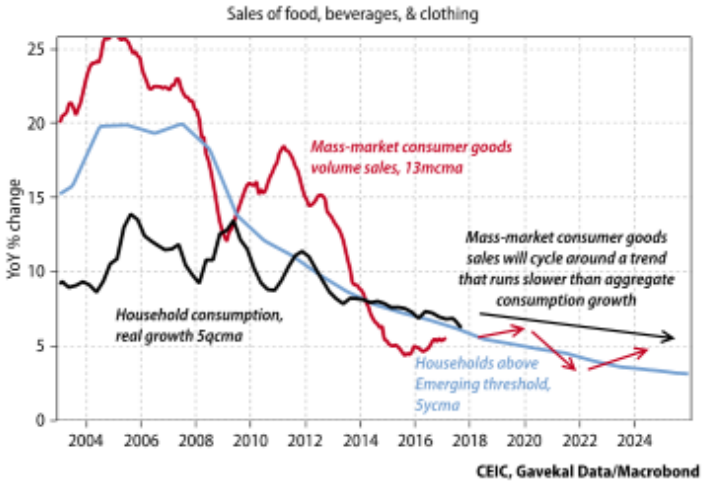
Worst time for the losers may have passed

The slowdown in many consumer goods will be more gradual from here



CEIC, Gavekal Data/Macrobond

Mass-market consumer goods (food, beverages, and clothing) have gone through a rough few years as growth in their main market slowed and the number of affluent households surged.

But the acceleration phenomenon model shows **that the deceleration in the growth of emerging & established households will be much less dramatic in coming years.**

So while the numbers still look ugly in mass-market goods, from soft drinks to instant noodles, the worst should soon be over.

Conclusion

- In conclusion, those looking to profit from the rise of the Chinese consumer need to get on the right side of the acceleration phenomenon.
- Growth in total consumer spending will likely continue to slow along with the overall economy, making the rapid growth in markets for products and services driven by the acceleration phenomenon all the more valuable.
- Many mass-market consumer goods that have had recent fast growth are already starting to underperform as the boost from the acceleration phenomenon fades.
- So this means that things newly-affluent consumers like will outperform; in addition to foreign travel and fancy SUVs, this category should include higher-quality and more distinctive versions of many consumer products.

Further discussions

- Our model shows this boom period for affluent consumers is probably now at its peak, though it will last for a few more years before it fades. This does not mean that the affluent consumer market retreats into irrelevance.
- From around 2022, our definition of affluent consumers will be the largest category of Chinese households, and will effectively become the mainstream of nationwide consumption.
- This group of modern, sophisticated consumers will continue to grow, as will their average income and purchasing power. However, the sharp surges in markets caused by new entrants into affluent status will be less evident.
- In China's more-affluent future, super-fast sales growth will be more driven by fashion, changing tastes, and the introduction of new products.

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Can You Put That in Writing? Consumer Harm Due to Financial Advisory Communication Regulation

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Abstract

This paper examines consumer harm that may arise due to regulating modern financial services communication technology with rules written in the early 20th century. It is argued that existing disparities in record keeping regulation across communication mediums disincentivizes the use of technology capable of generating records for consumer retention, while incentivizing the use of technology which shields advisors from accountability. Further, it is argued that regulation disparities across communication mediums may result in higher levels of wrongful accusations of advisor misconduct, lower levels of reporting genuine misconduct, lower levels of self-policing among industry members, and higher levels of unrectifiable consumer harm. Objections to these arguments are considered, along with practical guidance for consumers, regulators, and policy makers.

1. Introduction

Consumer interactions with a financial planner generally include a high degree of asymmetric information. Most financial planners possess far greater financial knowledge—including knowledge of financial markets, products, and regulation—than the consumers they work with. This asymmetry places consumers in a vulnerable position, and elevates the importance of trust in the planner-client relationship. Successful financial planners are generally highly skilled at building trust among clients and prospective clients. However, this trust is not always warranted, and sometimes financial planners will engage in fraudulent or deceptive behavior. In such cases, communication records are a powerful tool for enabling consumers to build a misconduct case against financial planners. Yet a consumer's ability to build a misconduct case is often dependent upon the existence of communication records, and not all mediums of communication are equally conducive to producing such records.

In this paper, the consumer harms which may arise due to the policies enforced by regulatory bodies—such as the SEC and FINRA—which incentivize or disincentivize the use of various communication technologies are evaluated. This paper proceeds as follows. In §II, background information is covered, including communication mediums commonly utilized by financial planners and their clients, as well as existing regulations which influence communication technology adoption among financial planners. In §III, it is argued that existing regulations disincentivize the use of communication technologies which generate permanent records capable of enabling consumers to hold financial planners accountable, while incentivizing the use of communication technologies which decrease accountability. In §IV, objections to the arguments in §III are considered, as well as practical guidance for consumers, policy makers, and regulators. In §V, the paper concludes.

2. Background

2.1. Mediums of Planner-Client Communication

Prior research has found communication to be a key element in determining the level of client trust with a financial planner (Christiansen & DeVaney, 1998). Further, Christiansen and DeVaney (1998) found that trust was associated with client commitment, and subsequent studies have found that numerous communication tasks, skills, and topics were all associated with the perceived trust and commitment among financial planners and their clients (Sharpe, Anderson, White, Galvan, & Siesta,

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2007). A recent study found that planner-client communication was an important predictor of client satisfaction, trust, and commitment—although results indicated that it was important to examine different types and frequencies of planner-client communication in order to understand the nuances of such relationships (Cheng, Browning & Gibson, 2017).

Face-to-face. Face-to-face communication is one of the most fundamental mediums of communication in the planner-client relationship. Financial planners often meet with clients in person at locations such as a financial planner's office, the client's home or office, or in a public space such as a coffee shop or restaurant. In many ways, face-to-face communication is much richer than other forms of communication in the planner-client relationship. For instance, in addition to the words exchanged in a face-to-face conversation, communication also happens in additional ways, including, but not limited to, vocal tone, body movements, physical contact, and signals sent through the use of artifacts such as clothing (Duncan & Fiske, 2015). Because financial planning is a credence good, meaning that it is hard for consumers to assess the quality of services provided even after those services have been delivered (Sharma & Patterson, 1999), cues picked up from face-to-face communication can be helpful for trying to assess other characteristics of a financial planner, such as their credibility and trustworthiness. Additionally, financial planners may rely on the high degree of information conveyed through face-to-face communication as a means to assess the validity of client statements made verbally or through other forms of communication (e.g., a client may say they are comfortable taking a certain level of risk, but their face-to-face communication behavior may indicate otherwise). One disadvantage of face-to-face communication is that the back-and-forth, synchronous nature of such conversation can result in incomplete contemplation of responses and poor recall of details discussed. Additionally, face-to-face communication leaves no physical or digital evidence of what was communicated.

Telephone. Telephone is another form of communication highly utilized by financial planners. Like face-to-face communication, telephone communication is synchronous. However, unlike face-to-face communication, telephone communication is purely auditory and conversation participants cannot rely on visual cues, although certain auditory cues can still convey a high level of information (e.g., pauses, tone, and articulation). Similar to face-to-face communication, the synchronous nature of telephone communication can result in incomplete contemplation of responses and poor recall of details. While telephone communication leaves little evidence regarding the topic of a synchronous conversation (assuming a conversation is not recorded), digital evidence may be generated in the forms of call records (calls sent, calls received, length of calls, etc.). Additionally, telephones with voicemail can enable asynchronous communication, as those engaging in a conversation can sequentially leave voice recordings with one another and carry out a conversation. This form of asynchronous telephone communication does generate considerable evidence of the topic of a conversation, as well as additional details such as the date and time of a call.

Mail and facsimile. In addition to face-to-face communication and telephone, written communication—often in the form of mail or facsimile—has been the third primary medium of planner-client communication for much of modern history. With the exception of face-to-face written communication (e.g., passing a note back-and-forth) and unlike face-to-face or telephone communication, traditional written communication is purely asynchronous. This results in communication that is often more deliberate in how it is expressed and articulated. However, much of the richness contained within face-to-face or telephone communication is lost in written communication, as the precise meaning of one's words and the subtle visual or auditory cues often embedded in other forms of communication can be hard to convey in writing. Written communication does generate physical evidence which can easily be stored in digital format, although forgery can present issues in determining the authenticity of written communication.

Electronic communication. Since the 1980s, new forms of communication technology have become widely available. For the sake of simplicity, this paper refers to these new technologies as "electronic communication," although that term is not intended to be used in a precise or limiting manner. Spurred by tremendous progress in computing technology, huge advancements have been made in consumer communication abilities, to the point that today two individuals of relatively modest means—one in the U.S. and the other in China—can participate in a synchronous video call using a small wireless device they carry around in their pockets. Forms of communication commonly utilized by financial planners and their clients would include e-mail, text messaging (SMS and MMS), social media (e.g., Facebook, Twitter, and LinkedIn), and video conferencing.

Unlike face-to-face, telephone, and traditional written communication—all of which contain relatively high levels of homogeneity of use within their respective mediums—electronic communication is often much harder to generalize. For instance, electronic communication is often hard to classify as exclusively synchronous or asynchronous, as the synchronous nature of electronic communication often depends on how it is used. For instance, e-mail and text messaging are often thought of as asynchronous in nature, yet the two may be more akin to synchronous communication when two or more individuals engage in uninterrupted back-and-forth communication. Additionally, electronic communication can often contain a mixture of traditional visual, auditory, and written communication, as well as less traditional forms of communication, including communication through third-party images or videos (e.g., emojis, memes, and filters). Electronic communication varies in the type of evidence left-behind as well. While often electronic communication leaves a high degree of evidence which consumers can choose to store physically or digitally, some forms of electronic communication, such as Snapchat, are specifically designed to reduce the amount of evidence left behind.

2.2. Regulation of Communication in Financial Services

In the United States, financial advisor communication is generally regulated in one of three ways: (1) § 275.203A-1(a)(1) of the Investment Advisers Act of 1940 (IAA) states that Registered Investment Advisers (RIAs) managing $100 million or more in assets are generally regulated by the Securities and Exchange Commission (SEC); (2) § 275.203A-1(a)(1) of the IAA states that RIAs managing less than $100 million are generally regulated by state securities regulators, which, in practice, often adopt model rules developed by the North American Securities Administrators Association (NASAA) that align with those enforced by the SEC; and (3) broker-dealers (BDs) are generally regulated by the Financial Industry Regulatory Authority (FINRA), which is a self-regulatory organization (SRO) that is overseen by the SEC. Due to the parity that typically exists between rules enforced under (1) and (2), there is effectively one set of regulatory rules which governs RIAs and another set of regulatory rules which governs broker-dealers. Specifically, the IAA governs RIAs, while FINRA Rules govern broker-dealers.

***Regulation of communication within RIAs*.** The IAA identifies two forms of communication of particular importance to planner-client communication which are subject to additional regulatory oversight: written communication and advertisements. Regarding written communication, § 275.204-2(a)(7) of the IAA states:

> Originals of all written communications received and copies of all written communications sent by such investment adviser relating to: (i) Any recommendation made or proposed to be made and any advice given or proposed to be given; (ii) Any receipt, disbursement or delivery of funds or securities; (iii) The placing or execution of any order to purchase or sell any security; (iv) The performance or rate of return of any or all managed accounts or securities recommendations.

Notably, the aforementioned section of the IAA captures any modern form of written electronic communication—such as written communication through email, text messaging, and social media—but it does not capture visual or oral electronic communication, such as planner-client use of video conferencing or Voice over Internet Protocol (VoIP) communication.

The second broad category of communication regulation covered by the IAA is advertising. IAA advertisement regulation focuses on fraudulent, deceptive, or manipulative business advertisements. Regarding the definition of advertisements, § 275.206(4)-1(b) of the IAA states:

> For the purposes of this section the term ***advertisement*** shall include any notice, circular, letter or other written communication addressed to more than one person, or any notice or other announcement in any publication or by radio or television, which offers (1) any analysis, report, or publication concerning securities, or which is to be used in making any determination as to when to buy or sell any security, or which security to buy or sell, or (2) any graph, chart, formula, or other device to be used in making any determination as to when to buy or sell any security, or which security to buy or sell, or (3) any other investment advisory service with regard to securities.

Regarding the retention of advertisement records, § 275.204-2(a)(11) of the IAA states:

> A copy of each notice, circular, advertisement, newspaper article, investment letter, bulletin or other communication that the investment adviser circulates or distributes, directly or indirectly, to 10 or more persons (other than persons connected with such investment adviser), and if such notice, circular, advertisement, newspaper article, investment letter, bulletin or other communication recommends the purchase or sale of a specific security and does not state the reasons for such recommendation, a memorandum of the investment adviser indicating the reasons therefor.

The requirements regarding the retention of records related to advertisements are a bit broader, as the requirements do encompass oral and visual forms of communication, such as radio and television. Additionally, a financial advisor's website or content posted through various content sharing platforms, such as video sharing platforms (e.g., YouTube) or blogging platforms (e.g., Medium or WordPress) may be considered advertisements, depending on the nature of the content.

Regulation of communication within broker-dealers. FINRA is responsible for regulating broker-dealers. FINRA rules classify electronic communication subject to oversight and record keeping in three broad categories: advertisements, sales literature, and correspondence (National Association of Securities Dealers [NASD], 2006). FINRA Rule 2210 defines correspondence as written communication, including electronic communication, which is made available to 25 or fewer retail investors. Such communication is subject to supervision and must be retained for record keeping purposes, as outlined in FINRA Rule 2210. FINRA Rule 3110 outlines specific requirements firms must fulfill in order to supervise their brokers. Notably, FINRA Rule 3110(b)(4)(A) states that such supervision must include:

> Incoming and outgoing written (including electronic) correspondence to properly identify and handle in accordance with firm procedures, customer complaints, instructions, funds and securities, and communications that are of a subject matter that require review under FINRA rules and federal securities laws.

Supervision requirements also apply to electronic chat rooms, instant messaging, websites, research reports, and online seminars (NASD, 2006), as well as social media (FINRA, 2010), blogs (FINRA, 2010), mobile applications (FINRA, 2017) and communication via personal devices with clients, such as SMS text messaging with a personal phone (FINRA, 2011; FINRA, 2017).

Regulatory similarities among all financial advisors. Despite the differences in specific rules and entities governing RIAs and BDs, many commonalities exist in the regulation of communication between both segments of the financial advisory industry. Of particular importance to the issues considered within this paper, nearly all written communication between a financial advisor and their client—electronic or not—must be supervised and retained by a financial advisory firm, whereas non-written communication (e.g., a phone call or in-person meeting) is subject to neither supervision nor retention. While some forms of oral communication are required to be supervised and retained (e.g., a public appearance deemed to be an advertisement), this generally does not apply to one-on-one communication between a financial advisor and their client.

3. Arguments

3.1. Impact of Regulation on Communication Medium Adoption

In this section, it is argued that existing regulations discourage the use of communication technologies which generate permanent records capable of enabling consumers to hold financial planners accountable. The main argument for this position is as follows:

P1: All else being equal, when the burden of using one communication medium is increased, other communication mediums become relatively more attractive.

P2: From the perspective of financial advisors and the firms they work for, existing financial advisory regulations impose considerable burdens on written communication that are not imposed on non-written communication (e.g., burdens are placed on text messaging that are not placed on telephone or in-person meetings).

C1: Therefore (from P1 and P2), all else being equal, existing financial advisory regulations incentivize the use of non-written communication.
P3: Relative to non-written communication, written communication (electronic or not) creates more tangible evidence that can allow consumers to hold financial advisors accountable.
C2: Therefore (from C1 and P3), all else being equal, existing financial advisory regulations disincentivize the use of communication mediums which allow consumers to hold financial advisors accountable.
C3: Conversely (from C2), existing financial advisory regulations incentivize the use of communication mediums which make it difficult to hold financial advisors accountable.

3.2. Impact of Communication Regulation on Achieving Just Outcomes

In this section, it is argued that regulation disparities across communication mediums may result in less just outcomes, including higher levels of unrectifiable consumer harm, higher levels of wrongful accusations of advisor misconduct, lower levels of reporting genuine misconduct, and lower levels of self-policing among industry members. The arguments for such positions are as follows:

P4: Relative to non-written communication, written communication generates more reliable evidence for ex-post evaluation of planner-client communication by a neutral third-party.
C4: Therefore (from C1 and P4), all else being equal, existing financial advisory regulations incentivize the use of communication which generates less reliable evidence.
P5: When less reliable evidence of planner-client communication is available, the potential to engage in opportunistic behavior which unjustly exploits the counterparty in a planner-client relationship is greater (including both a planner exploiting a client and a client falsely accusing a planner of wrongdoing).
C5: Therefore (from C4 and P5), all else being equal, existing financial advisory regulations increase the potential to engage in opportunistic behavior which unjustly exploits the counterparty in a planner-client relationship.
P6: When less reliable evidence of planner-client communication is available, the likelihood of an independent third-party judge or arbiter reaching a just verdict in a planner-client dispute is reduced (where a just outcome would include both exonerating a party wrongfully accused and holding a wrongdoer accountable when rightfully accused).
C6: Therefore (from C4 and P6), all else being equal, existing financial advisory regulations decrease the likelihood of reaching a just verdict during third-party resolution of a planner-client dispute.
P7: When less reliable evidence of planner-client communication is available, consumers are less inclined to report genuine incidents of misconduct.
C7: Therefore (from C4 and P7), all else being equal, existing financial advisory regulations decrease the likelihood of consumers reporting genuine incidents of misconduct.
P8: When less reliable evidence of planner-client communication is available, financial service professionals are less capable of self-policing one another and reporting financial advisors who engage in misconduct.
C8: Therefore (from C4 and P8), all else being equal, existing financial advisory regulations decrease the ability of financial service professionals to self-police one another and report other financial advisors engaged in misconduct.

4. Discussion

In this section, objections to the arguments presented in §III are considered, and practical guidance for consumers, policy makers, and regulators is presented.

4.1. Objections

Speculative nature of some premises. One objection to the arguments presented in this paper is that some of the premises are speculative. A concern with any logical argument is that though the reasoning may be valid (i.e., conclusions are properly derived from the premises), the premises themselves may be false. An argument is deemed to be sound only if it is both valid and its premises are

actually true (Shapiro & Kouri Kissel, 2018). Therefore, though the logic presented in the arguments of this paper may be true, if the premises themselves are not, then the arguments would be unsound.

This is a valid concern. Unfortunately, because data on the implications of financial advisory communication regulation are limited, some of the premises presented in this paper are necessarily speculative. It is the authors' opinion that premises used in these arguments are reasonable enough to further contemplation of the important logical conclusions of such premises, despite the unfortunate lack of data. For instance, while P1 (*All else being equal, when the burden of using one communication medium is increased, other communication mediums become relatively more attractive*) could be false, price-theoretic considerations (see Landsburg, 2013) provide strong justifications for this premise. While it is possible that communication medium adoption would increase as it becomes more burdensome to users, this would violate many other empirical findings associated with human behavior and the use of one's scarce resources.

Incentives exist regardless of regulation. From P1 and P2 it was concluded in C1 that existing financial advisory regulations incentivize the use of non-written communication. One objection to this conclusion may be that such incentives exist regardless of regulation—i.e., if the burdens placed on written communication by FINRA and the SEC were removed, it would still be the case that financial advisors who intend to engage in wrongdoing would be incentivized to leave as little evidence as possible, therefore eschewing written communication in favor of non-written communication. Two replies to this objection should be considered.

First, while it is true that advisors who intend to engage in wrongdoing may choose communication channels which hinder the ability to conduct an ex-post examination of the advisor's communication with their client, it is not necessarily the case that every instance of advisor misconduct is intentional. Sometimes misconduct may be unintentional, such as instances of negligence or financial advisor ignorance. Because many companies have banned financial advisors from texting clients due to lacking the technology needed to comply with industry regulations (Werner, 2018), many simple inquiries which may have otherwise been answered via text message may instead be answered via a phone call. This constant but subtle push of advisors away from communication mediums that generate evidence which can protect consumers can result in greater consumer harm even when financial advisors are not intending to engage in wrongdoing. The 2017 high profile case between former NBA athlete Tim Duncan and his former financial advisor, Charles Banks, illustrates this dynamic, as text messages from Banks to Duncan played a key role in determining what exactly was said between the two (Contreras, 2017). Had Banks called Duncan instead of texting him, Duncan would not have had as reliable of evidence for evaluation by a third-party.

Second, the intent of this paper is not to argue that the use of non-written communication to obfuscate evidence of wrongdoing is solely the result of industry regulation. Given the physical or digital evidence often left by written communication, it does have advantages as a communication medium for those who wish to engage in wrongdoing. It is therefore likely that non-written communication will continue to be a preferred medium of communication for those with ill intentions, but nonetheless, this paper argues that existing regulations discourage the use of written communication beyond levels that would already occur due to ill intentions.

Benefits may outweigh the costs. Another objection to the argument presented in this paper may be that while it is true that existing financial advisory regulations discourage the use of technology mediums that best allow consumers to hold financial advisors accountable, it is not necessarily the case that these harms to consumers outweigh the benefits of strict requirements regarding the monitoring and retention of all written communication. This is a valid objection and one that deserves further consideration. The purpose of this paper is not to provide a full cost-benefit analysis of the existing regulation (the empirical data for such an analysis are not currently available). Instead, the purpose of this paper is to acknowledge the often-overlooked reality that, at least at the margin, current policies do push financial professionals towards communication mediums that make it more difficult for consumers who have been wronged to pursue justice. Though a complete cost-benefit analysis cannot currently be conducted, this current exploration is still worthwhile because marginal improvements in policy are available which can reduce the degree to which consumers may be harmed without entirely eliminating the policies which may benefit consumers.

4.2. Practical Implications

Regulation. The primary issue with the existing regulatory framework is that it pushes advisors towards non-written communication (above and beyond incentives that may already exist to engage in non-written communication). Policy makers could address such disparities in several ways. One approach would be to increase regulation of non-written communication, requiring firms to record and retain all planner-client communication regardless of its form. This approach would have the advantage of being highly thorough and provide a great deal of detail when assessing claims of wrongdoing. However, this approach would have some serious limitations as well, including placing a tremendous burden on firms, potentially interfering with a planner's ability to build trust with their clients (e.g., if a client is uncomfortable being recorded in-person), potentially infringing on consumer autonomy (e.g., if a client does not wish to have their intimate conversations with a professional recorded and retained for compliance purposes), and being potentially impossible to implement in some circumstances (e.g., if a planner and client are attending a concert together).

Another approach that would eliminate disparities between communication mediums could be to liberalize communication regulations and eliminate the need to record and retain written communication (though such a policy could be adopted without changing the requirements that apply to advertisements). There would be some benefits to this approach. First, there is no clear harm or vulnerability introduced through written communication which does not exist through non-written communication as well. Additionally, many written forms of communication—such as text messaging—are categorically more similar to in-person communication than they are to advertisement. One issue with existing regulations is that they were written in the first half of the 20th century, prior to the tremendous growth in consumer communication technology that has occurred since the 1980s. At the time of writing the current rules, policy makers could not have anticipated the ways in which communication would evolve as technology progressed. A second advantage to this approach is that it could allow financial planners to compliantly communicate with clients through the mediums clients prefer, which could help build trust and greater commitment to take actions which improve financial well-being. Consumers have shown tremendous interest in utilizing SMS text messaging for communication, yet, nearly two decades after text messaging was adopted by consumers in the U.S., many financial advisors still lack access to tools which would allow them to compliantly text their clients (Thrasher, 2018). However, a considerable downside to this approach may be that valuable information that is retained and accessible under current policies for assessing advisor misconduct could be lost.

Additionally, many policy solutions exist between the two previously presented extremes. Even partial liberalization—particularly with respect to new forms of communication technology or those which are hard to capture and retain—could reduce the disincentives for advisors to communicate with clients in writing. For instance, the centralized nature of email makes it easy to record and retain all communication through this medium. Even the smallest firms have technological solutions available to them that make this type of communication easy to retain. As a result, keeping the requirement to retain email but liberalizing policies associated with less centralized forms of communication that are inherently harder to capture—such as SMS text messaging or newly developed social media applications—could provide a better balance between capturing what is reasonably easy to capture and allowing advisors to communicate with clients through mediums which better enable clients to hold advisors accountable. Additionally, different approaches such as risk-based monitoring—similar to special requirements under FINRA Rule 3170 for specific firms which have been found to be engaged in misconduct to record and monitor their telephone use—could be applied to limit recording requirements to only high-risk firms or those firms that have demonstrated tendencies to engage in misconduct in the past.

Consumer self-protection. In addition to policies put in place through regulation, consumers themselves can demand more accountable communication from financial advisors. Examples of such behavior could include documenting what was covered in an in-person meeting and asking an advisor to affirm the accuracy of the client's notes via email, as well as recording of in-person meetings for the client's own records. One benefit of the continued progression of technology is that consumers now have more options than ever to take protection into their own hands and improve their ability to hold advisors accountable. Promoting consumer self-protection also has the advantage of giving consumers more autonomy for determining how they want to engage with an advisor, and what information they would like retained about themselves in corporate records.

5. Conclusion

As technology continues to progress, planner-client communication is going to continue to evolve in ways which increasingly makes compliance and enforcement of existing regulations more difficult. What was a clear line between written and non-written communication in the early 20th century has been blurred, and will continue to be blurred further as augmented reality, virtual meeting environments, and new forms human-to-human communication are facilitated by technology. The current disparity in regulation across communication mediums has the unintended consequence of discouraging the use of mediums which allow consumers to better hold financial advisors accountable. Existing regulatory policies also result in firms prohibiting the use of technologies which consumers may want to communicate through, potentially inhibiting the development of effective planner-client relationships, and reducing consumer financial well-being as a result. These disparities may also result higher levels of wrongful accusations of advisor misconduct, lower levels of reporting genuine misconduct, lower levels of self-policing among industry members, and higher levels of unrectifiable consumer harm. However, these disparities are not inevitable, and can be reduced through better regulatory policy which does not discourage the use of communication mediums which enable consumers to hold financial advisors accountable.

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