

THE CUSTOMER VALUE GAP: RE-CALCULATING ROUTE

THE STATE OF THE FINANCIAL SERVICES INDUSTRY 2018



CONTENTS

Prologue	3
1. Introduction The Gnawing Sense of Concern	6
2. Big Tech Lessons Learned	8
3. Focus on Big Customer Problems The Mass Market Conundrum	14
4. Design Active Solutions Solving for The LifeMap	22
5. Get on the Growth Flywheel Harnessing Innovation for a Virtuous Cycle of Growth	30
Epilogue What To Do	34

PROLOGUE

Dear reader,

Consider what has occurred to help you reach physical destinations in the roughly 10-year period while the financial services industry recovered from crisis:

- 2006 Printable directions from home**
You used MapQuest to plot a course from point A to point B. You printed out a map and hoped for the best
- 2007 Personal GPS**
You had a device in your car. If you got lost or changed your mind, you could stop and re-plot
- 2009 Mobile-friendly GPS mapping**
You could bring that device with you wherever you went, and it would automatically point you to a new direction if you took a wrong turn
- 2012 Live-traffic route mapping**
Your device would recalculate your route if it saw a problem ahead
- 2015 Frictionless ride-hailing service**
You could tap your device to get a car to meet you wherever you were, and take you to wherever you wanted to go
- Today Driverless car**
You can skim this paper while your car stays on course

Now, take yourself back to 2006. Which would you have considered more likely in ten years:

1. Help plotting a secure financial future, and good daily advice to get there, or
2. A car that drives itself?

And which of those would be more valuable to you? For the vast majority of consumers, financial direction is far more valuable than the driverless car. Someone is going to build Google Maps for financial lives with potentially revolutionary implications. Maybe it will be Google, Amazon or Alibaba. Maybe it will be JPMorgan Chase, BBVA, or MetLife. But it is going to happen.

In this 10-year period, the financial services industry has come from the brink of disaster towards relative health. In the same 10-year period, a group of spectacularly successful technology firms has gone from being seen as irrelevant to financial services, to a point where they are considered behemoths whose threat to core financial services is contained largely by the hope that they do not want to be regulated. We believe this is

outdated analysis. Similarly, we do not think the growing regulatory headwinds they face will dramatically alter their momentum.

Even if you do not agree with this, we believe that financial services players urgently need to consider how these firms are systematically creating new value for customers and thereby driving growth, both of which we argue are fundamental challenges for the financial services industry today.

Our conclusion is not that the industry needs more innovation, but that it needs to harness innovation towards creating better customer outcomes at the risk of self-disruption, and in some areas, the risk of short-term loss of shareholder value. And it needs to do so quickly, or continue to watch underlying growth and relative value shift elsewhere in the economy.

This is a report about people. We'll meet Daniel and Shelly, who want to put their children through school; Patricia, who wants to pursue her career dream and be able to raise her daughter at the same time; Paul, who is struggling to grow his small business. These people are willing to pay in exchange for value – for help to solve their problems with an experience that makes their lives better. But there is a big customer value gap today, and it is unclear who is going to close that gap and reap the rewards.

Understanding this value gap and what can be learned from Big Tech about what to do about it is the subject of this year's Oliver Wyman report on the future of financial services.

We hope you enjoy our research and perspectives.

Yours sincerely,



Ted Moynihan

Managing Partner and Global Head,
Financial Services, Oliver Wyman

MEET DANIEL, SHELLY & THEIR FAMILY

This is a report about people, their financial stress and possible solutions to relieve that stress.

Within it, we chose to focus on one specific segment of people: the global mass market. We believe that this segment, which represents roughly 60-85% of consumers in North America and Europe (with greater fluctuation in other geographies), provides a particularly accessible and interesting case study. Later in the report, we use Daniel and his family – fictional characters inspired by primary research – to demonstrate possible solutions to close the customer value gap in financial services.

Mass market in this report refers to households with less than \$100 K in investible assets – which is a commonly used definition by credit bureaus, financial services firms and industry experts in the US. This definition excludes the mass affluent, defined as households with \$100 K–\$1 MM in investible assets.

We want to help Sue and Greg have whatever future they want. But we are not clear how to help them get there.

Once the kids are taken care of, we dream about enjoying our later lives. Not so much full retirement, but we would like to hit the open road and travel.

DANIEL, 47

Retail Store Manager |
North Carolina, US

“We’ve got more than our parents did, but can we say the same about our kids? Do they have a fair chance?”

I manage the local sporting goods store and my wife Shelly teaches middle school. We have two kids. We love North Carolina, where I was born and raised. The most important thing to me is my family.



INVESTIBLE
ASSETS: \$60 K

SHELLY, 44

Teacher, volunteer at the local church
Daniel’s Wife, Mother of Sue & Greg

“I have faith we’ll be alright. We just need to make good choices”

SUE, 15

Daughter
High school student

“I think I want to be a lawyer – or maybe a software engineer”



GREG, 14

Son
High school student

“Gotta get back to gaming”

UNIQUE PEOPLE, UNIQUE NEEDS, UNIQUE SOLUTIONS

While we are using the global mass market as an example throughout this report, the core messages and approaches apply across all of financial services (FS) – and other industries as well. Anywhere customers are served, customer value gaps can emerge and better solutions can be crafted to fill them. The affluent, small businesses, commercial and corporate clients are all affected by the same trends.

I left school when I became a single parent and I've had a string of part-time jobs.

I want to pursue my dream of becoming a nurse...



PATRICIA, 22

Office Manager | London, UK
INVESTIBLE ASSETS: \$3 K

“Can I pursue my career dreams while I raise my daughter?”

I want to retire as early as possible and enjoy life – I've worked day and night for the past 20 years.

I want somebody to provide the right options and simplify decision-making.



JEN, 45

Founder and CEO of a Biomedical Device Company | Hong Kong, CN
INVESTIBLE ASSETS: \$5.5 MM

“I've worked hard all my life. From now on, I'd like to have more fun”

I took over the business from my father a couple years ago. We have been struggling recently, now that more and more customers order groceries online.

I want to grow our family business but I lack the resources.



PAUL, 37

Owner of Local Grocery Store | Michigan, US
INVESTIBLE ASSETS: \$120 K

“We need help to compete”

1. INTRODUCTION

THE GNAWING SENSE OF CONCERN

Despite relatively good conditions for the financial services industry in 2017, we find executives are expressing a gnawing sense of concern: that the structural advantages of their businesses are eroding, that it is unclear where growth is coming from, that new customer value is being generated in other industries now more than in financial services, and that Big Tech¹, growing extremely quickly, will be entering the industry in force in the coming years.



By and large, the past year has been a good year for global financial services. Much of the regulation has been absorbed, global growth prospects are better, valuations have improved, and interest rates have begun to turn. We don't encounter a celebratory mood, however, in conversations with bankers and insurers around the world. Rather, a gnawing sense of concern dominates these discussions.

Business leaders we spoke to in the lead-up to this report felt their businesses were in good shape for 3-5 years, particularly given positive external conditions and efficiency efforts. However, further out than that, there was significant concern that their businesses could misfire on growth, be pushed to the sidelines of value creation, or be disrupted. The broad sense of concern came largely from three observations:

1. Growth significantly lags both big tech firms and historical FS norms. Over the past decade, big tech firms have addressed and resolved a series of big customer problems, and as a result, achieved big growth. Meanwhile, though FS transformation efforts have had success with regard to internal efficiency, they have often struggled with creating new customer value and top-line growth. This dynamic seems increasingly untenable. Traditional FS firms will either accelerate new customer value creation or risk conceding a greater and greater share of customer attention and wallet to other firms.

2. Historical foundations that once supported growth and returns in banking and insurance have deteriorated. Large sources of historical value that were available exclusively to financial services firms remain heavily curtailed. And there is no certainty as to when (or if) they will come back. Most acutely, this is represented by risk-free returns on deposits and insurance premiums, which remain at levels well below historical norms. In addition, other tailwinds that helped propel the industry to revenue growth in excess of GDP (e.g., equitization, real estate appreciation and a host of others specific to particular markets and sectors) have diminished.

3. There is still time to do something now – but not for long. Despite growing threats from other FS incumbents or tech usurpers, no final course has been set. Big tech firms have yet to expand their “data graphs” to encompass information about financial lives; and if they were to enter financial services in full force, they would still face significant regulatory challenges. Meanwhile, FS incumbents have largely addressed the biggest regulatory challenges and retain one key advantage: customer trust.

The remainder of our report aims to provide insight on how financial services firms can bridge the customer value gap. The core lessons are inspired by recent technology leaders, although elements can be found in growth leaders that established their business models far from the digital realm.

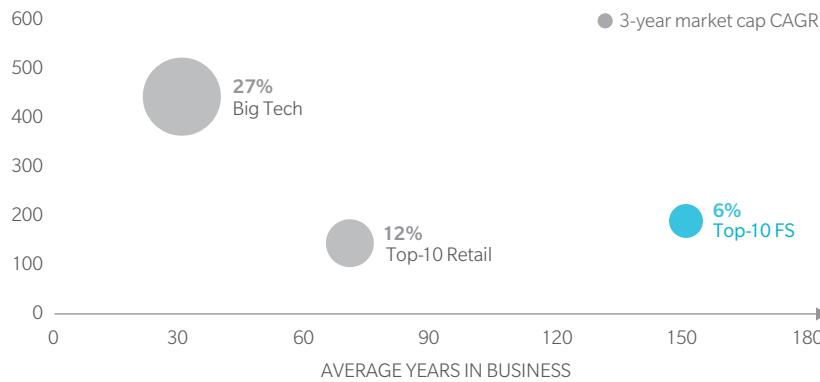
¹ By “Big Tech” we refer to the top 10 consumer-facing brands by market value: Alibaba, Amazon, Apple, Facebook, Google, Microsoft, Netflix, Priceline, Samsung, and Tencent.

EXHIBIT 1.1: THE GNAWING SENSE OF CONCERN

GROWTH SIGNIFICANTLY LAGS

SHAREHOLDER VALUE ACCUMULATION AND GROWTH – LEADING GLOBAL FIRMS

AVERAGE MARKET CAP, \$ BN, AUGUST 30, 2017



The largest financial services firms in the world trace their histories back, on average, nearly 150 years. Over that time they have experienced periods of faster and slower growth. But in recent years, they have been far outpaced by emerging global technology and retail leaders.

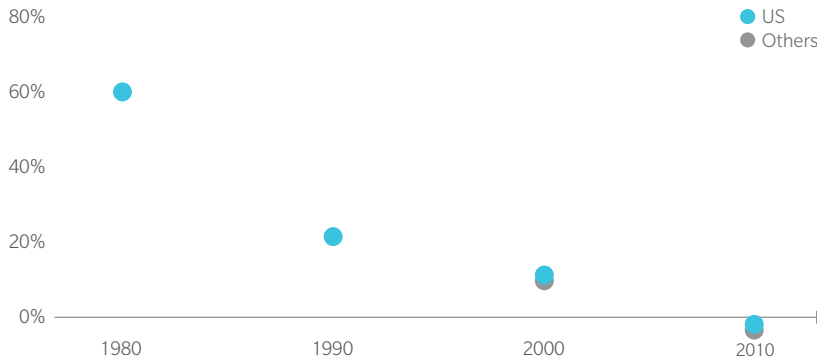
Among these, the largest ten consumer tech leaders (Alibaba, Amazon, Apple, Facebook, Google, Microsoft, Netflix, Priceline, Samsung, and Tencent) have reached an average market cap 2.3x that of global FS leaders – in just 1/5th the time.

Note: “Top-10 Retail” category consists of largest consumer services companies by market cap globally (excluding Alibaba and Amazon, which are included in the “Big Tech” category). “Top-10 FS” category consists of largest banks and insurance firms by market cap globally. 3-year CAGR is calculated based on 2013YE – 2017Q2 period

Source: Thomson Reuters Datastream, Oliver Wyman Analysis

HISTORICAL FOUNDATIONS HAVE DETERIORATED

“RISK FREE” DEPOSIT REVENUE AS A % OF TOTAL BANK REVENUE



The long-term decline of base interest rates has dramatically reduced the contribution of “risk-free” (without credit or interest rate risk) deposit returns to banking. With no expectation that rates will return to historical levels anytime soon, firms must evaluate how they will replace this source of significant economic profit – as well as how its diminishment changes the balance of power between firms with and without a deposit base. Similar dynamics in terms of erosion in legacy business values are also observable in insurance.

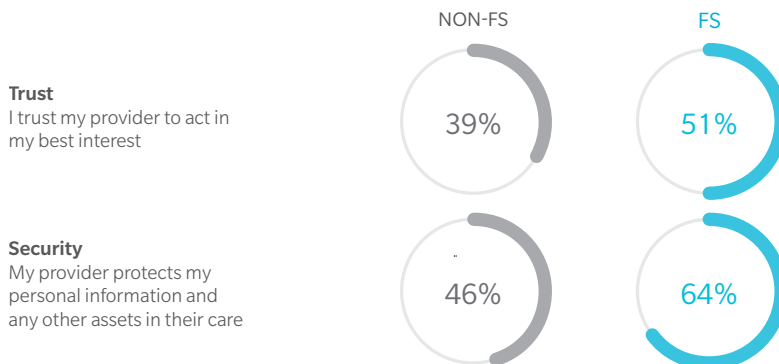
Note: Deposit contribution % is calculated as net interest income on deposits (excluding fees) divided by total revenues net of interest expense and charges for impairment. “Others” category consists of UK, Australia, France and Canada

Source: S&P Market Intelligence, Thomson Reuters Datastream, various central banks, Oliver Wyman analysis

THERE IS STILL TIME TO DO SOMETHING...BUT TIME IS RUNNING SHORT

TRUST & SECURITY ACROSS INDUSTRIES

% OF RESPONDENTS THAT STRONGLY AGREE



Our global survey of 4,000 mass and mass affluent consumers in United States, United Kingdom, France and Australia indicates that despite some recent challenges, consumers still trust their providers of financial services products more than their providers of retail and technology services. This result differs from findings of other surveys that often ask the trust of the sector broadly (rather than of a specific firm). Trust, while fragile, is still an asset that many financial services firms have, and they must both protect it and find opportunities to build from it.

Source: 2017 Oliver Wyman Global Consumer Survey

2. BIG TECH LESSONS LEARNED

Given the stunning success of big tech over the last decade both in growing and gaining share of mind with customers, it is important to identify what lessons can be learned from their success... and to understand the nature of future competition they will pose.

Much has been made of successful innovators who have experienced meteoric growth over the last decade. Netflix was a \$1 billion company in 2007 with a successful but modest physical distribution business. Ten years later, it is an \$80 billion behemoth, having mobilized its troves of consumer information to build a market leader in digital distribution and original content creation. Amazon was a \$13 billion company in 2006 and has ballooned to become a \$570 billion company as of this writing. As these companies have grown, they have (rightly) attracted outside shareholder attention. For our purposes, though, we are more interested in how they've built their businesses and what can be gleaned from their success for FS incumbents. In these cases and with other tech juggernauts, we see three common ingredients.

First, **they focus on solving a big customer problem** and establish a beachhead solution to that problem. In the case of Amazon, their beachhead was books; of course, they've expanded far beyond that beginning, most recently to groceries with the \$14 billion acquisition of Whole Foods. Netflix started out renting physical DVDs, shifted to streaming over the Internet as bandwidth increased, and then added its own original TV shows and movies based on the deep insights it harvested from the viewing habits of millions of subscribers. These and other tech leaders all started with a beachhead solution for a clear customer problem, with a missionary zeal.

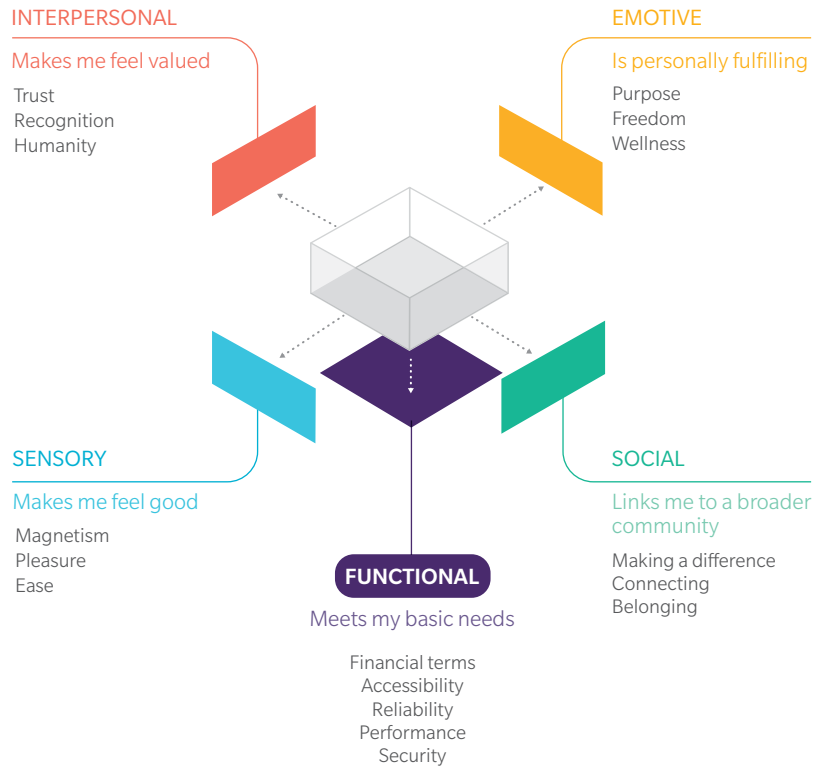
Next, **they create active solutions**²: ones that both surface and engineer the right experience and function as an integrated whole that evolves in lockstep with changing customer needs. From the customer perspective, these solutions activate answers to their problems, sometimes preemptively. And since these are their problems, the solution sources components from an ecosystem of partners biased in favor of the customer, not the provider's economics. Most important, the customer's experience and the underlying product components are not separate, but intimately bound together – they touch on all dimensions of the customer value framework (see Exhibit 2.1). The experiential and functional value are two sides of the same coin, one integrated solution. There is no such thing as a good experience if the outcome – price, availability, access – is not useful. And no amount of value pricing will overcome a sub-par or highly generic experience that isn't just right and at the right moment. Amazon.com works because *I get what I need, quick delivery, friction-free*.

Third, **they generate flywheel momentum to sustain growth**. They relentlessly improve their solutions with data and algorithms, and with a missionary zeal. The more they improve the experience, the more traffic they drive to their solutions, the more underlying products get activated, which enriches the data they collect and the accuracy and relevance of their algorithms –

2 By "active solutions," we mean ones that (a) bind function with experience, (b) evolve dynamically and adapt to customers' needs, and (c) source components flexibly from an ecosystem of partners. Section 4 dives into this concept further.

EXHIBIT 2.1: OLIVER WYMAN CUSTOMER VALUE FRAMEWORK AND SURVEY RESULTS

CUSTOMER VALUE FRAMEWORK BUILDING A VALUE BOX



Our Customer Value Framework aims to explain the different drivers of value that customers perceive from products and services across industries. Drawing upon academic research, industry knowledge, and our deep expertise, we specify two broad categories of value:



Functional value...

...covers the basic utility expected from products and services. There are a total of five drivers of functional value



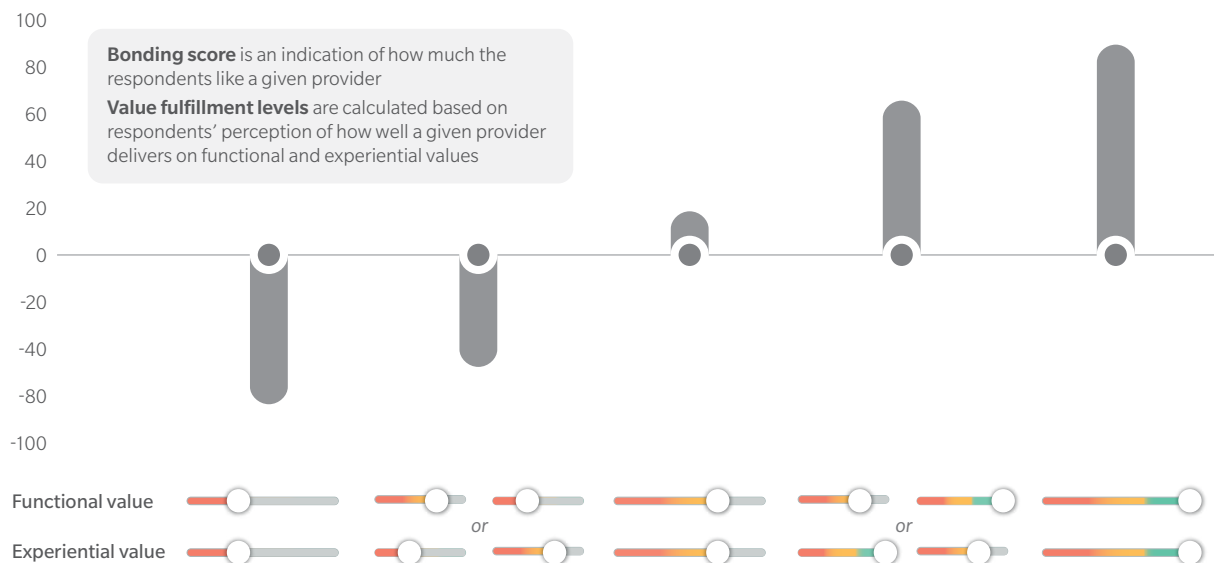
Experiential value...

...defines the customer experience and interactions with the provider. This is further broken down into four pillars (Sensory, Interpersonal, Emotive, and Social), each of which is composed of three value drivers

VALUE QUANTIFICATION AND BONDING

PROVIDERS WITH BOTH HIGH FUNCTIONAL AND EXPERIENTIAL VALUE FULFILLMENT LEVELS RECEIVED THE HIGHEST BONDING SCORES

BONDING SCORES BY VALUE FULFILLMENT LEVELS



Note: Please refer to the "Methodology" section for further details on bonding score and value fulfillment level calculations

Source: 2017 Oliver Wyman Global Consumer Survey

which ensures a good customer experience, repeat visits, and greater share of wallet. Crucially, this customer momentum generates market momentum, and the two taken together create – most importantly, perhaps – disproportionate appeal to top STEAM (science, technology, engineering, art, and math) talent. A rapidly growing and diverse workforce further fortifies a growth ethos and culture of resilience that perpetuates growth. And so the flywheel spins faster and faster.

“We are missionaries. It’s why we do innovation, to make life better for our customers.”

WERNER VOGELS
AMAZON’S CTO

Let’s unpack how these three points interact a bit further using Amazon as an example.

Over the last decade, the pace of innovation in consumer technology far outstripped the pace of innovation everywhere else – reversing the usual trend of enterprise adoption first, followed by consumer adoption (see callout on page 11, “A Decade of Dramatic Technology Innovation... and Adoption”). Customers today are on an ever-greater quest for *convenience* – driven by time poverty – and *cost savings* – driven by low income growth. The more Amazon can do to remove the friction from low-cost household purchases, the more customers sign up for “one click” to repurchase on Amazon.

The Amazon experience becomes even more convenient with conversational interactions with Alexa: it’s far easier (and more fun) to tell Alexa what to do than it is to select from a menu on a mobile app or in a web browser. And as consumer usage expands, Amazon and Alexa can pre-emptively offer suggestions based directly on customer usage patterns.

Driving Amazon’s reach is its finely grained data graph about purchase patterns by individual households. The new battleground is based on data and algorithms, driven by sharp focus on customers and consistently better solutions for their evolving

needs. Amazon and other firms that have moved to the fore of building these data graphs are establishing their own version of *digital scale advantage* that will be hard for others to compete with in the future. In the same way that banks with large branch networks established a convenience experience advantage in the past physical world, owners of data graphs establish a large convenience experience advantage in today’s digital world. Unlike the complexity and fixed cost of physical assets, digital assets can be flexibly recombined and reassembled, with greater speed and at fractional incremental cost. Tech solution innovators like Amazon achieve massive scale, quickly, because the $n+1$ customer can be served near-instantaneously based on precise modeling from the n th customer.

Big tech leaders don’t focus on products, they focus on big problems and constant improvement of the customer’s experience in solving their problems. They build powerful algorithms that distill patterns in the data so they can swap in/out core components from best-in-class providers while simplifying and personalizing the way customers activate those components to solve their problems. They solve the right problems with modern methods while building a powerful operating model that allows them to do more, faster.

As they do this, the core advantage that leading innovators derive is often referred to as the *flywheel effect* (see Exhibit 2.2) where each component reinforces all the others: the underlying data; algorithms; customer-centricity; talented staff who work in a systematic, test-and-learn fashion – all work together. As each component improves, the overall speed of innovation increases along with greater share of customer attention – making it difficult for other competitors to catch up.

Abstracting from the lessons of tech: we believe the basis of competition has shifted from products to solutions, and from product-selling to problem-solving. As digitization increases, more problem-solving will be mediated by digital media and devices, and powered by data and algorithms. Customers will increasingly expect the kind of value that they’ve come to enjoy from the likes of Amazon and Apple, Google and Netflix, where they get what they want, the way they want it – and where functional and experiential needs are harmonized.

2007-2017: A DECADE OF DRAMATIC TECHNOLOGY INNOVATION... AND ADOPTION

We take the liberty in this report of simply observing that digital tools and techniques have evolved at a breakneck pace. In 2010 the “cloud” was an early phenomenon with limited adoption and a handful of brands that people recognized – Salesforce.com, Amazon Web Services (AWS), Rackspace. Last quarter, Microsoft – barely a participant in 2010 – announced it has already achieved its 2018 revenue targets for Azure (its cloud computing service), while AWS has ballooned into a \$12 billion business. As has been widely reported and detailed elsewhere, 36% of enterprises have migrated to the cloud to support their IT operations; 93% of enterprises see the cloud being utilized for transactions in the future. Moving to the cloud is now a given.

Similarly, in 2010, the average selling price of a smartphone was \$440, making it prohibitively expensive for most of the world’s consumers and thereby fortifying Nokia as the dominant global handset manufacturer. In 2016, 1.5 billion iOS and Android devices shipped; and the price for an entry-level smartphone has dropped, decimating an entire category of sub-\$200 “feature phones.” The richer mobile app capabilities are now accessible by over a third of the world’s population, anytime and mostly anywhere.

There are many other digital innovations we could highlight, but we choose these here for a reason: the shift to cloud services and “appified” experiences on mobile devices has brought with it a massive data revolution. People use their apps for a wider range of interests, which then generate data that can be used, in turn, to improve those apps.

This is what we most care about as we think about crafting and delivering new solutions to the emerging customer problems in the financial services sector. The tools that matter most to solving problems are the ones that follow their users across multiple devices and generate data; the data is stored in the cloud where algorithms can reveal patterns that lead to better solutions that drive greater usage and effectiveness. The barriers to reaching and engaging customers have fallen fast and dramatically in the decade since the crisis.

Source: Microsoft and Amazon.com company reports, Gartner Survey Analysis: *Once in the Cloud, Where Does Finance IT Go?*, Van Decker, Iervolino, 8/16/2017, Gartner, *Market Share: Final PCs, Ultramobiles and Mobile Phones, All Countries, 4Q16, 2/14/2017*, GfK (via Statista), Oliver Wyman analysis

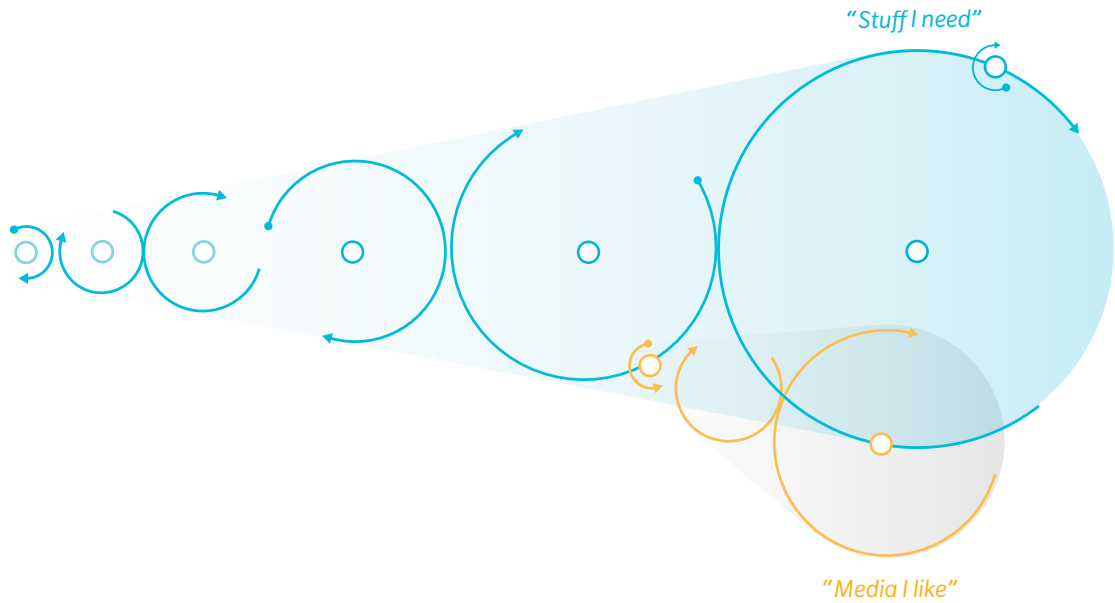
EXHIBIT 2.2: RELENTLESS FOCUS ON CUSTOMER VALUE AND GROWTH
THE “FLYWHEEL” EFFECT

Active solutions create better value propositions and drive new customers

New customers generate more revenue and information, which creates innovation challenges that attract top talent

Revenue, information and talent growth fuels richer solutions for more scope of customer needs

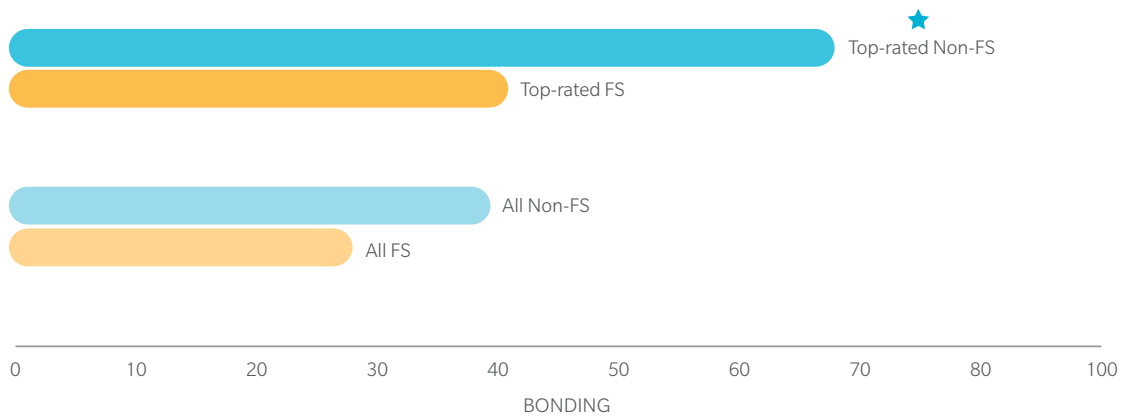
Better active solutions drive rapid customer growth in adjacent categories of need, which builds resilient organizations that “do more, faster”



Source: Oliver Wyman

EXHIBIT 2.3: BONDING COMPARISON ACROSS INDUSTRIES

BONDING FOR TOP-RATED PROVIDERS¹ AND INDUSTRY AVERAGES
FS INDUSTRY VS NON-FS INDUSTRIES²



¹ Top-rated FS and non-FS providers are calculated as a weighted average of the top three (FS and non-FS, respectively) providers in each country with sufficient sample size

² Non-FS ratings are calculated as the average of all tech and retail bonding scores, globally, and FS Industry is calculated as the average of all FS bonding scores, globally

Source: 2017 Oliver Wyman Global Consumer Survey

When we apply this thinking to the financial services sector, the picture is stark. Most banks and insurers are still grappling with product and functional silos, with product manufacturing and distribution as two distinct components of their operating models. Some have embraced omnichannel to deliver better customer experience, “brick-to-click,” but the underlying products remain largely unchanged. As a result, customer bonding levels with providers have fallen far behind leaders from technology and retail (See Exhibit 2.3).

The silver lining for FS incumbents is that the opportunity looms large, and the game in financial services is in early innings. There are vast and unmet customer needs yet to be solved with superior, active solutions. And nowhere is the need for new solutions to changing problems more acute than in the mass market segment.

WAYS IN WHICH BIG TECH COMPETES IN FINANCIAL SERVICES TODAY

PUBLIC INFORMATION

COOPERATION/ COMPETITION MODEL	DESCRIPTION/EXAMPLES	PUBLIC EXAMPLES
Cross-industry cooperation	Banks/insurers provide traditional financial services and/or other services to technology firms <ul style="list-style-type: none"> • Point of sale financing to fund purchases • Distribution partnerships 	<ul style="list-style-type: none"> • Bank-provided POS funding
“Modular” industry supplier	Tech companies sell services to traditional financial services firms in a manner that creates value for the bank or insurer – but at a cost <ul style="list-style-type: none"> • Data • Technology • Distribution/client access 	<ul style="list-style-type: none"> • Credit bureaus • Core technology platforms • Financial services marketplaces/aggregators
Competition in parts of the value chain	Tech companies provide traditional financial services to consumers in specific areas adjacent to their core businesses <ul style="list-style-type: none"> • Point of sale financing to fund customer purchases • Payments to enable customer purchases 	<ul style="list-style-type: none"> • Amazon lending • Paypal • Apple/Google Pay
Competition in specific segments, typically lightly regulated	Tech companies provide wide-ranging financial services across client needs – but steer clear of products that would require significant regulation <ul style="list-style-type: none"> • Limited-regulation lending • Wealth and insurance product distribution, as permitted • Distribution of products that they can not manufacture themselves 	<ul style="list-style-type: none"> • Alibaba • Tencent

3 FOCUS ON BIG CUSTOMER PROBLEMS THE MASS MARKET CONUNDRUM

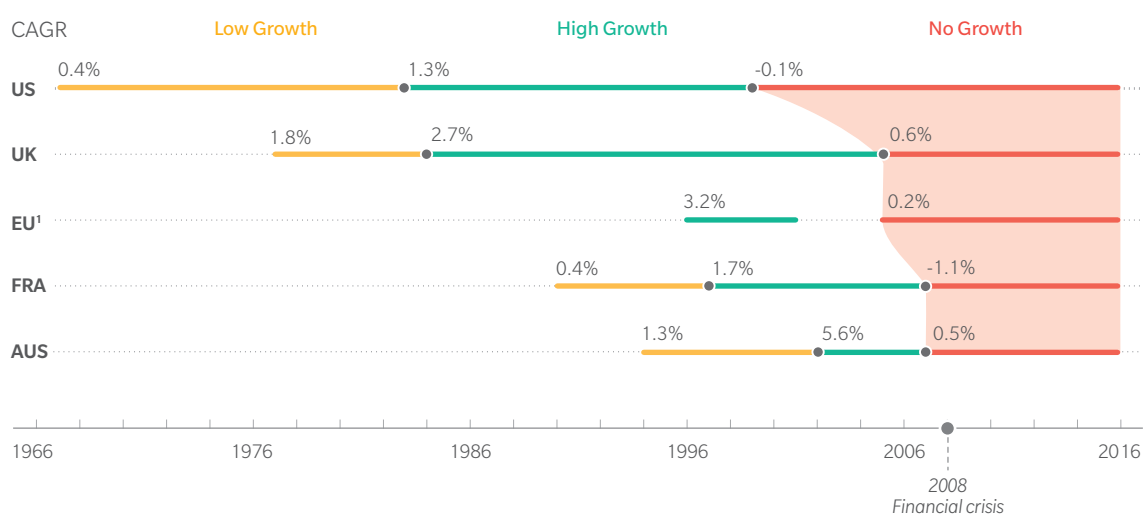
To understand the customer value gap, the mass market presents an outstanding case study for financial services. A segment whose financial prospects have significantly changed (and largely deteriorated) over a decade, but whose financial services remain largely the same. Not for long, we argue.

Far worse prospects. Vastly more choices. Less support.

Our study of megatrends impacting the mass market included the secondary review of dozens of trends across societal, behavioral and technological categories. It included survey results from around 4,000 consumers across the US, the UK, Australia and France. And it included digital focus groups and a mobile ethnographic study.

All of that led to three fundamental points. First, low real income growth, interest rates and appreciation of real estate have sapped financial prospects. Second, digital technology, urbanization and immigration have led to the availability of vastly more options: from education and migration, to job selection and investments, to major purchases and how to spend a Sunday afternoon. Third, and in the face of this, people have less reliable help. Changing family structures and shifting communities mean that

EXHIBIT 3.1: GLOBAL REAL INCOME GROWTH FOR MEDIAN HOUSEHOLD



¹ Aggregate of EU-15 countries for 1995-2001 and EU-27 countries for 2005-2016. Unavailable for 2002-2004 at the source. Deflated to 2015 prices using harmonized index of consumer prices for the EU aggregate

Source: US Census Bureau, UK Office for National Statistics, Eurostat, Economist Intelligence Unit, Australian Bureau of Statistics, Oliver Wyman Analysis

some of the reliable supporters from the past are less accessible. Social media and reality television offer poor substitutes.

These trends have not been kind to mass market finances. A deep-dive study of the United States enabled by a government survey of consumer finances dating back to 1989 paints a stark picture. As expected, real income growth is stagnant. So too is net worth. But the key measure of risk – debt to assets – has grown from 40% to 60%, and when net worth is decomposed, it appears that mild improvement in wealth associated with home and auto has offset a deep decay in the net worth of everything else (see Exhibit 3.2).

This is a grim picture and warrants much further exploration in itself; however, our focus for this

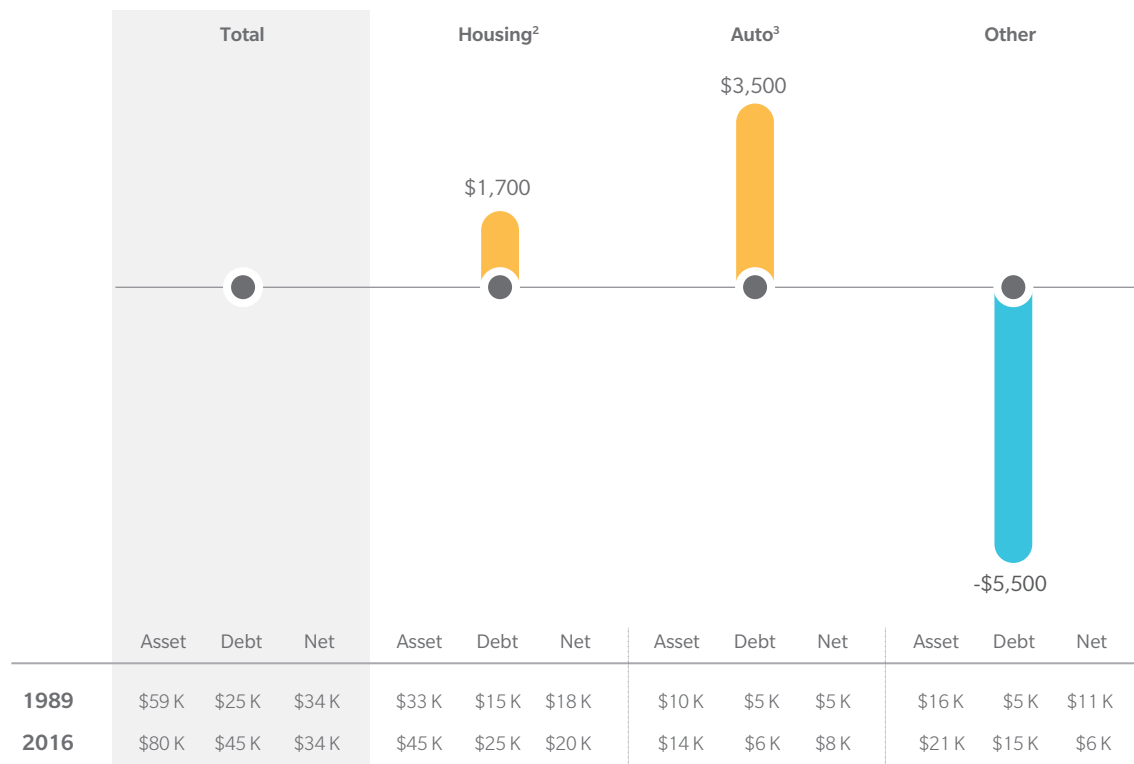
report is on how the changing context has affected the relevance and usefulness of financial services products. If anything, the impact here appears to be worse than on finances overall.

Historical financial services products were designed for a world of greater certainty and less choice. In this context, they provided accessible storage and savings, lending and protection – with relatively limited need for advice. And these products had value. As the world has changed, the value of these products has diminished.

Storage has become more commoditized as it has become digital. Savings has lost significance as positive real base interest rates have given way to negative ones. Lending used to focus largely on large asset purchases like cars and homes that held

EXHIBIT 3.2: THE DETERIORATING STATE OF US MASS MARKET FINANCES¹

CHANGE IN AVERAGE NET WORTH BY COMPONENT
2016 vs. 1989 (IN 2016 US\$)



¹ Please refer to the “Methodology” section for further details regarding mass market segmentation and analysis using Survey of Consumer Finances by The Federal Reserve

² Includes all real-estate-related debt (i.e., mortgages, HELOC, other residential debt) and assets (i.e., primary residence, other residential property)

³ Includes auto loans and vehicle values

Source: US Survey of Consumer Finances by The Federal Reserve, Oliver Wyman Analysis

value and even appreciated – and that the borrower could afford to pay back over time. This halcyon state has given way to greater emphasis on short-term borrowing for near-term needs and speculative borrowing aimed to stimulate long-term earnings

growth – e.g., education, migration – neither of which has the same clear return. While protection is still important, risks to life and health have been joined by risks to living too long, not being able to keep a job, and a wide array of other factors.

EXHIBIT 3.3: THE CUSTOMER VALUE EXCHANGE

Many firms in financial services already use the terminology “customer value.” However, it most often refers to the amount of value generated for shareholders by delivering products to the customer. We think this is the root of the problem. Financial services firms must begin to quantify the other side of this exchange as well: how much value are financial services solutions delivering to customers? How is that evolving over time? How does it compare to other solutions in the market? And how could new value be created to improve the exchange and stimulate new shareholder value in the future?

CASE STUDY

THE CHANGING FINANCIAL SERVICES VALUE EXCHANGE FOR THE US MASS MARKET CONSUMER

PAYMENTS TO CUSTOMERS FROM FINANCIAL SERVICES AVERAGE VALUES IN 2016 US\$



PAYMENTS TO FINANCIAL SERVICES FROM CUSTOMERS AVERAGE VALUES IN 2016 US\$



Capital gains
Interest/dividends

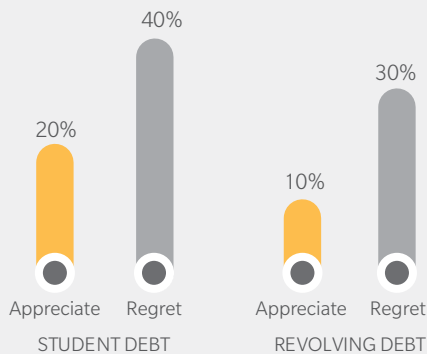
Deposit fees¹
Debt payments²

- Driven primarily by falling returns
- But also lower holdings, particularly in equity

- 80% increase in balances has offset the fall in base interest rates
- In the meantime, fees have risen (captured here for deposits) from \$260 to \$330 per household, in real terms

VALUE OF DEBT HAS DETERIORATED

% OF SURVEY RESPONDENTS THAT APPRECIATE OR REGRET THEIR DEBT



DEBT TO ASSET OF MORTGAGE



- Our recent survey indicates that many mass market consumers are dissatisfied with student and revolving debt
- And 50% of increase in total outstanding debt since 1989 has come from these types of debt, which means consumers have more of what they don't like
- Meanwhile, the “return” on mortgage debt has dropped dramatically, with LTV on marginal loans having increased since 1989 to 90%

¹ Consumer deposit fees from commercial banks including overdraft, maintenance, ATM, and other

² Includes payments against both the principal and interest for the loan

Source: US Survey of Consumer Finances by The Federal Reserve, FDIC, Bureau of Labor Statistics, S&P Market Intelligence, 2017 Oliver Wyman Global Consumer Survey, Oliver Wyman analysis

Putting all of these factors together, the value exchange between mass market consumers and financial services providers has deteriorated significantly. Gains from returns on savings and investments have nearly disappeared, resulting in a large drop in payments from the industry. Meanwhile, despite falling base rates, debt service ratios have remained constant as debt balances have soared – while fees have also grown. But what the consumer has bought with this balance isn't working the way it once did. Growing mortgage debt hasn't created leverage for higher growth in mortgage assets. And far more customers regret having borrowed for education or day-to-day purchases than those who appreciate having had access to it (see Exhibit 3.3).

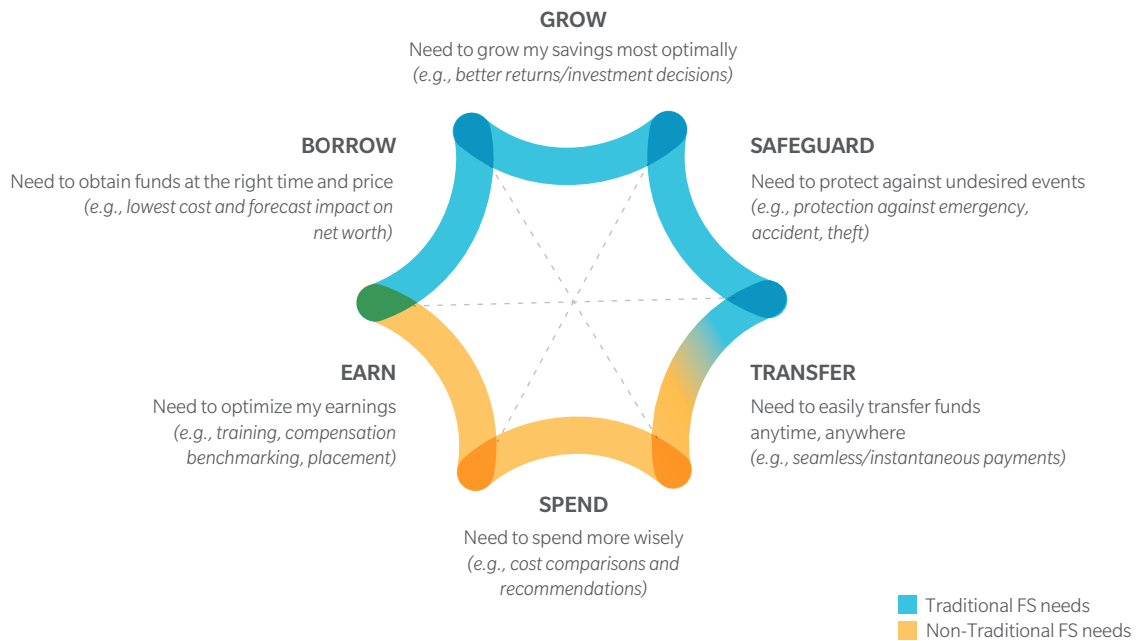
The situation in the US is clearly not identical to those of other geographies, but the conditions are similar: lower wage growth, lower base interest rates, greater saturation of debt, more risks and less relevance of the physical aspects of historical offerings. In this environment, while undirected lending will serve a short-term need, it is not the basis for a long-term solution – for the borrower or the lender.

And across geographies, the response from many financial services providers has been similar. Rather than attack the problem, financial services providers have chosen to de-emphasize the mass market. Investor presentations and disclosures from the leading five banks in the four markets we selected for our research indicated far more focus on the affluent than the mass market.

This is far from an indictment of the industry; these are huge, long-term trends not easily resolved. The problems of the mass market run deep, and the experience of the recent past is still (rightfully) fresh in people's minds. A focus on the affluent may make more sense. But with all of this added attention, what will happen to margins and the requirements to compete there? Turning from big problems to easier ones is not the lesson that we took from big tech.

Indeed, big tech firms are not running away from the financial problems of the mass market; rather, they are running towards them, and with great success. Traditional financial services have focused on three categories of financial need: "Borrow," "Safeguard" and "Grow." But there are actually six categories. The

EXHIBIT 3.4: OLIVER WYMAN FINANCIAL NEEDS HEXAGON



Source: Oliver Wyman

EXHIBIT 3.5: TOP 5 GLOBAL FINANCIAL NEEDS FOR THE MASS MARKET



Source: 2017 Oliver Wyman Global Consumer Survey

other three are “Earn,” “Spend” and “Transfer.” And while the value of borrow, safeguard and grow have stagnated in the face of megatrends, the value of earn, spend, and transfer have not.

This comes across clearly from our global survey of consumers, who indicated that four of the top five needs of their financial life relate not to legacy financial services businesses, but instead to these other categories (see Exhibit 3.5). And it comes across even more strongly when you consider how much a firm would need to influence the current state of each category in order to create meaningful customer value.

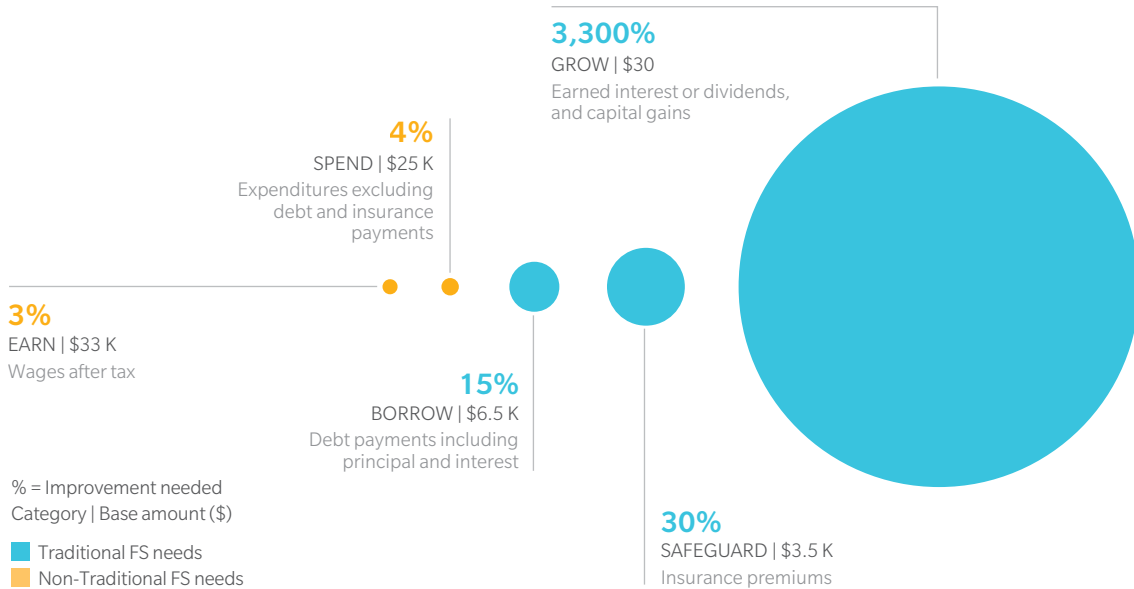
In the case of the US, if you could reduce the amount an average mass market customer spends by 4%, that would create \$1,000 in annual value. To have the same impact on financial life through an increase of deposit and investment yields or interest and principal paid on borrowings, you would need to increase the return by 33x or reduce the amount paid by 15% (see Exhibit 3.6).

Those firms that have taken on this challenge of financial life outside of traditional financial services

(based in the US, for purposes of this analysis) have seen tremendous financial success. Firms working to reduce the cost of spend have created \$600 billion in market capitalization in the past seven years. Those firms helping to optimize transfer to ease the payment for those goods have created another \$400 billion in market capitalization. And firms helping to improve earn – arguably the hardest challenge to overcome and certainly the most difficult to measure – have created at least another \$20 billion. This compares to roughly the same level of market cap growth across all publicly traded banking and insurance firms in the US (see Exhibit 3.7).

This dynamic is both an opportunity and a threat for traditional financial services firms. Banks and insurers that see their business as solving financial life needs have the opportunity to pivot their offerings and incorporate solutions that impact earn and spend. In this case, the market in front of them is enormous, and they have license to access it. 55% of consumers in our survey indicated they would try relevant advisory products related to earn or spend from their financial institution – and that number rose to 70% for consumers who were highly satisfied with their providers.

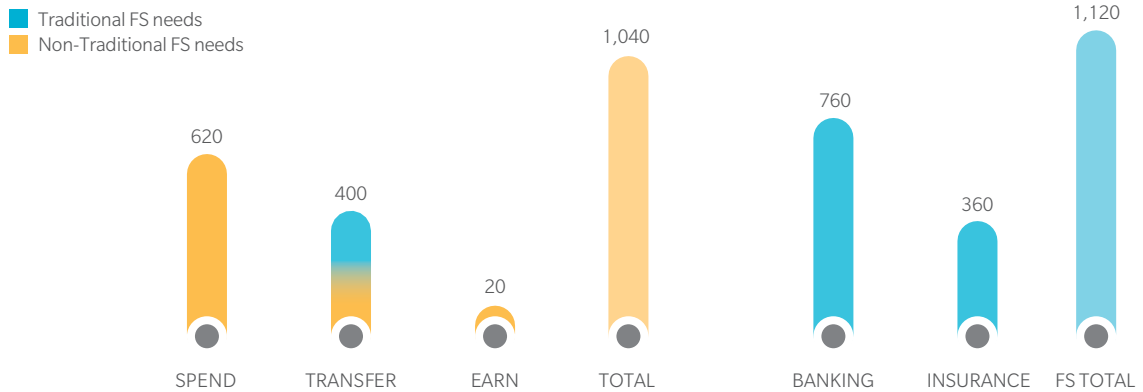
EXHIBIT 3.6: SENSITIVITY OF IMPACT ACROSS MASS MARKET FINANCIAL NEEDS
 BY WHAT % WOULD EACH CATEGORY NEED TO IMPROVE TO CREATE \$1,000 OF VALUE



Source: US Survey of Consumer Finances by The Federal Reserve, US Bureau of Economic Analysis, Oliver Wyman Analysis

EXHIBIT 3.7: MARKET GROWTH COMPARISON ACROSS FINANCIAL NEEDS

CHANGE IN TOTAL MARKET CAP OF COMPANIES BY CATEGORY
 \$ BN, 2010 YE – 2017 Q3, US ONLY



Largest 4 among the companies tracked¹

- | | | | | |
|-------------------|--------------------|------------------|-------------------|--------------|
| • Amazon | • Visa | • New Oriental | • JPMorgan Chase | • Chubb |
| • Walmart | • Mastercard | • Tal Education | • Wells Fargo | • AIG |
| • Priceline Group | • American Express | • Manpower-Group | • Bank of America | • Metlife |
| • Costco | • FIS | • Pearson | • Citigroup | • Prudential |

Note: This analysis focuses on organic market cap growth (i.e., it excludes IPOs and de-listings in the interim period) as it looks at companies that were publicly traded in US stock exchanges both as of 2010 YE and 2017 Q3. "Spend" category consists of discount retailers and select demand aggregators focused on consumer purchasing decisions. "Transfer" category consists of select traditionally non-bank companies focused on payments. "Earn" category consists of select companies providing education, training and human resources and employment services.

Source: Thomson Reuters Datastream, Oliver Wyman Analysis

EXHIBIT 3.8: ALIBABA'S MARCH INTO CONSUMER FINANCIAL SERVICES



Source: Company filings, Bloomberg News: World's Biggest Money-Market Fund Can Grow More, Fitch Says, 8/17/2017

If these firms see their business, however, as providing mortgages and savings accounts, insurance policies and credit cards, the future is much more limited. The market for these products is saturated and their impact is low. What's worse, it should not be expected that large consumer technology firms will limit themselves to their current part of the needs hexagon.

The ethos of these firms demands that they follow the problem and continually improve the solution. That has already taken many into the realm of transfer as they build services in payments. And many more are exploring lending, insurance and even deposits (through pre-paid structures). In Asia, where markets for traditional consumer financial services were less developed to begin with, firms like Alibaba and Tencent have had dramatic success (see Exhibit 3.8).

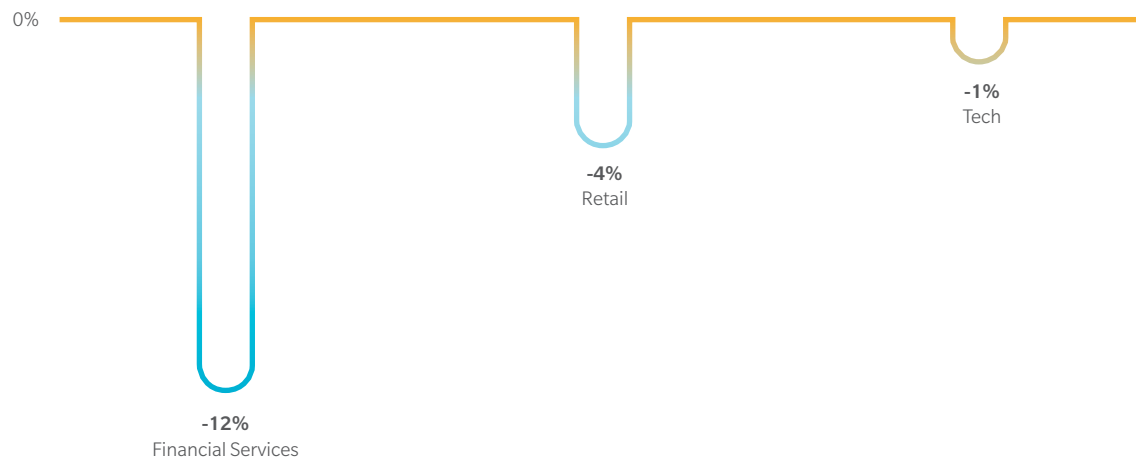
Financial services firms that currently provide great value to their customers may not need to worry about this threat in the near-term. They have in many cases been in business for a century or more and thwarted many challengers in that time. Large consumer technology firms have no magic potions. If there is not a problem for which they can provide a better solution, they are more likely to direct their customers

to the best provider that exists today. Indeed, the best suppliers of deposit accounts, mortgages and credit cards could well benefit if a large consumer marketplace added financial services offerings to the menu.

Firms must be very certain, however, of the value they are creating for their customers. Our research indicated that mass market customers had similar levels of satisfaction as mass affluent consumers in both retail and technology. But when it comes to financial services, there is a large value gap. Mass market customers are not nearly as satisfied. So the door is certainly open to better offers – whether from other FS incumbents or outside challengers (see Exhibit 3.9).

Over the long-term, both the challenge and the opportunity become greater. While big tech firms are attracted to big problems, in the case of the mass market they are attacking pieces of the bigger problem – e.g., income and time scarcity – and they are making incremental gains. However, they are not (yet) creating a path for mass market customers to derive long-term, sustainable improvement in their financial lives. For example, while Uber and Netflix provide “gig economy” work and low-cost

EXHIBIT 3.9: BONDING GAP BETWEEN MASS MARKET AND MASS AFFLUENT FINANCIAL SERVICES VS. RETAIL VS. TECH



Note: Bonding gap is calculated as the difference between the bonding scores for mass market and mass affluent segments in a given industry. Please refer to the “Methodology” section for further details on bonding score calculation.

Source: 2017 Oliver Wyman Global Consumer Survey

entertainment, the people we surveyed aspire to long-term career progression and enjoyment that goes beyond binge-watching television.

The people we surveyed in many cases heavily regretted big decisions about education and career choice that ultimately required borrowing de-coupled from realistic advice about long-term earning potential – e.g., “Should I go to a private school or a state school? Should I go to a culinary academy instead of a 4-year college?” And they also regretted many of their smaller purchasing decisions, even when they were made at the lowest price. Low price plus convenience is not the same as fixing the big problem: the need to optimize allocation of scarce earnings to survive and enjoy today, as well as to fund a better future.

Fixing the problem will require new solutions across categories traditionally dominated by both FS and technology leaders linked with leading experiences and trusted guidance. Fortunately, this is a solution that is not hard to imagine. It is also not a solution that anyone currently owns.

So firms must ask themselves two questions:

- Are we delivering great value through the solutions that we provide our customers today?
- Are we attacking our customers’ big problems and preparing for a future of active solutions?

Ultimately, these answers should point to how they are going to participate in improving the lives of the customers they serve – because that is what those customers need, and that is what the financial services industry must offer.

4. DESIGN ACTIVE SOLUTIONS SOLVING FOR THE LIFEMAP

Active solutions solve both functional and experiential needs, are dynamic, and are connected in ecosystems. The underpinnings of all active solutions are data graphs and algorithms. We take the mass market LifeMap, inspired by Google Maps, and describe what it will look like and the implications for financial services. We argue that we will see LifeMap-powered solutions soon – for the mass market and other customer segments.

The trends described in the prior section are having dramatic impact on mass market consumers all over the world. They are affecting consumers in different ways, at different times, to different degrees, and in a wide range of circumstances. In fact, each person has a unique problem. A unique dream. A unique set of goals that he/she is trying to accomplish. Daniel and Shelly want to ensure a better life for their children; Patricia, a single mother, still has career dreams of her own; Paul is trying to keep the family business afloat. While there are similar patterns and issues, these people have unique problems that require individualized solutions.

What's more, those problems are constantly changing. The customer who sets a savings target and diligently works towards it receives a call from a relative in need. The customer who initially desires a place to save money buys a car. The customer who borrows money for a house loses their job. No sooner is a path set towards resolving one need than another, often more pressing, need emerges.

It is with this context that we contrasted current offers from financial services companies with active solutions elsewhere.

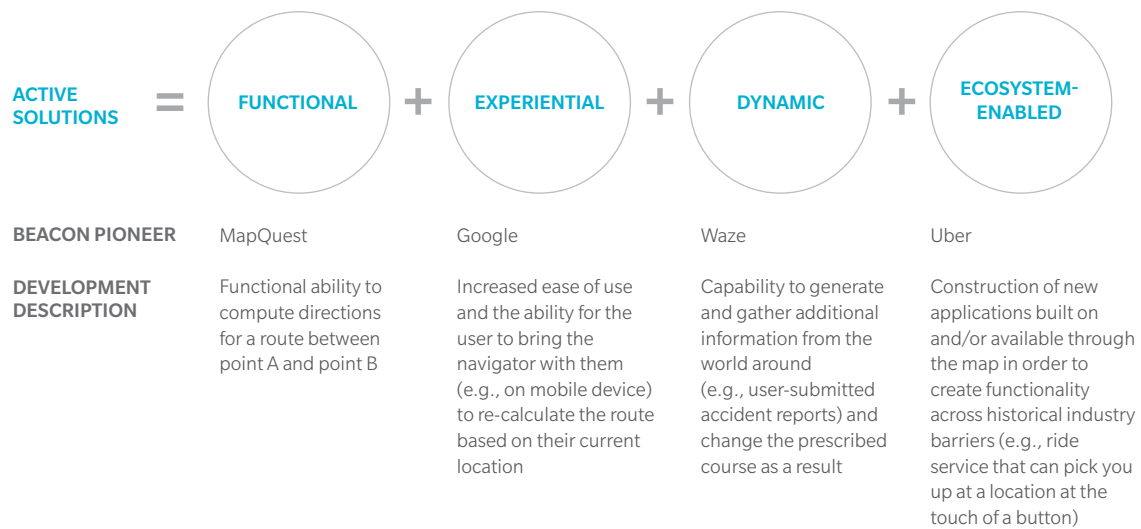
Aiding a customer in plotting a future is mildly useful. Helping them all along the way to achieving it is transformational. Consider what has occurred to help you reach physical destinations just while the financial services industry recovered from the financial crisis:

- 2006** **Printable directions from home**
You used MapQuest to plot a course from point A to point B. You printed out a map and hoped for the best
- 2007** **Personal GPS**
You had a device in your car. If you got lost or changed your mind, you could stop and re-plot
- 2009** **Mobile-friendly GPS mapping**
You could bring that device with you wherever you went, and it would automatically point you to a new direction if you took a wrong turn
- 2012** **Live-traffic route mapping**
Your device would recalculate your route if it saw a problem ahead
- 2015** **Frictionless ride-hailing service**
You could tap your device to get a car to meet you wherever you were, and take you to wherever you wanted to go
- Today** **Driverless car**
You can skim this paper while your car stays on course

Someone is going to build Google Maps for financial lives. Maybe it will be Google, Amazon or Alibaba. Maybe it will be JPMorgan Chase, BBVA, or MetLife. We believe it is going to happen and likely to happen soon.

The solution seems far away today because achieving it requires three critical steps: breaking free from products in the categories traditionally served by financial services; designing active solutions that weave across all six categories of financial need (as depicted in Exhibit 3.4); delivering them with a continuous, engaging and trusted experience. It is hard to imagine one firm bringing that solution

EXHIBIT 4.1: THE PROGRESSION TO ACTIVE SOLUTIONS IN LOCOMOTION



Source: Oliver Wyman

fully-formed to the market. Certainly not on its own. And indeed that is not what occurred in locomotion. Rather, the different milestones highlighted in the timeline on the prior page represent continuous improvements in function, experience, dynamic response and ecosystem evolution over roughly a decade (see Exhibit 4.1).

Of course, the pace of that journey was restricted by the capabilities of data, technology and partners operating in flexible digital ecosystems. The journey to a similar active solution for meaningful financial management is no longer limited by those factors; they are already de-risked and operational. While the elements of a data graph that underpins an individual’s financial life do not currently exist in any one place, the barriers to building the data graph are not nearly as large as those initially faced for physical travel (for further details on key issues, see callout on page 27, “The Growing Din About Customer Data”). Meanwhile, the algorithms and computing power necessary to keep the person’s financial life on track pale in comparison to those necessary to keep a car on the road.

Let’s turn to experiential and dynamic elements. Conventional wisdom about getting and giving directions no longer apply: men, in particular, would rarely acknowledge their directional shortfall and ask for help, but they (and others) have no problem interacting with a smartphone to get directions

today. Behavioral taboos – *don’t stop and ask for directions, it’s a sign of weakness* – have given way to always-on, constantly-correcting Google Maps guidance, even for the simplest of errands and in well-heeled environs. The taboo for admitting directional deficiency has gone away; how long would we expect the taboo associated with “I don’t know what to do with my finances” to forestall a Google Maps-inspired financial wayfinder?

The LifeMap will enable a rich data graph to emerge, one that brings together a vast array of signals indicating income, assets, debt, spending and enjoyment, employment and education, and from millions of individuals around the world. High-powered algorithms will turn that data into highly personal paths for individuals to achieve their unique goals. Rich experiences will follow users through their journeys across a range of devices, evolve and adapt as their needs, context and circumstances change.

Of course, directions alone cannot get people to the destination they desire. The functional capabilities to actually get there are also required. The route, waypoints, street signs – these won’t exist on their own. Rather a rich ecosystem with useful components will emerge to complement the LifeMap. Indeed, many of these have already been built and will plug into the LifeMap, immediately gaining greater relevance in the market and setting them on a path to even better solutions in the future.

"LIFEMAP FOR MONEY" | Daniel+Shelly

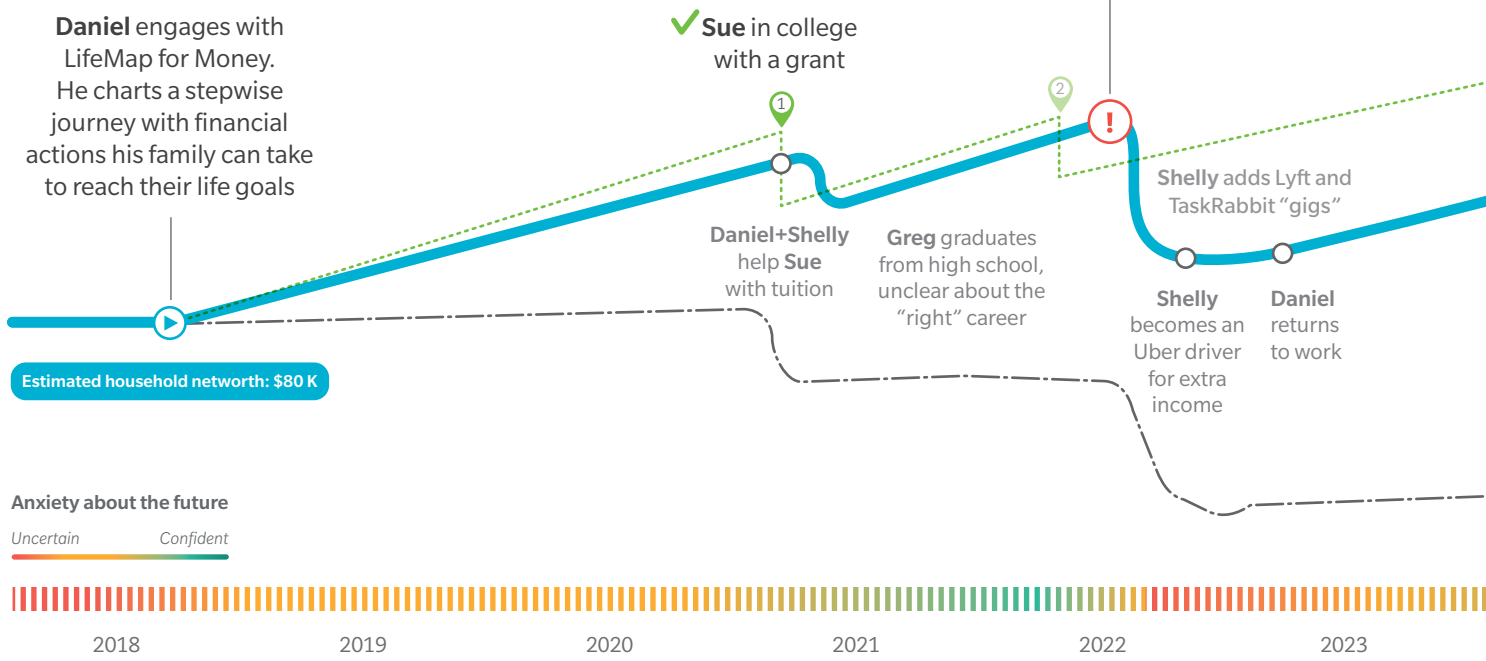
- ▶ Engage with "LifeMap for Money"
- 1 Discover the right education path for Sue and finance it
- 2 Discover the right education path for Greg and finance it
- 3 Pay down debt quickly
- 4 Chart a course toward a future of less work, more travel



- 📍 Roadmap recommended by "LifeMap for Money"
- 🔵 Daniel+Shelly's actual path
- ⋯ Daniel+Shelly's path without "LifeMap for Money"

Daniel gets in a car accident and is hit with extra bills not covered by auto insurance
He must take 6 months off from work to recover

Daniel engages with LifeMap for Money. He charts a stepwise journey with financial actions his family can take to reach their life goals



✓ Sue in college with a grant

Daniel+Shelly help Sue with tuition

Greg graduates from high school, unclear about the "right" career

Shelly adds Lyft and TaskRabbit "gigs"

Shelly becomes an Uber driver for extra income

Daniel returns to work



Daniel activates **ActiveCruiseControl** to manage his finances and plan for future – He decides **Debt Consolidator** is the best way to prioritize paying down debt

Daniel and Shelly agree that they need to reduce expenses. They decide to use **Shopping Optimizer** to find good deals on essentials and reduce expenses



Sue uses **Education Advisor** to view options for schools and financing (grants, loans, etc.)

Sue decides to apply for several grants that best fit her needs



Greg consults **Education Advisor** and finds a 2-year nursing program

Greg decides to take a year off to save money

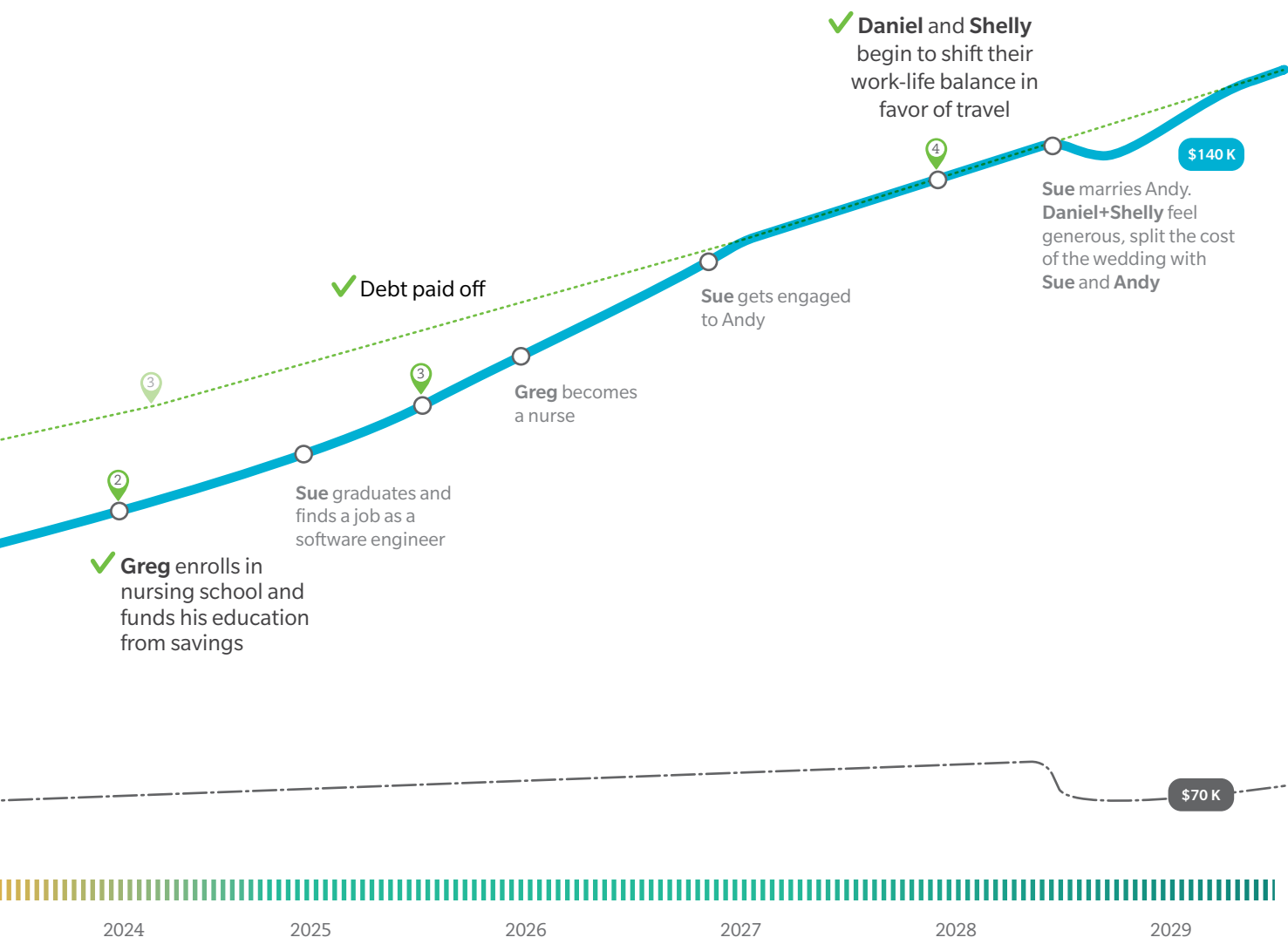
He finds a job through **Job Connector**, starts saving for the nursing program



Daniel recalibrates **ActiveCruiseControl** to accommodate unforeseen costs and temporary loss of income

Daniel reduces non-essential spending by canceling recurring subscriptions

Shelly uses **Job Connector** to find Uber shifts for extra income. She continues to find additional gigs so they can stay on route



Sue sets up her own **ActiveCruiseControl** given that she is now financially independent

She begins using **Shopping Optimizer** for groceries



Sue and her fiancé Andy set up a **Special Purpose Savings Account** for their wedding and future life together



Thanks to her parents' help, Sue and Andy are able to fund their wedding from their **Special Purpose Savings Account** without having to take on further debt

“LifeMap for Money” solution components activated for Daniel and his family



ActiveCruiseControl
Automatically process essential payments, set a budget for discretionary spending, and invest the rest in low-risk, long-term investment products for retirement



Shopping Optimizer
Surface best prices on essential, recurring purchases (e.g., groceries, gas)



Special Purpose Savings Account
Savings account set up for specific goals and timeline



Education Advisor
Offer education & training advice; surface relevant schools & programs and financing mechanisms (e.g., scholarships, grants)



Job Connector
Surface jobs, either temporary or full-time, from an ecosystem of employers



Debt Consolidator
Consolidate existing debt and surface lower rates/best offers from an ecosystem of providers

EXHIBIT 4.2: EXAMPLE INNOVATORS ADDRESSING EVOLVING NEEDS

UNDERWRITING OPTIMIZATION	LOSS AVOIDANCE	INCOME GENERATION	ASSET LIQUIDATION	INVESTMENT ADVISORY	SHOPPING OPTIMIZATION
Underwriters use analytics on broad sets of data to assess underwriting risks and optimize pricing in insurance and lending	Emerging players focus on detecting and preventing loss-causing events before they occur via use of sensors/IoT technology	Host of various applications provide people means to utilize their time and skills in a flexible way and earn additional income	E-Commerce marketplaces provide setting to quickly sell goods and services to obtain cash when necessary	Robo-advisors with low account minimums and management fees help maximize investment gains	Alternative retailers, travel fare aggregators, and rebate and coupon sites help customers save through lower prices, or cash-backs
<ul style="list-style-type: none"> • SoFi • CommonBond • Betterview • Snapshot • Cover Genius 	<ul style="list-style-type: none"> • Ring • Notion • Zendrive • Nauto • Neos 	<ul style="list-style-type: none"> • Uber • Didi Chuxing • Airbnb • TaskRabbit • Etsy 	<ul style="list-style-type: none"> • ebay • Craigslist • Letgo • Ganji • Buffalo Exchange 	<ul style="list-style-type: none"> • Betterment • Wealthsimple • WiseBanyan • Nutmeg • Xuanji 	<ul style="list-style-type: none"> • Jet.com • Boxed • Ebates • Alibaba.com • Priceline Group

Source: Various company reports and websites, Oliver Wyman Analysis

And other applications will see the LifeMap, and be built specifically to plug into it, taking advantage of easier customer access and far greater richness of data.

This is what happened in locomotion, and it is what we expect to occur in financial services. Certain lenders are going to increasingly use data to understand the loans where the financial journey of the borrower has made the loan overpriced, and they are going to offer those borrowers better rates. And other lenders are going to increasingly use data to understand the loans where the financial journey of the borrower has made the loan underpriced, and they are going to use that information to sell the loan or hedge the risk, or at a minimum be certain they don't make the same mistake again.

Some insurers and lenders are even going to see accidents happening down the road and venture to do something about it. They are going to direct policyholders to avoid dangerous drivers ahead or pipes about to burst. And they are going to direct borrowers to better jobs, or simply remind the borrowers that Netflix is nearly as entertaining as any movie in the theater, at a fraction of the price and in the convenience of their own homes.

Meanwhile, other providers are going to help clarify that risk-free returns no longer play the same role in an investment portfolio as they once did, and quantify a plan with slightly higher risk and more return. And they are going to find a way to articulate

the possibility in a clear enough way that anyone can understand it and comfortably put all they've worked for somewhere other than a bank.

We believe it is a certainty that these things are going to happen – because all of these notions already exist. They exist in many cases in pretty good and well-known forms. And that is today. After a decade of relatively tepid financial services innovation. Where will we be in five years?

We submit the world will look dramatically different; new LifeMap solutions will abound. The graphics spread over the previous two pages illustrate ways that various components could be brought together in the form of active solutions that help Daniel take smart actions to improve financial wellness for himself and his loved ones.

In last year's [The State of the Financial Services Industry report](#), we introduced three archetypes for framing growth opportunities, and revealing capabilities needed and potential sources of those capabilities through an ecosystem of partners. As seen in [Exhibit 4.3](#), various firms might plug into this LifeMap ecosystem, and benefit from it. We believe there is ample opportunity for sustained growth, and as the archetypes suggest, there are many ways to win.

In other words, the game is still in early innings, with no clear winner dominating the field of play – at least, not yet.

THE GROWING DIN ABOUT CUSTOMER DATA

If there is a critical question as we mobilize for new solutions, it relates to the availability, access, and appropriate use of customer data. Global momentum and regulation are bringing us closer to consensus on data ownership and sharing. In Europe, for example, PSD2 and GDPR will open up access to financial information to a wide array of new firms as early as 2018. And there are already firms planning to integrate this information into products that provide solutions to pieces of the problems highlighted in this report, such as offering customers alternative terms to their current loan products, allowing customers to quickly compare utility provider prices, or make suggestions on budget planning. In some parts of Asia – most notably China, where customer data is more readily available and shared – these solutions have progressed faster than in other regions.

This is not a matter of deregulation. By no means do we advocate or anticipate less careful supervision and management of how data is secured and used. Cyber risk is of huge and increasing concern for all actors in the financial system. We anticipate more action to protect the system from cyber risk, not less, and as part of this stepped-up activity, likely more convergence of treatment across regions and across different types of firms handling customer data in the years to come.

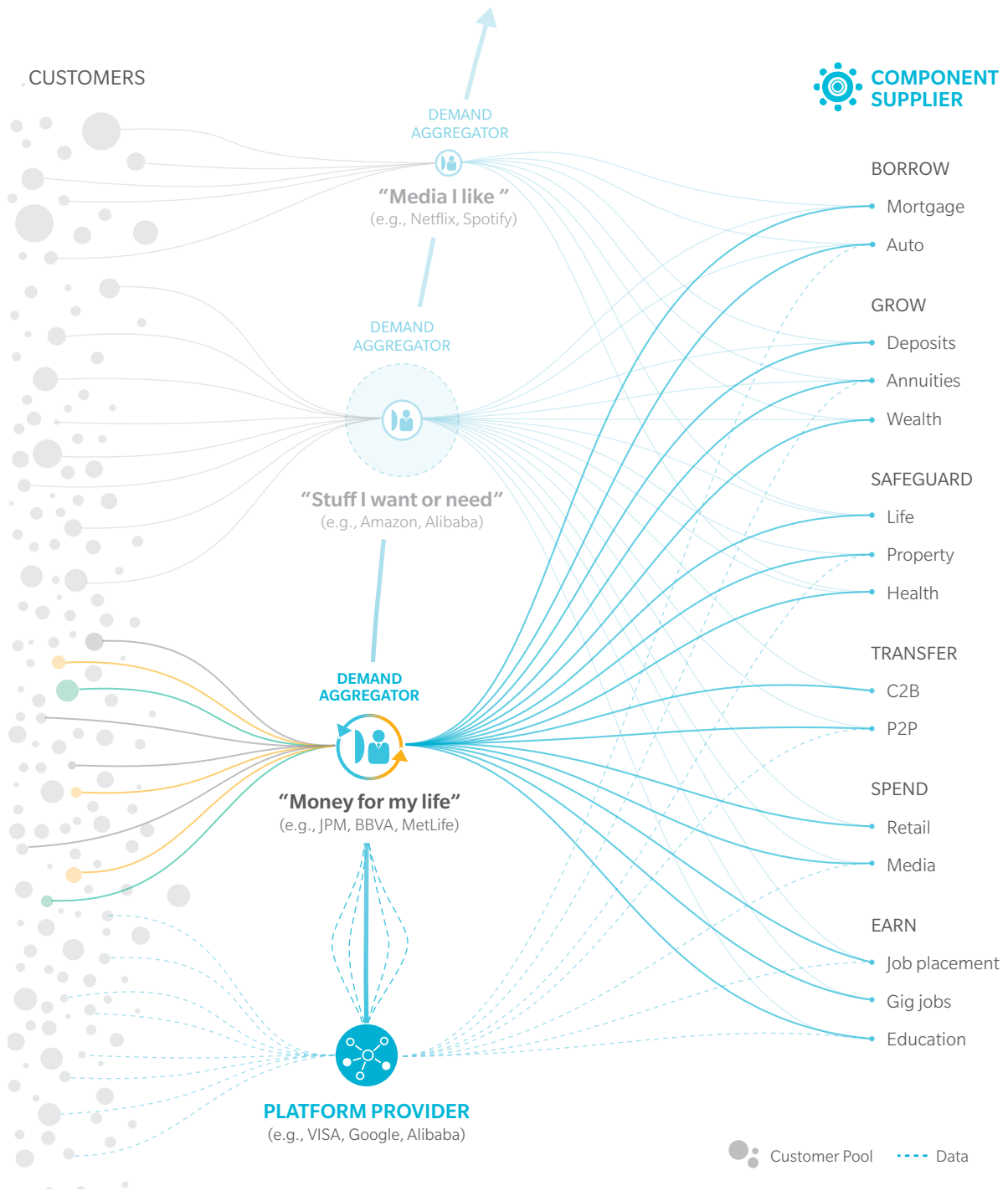
We expect that customers will become increasingly aware, however, of the value of their data, and believe that their data, or at least control of the use of their data, should be theirs and not owned by any one provider – in financial services and beyond. In fact, this trend may be particularly vexing for companies that have operated with little (beyond self) regulation. Already we see some of the big tech firms such as Google and Facebook under the microscope with calls for regulation in Europe and beyond. Recently, the US state of Missouri has sounded the alarm and called for data policies to create greater consumer protection and transparency for consumers.

That said, we also see an interesting trend in consumers' views about data: they are unwilling to give up data rights for one-sided propositions, where the provider monetizes and profits and the consumer sees no benefit. On the other hand, they are perfectly willing to allow their data to be used in service of solving their problems and meeting their needs, provided there is acceptable value exchange and transparency.




There is much work to be done in the industry to find ways to achieve reasonable value exchange for the use of data, to give customers adequate control, and to balance the creation of new solutions with the careful management of cyber risk. However, it is clear that huge value can be unlocked for customers by the appropriate use of their data, and therefore the value of that data is enormous.

EXHIBIT 4.3: TOWARDS A LIFEMAP AND ECOSYSTEM

POTENTIAL ROLES The LifeMap would require **platform provider** roles to collect and supply data, **demand aggregators** to help customers make the right financial choices and **component suppliers** to provide the best product solutions for specific needs across the six key areas of financial life.



Source: "The State of the Financial Services Industry 2017: Transforming for Future Value," Oliver Wyman, January 2017

	PLATFORM PROVIDER	DEMAND AGGREGATOR	COMPONENT SUPPLIER
			
Role & description	<i>Aggregates and curates customer demand information and (component) supply information for the ecosystem</i>	<i>Engages directly with customers, surfaces options and facilitates decision-making for their financial lives</i>	<i>Delivers a specific “product” or capability when triggered by a specific need</i>
Potential crown jewels	<ul style="list-style-type: none"> • Privileged access to customer information • Privileged access to business information • Expertise in modern data aggregation and synthesis 	<ul style="list-style-type: none"> • Customer trust • Customer reach • Deep know-how in the spectrum of financial needs and products • Experience design, informed by human insights and customer journeys • Algorithm development to support the above 	<ul style="list-style-type: none"> • Highly efficient product factory • Readily able to plug-in to demand aggregators’ solutions • Able to adapt the product or capability to new information surfaced by the LifeMap • Modern software engineering and architecture capability (using modern APIs, cloud services, et al)
Representative firms that might have advantage	<ul style="list-style-type: none"> • Google, Facebook • Credit bureaus • Amazon, Alibaba, Tencent • Banks with “whole wallet” customer relationship • Industry data aggregators (e.g., LexisNexis) 	<ul style="list-style-type: none"> • Banks and insurers with high customer trust • Amazon, Alibaba, Tencent • Apple • Samsung • WalMart, Costco, Aldi 	<ul style="list-style-type: none"> • Large “monolines”, by geography (e.g., Quicken, Discover) • Insurance carriers • Fintech specialists (e.g., SoFi, OnDeck)
Key questions to ask	<ul style="list-style-type: none"> • How could this role develop in any path other than through demand aggregator? • Will regulation give some player a privileged position such as “customer data clearinghouse?” Globally, or regionally? 	<ul style="list-style-type: none"> • Does this role require a balance sheet? • How much existing earnings would have to be “sacrificed” to be credible in the eyes of customers? • Could this role shift power from existing demand aggregators (Amazon, Alibaba) or dampen their relevance in financial services? • Could existing demand aggregators expand from current positions to financial LifeMap roles – and usurp the power of existing banks and insurers? 	<ul style="list-style-type: none"> • Is this a transitional or enduring role? Should firms monetize products to fund growth elsewhere? • Are there economies of scope across a set of components? (i.e., bringing together a set of adjacent components, credit card plus mortgage plus deposits) • Do customer relationships generate unique customer data that would be relevant elsewhere (e.g., for other products; to fortify roles with demand aggregators)
General observations	Platforms rarely “appear” on the scene, they emerge from use	Successful demand aggregators have a missionary zeal for customer value creation – as the source of enduring shareholder value creation	Successful component suppliers carefully structure partnerships where conceding the customer relationship does not jeopardize their economics or product relevance

5. GET ON THE GROWTH FLYWHEEL HARNESSING INNOVATION FOR A VIRTUOUS CYCLE OF GROWTH

There is plenty of innovation taking place in financial services today. But it is not harnessed towards solving big customer problems with active solutions. We believe the effort and investment need to be more carefully directed across the business portfolio, and that financial services organizations need to be very thoughtful about the right operating model to harness innovation effectively.

Now we turn to the third ingredient we've distilled from big tech innovators: the flywheel model and the relentless focus on improving active solutions for customer problems. This is no small task for financial services incumbents. Most have been innovating substantially and particularly so over the last three years. However, most of this innovation is focused on sustaining existing businesses, not jumpstarting new growth flywheels. This is natural, given the sheer scale of existing businesses and the potential for near-term returns from sustaining investments.

This kind of investment, however, jeopardizes the kind of innovation necessary to jumpstart growth flywheels. Where sustaining innovation investments are often spread across a portfolio, investments to get on the flywheel require focus, outsize investment relative to near-term returns, and conviction about long-term potential. In a world of LifeMap-inspired solutions, the long-term emerges from systematic progress.

Conventional management logic favors the scale game: If it's not big enough to move the needle, why bother? Here is where conventional management logic no longer works: instead of looking through the lens of current scale, leaders who are committed to customer value growth should focus on beachheads with long-term potential. Small steps lead to big impact, with staged investments linked to ever-increasing velocity and flexibility. They should look

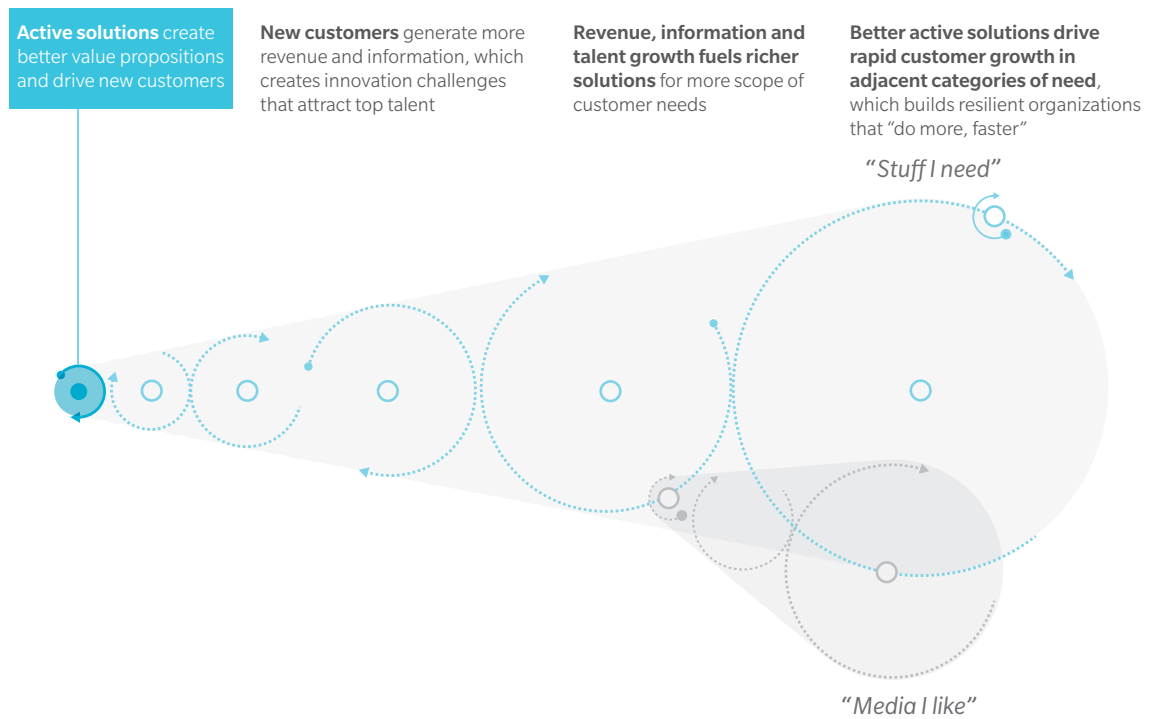
at the beginning of the flywheel journey, the left-most point as illustrated in Exhibit 5.1. In short, they should recall that, just twenty years ago, Amazon was trying to digitize books and take inspiration from how quickly it was able to scale – not look at where Amazon is today and be intimidated by how large the gap has become.

Viewed in this light, getting on the flywheel is not unattainable; it can be willed into existence. It requires picking the right place to start, and investing in a systematic, staged approach linked to increasing confidence and conviction, as opposed to near-term economic benefit.

Given stretched investment budgets and limited resources, these types of efforts can easily get crowded out, or allowed to fizzle out, never reaching materiality. How many of your current innovation initiatives would pass muster for getting on the growth flywheel?

- Will the innovation lead to substantial incremental value for customers, vis-à-vis peers? Will investors care (i.e., ascribe a growth premium or other value to your innovation efforts)?
- Does the innovation have an endpoint with a finite goal, or is it part of a sustained commitment to deliver ever-greater customer value?
- Have you protected a team fully dedicated to the initiative, with inter-discipline and cross-

EXHIBIT 5.1: FOCUS FOR GETTING ON THE GROWTH FLYWHEEL



Source: Oliver Wyman

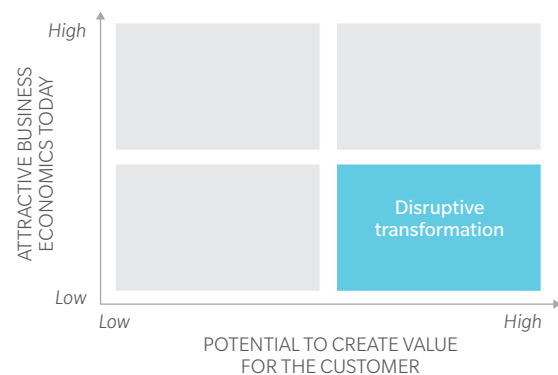
functional talent (STEAM specialists, product owners, finance, risk, etc.) working shoulder-to-shoulder as a single unit?

- Are the objectives and results of the effort being continuously updated in a consistent narrative – to employees, senior executives, board members and shareholders?

We expect that many firms would be challenged to answer in the affirmative to all four of these questions. That is okay – there is still time to course-correct and refocus for growth.

Picking the right place to start is a matter of straightforward portfolio analysis. There are many ways to assess a portfolio, but for purposes of picking the right place to get on the growth flywheel and moving to action with all possible speed, a basic two-by-two construct may be all that is necessary. Where could you provide outsize customer value relative to peers? And where do you currently generate relatively little economic value today? The rationale for the first criteria is obvious: in order to generate significantly greater customer value relative to peers, there must

be both the possibility of a vastly better solution and the belief that you can accomplish it. So, the first filter is for high-stakes growth potential, where you can start and systematically build over time, and outdistance competitors as you go. The second filter primarily screens for organizational and shareholder resistance: high-value customer propositions often risk cannibalizing current revenue, which then makes it harder to start. So the simple logic here: start as quickly as possible, and prioritize areas where you can operationalize the flywheel in service of under-served customer needs.



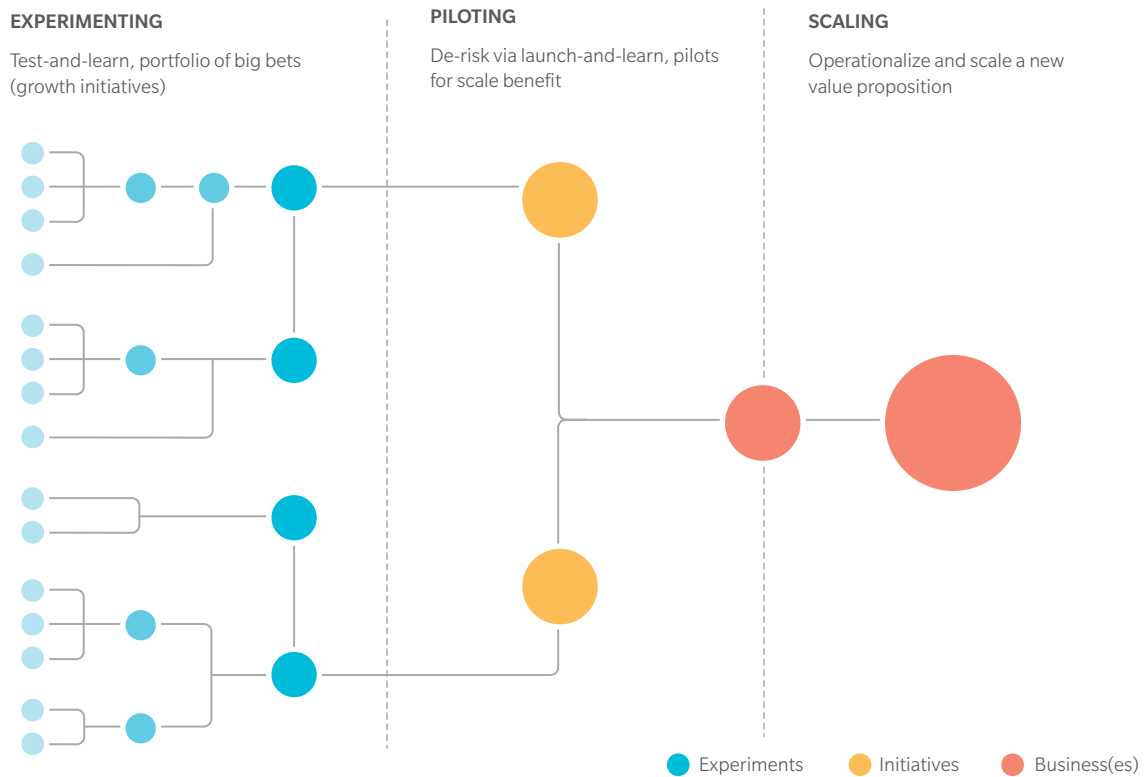
For these purposes, the potential innovations that fall in the lower right quadrant of the 2x2 grid are of primary interest initially, and so a simple framework may be sufficient. Businesses and innovations that fall in the other quadrants are also important, and must be evaluated as well. There will be important nuances that will require a clear and shared point of view with the executive leadership team and Board about where the market is heading and how fast. The conversation for a shared understanding and conviction is a critical one; we provide a starter list of “plays” for supporting these executive conversations with appropriate customer and competitive analyses in the Epilogue that follows.

Using this framework, firms must select the small number of areas where they can start the flywheel. Three, four, or five efforts is likely more than enough, even for a multi-billion dollar organization. Success hinges on picking a small number of initiatives, with

the right leaders and inter-disciplinary teams. And it requires an understanding that the expected value of those initiatives does not depend on incremental growth revenue. The value at stake is the value of the flywheel – the whole future of the growth engine of your firm. As those early initiatives succeed and gather momentum, they will begin to turn the crank of revenue, of customers, of data, and of investor and employee belief that you can take on more.

Getting on the flywheel also requires a dramatic shift in the human capital model to implement those initiatives: STEAM talent working shoulder-to-shoulder with existing business and functional experts, in short cycles. We see evidence of some of these elements well underway in many firms – agile teams, often in digital or technology units – but rarely bound together in a human capital model that is purpose-built for getting on the growth flywheel.

EXHIBIT 5.2: CHANGING THE WAY YOU CHANGE



Source: “The State of the Financial Services Industry 2017: Transforming for Future Value,” Oliver Wyman, January 2017

In many cases, the current structure and operating norms get in the way of best intentions. Even with a well-defined set of initial initiatives and a commitment to change the human capital model for the long-term, incumbents will likely need to organize differently to get moving quickly and increase the odds of early momentum.

We see three organizational options for the flywheel:

Greenfield. In some situations, typically based on distance and speed of travel, some firms may need to start de novo, with completely separate structures and distinctive brands, in order to fully exploit modern tools and technology, attract STEAM talent, and nurture the right culture.

Incubation units. In other situations, purpose-built incubation units can be the right answer. The advantage of this model principally lies in its ability to support two priorities: delivering radical improvement quickly in some businesses, while framing and launching entirely new businesses. These kinds of units have the same advantages of the greenfield approach – attracting talent, building modern solutions, nurturing the right culture – and may also require distinctive brands or “sub-brands.”

Viral internal adoption. A third option is changing from within, where teams tackle pressing problems starting within a single division and working toward viral adoption. This approach can be an effective method for piloting the human capital model described above with the proviso that there is sufficient time to deal with disruption – i.e., manageable competitive threat from other incumbents or tech usurpers. This model usually works well on an “opt-in” basis for participants, where change efforts are driven by teams on high-stakes missions at the edge of the organization vs. asserted as part of top-down mandates.

Regardless of organizational model chosen, getting on the flywheel requires a fairly fundamental shift in approaches to change: rather than transformational journeys focused on outcomes, the focus is on starting and systematically building confidence, conviction and impact, with increasing levels of investment to sustain initial gains and build from strength to strength (see Exhibit 5.2). Choosing initiatives that matter – ones that have high potential to generate disproportionate customer value – is important, so that the effort will be seen as fundamental to the future. Then, resourcing the teams appropriately, and attaching the right leaders with the right business-building skill and missionary zeal is also important. As we wrote in last year’s report: the critical ingredients to getting on the flywheel are the right human capital model, a stage-gate investment approach, and clear linkage to portfolio priorities and growth narrative.

EPILOGUE

WHAT TO DO

We started this year's paper with a provocation: the industry has a gnawing sense of concern, which we believe stems from a lack of growth – made much starker when juxtaposed with the meteoric growth of big tech market leaders. We then set out to distill what we can learn from big tech innovators as inspiration for unlocking growth for banks and insurers. Along the way, we highlighted where tech innovators might pose disruptive threats at a rapid pace.

We introduced a simple framework for the success of big tech firms: identify big problems that are beachheads for active solutions, sustained by a flywheel model. We presented a big problem facing millions of mass market customers: a collision of megatrends has fundamentally shifted their well-being and outlook for the future. They have bigger burdens and few solutions.

We presented a rich vein for active solutions framed by the LifeMap and inspired by the way Google Maps recalculates routes based on road conditions and the location of the traveler. We see no reason why Daniel and Shelly – and millions of others, mass market customers and beyond – would be left to navigate their financial lives solo, and we cannot believe they will be left unassisted in a world where cars drive themselves. While no one has orchestrated the LifeMap for financial needs, we believe that solutions inspired by the LifeMap and powered by unique data

and algorithms are inevitable. While we illustrated the LifeMap for financial needs, there are broader opportunities across other baskets of customer needs and customer segments – small business, commercial and corporate. So we think it is safe to predict the birth of many more active solutions for a range of customer problems, triggered by their changing needs as their lives unfold.

We then turned our attention to jumpstarting the kinds of growth flywheels that have allowed big tech leaders to capture customer attention and drive outsize market value. While it's natural for financial service incumbents to observe Amazon (and others) at scale with envy and a bit of trepidation, we argue that the focus should not be on the flywheel at scale but getting on the flywheel to begin with, while there are ample opportunities to create customer value gaps relative to competitive offerings. This will mean picking a few and sticking with these initiatives to build employee and investor confidence and market momentum.

We believe that some combination of the following plays and a playbook will be helpful to jumpstarting growth for opportunists who are convinced about customer problem-solving and committed to onboarding the modern capabilities, mindset, organization, and culture needed to thrive in the next decade.

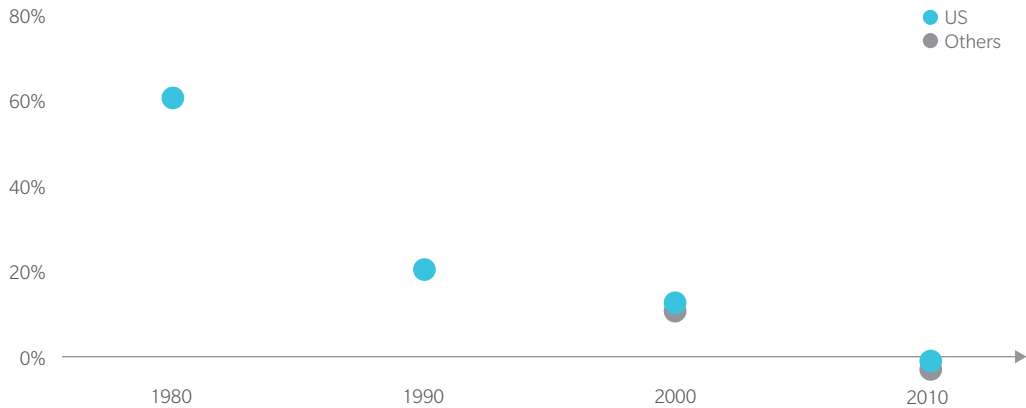
PLAY
#1

FACE THE GNAWING CONCERN HEAD ON

The motivation and energy to grasp this opportunity will require the burning platform to be well understood. Leadership teams will have to take a reasonably brutal assessment to drive that energy. We have highlighted four trends driving a need to act: that sources of growth in financial services have tailed off; that customer value is being created and therefore driven in other industries right now, not in FS; that the structural advantages of incumbency in financial services are eroding and will continue to do so; and that the competitive landscape will become more complex as ecosystems bring a convergence of FS incumbents and big tech.

HISTORICAL FOUNDATIONS HAVE DETERIORATED

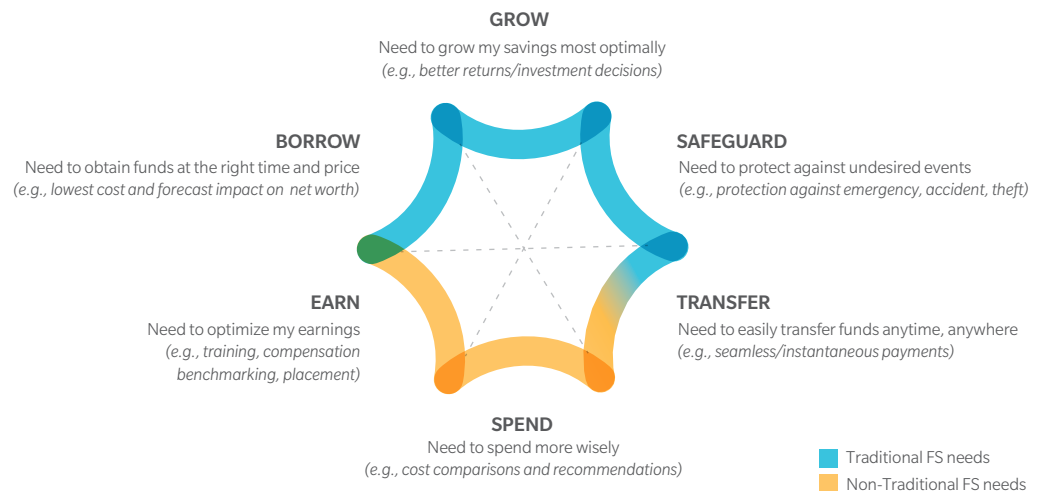
“RISK FREE” DEPOSIT REVENUE AS A % OF TOTAL BANK REVENUE



PLAY
#2

RETHINK HOW YOU ASSESS CUSTOMER VALUE

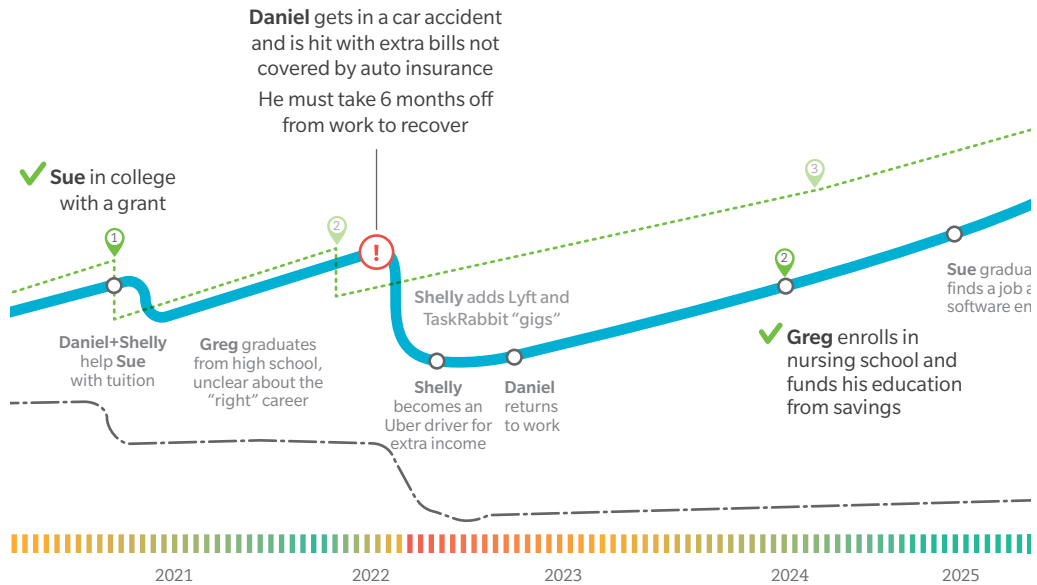
The sources of customer need and value have changed in the last decade, and new sources of value have become possible through new technology and new data. The starting point in our view is to change how to define value: from what you derive *from* the customer to what you can derive *for* the customer. This analysis brings you to value gaps and points you to where you can benefit from closing them. We have used the example of the mass market in this report, but the approach is just as applicable to other B-to-C segments such as mass affluent and high net worth, and equally just as applicable to B-to-B segments such as small to large corporates, investors, and FIG clients.



PLAY #3

DESIGN ACTIVE SOLUTIONS

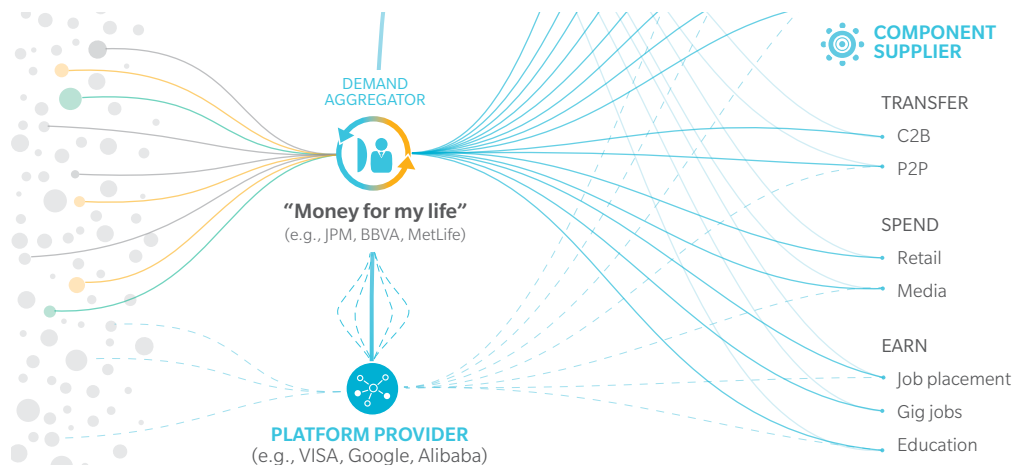
Solving for functional needs will not be enough to succeed in the future. Winners will combine functional products with experiential capabilities, and these solutions will be dynamic over time, learning, improving the solution with richer data and algorithms, and combining in new and productive ways with other members of the ecosystem.



PLAY #4

BUILD YOUR ECOSYSTEM STRATEGY AROUND ACTIVE SOLUTIONS

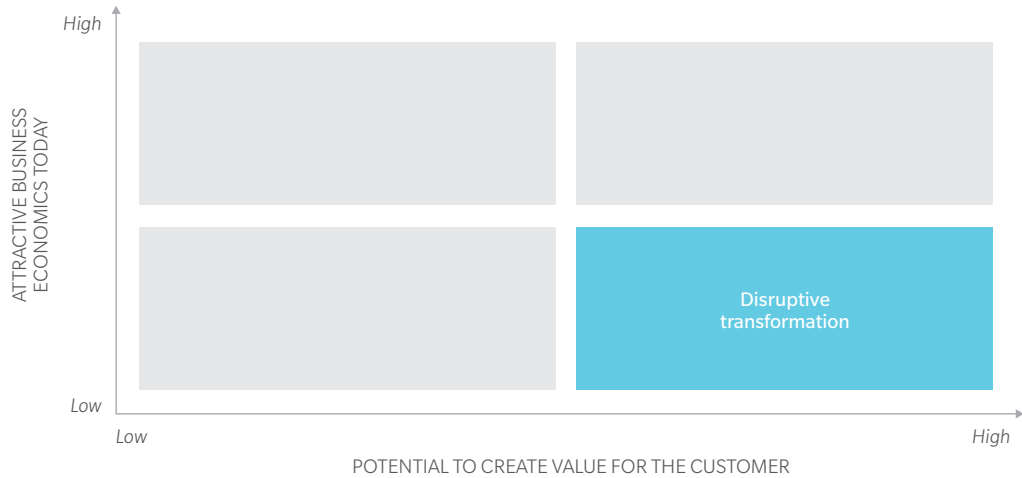
The LifeMap is coming, and more importantly so are other active solutions like it. The question will be how you participate in them and help orchestrate them for the betterment of your customers. You will serve some elements of your customers' financial needs as a demand aggregator – through your own relationship with them, helping them directly to analyze their needs and identify the best suppliers for those needs, even if that supplier is a competitor of yours. You will serve some elements of their needs as a component supplier, offering the best product, price and solution often plugged into some other demand aggregator. In some cases, you may even become the platform provider, assembling the data graph that others in the industry plug into. There are many opportunities to thrive; the critical question is *how, sustainably*.



PLAY #5

GET ON THE GROWTH FLYWHEEL THROUGH CAREFUL PORTFOLIO ANALYSIS

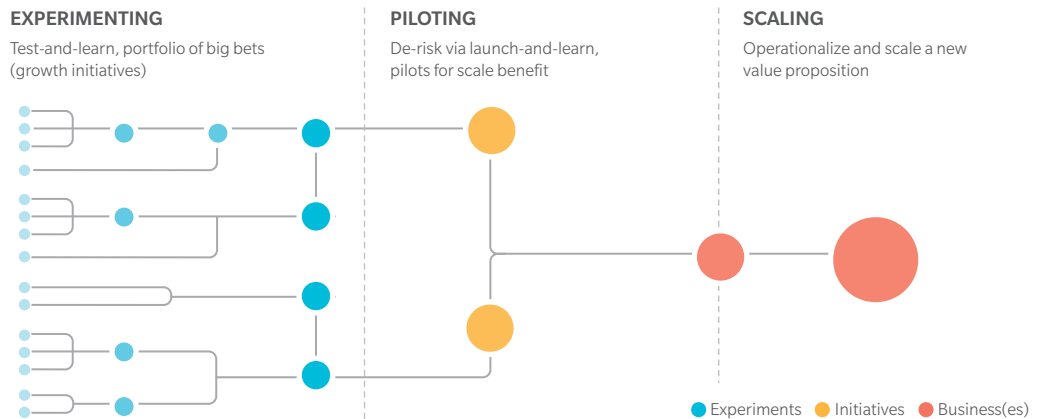
You cannot apply a one-size-fits-all approach to all of your businesses; it is neither possible nor appropriate. You will have to segment your portfolio and design different approaches depending on the strength of your starting point, including competitive position and economics, and the potential for customer value creation. Factors such as these will define how much you should be aiming to disrupt yourself, to what extent you need to invest to protect your position, or to what extent you should be extracting value from a business to re-invest elsewhere.



PLAY #6

GET ON THE GROWTH FLYWHEEL THROUGH ORGANIZATIONAL DESIGN

Most financial services firms today are not organized to deliver flywheel growth. The customer is not at the center of the enterprise; rich data and algorithms are not driving an iterative process of rapid releases to improve the solution; the organization is not orchestrating, adapting to, learning from, and exploiting ecosystem opportunities. The structural answer is different in different business segments, ranging from creating a greenfield internal competitor in some businesses all the way to agile re-organization of the mothership in others. In all cases, irrespective of structure – and more fundamental to long-term success – organizations will have to onboard a dramatically different human capital model, fully integrated business experts with a new set of (STEAM) skills, and spearheaded by business-building, entrepreneurial leaders.



METHODOLOGY

CUSTOMER VALUE GAP RESEARCH

BACKGROUND AND APPROACH

In this year's The State of the Financial Services Industry report, Oliver Wyman used the global mass market as a case study to demonstrate the customer value gap in Financial Services. To supplement our understanding of this segment's financial prospects and needs, and perception of value, a combination of extensive primary and secondary research was utilized. Particularly, the following efforts were conducted:

- Survey of ~4,000 mass and mass affluent customers across the US, the UK, France, and Australia on customer value perception and unmet financial needs
- Study of megatrends impacting mass market customers across societal, behavioral, and technological categories globally
- Digital focus group of >100 mass market customers in the US
- Week-long mobile ethnographic study of a dozen mass market customers in the US
- Deep-dive quantitative analysis on the changes in mass market economics in the US from the 1980s to 2010s, using the 1989 and 2016 editions of the triennial Survey of Consumer Finances conducted by the Federal Reserve

SEGMENTATION DETAILS

The mass market segment in this report was defined as households with less than \$100,000 in investible assets, which includes all funds held in cash, checking/savings accounts, CDs, IRAs, stocks, mutual funds and other investments, but excludes 401(k)s and real estate investments – which is a commonly used definition by credit bureaus, financial services firms and industry experts in the US. In the US, ~70% of total households are characterized as mass market. In addition to the US, the research covered the UK, France, and Australia. For the mass market definitions in these three markets, the relevant purchasing power parity (PPP) conversions, investible asset distributions, and industry benchmarks were used to determine the respective thresholds. In the UK, France, and Australia, the mass market covers ~60%-85% of total households.

CALCULATIONS

Bonding score (Exhibit 2.1, Exhibit 2.3): Each respondent in our global survey was prompted to specify one provider that they interact with a lot in each of the financial services, retail, and technology industries. Then, for the selected providers, respondents were asked how much they like their provider on a 0-to-10 scale (0 = extreme dislike, 10 = extreme like) to determine the bonding levels at the respondent level. The bonding score for a given industry and/or a segment was then calculated as the weighted average percentage of respondents' individual bonding levels, using the relevant survey and country weights, as appropriate.

Functional and experiential value fulfillment levels (Exhibit 2.1): As defined in the Oliver Wyman Customer Value Framework, two broad categories of value are specified: functional value and experiential value, where the former is composed of five value drivers and the latter is composed of 12 value drivers (3 values in each of the four experiential pillars). For each of the value drivers, the survey respondents were prompted to state their agreement/disagreement levels regarding how well the providers that they had selected fulfill the given value driver. To achieve this a 1-to-7 scale was used (1 = strongly disagree, 7 = strongly agree) relative to a statement that reflects the fulfillment of the value driver.

Mass market balance sheet and components (Exhibit 3.2, Exhibit 3.3): Using the household-level microdata from the triennial US Survey of Consumer Finances conducted by the Federal Reserve, average balance sheet views of the mass market were constructed in 2016 dollars (i.e., real terms) for 1989 and 2016. Using the same source income trends and sources (e.g., wages, capital gains, interest/dividends) were also analyzed over the same period.

The primary authors of this report were Aaron Fine and Rick Chavez, supported by Alper Can Yildirim, Basak Koralturk, Gabriel Corrochano, Michael Lu, Soh Yoon Ahn, Yigit Ulucay, and Zoey Tang. The authors drew on the contributions of many people across the firm, but in particular wish to acknowledge the help of the steering committee led by Ted Moynihan and including Anders Nemeth, Matthew Sebag-Montefiore, Michael Moloney, Michael Zeltkevic and Simon Holland, as well as the advisory group of Chaitra Chandrasekhar, Corey Stone, Lucia Uribe, and Michael Keany. Design for the report was led by Neil Campbell, Stephen Lim and Sujin Lee.

Oliver Wyman is a global leader in management consulting that combines deep industry knowledge with specialized expertise in strategy, operations, risk management, and organization transformation.

For more information please contact the marketing department by email at info-FS@oliverwyman.com or by phone at one of the following locations:

AMERICAS

+1 212 541 8100

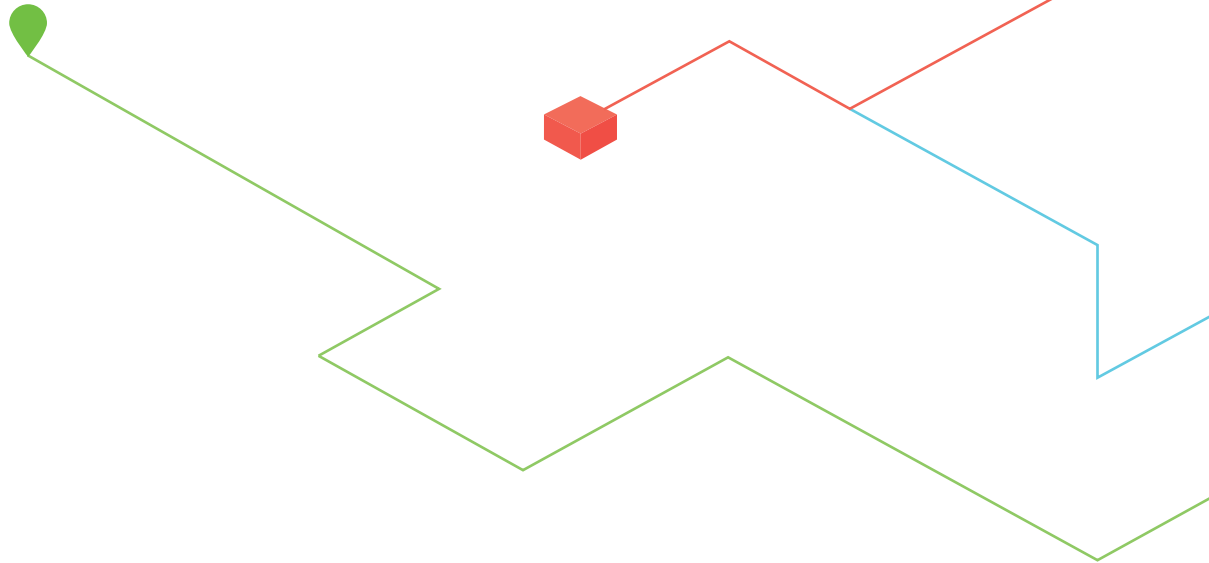
EMEA

+44 20 7333 8333

ASIA PACIFIC

+65 6510 9700

www.oliverwyman.com



Copyright © 2018 Oliver Wyman

All rights reserved. This report may not be reproduced or redistributed, in whole or in part, without the written permission of Oliver Wyman and Oliver Wyman accepts no liability whatsoever for the actions of third parties in this respect.

The information and opinions in this report were prepared by Oliver Wyman. This report is not investment advice and should not be relied on for such advice or as a substitute for consultation with professional accountants, tax, legal or financial advisors. Oliver Wyman has made every effort to use reliable, up-to-date and comprehensive information and analysis, but all information is provided without warranty of any kind, express or implied. Oliver Wyman disclaims any responsibility to update the information or conclusions in this report. Oliver Wyman accepts no liability for any loss arising from any action taken or refrained from as a result of information contained in this report or any reports or sources of information referred to herein, or for any consequential, special or similar damages even if advised of the possibility of such damages. The report is not an offer to buy or sell securities or a solicitation of an offer to buy or sell securities. This report may not be sold without the written consent of Oliver Wyman.