

LIBOR Transition for Financial Institutions

March 2021

Private and Confidential

DUFF&PHELPS

Agenda

Section I	Introduction
Section II	LIBOR Transition – Recent Updates
Section III	Are you Ready for the Transition?
Section IV	Key Takeaways
Appendix I	About Duff & Phelps

Notes:

Ask questions via chat >

- We'll try to answer as many questions as possible
- Handouts included within client

▼ Chat	$\Sigma \times$
Welcome to our webinar	
We will begin shortly.	
[Type message here]	
To: All - Entire Audience 🗸 🗸	Send



- Session is being recorded. You'll receive access to the recording in a couple of days
- CPE Credit: must complete all 4 poll questions. Please message organizers and we will follow up with a certificate after the session
- Please note that this presentation was carefully researched but does not represent legal or financial advice

Introduction

OUR EVOLUTION

In operation for nearly 100 years

Duff & Phe founded ar evolves into diversified financial se firm	nd o	Consulting	porate ValueGroup andisulting (CVC)Duff & Phn Standard &managem		e Ied I yle the Ps	Acquired CounselW expand Con and Regula Consulting Acquired T Solutions technology capability o Manageme Consulting	mpliance atory practice regin to expand solutions if Legal	Duff & Phel acquired by Funds , the private equ Acquired K and launch Governanc Investigatic Disputes pr	Permira global ity firm roll ed e, Risk, ons and	by investor led by Stor and Furthe Acquired B Services C Walsh, Ver	lackrock Expert Group, Borrelli rus Analytics, Ipanies and
1932	1994	2005	2007	2013	2015	2016	2017	2018	2019	2020	2021
	Credit ratings business spun-off From 2007 to acquired 14 businesses to expand se offerings		to 2012, 4 s	Acquired American Appraisal expand glo Valuation Services p Acquired M Partners a launched Compliance and Regula	to obal Advisory ractice Kinetic and ce atory	Asia, the le Asia Pacifi transfer pri firm, to enh	uantera Global sia, the leading sia Pacific ansfer pricing m, to enhance ur presence in		Prime est Heffler d Zolfo sia	Duff & Phelps rebranded to Kroll	

Panel



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Polling Question 1

Please choose the category that best represents you?

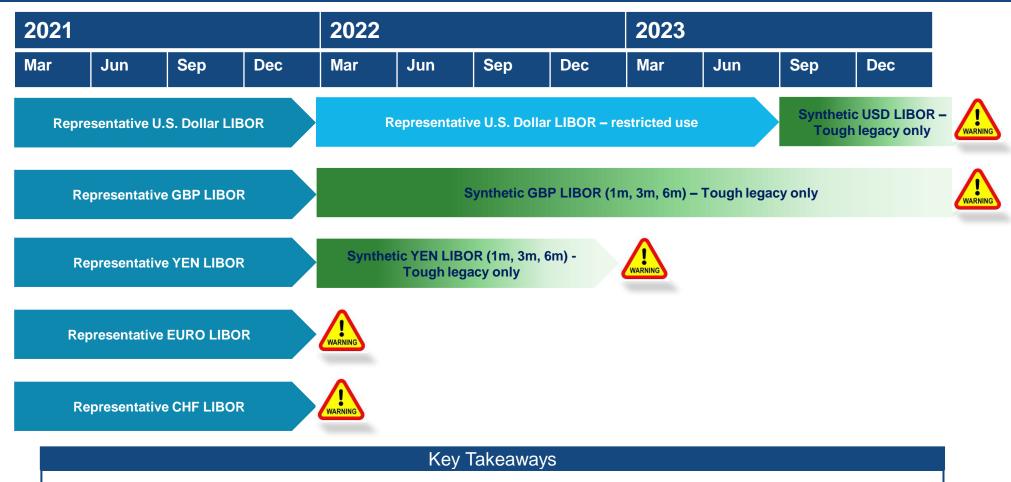
- A. Bank
- B. Hedge Fund
- C. Private Equity Firm
- D. Professional Services Provider
- E. Other

LIBOR Transition – Recent Updates

LIBOR Transition Key Updates

- On March 5, 2021, the FCA announced that all Sterling, Euro, Swiss Franc, Japanese Yen LIBOR settings, and the 1-week and 2-month US dollar LIBOR setting to cease publication after December 31, 2021
 - The FCA will likely mandate the continued publication of 1m, 3m and 6m for GBP and Yen LIBOR as synthetic rates, meaning they will be based on overnight rates plus a spread adjustment rather than panel bank submissions.
- On November 30, 2020, ICE announced the extension of the publication of **overnight** and **one-, three-, sixand 12-month USD LIBOR** interest periods, to **June 30, 2023**, subject to market consultation
- ISDA confirmed that the FCA's statement constitutes a cessation event under its protocol governing much of the global OTC derivatives referencing LIBOR. As a consequence, the fallback spread adjustment published by Bloomberg was fixed as of March 5, 2021.
- On March 17, 2021, ARRC announced that it has selected Refinitiv to publish its recommended spread adjustments and spread-adjusted rates for USD cash products. Refinitiv will publish ARRC-recommended spread adjustments to SOFR-based rates and spread-adjusted SOFR-based rates for cash products that transition away from USD LIBOR.
- Forward Term SONIA rates have begun publication and SOFR rates are expected to be published by **June 30**
- The Federal Reserve is **intensifying its scrutiny** of banks' efforts to shed their reliance on USD LIBOR, and has begun compiling more detailed evidence on their progress

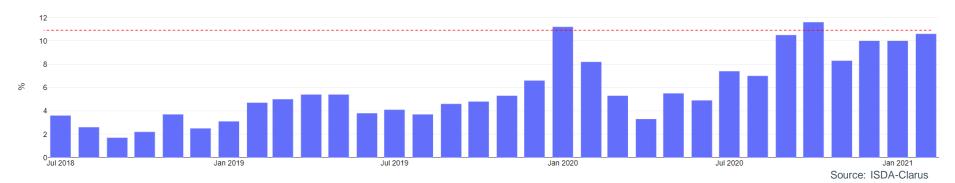
LIBOR Transition Timelines



- Market participants must **understand their exposures**, in particular the contractual provisions regarding alternative reference rates, fallbacks, governing jurisdiction, and amendments
- Existing credit agreements with an expiry date after December 31, 2021 or June 30, 2023 depending on the LIBOR setting **should be amended as soon as practicable** to include the appropriate LIBOR fallback language
- All new issuance of LIBOR products to cease before December 31, 2021

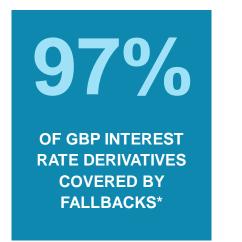
Where Are We With Risk Free Rate (RFR) Adoption Rate?

ISDA-Clarus RFR Adoption Indicator

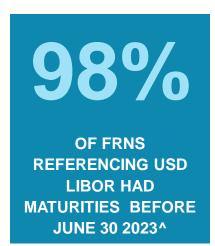


RFR Adoption Indicator

In February 2021, the indicator stood at 11% of risk-weighted DV01 activity across all interest rate derivatives and LIBOR currencies plus AUD.



*Source: FCA estimate



^Source: ICMA

Are you Ready for the Transition?

Polling Question 2

Where are you in your LIBOR transition process?

- A. We haven't started yet
- B. Just started thinking about it
- C. On track to be ready by mid 2021
- D. On track to be ready by Dec 2021
- E. Not on track to be ready before at least Q1 2022

Various Phases of LIBOR Decommissioning



Program Management and Governance

Stakeholder Communication

Development, Refinement and Tracking of your LIBOR Transition Plan

Program Governance

- Implement a robust governance framework with accountable senior executives to oversee the delivery and coordination of your LIBOR transition plan
- Determine approach for rollout of program governance and management framework to all impacted business lines and enterprise functions
- Define and prioritize program objectives, success criteria and internal milestones in line with the ARRC's Checklist

Transition Management

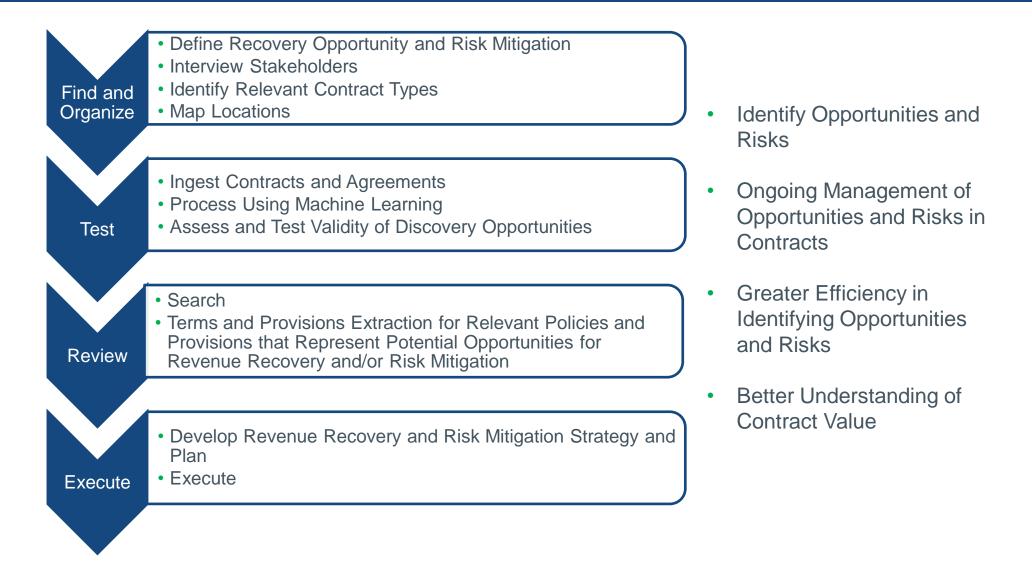
- Conduct a comprehensive impact assessment across key focus areas including, but not limited to, financial products, contracts, business process (including systems and models)
- Confirm resource and budget needs to deliver the activities in the implementation roadmap
- Proactively monitor and adjust the implementation plan based on evolving and/or shifting external industry and/or regulatory developments

Communication Strategy

- Confirm internal and external impacted groups (clients, regulators, etc.), prioritizing and segmenting as appropriate
- Educate internal stakeholders (including business leadership) on LIBOR transition program objectives, industry developments and relevant business impacts
- Provide clear and consistent messaging on transition impacts to external stakeholders including clients and investors

Contract Discovery

Approach



Do You Know What is in Your Contracts? LIBOR Language?



PROBLEM: Review of current rights and restrictions within specific contracts affected by the regulation to identify key attributes and biased terms

Key discovery fields for your LIBOR exposure "Catalogue"

Deal Overview

- Agent(s) / Trustee(s)
- Issuer / Co-Issuer
- Borrowers
- Collateral Manager
- Currency
- Governing Law
- Term
- Maturity Date
- Renewal Period

Collateral

- Collateral Asset Type
- Collateral Rate Type
- LIBOR Relevant (Collateral)

LIBOR

- LIBOR Relevant (Security/Loan)
- Determining Party
- Fallback (LIBOR)
- Fallback Details
- Alternative Reference Rate(s)
- Amending Agreement
- Amendment Jurisdiction

Polling Question 3

Where are you exactly in your transition planning?

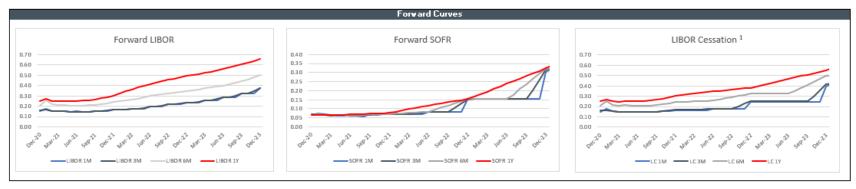
- A. Haven't started yet
- B. Believe no LIBOR exposure, not conducted formal process
- C. Found LIBOR exposures, not catalogued transition provisions
- D. Catalogued LIBOR exposures but unsure what to do next
- E. Comprehensive LIBOR transition plan in place

Scenario Construction

Key Scenario Considerations: LIBOR transition provisions, coupons, transition timing, alternative rate, product and currency liquidity, current and stress market conditions, as well as other risk management parameters

Loan and Private Credit Scenarios												
D is a		Amendment %		Hardwire %		Amendment Timing		Hardwire Timing		Last Available Fixation %		
Description	Name	Liabilities	Underlying	Liabilities	Underlying	Liabilities	Underlying	Liabilities	Underlying	Liabilities	Underlying	
Amendment in 6 months	AMEND6	NA	100%	NA	0%	NA	6 Months	NA	NA	NA	0%	
Amendment in 12 months	AMEND12	NA	100%	NA	0%	NA	12 Months	NA	NA	NA	0%	
"Hardwire" in 6 months	HW6	NA	0%	NA	100%	NA	NA	NA	6 Months	NA	0%	
"Hardwire" in 12 months	HW12	NA	0%	NA	100%	NA	NA	NA	12 Months	NA	0%	
Last Available LIBOR Fixation	FIX	NA	0%	NA	0%	NA	NA	NA	NA	NA	100%	

CLO Scenarios												
Description		Amen	dment %	Hard	lwire %	Amendm	ent Timing	Hardwi	re Timing	Last Available Fixation %		
		Liabilities	Underlying	Liabilities	Underlying	Liabilities	Underlying	Liabilities	Underlying	Liabilities	Underlying	
Liability Amendment in 6 Months, Underlying Loan Amendment in 6 months	AA6.6	100%	100%	NA	NA	6 Months	6 Months	NA	NA	NA	0%	
Liability Amendment in 6 Months, Underlying Loan Hardwire in 6 months	AH6.6	100%	0%	0%	100%	6 Months	NA	NA	6 Months	NA	0%	
Liability Amendment in 6 Months, Underlying Loans Amendment in 12 months	AA6.12	100%	100%	NA	NA	6 Months	12 Months	NA	NA	NA	0%	
Liability Amendment in 6 Months, Underlying Loans Hardwire in 12 months	AH6.12	100%	0%	0%	100%	6 Months	NA	NA	12 Months	NA	0%	
Liability Amendment in 12 Months, Underlying Loan Amendment in 6 months	AA12.6	100%	100%	NA	NA	12 Months	6 Months	NA	NA	NA	0%	
Liability Amendment in 12 Months, Underlying Loan Hardwire in 6 months	AH12.6	100%	0%	0%	100%	12 Months	NA	NA	6 Months	NA	0%	
Liability Amendment in 12 Months, Underlying Loans Amendment in 12 months	AA12.12	100%	100%	NA	NA	12 Months	12 Months	NA	NA	NA	0%	
Liability Amendment in 12 Months, Underlying Loans Hardwire in 12 months	AH12.12	100%	0%	0%	100%	12 Months	NA	NA	12 Months	NA	0%	
Liability Hardwire in 6 Months, Underlying Loan Amendment in 6 months	HA6.6	100%	100%	NA	NA	NA	6 Months	6 Months	NA	NA	0%	
Liability Hardwire in 6 Months, Underlying Loan Hardwire in 6 months	HH6.6	100%	0%	0%	100%	NA	NA	6 Months	6 Months	NA	0%	
Liability Hardwire in 6 Months, Underlying Loans Amendment in 12 months	HA6.12	100%	100%	NA	NA	NA	12 Months	6 Months	NA	NA	0%	
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Liability Hardwire in 12 Months, Underlying Loans Hardwire in 12 months	HH12.12	100%	0%	0%	100%	NA	NA	12 Months	12 Months	NA	0%	
Last Available LIBOR Fixation	FIX	NA	0%	NA	0%	NA	NA	NA	NA	100%	100%	



Quantitative and Qualitative Impact Assessment

									Sensitivities Relative To Pre-Cessation Base Case										
	Currency	Carry		Pre-Ces	sation B	ase Cas	e		Scenario	1 - Ame	ndment	t in 12 months	3		Scenario) 2 - "H	ardwire	" in 12 montl	ıs
		Currency	Value	Discount Rate	Discount Margin	WAL	DV01	Cumulative Cash Flow	Carry Value	Discount Margin	WAL	DV01	Cumulative Cash Flow	Estimated P&L Impact	Carry Value	Discount Margin	WAL	DV01	
USD																			
RMBS CMBS ABS CLOs Private Credit Broadly Syndicated Loans	USD USD USD USD USD USD																		
GBP																			
RMBS CMBS ABS CLOs Private Credit Broadly Syndicated Loans	GBP GBP GBP GBP GBP GBP																		
Total	USD																		

Valuation Challenges / Considerations

Term Structure

Market Observation

The alternative reference rates (ARR) developed to-date are overnight rates. There are ongoing efforts to develop forward looking term structures for the ARRs, the most advanced of these is in SONIA where there is sufficient depth in the ARR derivatives market. It is also expected that a SOFR term rate will be available for use by mid-2021

Valuation Challenge

Without published forward curves, market participants carry out certain approximation approaches through the use of indicative forward-looking term rates as published by the Federal Reserve, and a combination of bootstrapping and extrapolation techniques.

Credit Risk

Market Observation

Among other factors, such a spread differential primarily highlights the difference in market expectations driven by the perceived credit risk associated with each of the underlying ARRs.

• Valuation Challenge

- This challenge will need to be tackled with a focus on the expected cash flows associated with the underlying instruments
- Market participants will need to re-examine the estimation process of the discount rate to account for the different risk profile upon transitioning from a legacy LIBOR instrument to a new ARR instrument

Selecting an Alternative Reference Rate (USD)

• While SOFR has been identified as the presumptive USD LIBOR alternative reference rate, other indices market participants are choosing to consider in their transition plans include Ameribor and the Prime Rate

Possible Hurdles

- Structure of the rate themselves
 - SOFR a daily rate market without an active and observable derivatives market with no objectively observable forward term rates (set to be published June 30, 2020 per ARRC)
- SOFR "in arrears" methodology
 - Simple calculation methodology (ARRC recommended)
 - Compounded daily methodology (ISDA recommended)
- Challenge for market participants with loan portfolios hedged with interest rate derivatives

Technical Considerations

- Appropriate spread adjustment
 - Regulating bodies are currently leaning towards spread adjustments based on historical differences between SOFR and the respective LIBOR indices over a five-year lookback period
 - ARRC set to publish the recommended spread adjustments to the forward SOFR term by June 30, 2021

Contract Remediation

Using Technology to Remediate/Repaper

<u>Interviews</u>



 Enable data analytics and stakeholder surveys to scope out specific affected third parties Contract Extraction

Leveraging NLP and text analytics, large numbers of contracts can be searched and key clauses, data points, party names, etc. can be extracted, indexed and reviewed.



- Related to contract extraction is the review of the information gleamed from NLP.
- Was the information extracted properly?
- Are there issues with the clauses?



Leverage a technology framework to negotiate with pre-approved legal clauses

Key Benefits

Establishing a framework that can govern the entire life cycle of a contract, from identifying insufficient agreements to repapering and signing

Regulatory Considerations

What the Regulators have said....

The agencies encourage banks to cease entering into new contracts that use USD LIBOR as a reference rate as soon as practicable and in any event by December 31, 2021, in order to facilitate an orderly—and safe and sound—LIBOR transition.

Board of Governors of the Fed, FDIC, OCC – Statement on LIBOR Transition

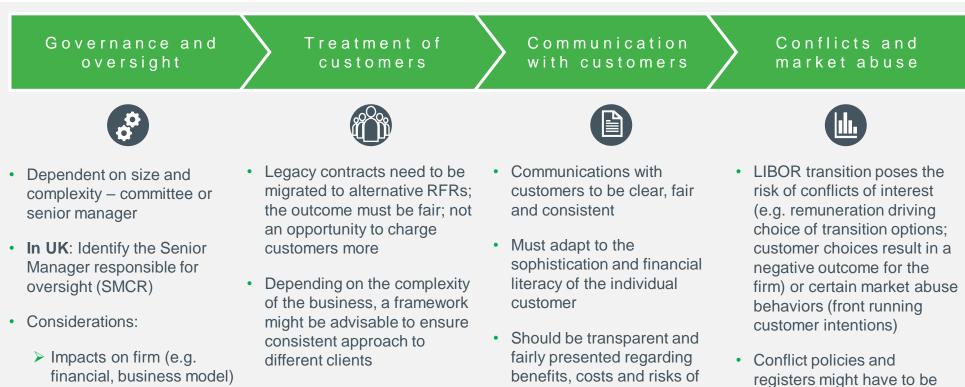
"When transitioning their existing contracts, firms receiving LIBOR-linked interest are not expected to give up the difference between LIBOR and SONIA" **FCA**, Conduct Risk during LIBOR transition

"Has management identified appropriate replacement rates and adjustment methodologies that do not result in customer harm or expose the bank to unwarranted compliance and reputation risks?" **OCC**, LIBOR self-assessment tool

The SEC "encourages [...] entities to analyze how this change [discontinuation of LIBOR] will impact them – their business, systems, models, processes, risk management frameworks, and clients – and to respond accordingly." **SEC**, Staff Statement on LIBOR transition

Regulatory Considerations

Key areas



- Impacts on clients and their fair treatment
- Record-keeping of discussions and decisions
- Product governance
 frameworks must be able to
 consider customer needs and
 potential conflicts of interest
 of RFR-linked offering
- fairly presented regarding benefits, costs and risks of transition outcomes and potential options (e.g. compounded vs term rates)
- updated
 Surveillance and monitoring activities might need to be increased for teams whose

products are transitioning

Training staff about changes, firm approach, risks and staff responsibilities

Polling Question 4

If applicable, when do you plan to cease issuance of new LIBOR instruments?

- A. Already transitioned new issuances to an ARR
- B. Plan to cease issuance by end of Q2
- C. Plan to cease issuance by end of Q3
- D. Do not have a date set yet
- E. Not applicable



Key Takeaways

- Now that the cessation announcement has been made any possible extension unlikely and regulators are pushing for new LIBOR issuance to cease
- The best place to start the transition is to understand what and where are LIBOR exposures within each company as soon as possible
- Regulators are intensifying their scrutiny on the transition so having a clear plan and communication strategy is vital
- There are multiple ways to transition fallbacks are not the only or the best solution – so careful scenario analysis is needed to identify the best course of action in each case
- A lot of focus is on the transition of the legacy portfolios but equally a firm must be operationally ready to value, risk manage and report in the new rates environment for new business



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Jennifer Press



Rich Vestuto



Mark Turner



Marcus Morton

For more, visit duffandphelps.com/libor

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1. Source: Thomson Reuters' cumulative data 2011-2020

 Source: Thomson Financial Securities Data (U.S. deals \$10M < \$150M, including deals without a disclosed value). Full years 2011 through 2020

3. Who's Who Legal 2018-2020: Forensic and Litigation Consulting.

4. HedgeWeek 2018

5. HFM European Quant Awards 2019

6. 2020 Corporate INTL Global Awards

7. Who's Who Legal 2019

8. 11th Annual HFM European Hedge Fund Services Awards in 2019

9. America's Best Management Consulting Firms – Forbes

10. Compliance Week's 2020 Excellence in Compliance Awards

11. IAM Patent 1000 2020

VALUATION PROFESSIONAL AFFILIATIONS

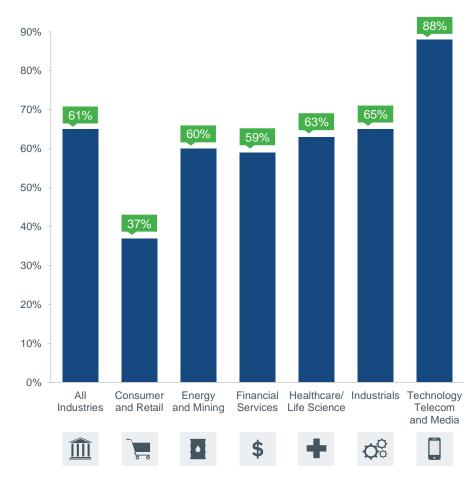
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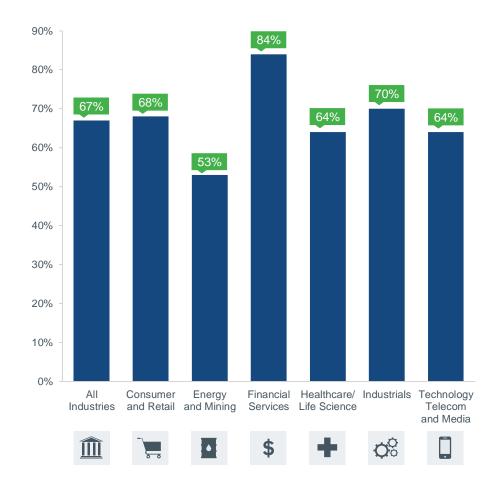


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