Alternative Reference Rates:

SOFR, LIBOR, and Issues for Transitions

Panel 1: Overview of LIBOR Reform

CFTC Market Risk Advisory Committee (MRAC) Meeting

July 12, 2018

Footprints of Assets Referencing LIBOR and Financial Stability

US dollar (USD) LIBOR is estimated to be referenced in $200 trillion worth of financial contracts (equivalent to 10 times US GDP).

Most of this exposure (95 percent) is in derivatives, but USD LIBOR is also referenced in an estimated $3.4 trillion business loans, $1.3 trillion retail mortgages and other consumer loans, $1.8 trillion in floating rate debt, and $1.8 trillion in securitizations.

The official sector has had to support LIBOR because most contracts did not envision the possibility that LIBOR could ever stop publication and do not have economically appropriate fallbacks in place for such an event.

Without preparation, a stop to LIBOR would cause considerable disruption and would threaten global financial stability.

Luckily, most legacy contracts will roll off before 2021, thus there is time to prepare if it is used wisely.

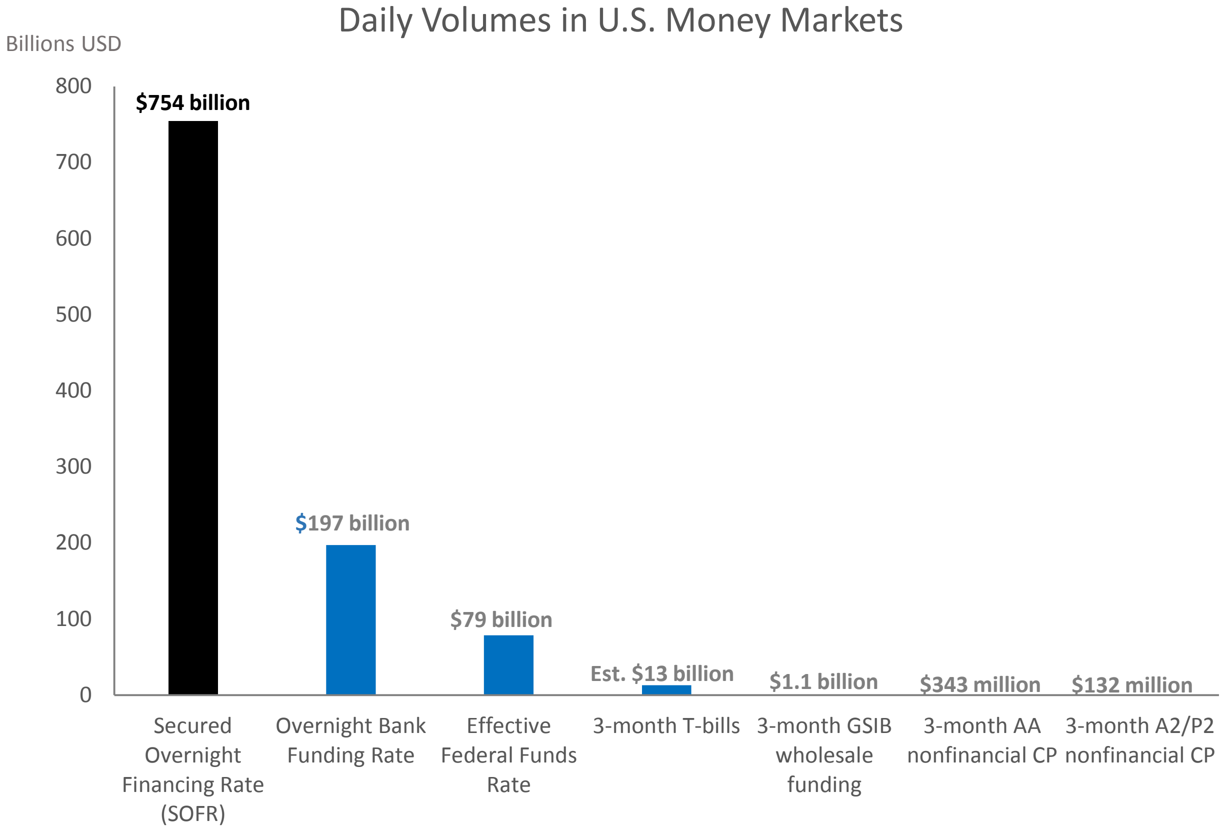
Table 1: Estimated USD LIBOR Market Footprint by Asset Class[1]

		Volume (Trillions USD)	Share Maturing By: End 2021	End 2025	After 2030	After 2040
Over-the-Counter Derivatives	Interest rate swaps	81	66%	88%	7%	5%
	Forward rate agreements	34	100%	100%	0%	0%
	Interest rate options	12	65%	68%	5%	5%
	Cross currency swaps	18	88%	93%	2%	0%
Exchange Traded Derivatives	Interest rate options	34	99%	100%	0%	0%
	Interest rate futures	11	99%	100%	0%	0%
Business Loans[2]	Syndicated loans	1.5	83%	100%	0%	0%
	Nonsyndicated business loans	0.8	86%	97%	1%	0%
	Nonsyndicated CRE/Commercial mortgages	1.1	83%	94%	4%	2%
Consumer Loans	Retail mortgages[3]	1.2	57%	82%	7%	1%
	Other Consumer loans	0.1	---	---	---	---
Bonds	Floating/Variable Rate Notes	1.8	84%	93%	6%	3%
Securitizations	Mortgage -backed Securites (incl. CMOs)	1.0	57%	81%	7%	1%
	Collateralized loan obligations	0.4	26%	72%	5%	0%
	Asset-backed securities	0.2	55%	78%	10%	2%
	Collateralized debt obligations	0.2	48%	73%	10%	2%
Total USD LIBOR Exposure:		**199**	**82%**	**92%**	**4%**	**2%**

[1] Source: Federal Reserve staff calcuations, BIS, Bloomberg, CME, DTCC, Federal Reserve Financial Accounts of the Unites States, G.19, Shared National Credit, and Y-14 data, and JPMorgan Chase . Data are gross notional exposures as of year-end 2016. [2] The figures for syndicated and corporate business loans do not include undrawn lines. Nonsyndicated business loans exlucde CRE/commercial mortgage loans.[3] Estimated maturities based on historical pre-payment rates

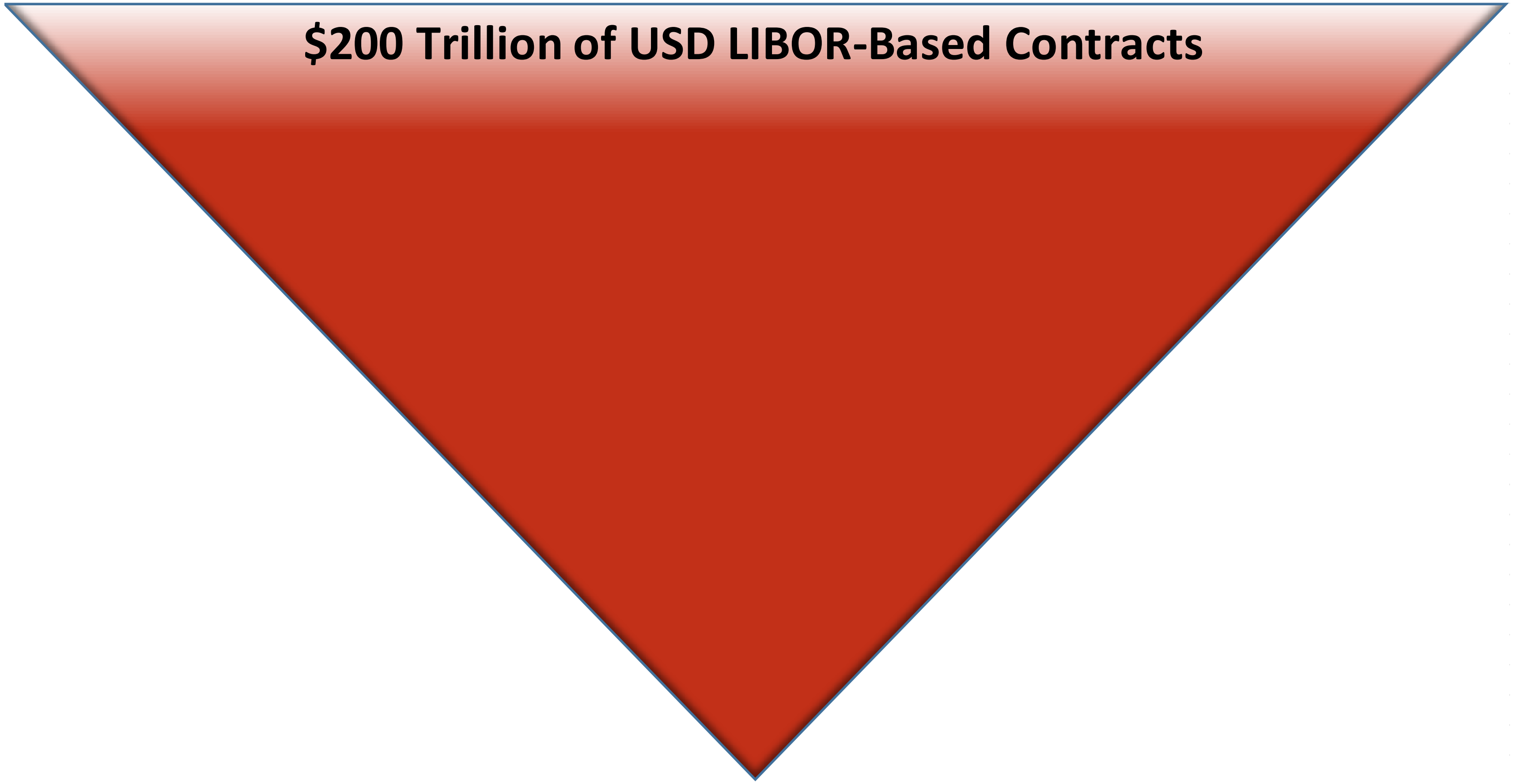
Secured Overnight Financing Rate (SOFR)

In considering possible repo rates, the ARRC expressed a preference for a rate that included both cleared triparty and bilateral data. SOFR will be based on triparty repo transactions, including cleared GCF transactions, and cleared bilateral DVP repo data from the Depository Trust & Clearing Corporation (DTCC) and routinely has had **over $700 billion in daily transactions last year**, representing the largest rates market at any maturity in the United States. Its coverage across multiple repo markets would allow it to evolve with the market.



Average volumes over 2017H1, with the exception of 3-month T-bills, which are preliminary estimates from available FINRA Trade Reporting and Compliance Engine (TRACE) data over August and September 2017. 3-month volumes are based on all transactions with remaining maturities between 80 and 100 calendar days or 41-80 business days. Source: Federal Reserve Bank of New York; Finance Industry Regulatory Authority; DTCC Solutions LLC, an affiliate of the Depository Trust & Clearing Corporation; and the Board of Governors of the Federal Reserve.

LIBOR and Financial Stability in One Picture



Priced off $500 million or less of underlying daily transactions

The ARRC Has Expanded to Help Coordinate this Work

The ARRC's NewWorking Group Structure