# LIFE AFTER LIBOR

**FINANCIAL EXECUTIVES INTERNATIONAL**

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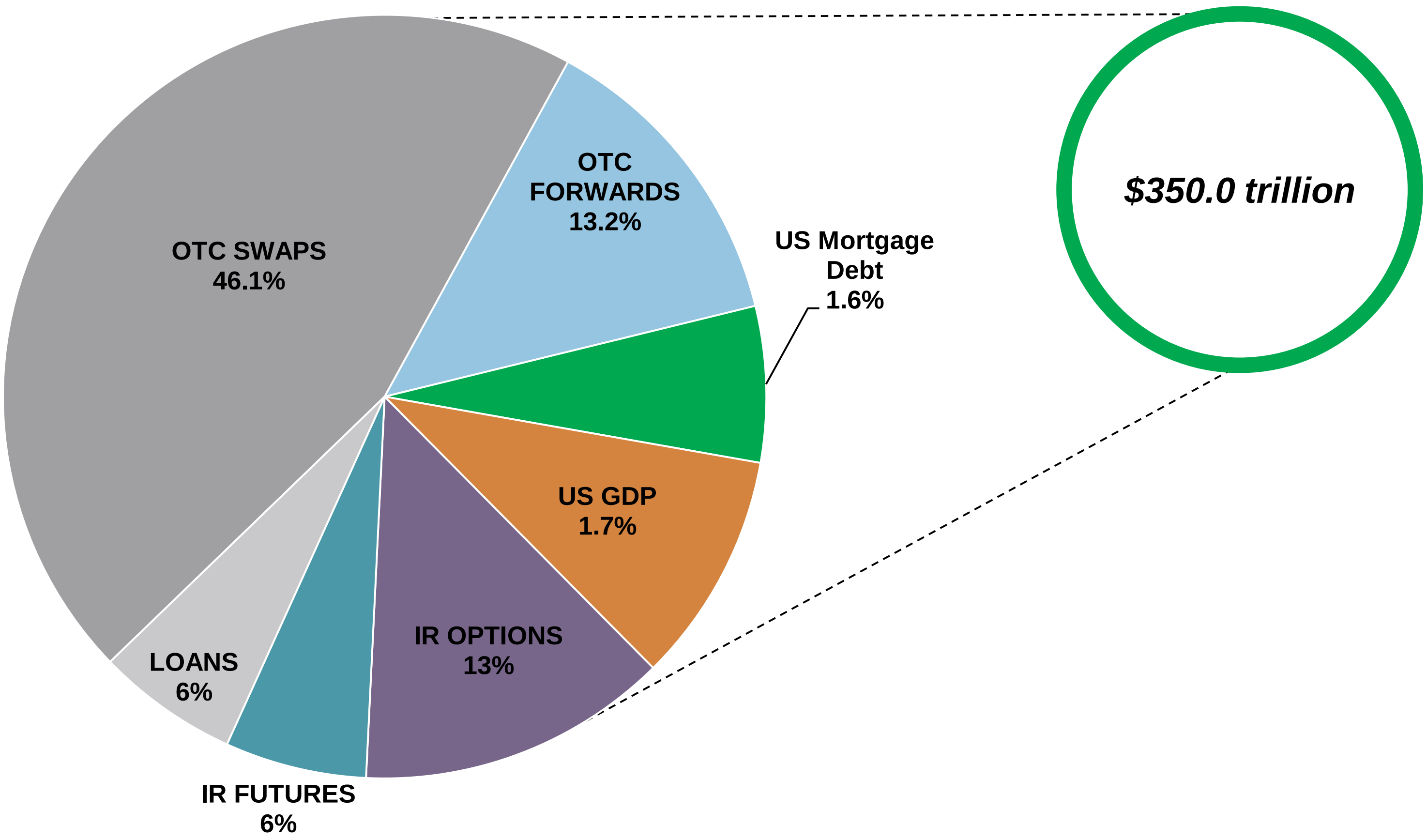
# LIBOR: ICE LONDON INTERBANK OFFERED RATE

**Exposure to LIBOR by Asset Class**



# HOW IS LIBOR BROKEN DOWN?

- Libor rates are **set by 17 banks** answering:

*"At what rate could you borrow funds, were you to do so by asking for and then accepting interbank offers in a reasonable market size?"*

- Submitted to the British Bankers' Association.
  - Minimum of **5 banks needed**.

- **35 Libor rates are determined daily.**
  - **Five Currencies:** USD, EUR, GBP, JPY, CHF
  - **Seven Maturities:** O/N, 1 Week and 1,2,3,6, and 12 Month

## LIBOR IN THE NEWS

**2006**

Traders accused of over/understating rate submissions to influence marked-to-markets.

**2012**

Over $9.0 billion of fines and criminal sentences handed out involving collusion.

**2014**

Formal discussions underway to replace and revamp the process.

# WHY IS LIBOR BEING PHASED OUT?

- **Andrew Bailey, CEO Financial Conduct Authority (FCA)**
  - UK regulator responsible for 54,000 financial entities
  - Stated: LIBOR would be replaced by 2021
  - New measures will be implemented which more closely tie to the lending markets.
- FCA now oversees LIBOR while ICE Benchmark Administration (ICE) administers and publishes LIBOR.  (ICE: Intercontinental Exchange-Fortune 500 company founded 2000)
  - ICE operates 23 regulated exchanges globally. OTC, Futures, and Options in energy, credit and  equity markets.

## Reasons for the phase out

1. LIBOR has become less relevant as a transactional rate.  LIBOR transactions have been declining.
2. LIBOR rate process is more subjective by the 17 market-making banks than objective, or backed by actual market transactions.

# CURRENT PROGRESS

## Objective:

- To find an instrument that is liquid and deep with a high number of market transactions providing the foundation for setting rates that are adopted by the financial markets.

## Progress:

**Working groups formed recommending to the market alternatives to LIBOR, each country will adopt their own policies and benchmarks.**

**Bank of England** began setting SONIA (Sterling Overnight Index Average) April 2018.

- SONIA considered close to risk-free.
- Has been in around for 20 years.

**Federal Reserve** has tasked the Alternative Reference Rate Committee (ARRC) to be responsible for the transition from US dollar LIBOR to a new benchmark replacement rate. (2014)

- **Newly created index: Secured Overnight Financing Rate (SOFR)** (March 2018)
  - An overnight rate, based on securitized overnight loans: A broad Treasury overnight repo financing rate with over $700 billion/day in trading volume.
  - Federal Reserve began publishing the SOFR index rates in 2018.
  - SOFR will run parallel with LIBOR for several years in help determine a fair compensating credit spread between LIBOR and SOFR for those financial assets that require their reference rate to the new index.
  - SOFR futures contracts are offered by CME Group.

Other countries are likely to see multiple differing benchmark replacement rates.

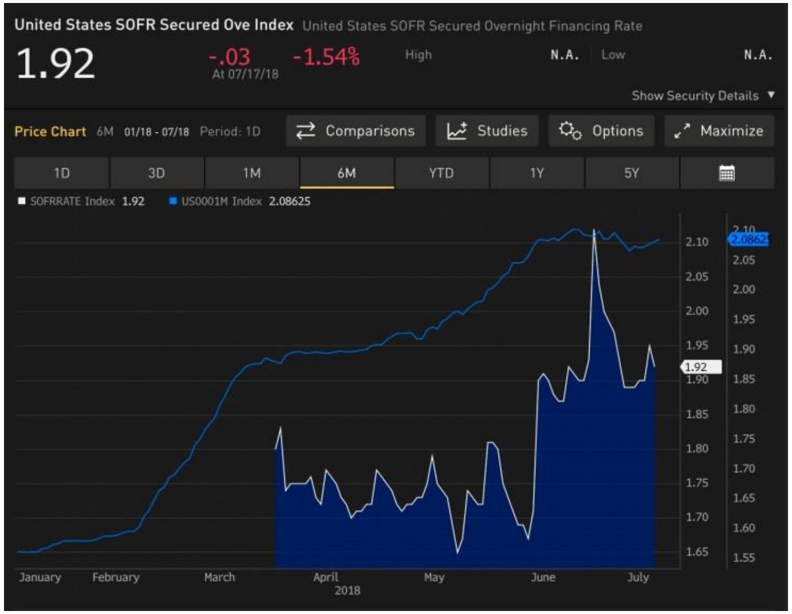
# COMPLICATED ROAD AHEAD

- Financial assets and contracts that have maturities beyond the 2021 deadline.
- Contractual agreements and ISDA master agreements will need to be amended or replaced.
  - Futures and derivatives.
  - Retail mortgages, home equity lines of credit, consumer or business debt tied to LIBOR.
  - Mortgage backed securities, loans and floating rate bonds.
    - With regard to deal specific covenants.
    - Consensus among all parties that the compensating spread between LIBOR and the SOFR is fair and reflective of the original interest rate and credit risk imbedded within LIBOR.

## THREE TAKEAWAYS

1. 3 years is a short time to complete these tasks.
2. Biggest challenge: determining a fair compensating spread and dealing with the legacy securities and contracts that mature beyond 2021 that currently reference LIBOR.
3. The ultimate winners: financial and contract lawyers.

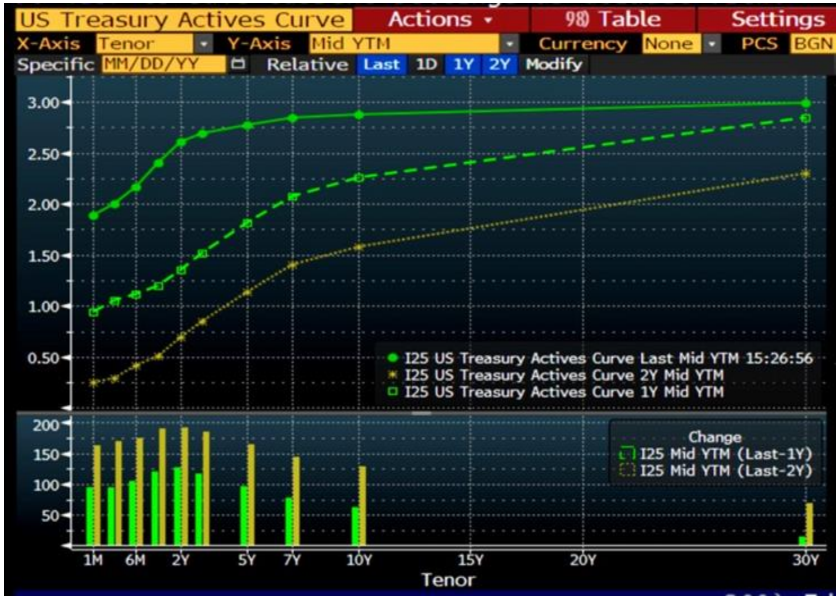
# SOFR INDEX




**The SOFR index, which was introduced as a potential successor to LIBOR earlier this year,** has shown more volatility than 1 month LIBOR in its first three months of trading. The index is a basket of overnight repo rates that trade in the market. Notably, a quarter-end spike in SOFR suggests this index nay respond more dramatically to market conditions such as period-end liquidity concerns. The CME has begun constructing hedging instruments which will, over time, allow for the creation of long term SOFR benchmarks. The development of a viable SOFR swap market is likely to be a slow and methodical process.

Interest rates, economic indicators and survey information is obtained from Bloomberg, LP . Employment and wage data from the Bureau of Labor Statistics, bls.gov.

# FLATTENING TREASURY CURVE




**Over the past two years, the Treasury curve has flattened significantly,** with the short end rising faster than the long end. Two year yields have risen the fastest, nearly 200 basis points, while the yield on the 30 year bond is up less than 75 basis points. The spread between 10 and 30 year yields dropped below 10 basis points this month, suggesting the markets expect a permanent downward shift in the so-called neutral rate of interest.

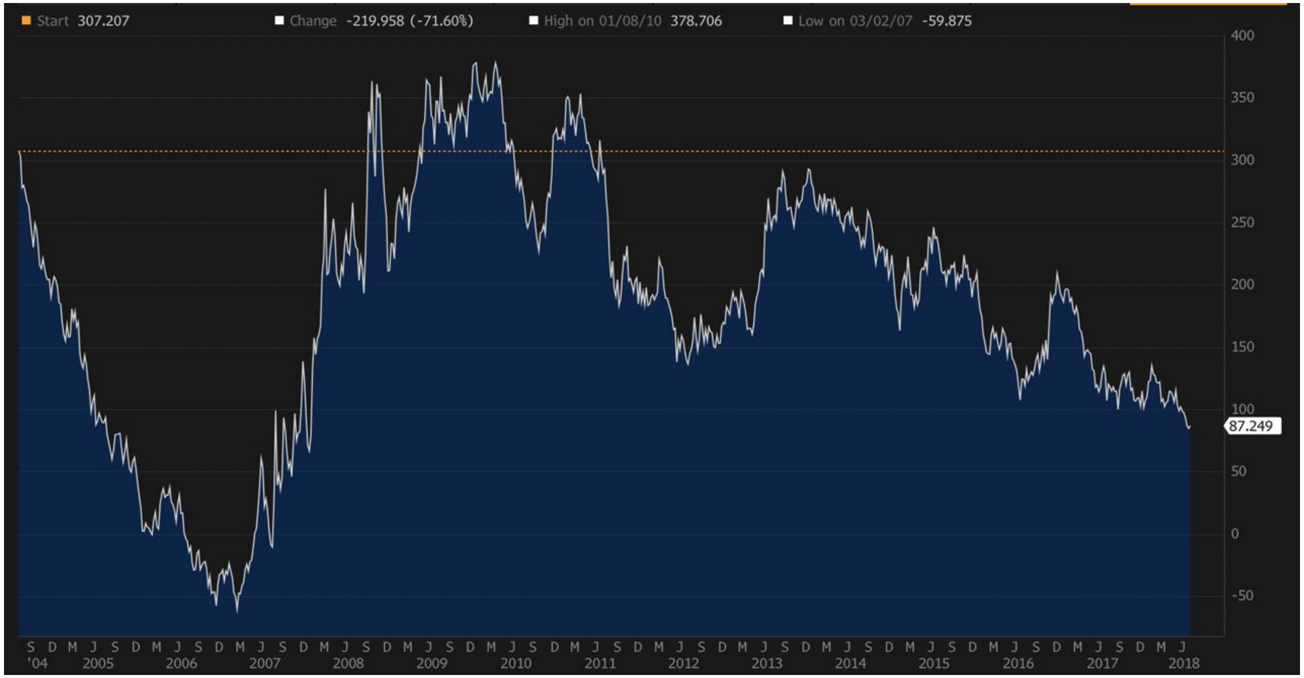
# KEY STATISTICS: INTEREST RATES

**Key Statistics: Interest Rates, Unemployment and Inflation**

| | Year-end | Year-end | Year-end | Year-end | CURRENT |
|---|---|---|---|---|---|
| | **2014** | **2015** | **2016** | **2017** | **Jul-18-18** |
| 10 yr Treasury yield | 2.17% | 2.27% | 2.44% | 2.41% | 2.87% |
| 2 yr Treasury yield | 0.66% | 1.05% | 1.19% | 1.88% | 2.61% |
| Spread | 1.51% | 1.22% | 1.25% | 0.53% | 0.26% |
| | | | | | |
| 1m LIBOR | 0.17% | 0.43% | 0.77% | 1.56% | 2.09% |
| 5 yr swap | 1.82% | 1.84% | 2.11% | 2.43% | 3.06% |
| | | | | | |
| CPI (y/y change) | 0.80% | 0.50% | 1.70% | 2.20% | 2.90% |
| Core PCE (monthly) | 1.37% | 1.33% | 1.65% | 1.50% | 1.96% |
| TIPS (market breakeven) | 1.21% | 1.28% | 1.87% | 1.88% | 2.02% |
| | | | | | |
| U-3 Unemployment | 5.6% | 5.0% | 4.7% | 4.1% | 4.0% |
| Avg weekly earnings (chg) | 2.9% | 2.6% | 1.8% | 3.0% | 3.0% |
| Annual change in NFP jobs | 3,015,000 | 2.744,000 | 2,157,000 | 2,188,000 | 2,184,000 |

A Wall Street Journal survey shows two-thirds of forecasters expect the current expansion to end by 2020. The implications for interest rates are clear: the markets are priced for the Fed to continue pushing short term rates up into mid-2019 until their Fed funds target rate tops 3 percent. Meanwhile, longer term rates are expected to remain under 4 percent. Of course, the market has been wrong before. Should the economy grow more robustly than expected in the next two years, inflation, wages and interest rates are likely to break out to the upside.

# 3-MONTH T-BILL AND 10 YEAR US TREASURY




*Source: Bloomberg LP*

- In in the prior cycle, the yield curve as measured by the spread between 3M and 10Y Treasury rates inverted in July 2006, more than a year before the recession began.
- Today, that spread is a positive 87 basis points, suggesting we are about three rate hikes away from a potential inversion of the curve.
- Assuming the Federal Reserve continues to tighten monetary policy at the current pace and long term rates remain unchanged (not necessarily a good assumption based on fundamentals), this indicator could be signaling a recession in mid-2020.

# SOFTENING GDP GROWTH IN 2019 AND 2020

| | | | | | | Consensus forecast | | |
|---|---|---|---|---|---|---|---|---|
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| Real GDP growth | 1.7% | 2.6% | 2.9% | 1.5% | 2.3% | 2.9% | 2.5% | 1.8% |
| Consumer spending | 1.5% | 2.9% | 3.6% | 2.7% | 2.8% | 2.5% | 2.4% | 2.2% |
| Government spending | -2.9% | -0.6% | 1.4% | 0.8% | 0.1% | 1.8% | 2.0% | 1.0% |
| Private investment | 6.1% | 5.5% | 5.2% | -1.6% | 3.3% | 5.9% | 4.6% | 3.1% |
| Industrial production | 2.0% | 3.1% | -1.0% | -1.9% | 1.6% | 3.7% | 2.6% | 2.0% |
| Inflation (CPI) | 1.5% | 1.6% | 0.1% | 1.3% | 2.1% | 2.5% | 2.3% | 2.2% |
| Inflation (Core PCE) | 1.5% | 1.6% | 1.3% | 1.8% | 1.5% | 1.9% | 2.1% | 2.2% |
| Unemployment | 7.4% | 6.2% | 5.3% | 4.9% | 4.4% | 3.9% | 3.6% | 3.7% |
| Fed Funds | 0.25% | 0.25% | 0.50% | 0.75% | 1.50% | 2.45% | 3.05% | 3.05% |
| 2yr Treasury note | 0.38% | 0.67% | 1.05% | 1.19% | 1.89% | 2.81% | 3.23% | 3.23% |
| 10yr Treasury note | 3.03% | 2.17% | 2.27% | 2.45% | 2.41% | 3.13% | 3.44% | 3.42% |

THANK YOU