

LIBOR: The Most Important Number in the World is Going Away — Why that is Important to All of Us

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This is the story of LIBOR which is reputed to be the most important number in the world. It is the basis for most interest charges US businesses and consumers pay on their loans. In recent years, LIBOR has become misrepresentative of many of these transactions and furthermore it has too often become a manipulated rather than an actual rate. For these reasons, the authorities have decided to end LIBOR and have recommended a replacement rate SOFR. But, as this article will show, SOFR has its own problems. We know that LIBOR will end but it is not at all sure that SOFR is an adequate replacement in all cases. The history of LIBOR is in some ways a capsule overview of changes in finance over the last fifty years. Some of what appears below may be technical, but I have tried to explain this subject in a non-technical way.

Although LIBOR is reputed to be the most important number in the world, most people have never heard of it. It is the basis of most interest charges US businesses and consumers pay on their loans. LIBOR is the reference rate for over \$350 trillion of financial contracts all over the world. And now, it is going away. A reference rate is a benchmark rate used as a basis to set other rates. If you have an ARM (Adjustable Rate Mortgage) you may be affected. If you own a business that borrows money you may be affected. If you invest in any type of loan or bond which has periodic adjustments to its interest rate, you may be affected. Student loans are affected. Equipment leases are affected. Commercial bank loans are affected. Bank deposits are affected. Practically all debt instruments are affected. LIBOR is invariably the reference rate for all these products.

The Economist put it succinctly (see May 22, 2021 issue “Learning to live without LIBOR”):

Each transaction needs a benchmark to decide what interest rate should be charged. The bizarre thing is that they all use the same one: the London interbank offered rate (LIBOR), an estimate at which big banks in London lend to each other in an obscure corner of the money markets. Every day, it gives borrowing costs for each of five currencies for periods ranging from overnight to a year. Those for the dollar alone are used to determine the interest rates on \$223 trn of debt and derivatives—more than two-and-a-half times annual global GDP. But this benchmark is not long for this world... What will replace it?

That is a very good question and despite the best efforts of the authorities there are differences of opinion between regulators and market participants (i.e, lenders and borrowers.). But before we get to this, a little history of LIBOR is in order.

The Very Beginnings of LIBOR

To understand the very beginnings of LIBOR, we have to go back to the 1960s and the birth of the Eurodollar market. The most common story (with an element of truth to it) is that the Eurodollar market began during the Cold War when the Russians were afraid to invest their funds in US banks. Deposits in US banks could be subject to sanctions by the US authorities. So the Russians, with the help of some enterprising banks in London came up with a better idea: why not have the Russians deposit the dollars in banks in London. These funds could not be touched by the US authorities.

Thus was created the Eurodollar. A Eurodollar is very simply the deposit of a US Dollar in a bank outside of the United States. It is really that simple. Fairly soon there was an active market in Eurodollars in London. What rate would be given to the depositor? It would be the rate that the bank offered to any depositor of dollars. This was called the London Interbank Offering Rate, LIBOR for short.

As the Eurodollar market grew, banks would lend out funds to businesses. This business became so important that US banks opened branches in London. This included the largest banks in the US at the time (and now) Bank of America and Chase.

London-based banks began making syndicated Eurodollar loans and funded them with Eurodollar deposits. I know this because in 1971, I joined the US subsidiary of Hambros Bank Limited, one of the major merchant banks in London and I became aware of these activities and eventually involved in them.

These deposits would usually be overnight, one week, one month, two months, three months, six months, or one year. Assume that a bank (or more likely a group of banks, called a syndicate) made a five-year loan to a major German company in Eurodollars. The group of banks would charge the borrower a fee (spread) over LIBOR. Let's assume for this discussion that the loan would be at LIBOR + 1% for say a \$100 million loan. There could be five banks involved taking (say) \$20 million each. The German company would have the option to pick the interest period. When the loan was made, assume that the German company picked three months. If the rate is LIBOR + 1%, how was LIBOR arrived at? Originally, a panel of the most active banks in London would be picked to arrive at LIBOR rates daily. Hambros Bank Limited was one of those banks. By some agreed-to formula, the average of LIBOR picked by the panel banks would be arrived at.

Assume for the sake of this discussion that the agreed LIBOR rate from the panel was 3%. LIBOR + 1% equals 4% which is what the German company would have to pay for the next three months. After the end of this period, the German company would pick its next interest period. It decides that interest rates may be going up and it locks in a rate for one year. The panel banks (say) come up with one year LIBOR at 3.25% so the rate the German company has to pay for the next year was 4.25%.

This system got complicated because the panel would have to pick LIBOR for all sorts of different interest periods every day, but it would also have to pick LIBOR for other currencies.

We mentioned before a Eurodollar is a dollar on deposit outside the United States. But there were other currencies which became popular in the Eurocurrency markets. Also springing up were such things as the Euro Deutsche Mark, the Euro Yen and the Euro Sterling (for UK currency).

The Beginning of Variable Loan Interest Rate Pricing in an Era of Volatile Interest Rates

What is described above is the genesis of a system for making loans in a floating rate environment. Here is why this is important. For simplicity, we will concentrate on the situation in the United States and the US Dollar. Before the 1960s, interest rates over a long period of time were fairly stable. Commercial banks generally lent money to businesses on a short-term basis. The rate in effect was the Prime Rate for the most credit worthy borrowers. Other borrowers would borrow money at Prime plus a spread (e.g. Prime plus 1%). The Prime Rate was an administered rate which means it was whatever the banks said it would be. Banks would fund these loans cheaply from checking account deposits (paying no interest to the depositor) and savings accounts (at low fixed rates paid to the depositor). Home mortgages were more often made by Savings and Loan Banks at fixed rates. These mortgages would be funded by savings accounts at fixed rates. Commercial mortgages (loans on buildings) were made by specialty institutions including insurance companies at fixed rates of interest. Equipment loans were also made by specialty institutions at fixed rates of interest. Bigger companies could obtain long term financing by issuing bonds in the public markets. These were also at fixed rates.

There was no system at all of floating rates. The fixed rate system worked well for years while interest rates (both short term and long term) were relatively stable.

Then in the mid 1960s, with the escalation of the Vietnam War and the onset of Great Society Programs, the government rapidly increased its expenditures but did not increase taxes. The resulting deficits overheated the economy and inflation started to pick up. I remember this well because this happened at precisely the time when I began my career in finance.

What happened next is a true story based on what I read in one of the business magazines at the time. The Head of the Federal Reserve, William McChesney Martin, decided it was time to increase short term rates to curb inflationary pressures. He was famous for a remark he made about the role of the Fed which was to "... take away the punchbowl just as the party gets going." The Fed decided to increase its key interest rate at the time (rediscount rate which is the rate Federal Reserve Member banks could borrow from the Fed if they put up collateral in the form of Treasury Securities) from 5.5% to 5.75%. This did not go over well with President Lyndon Johnson who invited Chairman Martin down to his Ranch in Texas for a chat. Martin explained the economic rationale to Johnson in detail. Johnson scratched his head and allegedly told Martin: "Bill, you may be right. But where I come from in Texas when rates is (sic) low, times is (sic) good and when rates is (sic) high times is (sic) bad." Some of my colleagues laughed at this because to them it showed Johnson's complete ignorance of economic ideas.

(Note: the story about Johnson appeared in one of the major business magazines at the time. To what extent it was true, I cannot say but I think it is something LBJ could have said).

Actually, Johnson had a point as the nation would soon see. As deficits mounted, inflation went up followed by more interest rate increases. Then a new phenomenon appeared with the ugly name of “disintermediation”. At the time the Fed had a regulation (Reg Q) which put a cap of 5% on what banks could pay for interest rates on savings accounts. When rates started to increase many savers got the idea that they could earn more money by taking their funds out of the bank and put it somewhere else at higher rates. This was called “disintermediation”.

What could the banks do? They came up with new instruments such as Certificates of Deposit which they sold to wealthy investors and institutions. Banks gradually had to convert to buying funds more and more rather than taking them from savers.

Welcome to the World of Floating Rates

As time went on, rates continued to increase. This was precisely at the time that the Eurodollar market started to flourish. There was only one mechanism in the world which could accommodate a floating rate environment and that was the Eurodollar market. Eventually practically any loan (and some bonds called Floating Rate Notes) was tied to LIBOR for its pricing whether it had anything or not to do with the Eurodollar market. This is how LIBOR became the most important number in the world.

Real Life Examples of How Floating Rate Loans Become Useful and How They Inadvertently Caused Problems

The 1970s were a tumultuous time. Inflation became more rampant and interest rates crept up to levels never imagined before. The country was suffering from what came to be known as stagflation—a combination of slow growth and high inflation. Worse yet, the inflation was accelerating. Inflation is generally accompanied by higher rates. I recall that LIBOR was in the single digits in the early 1970s and by the late 1970s it had exceeded 20 percent. Then Paul Volker, the head of the Federal Reserve at the time, instituted a very tight money policy which squeezed inflation and inflationary expectations were dampened. Gradually interest rates started heading downward over the next 40 years to the point where three-month USD LIBOR is now only 0.13%. During this gradual descent over the past 40 years, the LIBOR rates have fluctuated widely at times so that three-month LIBOR would fluctuate up or down by up to 5% percentage points (500 basis points) over a short period of time.

Here is the point: the days of stable interest rates were over beginning in the early 1970s. These dramatic events made it obvious to everybody that debt instruments with floating rate features were absolutely necessary in some cases by demand from investors and in other cases by demand from borrowers.

The one recognized benchmark for floating rates was LIBOR. Please keep in mind that the debt market with all its various instruments (including derivatives) is a huge market. In the US portion of the debt

market it is estimated that loans, bonds and other floating rate extensions of credit (which use LIBOR as a reference rate) are close to \$250 trillion.

LIBOR and Financial Derivatives

The 1980s saw the advent of derivatives including such esoteric items as interest rate swaps, options on bonds and futures contracts. A derivative is a financial contract which derives its value from an underlying asset. An easy example is an option to buy a bond six months from now at a price determined today. It is sufficient to understand that derivatives are traded and their prices can vary. A key element in any derivative involving a bond or a loan is the LIBOR rate. Derivatives are priced and valued on the basis of LIBOR rates. Over time, we have now come to the position where 95% of all financial contracts (where the reference rate is some form of LIBOR) are in derivatives. Recall that the total of all such contracts worldwide is over \$350 trillion. The amount of corporate loans and consumer loans dependent on LIBOR is a relatively small amount in comparison to derivatives; but this "small" amount is about \$20 trillion dollars!

Why is LIBOR Being Discontinued?

It has been noted often in the press that LIBOR is no longer reliable because it is being manipulated. The story is somewhat more complicated. What has happened is that LIBOR is no longer representative of most of the debt instruments in the market. LIBOR started out as a reference in London to price Eurodollar loans in London. Over time, because LIBOR was the only recognized and tested floating reference rate, LIBOR became the reference of choice of almost all floating rate obligations. Importantly, it also became the reference rate of choice for derivatives as just noted.

When the Great Financial Crisis (GFC) occurred in 2008, there was a freeze of credit in the banking system worldwide which threatened to choke the economy. Banks became afraid to lend money to each other even overnight because of the fear that some banks would fail. Were it not for the intervention of the US government first in the Bush Administration and then in the early years of the Obama Administration, the banking system very well may have collapsed.

Banks still needed to have transactions with each other. Instead of making unsecured loans to other banks based on LIBOR, the banks started doing business with each other by utilizing an instrument called the repurchase agreement. This meant that Bank A would only lend money overnight to Bank B if Bank B put up collateral for amounts slightly above the loan in the form of US Government Securities.

The Eurodollar market, where banks lent to each other on the basis of LIBOR, dried up. There are now 16 banks that decide in London what LIBOR (supposedly) is on the basis of actual transactions. In fact, there were few such transactions and the banks started making estimates of LIBOR rates rather than reporting rates on actual transactions. In some cases, these estimates were well meaning but in other cases, these estimates bordered on fraud.

It is a well-known fact that of the approximately \$350 trillion financial transactions where some form of LIBOR is the reference rate, there is at most no more than \$500 billion in actual transactions and in some days the number of such actual transactions is much lower. In other words, for every \$700 of LIBOR referenced transactions, the most in actual transactions supporting these rates amounts would be a mere \$1 on a good day. Therefore, LIBOR is no longer a representative rate.

To put it bluntly, LIBOR is not really relevant in the world anymore and this is the reason for the termination of LIBOR. Yes, there is a good deal of manipulation, and there is a good deal of guess work but this is not the way the authorities think the system should be run.

Solution to the LIBOR Problem by UK and US Authorities

In 2017, the relevant British authorities announced that LIBOR would have to be discontinued in the future. In the US, the Alternative Reference Rates Committee (ARRC) was formed by the Fed to find a replacement for USD LIBOR. It was very important for ARRC that a replacement would have to come from real transactions (as was originally the case with LIBOR) and not based on guesses or worse yet manipulation.

As mentioned previously in this article, a major occurrence during the Great Financial Crisis in 2007 and 2008 was that banks no longer trusted the credit worthiness of other banks so they continued to lend to each other only on an overnight basis secured by Treasury Securities. These are called Repurchase Agreements (repos) in the financial community. Eventually, it was decided by ARRC after much study that the new benchmark rate would be based on overnight secured transactions in the interbank market. This new benchmark would be called SOFR (Secured Overnight Funding Rate). There would be various terms (interest periods) for SOFR just as was the case with LIBOR and these would be overnight, one week, one month, three months, six months, nine months and one year. SOFR rates for these periods were to replace LIBOR on December 30, 2021. On March 5th of this year, the transition date for existing business (as opposed to new business) was extended by two-and-one-half years to June 30, 2023 for most terms (one week and two-month LIBOR would officially end on December 31, 2021). This extension was necessary to iron out important issues regarding SOFR which have not yet been resolved and which will be discussed.

The SOFR Replacement Proposal from the ARRC

Any new business is to use SOFR referenced rates unless both parties to the agreement agree on another reference rate. This comes into effect on January 1, 2022.

- On any existing extensions of credit (whether loans, bonds or other debt instruments including derivatives) where the reference rate is LIBOR and there is no adequate replacement rate spelled out in the contract, ARRC recommends the use of a SOFR replacement rate. In most cases, this would come into effect on July 1, 2023.

In April 2021, New York State passed a law requiring any so-called legacy contracts (where New York is

the governing law) to require the use of the ARRC recommendations. This is important because most corporate (as opposed to consumer contracts) lending, bond and other corporate debt instruments are under New York Law. Importantly, the New York State law allows the parties to “opt out” of this requirement if they can agree in writing on an alternative reference rate.

It is further expected that by October 31, 2021, the Federal Government will pass legislation similar to that of New York State covering consumer contracts (where the governing law is usually the state of the lending institution).

The purpose of legislation is to minimize lawsuits because whenever there is a change in the reference rate, the chances are very high that one party would benefit and the counterparty would be harmed.

The New York State and the (proposed) Federal legislation apply only to legacy contracts. What needs to be understood was that until very recently it had never been contemplated that LIBOR would ever cease to exist as a reference rate. Therefore, most financial contracts had no provision (or an inadequate provision) in case of the termination of LIBOR.

What are the Weaknesses of the ARRC SOFR Recommendations?

1. **SOFR is a risk-free rate while LIBOR is not** — both LIBOR and SOFR start out with the assumption that banks are lending money to each other. But when one bank lends money to another without security, there is an assumption that the lending bank is taking a credit risk in lending and it should be paid for this risk. In the case of SOFR, there is again the situation of one bank lending to another bank but since the loan is collateralized by US Government securities (which are considered risk free), then the SOFR transaction would necessarily result in a lower reference rate than the LIBOR rate. For that reason, SOFR cannot be considered a replacement for LIBOR because SOFR would necessarily be a lower rate than LIBOR. No lending institution under such circumstances would want SOFR to replace LIBOR unless there is a credit adjustment.
2. **How do we arrive at an adequate credit adjustment?**
This was done by comparing LIBOR rates for the past five years to what SOFR rates would have been in the last five years and the latest figures show that on average, SOFR rates were about $\frac{1}{4}$ of 1% lower than LIBOR rates. The solution proposed was that SOFR would have to be adjusted by about $\frac{1}{4}$ of 1% upward as a reference rate to make it an adequate replacement for LIBOR. But even this solution has some problems. It has been acknowledged that in many cases, LIBOR rates have been the product of guess work and often outright manipulation, how can we know what the appropriate adjustment for SOFR (called the “credit spread”) should be?
3. **At times, SOFR might drastically differ from LIBOR and would therefore not be a good replacement for LIBOR**
Assume that there is an economic crisis. In many such cases, there is a movement to safety so

that many investors would switch their investments to safe havens such as US government bonds. This would have the effect of increasing the market value of the bonds and also reducing the interest rate on government bonds precisely at the time when non-government markets (whether corporate or consumer) would be requiring higher interest rates given the increased risk in the economy. The result is that SOFR might very well be significantly decreased just at the time that lenders would require higher rates or return. This situation would be unacceptable to and lenders or bond investors.

It has also been known that because of peculiarities in the US Government Bond markets, there have been periodic disruptions (not clearly understood) which have caused repo rates to spike temporarily. In 2019, there was a period of time when the repo market “seized up” and rates approached 10%. Obviously, any rate settings based on these periods would not be an appropriate substitute for even a flawed LIBOR.

4. **LIBOR was meant to be a “cost of funds” rate for bank lending where it became easy to set interest rates by simply adding a margin to LIBOR. Furthermore, LIBOR is a forward-looking rate. SOFR has none of these features.**

The mechanism for bank lenders in the beginning was very simple. In a new era of fluctuating interest rates, banks would not have to worry about funding risk. LIBOR guaranteed that the interest rate basis and the interest rate periods would be the same for the loan and for the funding of the loan by the bank. It could guarantee a certain amount of interest to the lender by the spread. Here is an example: assume that the borrower wants to borrow money for one year but it chooses to have the rates float because it believes that rates are going down. The borrower decides that it will borrow the money, say \$1 million, with changes in the interest rate every three months and notifies the lender of this. The rate the bank will charge will be three months LIBOR + 1%. No matter which way rates go (up or down) the bank will make 1% on the loans. This system allowed banks to enter into a floating rate system without any funding risk. I can tell you, from my many years as a domestic and international banker, that the system worked very well.

Furthermore, the rate was forward looking which means that the borrower knew “up front” what he/she would pay in interest for the chosen period, in this case three months.

5. **SOFR is only an overnight rate and is therefore not a cost of funds rate and it is not a forward-looking rate.**

Generally speaking, most banks do not fund their loans with overnight repo transactions. These are used primarily by large, money center banks for short term liquidity concerns. SOFR, unlike LIBOR, is not necessarily a bank’s cost of funds.

6. **SOFR is not forward-looking rate because Term SOFR does not exist. What exists is overnight SOFR.** Let’s assume that our customer wants to borrow the \$1 million for one year in the age of SOFR. The customer decides that it wants to borrow, as before, in three-month terms. Because term SOFR does not exist, the borrower has to agree that it will be charged the average of the next three months’ SOFR. There is no agreement on how to do this. There are

probably four different ways to make this calculation (e.g., should the final rate for the three-month period be an average of the daily rates, should the interest be compounded, etc.). The final rate for the period will not be known until the end of the period. That is, average SOFR is not a forward-looking Term Rate.

7. **How can we come up with a Term Rate for SOFR?** As of today, there is no forward-looking Term SOFR rate. There have been attempts but every one of these, it appears, have been questioned by the ARRC which seems to have as its priority that the replacement for SOFR, unlike LIBOR of late, be based on actual transactions. We know that overnight SOFR is based on actual transactions and we know that average SOFR at the end of the interest period would be based on average transactions and we know that these rates for reasons cited above are not fully acceptable.

The ARRC and the creators of the New York Law know that overnight and average SOFR are not the first choice.

ARRC followed by the New York State Law has created a waterfall (recommended by ARRC and required by New York State) in implementing SOFR. The first choice is Term SOFR. But this does not exist and we do not know when it will exist.

And furthermore, we do not even know if Term SOFR should ever exist. Why? Because it appears on the basis of a good deal of work that the only way to come up with Term SOFR is to use the SOFR rates in derivatives (such as interest rate swaps and interest rate futures). But these rates are guesses by the market about the future.

We are in a position where Term SOFR is more about guess work than about actual transactions. In other words, we seem to be going around in circles. LIBOR is no longer acceptable because it is not based on actual transactions but is based on guesses. And now we see that although SOFR and average SOFR are based on actual (cash) transactions, Term SOFR would not be based on actual (cash) transactions. Term SOFR, it seems, would be based on derivatives transactions.

Clearly, SOFR has many limitations and it does not seem to be an adequate replacement for LIBOR.

What Does the Market Think of SOFR?

SOFR was created by a committee of people some of whom it appears do not have a good deal of firsthand experience. Some are academics, some are government employees, and some are people very good at understanding data. But they are not people who have been in the trenches. It is not surprising that the lenders in banks and other institutions are not enamored of the SOFR solution.

There are other solutions being investigated right now and it is possible that there may be replacements for SOFR.

Prominent among those who are studying the problem and looking for data driven solutions are the Chicago Mercantile Exchange, Bloomberg and the American Financial Exchange. The American Financial Exchange has come up with an index which reflects the borrowing costs of small and medium sized banks. Some of the larger banks seem to prefer an index created by Bloomberg.

But in recent days, Treasury Secretary Janet Yellen and SEC Chairman Gary Gensler have been advocating for the adoption of SOFR with Gensler stating that some of the other alternative rates (e.g. the Bloomberg rate) can be subject to manipulation.

Summary and Conclusions

LIBOR has had a good run for the last fifty plus years. With all its faults, LIBOR is proving very difficult to replace. It is possible that LIBOR will be replaced by a variety of benchmarks tailored to specific products and situations. I am inclined to think that SOFR is not an adequate, "catch all" replacement for LIBOR. The market seems to agree. (See *Bloomberg Business* article of May 23, 2021 entitled: "LIBOR Replacements Multiply in Shift that could Fracture Markets" by Alex Harris). Mark Caban, head of U.S. interest-rate strategy at Bank of America Corp states: "While there was a big push to try and have SOFR be the monolith, the market seems to have other views of the type of benchmark it would like to have for very specific transactions. Will SOFR end up being the key lending rate in the future? I don't know. I think there are real questions around that."

The article states that the multitrillion syndicated loan market is especially interested in alternatives.

Mr. Caban adds: "What will the dominant rate be in five or 10 years from now? That's where I have more doubts about SOFR because of the markets' tepid adoption of it today."

I am aware of studies which prove conclusively that market pricing of bonds is a better predictor of future defaults than credit ratings by the expert credit rating agencies. I have a suspicion that the market "understands" that SOFR is not going to be the answer to the demise of LIBOR despite the well-intentioned efforts of expert regulators.

In short, LIBOR is going away but we do not know exactly how it will be replaced; or even if it can be replaced.

To sum up:

- There are compelling reasons for ending LIBOR
- The introduction of SOFR is an attempt to develop a base rate which is based on real transactions and not subject to manipulation
- But we have seen that SOFR has a host of problems which are not easily resolved.

Surely, Treasury Secretary Yellen and SEC Chairman Gensler are aware of these problems, yet they are

pushing for the adoption of SOFR. Why? My guess is that the primary goal of the government is to end LIBOR expeditiously and replace it by what is considered a better if somewhat imperfect substitute. Here is a description of the ARRC as found on the internet: "ARRC is a group of private-market participants convened by the Federal Reserve Board and the New York Fed to help ensure a successful transition from U.S. dollar (USD) LIBOR to a more robust reference rate, its recommended alternative, the Secured Overnight Financing Rate (SOFR), The ARRC is comprised of diverse-sector entities that have an important presence in markets affected by USD LIBOR and a wide array of official-sector entities, including banking and financial sector regulators." They are not forcing the market to adopt SOFR but are recommending it.

At the risk of being repetitious, I want to emphasize one key point in this article: it seems obvious to me that LIBOR cannot be replaced and furthermore that it should not be replaced. LIBOR became a "catch all" rate for all floating rate instruments. It has been shown to be "misrepresentative" in most cases. For example, regional and small banks do not fund themselves in the repo market as do larger money centered banks such as Chase and Bank of America. These smaller banks fund themselves from short term unsecured debt. SOFR as a reference rate for these banks (which are much more numerous than the money center banks) would be totally inappropriate.

The market understands very well that no one benchmark rate serves all purposes. This was true with LIBOR as it greatly expanded and became unrepresentative in most cases. SOFR cannot and should not be an all-purpose benchmark rate. In time, the regulators and the market will develop additional alternatives to LIBOR most likely based on individual products and markets. SOFR is a good start. What this new world will look like is not yet clear and will certainly be deserving of further examination.

References

Webinars and reports from law firms: Mayer Brown, LLP and Arnold & Porter; and also from CFA New York, RMA New York and Houlihan Lokey (an investment bank and restructuring advisor). Articles in the New York Times, the Wall Street Journal, the Financial Times, Bloomberg and the Economist as well as the websites of the New York Fed and the ARRC.

The opinions expressed in this article are my own based on the data gleaned from these sources. If the reader is interested in delving into issues related to the termination of LIBOR, a good place to start is with the above references.