



# On the Rise:

How Inflationary Pressures and Rising Interest Rates Could Impact the Equipment Finance Industry

*A Practical Guide for Equipment Finance Professionals*



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## ABOUT THE STUDY

This report is designed for equipment finance professionals and is intended to accomplish five goals: (1) explain why a rise in both inflation and interest rates is expected in the near future, (2) describe different scenarios for how these changes could occur, (3) illustrate how each scenario is likely to impact the equipment finance industry, (4) provide signposts to help identify which scenario is occurring, and (5) offer advice on how individual firms should consider adjusting their business strategies and tactics depending on which scenario comes to pass. To do so, it applies principles of economic theory and data analysis to business strategy concepts that are relevant to the equipment finance industry. In short, it is intended to be a practical guide for industry leaders, not a research paper or academic exercise.

As such, this report functions as the second volume to the *Applied Economics Handbook*. The *Handbook*, which was first published in 2016 and will be updated in 2018, illustrates how equipment leasing and finance firms can use economic data to make better business decisions. The *Applied Economics Handbook* can be downloaded for free at the Equipment Leasing & Finance Foundation website, <https://www.store.leasefoundation.org>.

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## **EXECUTIVE SUMMARY**

After years of low inflation and near-zero interest rates, many economists and market analysts believe that inflationary pressures are building and that the Federal Reserve will respond by ramping up efforts to raise interest rates over the next several months. This would be an important development for both the U.S. economy and the equipment finance industry. For nearly a decade, the economy has sat in a realm of consistently low inflation, low interest rates, low market volatility, and modest to moderate economic growth. Understandably, many equipment finance professionals have grown accustomed to this status quo. In addition, the relative economic stability has led to many new industry entrants who may have little experience operating in an environment of rising interest rates and rising inflation — particularly if both indicators rise quickly.

To some, inflation and interest rates may seem like broad, macroeconomic indicators that have little relevance to the day-to-day affairs of an equipment lessor. In reality, equipment finance firms can be profoundly affected by changes in these measures. Just as credit markets are often thought of as the “lifeblood” of the U.S. economy, inflation and interest rates are two of the economy’s “vitals” and provide valuable insight into its underlying strength and growth trajectory. They profoundly affect daily decisions made by U.S. businesses, as capital investment, budgeting, and investment allocation decisions require making assumptions (both explicit and implicit) about what inflation and interest rates are likely to be in the months and years ahead. Over the last decade, many businesses have likely become accustomed to low interest rates and low inflation — and some may have been lulled into a belief that these metrics are less important than they used to be. However, as evidence builds that inflation and interest rates are on the rise, their effect on unprepared equipment lessors could be profound.

To help prepare the industry for what may transpire over the next one to three years, this report explains how a world of rising inflation and interest rates may affect the equipment finance industry — including customer demand, portfolio performance, spreads, and the propensity to finance — based on historical patterns. Further, it describes three possible scenarios that could take shape depending on the speed with which inflation rises and the Federal Reserve’s response, offers a series of signposts to help industry professionals identify which scenario is most likely as the situation unfolds and what the associated ramifications are likely to be. Finally, it provides a set of action items to help industry leaders adjust their business operations to thrive in a changing environment.

Chapter 1 provides a historical perspective of how interest rates and inflation have fluctuated throughout prior business cycles and their corresponding effects on key industry metrics (e.g., new business volume, portfolio performance, and spreads). This chapter provides important context for understanding why inflation and interest rates tend to move together, and their connection to broader shifts in the business cycle and, by extension, the equipment finance industry. In addition, Chapter 1 illustrates why the current business cycle may turn out to be different, and how these differences could have significant implications for the equipment finance industry and the broader economy.

Chapter 2 presents the case for why inflation appears likely to accelerate over the next one to three years. It identifies the primary drivers of inflation and explains how these factors are likely to trend over the next year. It also discusses why interest rates are set to rise faster over the near-medium term than they generally have since the Fed first raised rates in late 2015. Finally, Chapter

2 lays the groundwork for understanding the drivers of the scenarios and their industry-specific consequences discussed in the following chapter.

Chapter 3 describes three possible scenarios for how inflation and interest rates could change over the next one to three years given the economy's current state. To illustrate these scenarios, Chapter 3 makes use of the Interest Rate / Inflation Matrix (see figure below). Because each scenario involves movement into a distinct quadrant of the matrix, the equipment finance industry will see a different set of effects under each of the three scenarios and will need to respond in a different way



- **The “Status Quo” Scenario:** If this scenario plays out, the U.S. economy will remain firmly in Quadrant 1 of the matrix, where it has been for the last several years. Although interest rates and inflation may both continue to rise, those increases will be gradual and manageable. This scenario is likely to involve the least amount of adjustment for the equipment finance industry but may still pose some challenges. The “Status Quo” scenario is characterized by strong portfolio performance, favorable lease vs. buy conditions, and low credit market volatility on the one hand, combined with relatively weak investment demand and little change in (or an ambiguous effect on) industry spreads.
- **The “Breakout Inflation Prompts Strong Fed Response” Scenario:** Under this scenario, the U.S. economy moves briefly into Quadrant 2 of the matrix as inflation begins to ramp up, then rapidly shifts into Quadrant 3 following strong Fed action. Although it would play out in an environment of strong economic growth, this scenario would nonetheless pose significant challenges for the equipment finance industry, in part because of its relative unfamiliarity to many equipment finance professionals. The leasing industry would likely see strong investment demand and stronger capex spending, but the positive economic environment may be complicated by rising labor costs, potential declines in the net present value of leases, increased customer demand for long-term and fixed-rate leases, more complex loan and lease valuation, and less favorable lease vs. buy conditions.
- **The “Aggressive Fed Action While Inflation Lags” Scenario:** In this situation, the U.S. economy moves straight over into Quadrant 4 of the matrix, implying rapid increases in market interest rates even while inflation remains subdued. This scenario may play out if the Fed perceives a need to raise interest rates quickly, but the U.S. economy fails to withstand the pressures of a tightening credit environment. In this scenario (which may presage a recession within the next two years), the equipment finance industry is likely to witness falling investment demand, deteriorating portfolio performance, and narrowing spreads.

Chapter 4 provides a set of signposts designed to signal how the likelihood of each scenario's occurrence changes as new data becomes available. While no individual signpost is a guarantee that a given scenario will occur, taken collectively, the signposts provide a good indication of the

*How Inflationary Pressures and Rising Interest Rates Could Impact the Equipment Finance Industry* direction in which the economy is headed — and, by extension, how industry performance may change.

Finally, Chapter 5 offers a variety of suggested actions that equipment finance professionals should consider to improve their business operations and profitability under each scenario. These suggestions are not intended to be exhaustive, as the specific actions a firm should take will depend heavily on firm type, firm size, customer base, equipment type, and existing business model (among other factors). However, the proposed actions set forth in this chapter should generate additional ideas for how firms can make strategic adjustments and help focus planning discussions. Equipment finance professionals will gain even more from this chapter if considered together with the *Applied Economics Handbook*, which offers helpful tips for how equipment finance firms can make better business decisions by incorporating economic data into their strategies and tactics.

## INTRODUCTION

On February 2, 2018, the U.S. stock market entered correction territory. The following week, both the Dow Jones Industrial Average and the S&P 500 fell close to 9%, the biggest drop in percentage terms since August 2015 and the most points lost in history. Given the strength of the economy and recent equity price trends, this event surprised many. As market analysts, journalists, and economists all struggled to make sense of the steep and sudden decline, two narratives emerged.

The first focused on employment data released that day showing that the economy added 200,000 jobs in January and wage growth had accelerated to 2.9% (both well-above consensus). As the story went, markets reacted negatively to new evidence of labor market tightening given the potential for faster wage growth and inflation. After a decade of weak inflationary pressures, this appeared to be a new phase for the economy that gave investors pause.

The second narrative centered on the Federal Reserve ("Fed"). At Janet Yellen's last meeting as Fed Chair two days earlier, the central bank's governing body signaled its confidence that the U.S. economy was on solid footing, that inflation was likely to accelerate, and that the Fed would need to accelerate its scheduled interest rate increases in response. It was widely understood as an uncharacteristically "hawkish" tone that offered a stark contrast to a decade of ultra-low interest rates and "dovish" monetary policy. Jerome Powell, the incoming Fed Chair, was a relative unknown, and while most market watchers believed he favored an approach similar to Yellen's with respect to normalizing interest rates, his appointment signaled the start of a new era and his capacity to keep markets calm was untested.

The stock market correction and increased volatility that has developed since has grabbed headlines and concerned many investors. But perhaps more importantly, it represents the emerging perception that the U.S. economy is heading in a new direction after years of a "status quo" environment of decent growth, low inflation, and low interest rates.

Several signs point to a changing economic environment. Nine years into the current expansion, unemployment is low, job growth remains strong, and both the U.S. and global economies are accelerating. With that reality comes fears that the combination of rising aggregate demand, a years-long build-up of "easy money," and rapidly rising deficits could send inflation on a tear. There is a growing possibility that the Fed will raise interest rates faster than the market currently expects in order to combat inflation, and it is unclear whether businesses and consumers are adequately prepared for this possibility.

This report explains how a world of rising inflation and interest rates may affect the equipment finance industry, including customer demand, portfolio performance, spreads, and the propensity to finance. It explores three distinct scenarios for inflation and interest rates over the next one to three years and provides a set of signposts designed to help equipment finance industry leaders determine which scenario is occurring, what the associated ramifications are likely to be, and most importantly, how equipment industry leaders should adjust their business operations.

Every capital investment that a business undertakes involves making explicit or implicit assumptions about the level of inflation and interest rates that will prevail over the investment's life. If these assumptions turn out to be wrong (e.g., if inflation and/or interest rates rise at a faster-than-expected pace), certain types of investments could be at risk, and business performance could suffer. As such, understanding the key drivers of inflation and interest rates and how they affect the economy will help prepare industry leaders to make better business decisions.



## **CHAPTER 1**

### **Interest Rates, Inflation, and Equipment Finance**

#### ***A Historical Perspective***

#### **I. INTRODUCTION**

The equipment finance industry's profitability and performance are closely linked with the business cycle. Shifts in the demand for goods and services affect both new business volume and portfolio quality, and interest rate changes (particularly large swings in a relatively short time period) can complicate the process of structuring deals and increase risk. As a result, it is critical for lessors to anticipate and adapt to changes in underlying economic conditions, including inflation.

This chapter will outline how shifts in interest rates and inflation affect the equipment finance industry. Specifically, the chapter will describe how various industry metrics (including new business volume growth, delinquency and default rates, profitability, and the propensity to finance equipment) are affected by changes to inflation and interest rates across the business cycle. In this way, Chapter 1 sets the stage for the remainder of this Report and helps prepare equipment finance professionals for what may lie ahead.

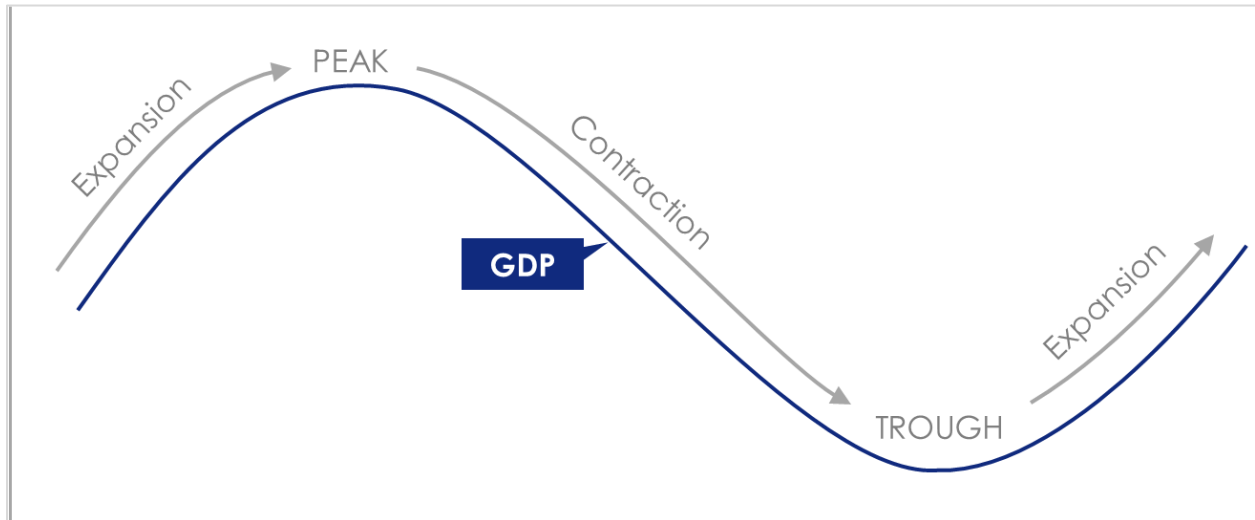
#### **II. AN OVERVIEW OF THE BUSINESS CYCLE**

The economy typically fluctuates through periods of expansion and contraction, a process known as the business cycle (see Figure 1). At the beginning of an economic expansion, aggregate demand is on the rise and businesses are looking to expand, both by hiring new workers and investing in capital. As a result, unemployment tends to fall, and non-residential investment increases, including investment in equipment and software. Meanwhile, since more and more people are working and incomes are rising, the demand for housing tends to increase, leading to higher rates of residential investment — which, in turn, drives more demand for construction and other types of equipment.

Over time, the number of potential workers on the sidelines declines to the point where employers must compete against one another more aggressively to find and retain qualified labor. This increases workers' bargaining power and typically leads to rising wages (i.e., labor market tightening). While higher wages are good for workers because they result in greater spending power, they also increase costs for businesses, which generally leads to rising prices for goods and services (i.e., inflation).

A small amount of inflation in the economy (around 2%) is considered healthy, but if inflation rises too quickly, it can cause economic distortions (e.g., complicating salary negotiations, pricing decisions, and contracting activities; and redistributing income from savers to borrowers—thereby harming older people who depend on a fixed income). For this reason, the Federal Reserve Board ("Fed"), which closely monitors inflation and the underlying economic conditions that drive it, will typically respond by raising the federal funds rate (i.e., the interest rate that banks and credit unions charge one another for overnight loans). The federal funds rate functions as the benchmark interest rate for most types of lending, so when the Fed hikes rates, it makes it more expensive for businesses to borrow money to fund capital investments. This, in turn, cools the pace of economic activity and eases inflationary pressures.

**Figure 1: The Business Cycle**



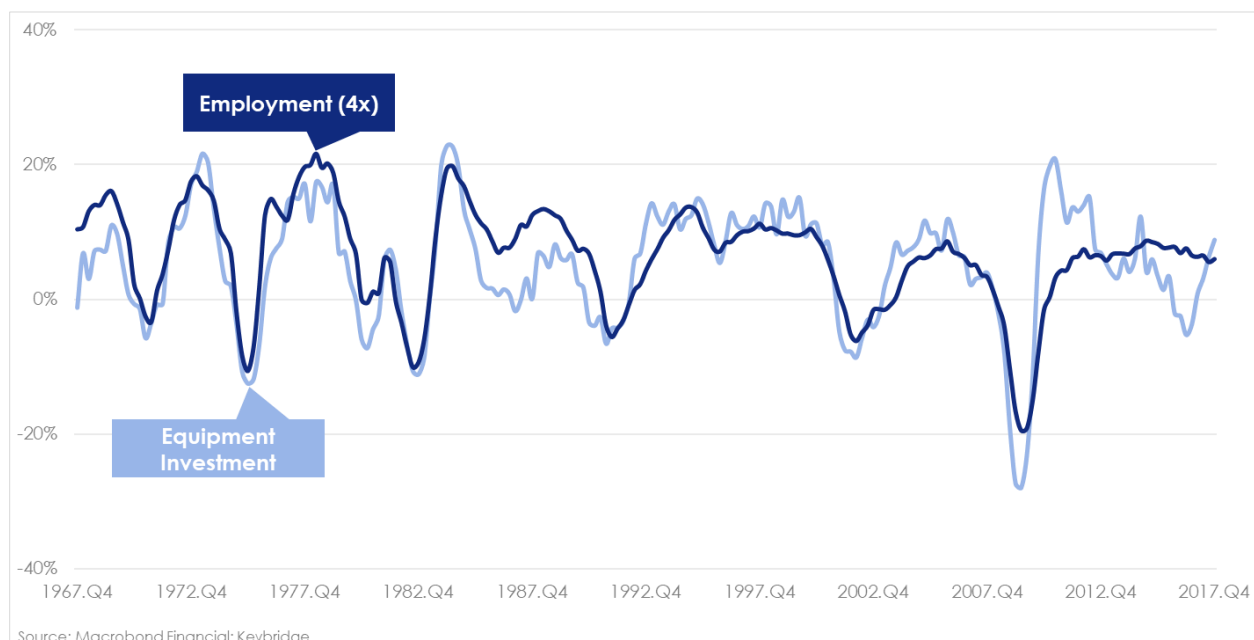
If the Fed manages the economy well by raising rates fast enough to keep inflation in check, but not so fast that growth is unnecessarily restrained, the economy can remain in the expansion phase for years. However, eventually, the business cycle peaks and the economy begins to decline. During an economic contraction (also known as a recession), GDP falls, unemployment rises, and businesses pull back until economic conditions improve. Recessions are often triggered by a tangible event (or events), including oil shocks, housing market crashes, financial crises, or bouts of excessive monetary tightening. Regardless of the trigger, the decline in economic activity will also tend to reduce inflation, which is part of the reason why the Fed typically lowers the federal funds rate — often by several percentage points during a recession — in an effort to kickstart business investment and spur growth.

Like most industries, the equipment finance industry closely follows the business cycle. As demonstrated in Figure 2, changes in overall investment for equipment mirror changes in non-farm employment, a commonly-used business cycle indicator. Specifically, when the economy is growing, and businesses look to expand operations through increased capex spending, the equipment finance industry benefits. Conversely, when the economy peaks and businesses begin to pull back, capex spending falls and the equipment finance industry feels the pinch. The remainder of this chapter will describe these typical effects in more detail.

To put these cycles into historical perspective, Table 1 summarizes the cycles that the equipment finance industry has encountered over the last 30+ years. These cycles are described in greater detail throughout this chapter.

**Figure 2: Equipment Investment and Non-farm Employment**

Percent Change Y/Y



**Table 1: Select Indicators of Industry Performance During Prior Business Cycles**

Business Cycle	Industry Indicator	Business Cycle Phase		
		Early Expansion with Low Interest Rates	Late Expansion with Rising Interest Rates	Contraction with Falling Interest Rates
		1985–1988	1988–1989	1990–1992
1985 to 1992	C&I Loan and Lease Growth	6.9%	6.2%	-1.4%
	Equipment Investment	3.0%	5.7%	-0.2%
	C&I Loan Charge-Off Rate	1.3%	1.0%	1.5%
		1993–1999	1999–2000	2001
1993 to 2001	C&I Loan and Lease Growth	7.2%	8.8%	-0.5%
	Equipment Investment	11.9%	10.6%	-4.2%
	C&I Loan Charge-Off Rate	0.4%	0.7%	1.4%
		2002–2004	2004–2007	2008–2009
2002 to 2009	C&I Loan and Lease Growth	-7.2%	12.4%	3.1%
	Equipment Investment	0.5%	7.3%	-14.7%
	C&I Loan Charge-Off Rate	1.4%	0.3%	1.6%

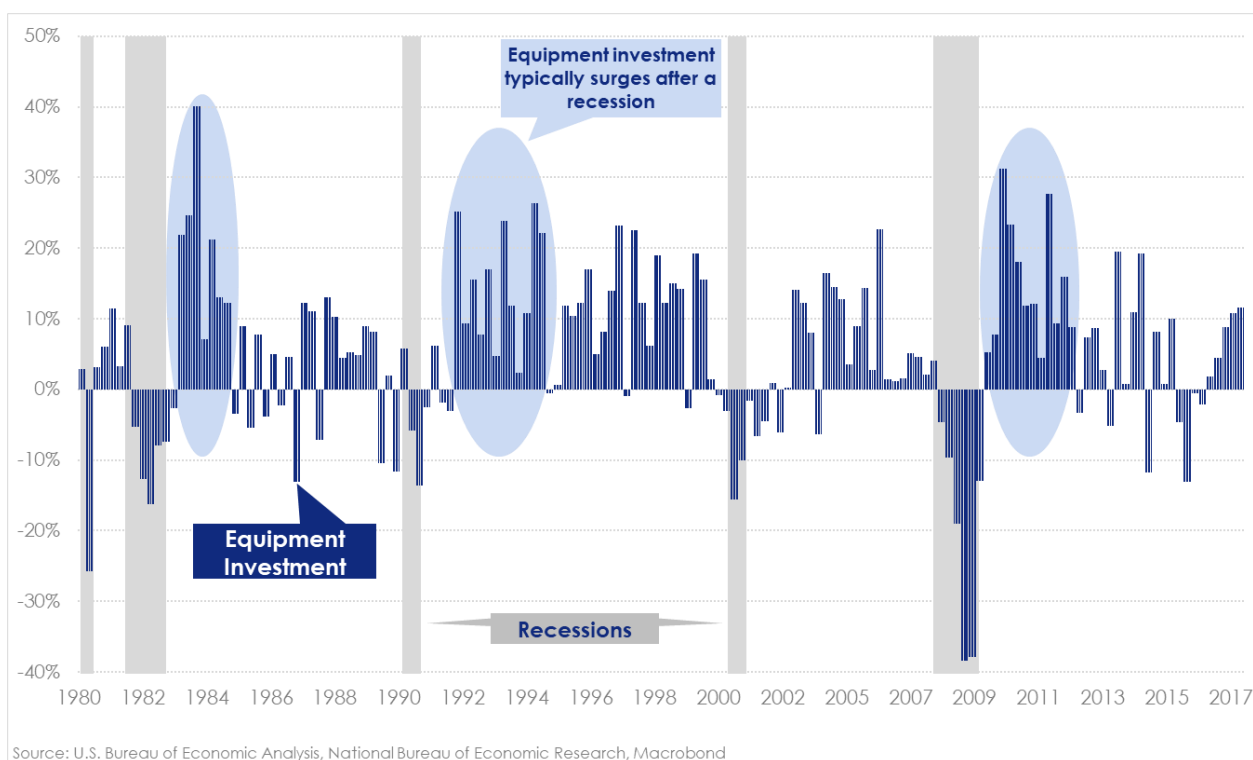
### III. INDUSTRY EFFECTS AT THE BEGINNING OF AN ECONOMIC EXPANSION

At the beginning of an expansion phase, the economy usually grows at a relatively modest pace. Since the economy is just starting to recover from the previous contraction, there is usually substantial pent-up business demand for new equipment — especially to replace assets worn out during the previous downturn. As such, economic conditions for the equipment finance industry are quite favorable during the initial stages of a recovery. Industry effects during this phase of the business cycle typically include:

- **Expanding New Business Volume.** A strengthening economy generally coincides with increased business investment for equipment (see Figure 3). Moreover, given that interest rates are typically low when a recovery begins, this investment surge is likely to be financed. As such, new business volume growth should be expected to rise at a healthy to robust pace in the years immediately following a recession. This “procyclical” behavior can also be seen in the ELFA Monthly Leasing and Finance Index (MLFI-25), which illustrates how new business volume declined sharply during the Great Recession but began to rebound in 2010 and then experienced strong growth in the years that followed (see Figure 4).
- **Strengthening Portfolio Performance.** Portfolio performance typically improves in the beginning of an expansionary phase. Low interest rates and a recovering economy alleviate financial stress, while many lenders are more cautious with their lending activity. After the most recent recession, the Kansas City Fed Financial Stress Index and the St. Louis Fed Financial Stress Index both fell sharply as the economy returned to positive growth. Similarly, according to the Thomson Reuters/PayNet Small Business Delinquency Index (SBDI), small business delinquencies fell from 3.39% in August 2009 to just 1.15% by October 2013 as financial stress eased and lending standards tightened.

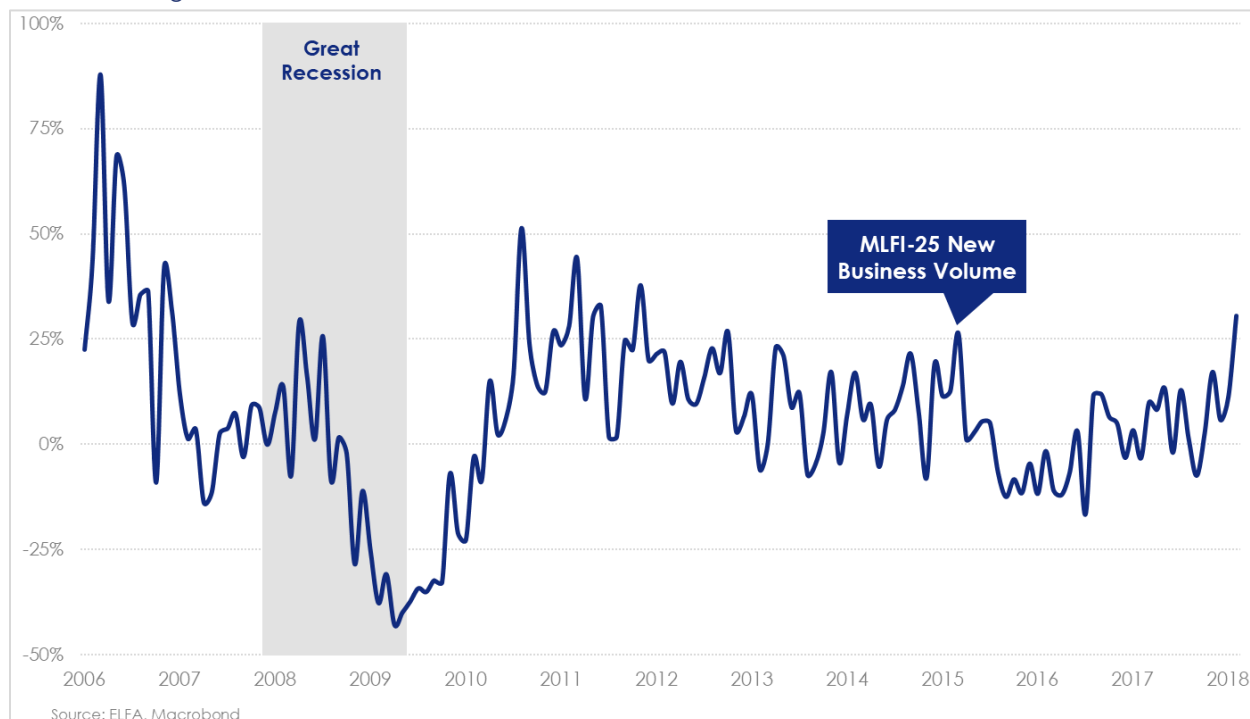
**Figure 3: Equipment Investment, 1980 – 2017**

*Seasonally Adjusted Annualized Rate (SAAR), Percent Change Q/Q*



**Figure 4: MLFI-25 New Business Volume**

Percent Change Y/Y



#### IV. INDUSTRY EFFECTS WHEN THE ECONOMY BUILDS MOMENTUM

After the initial rebound following a recession, the economy tends to pick up steam as cyclical tailwinds begin to kick in. Job growth is strong in this phase, and as fewer workers sit on the sidelines, wage pressures begin to build and inflation rises. Though a modest amount of inflation is healthy for the economy, problems can develop if inflation rises too quickly or unpredictably, and it can be more difficult for lenders to profitably price deals.

However, as inflationary pressures in the economy build, the Fed typically responds by raising the federal funds rate. This increases the cost of borrowing, which deters marginal investment decisions which are no longer profitable and puts downward pressure on inflation by reducing the effective supply of money.

In this phase of the business cycle, industry effects typically include:

- **Sustained New Business Volume Growth.** Sustained economic momentum typically supports continued new business volume growth. Though increasing interest rates can keep some potential customers out of the market for equipment financing, as long as the economy continues to grow there is generally sufficient demand for new equipment to sustain a moderate pace of new business volume growth. In fact, during this phase of an economic expansion, there is often a “capacity expansion” phase in which businesses respond to rising aggregate demand and elevated capacity utilization (i.e., more than 80%) by purchasing new equipment and software to ramp up output and meet demand. Over the past four decades, commercial and industrial (C&I) loans and leases in bank credit have experienced solidly positive year-over-year growth throughout periods of rising interest rates.



- **A Potential Increase in Financial Stress.** Higher interest rates may strain the financial health of some borrowers, particularly if rate increases occur more rapidly than anticipated. However, this effect usually occurs at a significant lag compared to the rise in interest rates, since it takes time for delinquencies and defaults to manifest. For example, consider the results of the Fed's decision to raise the federal funds rate in the economic expansion preceding the dot-com bubble burst. As the Fed doubled the federal funds rate over the course of 1994–1995, the C&I loan delinquency rate fell from 2.7% to 2.0% (see Figure 5). However, as interest rates remained elevated and rose again in 1999, C&I loan delinquencies increased, climbing from 1.6% in late 1997 to 2.7% as the recession began in 2001, and ultimately to 3.9% in 2002 just after the recession ended.
- **An Ambiguous Effect on Spreads.** Many industry leaders and market watchers anticipate that in a rising interest rate environment, spreads are likely to rise. However, according to data from prior business cycles, spreads tend to compress, not widen, in a rising interest rate environment. For example, from 2003–2006, the industry's pre-tax spread fell by roughly 100 basis points (from 4% to 3%) while the Federal Funds Target Rate rose from 1.00% to 5.25% (see Figure 6). A similar effect can be observed in other business cycles.

Spreads tend to fall when market interest rates rise for multiple reasons. First, although interest rate hikes put upward pressure on yields, they generally exert even more upward pressure on the cost of funds. This effect occurs because short-term interest rates track changes in the federal funds rate more closely than longer-term rates, so when the Fed hikes rates, an equipment finance firm's portfolio-wide cost of funds may rise before it can command higher portfolio-wide yields to offset this change. Additionally, interest rates tend to rise when the economy is strong, which means that some of the spread compression could be due to increased competition (see below). Moreover, as the growth cycle matures and demand for equipment and financing slow down with higher rates, successively narrower margin assets are layered into a lessor's portfolio while wider-margin assets are being paid down and falling off.

However, this “typical” effect becomes more ambiguous in today's economic environment, in part because the current business cycle is unusual given the prolonged period over which interest rates hovered near zero (a phenomenon that economists have dubbed the “zero lower bound”). When the Fed lowered rates during the Great Recession to combat the decline in confidence and demand, it dropped its benchmark rate down to 0 – 0.25% and held it there for seven years. While a drop in the federal funds rate is normally associated with widening spreads, in this case the zero lower bound may have caused the cost of funds to hit a floor that forced spreads to tighten even while the economy began to expand. This effect may have been magnified by the comparative weakness of the current economic expansion, which may have further dampened market interest rates and spreads.

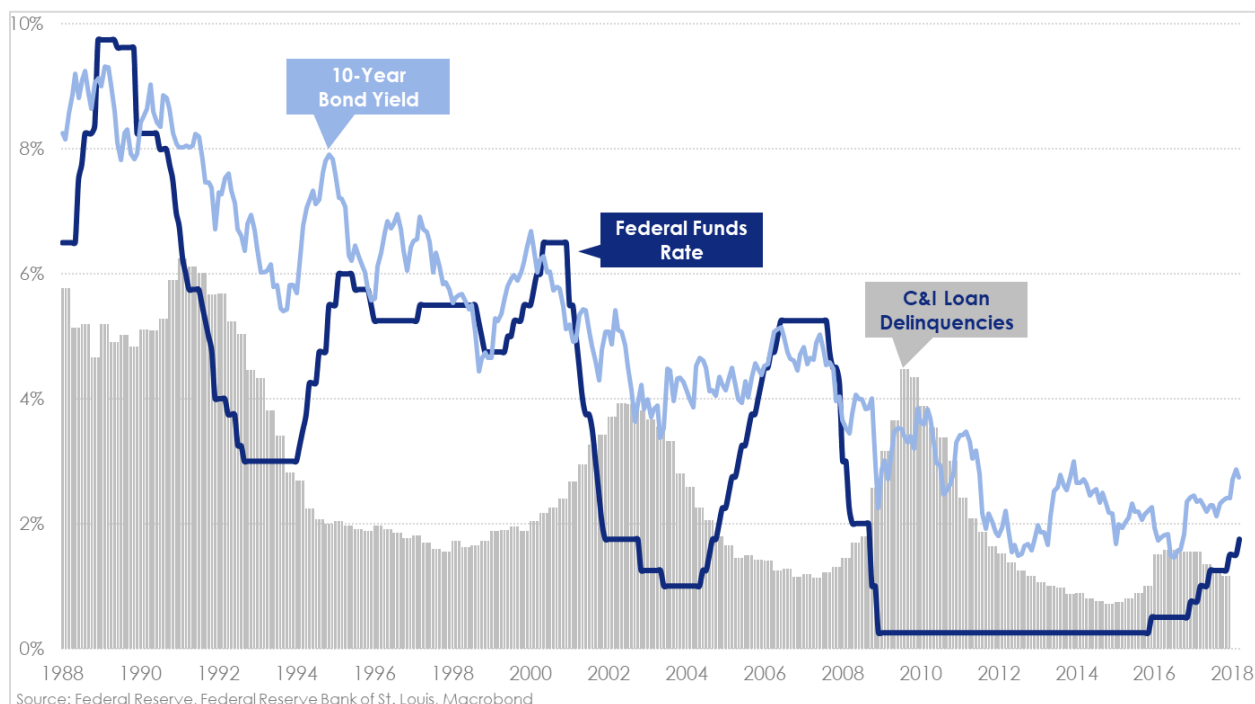
Therefore, it is unclear whether a rising interest rate environment will have the same compression effect on spreads as it has had in previous business cycles. On the one hand, the Fed's policy of rate normalization should cause the cost of funds to rise faster than yields, as it has historically. On the other hand, the escape from the zero lower bound creates more “space” for spreads to widen. On balance, it seems that while *higher* interest rates are good for spreads, *rising* interest rates cause spreads to narrow. Therefore, when interest rates rise gradually, and in an environment of strong growth, spreads may stay at similar levels or even

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widen somewhat. However, if interest rates rise rapidly in an environment of relatively weak growth, spreads will likely compress.

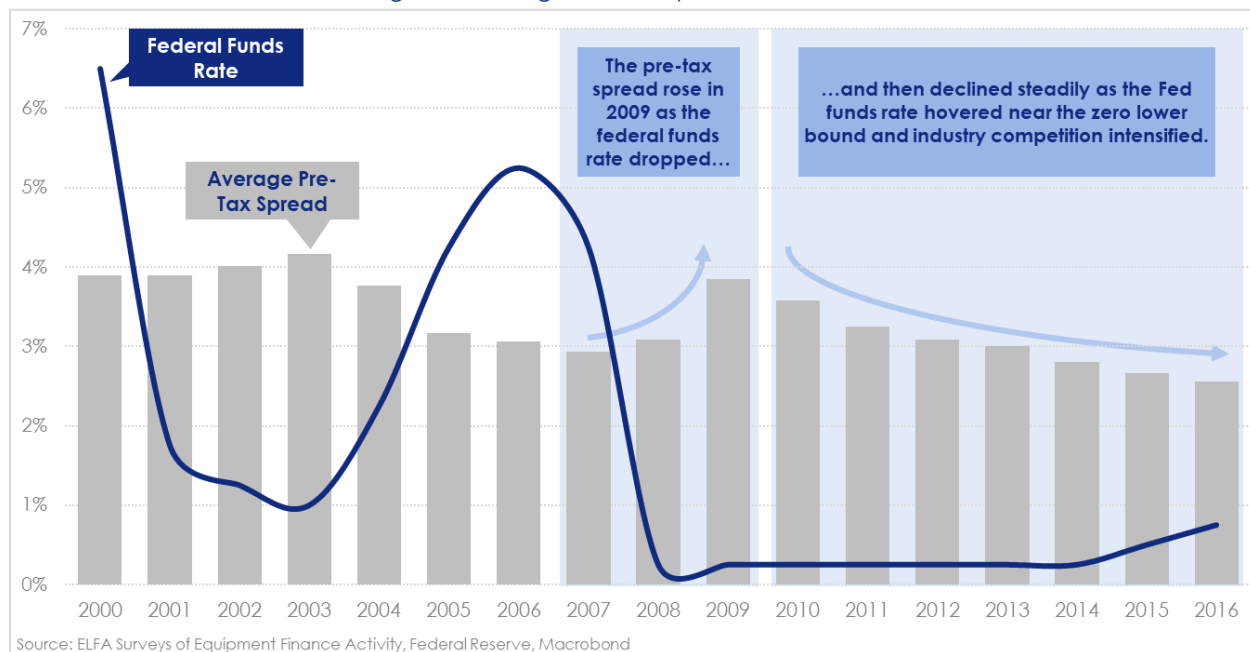
**Figure 5: Interest Rates vs. C&I Loan Delinquencies**

Federal Funds Rate; 10-Year Bond Yield vs. C&I Loans Delinquency Rate for All Commercial Banks



**Figure 6: Interest Rate vs. Average Equipment Finance Industry Spread**

Federal Funds Rate vs. Dollar-Weighted Average Pre-Tax Spread



- **Increased Competition.** Strong economic momentum would likely increase competition among creditors, which could push some lenders to loosen credit standards in order to attain new business. During the previous expansion, banks continually eased lending standards to defend their market share. The Fed's Senior Loan Officer Survey shows that in each quarter from Q3 2004 to Q4 2007, half or more of the banks that eased lending standards from the previous quarter reported that aggressive competition from other lenders was a very important reason for the change. In the current expansion, the last few years have been marked by a hypercompetitive business environment that has caused spreads to tighten.

## **V. INDUSTRY EFFECTS AS THE ECONOMY PEAKS AND CONTRACTS**

As an expansion matures, eventually the economy peaks and begins to contract. Historically, this is often precipitated by an economic shock of some sort, such as a sharp increase in interest rates to stave off inflation, a surge in energy prices, a housing market correction, a financial crisis, or a combination of factors. Regardless of the cause, the Fed's initial response is generally a rapid lowering of interest rates in an effort to improve lending conditions, boost economic activity, and lessen the recession's blow.

As an economy peaks and begins to contract, industry-wide effects are likely to include:

- **Declining New Business Volume.** In an economic contraction, new business volume growth is minimal and possibly negative since falling demand disincentivizes businesses from expanding. Equipment investment has consistently fallen in periods of economic contraction (see Figure 3), which means fewer deals for equipment finance firms. Similarly, capacity utilization has also declined sharply in every recession throughout the series' history, dropping to an all-time low of 67% in the wake of the Great Recession. Low capacity utilization means that businesses have less need for new equipment.
- **Worsening Portfolio Performance.** Portfolio performance typically suffers during recessions. As the economy declines, many borrowers face less demand, financial distress, and greater difficulty repaying existing loans and leases. The equipment finance industry saw delinquencies 90 or more days past due rise to a high of 3.1% in 2009. Likewise, the C&I loan delinquency rate jumped during all three of the most recent recessions.

Eventually, businesses and consumers regain their footing and start to seek opportunities for expansion once again. When this occurs, the economy resumes a positive growth trajectory, resetting the business cycle.

## **VI. WHERE IS THE U.S. ECONOMY NOW?**

The U.S. economy has been in an expansionary phase since the Great Recession ended in 2009, marking the third-longest expansion (and soon the second-longest) in U.S. history. After an initial period of double-digit growth, the equipment finance industry has generally sustained moderate new business volume growth throughout the expansion, and delinquencies remain well-below pre-recession levels. Though equipment and software investment contracted in 2016 as GDP growth slowed to a lethargic 1.5%, investment bounced back to 4.9% in 2017 and looks likely to best that mark in 2018.

While economic conditions remain conducive to growth, there are signs that the winds of change could be approaching in the next 12–18 months. As is typical for the late stages of a business

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cycle, the unemployment rate is historically low and has held below 5% for more than two years. This suggests that the labor market is tight and workers are increasingly scarce (though economists disagree about the degree), which should lead to rising labor costs and higher inflation in the months and years ahead. Similarly, the extended period of low interest rates has sparked worries that the Fed lacks sufficient policy tools to respond to an economic downturn. In response, the Fed is conducting “policy normalization” by raising short-term interest rates (among other actions). In doing so, the Fed will attempt to guide the U.S. economy into an environment of higher (yet manageable) interest rates and inflation — for which some businesses may be unprepared.

## **VII. CONCLUSION**

Understanding where the economy currently stands within the broader business cycle has important implications for the equipment finance industry, in part because of how interest rates and inflation tend to shift as the cycle matures. These shifts have a significant effect on key industry metrics, including new business volume, profitability, and portfolio performance. Looking ahead, if inflation and/or interest rates begin to rise quickly as has occurred in previous business cycles, equipment finance firms that anticipate these changes and adjust their business practices accordingly (as described in Chapter 5) will be better positioned to compete and thrive.

## CHAPTER 2

### Evidence of Rising Inflation and Interest Rates

#### I. INTRODUCTION

Since the Great Recession, the U.S. economy has lingered in an environment of low inflation, low interest rates, and relatively low growth. Inflation readings in the range of 2–2.5% and a federal funds rate at 4–5% were the norm during the last business cycle expansion from 2003-2006. Since 2009, however, the Fed's preferred measure of inflation has generally remained below 2% (see Figure 7). Along with relatively subdued economic growth, this has forced the Fed to maintain its benchmark interest rate at historically unprecedented low levels. The Fed held its target rate at 0–0.25% for seven straight years until finally raising it in December 2015, and since then the federal funds rate has risen at only a gradual pace of 25-50 basis points per year.

Managers of equipment finance businesses have grown accustomed to this environment of predictably low rates and easy money. Some leasing businesses have made medium-long term plans based on the assumption of persistently low interest rates and inflation, but these assumptions may turn out to be invalid. Equipment leasing firms may be vulnerable to the effects on fixed-payment lease structures and customer demand for longer-term leases. For example, if interest rates rise quickly while a lessor continues to offer longer-term fixed rates, the lease will quickly become less profitable for the lessor. In that environment, customers may attempt to shield themselves from rising rates by demanding longer-term leases with fixed rates.

**Figure 7: Core CPI Inflation and the Federal Funds Rate**

(Inflation = Consumer Price Index, Excluding Food & Energy)





## How Inflationary Pressures and Rising Interest Rates Could Impact the Equipment Finance Industry

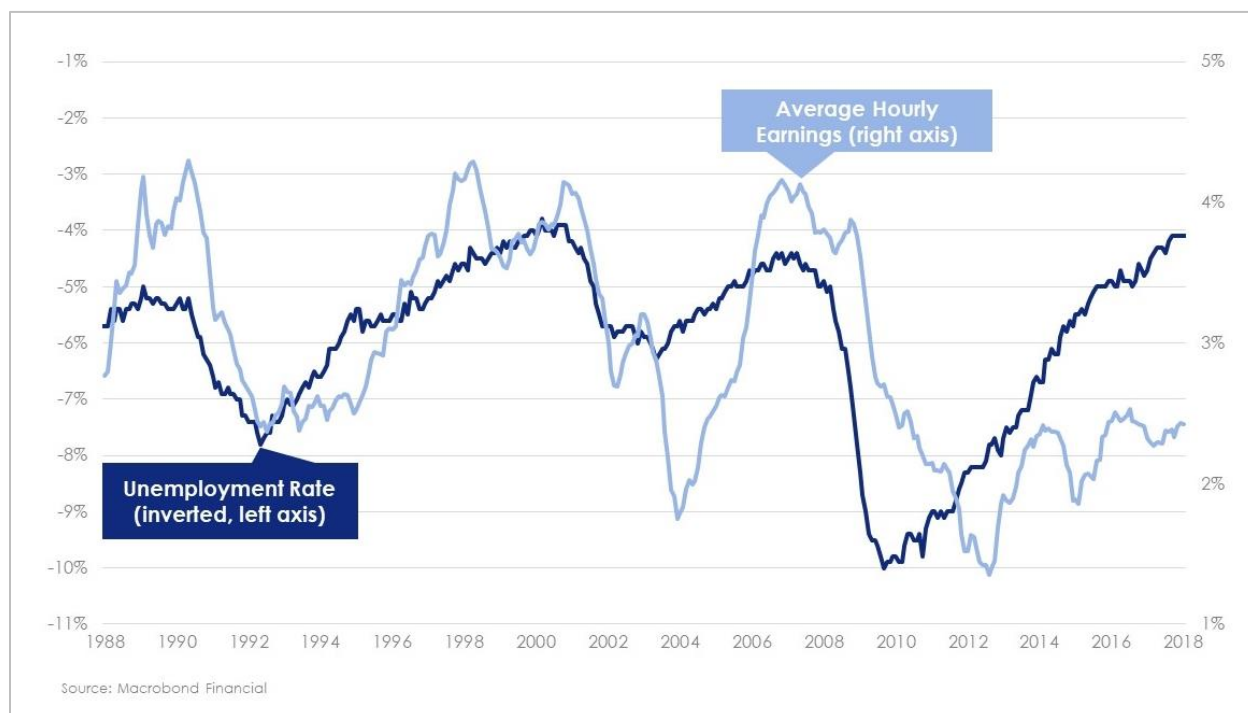
For this reason, some economists and market analysts have been voicing concerns about the possibility that the U.S. economy could be entering a new phase in the business cycle for which businesses may not be prepared. GDP growth has accelerated over the last several quarters on the back of renewed business confidence and a synchronized global growth upturn. A historically strong labor market should put upward pressure on wages and inflation. Rising inflation and the economy's position in the current business cycle may cause the Fed to raise interest rates more quickly than markets anticipate.

This chapter examines the evidence for why the U.S. economy may be about to move out of our current low-inflation, low-rate status quo. In doing so, it will describe some of the trends that economists look for when determining where inflation and interest rates are likely to head in the coming months and years. On balance, the evidence points to the probability that interest rates and inflation will rise faster than anticipated over the next one to three years and may take businesses and consumers by surprise. However, the fact that the current economic cycle has been unusual in many ways means that considerable debate exists about where the U.S. economy will head in this late stage of the business cycle.

## II. THE LINK BETWEEN LABOR MARKETS AND INFLATION

As described in the previous chapter, there is a decided link between a strong labor market and inflationary pressures. In practice, Figure 8 shows how year-on-year growth in wages (average hourly earnings) and the unemployment rate (inverted) tend to move closely together, with shifts in the unemployment rate generally signaling movements in wage growth.

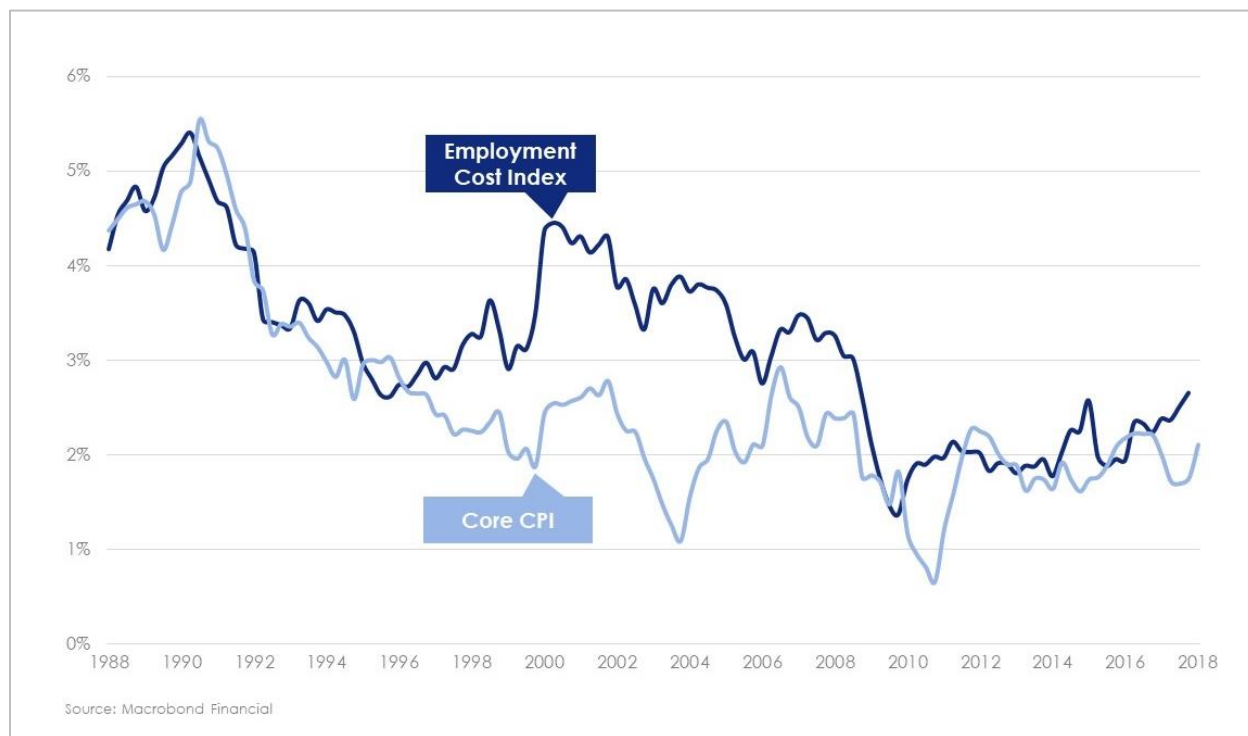
**Figure 8: Unemployment Rate and Wage Growth**



## How Inflationary Pressures and Rising Interest Rates Could Impact the Equipment Finance Industry

In turn, increases in wages and compensation tend to track with rising inflation. This relationship is most evident when considering firms' total labor costs, which include insurance, retirement benefits, and sales commissions. Figure 9 demonstrates the close relationship between total labor costs (as measured by the Employment Cost Index for Total Compensation) and inflation (as measured by the Consumer Price Index, or CPI).

**Figure 9: Core Inflation (CPI) and the Employment Cost Index**



### III. EVIDENCE OF RISING LABOR COSTS

At present, the U.S. labor market appears to be exceptionally tight. Unemployment stands at 3.9% as of April 2018 (a 17-year low), and monthly job gains remain strong, suggesting that the unemployment rate is likely to dip further in the coming months. These facts normally signal that faster wage growth is around the corner, which likewise tends to track with accelerating inflation. At present, average hourly earnings remain relatively muted at the national level. However, economists often look to wage growth for higher-skilled occupations when assessing the potential for rising labor costs. Wages for these workers tend to rise before those for the broader economy, as high-skilled workers are relatively scarce due to the expensive and time-consuming nature of their training.

Figure 10 shows the recent compression of high- and low-skill wage growth. According to data from the Federal Reserve Bank of Atlanta, median wage growth for high-skill occupations is 3.5% as of March 2018, compared to just 2.6% for low-skill occupations. While there remains a gap between wage growth for high- and low-skill occupations, it narrowed from 1.7 percentage points in early 2014 to 0.9 percentage points in March 2018.

Other labor market indicators also point to rising labor costs. The Employment Cost Index for Total Compensation increased 2.7% year-over-year in the fourth quarter of 2017, the fastest pace in a

*How Inflationary Pressures and Rising Interest Rates Could Impact the Equipment Finance Industry* decade (see Figure 9). Similarly, according to the National Federation of Independent Businesses ("NFIB"), the top business problem for small businesses is finding qualified workers, and small business owners are trying to solve this problem by raising wages. Taken together, these indicators point to elevated labor costs that can be expected to rise further over the short term with additional tightening of the labor market.

**Figure 10: Wage Growth by Skill Level**



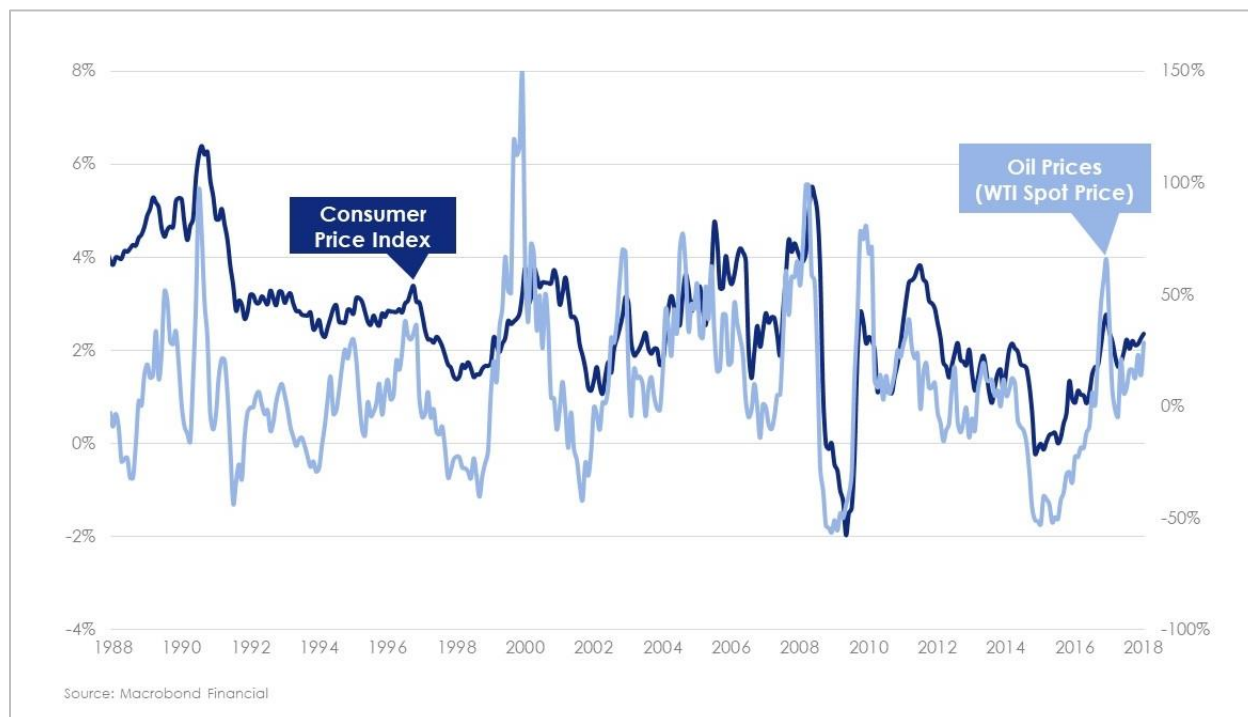
#### IV. OTHER INFLATION DRIVERS

Although labor costs are the most commonly-cited driver of inflation, economists may also look to domestic growth, commodity prices, inflation expectations, global growth, offshore labor costs, and fiscal policy for hints about the behavior of inflation over the medium term. On balance, these indicators are likewise signaling the potential for building inflation over the near term.

- Domestic Growth:** Faster domestic economic growth tends to lead to higher inflation. As the economy heats up, incomes rise, debt becomes more serviceable, and consumers feel more confident. Demand rises across the board, allowing businesses to raise prices. The U.S. economy is currently in the late stages of the business cycle, as explained in Chapter 1. Consumer confidence is near record highs and debt-to-income ratios are much lower than in prior expansions. As such, the strength of the economy should put upward pressure on inflation over the coming months.
- Commodity Prices:** Oil prices are the most important commodity price for inflation. Although energy prices only represent about 8% of the Consumer Price Index, oil's integral role in the U.S. economy means that oil prices play an outsized role in the price of many goods. Figure 11 demonstrates how closely oil prices (as measured by the West Texas International spot price, or WTI) and inflation move together. As the chart illustrates, the relationship between

oil prices and inflation is magnified during times of significant oil price volatility, such as the oil price spike of 2007–08 and the oil price collapses of 2008–09 and late 2014.

**Figure 11: Headline CPI Inflation and Oil Prices**



Over the coming months, oil prices are expected to stabilize in the \$50-65 range. Despite relatively low volatility expectations, weak oil prices in mid-2017 will mean that oil prices (and therefore gasoline prices) are 20-40% above year-ago levels. As such, oil will be inflationary for the middle part of the year even without significant price changes. A tail risk to consider is escalating tension in Syria and the Middle East, which could boil over into widespread armed conflict. If this happens, and oil production falls as a result, prices could spike over a short period of time and drive inflation higher. A further political meltdown in Venezuela also represents a risk to oil prices.

- **Expectations:** When considering the link between unemployment and inflation, economists sometimes add inflation expectations as a significant second driver of inflation that captures the residual effect on inflation after labor market factors are quantified. Inflation expectations can be derived from survey data (e.g., the University of Michigan's Survey of Consumer Sentiment) and financial markets (e.g., the market-implied spread between a normal bond yield and an inflation-protected bond).

Some economists attribute the current disconnect between unemployment and inflation to muted inflation expectations. Indeed, a decade of low inflation and low interest rates may have had a significant “anchoring” effect on consumers’ and businesses’ inflation expectations, which means that inflationary pressures could build for a while before expectations respond. When they do, prices can increase suddenly and rapidly, as employees begin to demand faster wage increases and businesses become more confident about their ability to pass their rising input costs through to the consumer. Therefore, once inflation expectations become unanchored, inflation can ramp up quickly.

## How Inflationary Pressures and Rising Interest Rates Could Impact the Equipment Finance Industry

To assess whether expectations are shifting, movements in “market-implied” inflation expectations can provide an early warning sign. Inflation expectations remain muted when considering a longer time horizon, but there has been a notable surge in expectations since the beginning of 2017. One-year-forward inflation expectations have risen from 2.2% to 2.7% over the last 16 months according to the University of Michigan's Survey of Consumer Sentiment, pointing to a growing consensus of higher inflation in the near term.

- **Global Growth:** Generally, stronger global economic growth tends to lead to higher inflationary pressures. When growth accelerates throughout the global economy, demand for goods and services, including U.S. exports, increases. This “demand-pull” effect tends to exert upward pressure on prices globally and in the United States, raising inflation.

2017 was the strongest year of worldwide economic growth since before the Great Recession. This global upswing increased demand for U.S. goods and services, with U.S. monthly exports having grown 5.6% year-over-year, on average, during 2017. The World Bank estimates that global economic growth will accelerate further in 2018, which should further boost demand for U.S. exports. A strengthening global economy, all else being equal, should also cause the U.S. dollar to weaken, adding to inflationary pressures.

- **Low-Cost Manufacturing in China:** China has long been a source of cheap labor for U.S. manufacturers. Low labor costs in China have allowed U.S. companies to outsource production and charge lower prices for a range of goods, especially consumer nondurables like clothing, toys, and plastic products. While labor costs in China are still relatively low, average hourly wages have increased dramatically over the last two decades. As wages continue to rise and China shifts away from low value-added manufacturing, production

### How will the recent tax cuts affect interest rates and inflation?

Fiscal policy also plays a role in determining inflationary pressures in an economy. Contractionary fiscal policy — raising taxes and cutting government spending, for example — would be disinflationary for the economy. Workers have less take-home pay, businesses have less money to invest, and demand falls. Conversely, expansionary fiscal policy — lower taxes and higher government spending — tends to drive inflation upward.

The December 2017 passage of \$1.5 trillion in tax cuts will provide a substantial fiscal boost to the U.S. economy despite how late in the business cycle the economy sits. Businesses' cash flows will improve, leaving them with more money for investment, worker pay, and stock buybacks. Similarly, cuts to individual tax rates will leave consumers with more money in their bank accounts, which will likely spur additional spending. Government spending is also poised to rise sharply for the first time since the Great Recession after the passage of the recent budget omnibus. Unleashing this spending from businesses, consumers, and the government will put upward pressure on inflation, as demand strengthens across the economy.

As a result of these tax cuts working their way through the economy, many economists anticipate that the Fed will raise interest rates faster than it otherwise would have in order to tamp down inflation and reduce the chance of the economy overheating. Indeed, soon after the tax reform package was enacted into law, economists at Credit Suisse increased their expected number of Fed rate hikes in 2018 from three to four, stating that “with the economy near (or above) full employment...the Fed ought to accelerate their tightening in response to a large positive demand shock.” Keybridge also predicted four rate hikes in its *2018 Annual Economic Outlook*.



costs will rise for U.S. firms that import significant amounts of Chinese goods. Although U.S. firms may shift some production to other low-wage countries in the long-run, the short- to medium-term effect of rising labor costs in China should be higher inflation in the U.S.

## **V. BREAKDOWN OF THE PHILLIPS CURVE**

While several indicators point toward higher inflation in the near term, a debate has emerged among economists and market watchers about whether accelerating inflation really is just around the corner. Although most economists agree that lower unemployment tends to lead to higher inflation (the relationship described by the Phillips Curve), there is some evidence to suggest that the historically close relationship between these two measures may be breaking down.

Indeed, Figure 9 shows how average hourly earnings and unemployment have generally tracked together well over time, but recently the relationship appears to have weakened, as unemployment has continued to fall while wage growth has stagnated. Noting this divergence, some economists argue that inflation may fail to accelerate because certain factors are preventing apparent labor market tightness from feeding into higher wages and higher inflation.

- **Labor Markets Not as Strong as Advertised.** Some inflation skeptics argue that labor markets are not actually as tight as the low unemployment rate implies. They often cite the labor force participation rate, which began to decline in 2000, fell sharply after 2008, and stabilized in late 2014 but has since remained stubbornly low. Specifically, the labor force participation rate has declined from roughly 66% in 2007 to under 63% as of March 2018 — leaving some 9 million workers “missing” from the labor force. Some inflation skeptics point to these missing workers as evidence that the labor market is not as tight as it appears. However, approximately half of these 9 million people are retiring baby boomers, meaning that they are unlikely to ever rejoin the labor force.<sup>1</sup> Other factors suppressing labor force participation which are unlikely to ease in the near term include drug abuse and increased disability insurance enrollment. However, if there is lingering slack in the labor force, the U.S. economy may have more “room to run” in terms of job gains before labor becomes scarce enough to drive inflation higher.
- **Decline of Unionization and Labor Bargaining Power.** Other inflation skeptics argue that wages and inflation are both subdued, despite the tight labor market, because workers do not have as much bargaining power as they did in the past. One reason may be declining unionization, which has reduced employees’ ability to bargain collectively for higher pay. Another may be the threat of automation: workers may be unable to demand higher wages out of knowledge that their job could be automated. In effect, the supply of labor is not actually that constrained, since employers can easily substitute labor for capital.

The evidence to support each of the above hypotheses is mixed. On balance, the evidence generally supports a story of increasing growing wage pressures over the coming months and years, but a full exploration of the resilience of the Phillips Curve is beyond the scope of this Report. Instead, given that there is considerable uncertainty about the future trajectory of wage growth and inflation, Chapter 3 outlines several ways that the economy could move in the short-medium term, including cases where inflation does not accelerate as expected. See Table 2 for a summary of the aforementioned inflation drivers and their current and near-term trends.

## **VI. WHAT DO INFLATIONARY PRESSURES MEAN FOR INTEREST RATES?**

As inflationary pressures build, it is the responsibility of the Fed to prevent prices from rising too quickly. In line with its dual mandate of supporting maximum sustainable employment while keeping prices stable at an explicit 2% target, the Fed typically uses the federal funds rate (its primary tool) to push up interest rates throughout the market and prevent inflation from breaking out. Conversely, the Fed will cut the federal funds rate when the economy is showing signs of weakness to encourage consumers and businesses to spend more. As shown in Figure 7, movements in the federal funds rate tend to precede movements in inflation, illustrating how Fed monetary policy helps to manage inflationary pressures in the economy.

For this reason, it is highly likely that the Fed will respond quickly if inflation climbs, raising interest rates 100 basis points or more per year. Although the effect of Fed action on other interest rates (e.g., Treasury yields, corporate bond yields, and other discount rates and rates of return) will vary based on complex market forces of supply and demand, the general pressure on rates will be upward — and in some cases, that upward movement may be faster than the rise in the federal funds rate.













In fact, it is possible that the Fed will increase the federal funds rate several times per year even if inflation remains at or below the Fed's 2% target, for several reasons. These include:

- **A More Hawkish Fed:** The Federal Open Market Committee ("FOMC") is the Fed's policy-setting body and is comprised of a rotating set of regional Federal Reserve Bank presidents and a board of governors. The FOMC's composition at any given time plays an important role in determining how aggressive monetary policy will be in responding to inflationary pressures. Monetary "doves" (including former Chairwoman Yellen) prefer to raise interest rates more slowly to encourage full employment. Monetary "hawks," on the other hand, tend to respond more quickly and forcefully when inflation begins to rise.

With Yellen's departure and new voting members joining from regional banks, the FOMC has become more hawkish. Chairman Powell has publicly expressed a bullish view of the economy, which has caused bond yields to rise as investors price in a greater likelihood of more rapid interest rate hikes. Indeed, when Powell hinted at the possibility of more than three rate hikes in 2018, bond yields jumped to their highest point in more than four years.

- **Unwinding Quantitative Easing and Escaping the "Zero Lower Bound":** The still-low federal funds rate and the Fed's massive balance sheet are growing concerns for market-watchers. During and after the Great Recession, the Fed cut the federal funds rate to zero and purchased approximately four trillion dollars in financial assets in a massive "quantitative easing" program. These actions are examples of extreme efforts to kickstart economic activity with cheap money after a deep recession. However, they also left the Fed with few tools to combat a near-term economic downturn (hence the notion of being "trapped" by the zero lower bound). Consequently, the Fed has signaled its interest in continuing to raise rates, barring signs of economic weakness.

**Table 2: Inflation Drivers: Current Inflationary Pressures and Expected Near-Term Trends**

Inflation Driver	Current Status	Near-Term Trend	Metric	Explanation
Labor Costs			Avg. Hourly Earnings	Rising labor costs should cause businesses to raise prices, driving inflation higher.
Domestic Growth			GDP	Faster domestic growth puts more money in consumers' pockets, raising demand across the economy.
Oil Prices			WTI Spot Price	Higher oil prices feed into higher prices for energy-intensive goods, fueling higher inflation.
Expectations			TIPS Spread	A widening TIPS spread indicates that investors expect higher inflation over coming months and years.
Global Growth			Global GDP	Accelerating global growth will increase demand for American goods and services, causing prices to rise.
Fiscal Policy			N/A	Higher levels of government spending coupled with tax cuts will boost demand throughout the economy, raising prices.
Offshore Labor Costs			Unit Labor Costs	Rising labor costs in developing countries will cause input costs to rise for American firms, likely leading to higher inflation.
Automation			N/A	As firms continue to automate production processes, labor costs will fall, possibly holding back inflation.
Labor Force Participation Rate			LFPR	If more sidelined workers enter the labor force, employers will be able to hire without offering higher wages.
Unionization			Unionization Rate	A historically low unionization rate has weakened workers' bargaining power, reducing firms' need to raise wages.

## VII. CONCLUSION

Inflationary pressures are likely to continue to build as the U.S. economy gathers momentum. Over the next one to three years, an increasingly tight labor market should lead to higher labor costs, which in turn should translate into higher consumer prices. At the same time, global growth, domestic fiscal policy, and Federal Reserve signaling all point to higher inflation over the same period.

If higher inflation materializes, the Fed could respond with larger and/or more frequent interest rate hikes than financial markets anticipate. That circumstance would likely lead to increased volatility in bond and equity markets. Even if inflation does not build as expected, a more hawkish Fed's desire to normalize monetary policy appears likely to result in higher interest rates.

In short, significant changes are afoot in the U.S. economy, but there are several ways in which this could play out over the coming months. The next chapters are designed to identify and evaluate the most likely scenarios for movements in interest rates and inflation during the remainder of this business cycle, and to suggest how equipment finance professionals should consider adjusting their business practices in each scenario.

## CHAPTER 3

### Likely Scenarios for Inflation and Interest Rates

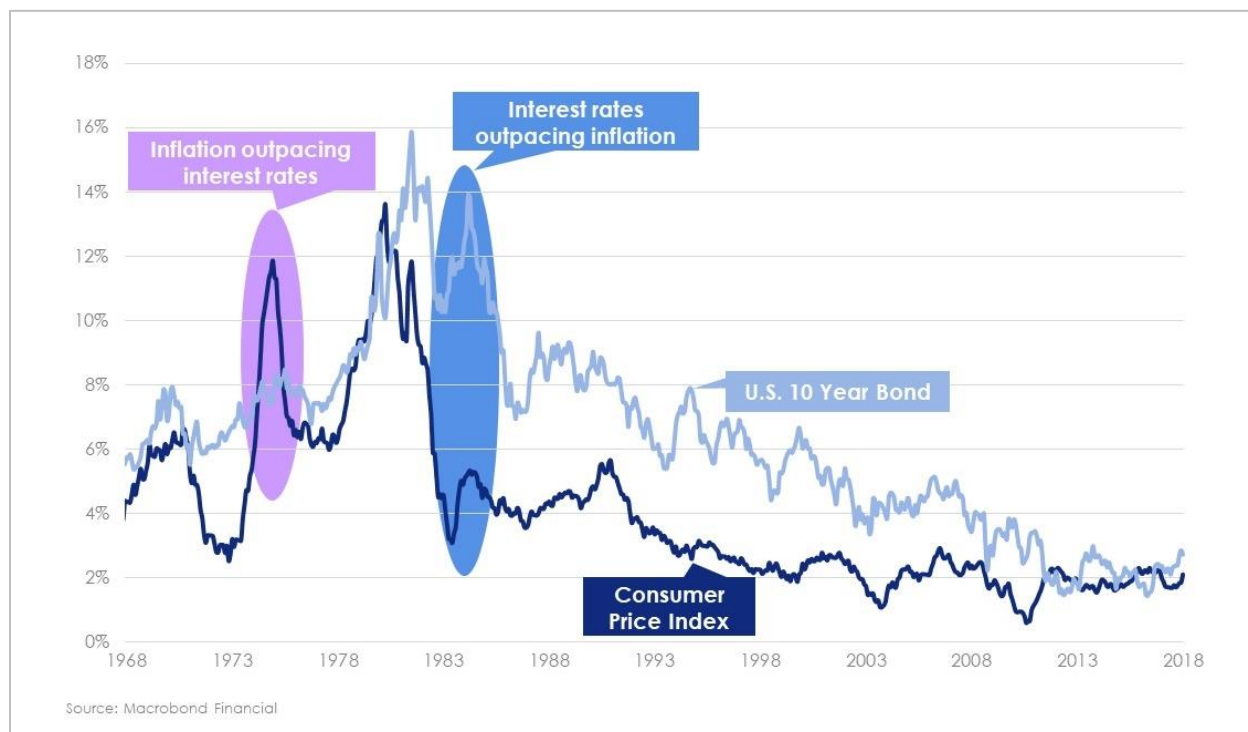
#### I. INTRODUCTION

As discussed in the previous chapter, the potential for a near-term inflation increase is rising. As the current business cycle matures, a tightening labor market exerts upward pressure on wages and inflation, and the Fed pushes ahead with monetary policy normalization, equipment finance firms will have to adapt to changing economic conditions. Although the current status quo environment of ultra-low interest rates and inflation is unlikely to persist, there are multiple scenarios for inflation and interest rates levels that may develop over the next one to three years. Each would affect the equipment finance industry differently and require a different firm-level response.

#### II. INFLATION AND INTEREST RATES: NOT ALWAYS IN ALIGNMENT

As earlier chapters laid out in detail, inflation and interest rates tend to move together. However, inflation and interest rates do not always move in perfect lockstep. Figure 12 shows how, despite a general cointegrated tracking between core inflation and 10-year Treasury yields, there have been periods in U.S. economic history when inflation ran ahead of interest rates, or vice versa. These gaps are important in determining the “real” interest rate (i.e., the prevailing market interest rate, or nominal rate, less inflation). When inflation outpaces nominal interest rates, the real interest rate falls; when interest rates rise rapidly ahead of inflation, the real interest rate rises.

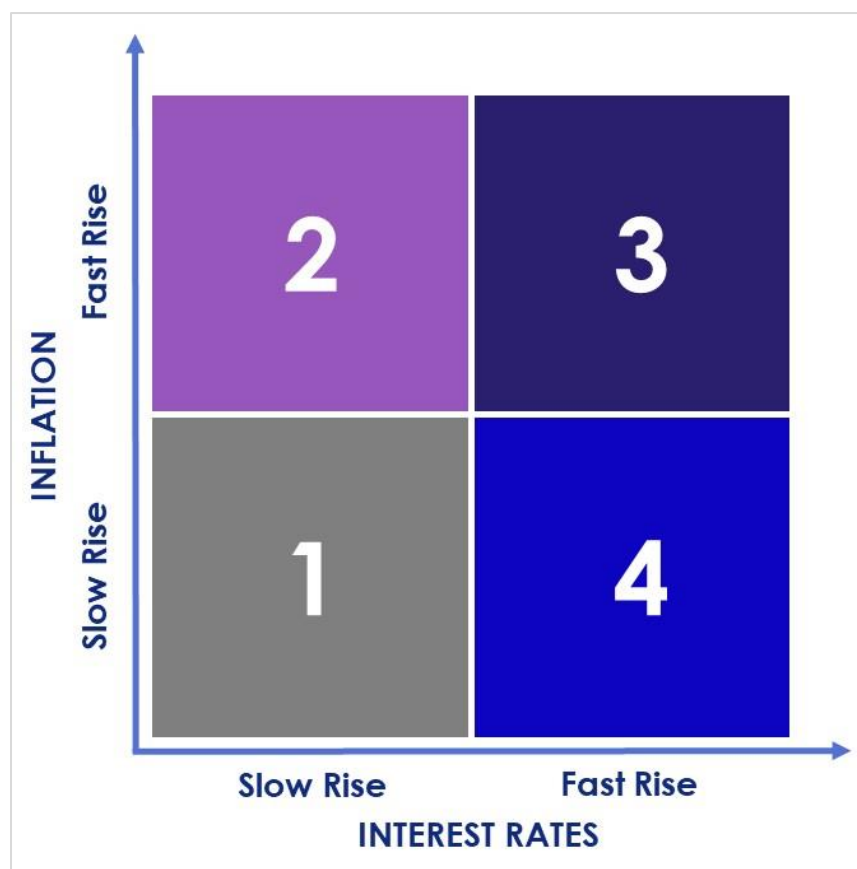
Figure 12: Core Inflation and Interest Rates



When describing the market environment, it is not only the pace at which interest rates and inflation rise that affects things like credit demand and bank profitability, but also how these two measures move in relation to each other. In other words, the prospect of rising inflation and interest rates is relevant to the equipment finance industry (and broader economy) in isolation, but it also matters whether interest rates are rising faster than inflation (and vice versa).

To illustrate this point, Figure 13 displays a 2x2 matrix that describes four different environments for rising interest rates and inflation, based on whether each is rising slowly or quickly. The matrix's x-axis represents the pace of interest rate hikes, ranging from a theoretically slow, gradual increase on the left to rapid increases on the right. The y-axis represents the pace at which inflation accelerates, ranging from little to no acceleration on the bottom (e.g., 25-50 basis points per year) to fast acceleration at the top (e.g., 125+ basis points per year). Together, the relative speed of the increases in interest rates and inflation creates four different market environments, each represented by a numbered quadrant in the matrix.

**Figure 13: The Interest Rate / Inflation Matrix**



- [Quadrant 1: Slow Inflation Rise, Slow Interest Rate Rise](#)

Quadrant 1 represents an environment of slow increases in both inflation and interest rates. Although inflation and interest rates may rise, they do so gradually and predictably. In this environment, inflation fails to break much above the Federal Reserve's 2% inflation target, giving



little reason for the Fed to raise interest rates more than two or three times per year. The absence of strong inflationary pressures or a response from the Fed means that bond yields, set by the market, likewise stay within a predictable range. The real interest rate stays comfortably between roughly 0% and 1.5%.

This quadrant should feel familiar to the industry, as it corresponds to the state of the U.S. economy over the last three years. Since late 2015, the Fed has gradually lifted interest rates from zero, but these hikes have occurred slowly, and thus far the United States has experienced modest-to-moderate growth and has yet to see breakout inflation.

- [Quadrant 2: Fast Inflation Rise, Slow Interest Rate Rise](#)

Quadrant 2 represents an environment where inflation begins to accelerate rapidly, but nominal interest rates do not rise quickly enough to keep inflation in check. Here, an unexpected surge of inflation — caused by mounting wage growth, an oil price shock, or other factors — either occurs so quickly that it takes the Fed and the market by surprise or the Fed intentionally adopts a dovish posture and delays action to avoid harming the labor market. When inflation rises rapidly while nominal interest rates remain constant or rise slowly, the real interest rates drops.

The U.S. economy experienced an extreme example of this kind of environment from mid-1973 through 1975, when an oil price shock, a historically tight labor market, and the recent termination of the dollar's convertibility to gold all contributed to a rapid spike in inflation, to which the Fed failed to respond adequately (nominal interest rates increased only slightly during this period). This environment returned in 1979–1980 after the Fed began to target lower interest rates in the late 1970s in an effort to pull the U.S. out of a low-growth rut. Instead, inflation surged again, leading to another drop in the real interest rate.

- [Quadrant 3: Fast Inflation Rise, Fast Interest Rate Rise](#)

Quadrant 3 represents an environment of rapidly mounting inflation combined with fast increases in nominal interest rates. In this environment, inflationary pressures remain strong, but an aggressive response from the Fed and proportionate market reaction results in interest rates rising quickly to help keep inflation from accelerating further.

This quadrant best characterizes the period from 1977–1979 when inflationary pressures remained exceptionally strong, but the Fed's rapid rate increases (from roughly 4.5% to 11.5%, or about 250 basis points per year) kept inflation within the high but manageable 7–10% range. As a result, the real interest rate held between 0% and 2.5%.

- [Quadrant 4: Slow Inflation Rise, Fast Interest Rate Rise](#)

In Quadrant 4, nominal interest rates rise more rapidly than inflation. In many cases, this environment stems from a mistiming or misstep on the part of the Fed, which anticipates breakout inflation and raises interest rates to preempt the acceleration. However, the rate hike (and associated market response and surge in bond yields) instead brings about a surge in the real interest rate. If interest rates rise quickly and the Fed ultimately fails to correct the misstep, the U.S. economy may go into a recession unnecessarily.

In other cases, the Fed may correctly interpret evidence of a buildup in inflationary pressures but decide to raise interest rates faster than inflation for other reasons, such as a desire to normalize interest rates to allow for more policy flexibility during the next economic downturn. Although a mild and temporary rise in the real interest rate can be absorbed by an otherwise strong economy, if the federal funds rate rises too quickly, it can increase financial stress and economic strain, and potentially trigger a recession.

The best example of this inflation environment occurred between 1980–1982 when inflationary pressures remained strong but began to subside. Fearing a return to the accelerating inflation of the late 1970s, the Fed hiked its benchmark rate from roughly 10% in late 1979 all the way to 20% in March 1980. The target rate then fell briefly in mid-1980 but rose again to around 20% before the Fed finally took its foot off the brake in 1982. Although Paul Volcker (the Fed chair at the time) was successful in putting an end to the rampant inflation of the late 1970s, this series of events is nonetheless considered to have been a major cause of the early 1980s recession, and the period is often pointed to as an example of how an overactive Fed can damage the economy.

### **III. THREE LIKELY SCENARIOS FOR INTEREST RATES AND INFLATION**

Although each quadrant in the matrix has a historical precedent, several developments related to Fed monetary policy have taken place since the 1970s and early 1980s. For example:

- The Fed is generally more effective at targeting inflation and reducing interest rate volatility and adheres more closely to its target level of inflation (2%) when setting rates.
- Markets are more responsive to sudden shifts in the economic environment than they were 30–40 years ago. At the same time, increased global economic integration has brought interest rates and inflation in the United States closer into line with the levels in other economies.
- The Fed began using new, untested methods for stimulating growth after the Great Recession (particularly quantitative easing), which makes it more difficult to predict the trajectory for interest rates over the next several years and may affect how these rates changes flow through the economy.
- The link between unemployment, wages, and prices (i.e., the Phillips Curve) might be weaker in today's economy compared to the 1970s and 1980s (as discussed in Chapter 2).

Due to these factors, the inflation environments described in the previous section may not unfold precisely as they have in the past. Regardless, it remains reasonably likely that a shift from Quadrant 1 (where the U.S. economy has stood for the last three years) to another quadrant will occur in the next one to three years. Three potential scenarios are described below.

### 3.1 Scenario 1: Status Quo

The first potential scenario for interest rates and inflation is a continuation of the status quo, with the U.S. economy remaining firmly in Quadrant 1 of the matrix. This scenario is the likeliest outcome in the next one to three years if U.S. GDP reverts to a modest / moderate pace in the next 6-12 months (i.e., 1.5–2.5%). If this scenario materializes, wage pressures are likely to remain muted despite a generally healthy labor market, as (1) slower revenue growth would cause businesses to be more cautious about raising wages and (2) stagnant labor productivity growth would hinder employee efforts to command higher salaries. As a result, the Fed would have little rationale to raise interest rates more than 25–50 basis points per year.

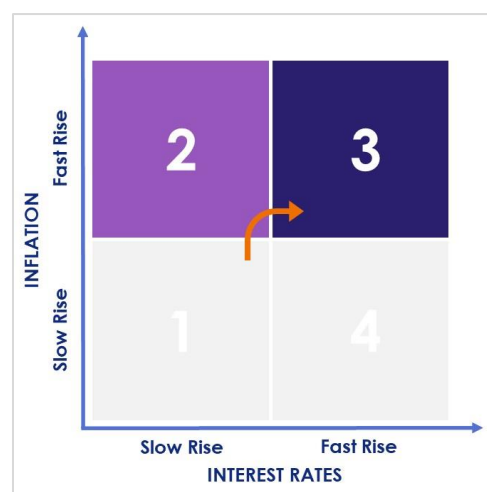


This scenario is consistent with the “secular stagnation” hypothesis, or the idea that the United States faces a future of modest economic growth, low inflation, and low interest rates. This theory reflects several long-term headwinds, including an aging population and the relative inferiority of new investment opportunities compared to those of the past.<sup>ii</sup>

Counter to the secular stagnation theory, many economists are optimistic about near-term growth prospects. The economy rebounded in 2017 and appears likely to see even stronger growth 2018 and 2019 according to most leading indicators. Moreover, the ongoing technological revolution in artificial intelligence, machine learning, the Internet of Things, and related innovations are sowing the seeds for a productivity boost. However, there exists some possibility that the above-mentioned secular headwinds — along with other risks, such as rising geopolitical tensions and the possibility of a trade war — could impede an otherwise healthy growth environment. If this occurs, the status quo scenario of slow growth in both inflation and interest rates could persist.

### 3.2 Scenario 2: Breakout Inflation Prompts Strong Fed Response

Under this scenario, the U.S. economy initially slides up into Quadrant 2 of the interest rate/inflation matrix, but a rapid response from the Fed and corresponding reaction in the credit markets quickly pulls the economy over into Quadrant 3. In other words, a sudden, unanticipated surge in inflation prompts the Fed to accelerate its rate hike schedule, leading to five or more rate increases (125+ basis points) per year. The real interest rate would fall initially, but as nominal interest rates rise to catch up to rapid inflation increases, it would soon return to more familiar levels.



As Chapter 2 described in more detail, this scenario would likely arise due to some combination of the following:

- The U.S. labor market — already strong by historical standards —tightens further, prompting faster wage increases that drive inflation higher.
- Energy prices continue to rise and potentially spike due to political instability in the Middle East and Latin America, along with increased global demand for energy.
- Inflation expectations pick up, as the U.S. economy grows faster than anticipated, driven by a global growth upsurge and reduced domestic tax and regulatory burdens that push aggregate demand and growth above the economy's long-term potential.

In this scenario, the U.S. economy is still unlikely to experience the extreme hyperinflationary, high-interest rate environment of the late 1970s. However, even an inflation rate or federal funds rate moving above 3–4% would be markedly different from what the equipment finance industry has grown accustomed to after a decade of low inflation and low interest rates.

#### **How would a trade war affect interest rates and inflation?**

Since the Trump Administration's early March announcement of its intention to impose steel and aluminum tariffs on key U.S. trading partners, the likelihood of a full-on trade war between the United States, China, and other countries appears to be rising. Since a trade war — in which nations impose tit-for-tat, retaliatory trade restrictions on their trading partners — is by nature a macroeconomic shock, it may impose additional effects on interest rate and inflation trajectories. Although the effects of a trade war are not incorporated into the three scenarios discussed in this chapter, it is worth considering how a trade war might change the picture.

In general, isolated tariffs on specific products or commodities would tend to put upward pressure on inflation, both because (1) the cost of the tariff may be passed through to consumers in the form of higher prices and (2) the tariff (or other non-tariff barrier) may have the effect of limiting domestic supply of the product or commodity.

However, under a trade war scenario, U.S. imposition of trade restrictions on other countries would be met with retaliatory measures, and the net effect would likely be a decline in global trade flows and, by extension, economic activity. A reduction in global economic growth would tend to dampen inflation and reduce the likelihood of interest rate hikes.

On balance, the negative impact of a trade war on net trade flows and global economic growth would likely outweigh the tendency for tariffs to lead to domestic price increases. As such, the overall effect of a trade war is more likely to be disinflationary than inflationary.

Regarding interest rates, the macroeconomic shock of a trade war would likely drive a “flight to safety” toward U.S. bonds, which would drive Treasury yields lower and, eventually, other interest rates as well. In addition, the likely hit to global economic growth would generally put downward pressure on bond yields.

Overall, therefore, a trade war would tend to increase the probability of Scenario 1. However, there is considerable uncertainty surrounding how a trade war would progress between the U.S. and China (and potentially other trading partners), and it is conceivable that an entirely different scenario could play out.

### 3.3 Scenario 3: Interest Rates Rise Faster than Inflation Justifies

Under Scenario 3, the U.S. economy moves directly from Quadrant 1, where it currently sits, to Quadrant 4. In this scenario, the Fed would move forward with raising interest rates at a moderate or even accelerated pace, despite an environment of generally weak inflation. Depending on the speed and duration of the rate hikes, the U.S. economy may begin to feel the pain of a rising interest rate floor where interest rates rise faster than justified by the economy's growth potential, thereby inhibiting economic growth.

Even though inflationary pressures appear to be building and the Fed has not signaled an interest in pursuing an accelerated rate hike schedule, this scenario could nonetheless arise given the following factors:



- The Fed has already committed to a policy of interest rate normalization in the interests of “reloading” for the next recession after a decade of near-zero rates, and this commitment may or may not depend on whether the pace of inflation justifies this action. In other words, the Fed may seek to raise rates sooner rather than later in order to avoid problems associated with the zero lower bound, regardless of whether it tamps down short-term growth.
- Unwinding of the Fed's policy of quantitative easing may exert stronger-than-expected upward pressure on bond yields. If these effects combine with the Fed's current plan to normalize the federal funds rate, interest rates may rise significantly faster than expected, even in the absence of inflation.
- If the new members of the FOMC indeed have more “hawkish” biases than the FOMC had under Janet Yellen's leadership, the Fed may be more inclined to react strongly to early signs of mounting inflation. In other words, inflationary pressures may be building, but the Fed could overreact and raise rates much more quickly than necessary.

## IV. WHAT EACH SCENARIO MEANS FOR THE EQUIPMENT FINANCE INDUSTRY

Since each scenario represents a dramatically different market environment, the equipment finance industry will see notably different effects depending on how fast inflation rises and how the Fed responds. Although the effects of each will depend in part on individual differences between equipment finance firms (e.g., large vs. small; banks vs. captives vs. independents), the size of deals, and the way individual deals are structured, there are nevertheless some predictable industry-wide effects that are likely to arise under each scenario.

#### **4.1 Scenario 1: Status Quo**

This scenario should feel the most familiar to equipment finance professionals. If the U.S. economy follows this path, the same trends that have characterized inflation and interest rates over the last several years are likely to continue. These include:

- **Ambiguous Effects on Spreads:** Over the past several years, a hypercompetitive environment has resulted in many firms accepting lower yields to grow new business volume. However, the Fed's near-zero interest rate targeting has acted as an effective floor on the cost of funds. This has led to spread compression and reduced profitability for banks and equipment finance firms. (For more discussion on the relationship between rising interest rates and spreads, refer to Chapter 1, Section 4.)

If inflation fails to break out, the Fed's planned interest rate normalization schedule may stall, which would likely keep spreads relatively narrow. However, if the Fed continues to raise rates gradually, spreads could slowly widen, as the higher interest rate environment allows equipment finance firms to modestly increase the gap between yield and cost of funds. As such, the effect of a "Status Quo" scenario on spreads is somewhat ambiguous, but any change that occurs is likely to be marginal.

- **Weak Investment Demand:** Scenario 1 plays out in an environment of modest to moderate economic growth and muted capital spending. Throughout the economy, businesses would be somewhat guarded about the potential for improved future revenue growth and consequently would see little reason to invest in new capital. In this environment, the U.S. economy would likely witness a deceleration in growth in commercial and industrial (C&I) loans and associated weak growth in new business volume for the industry.
- **Favorable Lease vs. Buy Conditions:** Since interest rates remain low, firms that are committed to capital investment would be likely to choose leasing or financing over cash for funding those new investments.
- **Strong Portfolio Performance:** Under a "Status Quo" scenario, borrowers and equipment lessees facing a slow and manageable rise in interest rates will, on balance, face less difficulty making regular payments on their loans and leases. As a result, charge-offs and delinquencies may rise slightly as the business cycle progresses, but overall financial stress should remain low. This effect echoes the relatively strong portfolio performance that the equipment finance industry has witnessed over the last several years, as the economy has consistently stood in Quadrant 1 of the interest rate / inflation matrix.

#### **4.2 Scenario 2: Breakout Inflation Prompts Strong Fed Response**

This scenario entails having the U.S. economy pass through two separate market environments: first, moving briefly through Quadrant 2 as inflation accelerates, and then shifting quickly into Quadrant 3 after the Fed responds. Each quadrant would likely present distinct effects on the equipment finance industry. While in Quadrant 2, the industry would be likely to experience:

- **Rising Labor Costs:** As described in Section 2 of Chapter 2 and illustrated in Figures 8 and 9, there is a strong historical link between rising labor costs (whether measured by average



hourly earnings or the broader employment cost index) and inflation. Therefore, an environment of breakout inflation is likely to occur in tandem with rising labor costs, which would increase operating expenses and may lead to increased labor turnover. Just like all U.S. businesses, equipment lessors will experience some of these effects. As the U.S. economy approaches full employment, equipment finance firms may also have trouble retaining talented staff.

- **Decline in the Real Value of Loan and Lease Payments:** When inflation rises, but the nominal interest rate fails to keep pace, the real interest rate falls. For the equipment finance industry, this implies a decline in the real value of their loan or lease payments, as equipment end-users are better able to make payments when their revenues are being driven up by higher prices, but their equipment payments are fixed. Effectively, this amounts to a decline in the net present value of committed cash flows and a decline in yield, since inflation erodes the value of the cash inflows over the lease's life in comparison to the value of the initial cash outflow. This effect will be more pronounced for fixed-rate deals and deals with a longer time horizon.
- **Higher Residual Values:** In an inflationary environment, prices (including prices for capital goods) will rise more quickly than some firms may expect over the course of a loan or lease. As a result, residual values may turn out to be higher than anticipated when a leasing arrangement was made, which may have implications for leases that have end-of-term purchasing options.

As the economy moves into Quadrant 3, the industry should expect to experience:

- **Increased Complexity in Loan and Lease Valuation and Negotiation:** Any capital investment decision involves making assumptions (either explicit or implicit) about the probable level of inflation and interest rates that will prevail over the course of the investment's life. Loans or leases with fixed payments or a fixed interest rate will experience a decline in real value from the perspective of the lender/lessor if inflation rises.
- **Increased Demand for Investment:** Scenario 2 is the most likely scenario to occur if the economy grows at a robust rate of around 3% or higher. As discussed in Chapter 2, strong domestic growth is one of several factors that drive higher inflation, and in many cases elicits a strong response from the Fed in the form of interest rate hikes. Therefore, Scenario 2 is consistent with high levels of business confidence and willingness to undertake new investments, under expectations of strong future profitability. The propensity to finance this investment may decline (see below), but the industry would stand to benefit from the uptick in overall investment, even if a smaller share of the (now bigger) pie was financed.
- **Less Favorable Lease vs. Buy Conditions:** Although demand for investment will increase, firms may be less likely to finance new investment through credit or leasing deals. This shift from lease to buy happens through two main channels. First, since interest rates are rising, it becomes less appealing to finance deals at higher rates than what firms are used to paying. Second, since the economy is strong and inflation is rising, customers are experiencing strong demand for their products and are more likely to have cash on-hand.

- **Increased Customer Demand for Longer-term and Fixed-rate Leases:** In addition to an increased likelihood of financing new investments with cash, equipment end-users are likely to move away from financing equipment purchases through short-term lines of credit and toward longer-term deals that lock in rates for as long as possible to avoid the effect of rate increases. As rates rise, customers may also increase their reliance on bond financing and may request additional prepayment flexibility, such as the opportunity to refinance the lease if rates decline in the future.
- **Decline in Portfolio Values:** In a rising interest rate environment, newer leases and loans yield a higher return than older leases and loans. As a result, firms whose business models are dependent on raising liquidity through the sale of older leases may find it harder to find buyers for older deals associated with lower interest rates unless significant discounts are offered.

#### **4.3 Scenario 3: Aggressive Fed Action While Inflation Lags**

A pronounced rise in interest rates in an environment of relatively muted inflationary pressures or weaker-than-expected economic fundamentals poses a different set of implications for the equipment finance industry.

- **Compressed Spreads:** All else being equal, a pronounced rise in the Fed's benchmark interest rate that the market interprets as a Fed misread will likely further compress spreads. This effect occurs because a rise in the benchmark rate tends to have a greater effect on short-term yields than long-term yields. This effect produces a flattening of the yield curve and, if severe and maintained, often precedes a recession.<sup>iii</sup> Historically when this has occurred, it has resulted in compressed spreads, as discussed in Section 4 of Chapter 1.

However, if the Fed raises rates so quickly that it triggers an economic downturn, it could lead to a deterioration of portfolio performance and cause lessors to reduce their emphasis on increasing new business volume and focus more attention on risk management. If this occurs, the competitive landscape could change very quickly, and some firms may have difficulty securing funding sufficient to cover the increased cost of risk. Thus, it is possible that average margins could increase if Scenario 3 comes to pass, as the hyper-competitiveness that has defined the industry for the last several years would quickly ease.

- **Deteriorating Portfolio Performance:** An increase in interest rates absent rising prices would cause the real interest rate to rise. As touched on above, this would likely put considerable strain on borrowers and lessees in the aggregate. Although fixed rates on lease deals will likely insulate firms from some of the deterioration in financial conditions, broader developments in the credit market are likely to result in greater difficulty making repayments across the board. This may still impact an equipment finance firm and their customers' ability to repay.
- **Falling Demand for Investment:** In an environment where real interest rates are rising in the absence of persistently strong economic growth, business confidence is likely to fall, and firms may be less willing to take on new investments. If sustained, this development could signal the end of the current economic expansion (though as the economy experienced in 2016, a contraction in business investment does not always lead to a recession).

## **V. CONCLUSION**

As evidence of a rising inflation and rising interest rate environment continues to consolidate, the equipment finance industry should think carefully about the various ways in which this changing environment could take shape and how their businesses could be affected. The U.S. economy's current state and its position in the business and credit cycles means that one of the three scenarios discussed in this chapter is likely to occur in the next one to three years. While it is difficult to assign probabilities for each scenario, the following chapter provides a series of signposts to help industry professionals determine which of the scenarios is most likely at a given point in time and how to adjust their business practices accordingly.

## CHAPTER 4

# Scenario Signposts for the Leasing Professional

### I. INTRODUCTION

As Chapter 3 illustrates, each of the three scenarios for interest rates and inflation that could occur over the next one to three years will affect the equipment finance industry differently and requires a different response for how to adapt. While the likelihood that the economy will move out of the current environment of low inflation and low interest rates is rising, there remains substantial uncertainty about how quickly rates and inflation will climb, and under what circumstances. Industry professionals could, therefore, benefit from a set of relevant economic indicators (i.e., signposts) designed to help them identify where the U.S. economy stands at any given moment — and, by extension, which of the three scenarios is coming to fruition.

Each of the signposts described below suggests a particular inflation/interest rate environment. While none of the signposts viewed in isolation guarantees that a given scenario will take place, a good rule of thumb is that if three or more signposts for a given scenario are triggered, it is highly likely that this scenario will take place. The signposts are summarized at the conclusion of this chapter in Table 3.

### II. SIGNPOSTS FOR SCENARIO 1: “STATUS QUO”

#### 2.1 [GDP growth falls short of 2.5% in 2018.](#)

Although a strong finish to 2017 puts growth on strong footing for 2018, if 2018 growth comes in below 2.5%, this is an indication that growth is slowing enough to prevent breakout inflation or rising interest rates in 2018–2019. Sub-2.5% growth would be consistent with quarterly growth figures of below 2.0% annualized growth in the first quarter and below 2.4% annualized growth in each of the second, third, and fourth quarters of 2018. (As a point of reference, the advanced estimate for GDP growth in the first quarter was 2.3%, making it somewhat less likely that Scenario 1 will materialize.)

#### 2.2 [Core CPI does not exceed 2.2% growth in 2018.](#)

Core CPI has consistently held around the 2.0% level since the Great Recession and has not risen above 2.3%. If core CPI remains within this range for the next one to three years, or even falls slightly, the economy will likely remain in the “Status Quo” scenario.

#### 2.3 [The unemployment rate remains in the 4.0–4.5% range.](#)

In the last year, the unemployment rate has fallen from 4.5% in March 2017 to 3.9% in April 2018 after hovering at 4.1% for several months. If the unemployment rate returns to and sustains levels above 4.0% in 2018, Scenario 1 is the likeliest outcome. If this signpost appears in conjunction with

a gradual reduction in monthly job gains, the U.S. economy would be signaling a decline in the demand for labor and weakening inflationary pressures.

#### 2.4 Growth in average hourly earnings holds in the 2.4%–2.8% range.

Since wage growth tends to track with inflation, flat wages should serve as a sign that inflationary pressures remain muted and that breakout inflation and rising interest rates are not imminent.

#### 2.5 Capacity utilization remains below 80%.

As described in Chapter 1, low capacity utilization is an indication that businesses have a limited need for new equipment. Historically, a capacity utilization rate of 80% or more leads to a new round of equipment and software investment and stronger economic growth, which would put upward pressure on inflation. However, capacity utilization has not reached this level since before the Great Recession, and while it remains well below this threshold (78.0% as of March 2018), it has been rising over the last 12-18 months. If recent gains fizzle and capacity utilization fails to break 80%, this would indicate that the U.S. economy is likely to remain in a low-inflation, low-rate environment.

### **III. SIGNPOSTS FOR SCENARIO 2: “BREAKOUT INFLATION PROMPTS A STRONG FED RESPONSE”**

#### 3.1 Quarterly GDP growth is consistently around 3% (or higher) in 2018 and 2019.

Quarterly, annualized GDP growth rates above 3% for three or four quarters in a row would be indicative of strong economic performance and would point to a more rapid rise in inflation and interest rates. Last year, the U.S. economy exceeded 3.0% annualized growth in Q2 (3.1%) and Q3 (3.2%) and nearly did so again in Q4 (2.9%), but the pace of growth slowed to 2.3% thus far in 2018. If the economy bounces back and posts strong 3%+ quarterly gains in the second, third, and fourth quarters, Scenario 2 becomes more likely.

#### 3.2 Core CPI inflation consistently exceeds 2.5% growth.

Core CPI inflation has failed to rise above 2.3% since the Great Recession. If CPI ramps up and exceeds 2.5% for three consecutive months (or more), the probability of breakout inflation would rise considerably.

#### 3.3 The unemployment rate falls to 3.8% or below for three consecutive months.

The U.S. unemployment rate has not fallen to 3.8% in nearly two decades, but if monthly job growth remains strong, unemployment will likely continue to fall. If the unemployment rate holds consistently at or below 3.8%, it would signal that an inflation ramp-up is just around the corner.

### 3.4 Average hourly earnings consistently exceed 3.5%.

If wage growth rises above 3.5% for at least three months in a row this year, it would be consistent with the story of breakout inflation and rapidly rising interest rates laid out in Scenario 2.

### 3.5 Capacity utilization trips the 80% threshold.

If capacity utilization rises above 80%, it is likely that the economy would experience a new round of capital investment (i.e., capacity expansion). If this occurs, GDP growth would likely rise above 3% for the first time since the mid-2000s, producing stronger inflationary pressures and the need for faster rate hikes.

## **IV. SIGNPOSTS FOR SCENARIO 3: “AGGRESSIVE FED ACTION WHILE INFLATION LAGS”**

### 4.1 Core CPI inflation briefly exceeds 2.5% before falling below 2.0%.

If CPI rises above 2.5%, the Fed may move quickly to increase rates in hopes of avoiding breakout inflation (particularly if the FOMC becomes more hawkish). However, if the CPI increase proves to be temporary and/or the Fed responds too forcefully, the result could be rapidly rising interest rates and low inflationary pressures.

### 4.2 The stock market falls at least 5% after a Fed rate hike announcement.

Scenario 3 would become more likely if the stock market falls significantly or experiences extreme volatility immediately following Fed announcements about plans for a rate hike. When the Fed announces a rate hike and markets remain relatively calm, it is a sign that the rate increase is thought to be justified by the level of growth and inflation present in the economy. A bad market reaction, on the other hand, suggests that the Fed may be overreacting to signs of emerging inflation or strong growth, or that it may be getting ahead of the curve.

### 4.3 The yield curve inverts.

A closely-watched market indicator, the yield curve (i.e., the spread between yields on longer-term and shorter-term U.S. Treasuries) may signal that Scenario 3 is occurring if short-term (e.g., 2-year) Treasury yields rise above long-term (e.g., 10-year) Treasury yields. This phenomenon is called a yield curve “inversion,” and often indicates that the Fed may be engaged in excessive monetary tightening and that the likelihood of a near-term recession is growing.

### 4.4 Monthly job growth falls consistently below 100,000.

If the Fed is raising rates in an environment while seasonally adjusted monthly payrolls are below 100,000, it would suggest that Fed activity is beginning to stymie economic growth and business hiring. These impacts would put downward pressure on inflation and increase the likelihood of Scenario 3 occurring.



#### 4.5 Housing starts fall from around 1.35 million to 1.0–1.1 million.

Similarly, if the Fed's interest rate hikes are followed by a significant drop in housing starts, it could indicate that mortgage rates, which typically move with the federal funds rate, have risen to the point that the demand for new housing construction falls. Notably, this may occur even in the absence of announced hikes to the federal funds rate, as the housing market faces several headwinds aside from Fed action. Nonetheless, if the housing recovery sputters in 2018 and 2019, it would be consistent with Scenario 3.

**Table 3: Signposts for Inflation / Interest Rate Scenarios**

Scenarios	Indicator	Near-Term Range
Status Quo	GDP Growth	Below 2.5% in 2018
	Core CPI	Below 2.2% Y/Y growth in 2018
	Unemployment Rate	4.0-4.5%
	Average Hourly Earnings	2.4-2.8% Y/Y growth
	Capacity Utilization	Below 80%
Breakout Inflation Prompts Strong Fed Response	GDP Growth	Quarterly GDP growth consistently ~3%
	Core CPI	Consistently above 2.5% Y/Y growth
	Unemployment Rate	<3.8% for three consecutive months
	Average Hourly Earnings	>3.5% Y/Y growth 3 consecutive months
	Capacity Utilization	Above 80%
Aggressive Fed Action While Inflation Lags	Core CPI	Briefly above 2.5% then falls below 2%
	S&P500 / DJIA	Down 5%+ after a Fed rate hike
	Yield Curve	2yr yield rises above 10yr yield
	Monthly Job Growth	Consistently below 100,000
	Housing Starts	Fall from 1.4 million to 1.0 -1.1 million

## **CHAPTER 5**

### **How Leasing Firms Can Adapt to a Changing Environment**

This Report outlined three distinct scenarios for how inflation and interest rates could shift over the next one to three years, described what each scenario might mean for the industry, and provided signposts for identifying which scenario is most likely to occur. However, equipment finance professionals may still find themselves wondering how to adjust their business strategies and operations in anticipation of and response to a changing macroeconomic environment.

As such, Chapter 5 offers concrete actions that an equipment leasing firm should consider taking under each scenario. These actions are not intended to be exhaustive nor sufficient to ensure profitability if inflation and/or interest rates rise, and industry leaders are best positioned to know how to successfully manage their own businesses. However, the recommendations set forth in this chapter provide a starting point for equipment finance professionals to consider how to adjust their business strategies and spur the development of additional ideas for discussion in strategic planning sessions.

**Table 4: Firm-Specific Actions to Consider Under Scenario 1: “Status Quo”**

Anticipated Industry Effects	Firm-Specific Actions to Consider
<b>Ambiguous Effect on Spreads</b>	<ul style="list-style-type: none"> <li>• <b>Maintaining profitability levels may require firms to be more aggressive in pursuing new deals.</b> Margins will likely remain in the range seen over the last several years under the status quo scenario. Some firms may need to increase the number of deals they originate in order to meet internal performance targets, as the profitability of individual deals is unlikely to improve significantly.</li> <li>• <b>Consider shifting toward a borrow-long, lend-short mindset.</b> Gradually rising interest rates could allow some leasing firms to operate on a longer time horizon and increase profitability by borrowing long and lending short. While a more traditional matched-funds approach is generally associated with lower risk, a borrow-long strategy may be viable for some firms, particularly given that portfolio performance would likely remain strong. This approach may not be appropriate for all lenders, but is something to consider if the status quo operating environment persists.</li> </ul>
<b>Weak Investment Demand</b>	<ul style="list-style-type: none"> <li>• <b>Achieving new business volume targets could require a higher tolerance for risk.</b> Relatively weak demand for equipment investment means that the number of equipment leasing opportunities grows more slowly or potentially stagnates. As a result, equipment lessors should expect to see a continuation of strong industry competition as firms vie for market share. To meet new business volume targets, some firms may need to accept a higher tolerance for risk and/or thinner profit margins. Company forecasts for new business volume growth may need to be revised downward, and senior leadership should discuss the implications on firm operations in quarterly and/or annual planning discussions.</li> </ul>
<b>Favorable Lease vs. Buy Conditions</b>	<ul style="list-style-type: none"> <li>• <b>Emphasize the advantages of leasing and financing in a low-interest rate environment.</b> While the demand for new equipment may weaken somewhat, leasing and financing will remain attractive options to equipment end-users because interest rates remain relatively low. Equipment lessors and finance firms should continue to look for opportunities to sell the benefits of leasing or financing new equipment to end-users (particularly small businesses) by touting low rates.</li> </ul>
<b>Strong Portfolio Performance</b>	<ul style="list-style-type: none"> <li>• <b>Given strong portfolio performance, consider relaxing approval standards.</b> Although charge-offs and delinquencies are likely to rise gradually, industry portfolio performance as a whole is likely to remain quite strong by historical standards. Some firms may consider increasing their tolerance for risk and relax loan and lease approval standards in order to originate more deals and/or increase margins without significantly degrading their portfolio quality. However, it should be noted that the viability of this strategy would depend on a variety of firm-specific factors, including firm size, location, and portfolio diversification.</li> </ul>

**Table 5: Firm-Specific Actions to Consider Under Scenario 2: “Breakout Inflation Prompts Strong Fed Response”**

Anticipated Industry Effects	Firm-Specific Actions to Consider
<b>Rising Labor Costs</b>	<ul style="list-style-type: none"> <li>• <b>Increase employee compensation to remain competitive.</b> In a tight labor market environment, equipment leasing firms will have to be more aggressive about attracting and retaining talent. This will likely involve investing more time and resources into recruiting; allocating a greater share of funds for employee compensation (including wages and benefits, bonuses, and non-monetary compensation); and preparing for higher staff turnover.</li> </ul>
<b>Decline in Real Value of Loan and Lease Repayments</b>	<ul style="list-style-type: none"> <li>• <b>Include inflation hedges in loan/lease terms.</b> Declines in the net present value of a lease or loan due to rising inflation will be exacerbated for deals with fixed rates and/or long terms. Leasing firms should consider pursuing variable rate agreements or including excise payment provisions to offset the risk of higher-than-expected inflation. Firms may also hedge against inflation risk by adopting shorter terms.</li> </ul>
<b>Higher Residual Values</b>	<ul style="list-style-type: none"> <li>• <b>Build in an explicit inflation assumption when estimating residual values.</b> Residual values may be higher than anticipated if inflation rises rapidly, and equipment lessors need to account for this possibility. Even if a firm decides not to make an aggressive baseline inflation assumption, in a Scenario 2 environment there is value in including a contingency provision in leasing agreements to guard against the possibility of higher-than-expected inflation. This is particularly important if the lessee has the option to buy the equipment at the end of the lease. Firms should also incorporate an inflation toggle in their capital budgeting spreadsheets to determine how the profitability of a deal changes given different levels of inflation.</li> </ul>
<b>Increased Complexity in Loan/Lease Valuation and Negotiation</b>	<ul style="list-style-type: none"> <li>• <b>Incorporate a rate lock fee or related provision to offset risk of interest rate increases during negotiations.</b> In a rapidly-rising interest rate environment, interest rates may rise substantially during the lock period (e.g. 90 days). To protect against this increased risk, leasing firms should consider charging a fee for the rate lock, shortening the rate-lock period, indexing the offered rate to LIBOR, or requiring a higher margin on rate-locked transactions.</li> </ul>
<b>Increased Demand for Investment</b>	<ul style="list-style-type: none"> <li>• <b>Set aggressive growth targets.</b> Stronger demand for equipment will lead to more leasing and financing opportunities. While some regions and equipment verticals will undoubtedly perform better than others, most lessors should consider setting more aggressive annual growth targets and look for opportunities to expand.</li> </ul>
<b>Less Favorable Lease vs. Buy Conditions</b>	<ul style="list-style-type: none"> <li>• <b>Amid rising borrowing costs, sell the qualitative advantages of leasing.</b> Cash financing will become more attractive under this scenario due to rising rates and a strong economy that will put more cash in the hands of businesses. As such, stressing the qualitative advantages of leasing will become more important.</li> </ul>
<b>Decline in Portfolio Value</b>	<ul style="list-style-type: none"> <li>• <b>Temper expectations for selling older debt.</b> Lenders that sell older debt to increase liquidity may find it more difficult to find buyers if interest rates rise quickly. As a result, some lenders may have to hold a greater percentage of older deals than they have in recent years. In response, these firms may need to sell off a larger percentage of newer deals to maintain liquidity and/or accept a lower profit margin when selling older deals. Internal performance metrics may need to be adjusted accordingly.</li> </ul>

**Table 6: Firm-Specific Actions to Consider Under Scenario 3: “Aggressive Fed Action While Inflation Lags”**

Anticipated Industry Effects	Firm-Specific Actions to Consider
<b>Compressed Spreads</b>	<ul style="list-style-type: none"> <li>• <b>Prepare for further compression of spreads.</b> This scenario entails a heightened risk of spread compression. Even though spreads have already narrowed over the course of this business cycle, firms should be prepared for the possibility of further compression if the Fed speeds up its rate hike schedule while inflation remains muted, particularly in the short term.</li> <li>• <b>A borrow-long, lend-short strategy could increase profitability, but timing is critical.</b> Some leasing firms could gain a competitive edge by borrowing long and lending short, as short-term interest rates will likely rise faster than long-term rates. However, such a strategy would carry more risk, as an overly aggressive Fed could trigger an economic downturn that would presumably lead to a rapid reduction in the Federal funds rate once it becomes apparent that the Fed acted inappropriately. As such, the success of a borrow-long strategy will depend on a lessor's ability to time interest rate movements correctly.</li> </ul>
<b>Deteriorating Portfolio Performance</b>	<ul style="list-style-type: none"> <li>• <b>Prepare to tighten lending standards as delinquencies and defaults rise.</b> Interest rates rising faster than economic conditions warrant will result in many firms struggling to make their loan and lease payments. Lenders and lessors should closely monitor their delinquency and default rates, particularly for more recent deals that have higher interest rates. Firms should consider imposing more stringent loan and lease approval requirements to avoid being overextended in the event of an economic downturn.</li> <li>• <b>Captives should be especially vigilant about monitoring their portfolios.</b> Captives, whose portfolios tend to be weaker than other leasing firms due to the structure of their business, should be particularly attuned to the possibility of a rapid decline in portfolio performance and ensure that their businesses can withstand a sudden deterioration in credit conditions. Internal performance targets may need to be adjusted accordingly.</li> </ul>
<b>Falling Demand for Investment</b>	<ul style="list-style-type: none"> <li>• <b>Lower expectations for new business volume growth.</b> If the Fed raises rates too quickly, it will likely deter capital expenditures, particularly among small businesses. Equipment lessors and lenders should prepare themselves for the possibility that investment demand could slump suddenly, despite relatively strong growth in recent quarters. If this scenario appears to be unfolding, firms should hold more frequent strategic planning meetings, closely monitor internal performance metrics, and consider reducing their risk tolerance (at least temporarily) in order to avoid becoming overextended in the event of a recession.</li> <li>• <b>Identify “doomsday” scenarios.</b> Firms should also conduct “doomsday” scenario planning to stress-test their business in the event of a sudden collapse in investment demand. This is particularly important for firms that were established in the last 10 years and consequently have not yet experienced the effects of an economic downturn on their operations.</li> </ul>

## CONCLUSION

Changes in the interest rate and inflation environment matter for the equipment finance industry. As a sector operating at the intersection of financial services and the real economy, the equipment finance industry will be at the center of the seminal changes affecting the U.S. economy in the next one to three years. Following nearly a decade of modest economic expansion, low interest rates, and low inflation, equipment finance professionals will have to adjust to a shifting reality of higher interest rates and building inflationary pressures.

This new era is fraught with uncertainty. Although economists and market analysts can be sure that the next three years will feel very different from the last three years, there are markedly different directions in which the market environment could head. While the “Status Quo” scenario will look the most familiar to equipment finance professionals, the industry should be prepared to react if a rapid rise in inflation triggers a strong response from the Fed (Scenario 2) or if the Fed pursues an aggressive interest rate normalization schedule despite the absence of strong inflationary pressures (Scenario 3).

Whichever path the U.S. economy heads down, there will be implications for the industry's bottom line. Although an environment of strong growth might lead to faster growth in new business volume, that growth is likely to be accompanied by higher inflation and faster interest rate increases. As a result, spreads could narrow, and portfolio performance could suffer. Alternatively, a status quo environment will require less adjustment to a company's operations but will likely be accompanied by slower growth. Meanwhile, if the Fed acts too aggressively and overshoots inflationary pressures, it could trigger an economic slowdown or recession. The signposts highlighted in this report are designed to help industry professionals identify and adapt to the inflation and interest rate environment in which they find themselves, thereby better positioning them to compete and thrive. Regardless of which scenario occurs, industry leaders should be prepared to respond accordingly, and to this end, chapter five provides several potential actions to consider to better position their firms for the macroeconomic changes that will likely occur over the next couple of years.



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## **ABOUT KEYBRIDGE**

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## ENDNOTES

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<sup>i</sup> For more information on what happened to the “missing” 9 million workers, see Wescott & Handel (2017). “Nine Million Missing U.S. Workers: Where Did They Go, and What Does Their Disappearance Mean for the Fed’s Monetary Policies?” <http://keybridgedc.com/wp-content/uploads/2017/07/KeyInsight.DecliningLaborForceParticipationRate.July2017VF.pdf>.

<sup>ii</sup> The term “secular stagnation” first arose in the 1930s as a way of understanding the decade of slow growth that followed the Great Depression, and resurfaced again in this decade, when it was re-popularized by high-profile economists like Larry Summers and Robert Gordon as an explanation for why the United States and other advanced economies have experienced such slow growth, low interest rates, low inflation, and rising debt levels since the Great Recession. Although the full extent of the theory cannot be described in an endnote, it generally argues that growth rates will gradually decline over the next 10–20 years as demographic shifts dampen demand and innovation, while today’s newer, less-capital intensive technologies are unlikely to support the same growth rates experienced in the 20<sup>th</sup> century. The theory provokes considerable debate among economists.

<sup>iii</sup> The yield curve can be understood as the spread between any “long term” bond and “short term” bond. A common measure of the yield curve is the spread between 10-year and 2-year Treasury yields.

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