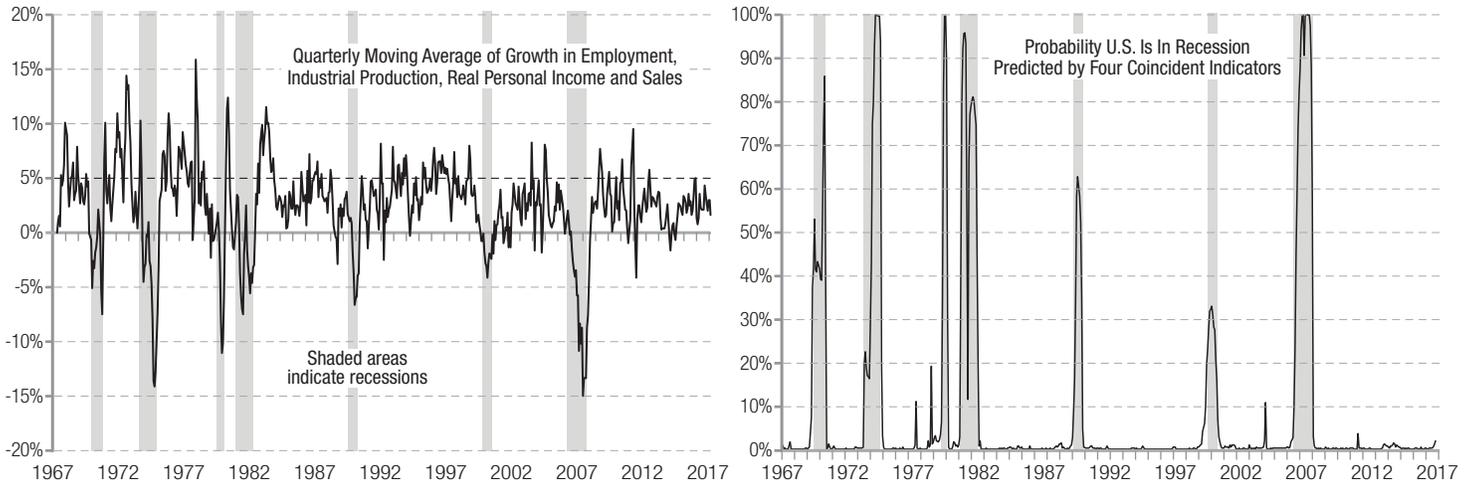




## Data Points: How To Know When the U.S. Economy's in Recession



of imminent recession.

Most Americans know the casual definition of recession: two consecutive quarters of declining GDP. This rule works most of the time, but relying on one quarterly and oft-revised data point won't guarantee an accurate or timely gauge of the economy's ups and downs.

A more sophisticated approach relies on a range of measuring sticks in determining whether the economy's sinking into a slump. The National Bureau of Economic Research does just that. A private organization, the NBER has been calling recessionary troughs and expansionary peaks since 1929.

In addition to inflation-adjusted GDP, the NBER's Business Cycle Dating Committee looks at key coincident indicators—employment, real personal income less transfer payments, industrial production, and sales volumes in manufacturing and wholesale and retail trade. These are monthly data—more timely than quarterly GDP.

The NBER does a first-rate job of weighing all the evidence and fixing recessions' starting and ending points. The most recent downturn, for example, gripped the economy from December 2007 to June 2009—18 long months that earned this period the sobriquet Great Recession. The problem isn't the dating, it's when the NBER made its call. The committee didn't officially declare the country in recession until the end of November 2008—nearly a year after the economy tanked!

That may be fine for historians, but

it's not much use for investors or policy-makers. Surely, we can do better. Rather than waiting on a backward-looking announcement, it might be possible to track the same data as the NBER, only do it without the long delays.

We tested this approach by combining the coincident indicators into a quarterly index and checking it against the NBER's eventual dating of the U.S. business cycle. The results are reassuring. The coincident indicators fall heading into recessions and rise as the economy begins the next expansion (see *chart above, left*). Researchers at the Federal Reserve Bank of St. Louis came up with another wrinkle by estimating the probability the economy is currently in recession (see *chart above, right*). Here, too, the fit with NBER dating is good.

Let's take a closer look. Both charts show no hint of recession this year—that's the good news. Looking back in time, though, the coincident indicators sometimes plunge without providing a true signal of recession. In fact, they've sunk into negative territory several times as the current expansion kept chugging along.

Turning to recession probabilities, they give off few false signals, although the reading for the 2002 slump (33 percent) was weak. More important, the almost vertical ascents and descents suggest little, if any, advance warning of coming recessions. The economy may well be on its way downward before most Americans recognize the signal and make decisions that impact their financial well-being. Forecasts of coincident indicators might

help—but when it comes to economic data in uncertain times, the prognosticators' track record doesn't inspire confidence.

### ANTICIPATING RECESSIONS

Equity markets usually start moving downward about six to nine months before the start of a recession—but most investors know these markets are volatile, with many dips not followed by hard times. Looking for a more reliable recession prognosticator, economists and financial gurus often turn to trends in market interest rates—to be specific, the slope of the yield curve.

In simplest terms, this graphical concept compares the returns on investments of varying lengths—from as short as the overnight federal funds rate to as long as 30-year Treasury bonds. Yield curves normally slope upward, indicating that long rates are above short ones. This makes sense because longer lending periods increase risks associated with inflation, default and capital losses. Investors won't accept the added burdens unless they're compensated with higher returns.

At times, interest rates get out of whack, with long rates approaching or even falling below short ones. Historically, these flat or downward-sloping yield curves have often preceded recessions, doing so with enough lead time to matter.

Yield curves that are downward-sloping—often called “inverted”—signal recessions because they reflect important changes in the real economy. When

business prospects start to slip, companies reduce their borrowing, and the weaker credit demand puts downward pressure on longer-term rates. Fast-growing economies often trigger an inflationary spurt; in response, the Federal Reserve raises its federal funds rate, driving short-term borrowing costs up across the board. The Fed's action will most likely reduce inflation expectations, providing another justification for declining long-term interest rates relative to short-term ones.

The spread between the 10-year Treasury bond and the three-month Treasury bill shows the yield curve tightening before each U.S. recession since the early 1960s (*see chart below*). To cite just one example, the spread fell from 3.4 percentage points in 2004 to -0.5 points in 2007, producing a downward-sloping yield curve. The next year saw the start of the Great Recession.

Based on the historical record of yield-curve spreads, economists estimate recession probabilities over the upcoming year. The odds remain below 25 percent as long as the spread stays in positive territory. After that, the chances of a downturn rise as the spread falls deeper into negative territory (*see table below*).

What's happening now? The monthly average spread between 10-year and three-month rates stood at around 2.7

## Even more important, five features of the current economic environment suggest the recession probability may be significantly below the historical model's norms.

points in 2014, safely beyond concerns about recession. Since then, it has trended downward, heading ominously toward zero and falling into negative territory as the quarter wound down. As much as anything else, the yield curve's behavior has fed recent recession jitters. But a downturn isn't a certainty—or even a probability, not yet anyway. Going into the third quarter, the spread was at worst slightly negative. The chance of a downturn hasn't crossed 30 percent. Even more important, five factors in the current economic environment suggest the recession probability may be significantly below the historical model's norms.

First, the Treasury yield curve hasn't been lower in 75 years. So credit, a fuel for economic growth, is still unusually cheap for all classes of borrowers, corporate to consumer.

Second, a global savings glut persists, and the ample supply of loanable funds

will help keep interest rates down.

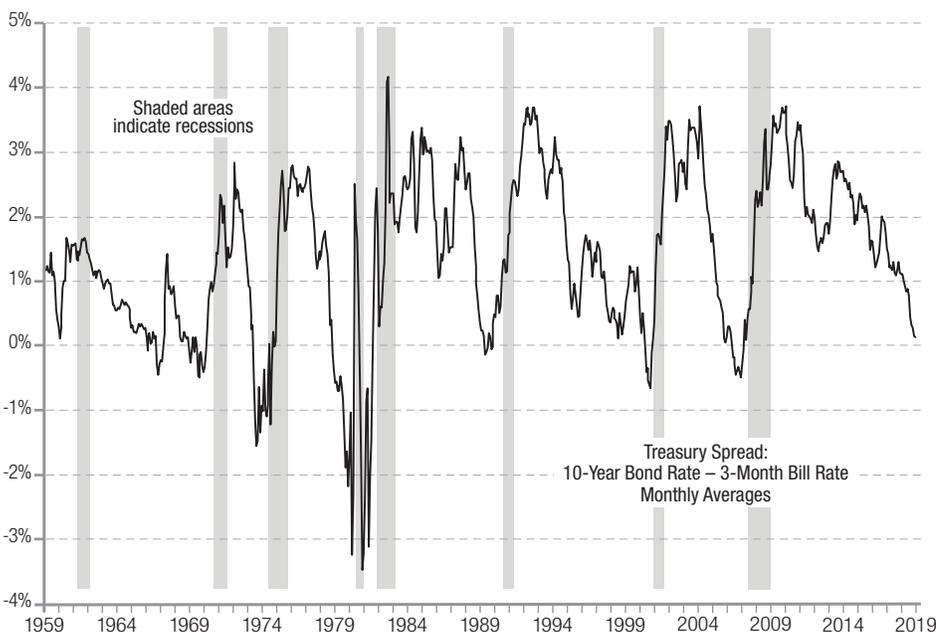
Third, weak loan demand isn't the reason for recent declines in long-term interest rates. The Fed has met its 2 percent inflation target for more than a decade, providing a solid anchor for lower inflation expectations and lower interest rates.

Fourth, the Fed doesn't need to raise interest rates to fight inflation by slowing the economy. The Consumer Price Index rose just 2 percent in the past 12 months, down from 3 percent for the previous year.

Fifth, the Fed has already stepped back from its series of interest rate hikes. If the economy falters, the central bank stands ready to lower short-term rates and give the economy a shot of adrenalin.

In July, the current expansion will become the longest in U.S. history eclipsing the 120-month episode from 1991 to 2001. It looks as if the economy will extend its record—at least that's the takeaway from our deep dive into the

### Yield Curve's Spread Has Been Falling in Recent Months: A Sign of Recession?



Reading the Yield Curve	
Spread	Recession Probability
1.21	5%
0.76	10%
0.46	15%
0.22	20%
0.02	25%
-0.17	30%
-0.50	40%
-0.82	50%
-1.13	60%
-1.46	70%
-1.85	80%
-2.40	90%

Note: Spread = 10-year Treasury bond minus 3-month Treasury bill

recession abyss. Of course, we'll stay vigilant, keeping an eye out for changes in the coincident indicators or yield curve.

## LIVING WITH RECESSIONS

Recessions may be rarer and shorter these days, but history suggests one will arrive, maybe not this year but surely sometime in the future. A capitalist economy can't be made recession-proof. Governments often pretend this isn't true, reacting to the prospect of recession with a wasteful fiscal stimulus or rash monetary expansion in an attempt to avoid the slump or lessen its severity. These efforts may or may not succeed, but they may do more harm than good in the long run.

The risks include saving zombie companies, the inefficient enterprises

that couldn't survive in the marketplace. Monetary miscalculations threaten to sow the seeds of future inflation.

Enduring a recession isn't always the worst thing. If not long and deep, a slump offers a chance to strengthen the economy by weeding out weak and inefficient producers, forcing firms to trim the fat in their payrolls and allowing the

economy to reorganize to take advantage of new technologies. Companies emerge leaner and meaner, more competitive and more focused. They're in better shape to take advantage of the relentless "creative destruction" that fuels progress in capitalist economies. The return of good times creates myriad opportunities for investors.



### Michael Cox

W. Michael Cox is founding director of the William J. O'Neil Center for Global Markets and Freedom at Southern Methodist University's Cox School of Business. He's a former Dallas Fed chief economist.



### Richard Alm

Richard Alm is writer in residence at the William J. O'Neil Center for Global Markets and Freedom at Southern Methodist University's Cox School of Business.

## CHARTING THE ECONOMY

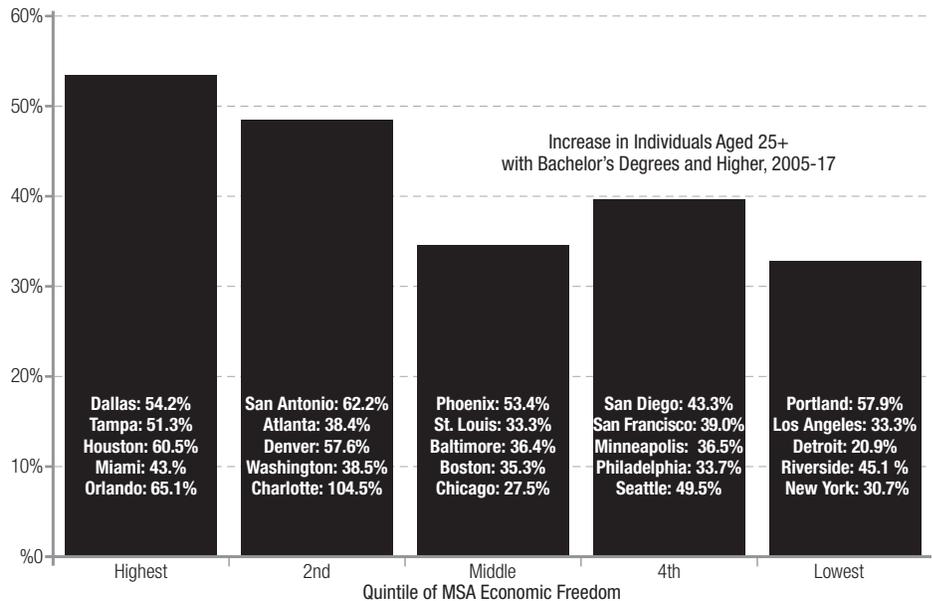
# College-Educated Workers Going to MSAs with Greater Opportunity

Today's **knowledge-intensive** industries usually do business where they can find their most important resource—college-educated workers. Big metropolitan areas have an edge: they offer the cultural, entertainment and recreational amenities that make everyday life a bit richer.

College graduates don't just play. They work. In deciding where to live, careers often take priority. We can identify those places by looking at economic freedom, which research shows correlates with employment growth, income gains, entrepreneurial activity and other positive outcomes associated with greater opportunity.

Among the 25 largest metropolitan statistical areas (MSAs), the five with the greatest economic freedom, taken together, saw an increase of more than 53 percent in residents over age 25 with bachelor's, professional and advanced degrees between 2005 and 2017 (see chart).

In general, the growth of MSA college-educated populations slowed as economic freedom declined. The least-free group had a weighted-average increase of only 32 percent, even though it includes two megacities celebrated as exciting places to live—Los Angeles and New York.


**CASTLEVIEW**  
 PARTNERS

### Headquarters:

**8111 Preston Road Suite 575**

**Dallas, TX 75225**

**Toll-Free: 888.772.2511**

[www.castleviewpartners.com](http://www.castleviewpartners.com)

**DALLAS**
**MIAMI**
**CHICAGO**

At Castleview, our first priority is the achievement of your lifetime financial objectives. Applying the wisdom earned over years of financial market experience, employing cutting edge technology, and being mindful of investment expenses and the burden of taxes, we structure tailored solutions around your resources and goals. Please visit our website for more details, or better still, give us a call. We would enjoy speaking with you.