



CAPITAL
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Guide to recessions:

When is the next
recession and how should
you prepare for it?





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Canada and the U.S.: In economic lockstep?

Although this paper primarily discusses U.S. recessions, it's instructive about recessions in general and their impacts. Since 1970, Canada has experienced recessions at approximately the same time as the U.S., demonstrating the interconnectedness of the two economies.

“The stock market has predicted nine out of the last five recessions!”

PAUL A. SAMUELSON, 1966

When is the next recession?

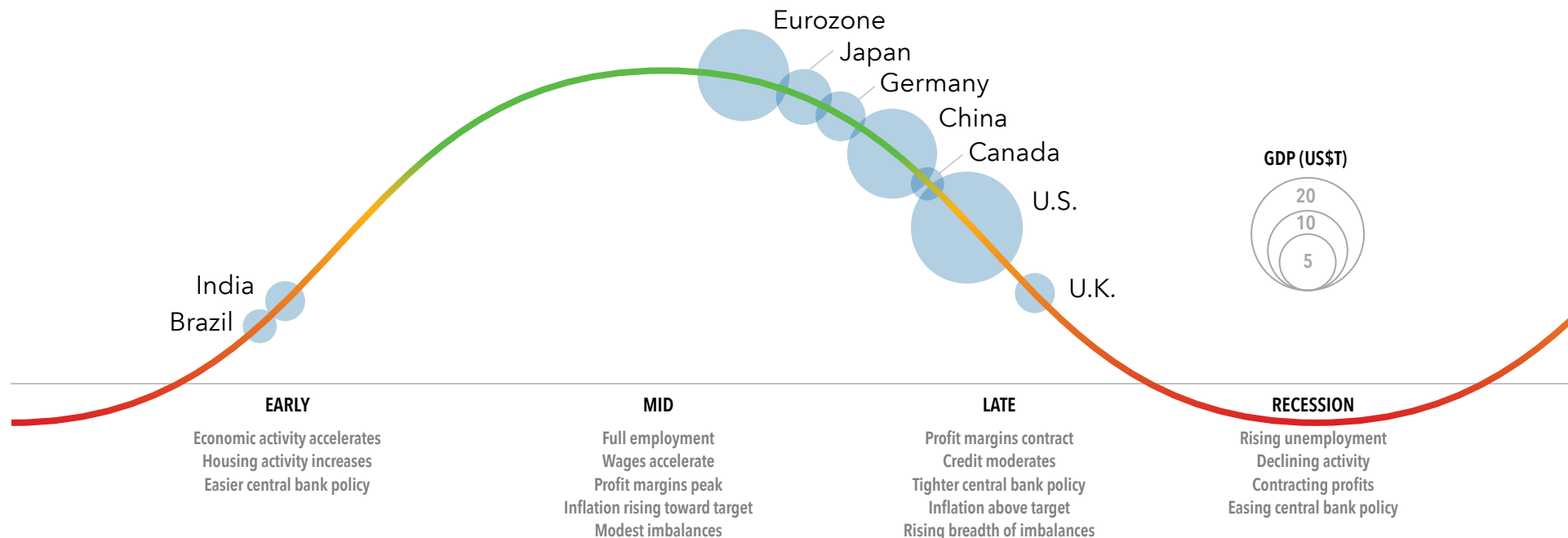
That's one of the most frequently asked questions we hear. And for good reason. Recessions can be complicated, misunderstood and sometimes downright scary. But, most of all, they're hard to predict, as the Nobel Prize-winning economist Paul Samuelson wryly noted in the 1960s.

Rather than predicting the exact date of the next recession, this guide will offer perspectives on the following questions:

- What factors have contributed to previous recessions?
- How have equities moved during past contractions?
- What are the most consistent economic indicators to watch?
- How close is the next recession?
- What can investors do to prepare?

But let's start with the most basic question: What is a recession?

What is a recession?



Recessions occur when economic output declines after a period of growth. They are a natural and necessary part of every business cycle. The U.S. National Bureau of Economic Research (NBER) defines a recession as “a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real gross domestic product (GDP), real income, employment, industrial production and wholesale-retail sales.” It is also commonly defined as at least two consecutive quarters of declining GDP. In this guide, we will use NBER’s official dates for U.S. recessions.

Past recessions have occurred for a variety of reasons, but typically are the result of imbalances that build up in the economy and ultimately need to be corrected. While every cycle is unique, some common causes include rising interest rates, inflation and commodity prices. Anything that broadly hurts corporate profitability enough to trigger job reductions also can be responsible. When unemployment rises, consumers typically reduce spending, which further pressures economic growth, company earnings and stock prices. These factors can fuel a vicious negative cycle that topples an economy into recession.

What about Canada?

In Canada, the government is responsible for determining when the economy has entered and exited a recession. The announcement comes from the Bank of Canada or minister of finance, based on data provided by Statistics Canada. There may also be regional recessions, as each province has different business sectors. A decline in oil prices could cause a recession in Alberta, but have minimal impact in Ontario.

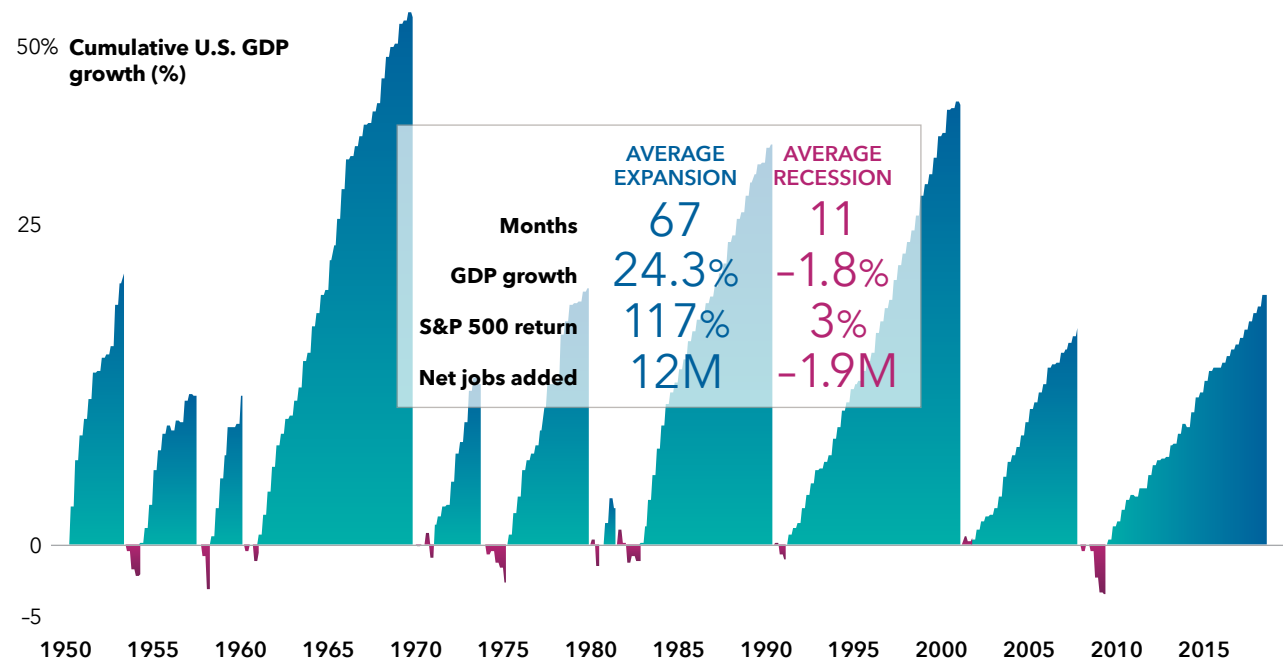
SOURCES: Capital Group, FactSet. GDP data are in USD and are latest available through 9/30/18. Country positions within the business cycle are forward-looking estimates by Capital Group economists.

How long do recessions last?

The good news is that recessions generally don't last very long. Our analysis of 10 cycles since 1950 shows that recessions have ranged from eight to 18 months, with the average lasting about 11 months. For those directly affected by job loss or business closures, that can feel like an eternity. But investors with a long-term investment horizon would be better served looking at the full picture.

Recessions are relatively small blips in economic history. Over the last 65 years, the U.S. has been in an official recession less than 15% of all months. Moreover, the net economic impact of most recessions also is relatively small. The average expansion increased economic output by 24%, whereas the average recession only reduced GDP less than 2%. Equity returns can even end up being positive for the full period of a contraction, since some of the strongest stock rallies have occurred during the late stages of a recession.

Recessions are painful, but expansions have been powerful



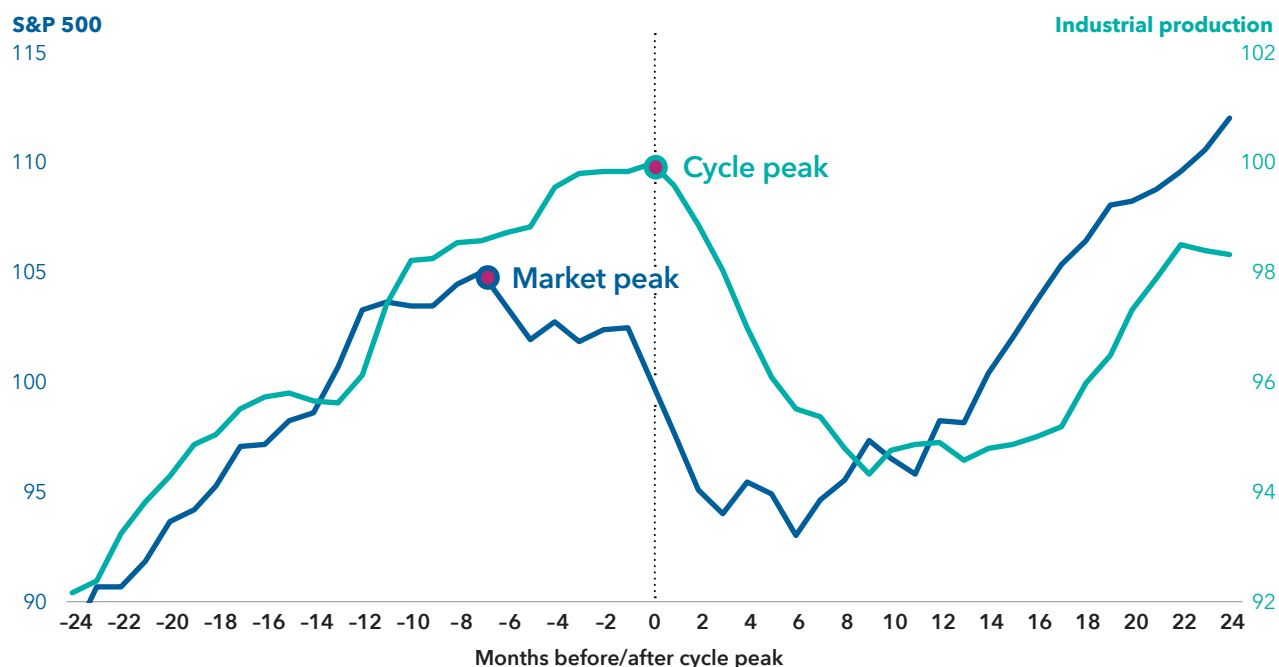
SOURCES: Capital Group, U.S. National Bureau of Economic Research, Thomson Reuters. As of 9/30/18. Since NBER announces recession start and end months rather than exact dates, we have used month-end dates as a proxy for calculations of S&P 500 returns and jobs added. Nearest quarter-end values used for GDP growth rates. GDP growth shown on a logarithmic scale. Results based on U.S. dollars.

What happens to the stock market during a recession?

Even if a recession does not appear to be imminent, it's never too early to think about how one could affect your portfolio. That's because bear markets and recessions usually overlap at times, with equities tending to peak about seven months before the economic cycle. NBER doesn't officially identify recessions until well after they begin. By then, equities already may have been declining for months.

Just as equities often lead the economy on the way down, they have also led on the way back up. The Standard & Poor's 500 Composite Index typically bottoms out about six months after the start of a recession, and usually begins to rally before the economy starts humming again. (Keep in mind, these are just market averages and can vary widely between cycles.) Aggressive market-timing moves, such as shifting an entire portfolio into cash, often can backfire. Some of the strongest returns can occur during the late stages of an economic cycle or immediately after a market bottom. It's often better to stay invested to avoid missing out on the upswing.

Equities typically peak months before a recession, but can bounce back quickly



SOURCES: Capital Group, Federal Reserve Board, Haver Analytics, U.S. National Bureau of Economic Research, Standard & Poor's. Data reflects the average of all cycles from 1950 to present, indexed to 100 at each cycle peak. Results based on U.S. dollars

What economic indicators can warn of a recession?

	Inverted yield curve	Corporate profits	Unemployment	Housing starts	Leading Economic Index
Recession warning sign	10-year yields below two-year yields	Declining from cycle peak	Rising from cycle trough	Declining at least 10% from previous year	Declining at least 1% from previous year
Why it's important	Often a sign the U.S. Fed has hiked short-term rates too high or investors are seeking long-term bonds over riskier assets	When profits decline, businesses cut investment, employment and wages	When unemployment rises, consumers cut back on spending	When the economic outlook is poor, homebuilders often cut back on housing projects	Aggregation of multiple leading economic indicators, gives broader look at U.S. economy
Average months until recession	15.7	26.2	6.1	5.3	4.1

Wouldn't it be great to know ahead of time when a recession is coming? Despite Paul Samuelson's warning about the hazards of predictions, there are some generally reliable signals worth watching closely as the economy reaches its late cycle.

Many factors can contribute to a recession and the main causes often change each cycle. Therefore, it's helpful to look at many different aspects of the economy to better gauge where excesses and imbalances may be building. Keep in mind that any indicator should be viewed more as a mile marker than a distance-to-destination sign. But here are five that provide a broad look at the economy.

For each, we will try to answer three key questions:

- Why is the indicator important?
- What does history tell us?
- Where are we now?

SOURCES: Capital Group.

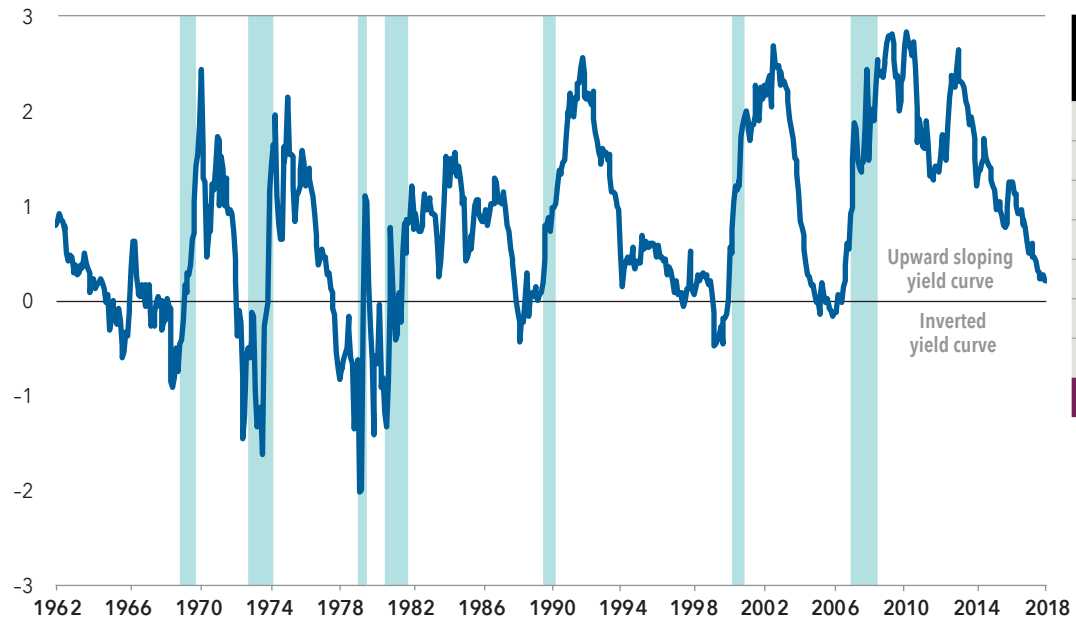
Indicator 1: Inverted yield curve

An inverted yield curve may sound like an elaborate gymnastics routine, but it actually is one of the most accurate and widely cited recession signals. The yield curve inverts when short-term rates are higher than long-term rates. This market signal has preceded every U.S. recession over the past 50 years. Short-term rates typically rise during Fed tightening cycles. Long-term rates can fall when there is high demand for bonds. An inverted yield curve is a bearish sign, because it indicates that many investors are moving to the perceived safe haven of long-term government bonds rather than buying riskier assets.

In December 2018, the yield curve between two-year and five-year U.S. Treasury notes inverted for the first time since 2007. Other parts of the curve – such as the more commonly referenced two-year/10-year yields – have not inverted thus far. However, even an inverted yield curve in that range is not cause for immediate panic, as there typically has been a significant lag (16 months on average) before the start of a recession. There is debate over whether central bank interventions in the bond market have distorted the yield curve to the point where it now may be a less reliable economic indicator, but that remains to be seen.

Yield curve is at its flattest level this cycle

Spread between 10-year and two-year U.S. Treasury yields



Inverted yield curve	Months until recession
1968	20
1973	8
1978	17
1980	10
1989	18
2000	13
2005	24
Average	15.7

SOURCES: Capital Group, Thomson Reuters. As of 12/31/18. One-year rates used instead of two-year rates prior to 6/30/76. Start dates in table do not include periods when the curve was only inverted at month-end for one month. Shaded bars represent U.S. recessions as defined by the U.S. National Bureau of Economic Research.

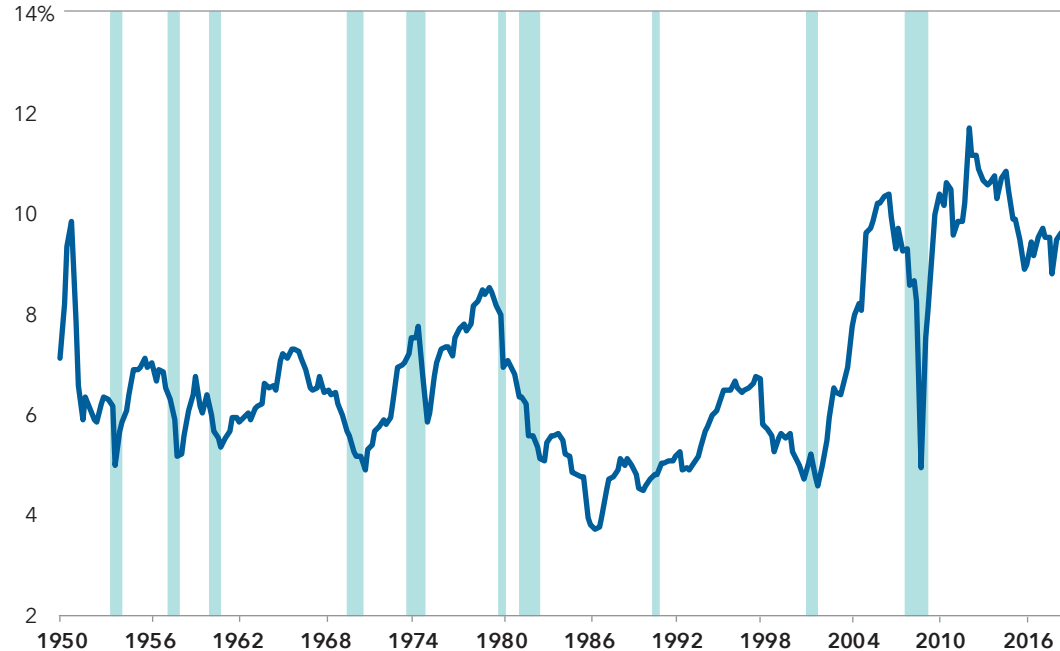
Indicator 2: Corporate profits

As profit margins expand, companies can ramp-up investment, hire more workers and increase wages. These hikes benefit both the business and consumer sides of the economy, supporting longer periods of expansion. Profits as a percent of GDP usually peak midcycle for the overall economy and start decelerating long before the start of a recession.

As of early 2019, U.S. corporate profits were still at high levels from a historical perspective, but there is reason to believe they may have peaked earlier in this cycle. Earnings likely will come under more pressure in the face of rising wages and inflation, diminishing benefits of tax reform and higher input costs due to global trade uncertainty. If 2012 was the peak of corporate profits as a percent of GDP, we already are past the average lead time of 26 months between the peak and the onset of the next recession.

U.S. corporate profits may have peaked years ago

Corporate profits as a % of GDP



Peak corporate profits	Months until recession
1950	31
1955	20
1959	10
1965	48
1973	0
1979	7
1980	10
1984	76
1997	42
2006	18
Average	26.2

SOURCES: U.S. Bureau of Economic Analysis, Federal Reserve, Thomson Reuters. As of 9/30/18. Shaded bars represent U.S. recessions as defined by the U.S. National Bureau of Economic Research.

Indicator 3: Unemployment

Companies tend to cut jobs when profits are declining because labour is often their biggest expense. As unemployment rises, consumers will often reduce discretionary spending to save money until job prospects improve. This behaviour hurts the profitability of cyclical businesses, which may force them to slash payrolls even more.

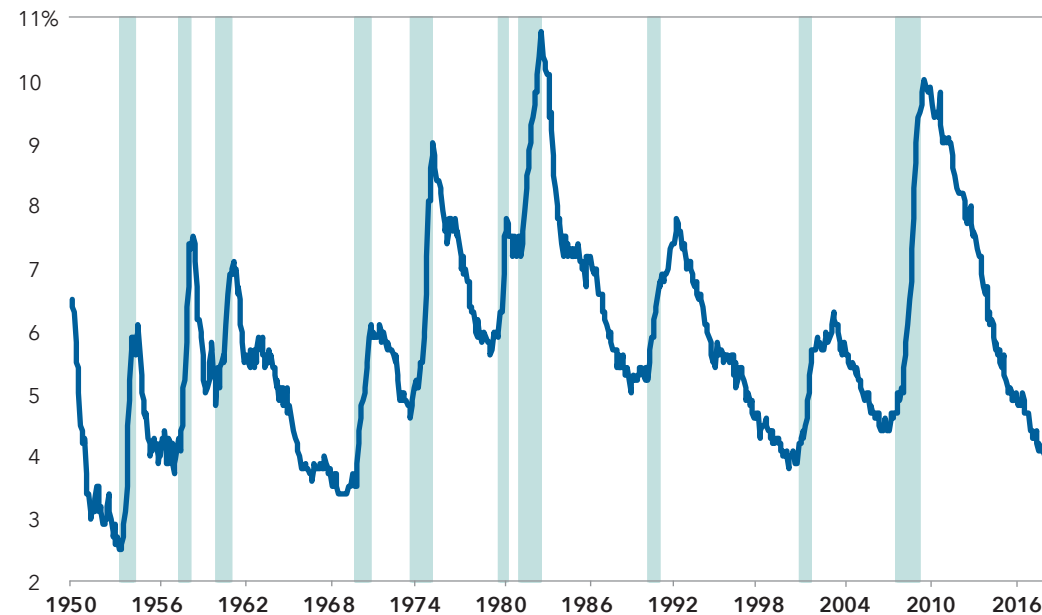
The U.S. unemployment rate currently is near historically low levels and has been declining steadily throughout the expansion. Wage growth has been well below average compared with past expansionary periods, but it has started to pick up recently and may impact company profits. The labour market is past the level that many economists consider "full employment" and has been for years, so there may be little room for the unemployment rate to decline further. Employment is such a powerful driver of economic growth that even moderate increases in unemployment can be a strong signal of a turning point in the cycle.

What about Canada?

The unemployment rate is at its lowest level in more than 40 years, although wages have not risen as fast as one would expect given how low unemployment is. The Bank of Canada expects wage growth to pick up with renewed economic expansion later in 2019.

U.S. unemployment rate is near a 50-year low

Unemployment rate (%)



Cycle low	Months until recession
1953	1
1957	5
1960	2
1969	7
1973	1
1979	8
1981	3
1989	16
2000	11
2007	7
Average	6.1

SOURCES: U.S. Bureau of Labor Statistics, Thomson Reuters. As of 12/31/18. Shaded bars represent U.S. recessions as defined by the U.S. National Bureau of Economic Research.

Indicator 4: Housing starts

Housing represents a significant portion of U.S. GDP and can provide an important glimpse into the health of the broader economy. A robust housing market can help fuel the economy by supplying property taxes for government spending, creating construction jobs and increasing homeowner wealth. Housing starts are a strong leading indicator because construction projects can take several months, and homebuilders are reluctant to break ground on new projects if they fear the economy may slump later.

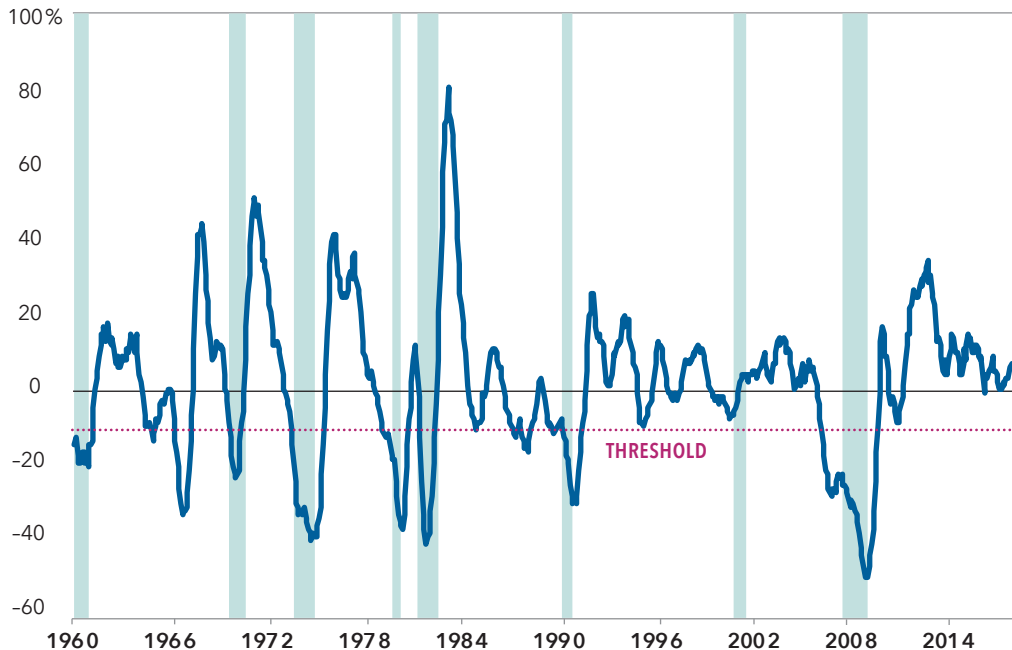
A 10% decline in housing starts has preceded most recessions, and a 25% drop is not uncommon near the start of a contraction. As of November 2018, U.S. housing starts were essentially flat from the previous year, and have decelerated in recent months. Higher mortgage rates have provided a headwind, but that may change if the Federal Reserve slows the pace of interest rate hikes.

What about Canada?

Growth in the Canadian housing market, a major contributor to the past decade's economic activity, cooled in 2018. Housing construction and sales continued to grow, but at a more sustainable pace. Home prices, which rose at double-digit levels in 2017, grew by about 3% in 2018.

New housing starts in the U.S. have been flat over the past year

Housing starts (year-over-year growth, six-month smoothed average)



Housing starts decline 10%	Months until recession
1969	0
1973	1
1979	8
1981	0
1989	7
2006	16
Average	5.3

SOURCES: Thomson Reuters, U.S. Census Bureau. As of 11/30/18. To avoid double counting periods, the table excludes 1965, 1966 and 1987, which were periods when housing starts hit the decline threshold but had positive year-over-year growth again before the start of the next recession. Shaded bars represent U.S. recessions as defined by the U.S. National Bureau of Economic Research.

Indicator 5: The Leading Economic Index

Since no economic indicator should be viewed in a vacuum, many economists and market prognosticators form their own aggregated scorecard of favourite indicators to gauge the health of the economy. The Conference Board Leading Economic Index® (LEI) is one such readily available measure for the U.S. The index reflects 10 factors that include wages, unemployment claims, manufacturing orders, stock prices, housing permits and consumer expectations.

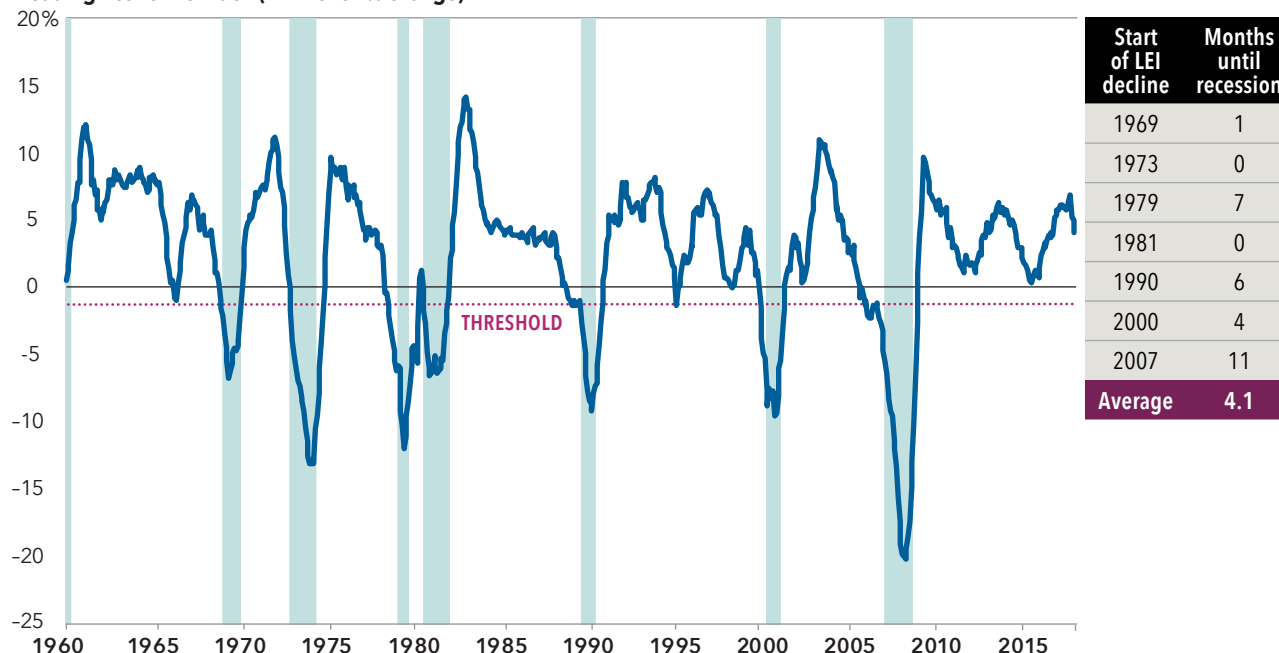
In September 2018, the LEI had risen 7% over the previous year – its fastest growth in eight years. It has decelerated a bit since then, rising 4.3% in December. The LEI has been remarkably consistent in signaling recessions, but doesn't provide much lead time once it starts declining. Over the last seven economic cycles, an LEI decline of at least 1% from the previous year preceded the start of a recession by an average of four months.

What about Canada?

The Conference Board of Canada, which provides independent forecasting and economic analysis, has projected slower growth in 2019, although not an actual recession. The Bank of Canada has expressed uncertainty about the timing of future rate increases and “will be watching closely developments in household spending, oil markets and global trade policy.”

LEI is still rising, but has started to decelerate

Leading Economic Index (12-month % change)



SOURCES: The Conference Board, Thomson Reuters. As of 12/31/18. Start dates in table reflect periods when the LEI declined by at least 1% from the previous year in consecutive months. Shaded bars represent U.S. recessions as defined by the U.S. National Bureau of Economic Research.

How close are we to the next U.S. recession?

The previous indicators are a small sampling of ways to take the temperature of the U.S. economy. One or two negative readings can be meaningless. But when several key indicators start flashing red for a sustained period, the picture becomes clearer and far more significant. In our view, that time has not yet arrived.

While some imbalances are developing, they don't seem extreme enough to derail economic growth in the near term. The culprit that ultimately sinks the current expansion may one day be obvious: Rising interest rates, higher inflation, or unsustainable debt levels can be major triggers. Global trade conflicts may further pressure the economy and produce unexpected consequences.

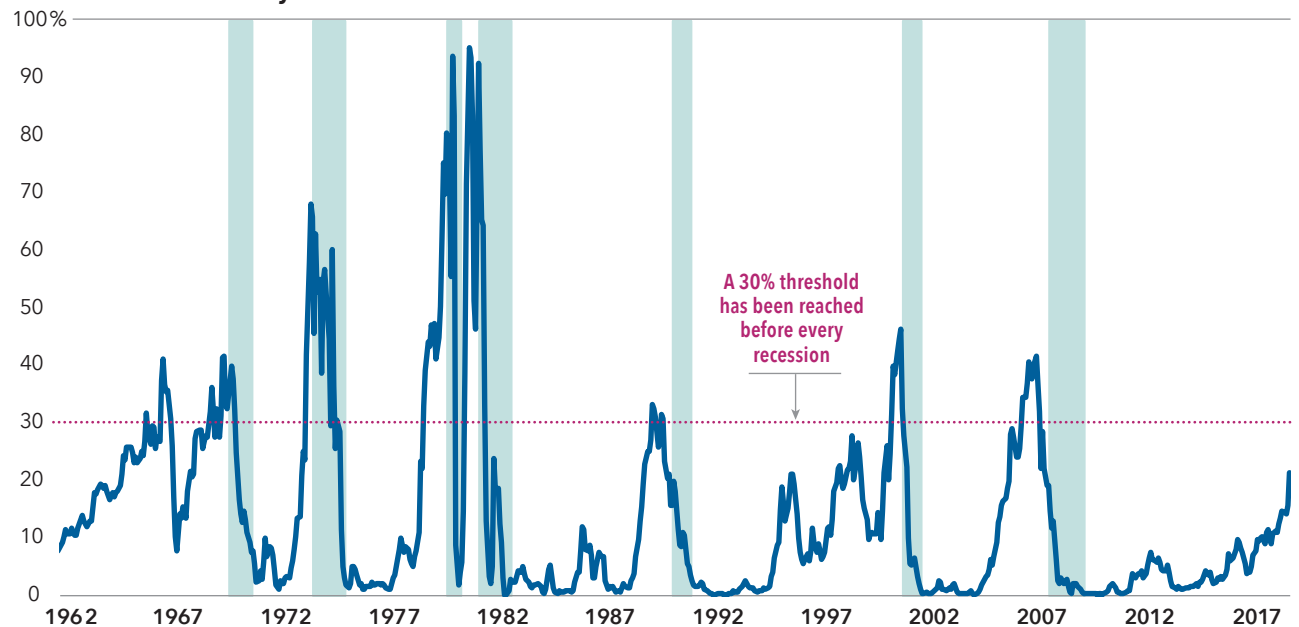
These events, if they continue, do suggest that the economy could weaken in the next two years, placing a 2020 recession on the horizon. But we are not there yet. If we have learned anything from Paul Samuelson, predicting exactly when a recession will hit is little more than baseless speculation.

What about Canada?

While the Bank of Canada projects moderate growth with "caution," more bearish prognosticators believe the Canadian economy is nearing the end of an economic cycle. With that in mind, preparing portfolios for a variety of economic outcomes may be a prudent move.

The likelihood of a U.S. recession in 2019 is rising, but remains low

NY Fed model: Probability of recession in 12 months



SOURCES: Federal Reserve Bank of New York, Thomson Reuters. As of 12/31/18. Shaded bars represent U.S. recessions as defined by the U.S. National Bureau of Economic Research.

How should you position your stock portfolio for a recession?

We've already established that equities often do poorly during recessions, but trying to time the market by selling stocks can be ill-advised. So should investors do nothing? Certainly not. Investors should take the opportunity to review their overall asset allocation – which may have changed significantly during the bull market – and ensure that their portfolio is balanced and broadly diversified. Consulting a financial advisor can help immensely, since these often can be emotional decisions for investors.

Not all stocks respond the same during periods of economic stress. Through the last eight major declines, some sectors held up more consistently than others. Consumer staples and utilities, for example, often have paid meaningful dividends, which can offer steady return potential when stock prices are broadly declining. Growth-oriented stocks still have a place in portfolios, but investors may want to consider companies with strong balance sheets, consistent cash flows and long growth runways that can withstand short-term volatility. Even in a recession, many companies remain profitable. Focus on companies with products and services that people will continue to use every day.

Through eight declines, some sectors have finished above the overall market

SECTOR SCORECARD											
SECTOR	S&P 500 ABOVE / BELOW	DIVIDEND YIELD (%)	1987	1990	1998	2000-02	2007-09	2010	2011	2018	
CONSUMER STAPLES	8	0	3.1	■	■	■	■	■	■	■	
UTILITIES	8	0	3.4	■	■	■	■	■	■	■	
HEALTH CARE	7	1	1.7	■	■	■	■	■	■	■	
TELECOMMUNICATION SERVICES*	7	1	5.3	■	■	■	■	■	■	■	
ENERGY	4	4	3.5	■	■	■	■	■	■	■	
MATERIALS	3	5	2.1	■	■	■	■	■	■	■	
CONSUMER DISCRETIONARY	2	6	1.4	■	■	■	■	■	■	■	
FINANCIALS	2	6	2.1	■	■	■	■	■	■	■	
INFORMATION TECHNOLOGY	2	6	1.6	■	■	■	■	■	■	■	
INDUSTRIALS	1	7	2.2	■	■	■	■	■	■	■	
S&P 500 RETURN (%)				-32.9	-18.7	-19.2	-47.4	-55.3	-15.6	-18.6	-19.2

■ Above S&P 500 ■ Below S&P 500

SOURCES: Capital Group, FactSet. As of 12/31/18. Includes the last eight periods in which the S&P 500 declined by more than 15% on a total return basis. Sector returns for 1987 are equally weighted, using index constituents from 1989, the earliest available. Results based on U.S. dollars.

*The telecommunication services sector dividend yield is as of 9/24/18. After this date the sector was renamed communication services and its company composition was materially changed. During the 2018 decline, the sector would have had a higher return than the S&P 500 using either the new or old company composition.

What should you do to prepare for a recession?

- Maintain a balanced and broadly diversified portfolio.
- Balance equity portfolios with a mix of dividend-paying companies and growth stocks.
- Choose mandates with a strong history of weathering market declines.
- Use high-quality bonds to offset equity volatility.
- Talk to your advisor about how to navigate periods of market volatility.

Guide to recessions: Key takeaways

- **Recessions are a natural and necessary part of every business cycle.** They occur when economic output declines after a period of growth.
- **Recessions have been infrequent.** The U.S. has been in an official recession less than 15% of all months since 1950.
- **Recessions have been relatively short.** The current U.S. expansion has been longer than the last 10 recessions combined.
- **Recessions have been less impactful compared with expansions.** The average U.S. recession led to a contraction of less than 2% in GDP. Expansions have grown the U.S. economy by about 24% on average.
- **An inverted yield curve has preceded each of the last seven U.S. recessions by an average of 16 months.** It's one of the most consistent signs that a slowing economy has reached a tipping point.
- **Equities typically peak seven months before the economic cycle.** They also often rebound before a recession officially ends.
- **Some equity sectors have held up better during severe declines.** Consumer staples and utilities have topped the S&P 500 during each of the last eight major market declines.

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- 4. We share economies of scale with investors:** We leverage our size and scale to offer lower fees and devote greater resources to research.
- 5. Our global research provides proprietary insights:** With 408 investment professionals in 12 offices around the world, few firms can match the scale and scope of our proprietary research effort.

Capital Group information as of December 31, 2018.

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