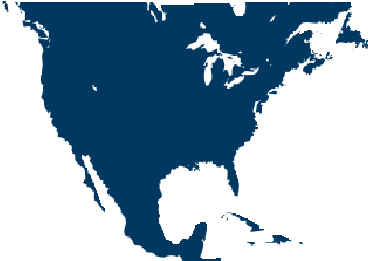
18 November 2018 | 12:03AM EST



**US Economics Analyst**

2019 Outlook: The Home Stretch



* Not for nothing has Fed Chairman Powell celebrated the “extraordinary times” the US economy enjoyed in 2018: growth is on pace to exceed 3%, the unemployment rate is at a 48-year low, and inﬂation is right on target. As we look ahead to 2019, the natural question is how long the good times can last.
* Growth is likely to slow signiﬁcantly next year, from a recent pace of 3½%+ to roughly our 1¾% estimate of potential by end-2019. We expect tighter ﬁnancial conditions and a fading ﬁscal stimulus to be the key drivers of the deceleration.
* Robust job creation should push the unemployment rate to 3% by early 2020, well below our 4½% estimate of full employment, the rate consistent with 2% inﬂation. Wage growth should reach 3¼-3½% in this environment, and ﬁrmer wage pressures coupled with additional tariff rounds should boost core PCE inﬂation to 2¼% by end-2019. While Fed ofﬁcials would be comfortable with inﬂation at that level, we also see a risk of a more material inﬂation overshoot.
* The Fed is very likely to raise rates in December, and we expect 4 more hikes in 2019 to bring the terminal funds rate to 3¼-3½%, about two hikes above market forwards. With a large overshoot of its labor market target under way, the FOMC will likely be reluctant to stop until it is conﬁdent that the unemployment rate is no longer on a downward trajectory, a point we expect to reach only in early 2020. We still see the risks to our terminal rate forecast as tilted a little to the upside.
* History counsels that large labor market overshoots raise recession risk down the road. While we take this lesson seriously, we think it is being applied too mechanically in markets today. A ﬂatter and more anchored Phillips curve should allow the Fed to unwind the overshoot more gradually, giving it a good chance of beating the historical odds. For now, neither overheating risks nor ﬁnancial imbalances—the classic causes of US recessions—look worrisome. As a result, the expansion is on course to become the longest in US history next year, and even in subsequent years recession is not our base case.

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# The Home Stretch

Not for nothing has Fed Chairman Powell celebrated the “extraordinary times” the US economy enjoyed in 2018. GDP growth is on pace to exceed 3%, boosted in part by ﬁscal stimulus. The unemployment rate has fallen to a 48-year low, and a wide range of labor market indicators paints a picture of one of the strongest job markets in memory. And after anxiety about “lowﬂation” last year, core PCE inﬂation has been remarkably on target, within 5bp of 2% for the last ﬁve months.

On the monetary policy front, the Fed appears very likely to deliver its fourth rate hike of 2018 in December, following four tightening actions in 2017 as well. But in contrast to 2017, in 2018 the Fed’s policy actions were matched by a large tightening in broader ﬁnancial conditions, as shown in Exhibit 1.

**Exhibit 1: In 2018 the Fed’s Rate Hikes Were Matched By a Large Tightening in Financial Conditions**

Index Index

101.6

101.2

100.8

100.4

100.0

101.6

101.2



GS US Financial Conditions Index

Tighter

Dec. ’15

Hike

Dec. ’16

Hike

Sept. ’17 Balance Sheet Normalization

Mar. ’18

Hike

Sept. ’18

Hike

Mar. ’17

Hike

June ’17

Hike

Dec. ’17

Hike

Jun. ’18

Hike

100.8

100.4

100.0

99.6 99.6

99.2 99.2

98.8 98.8

98.4 98.4

98.0

Jan-15 Jul-15 Jan-16 Jul-16 Jan-17 Jul-17 Jan-18 Jul-18

98.0

Source: Goldman Sachs Global Investment Research

Tighter ﬁnancial conditions and the fading of the ﬁscal boost should slow growth from its recent 3½%+ pace to roughly our 1¾% estimate of potential by end-2019. But before the economy stabilizes, we expect the unemployment rate to fall even further below target to a bottom of 3% in early 2020. This is well below our 4½% estimate of full employment, and we therefore expect to see faster wage growth and an increase in core inﬂation to 2¼% by the end of next year. The FOMC is likely to judge it prudent to keep its foot gently on the brake until it can be conﬁdent that the unemployment rate is no longer on a downward trajectory, and we therefore expect four more hikes in 2019 to a terminal rate of 3¼-3½%.

For ﬁnancial markets, this combination of less growth, more inﬂation, and more rate hikes than priced could be challenging. But a meaningful deceleration next year would help to reduce the risk of eventually overheating and could ultimately extend the life of the expansion.

## The Economic Outlook for 2019: Less Growth, More Inﬂation

The tightening in ﬁnancial conditions and the [fading of the ﬁscal stimulus](https://research.gs.com/content/research/en/reports/2018/11/03/2349c576-b206-4f9c-98f6-b49616649278.html) are the key drivers of the growth deceleration we expect next year. Our estimate of the sum of the growth impulses from these two factors declines from a ¾pp boost in 2018Q3 to a ½pp net drag by mid-2019, as shown in Exhibit 2.

**Exhibit 2: Tighter Financial Conditions and a Fading Fiscal Boost Should Drive Growth Lower in 2019**

Percentage points Percentage points

Effects on Real GDP Growth, 3-Quarter Centered Moving Average Financial Conditions\*

Fiscal Policy

Total

Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4

2014 2015 2016 2017 2018 2019 2020

2.0

1.5

1.0

2.0

1.5

1.0

0.5 0.5

0.0 0.0

-0.5 -0.5

-1.0 -1.0

-1.5 -1.5

-2.0 -2.0

\*Assumes GS FCI remains constant at November 15 close.

Source: Goldman Sachs Global Investment Research

The slowdown should come gradually, with growth remaining above trend in the ﬁrst half of 2019 before slowing to its potential pace later in the year (Exhibit 3). The economy’s recent performance has been stronger than the ﬁscal and ﬁnancial impulses alone would suggest, and some of this additional self-sustaining [momentum should](https://research.gs.com/content/research/en/reports/2018/10/18/9e8f61c4-f49f-4ed2-8da6-9c934e90597d.html) [persist](https://research.gs.com/content/research/en/reports/2018/10/18/9e8f61c4-f49f-4ed2-8da6-9c934e90597d.html) next year.

We expect consumption growth of about 2½% in 2019, supported by solid income growth, a high [saving rate](https://research.gs.com/content/research/en/reports/2018/08/04/eb0c06b8-2e95-45de-9a6d-8f7a06160bb5.html), and high conﬁdence. We project [business investment](https://research.gs.com/content/research/en/reports/2018/11/16/44d25607-e366-49ca-9f4e-3a61e9ed1d3c.html) growth of about 4%, supported by strong demand growth, fairly easy credit conditions, and healthy business conﬁdence. Strength in these areas should be only partly offset by drags from [net trade](https://research.gs.com/content/research/en/reports/2018/04/15/077c8770-451c-41a8-9b06-7ab2b4405db7.html) and continued [weakness in the housing sector](https://research.gs.com/content/research/en/reports/2018/11/04/5fc36f8d-2eab-405f-9553-e9da44e0e14c.html).

While further escalation of [trade tensions with China](https://research.gs.com/content/research/en/reports/2018/11/14/3b2639e6-9964-499c-8380-318abe1c8303.html) appears likely, we have found [minimal effects](https://research.gs.com/content/research/en/reports/2018/08/09/8f2624a7-35cc-4aa2-b3dd-4f27333210a9.html) on the US economy so far and the next steps should have only a [modest impact](https://research.gs.com/content/research/en/reports/2018/10/05/612ef478-6895-4c8d-b627-64e25c525e9a.html) on growth unless they affect US business conﬁdence and risk assets much more adversely than the trade war has to date.

**Exhibit 3: We Expect Growth to Slow from 3½%+ Recently to a Trend-Like Pace by Late 2019**

Percent change, annual rate Percent change, annual rate

8 8



*GS Potential Growth Estimate*

*GS Forecast*

Real GDP Growth

Current Activity Indicator

6 6

4 4

2 2

0 0

-2 -2

-4 -4

-6 -6

-8 -8

-10

2006 2008 2010 2012 2014 2016 2018 2020 2022

-10

Source: Department of Commerce, Goldman Sachs Global Investment Research

With growth likely to remain above potential a while longer, the impressive recent momentum in job creation is likely to fade only gradually. Monthly payroll growth has averaged 215k over the last six months, and our [statistical models](https://research.gs.com/content/research/en/reports/2018/11/13/35fcbbab-8b5f-4d4b-ad1a-9dea0bd25fbd.html) suggest that it is unlikely to slow to our 90k estimate of the breakeven pace—the pace needed to stabilize the unemployment rate—until early 2020 (Exhibit 4, left). By then we expect the unemployment rate to have declined to 3%, well below [our 4.5% estimate of the](https://research.gs.com/content/research/en/reports/2018/10/14/509fafda-2fdd-4552-901d-2c975d55b2e3.html) [full employment rate](https://research.gs.com/content/research/en/reports/2018/10/14/509fafda-2fdd-4552-901d-2c975d55b2e3.html) consistent with the Fed’s 2% inﬂation target (Exhibit 4, right).

**Exhibit 4: Above-Trend Job Creation Is Likely to Push the Unemployment Rate to 3% by Early 2020**

Thousands per month Thousands per month Percent Percent

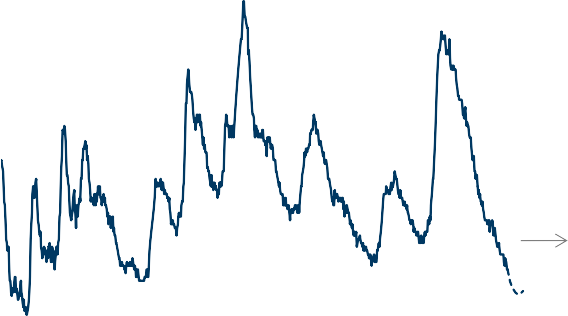
300

Nonfarm Payroll Growth

300 12

12

Unemployment Rate



250 250 10 10

200

*GS Forecast*

200 8 8

150

100

50

*GS Estimate of Monthly Breakeven Rate*

150 6

100 4

50 2

*GS Estimate*

*of Level* 6

*Consistent*

*with 2%*

*Inflation*

4

*GS Forecast*

2

0

2013 2014 2015 2016 2017 2018 2019 2020

0 0 0

1950 1960 1970 1980 1990 2000 2010 2020

Source: Department of Labor, Goldman Sachs Global Investment Research

Other indicators support this picture of one of the strongest labor markets in memory. The number of job openings per unemployed worker, the quit rate, household reports of the ease of ﬁnding a job, and employer reports of the difﬁculty of ﬁnding workers all suggest that workers’ bargaining power has increased. Based on these signals, recent

acceleration in the highest-quality wage indicators, the rise in our wage survey leading indicator, and the larger [pick-up in wage growth in the more cyclically-sensitive lower](https://research.gs.com/content/research/en/reports/2018/10/21/e836a2ab-9cf2-4890-a35c-cc7aa5b0d6e0.html) [half of the income distribution](https://research.gs.com/content/research/en/reports/2018/10/21/e836a2ab-9cf2-4890-a35c-cc7aa5b0d6e0.html), we expect overall wage growth to reach 3.25-3.5% next year.

Core PCE inﬂation is likely to [grind higher](https://research.gs.com/content/research/en/reports/2018/11/15/cfd47d48-94e9-4cc4-a25a-15086ed4ae63.html) next year as well. While recent inﬂation readings have been soft, we expect to reach 2¼% by end-2019. Measures of the [underlying inﬂation trend](https://research.gs.com/content/research/en/reports/2018/10/26/780e726b-0e1f-4da8-bcab-a69b9356c340.html) have risen, and in the year ahead [pass-through from ﬁrmer](https://research.gs.com/content/research/en/reports/2018/11/08/aa722d75-e838-4359-a8cb-937ad618668c.html) [wage growth](https://research.gs.com/content/research/en/reports/2018/11/08/aa722d75-e838-4359-a8cb-937ad618668c.html), [bottlenecks and capacity constraints in product markets](https://research.gs.com/content/research/en/reports/2018/08/13/076197b4-55b8-47f0-99a5-4deb210d9c4a.html), additional tariff rounds with a greater focus on consumer goods, and new state-level [online sales taxes](https://research.gs.com/content/research/en/reports/2018/06/21/8c31bdeb-e417-47e1-8a4b-ddaf2f337207.html) should all put upward pressure on core inﬂation.

**Exhibit 5: Firmer Wage Pressures and Higher Tariffs Should Boost Core PCE Inﬂation to 2¼% by End-2019**

Percent change, year ago Percent change, year ago

Percentage points, year-on-year

Percentage points, year-on-year

6 6 0.40 0.40

Estimated Tariff Impact\* on Core Inflation

All Floated Tariffs GS Base Case

Imposed to Date

Autos Tariffs

China $267bn at 25%

0.35

5 5

0.30

4 4

0.25

0.35

0.30

0.25

3 3 0.20

0.20

2

1

GS Wage Tracker

0.15

2

0.10

1

0.05

0.15

0.10

0.05

GS Lower-Income Wage Tracker

0

0 0.00

0.00

1991 1994 1997 2000 2003 2006 2009 2012 2015 2018

Jan Apr Jul Oct Jan Apr Jul Oct

2018 2019

\*Tariffs already imposed include those on solar panels, washing machines, steel, aluminum, and $250bn of Chinese imports; our base case involves an increase in the tariff rate from 10% to 25% on $200bn of Chinese imports as well as a new 10% tariff on the remaining $267bn of Chinese imports. While not our base case, a 25% tariff rate on this $267bn and/or on the majority of the $340bn of global auto-sector imports are also possible from the administration (represented in the gray area above).

Note: Tariff chart shows estimated impact on core PCE inflation; however, we estimate an impact of a similar magnitude on the core CPI measure.

Source: Goldman Sachs Global Investment Research

While Fed ofﬁcials would be comfortable with inﬂation at that level, we also see some risk of a larger overshoot to 2.5% or higher in the years ahead, a level that would likely change the monetary policy conversation. Part of the reason is simply that [inﬂation risk](https://research.gs.com/content/research/en/reports/2018/04/20/71d6fc72-6693-438b-8c28-e781429ffb83.html) [is always higher than it seems](https://research.gs.com/content/research/en/reports/2018/04/20/71d6fc72-6693-438b-8c28-e781429ffb83.html). While this statistical uncertainty is a two-sided risk, we also see upside risks from trade war escalation beyond our baseline, such as the imposition of [auto tariffs](https://research.gs.com/content/research/en/reports/2018/10/16/f04bcac8-5b74-42ca-b000-0e60bc4c42a2.html), and from the possibility suggested by our [analysis of city-level](https://research.gs.com/content/research/en/reports/2018/08/17/4d9026a9-ddc3-472f-81ed-56f6ce0cdb71.html) [data](https://research.gs.com/content/research/en/reports/2018/08/17/4d9026a9-ddc3-472f-81ed-56f6ce0cdb71.html) that extremely tight labor markets can and often do push inﬂation notably, not just slightly, higher.

## The Fed in 2019: The Home Stretch of the Hiking Cycle

We expect the Fed to deliver a rate hike in December followed by four hikes in 2019, about two more than priced. This would bring the terminal funds rate to 3¼-3½% and mark the third straight year in which the Fed surprised markets in a hawkish direction.

In 2017 investor skepticism about rate hikes centered on the lowﬂation narrative, the weight the FOMC was likely to put on low inﬂation versus a tight labor market, and the level of the neutral rate. In 2018 investor skepticism centered on the idea of the [neutral](https://research.gs.com/content/research/en/reports/2018/08/06/6e6b78e4-d6c2-441a-89e2-53b296635c8d.html) [rate as a barrier](https://research.gs.com/content/research/en/reports/2018/08/06/6e6b78e4-d6c2-441a-89e2-53b296635c8d.html), an assumed [fear of yield curve inversion](https://research.gs.com/content/research/en/reports/2018/01/04/0ff499d9-f818-466f-83c9-f4f50007bc69.html), and concern about foreign and especially [EM vulnerability](https://research.gs.com/content/research/en/reports/2018/07/30/7fd79822-cfce-48cd-8540-00756a8b4c27.html) to Fed hikes. As we enter the home stretch of the hiking cycle in 2019, investor skepticism has so far centered on whether four hikes are really necessary for an economy already on a trajectory to decelerate substantially.

The next three hikes up to the Fed’s 3% estimate of the [neutral rate](https://research.gs.com/content/research/en/reports/2018/09/20/f9720569-51a1-4d5f-a540-30d791866b21.html) (Exhibit 6) appear likely to be fairly uncontroversial, barring a signiﬁcant shock. Recent [commentary](https://research.gs.com/content/research/en/reports/2018/10/30/7d103def-181d-4542-ab14-3ca914bc0e8e.html) by Fed ofﬁcials indicates that most think that an accommodative stance is inappropriate at a time when the economy is past their labor market target. The controversy is likely to begin beyond 3%.

**Exhibit 6: Most FOMC Participants Now Agree that an Accommodative Policy Stance Is Inappropriate**

Percent Percent

2.0

1.8

1.6

1.4

1.2

1.0

0.8

0.6

0.4

0.2

0.0

2.0

1.8

Latest Estimates of Real r\*

Consensus Blue Chip Primary

Dealers

Lewis, Vazquez- Grande (2017)

Lubik, Matthes (2015)

Del Negro et al (2017)

Laubach, Johannsen, Holston et

Williams (2015)\*\*

Mertens (2016)

al (2017)

Kiley Federal Average (2015) Reserve Estimate

Forecasters

Models

1.6

1.4

1.2

1.0

0.8

0.6

0.4

0.2

0.0

Source: Consensus Economics, Blue Chip, Federal Reserve Bank of New York, Federal Reserve Board, Goldman Sachs Global Investment Research

Many investors ﬁnd it instinctively implausible that the Fed would take the policy rate beyond neutral. But since last December FOMC participants have overwhelmingly projected that a terminal rate modestly above neutral will be an appropriate response to the labor market overshoot. And compared to standard benchmarks such as the “balanced approach” Taylor rule included in the Fed’s Monetary Policy Report, taking the funds rate a hike or two above neutral actually looks very restrained (Exhibit 7).

**Exhibit 7: A Modest Overshoot of Neutral Would Actually Be Quite Tame Relative to Standard Benchmarks**

Percent Percent

10

8

6

4

2

0

-2

-4

-6 Actual Target Rate

10

Fed Funds Rate *GS Forecast*

8

6

4

2

0

-2

-4

-6

-8

-10

Yellen’s Taylor Rule with HLW r\*

Yellen’s Taylor Rule with SEP Longer Run r\*

-8

-10

2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020

Source: Goldman Sachs Global Investment Research

We think the question of when the hiking cycle ends largely comes down to when Fed ofﬁcials can be conﬁdent that the overshoot of full employment already under way is at least not growing further, the same principle that determined the endpoint in [the last](https://research.gs.com/content/research/en/reports/2018/10/02/a98a5563-0c80-42fc-a809-a50cc819f3ed.html) [few hiking cycles](https://research.gs.com/content/research/en/reports/2018/10/02/a98a5563-0c80-42fc-a809-a50cc819f3ed.html). The recent sharp tightening in ﬁnancial conditions has made it more plausible that this point could be reached earlier than the end of next year, but we think it is more likely that job growth will not slow sufﬁciently until early 2020. If so, the FOMC is likely to judge it prudent to continue tightening gradually, for fear of having to tighten more abruptly down the road. This has been the Committee’s guiding principle for the last couple of years.

Exhibit 8 illustrates a few possible alternative scenarios around our baseline. If GDP growth and job creation slow earlier than we expect, the Fed could stop after two hikes next year at 2.75-3%, say. Conversely, if job growth remains stronger for longer than we expect or inﬂation rises to 2.5% or higher, the path of least resistance would likely be to continue hiking once per quarter into 2020. While many scenarios are possible, we see the risks to our baseline terminal rate as still tilted a little to the upside.

**Exhibit 8: We See the Risks Around Our Baseline Terminal Rate As Two-Sided but Tilted to the Upside**

Percent Percent

6.0 6.0

Scenarios for the Fed Funds Rate

Inflation Above 2.5% in 2020 Payrolls Stronger for Longer GS Baseline

Labor Market Stabilizes mid-2019

2020 Recession

Q3

Q4

Q1

Q2

Q3

Q4

Q1

Q2

Q3

Q4

2018 2019 2020

5.0

4.0

5.0

4.0

3.0 3.0

2.0 2.0

1.0 1.0

0.0 0.0

Source: Goldman Sachs Global Investment Research

Beyond the number of rate hikes, three other monetary policy issues will be important in 2019.

First, the [end of balance sheet normalization](https://research.gs.com/content/research/en/reports/2018/05/18/064bf8f2-f3dd-434e-93df-f0400e8f617a.html) will come into sharper focus. Our best guess remains that runoff will end with bank reserves at roughly $1tn and a total balance sheet of about $3.6tn in early 2020, though a wide range of outcomes is possible. While we sympathize with arguments that the beneﬁts of keeping the balance sheet somewhat larger than its minimum possible size exceed the costs, the Fed’s standing guidance, reiterated in Congressional testimony by Chairman Powell in July, is that the “balance sheet will return to a size that’s no larger than it needs to be for us to affect monetary policy in our chosen framework,” and that point looks a bit further off.

Second, the FOMC will likely have to make further IOER realignments. With the effective fed funds rate now just 5bp below the top of the target range for the funds rate, we expect the FOMC to raise IOER by only 20bp at its December meeting and to make one or two additional IOER realignments in 2019.

Third, a press release from the Fed issued yesterday announced that the debate on [alternative monetary policy frameworks](https://research.gs.com/content/research/en/reports/2018/01/15/5793582f-9ff5-44c6-9734-941847faf515.html) has resumed. We expect the next milestone to be a summary of a staff presentation in the minutes to one of the upcoming FOMC meetings. The key event in 2019 will then be a conference on June 4-5 that will invite discussion from both within and outside of the Federal Reserve.

## Beating the Historical Odds: Recession Risk in 2019 and Beyond

We have long highlighted the risks that have historically been associated with large overshoots of full employment. We have noted that the Fed has [never engineered a](https://research.gs.com/content/research/en/reports/2016/04/15/a8b74f63-a75b-4f1a-9717-bdbcd3fd227d.html) [soft landing from beyond full employment](https://research.gs.com/content/research/en/reports/2016/04/15/a8b74f63-a75b-4f1a-9717-bdbcd3fd227d.html), that [few other advanced economy central](https://research.gs.com/content/research/en/reports/2017/04/28/826c62f4-1e99-4cbe-b33e-5645c5c1a2ce.html) [banks have either](https://research.gs.com/content/research/en/reports/2017/04/28/826c62f4-1e99-4cbe-b33e-5645c5c1a2ce.html), and that countries that have achieved very [long expansions](https://research.gs.com/content/research/en/reports/2018/07/20/63976871-d5f8-486a-8d75-1ca75a35eca4.html) often used countercyclical policy to prevent a large overshoot in the ﬁrst place. In practice it hasn’t been easy to nudge up the unemployment rate just so.

While we take this lesson seriously, we think it is being applied too mechanically by market participants today. The key difference with the past is that the Phillips curve is ﬂatter and better anchored on the Fed’s target today. As a result, where labor market overshoots once led to high and accelerating inﬂation and consequently had to be unwound urgently with a forceful policy response, today an overshoot will more likely mean inﬂation persistently but only moderately above target. The Fed could probably live with this for a while, permitting it to tighten gradually and unwind the overshoot slowly. This gives the Fed a good chance of beating the historical odds.

How worried should we be about [recession risk](https://research.gs.com/content/research/en/reports/2018/07/14/8a87297e-b160-428c-812b-88f890882a4a.html) today? The [history of US recessions](https://research.gs.com/content/research/en/reports/2017/06/24/ea611588-cca6-4367-a8cb-37fe872fc14c.html) points to two classic causes of US recessions, overheating and ﬁnancial imbalances. While overheating risks could emerge down the road, they look quite limited for now: core inﬂation is at 2%, trend unit labor cost growth is at 2%, and both household inﬂation expectations and market-implied inﬂation compensation are below average (Exhibit 9).

**Exhibit 9: Overheating Risks Look Limited for Now**

Percent change, year ago Percent change, year ago

Percent

5y5y TIPS Inflation Compensation

Michigan 5-10 Year Household Inflation Expectations, 3m Avg.

Percent

3.0

Core PCE Inflation

3.0

3.5

3.5

2.5

2.0

Trend Unit Labor Cost Growth\*

2.5

*2%*

2.0

3.0

3.0

1.5

1.0

1.5

1.0

2.5

2.5

0.5

0.0

-0.5

-1.0

-1.5

1995 1999 2003 2007 2011 2015

\*GS Wage Tracker minus 3 year average productivity growth

0.5

0.0

-0.5

-1.0

-1.5

2.0

1.5

1.0

1995 1999 2003 2007 2011 2015

2.0

1.5

1.0

Source: Department of Commerce, Federal Reserve Board, University of Michigan, Goldman Sachs Global Investment Research

We also see little risk from ﬁnancial imbalances at the moment. At a high level, the [private sector ﬁnancial balance](https://research.gs.com/content/research/en/reports/2018/08/23/b7b95958-8b3f-4822-aec2-639fc329710c.html)—a very good predictor of recession risk—looks quite healthy (Exhibit 10).

Digging deeper, our [ﬁnancial excess monitor](https://research.gs.com/content/research/en/reports/2018/03/11/cf870417-fc53-46d0-aad8-eabeb6c52458.html) looks for elevated valuations and stretched risk appetite across major asset classes, and for ﬁnancial imbalances and vulnerabilities

in the household, business, banking, and government sectors. Overall, the message is mostly reassuring. On the valuations side, while commercial real estate prices look [somewhat frothy](https://research.gs.com/content/research/en/reports/2018/05/18/4da71b3c-c235-43c3-9399-291ee1efa312.html), lending terms and standards have tightened in recent years. On the sectoral imbalances side, [ﬁscal sustainability](https://research.gs.com/content/research/en/reports/2018/02/18/d6f6e303-8936-4629-9400-d5073cd16f37.html) remains a long-run concern, but we see this less as a recession trigger than as something that could prolong a downturn if policymakers perceive a lack [ﬁscal space](https://research.gs.com/content/research/en/reports/2018/05/11/2fe03d52-2a9c-4b89-bcc5-abfd192a546e.html) to respond.

These two classic recession risks are complementary—overheating and the associated risk of a more abrupt shift in monetary policy is more threatening when ﬁnancial imbalances are elevated and less threatening when they are limited. With neither risk looking worrisome at the moment, we do not think it makes sense to characterize the economy as “[late cycle](https://research.gs.com/content/research/en/reports/2018/09/30/bef44c93-d9db-4f79-94d0-6fef4aedfeea.html)” at this point.

**Exhibit 10: The Private Sector Financial Balance Looks Healthy, a Key Contrast with the Last Two Cycles**

Percent of GDP Percent of GDP

12 12

Private Sector Financial Balance

10 10

8 8

6 6

4 4

2 2

0 0

-2 -2

-4 -4

-6 -6

1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015

Source: Federal Reserve, Department of Commerce, Goldman Sachs Global Investment Research

The most obvious recession risk beyond 2019 is a mundane and technical one. With a low potential growth rate and a possible need to operate the economy a touch below potential to gradually unwind the overshoot—we forecast 1.5% growth in 2020 and 2021—the likelihood that normal ﬂuctuations will tip growth negative is mechanically somewhat higher. We would interpret this as simply highlighting the arbitrariness of deﬁning recessions as negative growth, rather than as a material rise in the unemployment rate. Of course, even a [less severe recession](https://research.gs.com/content/research/en/reports/2018/09/28/ce1a9d99-9292-4ed1-8f84-4779d549b870.html) could see a large sell-off in risk assets.

Accounting for these and other considerations, our [recession risk model](https://research.gs.com/content/research/en/reports/2018/01/15/bdc00831-97a5-4c0e-b860-136bf03ef6e7.html) indicates that recession risk is still quite low (Exhibit 11). The expansion is therefore on course to become the longest in US history next year, and even in subsequent years recession is not our base case.

**Exhibit 11: With No Obvious Trigger on the Horizon, Recession Risk Still Looks Low**

Percent Percent

100

US Recession Risk

Next Year Next 2 Years

Next 3 Years

90

80

70

60

50

40

30

20

10

0

1990 1994 1998 2002 2006 2010 2014 2018

100

90

80

70

60

50

40

30

20

10

0

Source: Goldman Sachs Global Investment Research

**David Mericle Jan Hatzius**

The US Economic and Financial Outlook

|  |
| --- |
| (% change on previous period, annualized, except where noted)  **2016 2017 2018 2019 2020 2021 2022 2018 2019**  **(f) (f) (f) (f) (f) Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4**  **OUTPUT AND SPENDING**  Real GDP **1.6 2.2** *2.9 2.5 1.6 1.5 1.7* **2.2 4.2 3.5** *2.5 2.5 2.2 1.8 1.6*  Real GDP (Q4/Q4) **1.9 2.5** *3.1 2.0 1.5 1.5 1.7* -- -- -- -- -- -- -- --  Consumer Expenditure **2.7 2.5** *2.7 2.7 2.0 1.7 1.9* **0.5 3.8 4.0** *2.3 2.8 2.5 2.3 2.0*  Residential Fixed Investment **6.5 3.3** *0.0 -1.3 0.2 1.9 2.3* **-3.4 -1.4 -4.0** *0.4 -1.5 -1.5 -1.0 -0.5*  Business Fixed Investment **0.5 5.3** *6.7 4.2 3.0 2.7 3.0* **11.5 8.7 0.8** *5.0 5.1 4.3 3.1 2.9*  Structures **-5.0 4.6** *4.9 2.1 2.0 2.0 2.0* **13.9 14.5 -7.9** *3.9 3.0 2.5 2.0 2.0*  Equipment **-1.5 6.1** *6.8 3.1 2.7 2.5 2.8* **8.5 4.6 0.4** *2.6 4.0 4.0 3.0 2.5*  Intellectual Property Products **7.5 4.6** *7.7 7.2 4.0 3.5 3.8* **14.1 10.5 7.9** *9.0 8.0 6.0 4.0 4.0*  Federal Government **0.4 0.7** *2.8 3.8 0.9 0.0 0.0* **2.6 3.6 3.3** *5.0 5.0 2.5 2.5 2.5*  State & Local Government **2.0 -0.5** *1.2 1.8 0.4 0.0 0.0* **0.9 1.8 3.2** *2.2 1.5 1.5 1.0 1.0*  Net Exports ($bn, ’09) **-786 -859** *-903 -967 -1,021 -1,060 -1,100* **-902 -841 -939** *-929 -943 -957 -975 -993*  Inventory Investment ($bn, ’09) **23 23** *31 30 25 25 25* **30 -37 76** *56 40 30 25 25*  Industrial Production, Mfg. **-0.8 1.2** *2.2 1.6 0.9 0.7 0.8* **2.0 2.3 2.7** *1.3 1.6 1.5 1.2 1.0*  **HOUSING MARKET**  Housing Starts (units, thous) **1,177 1,208** *1,278 1,314 1,353 1,390 --* **1,317 1,261 1,218** *1,316 1,290 1,312 1,330 1,323*  New Home Sales (units, thous) **560 616** *637 688 707 728 --* **656 633 580** *677 680 685 694 695*  Existing Home Sales (units, thous) **5,441 5,536** *5,370 5,316 5,367 5,419 --* **5,507 5,413 5,273** *5,286 5,298 5,310 5,323 5,335*  Case-Shiller Home Prices (%yoy)\* **4.9 5.7** *6.1 3.7 2.8 1.9 --* **6.5 6.9 6.1** *5.0 4.2 3.7 3.6 3.4*  **INFLATION (% ch, yr/yr)**  Consumer Price Index (CPI) **1.3 2.1** *2.5 2.1 2.3 2.2 2.3* **2.3 2.6 2.6** *2.4 1.9 2.1 2.1 2.1*  Core CPI **2.2 1.8** *2.2 2.5 2.5 2.5 2.4* **1.9 2.2 2.2** *2.3 2.2 2.5 2.6 2.6*  Core PCE\*\* **1.7 1.6** *1.9 2.1 2.2 2.2 2.2* **1.7 1.9 2.0** *1.9 2.0 2.0 2.2 2.3*  **LABOR MARKET**  Unemployment Rate (%) **4.9 4.4** *3.8 3.2 3.1 3.2 3.3* **4.1 3.9 3.8** *3.6 3.4 3.3 3.2 3.1*  U6 Underemployment Rate (%) **9.6 8.5** *7.7 6.6 6.3 6.6 6.7* **8.1 7.8 7.4** *7.3 7.0 6.7 6.5 6.3*  Payrolls (thous, monthly rate) **201 181** *210 164 84 64 85* **211 211 206** *210 200 175 150 130*  **GOVERNMENT FINANCE**  Federal Budget (FY, $bn) **-590 -666 -779** *-1,000 -1,125 -1,250 -1,325 --* -- -- -- -- -- -- --  **FINANCIAL INDICATORS**  FF Target Range (Bottom-Top, %)^ **0.5-0.75 1.25-1.5** *2.25-2.5 3.25-3.5 3.25-3.5 3.25-3.5 3.25-3.5* **1.5-1.75 1.75-2 2.0-2.25** *2.25-2.5 2.5-2.75 2.75-3.0 3.0-3.25 3.25-3.5*  10-Year Treasury Note^ **2.45 2.40** *3.20 3.50 3.30 3.10 3.10* **2.74 2.85 3.05** *3.20 3.30 3.40 3.50 3.50*  Euro (€/$)^ **1.06 1.20** *1.13 1.20 1.25 1.30 1.35* **1.23 1.17 1.16** *1.13 1.14 1.18 1.19 1.20*  Yen ($/¥)^ **117 113** *113 108 105 100 97* **106 111 113** *113 111 110 109 108*  \* Weighted average of metro-level HPIs for 381 metro cities where the weights are dollar values of housing stock reported in the American Community Survey.  \*\* PCE = Personal consumption expenditures. ^ Denotes end of period. Note: Published figures in bold. |
| Source: Goldman Sachs Global Investment Research |

Economic Releases and Other Events

|  |
| --- |
|  |
| **Time Estimate**  **Date** (EDT) **Indicator GS Consensus Last Report**  **Mon Nov 19** 10:00 Homebuilders’ Survey (Nov) n.a. 68 68  **Tue Nov 20 8:30 Housing Starts (Oct) +2.7% +2.4% -5.3%**  **Wed Nov 21 8:30 Durable Goods Orders (Oct) -3.5% -2.2% +0.7%**  **8:30 Durable Goods Orders Ex-Transport (Oct) +0.1% +0.4% Flat**  **8:30 Core Capital Goods Orders (Oct) +0.1% +0.2% -0.1%**  **8:30 Core Capital Goods Shipments (Oct) +0.4% +0.2% -0.1%**  **8:30 Initial Jobless Claims 215,000 215,000 216,000**  8:30 Continuing Claims n.a. 1,650,000 1,676,000  10:00 Leading Indicators Index (Oct) n.a. +0.1% +0.5%  **10:00 Existing Home Sales (Oct) -0.3% +1.0% -3.4%**  **Fri Nov 23 10:00 UMich Consumer Sentiment—Final (Nov) 97.9 98.3 98.3** |
| Source: Goldman Sachs Global Investment Research |

Disclosure Appendix

**Reg AC**

We, Jan Hatzius, Alec Phillips, David Mericle, Spencer Hill, Daan Struyven, Brian Chen, David Choi, Blake Taylor and Ronnie Walker, hereby certify that all of the views expressed in this report accurately reﬂect our personal views, which have not been inﬂuenced by considerations of the ﬁrm’s business or client relationships.

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