



Levy Economics Institute of Bard College

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# *Strategic Analysis*

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## PROSPECTS AND CHALLENGES FOR THE US ECONOMY: 2020 AND BEYOND

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### Introduction

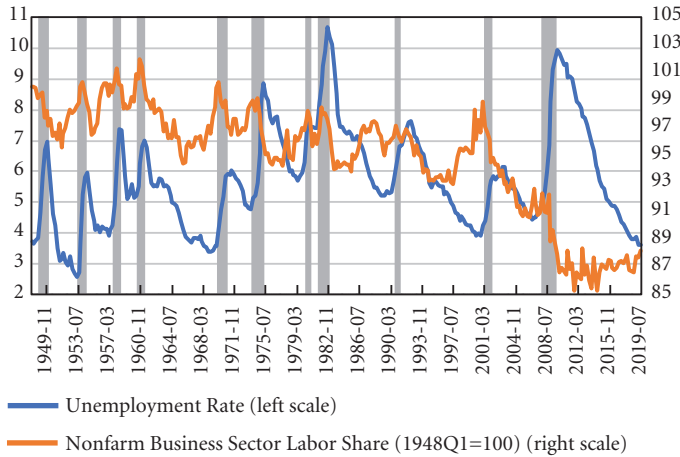
The United States is heading into the presidential elections of 2020 in the midst of a situation that is unique in its history. The current recovery that started in the second quarter of 2009 is both the longest and weakest in US history.<sup>1</sup> Meanwhile, the unemployment rate has fallen to its lowest level of the last five decades, but without any visible effects on wage growth. Figure 1 shows that up until the late 1990s, the decrease in the unemployment rate in each business cycle was accompanied by an increase in the share of wages in total income. This has not been the case in recent recoveries. For example, in the upswing of the cycle in the late 1960s—the last time the unemployment rate reached today’s 3.6 percent—the labor share increased by nearly 6 percentage points. Over the last ten years, the unemployment rate has decreased by 6.3 percentage points with no effect on the share of labor income. Although there has been a slight uptick in the share of labor income in the last few quarters, in 2019Q3 it was still below the level it registered ten years earlier (in 2009Q3).

This weakening of the impact of decreasing unemployment on wage inflation is certainly due to the institutional changes that have taken place in the United States over the last four decades and, together with the secular decrease in the labor share, is another manifestation of labor’s weakening position. Another factor that has contributed to this so-called “flattening of the Phillips curve” is that the jobs that have been created are to a large extent low-productivity jobs for unskilled labor. Figure 2a shows that, between January 2010 and November 2019, the employment-to-population ratio of employees with a bachelor’s degree and higher has decreased. At the same time, the employment-to-population ratio of high school graduates has increased only slightly, while it is only the ratio of employees with less than a high school diploma that has increased significantly. Yet another contributing factor is that although the average duration of unemployment has been decreasing since 2011, it remains at the highest level of the postwar period (Figure 2b).

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The Levy Institute’s Macro-Modeling Team consists of President Dimitri B. Papadimitriou and Research Scholars Michalis Nikiforos and Gennaro Zezza. All questions and correspondence should be directed to [info@levy.org](mailto:info@levy.org). Copyright © 2020 Levy Economics Institute of Bard College.

**Figure 1 Unemployment Rate and the Wage Share**



Note: Shaded areas indicate US recessions.

Source: BLS

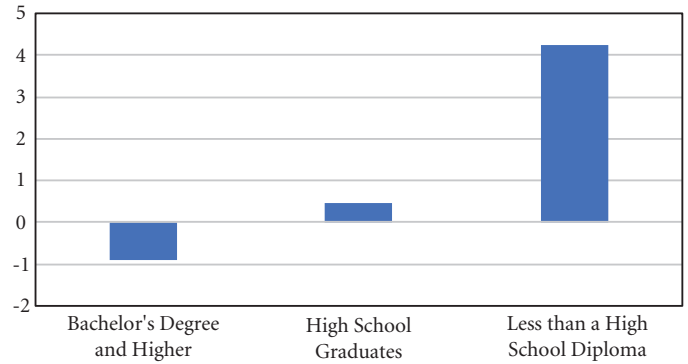
Figure 3 shows that in the first three quarters of 2019, GDP grew by 2.4 percent on an annual basis. Almost 2 percentage points of this growth were due to consumption, which has been very resilient. The other component of demand that contributed to growth was government expenditure. Because of the omnibus bill of 2018, government expenditure saw a rapid increase in 2019: 3 percent on an annual basis in the first three quarters. This allowed real government expenditure to finally surpass the level it had reached at the beginning of the recovery (2009Q2).<sup>2</sup>

On the other hand, the level of real investment has decreased. Most types of investment are weak, but the weakness is especially acute in nonresidential investment in structures in the commercial, healthcare, manufacturing, and mining sectors. Given the strongly procyclical character of investment, this is a reason for concern.

Residential investment decreased during 2018 and in the first two quarters of 2019, and it grew modestly in the third quarter. This modest increase is also visible in US Census Bureau data on permits and starts of new owner-occupied housing. Looking at the stock of mortgages in household balance sheets, there is a slight negative trend starting in 2018 and continuing until the last available data (2019Q3).

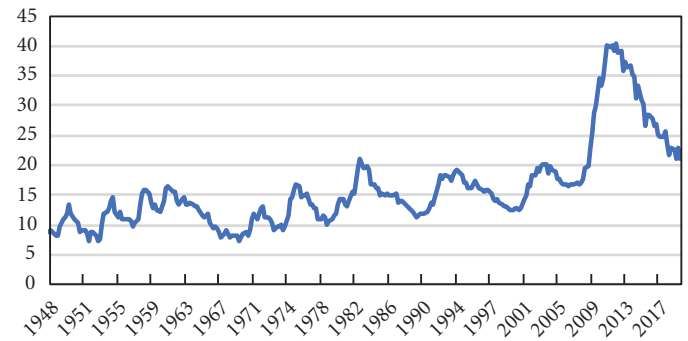
Moreover, Figure 3 shows that despite the Trump administration’s strong stance with regard to trade, net exports also decreased. In particular, imports remained unchanged and exports decreased.

**Figure 2a Change in Employment–Population Ratio, 25 Years and Older, January 2010–November 2019**



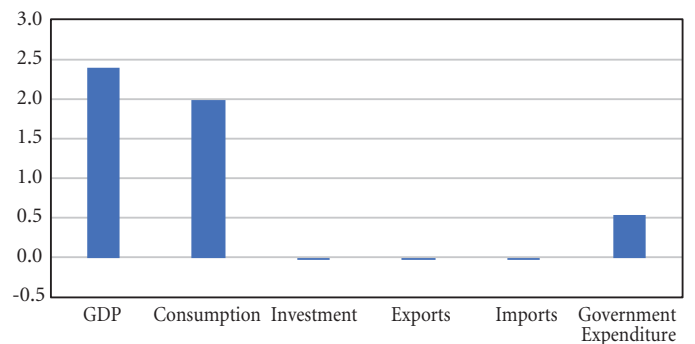
Source: BLS

**Figure 2b Mean Duration of Unemployment, Weeks**



Source: BLS

**Figure 3 Contributions to Percent Change in Real GDP (first three quarters of 2019, annual basis)**



Source: BLS

The decrease in exports is due to the slowdown in most economies worldwide, attributable to their own structural reasons but also to US trade policies. As Figure 3 shows, this slowdown has already had an impact on the United States, but if it accelerates, its consequences might become more severe.

Besides the negative growth in investment and exports, the yield of the 10-year Treasury was lower than that of the 3-month Treasury for most of 2019 (it is now slightly higher). The so-called inversion of the yield curve has been a consistent predictor of previous US recessions.

Also, in the last few months economic activity in the manufacturing sector has been declining. Industrial production as measured by the Federal Reserve decreased by 1 percent between October 2018 and October 2019. The Institute of Supply Management’s last Purchasing Managers’ Index has also pointed to a similar decline: the index was at 47.2 in December, marking its lowest level since June 2009 when it registered 46.3.

Among other things, these issues prompted the Federal Reserve to cut interest rates three times in 2019, despite the very low rate of unemployment.

All these developments point to a slowdown in the growth rate. According to our baseline projections, given the current fiscal arrangements and the slowdown in the global economy, the US economy will grow at a slower pace in the next few years, with a growth rate below 2 percent. At the same time, there are several factors that pose downside risks for these baseline projections. These are mostly related to: (1) the weak balance sheets of the private sector, especially nonfinancial corporations—a significant number of which are unprofitable or zombie firms; (2) the overvaluation of the stock market; and (3)

demand from the rest of the world, which may decrease further in the coming years.

The next section discusses our baseline projections, while the sections that follow examine in more detail the factors that can derail the already weak baseline trajectory of the US economy.

### Baseline

The real GDP growth rate decelerated from 2.9 percent in 2018 to 2.4 percent on an annual basis in the first three quarters of 2019. The Congressional Budget Office (CBO), in its recent projections for the period 2019–29 (CBO 2019), is projecting a further deceleration in the coming years, with real growth averaging 1.8 percent in the period 2020–23.

CBO projections for real GDP growth and the contributions of each component of demand are summarized in Table 1. The deceleration of growth is mainly due to a lower growth rate of consumption and government expenditure, which, under current law, as the provisions of the 2018 omnibus bill expire, will become much less supportive. Exports and imports are assumed to grow at roughly the same rate, although as the level of imports is higher than that of exports, the (negative) contribution of the former is projected to be slightly more significant than the (positive) contribution of the latter.

The CBO projections represent a reasonable “business as usual” scenario. Our model produces similar estimates—albeit the real GDP growth rate is slightly lower than the CBO’s and averages 1.5 percent for the period 2020–23.

**Table 1** CBO Projections of Real GDP Growth and Its Components

	2018	2019	2020	2021	2022–23	2024–29
Real GDP	2.5	2.3	2.1	1.8	1.7	1.8
Consumption	1.8	1.6	1.3	1.3	1.4	1.4
Business Investment	1.1	0.1	0.4	0.3	0.2	0.4
Business Fixed Investment	0.8	0.3	0.4	0.3	0.2	0.4
Residential Investment	-0.2	0.1	0.2	0.2	0.1	*
Government Spending	0.3	0.5	0.2	0.1	0.1	0.1
Federal	0.2	0.2	0.1	*	*	*
State and Local	0.1	0.3	0.1	0.1	0.1	0.1
Exports	*	0.3	0.4	0.4	0.3	0.3
Imports	-0.5	-0.2	-0.5	-0.4	-0.4	-0.4

Note: \* between 0 and 0.05 percent.

Source: CBO (2019)

For our simulations, we make assumptions that are as “neutral” as possible. We assume a low level of inflation (around 2 percent) and a constant nominal exchange rate. The growth and inflation rates of US trading partners follow the International Monetary Fund’s (IMF 2019) October 2019 World Economic Outlook (WEO). Equity and real estate market prices are assumed to increase mildly, while the effective federal funds rate remains stable over the projection period.

The results of our projections are presented in Table 2. The difference, compared to the CBO, is that overall private expenditure (comprising consumption and investment) grows slower than the CBO baseline. Moreover, net exports also perform slightly worse.

Figure 4 shows the implications of our projection for the financial balances of the three institutional sectors of the economy. The current account deficit increases by around 1 percent, the government sector’s deficit also increases by around 0.6 percent, and there is a corresponding decrease in the private sector’s balance of 0.4 percent.

### Financial Markets

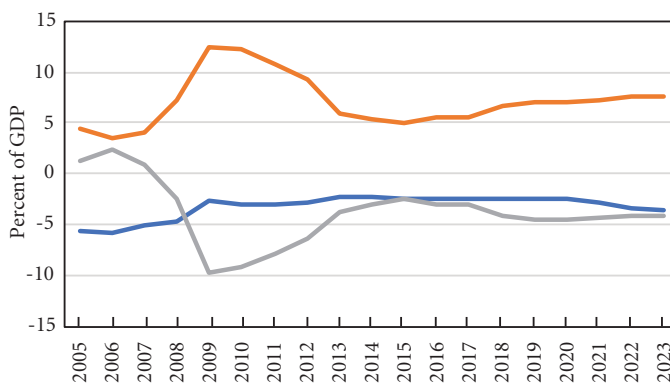
An obvious downside risk for the US economy comes from the overvaluation of the stock market. Figures 5 and 6 present two indices of market valuation. Figure 5 presents the so-called

**Table 2 Projected Real GDP Growth and Its Components**

	2019	2020	2021	2022	2023
Real GDP	2.3	1.5	1.4	1.6	1.5
Private Expenditure	1.9	1.4	1.5	1.6	1.5
Government Expenditure	0.5	0.2	0.1	0.1	0.1
Exports	0.0	0.2	0.2	0.2	0.2
Imports	-0.1	-0.3	-0.4	-0.3	-0.3

Source: Authors’ calculations

**Figure 4 Baseline Scenario: Main Sector Balances, Actual and Projected, 2005–23**



— Government  
 — Private (Investment minus Saving)  
 — Foreign

Source: BEA; authors’ calculations

**Figure 5 Shiller Cyclically Adjusted Price–Earnings Ratio P/E 10, 1881–2019**



Source: [econ.yale.edu/~shiller/data.htm](http://econ.yale.edu/~shiller/data.htm)

cyclically adjusted price–earnings ratio (CAPE) as calculated by Robert Shiller. It shows that the market’s current valuation matches the levels seen in August and September 1929 and is surpassed only by its late 1990s level.

Figure 6 presents the ratio of market valuation, as captured by the Wilshire 5000 index (which measures the market value of the stocks that are traded in the United States), to nominal GDP. In the same graph, we also plot the ratio of the index to total net profits in order to capture the effects of the income redistribution that has taken place in the United States over the last four decades (an increase in profits, all other things equal, warrants an increase in the market valuation of firms). This data only reaches back to the beginning of the 1970s, so it is not possible to compare these ratios with the prewar period and the situation in the late 1920s. Still, it is clear that, unlike the CAPE ratio, both ratios in Figure 6 are now higher than their late 1990s levels.

The Federal Reserve’s easy monetary policy certainly contributes to this development, as do the corporate governance strategies that have prevailed over the last four decades: by prioritizing shareholder value, these strategies favor share buybacks (the Fed’s low interest rates make share buybacks more attractive by allowing cheaper borrowing).

These reasons might explain, to a certain extent, why the market is currently overvalued, but they cannot justify such a radical permanent deviation of the market from its long-term

norms. Given that we know what happened to the stock market when its valuation reached similar levels—in the late summer of 1929 and the late 1990s—there are good reasons to believe that there will be a significant reversion in market valuation.

Of course, to paraphrase John Maynard Keynes, markets can stay irrational longer than one might expect—the stock market has already been overvalued for a while. Accordingly, we are not attempting here to make any short-run projections of market trends.

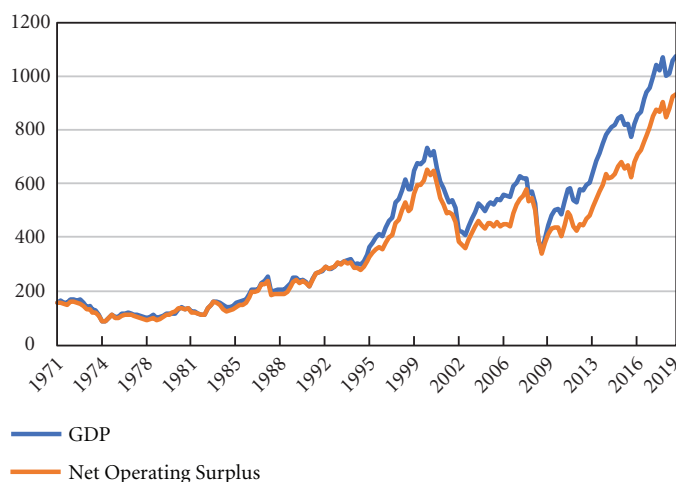
Nevertheless, the market’s current valuation makes it vulnerable to even small shocks (hence its wide gyrations in response to even small everyday developments, like the president’s tweets). The stock market is thus more vulnerable to even a slight economic slowdown accompanied by a decrease in corporate earnings. For these reasons, the stock market is one of the major downside risks for the US economy in the year 2020.

### Balance Sheets

Figure 7 presents the liabilities of the corporate nonfinancial sector as a percent of GDP. It shows that overall liabilities are now at a higher level than in 2007, before the crisis.

Other data confirm that the corporate sector’s balance sheets have become more fragile. Figures 8a and 8b present data from the Bank for International Settlements’ (BIS 2019) recent

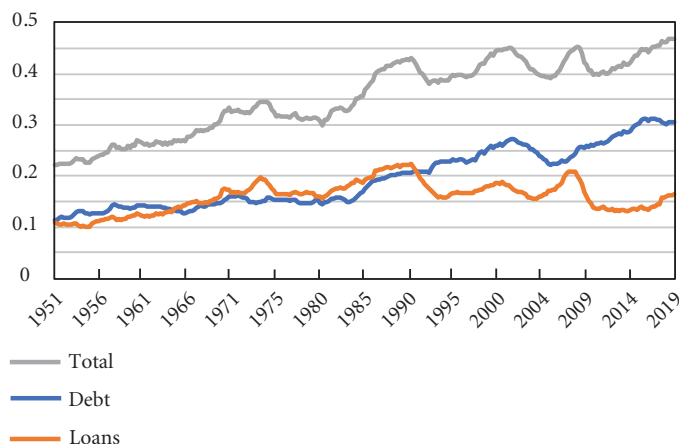
**Figure 6 Ratio of Market Capitalization to GDP and Net Operating Surplus, 1971Q1–2019Q3 (1971Q1=100)**



Note: The index is calculated as the ratio of end-of-period Wilshire 5000 index to GDP and net operating surplus, respectively.

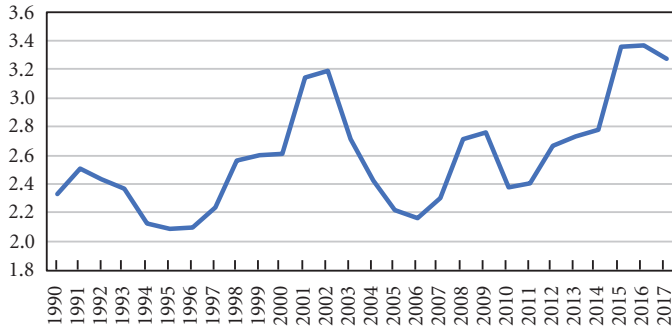
Source: BEA; Wilshire Associates; authors’ calculations

**Figure 7 Ratio of Nonfinancial Corporate Sector Liabilities to GDP**



Source: Federal Reserve

**Figure 8a Gross Leverage of US Corporate Sector**



Note: Defined as gross debt of listed firms to EBITDA

Source: BIS (2019)

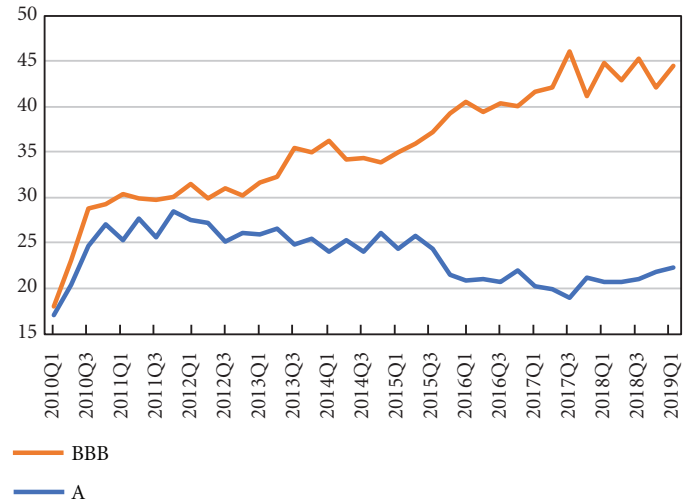
Annual Economic Report. Figure 8a shows that the gross leverage of the corporate sector—defined here as gross debt over earnings before interest, tax, depreciation, and amortization (EBITDA)—has surpassed its precrisis level and its previous peak at the end of the 1990s.

In the same report, it is mentioned that in the United States the share of issuers of corporate debt that have issued BBB bonds—the lowest investment-grade rating—has increased from 25 percent in 2000 to 36 percent recently (in Europe the increase is even more dramatic: from 14 percent to 45 percent).

Related to that, as Figure 8b shows, the share of bonds with an A rating in investment-grade corporate bond mutual fund portfolios has decreased over the last years, while at the same time the share of BBB bonds has increased and is now at 45 percent, compared to 18 percent in 2010. The *Financial Times* recently published some similar calculations that show the share of market capitalization with a credit rating above BBB has fallen to 50 percent, leaving it below both its precrisis level and that of the late 1990s (Henderson 2019).

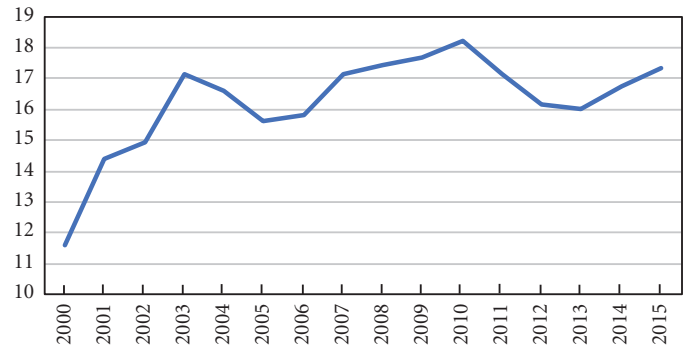
Finally, the number of firms whose cash flows are not sufficient to cover the interest payments on their debt—Hyman Minsky called them Ponzi firms, and more recently they have been called zombie firms—has also increased, despite the very low interest rates of the last decade. Banerjee and Hofmann (2018) and McGowan, Andrews, and Millot (2018) identify zombie firms as those firms at least ten years old with an interest coverage ratio of less than one for at least three consecutive years. Banerjee and Hofmann (2018) also introduce a narrower definition: firms with a ratio of their assets' market value to their

**Figure 8b Average Percentage of Investment Grade Corporate Bond Mutual Fund Portfolios Invested in Bonds**



Source: BIS (2019)

**Figure 8c Share of Zombie Firms**



Source: BIS (2017)

replacement cost (Tobin's q) that is below the median within their sector in any given year.

The Annual Economic Report of the BIS and previous studies (e.g. BIS 2017; Banerjee and Hofmann 2018) show that in a sample of developed countries the share of zombie firms under the narrow definition has increased to 6 percent in 2017, compared to close to 1 percent at the end of the 1980s. Under the broad definition, the share of zombie firms in 2017 was roughly double that, at nearly 12 percent. In the United States, this share is even higher: Figure 8c shows that in 2015 it was at 17.4 percent. This was above its precrisis level and, given the other developments in the balance sheets of the corporate sector, this number must be even higher today.

Firms with a BBB rating are not necessarily zombie firms, and vice versa. However, these statistics emphasize the fragility of the corporate sector's balance sheets in the United States.

Although the Federal Reserve has not clearly acknowledged this fragility, it is very likely that it weighed heavily in its recent decision to decrease the benchmark interest rate, as corporations with fragile balance sheets are vulnerable to even small increases in interest rates or a slowdown in earnings.

These figures, together with the previous section's analysis, show that we have a synchronized development of two Minskyan processes: an overvaluation in the asset markets together with a gradual weakening of corporate balance sheets. These developments pose a clear downside risk for the US economy's future. An economic slowdown or other shocks are more likely to trigger a cumulative process with severe consequences for the real and financial sides of the economy.

In previous reports (Nikiforos and Zezza 2017, 2018), we have calculated that, under conservative assumptions, a stock market correction and a private sector deleveraging can have very severe consequences on economic activity.

### The Foreign Sector

A lot of the policy discussion in the United States and around the world over the last two years has revolved around trade issues. Disputes related to trade increased internationally after the

global financial crisis and intensified after January 2018, when the US administration first started imposing tariffs on imports. These tariffs target products from many different countries, but they are centered on imports from China.

So far, the imposition of tariffs has had meager success. Figure 9 shows that the US trade deficit has been on the rise over the last three years. As we have previously explained (e.g., Papadimitriou, Nikiforos, and Zezza 2016, 2019), the sector that has been experiencing an improvement in its trade balance is the petroleum sector. However, this improvement is unrelated to the imposition of tariffs; it started in 2011 because of the application of new shale gas extraction methods.

According to the latest data from the US Census Bureau, between January 2018 and October 2019, total imports of goods from China decreased by \$5.6 billion, but at the same time total imports from the rest of the world increased by \$21 billion.<sup>3</sup> These numbers imply that to a large extent the tariffs on imports from China have diverted the source of some part of US imports to other countries, and shows the limitations of tariffs focused on one country.

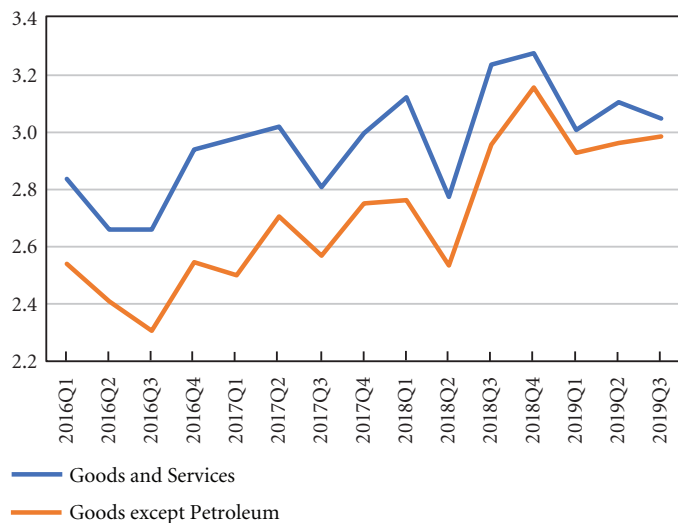
Moreover, as we mentioned in previous reports (e.g., Nikiforos and Zezza 2018), the tariff policy contradicts other aspects of the current administration's policy. For example, with the tax code changes that were introduced in December 2017, the United States moved toward a territorial tax system, which taxes income at the place it is generated and therefore encourages the outsourcing of production to countries with lower tax rates.

If anything, the current erratic trade policy causes a disruption in the supply chains of US corporations and an increase in the cost of consumption goods in the United States. Given the balance sheet fragility of US corporations, this might have important consequences for the US economy.

Because 2020 is a presidential election year, the current US administration will most likely not seek a further escalation of trade tensions, to lessen the risk of triggering a recession. A careful rapprochement—with measures like the “phase-one” agreement that was reached at the beginning of December, and which does not alienate the president's domestic anti-trade audience—is more likely.

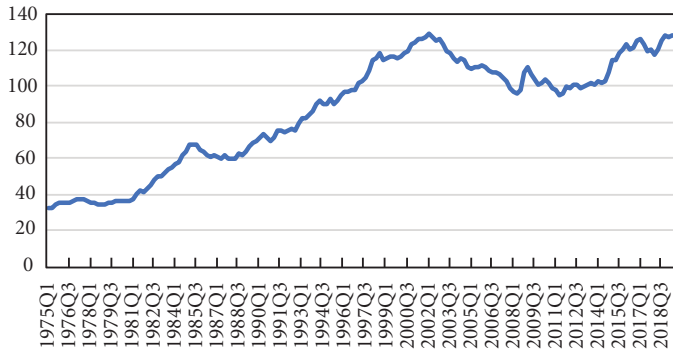
Two more things are important in relation to the foreign sector of the United States. First, as Figure 10 shows, the dollar has been almost continuously appreciating since 2011 and is now at the same level it registered in the early 2000s, which is

**Figure 9 Trade Deficit (percent)**



Source: US Census

**Figure 10 Trade Weighted US Dollar Index**



Source: Federal Reserve

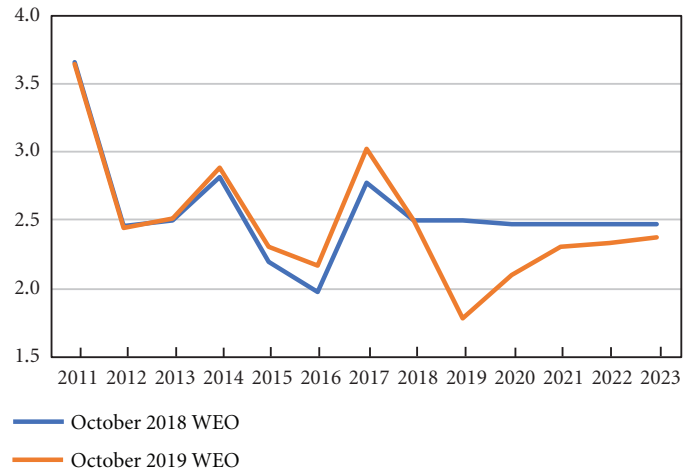
also the highest level in the post-Bretton Woods era. The appreciation of the dollar cancels to a large extent the increase in tariffs. In addition, although in today's global economy, with its complicated international value chains, the effects of changes in the exchange rate are not always a priori certain, such an overvalued exchange rate is likely to have a negative effect on US net exports.

Finally, Figure 11 shows a synthetic measure of US trading partners' real GDP growth rate that we prepare and use in our simulations.<sup>4</sup> The measure is based on data and projections mostly from the IMF's WEO. Figure 10 presents last year's measure, based on the October 2018 WEO (IMF 2018), and this year's measure—which was used for this report's simulations—based on the October 2019 WEO (IMF 2019).

A couple of interesting points can be made. First, we see that the real GDP growth rate of US trading partners has been decreasing over the last two years. It was 3 percent in 2017, 2.5 percent in 2018, and 1.8 percent in 2019.

Second, the IMF is projecting this growth rate will converge back to around 2.4 percent, which is presumably what they assume to be the natural growth rate of these economies. In dynamic stochastic general equilibrium (DSGE) models like those the IMF uses for its projections, the growth rate always reverts to what the natural growth rate is assumed to be (which in turn is the average of the last available periods).<sup>5</sup> It is telling that in the IMF's October 2018 projections the growth rate was predicted to remain relatively constant over the then-projected period (2019–23) because the 2018 realized growth rate was close to their assumed natural rate.

**Figure 11 Actual and Projected GDP Growth of US Trading Partners from IMF's WEO (percent)**



Source: IMF (2018, 2019)

However, it is not very clear what the forces are that will drive the growth rate of US trading partners back up. If this growth rate fails to pick up—or, even worse, if it further deteriorates—it will exert a very significant negative effect on the growth rate of US net exports and thus the growth rate of the US economy itself. This is something that we have emphasized in previous reports (Papadimitriou et al. 2015; Papadimitriou, Nikiforos, and Zezza 2016) and is another downside risk for the US economy.

## Conclusion

The present report discussed the US economy's prospects for 2020 and the years that follow. Our baseline simulations project a slowdown of the US economy in the next several years, with a growth rate that will average 1.5 percent. This is slightly below the recent CBO projections in which the growth rate averages 1.8 percent.

We also pointed out three main downside risks for the coming years. First, the stock market is clearly overvalued. Second, there is strong evidence that the corporate sector's balance sheets are overstretched and more fragile than they have ever been before (at least in the postwar period). Finally, additional risks can be found in the slowdown of the global economy, the overvalued dollar, and the current administration's erratic trade policy.



## Notes

1. For previous discussions along these lines, see Papadimitriou, Nikiforos, and Zezza (2016, 2019) and Nikiforos and Zezza (2017, 2018).
2. As we have mentioned in previous reports (Papadimitriou, Nikiforos, and Zezza 2016; Nikiforos and Zezza 2017), this had been the only recovery in postwar US history with negative growth of real government expenditure.
3. These are “U.S. Imports of Goods by Customs, Not Seasonally Adjusted.”
4. For a discussion, see Dos Santos, Shaikh, and Zezza (2003).
5. For a related discussion of the CBO model’s projections, see Nikiforos and Zezza (2017).

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