25 January 2023

Economic Brief
(US)

How deep will the recession be in the US?

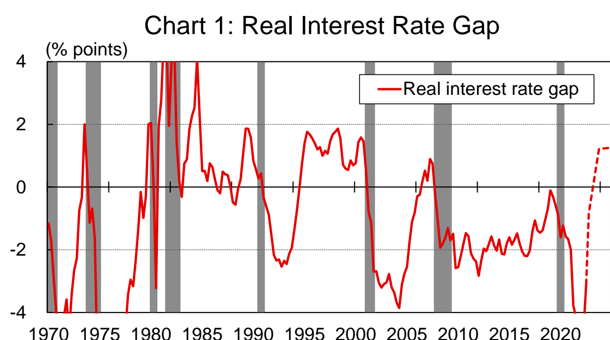
Summary

- There is a growing concern that the US economy will enter a recession in 2023 in light of the fast pace of rate hikes by the Fed.
- Since World War II, the US has experienced twelve recessions. Of these recessions, those triggered by the housing bubble and the two oil shocks were the deepest.
- In contrast with the periods of recession mentioned above, however, US households' balance sheets are healthy at present and there is a possibility that soaring energy prices are not having a negative effect on the economy.
- If the US economy does enter a recession, it is expected to be a comparatively shallow one.

The Federal Open Market Committee (FOMC) decided on a 0.50% point rate hike at its meeting in December last year. Based on the projections by FOMC participants published at that time, there will be further rate hikes and the federal funds rate target will be raised to a point where it sufficiently restricts the economy (Chart 1). The minutes for November's meeting revealed FOMC staff at that time already "viewed the possibility that the economy would enter a recession sometime over the next year as almost as likely as the baseline". Furthermore, the probability of a US recession occurring in the next 12 months as forecast by private sector economists rose throughout 2022 and is now above 50% (Chart 2). Given the increasing consensus that the US economy will fall into recession in 2023, the important point in question is not just the probability of a recession, but also how deep it will be.

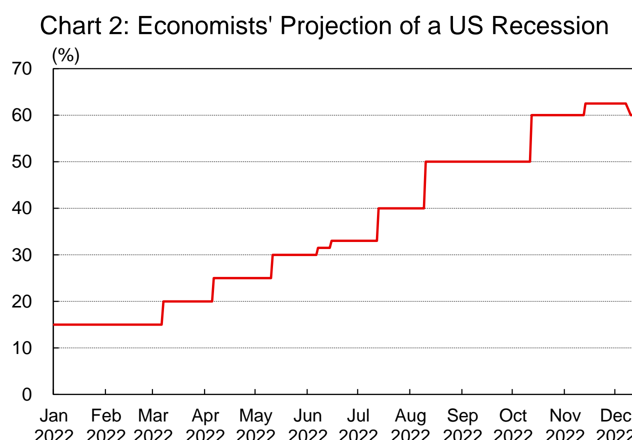
MUFG

Chart 1: Real Interest Rate Gap



Note: Shaded areas denote periods of economic recession. Real interest rate gap = federal funds effective rate less YoY core PCE price index less natural rate of interest. A real interest rate gap above zero will be economically restrictive. The dotted line is calculated based on a median of FOMC participants projections in December.
Source: US Department of Commerce, Federal Reserve Bank of New York, National Bureau of Economic Research, Bloomberg, MUFG Bank Economic Research Office

Chart 2: Economists' Projection of a US Recession



Note: Chart shows median of "the probability of the US falling into a recession within a year" given by economists
Source: Bloomberg, MUFG Bank Economic Research Office

After World War II, the US has experienced twelve recessions (Table 1). In terms of length, the longest was the recession triggered by the collapse of a housing bubble at the end of 2007.

Table 1: Post-War Recessions

Date	Length (months)	Change in real GDP (%)	Date	Length (months)	Change in real GDP (%)
Nov 1948 - Oct 1949	11	- 1.5	Jan 1980 - Jul 1980	6	- 2.2
Jul 1953 - May 1954	10	- 2.5	Jul 1981 - Nov 1982	16	- 2.6
Aug 1957 - Apr 1958	8	- 3.6	Jul 1990 - Mar 1991	8	- 1.4
Apr 1960 - Feb 1961	10	- 0.8	Mar 2001 - Nov 2001	8	0.2
Dec 1969 - Nov 1970	11	- 0.2	Dec 2007 - Jul 2009	18	- 3.8
Nov 1973 - Mar 1975	16	- 3.1	Feb 2020 - Apr 2020	2	- 9.6
			Median of 12 recessions	10	- 2.4

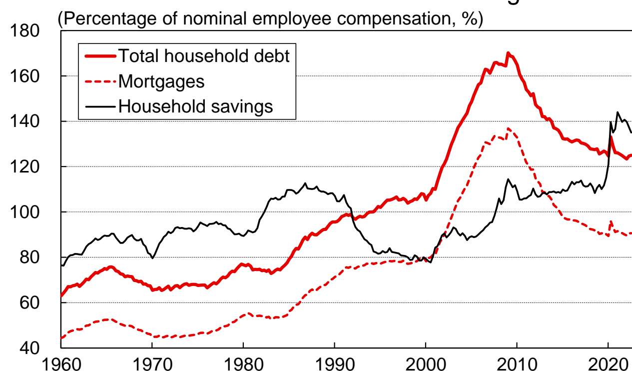
Note: Change in real GDP is the difference between the peak and trough. For the recession from March 2001 (Jan-Mar 2001 to Oct-Dec 2001), the level of real GDP at the peak was the lowest, so the change in real GDP is positive.
Source: National Bureau of Economic Research, US Department of Commerce, MUFG Bank Economic Research Office

An unusual trait of that recession was a surge in household debt – particularly the ratio of mortgage debt balance – to nominal employee compensation that took place before the recession (Chart 3). In addition, as house prices fell, this resulted in a marked decline in private consumption*. On the other hand, house prices rose considerably during the period of recovery following the COVID-19 pandemic, yet there was no marked increase in household debt. Instead, household savings rose due to cash benefits from the government and a decrease in consumption when the number of cases was high. Even now, savings exceed outstanding debt. In other words, households' balance sheets are healthy in general and the risk that a fall in house prices caused by rising long-term interest rates will lead to sharp decline in consumption is thought to be low.

* Assume there are two households: Household A just has a house worth USD 100,000 (net asset of USD 100,000) and Household B has a house worth USD 100,000 and a mortgage of USD

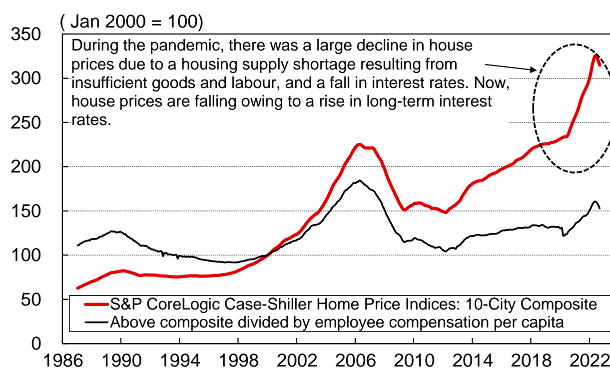
80,000 (net assets of USD 20,000). If the price of both A and B's houses falls to USD 90,000, the fall in A's net assets is just 10%, whereas B's net assets fall to USD 10,000 (-50%). When asset prices experience such a decline, the rate of decline in net assets is greater for households with a higher debt ratio. Using US data based on ZIP codes, Mian and Sufi (2015) looked at house prices that had fallen by the same amount during the 2008 global financial crisis and found that households with a higher debt ratio had reduced their spending more.

Chart 3: Household Debt and Savings



Note: "Total household debt" is the total of mortgages and consumer credit. The outstanding amount is a total of households and non-profit organisations.
Source: Federal Reserve Board, US Department of Commerce, MUFG Bank Economic Research Office

Chart 4: House Prices



Note: Employee compensation per capita = nominal employee compensation ÷ number of employees in the establishment survey of the Department of Labor's employment report.
Source: S&P Global, US Department of Labor, US Department of Commerce, MUFG Bank Economic Research Office

After the recession that started at the end of 2007, the next longest economic recessions are the one from 1973 and the one from 1981, which were both triggered by oil crises**. Due to a rise in oil prices, the percentage of households' income spent on energy increased, and the capacity for spending on other goods and services fell (Chart 5). In addition, a rise in prices has an impact on a wide range of items other than energy. When the inflation rate rises, central banks tighten their monetary policies, and this too becomes a source of downward pressure on economies. The rise in energy prices following the Russian invasion of Ukraine was a factor in the high inflation and led to the fast pace of rate hikes by the FOMC.

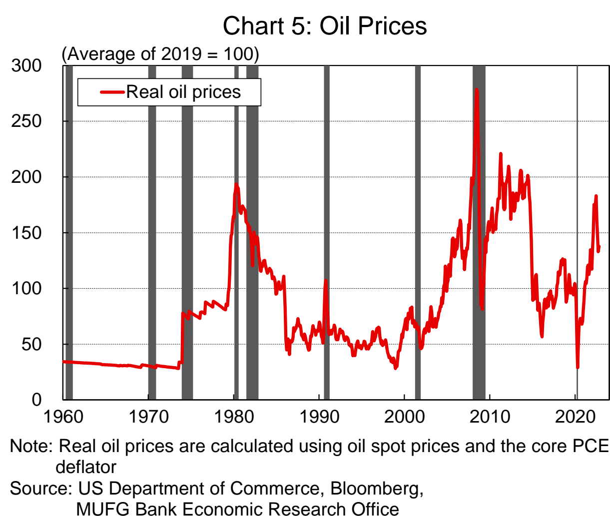
In contrast to the time when the oil crises occurred, however, the US is now a net exporter of oil (Chart 6). With the increase in energy self-sufficiency, a rise in crude oil prices could lead to greater consumption through an increase in production and capital investment in the energy industry, as well as an increase in exports and employee income due to the revitalisation of corporate activities. In other words, it is possible that the downward pressure from high oil prices is weaker than it was in the past when considering the US economy as a whole***.

** Labonte (2010) regards the economic recessions of 1973 and 1981 as the longest and deepest until the recession in 2007. In addition, there is also analysis like that by Garriga and Famiglietti (2019) which groups the recession from 1980 and the one from 1981 together since less than 12

months separate them and, during this time, real consumption and the unemployment rate did not return to the level they were at before 1980.

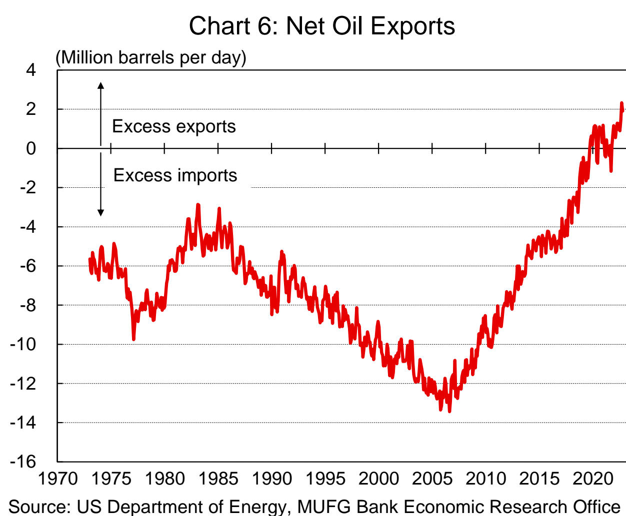
***In their article, Matsubara, Makabe and Norimasa (2022) suggest the shock of rising oil prices had a significant, negative impact on real GDP in the United States before the shale revolution. However, after the shale revolution, the impact of the oil price rise on real GDP was not significantly different from zero, they concluded.

Chart 5: Oil Prices



Note: Real oil prices are calculated using oil spot prices and the core PCE deflator
Source: US Department of Commerce, Bloomberg, MUFG Bank Economic Research Office

Chart 6: Net Oil Exports



Source: US Department of Energy, MUFG Bank Economic Research Office

The current state of households' balance sheets and the structure of the US economy in relation to energy are very different from times of deep economic recession in the past. Therefore, even if monetary tightening does trigger an economic recession in the US, it is likely that the depth of this recession will be relatively shallow.

Author: Sai Yabuki
sai_yabuki@mufg.jp
Translator: Elizabeth Foster

Original Japanese version published 23 December 2022

MUFG Bank Economic Research Office
2-7-1 Marunouchi, Chiyoda, Tokyo, 100-8388, Japan

For further details, please contact the Economic Research Office, MUFG Bank

Managing Director, Rei Tsuruta <rei_tsuruta@mufg.jp>

Written by Sai Yabuki <sai_yabuki@mufg.jp>

This report is intended for information purposes only and shall not be construed as solicitation to take any action such as purchasing/selling/investing financial market products. In taking any action, each reader is requested to act on the basis of his or her own judgment. This report is based on information believed to be reliable, but we do not guarantee its accuracy. The contents of the report may be revised without advance notice. Also, this report is a literary work protected by the copyright act. No part of this report may be reproduced in any form without express statement of its source. This report is also available for viewing online.

MUFG