

Q1 2022

# Where will 10-year interest rates be in 2023?



## Key Takeaways

- In this piece, we discuss **where 10-year Treasury yields will be in 2023**. There are four scenarios:
- Under the **first scenario**, the Fed engineers a soft landing, and 10-year interest rates end up at 3%. The probability of this scenario playing out is 20%.
- The **second scenario** has a 60% probability, and this is where 10-year interest rates in 2023 are lower than where they are today, driven by a Fed-induced over-tightening in financial conditions combined with contractionary inflation and secular stagnation forces coming from demographics and high debt levels.
- The **third scenario** is a return to the 1970s with high inflation and high interest rates, with 10-year interest rates peaking at 5%. The probability of this scenario is 10%.
- The **fourth scenario** is where retiring baby-boomers need to sell fixed income and equity, which results in a simultaneous decline in the stock market and a rise in 10-year interest rates to 4%, no matter what the Fed does. The probability of this scenario is 10%.
- The bottom line is that **the most likely outcome is that 10-year interest rates first go up over the coming quarters and then go down in 2023** as the Fed raises rates and financial conditions tighten too much, thereby slowing growth.

## Introduction and summary

Entering 2022, the US economy is looking overheated, and many economic indicators are signaling that inflation and inflationary pressures are rising, see Figure 1. With inflation above 7% and the unemployment rate at 4%, the FOMC is communicating that short-term interest rates are about to increase, and Fed asset purchases are about to end, most likely in March.

The goal for the Fed is to limit risk-taking in financial markets and cool down the economy and, ultimately, inflation. The question is if the Fed will engineer a soft landing over the coming 12 to 18 months.

The broader backdrop for the US economy is the aggressive fiscal and monetary policy response to covid, which has temporarily boosted GDP and inflation. As these forces begin to fade, the economy will most likely move back to secular stagnation, where demographics and high debt levels create an environment with low growth, low inflation, and low interest rates, see Figure 2.

But other outcomes are also possible, although they have lower probabilities. In this piece, four different scenarios for long-term interest rates are analyzed: soft landing, back to secular stagnation, return to the 1970s, and retiring babyboomers selling fixed-income assets independently of what the Fed will do.

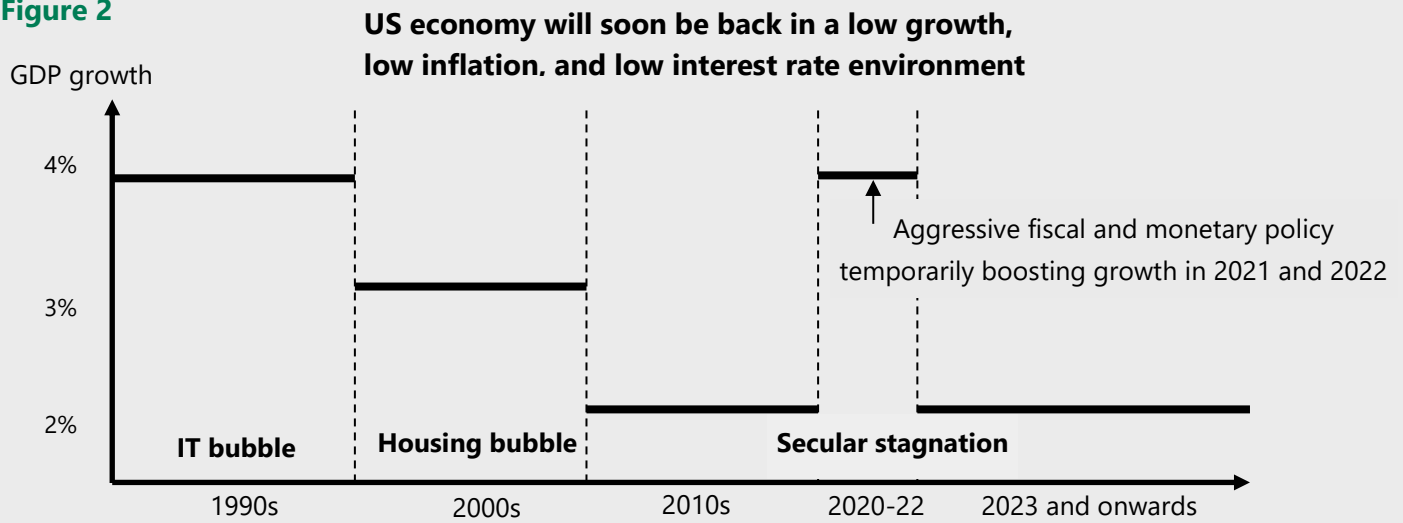
Figure 1

### Economy and risky assets are late cycle. Rates are early cycle.

	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Latest	
<b>ECONOMIC CYCLE</b>	Inflation (% YoY)	2.3	1.5	0.6	1.4	1.4	2.6	5.4	5.4	7.0	7.5
	Core Inflation (% YoY)	2.3	2.1	1.2	1.7	1.6	1.6	4.5	4.0	5.5	6.0
	Economic Growth (% YoY)	2.6	0.6	-9.1	-2.9	-2.3	0.5	12.2	4.9	5.5	5.5
	New Home sales (000s)	733.0	623.0	839.0	971.0	943.0	873.0	683.0	725.0	811.0	811.0
	Consumer Sentiment	99.3	89.1	78.1	80.4	80.7	84.9	85.5	72.8	70.6	67.2
	Inventory to sales ratio (retailers)	1.4	1.5	1.2	1.2	1.3	1.1	1.1	1.1		1.1
	ISM Manufacturing PMI	47.9	49.1	52.4	55.4	60.5	63.7	60.9	60.5	58.8	57.6
	Homebuilder sentiment	76	72	58	83	86	82	81	76	84	83
	Unemployment rate (%)	3.6	4.4	11.0	7.9	6.7	6.0	5.9	4.7	3.9	4.0
	Average hourly wage (% YoY)	2.9	3.6	5.1	4.8	5.5	4.4	4.0	4.8	4.9	5.7
	JOLTS Quits rate (%)	2.3	1.9	1.9	2.3	2.4	2.5	2.7	3.0	2.9	2.9
	Jobless claims	225.3	2344.0	1476.3	851.0	823.0	721.5	394.0	340.5	199.8	245.4
	<b>MARKET CYCLE</b>	S&P 500 Forward P/E ratio	18.3	16.3	21.6	21.4	22.6	21.9	21.3	20.1	21.4
IG Spread (bps)		101	305	160	144	103	97	86	89	98	109
HY Spread (bps)		360	877	644.0	541	386	336.0	304	315	310	346
Yield curve (bps)		31	22	65	59	84	154	144	129	139	139
10 year yield		1.92	0.67	0.66	0.69	0.92	1.74	1.47	1.49	1.51	1.96
VIX		13.8	53.5	30.4	26.4	22.8	19.4	15.8	23.1	17.2	20.4
MOVE Index		58.3	83.9	54.1	39.2	49.0	71.3	57.3	61.1	77.1	81.8
M&A Transaction value (\$bn)		483.2	365.0	155.9	557.8	762.8	716.0	929.7	859.7	850.1	850.1
S&P 500 buybacks (\$bn)		181.6	198.7	88.7	101.8	130.6	178.1	198.8	234.6	0.0	234.6
IPO volume (\$bn, 3 month sum)		12.2	22.6	29.3	65.5	65.7	160.7	51.2	40.2	53.9	24.3
SPAC volume (\$bn, 3 month sum)		3.8	5.6	11.9	40.4	39.3	123.0	16.4	14.3	22.0	16.4

Source: Apollo Global Management Chief Economist. Colors based on deviation from mean. Green = mean +/- 0.5 stddv; Yellow = +/- 0.5 to 1 stddv; Red = +/- 1 stddv. For PMI > 50 is red and less than 50 is green. Consumer sentiment and MOVE > mean is red and < mean is green and for jobless claims vice-versa. Data starts in 2010.

**Figure 2**



Source: Apollo Global Management Chief Economist

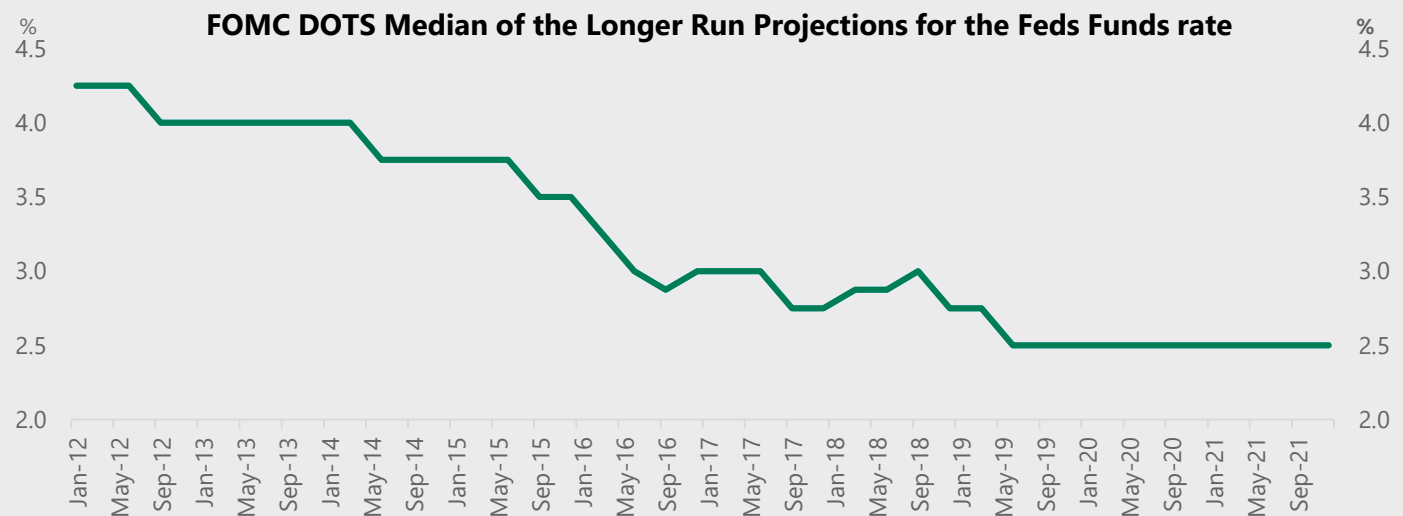
## Scenario 1: Fed engineers a soft landing with 10s at 3%

### Probability: 20%

Under the soft-landing scenario, the Fed raises interest rates over the coming quarters, and growth and inflation start to come down from current high levels, and inflation is 2.7% by the end of 2022 and 2.3% by the end of 2023, as currently expected by the FOMC. The Fed expects the terminal Fed funds rate to be 2.5%, see Figure 3, and adding a historical 0.5% term premium, the 10-year interest rate should, under this scenario, settle at 3%.

The reason why this sequencing of events has a low probability is that the Fed hiking cycle is starting at a point when stock market and credit market valuations are already very high. Hence, engineering a soft landing is a challenge when inflation and unemployment are late cycle, and equity and credit markets are also late cycle. Put differently, to cool the economy down in the current situation requires a fast tightening in financial conditions that can either come about because of higher short term interest rates or a sell-off in stock markets and credit markets. If financial markets sell off then it is likely to trigger a sharper slowdown in consumer spending and capex spending, including residential investment. If equity and credit markets don't sell off, then the Fed will have to raise rates faster to tighten financial conditions, which also increases the risk of a sharper slowdown.

**Figure 3**



Source: Apollo Global Management Chief Economist

## Scenario 2: Back to secular stagnation with 10s at 1%

**Probability: 60%**

Under this scenario, short- and long-term interest rates first go up over the coming quarters and then come down again in 2023 as the Fed overtightens and growth and inflation slow down sharper than expected. The forces of secular stagnation appear again and weigh on growth and inflation. This scenario is also one interpretation of the expectation currently priced in markets where the OIS curve predicts a peak in the Fed funds rate in 2023, see Figure 4.

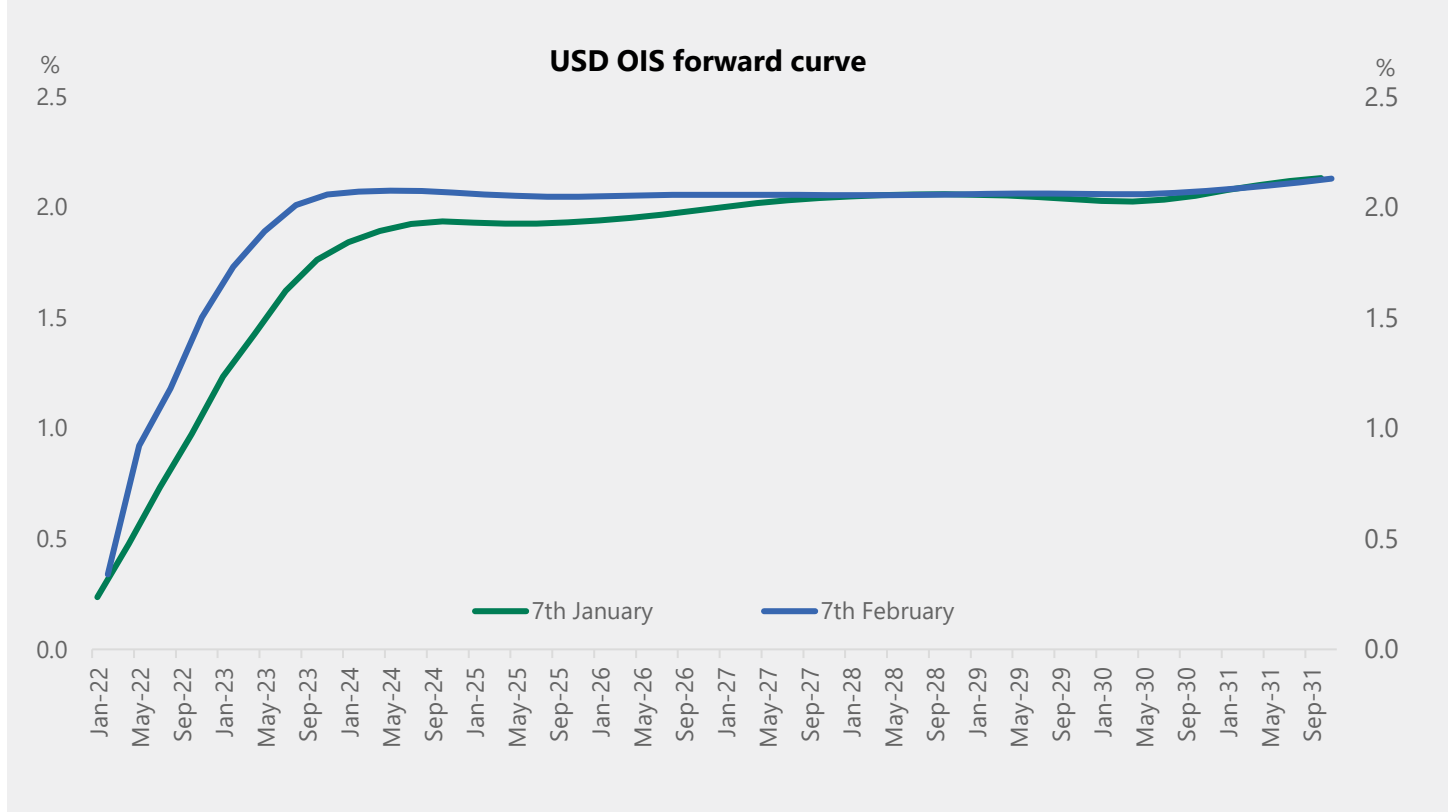
The broader backdrop is that once the effect of the aggressive monetary and fiscal response to covid starts to fade, the US economy is likely to enter back into a slow growth equilibrium. The key arguments for lower growth and lower rates in the future are demographics and high levels of debt, i.e. secular stagnation. Population growth is slowing, and the working-age

population is falling in the US and other major developed economies, see Figures 5 and 6. A shrinking productive population means fewer people to work and pay taxes resulting in lower growth which means interest rates need to be lower.

In addition, government debt is at historically high levels, and CBO expects debt to further rise over the coming years, see Figure 7. Interest expenses will also keep growing, and high debt levels and high interest costs are a drag on GDP growth and long rates.

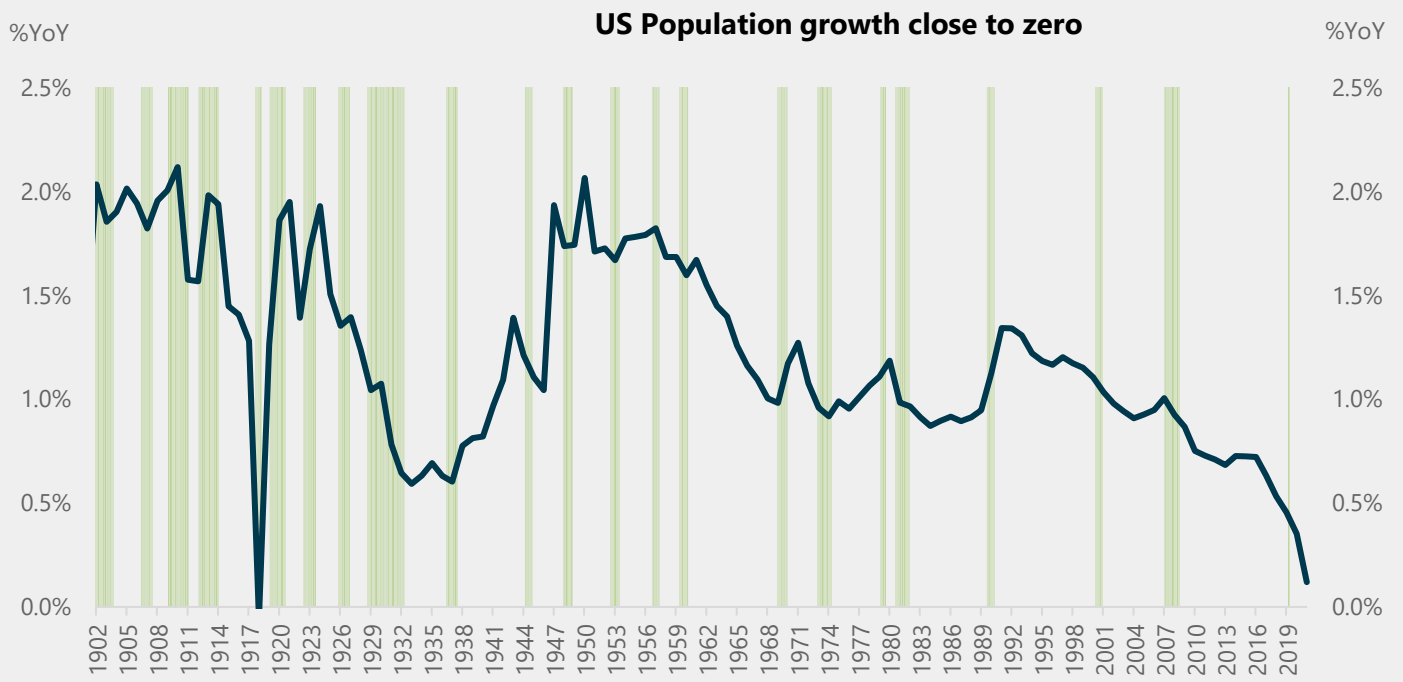
As a result, demand in the economy is constrained by demographics and high debt levels, and the Fed will continue to lower interest rates to support demand, as predicted by the secular stagnation thesis. However, the desired result will not be achieved if lower interest rates are not combined with more government spending. And the Fed will likely end up doing more QE. As a result, the most likely outcome is that secular stagnation will keep interest rates low.

**Figure 4**



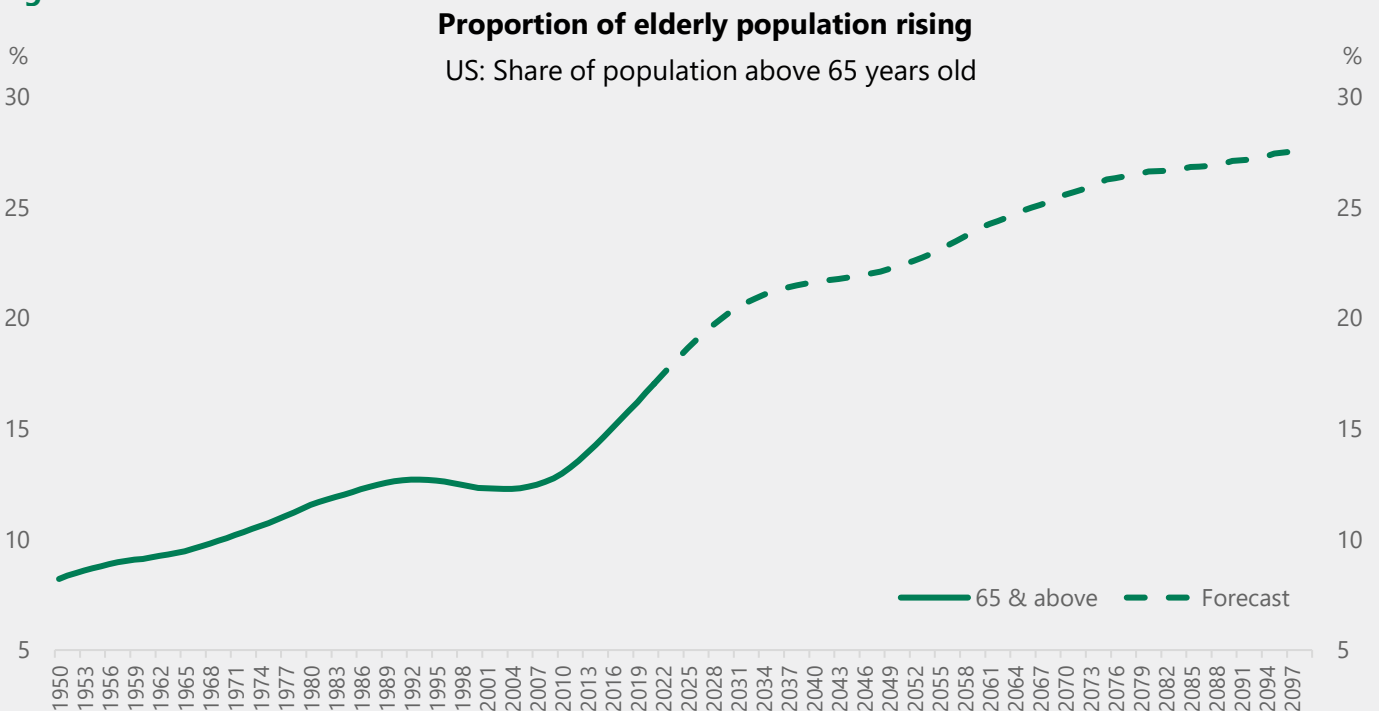
Source: Apollo Global Management Chief Economist

**Figure 5**



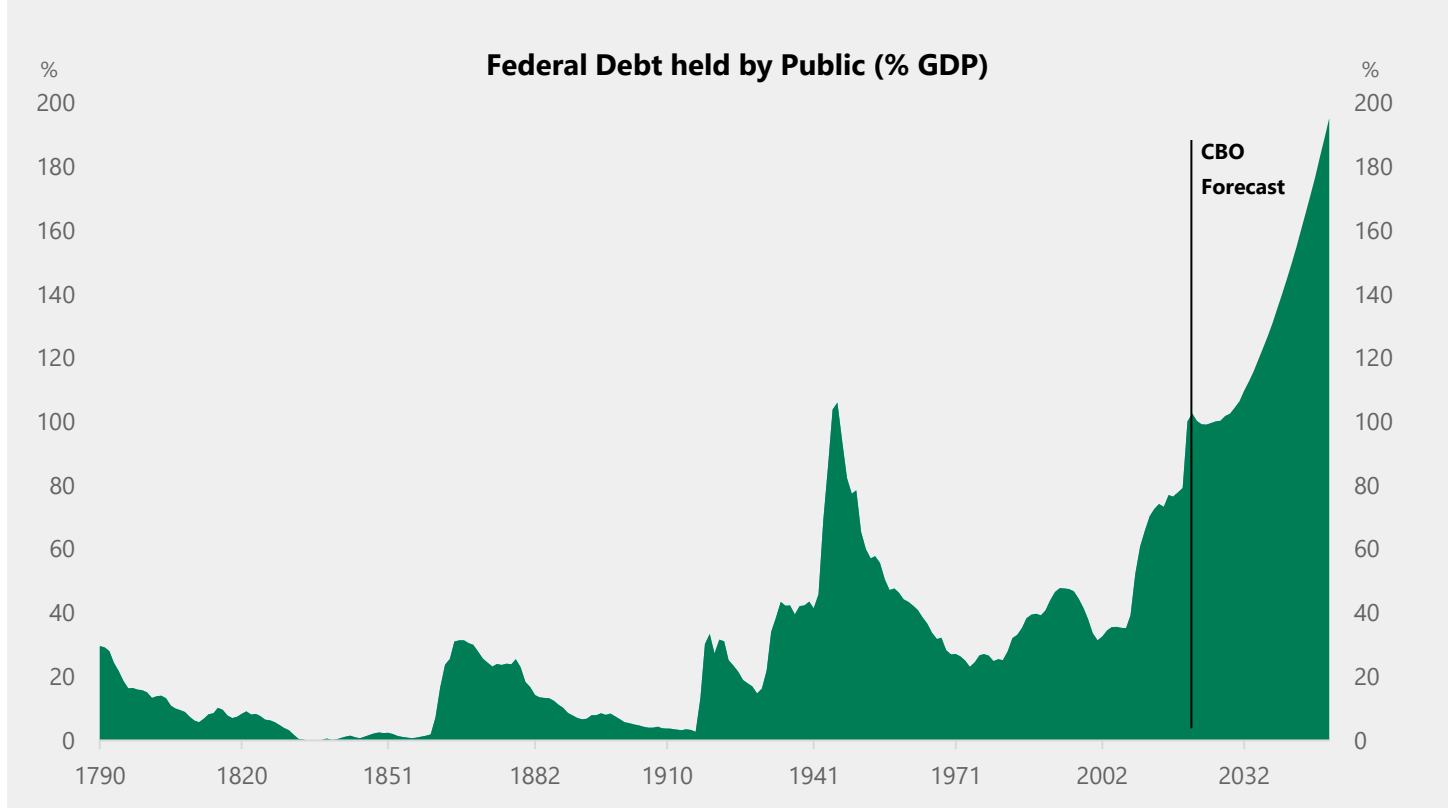
Source: U.S. Census, Haver Analytics, Apollo Global Management Chief Economist

**Figure 6**



Source: Apollo Global Management Chief Economist

Figure 7



Source: CBO, Haver Analytics, Apollo Global Management Chief Economist

### Scenario 3: A repeat of the 1970s with 10s at 5%

#### Probability: 10%

During the 1970s, inflation and wage expectations became unanchored, pushing up inflation from 2% to 16% and consequently increasing long-term interest rates from 4% to 14%, see Figure 8. Currently, inflation is at 7%, significantly above the Fed's 2% target. Inflation expectations have also gotten unanchored with 1-year ahead inflation expectations at 6%, see Figures 9. The current risk is that the ongoing

overheating of the US economy with rising wage and housing inflation continues to put upward pressure on inflation and inflation expectations. This could result in the Fed losing control, causing a repeat of the 1970s, leading to a rise in long-term interest rates. However, the Fed has acknowledged that inflation is not transitory, and it has been signaling that inflation should come back to the target range of 2% with faster rate hikes as well as quantitative tightening. Hence, the probability of this scenario is likely to be low given the Fed's recent communication and willingness to get inflation under control.

Figure 8

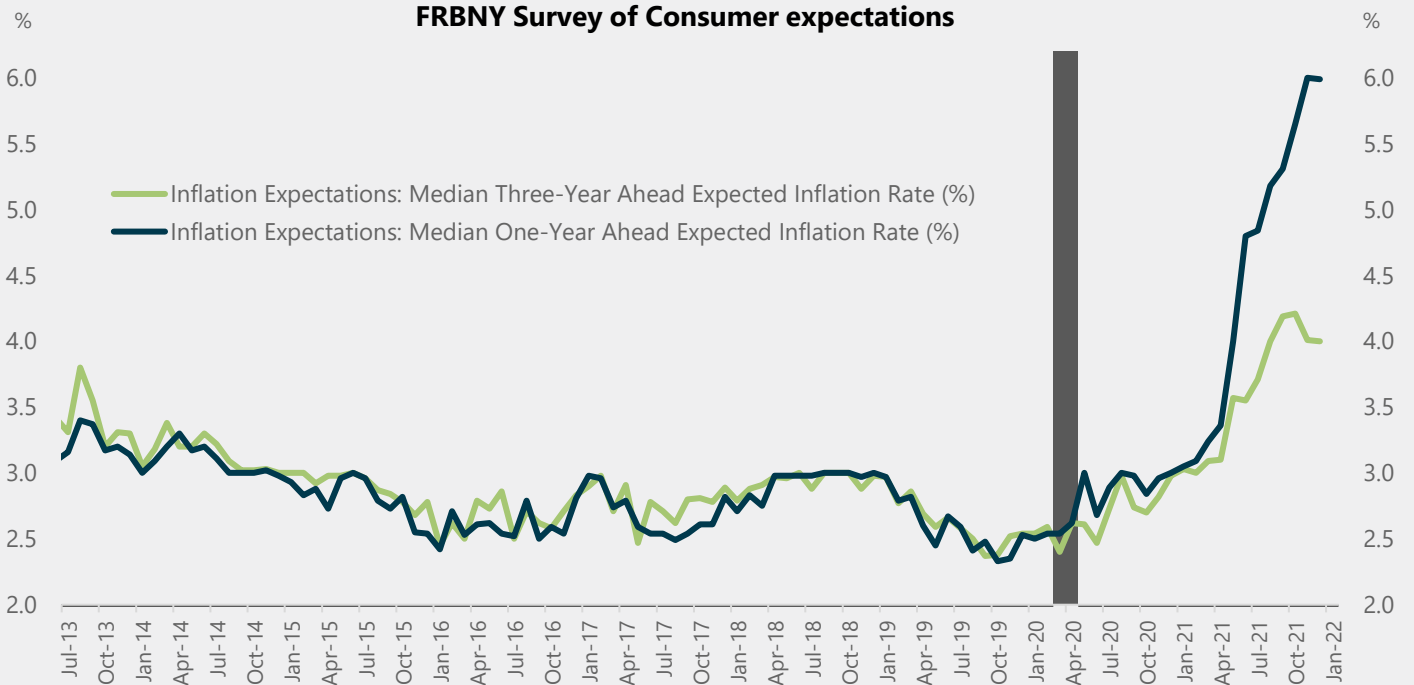
Unanchored inflation pushes up rates



Source: Bloomberg LP, Apollo Global Management Chief Economist

Figure 9

FRBNY Survey of Consumer expectations



Source: Apollo Global Management Chief Economist

## Scenario 4: Babyboomers selling assets with 10s at 4%

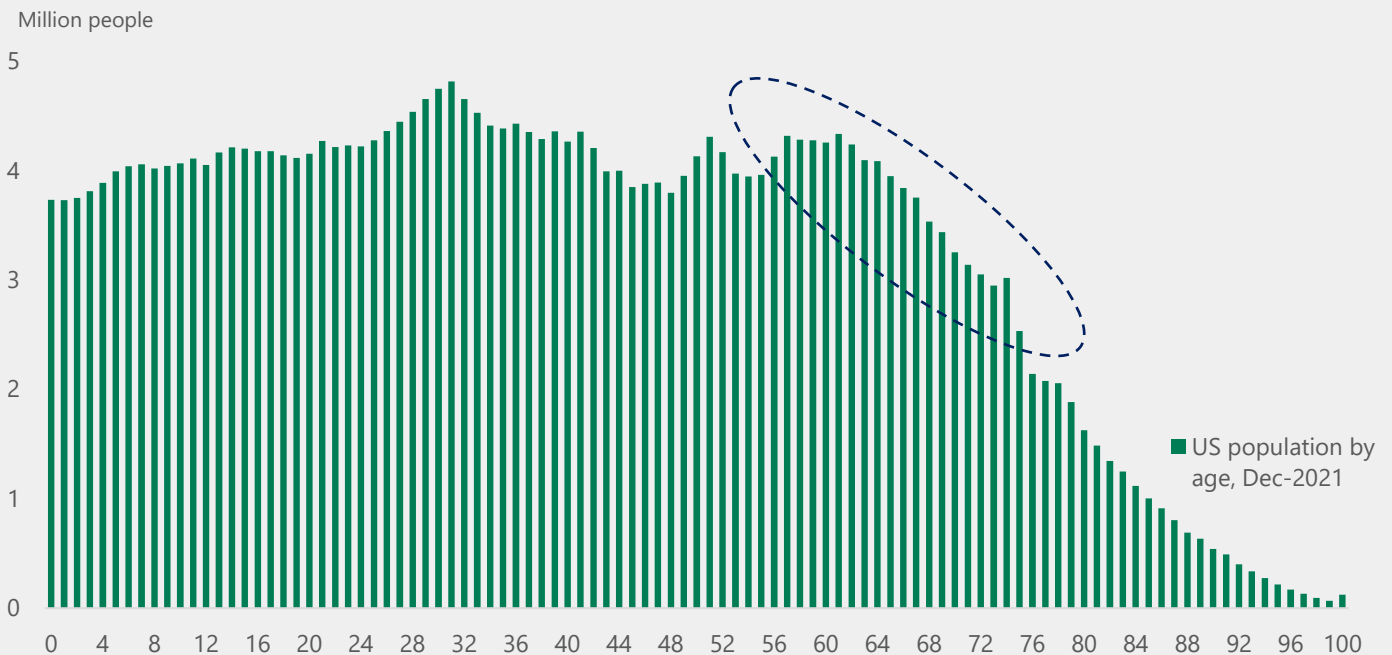
### Probability: 10%

Many babyboomers have reached their retirement age, with 10,000 people currently turning 65 every day, see Figure 10. The pandemic has further accelerated retirement with an additional 2mn people, see Figure 11. As the retired population as a

percentage of the total population increases, the dependency ratio increases, and this cohort needs to sell assets to pay for their running expenses. Such selling of fixed income and equity assets could put upward pressure on interest rates and downward pressure on equities. The problem with this argument is that we have not seen many signs of this effect so far in financial markets. Hence, it is difficult to see why this force suddenly should become very powerful. Therefore, the probability of this scenario playing out is also low.

Figure 10

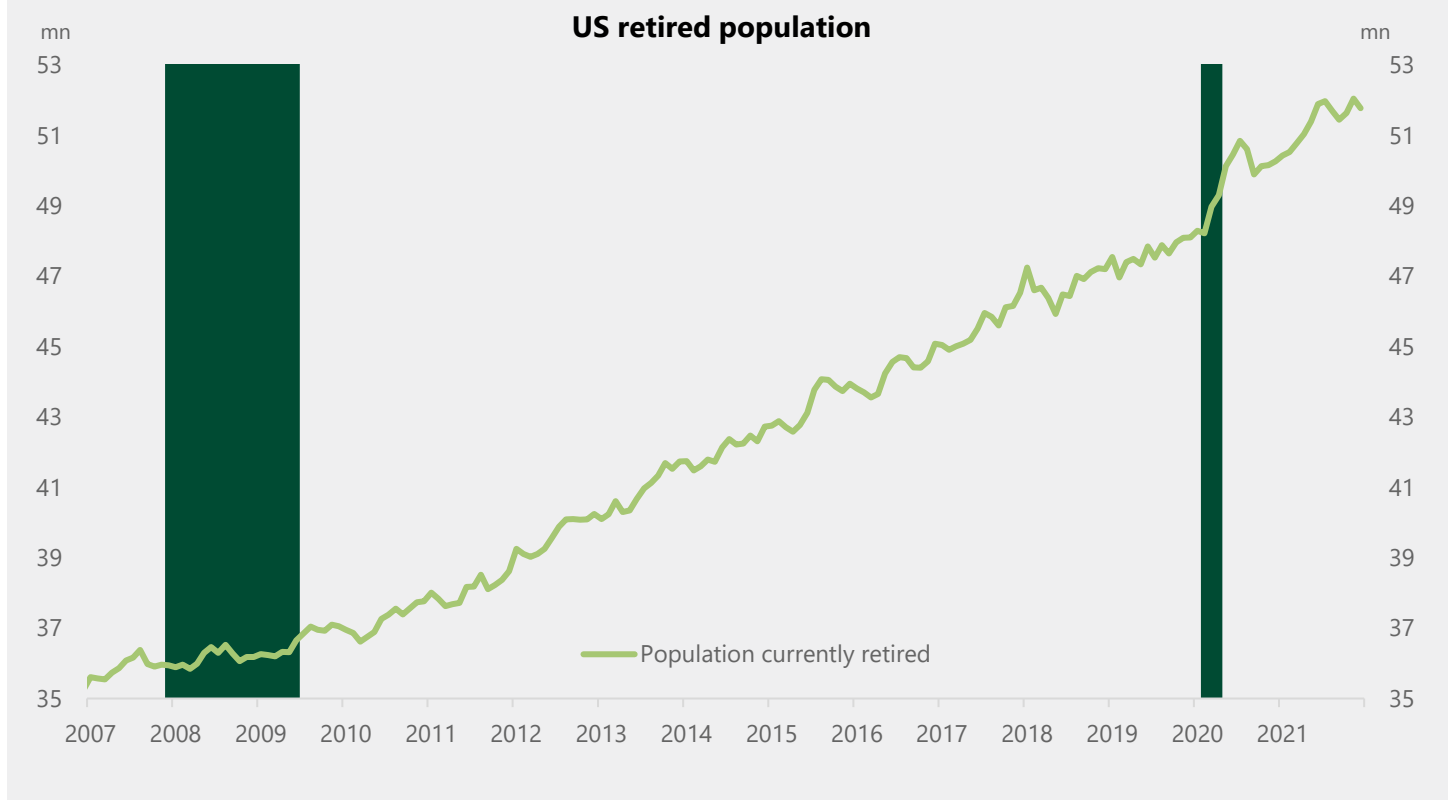
### 10,000 babyboomers retire every day and they need to sell assets



Source: UN, Haver Analytics, Apollo Global Management Chief Economist



Figure 11



Source: Apollo Global Management Chief Economist

## Conclusion

The Fed is about to start a hiking cycle, and markets are beginning to discuss what will happen to long-term interest rates. The most likely scenario is that the Fed will overtighten, which

could come together with turbulence and volatility in equity and credit markets. As a result, the US economy is likely to return to secular stagnation, and we could even get a recession. Such a slowdown in growth could come sometime in 2023. As a result, the most likely outcome is that long-term interest rates will be lower in 2023 than where they are today.

## Apollo's US economic outlook

	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	2Q24	3Q24	4Q24		2021	2022	2023	2024
<b>YoY</b>																					
Real GDP	0.5	12.2	4.9	5.5	5.0	4.2	4.5	3.5	3.1	2.7	2.3	2.1	2.0	2.0	2.0	2.0		5.8	4.3	2.6	2.0
<b>QoQ SAAR</b>																					
Real GDP	6.3	6.7	2.3	6.9	4.1	3.6	3.3	2.8	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0		5.8	4.3	2.5	2.0
Personal Consumption Expenditures	11.4	12.0	2.0	3.3	3.2	2.8	2.6	2.4	2.3	2.1	2.1	2.0	2.0	2.0	2.0	2.0		8.1	3.4	2.3	2.0
Govt Consumption Expenditures & Gross Investment	4.2	-2.0	0.9	-2.9	1.4	1.5	1.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5		0.5	0.4	1.5	1.5
Gross Private Domestic Investment	-2.3	-3.9	12.4	32.0	10.0	8.2	7.1	5.3	3.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2		9.9	12.2	4.6	3.2
Exports	-2.9	7.6	-5.3	24.5	5.5	6.0	5.3	5.2	5.2	4.0	3.0	2.0	2.0	2.0	2.0	2.0		5.4	7.6	4.5	2.2
Imports	9.3	7.1	4.7	17.7	5.0	4.9	4.3	4.0	3.8	4.4	4.0	3.0	3.0	3.0	3.0	3.0		14.8	7.2	4.0	3.2
<b>CPI (% YoY)</b>																					
CPI (% YoY)	1.9	4.8	5.3	6.7	6.8	5.5	4.3	3.0	2.5	2.3	2.1	2.0	2.0	2.0	2.0	2.0		4.7	4.9	2.2	2.0
<b>Core PCE (%YoY)</b>																					
Core PCE (%YoY)	1.7	3.4	3.6	4.6	4.9	4.1	3.5	2.8	2.6	2.5	2.3	2.0	2.0	2.0	2.0	2.0		3.3	3.8	2.4	2.0
<b>Unemployment rate</b>																					
Unemployment rate	6.2	5.9	5.1	4.2	4.2	4.3	4.4	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		5.4	4.1	3.5	3.5
<b>AHE</b>																					
AHE	4.3	3.7	4.5	4.7	4.8	4.3	4.0	3.9	3.6	3.4	3.2	3.2	3.2	3.2	3.2	3.2		4.3	4.3	3.4	3.2
<b>Fed funds rate</b>																					
Fed funds rate	0.25	0.25	0.25	0.25	0.50	0.75	1.00	1.25	1.50	1.50	1.75	1.75	1.75	2.00	2.00	2.25		0.25	1.25	1.75	2.25
<b>10 year yield</b>																					
10 year yield	1.74	1.45	1.52	1.52	1.80	1.85	1.90	1.95	2.20	2.25	2.30	2.30	2.75	2.90	2.95	3.00		1.52	1.95	2.30	3.00

Source: Apollo Global Management

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