MARKET PULSE

10 FOR 2022

1. ECONOMIC GROWTH: Although the fastest pace of the recovery lies behind us, global GDP is likely to grow ~4.5% in 2022, more than 1pp above potential. We expect the first half to be stronger, benefitting from improving virus conditions, economic re-opening, pent-up consumption, and inventory rebuilding. While most economies will remain above-trend in 2022, China and Brazil will be slower due to country-specific factors.

2. INFLATION: We remain confident that both headline and core inflation will ease meaningfully in 2022, though price pressures are unlikely to subside quickly. Nascent signs of logistical relief are already visible, even as more persistent shelter, wage, and commodities pressures should be sufficient to sustain higher trend levels and elicit policy responses.

3. MONETARY POLICY: Following two years of largely synchronized accommodation, developed market (DM) central banks are beginning to de-link, deploying regionally tailored tightening. By mid-2022, we expect the Federal Reserve to begin rate hikes, while New Zealand, Canada, and the UK will have already begun. In contrast, we expect the RBA and ECB to remain on hold until 4Q23 and 3Q24, respectively.

4. GEOPOLITICS: Election-induced uncertainty may arise as presidential elections in France and Brazil may lead to policy changes, while midterms in the US may lead to policy roadblocks. Historically in the US, the opposition party has made significant midterm gains, which would likely limit any major objectives for the second half of the Biden administration.

5. DM EQUITY: We are likely to see markets move higher in 2022, supported by negative real interest rates, a high equity risk premium, and flows seeking positive real returns. In the longer term, we are expecting a flatter market, with lower aggregate returns, a wider range of volatility, and less regional bifurcation. Non-US markets are poised to narrow the differentials in earnings and returns.

6. EM EQUITY: The improving global macro backdrop should support investor flows into the under-owned EM complex. We expect highly disparate regional returns, reflecting China macro, COVID-19 medical, and commodity market sensitivities. Selectivity will continue to be key.

7. RATES: We expect returns from duration to be negative in many regions as sovereign yields should be driven higher by continued progress towards tightening resource slack and higher-for-longer inflation.

8. CREDIT: Valuation constraints and incrementally weaker drivers of risk appetite should result in modest spread widening, lower returns, and higher dispersion across credit markets. While the scope for compression is limited, we believe carry strategies remain fundamentally intact.

9. CURRENCY: The US dollar appears vulnerable to high valuation, competitive overseas returns, new pressures on its global role, and cyclical sentiment. We expect more divergent FX trends to emerge in 2022, reflecting sensitivities to central bank de-linking, economic re-opening, and commodity pricing.

10. COMMODITIES: Tightness in commodity markets is structural, based on years of under-investment. Unlike supply bottlenecks elsewhere, commodity capex problems will not be easily resolved and may be amplified by longer-term environmental and social policy objectives.

ASSET CLASS VIEWS[1]

Shorter-Term ◆ Longer-Term ○

		Less Attractive		More Attractive
EQUITY	US Equity			◆○
	European Equity			◆○
	Japanese Equity		○	◆
	Emerging Market (EM) Equity		◆	○
RATES	US Government Fixed Income	◆○		
	Municipal Bonds		◆	○
	DM Government FI (JGB)		◆○	
	EM Debt Hard		◆○	
	EM Debt Local		◆○	
CREDIT	US Investment Grade		◆○	
	US High Yield		◆○	
	Euro Area Corporates		○	◆
	EM Corporates		◆○	
REAL ASSETS	Oil		○	◆
	Copper			◆○
	Gold		◆○	
	Global Real Estate		○	◆
CURRENCIES	US Dollar	○	◆	
	Euro		◆	○
	Japanese Yen		◆○	
	British Pound		◆○	
	Chinese Renminbi		◆	○

ASSET CLASS FORECASTS[2]

	Current	3m	12m	% Δ to 12m
S&P 500 ($)	4595	4850	5100	11.0
STOXX Europe (€)	464	495	530	14.2
MSCI Asia-Pacific Ex-Japan ($)	628	670	720	14.7
TOPIX (¥)	1985	2180	2250	13.4
10-Year Treasury	1.5	1.8	2.0	50 bp
10-Year Bund	(0.3)	0.0	0.3	60 bp
10-Year JGB	0.1	0.1	0.2	11 bp
Euro (€/$)	1.13	1.14	1.18	4.4
Pound (£/$)	1.33	1.33	1.37	3.0
Yen ($/¥)	113	115	111	(2.2)
Brent Crude Oil ($/bbl)	72.7	90.0	85.0	16.9
London Gold ($/troy oz)	1799	2000	2000	11.2

Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management as of November 2021. The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Goldman Sachs does not provide accounting, tax or legal advice. Please see additional disclosures at the end of this presentation. Past performance does not guarantee future results, which may vary.

Hindsight is 2021

In 2021, the transition began from a vaccine-shaped and policy-fueled recovery to a more fundamentally-driven expansion. Amid this backdrop there were packed ports, meme mania, and near-record S&P 500 new records. Many of the macro and market events may be hard to believe, or easily forgotten, in the stream of headlines. As we look ahead to 2022—and our expectations for a supportive macro backdrop for capital markets—we think the lessons from 2021 deserve a review.

QUESTIONS:

Q1. What is the best performing S&P 500 sector year to date?

A. Financials
B. Energy
C. Information Technology
D. Real Estate

Q2. What is the best trading weekday for the S&P 500 year to date, on average?

A. Monday
B. Tuesday
C. Wednesday
D. Thursday

Q3. In the past decade, how many months has it taken on average for the S&P 500 to recover from a 5-10% pullback?

A. 3 months
B. 6 months
C. 12 months
D. 24 months

Q4. The price of electricity from solar and wind has fallen by what % in the last decade, respectively?

A. 20% and 10%
B. 30% and 25%
C. 60% and 40%
D. 90% and 70%

Q5. Which G20 central bank was the first to raise interest rates this year?

A. Norway's Norges Bank
B. Australia's Reserve Bank of Australia
C. Canada's Bank of Canada
D. The United Kingdom's Bank of England

Q6. What does "Diamond Hands" mean?

A. Gains or profits made on an investment
B. Holding onto an investment no matter what
C. Traders who prefer other commodities than gold
D. Expectations that the price of a security will surge

ANSWER KEY:

Q1: B. Energy

The energy sector has returned 50% YTD. It is the most improved sector, having been the worst performing sector in 2020. Over the past 20 years, the worst performing sector has become the best performing in the following year 20% of the time.

Q2: D. Thursday

While the best day of the week for the S&P 500 in 2021 has been Thursday, the worst weekday has been Tuesday. Historically, the worst weekday has been Monday, the only weekday to have negative returns on average.

Q3: A. 3 months

From November 2011 to November 2021, typically the S&P 500 has fully rebounded from a 5-10% pullback within 3 months, recovering 112% of the initial pullback on average. We would still be buyers of any temporary weakness.

Q4: D. 90 and 70%

The price of electricity from solar and wind has fallen 89% and 70%, respectively, in the last 10 years, making renewables the cheapest energy source in most of the world. Still, storage and distribution remain a challenge for broader usage.

Q5: A. Norway's Norges Bank

Norway was the first developed economy to hike interest rates in 2021, following sustained inflation and commodity price pressures. We expect 21 other major central banks to raise rates in 2022.

Q6: B. Holding onto an investment no matter what

"Diamond hands" is a slang term that became popular with the explosion of meme stocks and retail investing in 2021. Even so, the average holding period of shares has dropped from 9.7 years in 1980 to 0.5 years in 2020.

Q1 Source: Bloomberg and Goldman Sachs Asset Management. As of November 30, 2021. "YTD" refers to year to date. Q2 Source: Goldman Sachs Global Investment Research and Goldman Sachs Asset Management. As of November 30, 2021. "G20" refers to the Group of 20, an intergovernmental forum comprising 19 countries and the European Union. Q3 Source: Our World in Data. As of December 1, 2020. Q4 Source: Bloomberg and Goldman Sachs Asset Management. As of November 30, 2021. Q5 Source: Goldman Sachs Asset Management. Definition of "diamond hands" is as of November 30, 2021. "Average holding period of shares" is as of August 3, 2020. Q6 Source: Bloomberg and Goldman Sachs Asset Management. As of November 30, 2021. The economic and market forecasts presented herein are for informational purposes as of the date of this presentation. There can be no assurance that the forecasts will be achieved. Please see additional disclosures at the end of this presentation. Past performance does not guarantee future results, which may vary.

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2. Price targets of major asset classes are provided by Goldman Sachs Global Investment Research. Source: "Global equities fell sharply amidst concerns around new COVID-19 variant" – 11/29/2021.

Page 1 Definitions:

Brent crude oil is a common international benchmark for oil prices.

Core PCE refers to the core personal consumption expenditure price index, excluding food and energy.

DM refers to developed markets.

ECB refers to the European Central Bank.

EM refers to emerging markets.

EPS refers to earnings per share.

Fed refers to the Federal Reserve.

GDP refers to gross domestic product.

RBA refers to the Royal bank of Australia.

YE refers to year-end.

Glossary

The MSCI AC Asia Pacific ex Japan Index captures large and mid cap representation across 4 of 5 Developed Markets countries and 8 Emerging Markets countries in the Asia Pacific region.

The S&P 500 Index is the Standard & Poor's 500 Composite Stock Prices Index of 500 stocks, an unmanaged index of common stock prices. The index figures do not reflect any deduction for fees, expenses or taxes. It is not possible to invest directly in an unmanaged index.

The STOXX Europe 600 Index is derived from the STOXX Europe Total Market Index (TMI) and is a subset of the STOXX Global 1800 Index.

The Tokyo Price Index (TOPIX) is a metric for stock prices on the Tokyo Stock Exchange (TSE). A capitalization-weighted index, TOPIX lists all firms that have been determined to be part of the "first section" of the TSE.

The 10-Year US Treasury Bond is a US Treasury debt obligation that has a maturity of 10 years.

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A 10-Year Treasury is a debt obligation backed by the United States government and its interest payments are exempt from state and local taxes. However, interest payments are not exempt from federal taxes.

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