Quantifying the earnings impact of COVID-19

Equity Strategy Special Edition

Assessing the fundamental outlook for stocks

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Answers to pressing questions about earnings

Invesco

1 Looking back, what was the cost of the shutdown, and how might it have impacted 1Q20 S&P 500 earnings?

Assuming a baseline of $154, the cost of the shutdown might've been $3 of earnings per share (EPS) each week ($154/52) for S&P 500 companies. If half of those firms were idle ($24/2), an 8-week shutdown may have cost $12 of EPS ($154-$142). As such, we believe a broad market earnings recession began in 1Q20 with a 7% decline from year-ago levels*, which will likely be followed by much deeper declines in later quarters.

2 Looking forward, what kind of earnings decrease have stocks priced in?

We judge that the stock market has priced in a 15% year-over-year (y/y) drop in earnings to roughly $134. That's bad, but it could get much worse if the 2008-2009 and 2001 economic recessions are any guides.

3 Earnings seem to have peaked in 4Q19. What does history tell us about the peak-to-trough journey for earnings leading up to and exiting economic recessions? What about price-to-earnings (P/E) ratios in the same timeframe?

Heading into the mild early-1990s recession, earnings suffered a peak-to-trough decline of 24% over a period of 2.5 years. Leading up to the "garden variety" early-2000s downturn, earnings dropped 32% from their peak in the ensuing 1 year and 3 months. Earnings fell 57% from their peak before the deep late-2000s contraction, a trip that took 2 years and 3 months. Surprisingly, P/E ratios were relatively stable in the first 1.5 years after peak earnings, but valuations diverged significantly thereafter.

4 From the start to the end of the last 3 recessions, what would past behavior of earnings and multiples suggest as potential outcomes for the S&P 500?

On average, the last 3 recessions lasted about 12 months. Earnings contracted 6-52% and multiples expanded 12-30% in that timeframe. Potential outcomes for the S&P 500 range widely from 1,600 (worst case) to 4,200 (best case) over the next year. 3,200 (median) would be a typical experience, implying stocks would bottom during the recession and recover the bulk of their losses.

5 What are earnings trends looking like across countries?

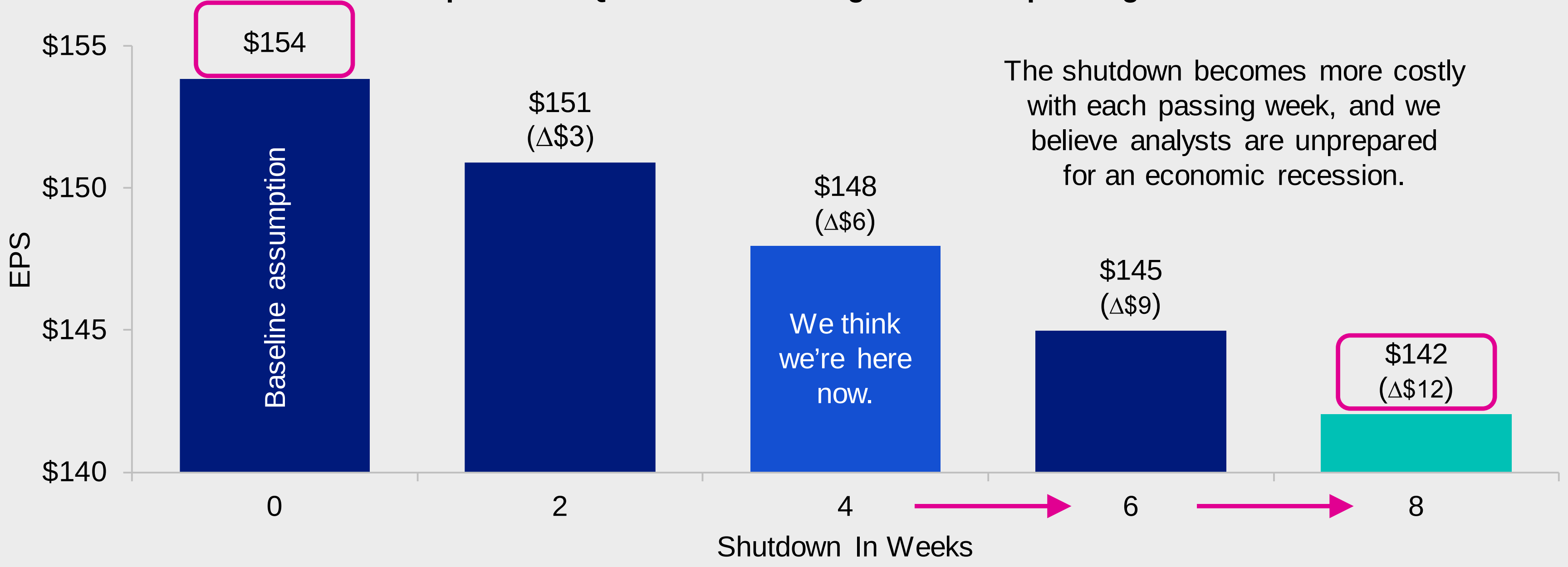
European and Canadian stocks have priced in substantial declines in earnings from year-ago levels. China and Japan, not so much.

Source: National Bureau of Economic Research (NBER), Standard & Poor's*, Invesco, 04/17/20. Notes: Operating earnings per share = Income from product (goods and services), excluding corporate (M&A, financing and layoffs) and unusual items, divided by total shares outstanding.

1. Looking back, we suspect 1Q20 S&P 500 earnings may have been $12 lower than analysts believe

We assume a baseline of $154 for first quarter 2020 S&P 500 EPS, which equates to $3 per week ($154/52). If half of companies were shutdown for 8 weeks, hypothetically, that would imply earnings of $142 in 1Q20.

Deviation from a baseline assumption for 1Q20 S&P 500 trailing 12-month operating EPS

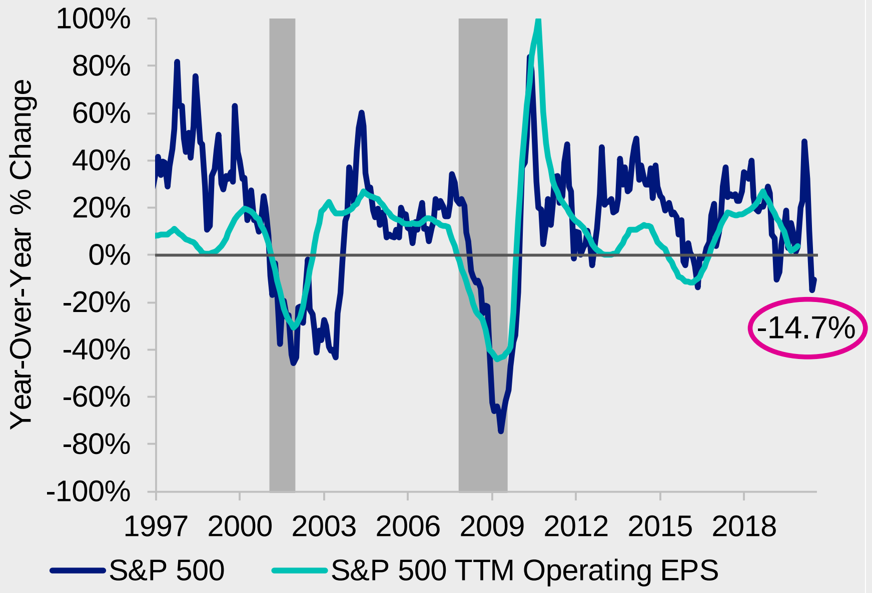


Source: Standard & Poor's, Invesco, 04/17/20. An investment cannot be made in an index.

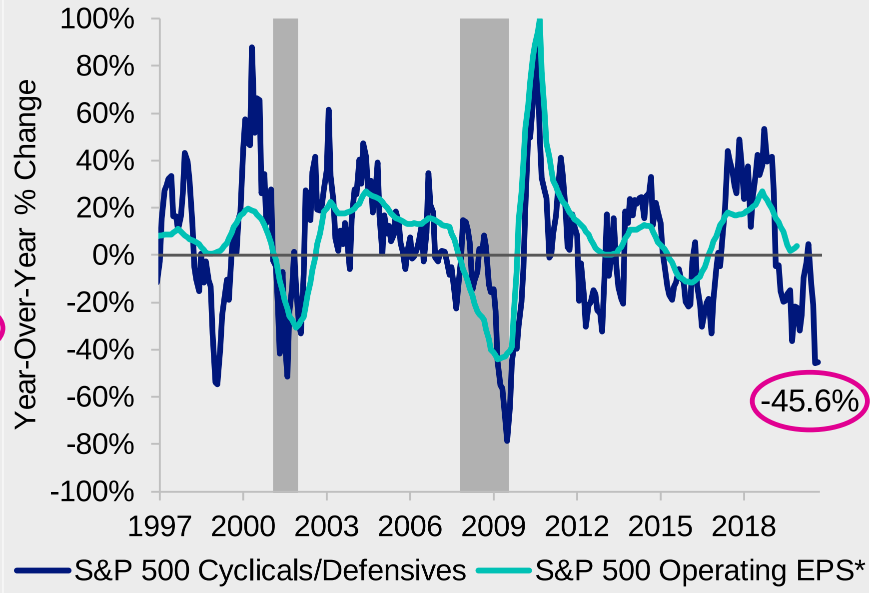
2. US stocks have priced in double-digit declines in earnings from year-ago levels

Equity returns lead earnings growth by 3-6 months, a relationship that points to brutal company reporting into 3Q20 at the very least.

US equity returns (advanced 3 months) and earnings growth since 1997



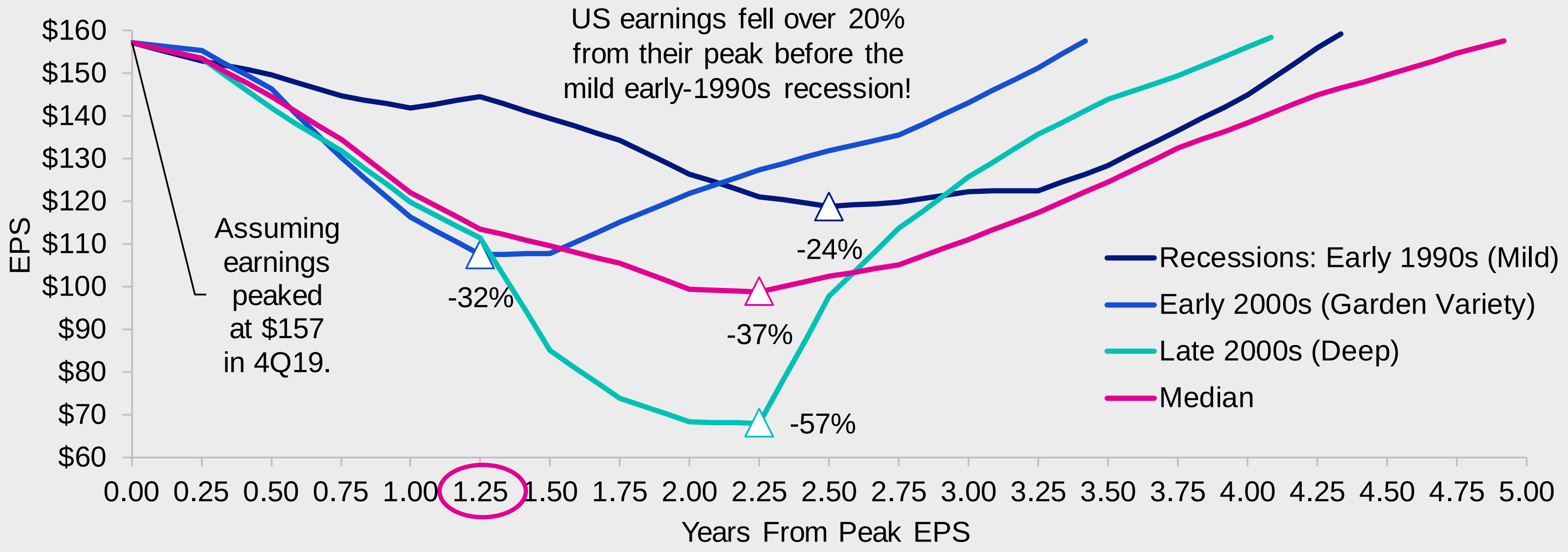
US cyclical relative to defensive sector returns (advanced 5 months) and earnings growth since 1997



Source: Bloomberg L.P., Standard & Poor's, Invesco, 04/17/20. Notes: In the left and right charts, equity returns have been multiplied by factors of 1.67 and 2.50, respectively, to show both series on the same scale as earnings growth. Shaded areas denote NBER-defined US economic recessions. *Trailing 12 month (TTM). An investment cannot be made in an index. **Past performance does not guarantee future results.**

3. a) Past US economic recessions warn of a potential peak-to-trough decline in earnings of at least 20% over the next year or more!

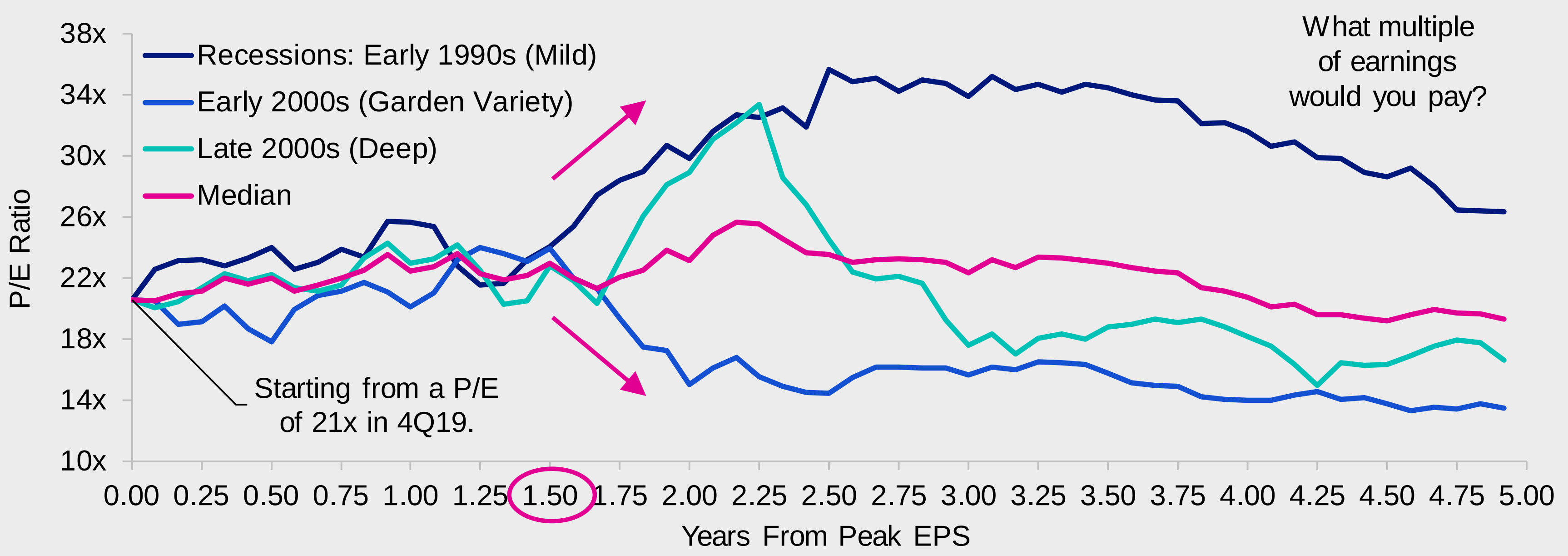
S&P 500 trailing 12-month operating EPS "round trips" heading into and exiting different recession scenarios



Source: Standard & Poor's, Invesco, 04/17/20. An investment cannot be made in an index. **Past performance does not guarantee future results.**

3. b) P/E ratios didn't move much in the first 1.5 years after peak earnings before diverging wildly

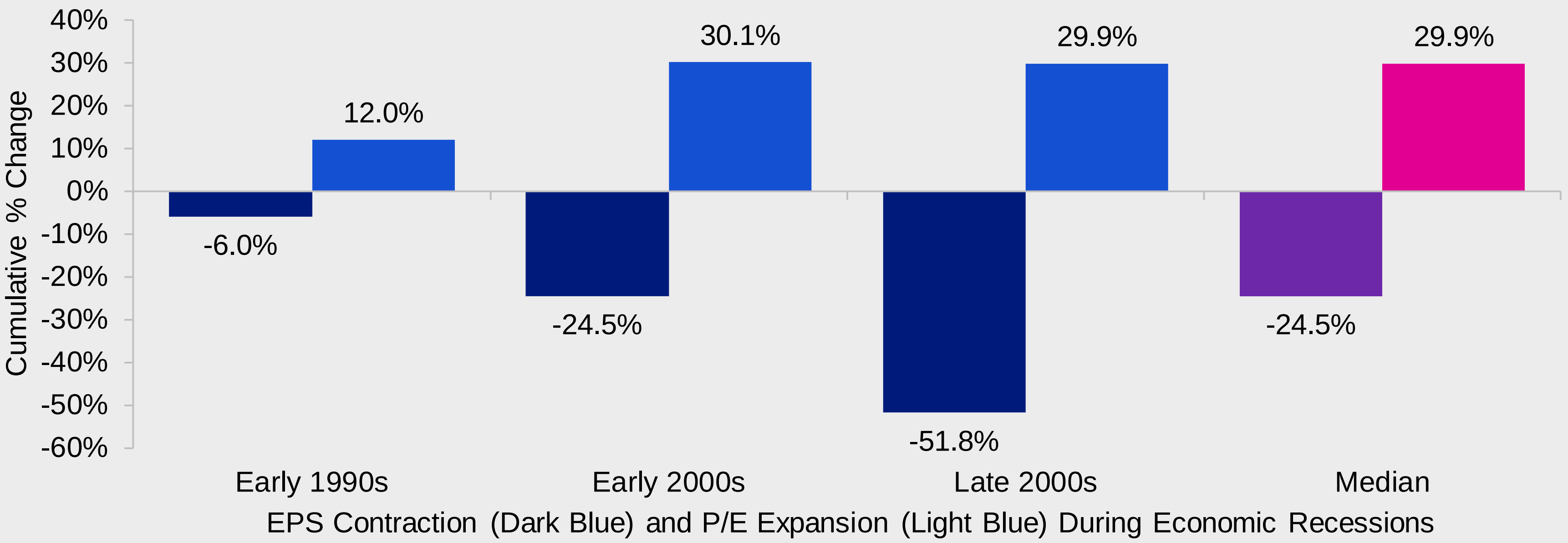
S&P 500 trailing 12-month operating P/E heading into and exiting different recession scenarios



Source: Bloomberg L.P., Standard & Poor's, Invesco, 04/17/20. An investment cannot be made in an index. **Past performance does not guarantee future results.**

4. a) Peak earnings aside, we know that earnings fell and multiples rose consistently during each of the last 3 economic recessions

S&P 500 trailing 12-month operating EPS contraction and P/E expansion during economic recessions



Source: Bloomberg L.P., Standard & Poor's, Invesco, 04/17/20. Notes: Economic recessions are defined by the NBER. An investment cannot be made in an index. **Past performance does not guarantee future results.**

4. b) Extreme uncertainty makes targeting the S&P 500 an unusually daunting task, but the last 3 economic recessions provide a wide range of potential outcomes

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S&P 500 trailing 12-month operating EPS, P/E and index levels in different economic recession scenarios

EPS	P/E			
4Q19	20.6x (0.0%)	23.0x (12.0%)	26.7x (29.9%)	26.8x (30.1%)
$157 (0.0%)	3,231 (0.0%)	3,620 (12.0%)	4,196 (29.9%)	4,205 (30.1%)
$148 (-6.0%)	3,038 (-6.0%)	3,404 (5.4%)	3,946 (22.1%)	3,954 (22.4%)
$119 (-24.5%)	2,438 (-24.5%)	2,731 (-15.5%)	3,166 (-2.0%)	3,173 (-1.8%)
$76 (-51.8%)	1,557 (-51.8%)	1,745 (-46.0%)	2,023 (-37.4%)	2,027 (-37.3%)

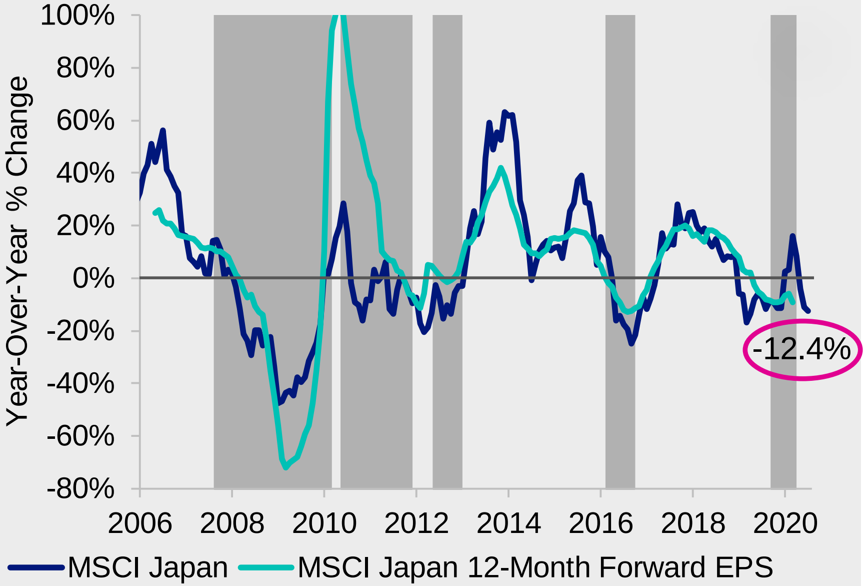
Choose your own adventure, but we believe 3,166 would be a typical recession experience for the S&P 500.

Source: Bloomberg L.P., Standard & Poor's, Invesco, 04/17/20. An investment cannot be made in an index. **Past performance does not guarantee future results.**

5. a) Have Chinese and Japanese stocks sufficiently priced in the pandemic and related earnings recession, or is there more to come?

Chinese equity returns (advanced 3 months) and expected earnings growth since 2006

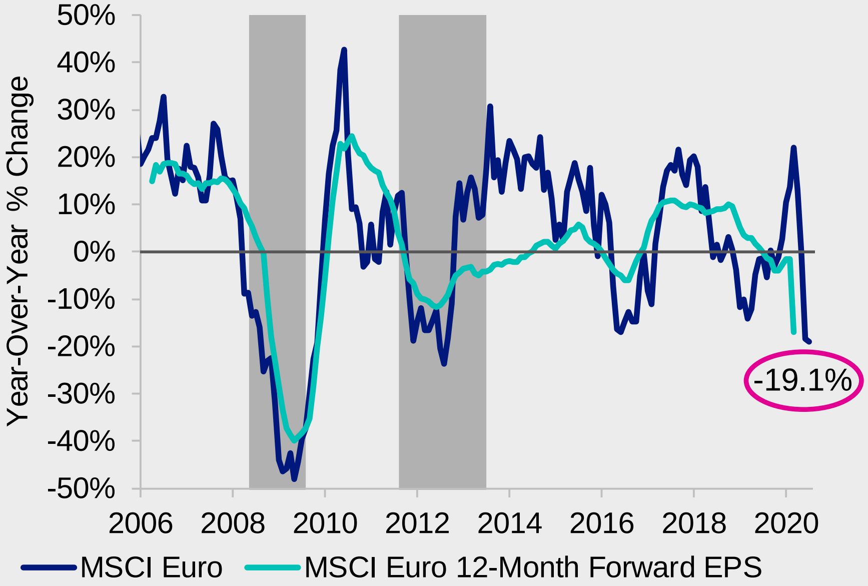
Japanese equity returns (advanced 3 months) and expected earnings growth since 2006



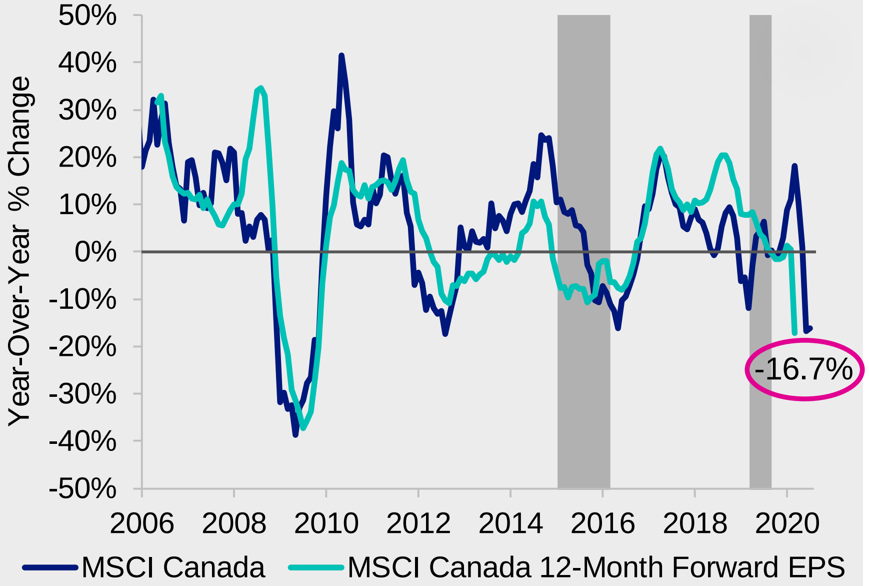
Source: Bloomberg L.P., Invesco, 04/17/20. Notes: Shaded areas denote 6-month or longer contractions in the Composite Purchasing Managers Index (PMI) of both countries. Stocks and earnings are in local currencies. An investment cannot be made in an index. **Past performance does not guarantee future results.**

5. b) European and Canadian stocks have discounted substantial declines in earnings from year-ago levels

Eurozone equity returns (advanced 3 months) and expected earnings growth since 2006



Canadian equity returns (advanced 3 months) and expected earnings growth since 2006



Source: Bloomberg L.P., Invesco, 04/17/20. Notes: Shaded areas denote 6-month or longer contractions in the Composite PMI of the European Union excluding the UK. The Manufacturing PMI was used for Canada as that country lacks a Services PMI. Stocks and earnings are in local currencies. An investment cannot be made in an index. **Past performance does not guarantee future results.**

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Talley Léger is a Senior Investment Strategist for the Global Thought Leadership team. In this role, he is responsible for formulating and communicating macro and investment insights, with a focus on equities. Mr. Léger is involved with macro research, cross-market strategy and equity strategy.

Mr. Léger joined Invesco when the firm combined with OppenheimerFunds in 2019. At OppenheimerFunds, he was the equity strategist. Prior to OppenheimerFunds, he was the founder of Macro Vision Research and held strategist roles at Barclays Capital, ISI, Merrill Lynch, RBC Capital Markets and Brown Brothers Harriman. Mr. Léger has been in the industry since 2000.

He is the co-author of the revised second edition of the book, *From Bear to Bull with ETFs*.* Mr. Léger has been a guest columnist for *The Big Picture* and *Data Watch* on *Bloomberg Brief Economics*, as well as a contributing author on Seeking Alpha (seekingalpha.com). He has been quoted in *Associated Press*, *Barron's*, *Bloomberg*, *Business Week*, *Dow Jones Newswires*, *The Financial Times*, *MarketWatch*, *Morningstar magazine*, *The New York Times* and *The Wall Street Journal*. Mr. Léger has appeared on Bloomberg TV, Canada's BNN Bloomberg, CNBC, Reuters TV, The Street and Yahoo! Finance, and has spoken on Bloomberg Radio.

Mr. Léger earned an MS degree in financial economics and a Bachelor of Music from Boston University. He is a member of the Global Interdependence Center (GIC) and holds the Series 7 registration.

**From Bear to Bull with* ETFs (2nd ed.), by David R. Kotok and Talley Léger, published by Cumberland Advisors Publishing (2014).

Index definitions

The S&P 500 Index is a market capitalization weighted index of the 500 largest domestic U.S. stocks.

The MSCI China Index is designed to measure large and mid market capitalization stocks in China.

The MSCI Japan Index is designed to measure large and mid market capitalization stocks in Japan.

The MSCI Euro Index is designed to measure large and mid market capitalization stocks in the eurozone.

The MSCI Canada Index is designed to measure large and mid market capitalization stocks in Canada.

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As with all investments there are associated risks. Please obtain and review all relevant materials carefully before investing.

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