Strategy Quarterly

First Quarter 2018

Executive Summary

- The current bull market that started in 2009 has benefited from a combination of rebounding corporate profits and very favorable financial conditions enabled by central bank liquidity. A global synchronized expansion accompanied by subdued inflation has fueled stock returns across the global markets.
- Despite the length and the magnitude of the bull market, since 2007, there has been a cumulative outflow from U.S. equity mutual funds and exchange-traded funds (“ETFs”) of $200 billion, while more than $1.6 trillion has flowed into U.S. bond funds even with the lowest yields in generations.
- Ironically, it’s only after a eight-year-long economic expansion and a market advance of more than 300% since the 2009 bottom that investors are finally getting excited about the stock market – just when the business cycle’s peak is getting increasingly closer.
- We are entering the last phase of the growth cycle characterized by GDP growth above potential, higher inflation and increasingly restrictive monetary policy. Historically, during this phase, stocks have initially achieved decent gains supported by investors’ participation and optimism.
- Although the stock market may continue to march higher for the first part of 2018 on momentum and investors’ optimism about growth, further stock gains will be restrained by stretched valuations, peaking corporate earnings and increasing interest rates.
- Alpha Quant Advisors offers an array of equity strategies with different sensitivity to economic conditions and appropriate for distinct risk profiles. Each strategy is driven by a distinct set of alpha factors – fundamentals and valuation metrics, which have a demonstrated, consistent ability to predict excess returns.

AlphaQuant
Engineered for Alpha

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Economic Outlook

With still easy financial conditions and fiscal policy support, the global economy is expected to register robust growth in 2018 (Figure 1). Advanced economies are projected to grow at 3.7% on the aggregate, while developing economies are expected to grow at 4.6%. In advanced economies, the ongoing cyclical recovery is stronger than previously projected. Positive surprises in growth in the first half of 2017 typically occurred in countries where estimates for output were below potential.

Figure 1: Global Output

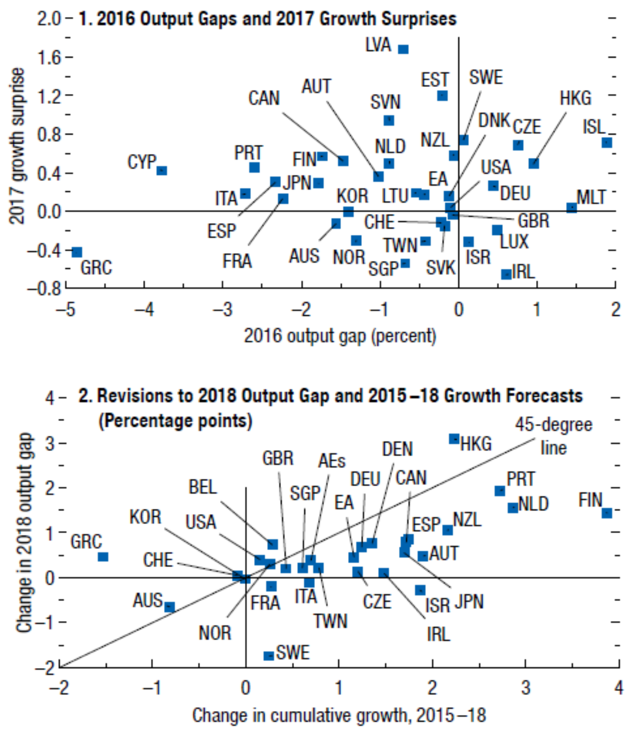
	Year-over-Year			
			Projections	
	2015	2016	2017	2018
World Output	**3.4**	**3.2**	**3.6**	**3.7**
Advanced Economies	**2.2**	**1.7**	**2.2**	**2.0**
United States	2.9	1.5	2.2	2.3
Euro Area	2.0	1.8	2.1	1.9
Germany	1.5	1.9	2.0	1.8
France	1.1	1.2	1.6	1.8
Italy	0.8	0.9	1.5	1.1
Spain	3.2	3.2	3.1	2.5
Japan[2]	1.1	1.0	1.5	0.7
United Kingdom	2.2	1.8	1.7	1.5
Canada	0.9	1.5	3.0	2.1
Other Advanced Economies[3]	2.1	2.2	2.6	2.5
Emerging Market and Developing Economies	**4.3**	**4.3**	**4.6**	**4.9**
Commonwealth of Independent States	−2.2	0.4	2.1	2.1
Russia	−2.8	−0.2	1.8	1.6
Excluding Russia	−0.6	1.9	2.9	3.3
Emerging and Developing Asia	6.8	6.4	6.5	6.5
China	6.9	6.7	6.8	6.5
India[4]	8.0	7.1	6.7	7.4
ASEAN-5[5]	4.9	4.9	5.2	5.2
Emerging and Developing Europe	4.7	3.1	4.5	3.5
Latin America and the Caribbean	0.1	−0.9	1.2	1.9
Brazil	−3.8	−3.6	0.7	1.5
Mexico	2.6	2.3	2.1	1.9
Middle East, North Africa, Afghanistan, and Pakistan	2.7	5.0	2.6	3.5
Saudi Arabia	4.1	1.7	0.1	1.1
Sub-Saharan Africa	3.4	1.4	2.6	3.4
Nigeria	2.7	−1.6	0.8	1.9
South Africa	1.3	0.3	0.7	1.1

[2] Japan's historical national accounts figures reflect a comprehensive revision by the national authorities, released in December 2016. The main revisions are the switch from the System of National Accounts 1993 to the System of National Accounts 2008 and the updating of the benchmark year from 2005 to 2011.
[3] Excludes the Group of Seven (Canada, France, Germany, Italy, Japan, United Kingdom, United States) and euro area countries.
[4] For India, data and forecasts are presented on a fiscal year basis and GDP from 2011 onward is based on GDP at market prices with fiscal year 2011-2012 as a base year.
[5] Indonesia, Malaysia, Philippines, Thailand, Vietnam.

Source: International Monetary Fund

As Figure 2 shows, the upward revision to growth exceeds the decline in the output gap for most individual countries. The difference is explained by slightly higher projected potential growth during this period. With output in 2017 remaining slightly below potential for the advanced economies group, the cyclical recovery still has some room to run. This is consistent with still-elevated unemployment rates in a few countries and relatively high shares of workers who would prefer to work full time, but can only obtain part-time work.

Figure 2: Revisions to Growth and Output Gaps



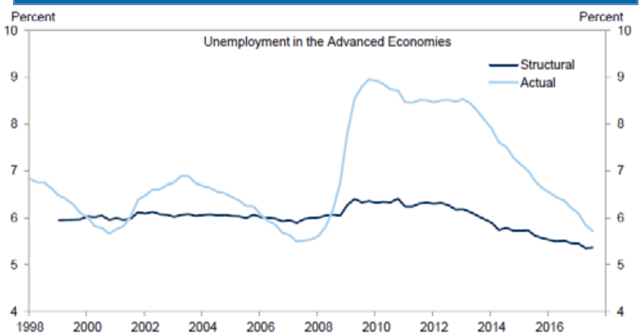
Source: International Monetary Fund

With growth generally above potential output, economic slack is gradually being reduced. Positive revisions to growth have also come with some upward revisions to the estimated path of potential output.

According to the International Monetary Fund ("IMF"), over a longer horizon, U.S. growth is expected to moderate. Potential growth is estimated at 1.8%, reflecting the assumption of continued sluggish growth in total factor productivity and diminished growth of the workforce due to population aging.

In 2018, the U.S. economy is projected to expand at 2.3%. The projection of a continuation of near-term growth that is moderately above potential reflects very supportive financial conditions and strong business and consumer confidence. Slack is diminishing sharply across the advanced economies. In fact, the aggregate unemployment rate across advanced economies has fallen almost back to pre-crisis levels, as shown in Figure 3 on the next page. As a result, Goldman Sachs economists' output gap estimates suggest the most advanced economies are now near full employment. The U.S. and U.K. already have slightly moved past full capacity, and Japan's output gap is closing quite rapidly. Significant slack remains in the euro area as a whole, but spare capacity is concentrated in the south (especially Spain and Italy) as Germany has already moved slightly past full employment (see Figure 4 on the next page).

Figure 3: Unemployment Trends

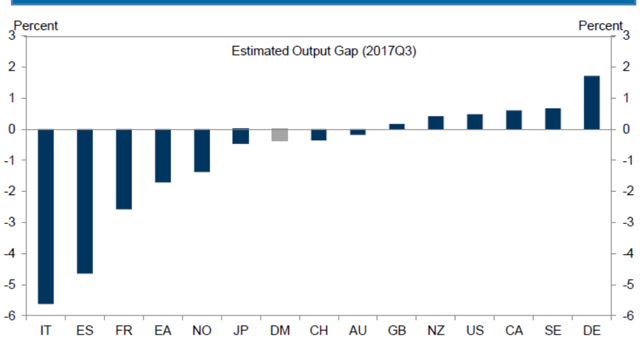


Source: Haver Analytics, Goldman Sachs

Nonetheless, when growth is only slightly above trend, history shows economies can run beyond potential for a long time before peaking. And with significant spare capacity in parts of Europe, the developed world as a whole still has a substantial output gap. This implies this cycle's peak may still be farther away than suggested by the duration of the current expansion. However, a deficit-funded tax cut could push U.S. growth further above trend, leading to economic overheating, an inflation spike and higher interest rates that quicken the cycle's end.

Concurrently to less economic slack, headline inflation rates are projected to increase in both advanced and developing economies, though somewhat less sharply than previously expected and partly reflecting weaker-than-expected oil prices. In advanced economies, inflation is forecast to pick up from 0.8% in 2016 to 1.7% in 2017, reflecting the continued cyclical recovery in demand and the increase in commodity prices in the second half of 2016. Inflation in emerging market and developing economies is projected to remain roughly stable in 2017 and 2018 at about 4.3%.

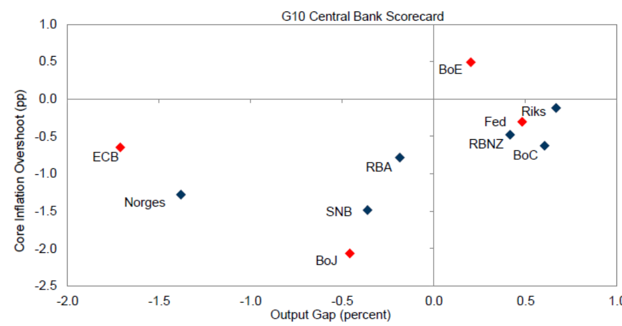
Figure 4: Estimated Output Gaps



Source: Goldman Sachs

Indeed, cyclically driven inflation pressure should emerge in 2018, as the economic expansion continues. Tighter labor markets could result in faster wage growth, which in turn would lead to higher-price inflation. Recent enacted tax cuts could also contribute to the risk of economic overheating and upside inflation. After several years of conventional and unconventional accommodative monetary policy, 2017 marked the beginning of a broader normalization of monetary policy.

Figure 5: Monetary Policy Divergence



Source: Goldman Sachs

The Federal Reserve ("the Fed") has raised interest rates at a faster pace and has started reducing the size of its balance sheet by decreasing the rate at which it reinvests maturing bonds. The Fed's new leadership may press ahead with shrinking its balance sheet and delivering its projected three 0.25% rate increases in 2018. Yet, if inflationary pressures do not surface, we believe economic growth should withstand a more gradually restrictive monetary policy.

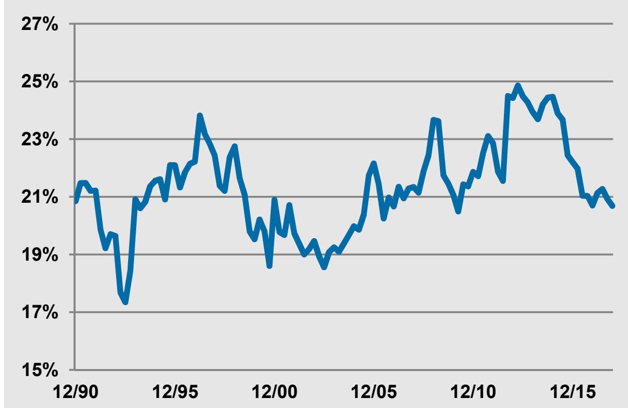
As we have written in previous editions, the key issue is the speed and magnitude of the rate hikes in relation to the strength of the economic expansion. Stronger-than-expected economic growth could induce the Fed to accelerate the rate of interest rate increases, which eventually would kill the expansion and trigger an economic contraction.

However, given the differential trends in growth and inflation, global monetary policy and rates look set to diverge. Figure 4 summarizes how far central banks are from full capacity (horizontal axis) and their inflation goals (vertical axis). A number of central banks are already faced with labor market overheating, including the Fed, Bank of England, Bank of China, Riksbank and Reserve Bank of New Zealand. However, the European Central Bank and Bank of Japan remain far away from full employment and price stability.

Fundamentals and Valuation

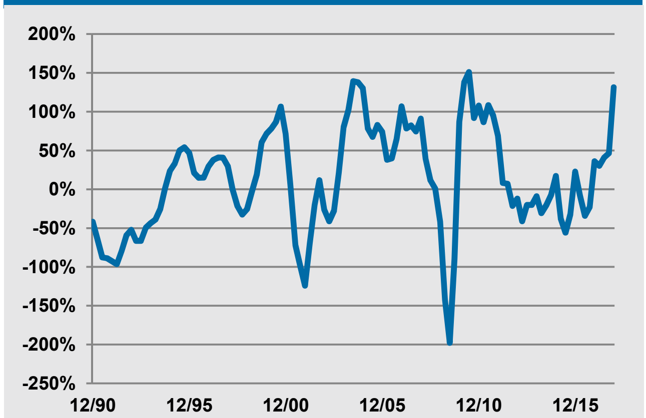
Figure 6 displays the trend of the net revisions to one-year forward EPS estimates for the S&P 500. As street analysts have become more optimistic about companies' future prospects, the index has reached a record level only achieved three times since 1990. Figure 7 reports projected annual growth of EPS and price-to-earnings ratios by sector for the S&P 500 universe. For 2018, analysts project EPS growth of 13%. These projections appear too aggressive to us, particularly in light of the recent declining trend in aggregate return on invested capital ("ROIC") as depicted in Figure 8. Such optimistic earnings growth expectations coupled with a forward P/E ratio of almost 19 times, represent a risk to the market, as even a small growth disappointment could trigger a significant market correction. And with a business cycle nearing its peak and higher interest rates on tighter monetary policy, such a risk is a real possibility for which investors should prepare.

Figure 8: Aggregate Pre-tax ROIC For S&P 500



Source: FactSet

Figure 6: Earnings Revisions Diffusion Index



Source: FactSet

Figure 7: Based on 2018 Operating EPS Estimates

	P/E Ratio	Projected Annual Growth (%)
S&P 500 Index	18.57	12.95
Consumer Discretionary	21.57	18.60
Consumer Staples	19.50	9.09
Energy	25.57	24.81
Financials	14.30	11.26
Health Care	17.10	10.54
Industrials	19.86	10.92
Information Technology	19.32	13.97
Materials	19.19	12.97
Real Estate	12.56	8.91
Telecommunication Services	16.79	2.76
Utilities	38.09	5.38

Source: S&P, Dow Jones

Alpha Quant Strategies

Alpha Quant Advisors offers an array of equity strategies with different sensitivity to economic conditions and appropriate for distinct risk profiles.

The next page depicts the range of Alpha Quant Equity Strategies – what we call the Equity Strategy Spectrum.

The strategies on the far left are built to be less sensitive to economic conditions (or "defensive"). As you move to the right, both volatility and the strategies' sensitivity to market conditions increases.

Each strategy has a well-defined sector composition and is driven by a distinct set of "alpha-factors" – fundamentals and valuation metrics, which have historically been associated with future excess returns.

Investors with a long-term investment horizon and an aggressive risk profile could benefit from exposure to our Cyclical Growth and Cyclical Value Equity Strategies. Risk-averse investors should stick with more conservative equity strategies such as our Dividend and Defensive Equity Strategies. For investors seeking a solid core allocation to be maintained throughout various market conditions, we believe our Core Equity strategy is appropriate.

Less Sensitive — Equity Market Sensitivity — **More Sensitive**

Defensive Value	Defensive Growth	Dividend	Quality	Core	Value	Cyclical Growth	Cyclical Value
Focused strategy of 30 non-cyclical stocks with attractive valuations	Focused strategy of 30 non-cyclical stocks with above-average earnings momentum	Focused portfolio of 30 stocks with strong dividend persistence, broadly diversified across sectors	Focused portfolio of 30 high-quality large- to mid-cap stocks with strong profitability and lower leverage at reasonable valuations	Diversified portfolio of 50 to 60 stocks across Quality and Value strategies	Focused portfolio of 30 attractively valued large- and mid-cap stocks with high free cash flow, lower leverage and lower valuations	Focused strategy of 30 cyclical stocks with above-average earnings momentum	Focused strategy of 30 cyclical stocks with attractive valuations
Aims to outperform the market during periods of economic contraction and recession		Aims for high risk-adjusted returns by emphasizing dividend growth potential	Aims to outperform over a full market cycle	Aims for a more consistent return pattern	Aims to exploit investors' short-term biases and under-appreciation of cash flow trends	Aims to outperform the market during periods of economic recovery and expansion	
Composite Inception Date							
8/1/2013	8/1/2013	1/1/2012	1/1/2012	1/1/2012	1/1/2012	2/1/2015	2/1/2015
SmartALPHA® Index Start Date*							
7/1/2012	7/1/2012	—	—	—	—	7/1/2012	7/1/2012

Massimo Santicchia is a co-founder and chief investment officer of Alpha Quant Advisors, LLC. Mr. Santicchia develops and manages equity strategies and funds and oversees all aspects of Alpha Quant's investment process. Previously, he also served as chief investment officer of Cypress Capital Group and Cypress Trust Co. He has more than 18 years of investment experience, including at S&P Investment Advisory Services LLC as developer and portfolio manager of the four JNL/S&P funds. He also co-managed the JNL/S&P Managed and Disciplined funds. Prior positions include: consultant with the investment banking divisions of Goldman Sachs and Credit Suisse First Boston and international equity analyst at Nicholas-Applegate Capital Management. Mr. Santicchia holds a B.A. in Economics and Political Science from the University of Perugia, Italy; an MBA from the U.S. International University, San Diego; and an M.S., Investment Management, from Pace University, New York.

Important Notes

The analysis, tables and charts presented herein are based on the most recent data available as of December 2017.

Any opinions herein, including forecasts, reflect our judgment as of the reporting period and are subject to change. The Alpha Quant strategies and each client's portfolio composition will change depending on economic and market conditions. This report is not a complete analysis of market conditions and therefore, should not be relied upon as investment advice. Although information has been compiled from reliable sources, Alpha Quant Advisors, LLC makes no representation as to the completeness or accuracy of the statements contained herein.