

Global Stocks, Bonds, and Consumers Leading Indicators (SBCLI©)

Tables, Charts, and Commentary for 17 Trillion Dollar Economies

2018 Mid-year Review and Outlook

SBCLIs drop sharply in most countries.

Trade wars and tariffs reduce global growth.

Douglas T. Breeden*

June 19, 2018

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*I thank Song Xiao and Shijie Luo of Duke for excellent research assistance. This research began in 2011-2013 at MIT Sloan with the academic paper entitled "Consumption As A Leading Indicator," followed by the applied paper "A Stocks, Bonds, Consumers Leading Indicator," which can be found at dougbreeden.net. My Duke article on "Consumer Signals" was published in the Journal of Asset Management, July 2016.

Summary of Breeden's Stocks, Bonds, and Consumers

Leading Indicators (SBCLI©) in June, 2018

- *Growth in 2017 and the first half of 2018 has been solid (and often above trend) in most advanced economies, as forecasted by prior letters' positive SBCLI readings. Unemployment rates are at very low levels in the USA, Germany, the UK, and Japan, with the USA's 3.8% the lowest in almost 50 years. Given this strength, the Federal Reserve has increased Tbill rates to 2.0%. The ECB has just stated that it will eliminate bond purchases (QE) by yearend 2018, though they plan to keep rates at zero at least until summer 2019.*
- *However, stock and bond markets and consumers are increasingly concerned, and SBCLI readings in 2018-H1 have fallen significantly. While SBCLI from the last 4 quarters of data is still positive in the USA, indicating above-trend growth at present, the latest (2-quarter) SBCLI readings are significantly in negative territory in the USA for the first time in 7 years. President Trump's trade wars with China and the world are causing growing concerns for future below-trend growth.*
- *In the first half of 2018, negative SBCLI readings in the USA , Germany, France and Japan have been caused by stock prices having topped out, term structure slopes becoming increasingly flat (long rates less above short rates than normal), and consumer spending that, while solid, is not so high relative to record levels of wealth. Italy's divided government and anti-Euro sentiment causes concerns in the Eurozone, as does Chancellor Merkel's weakened support in Germany, given fallout from massive immigration.*
- *Emerging markets have been hit even harder as USA interest rates have increased, with stock prices in Brazil, Mexico, Russia, Turkey, China and Indonesia down sharply. Sovereign credit spreads in emerging markets and Italy have increased sharply, confirming concerns (except in China, now a safe haven?).*

Last 4 Quarters Real GDP Growth (%)

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	USA	Canada	Brazil	Mexico	France	Germany	Italy	Spain	United Kingdom	Russia	Turkey	Japan	Australia	S. Korea	China*	India	Indonesia
2006-Q4	2.4	1.5	4.8	3.3	2.6	4.9	2.6	4.1	0.9	8.5	5.8	1.5	3.1	4.7	12.8	9.8	5.9
2007-Q4	1.9	2.2	6.6	2.5	2.2	2.3	-0.1	3.6	3.1	8.8	5.0	0.9	3.7	6.5	13.9	9.0	5.7
2008-Q4	-2.8	0.1	1.0	-0.8	-1.8	-1.7	-3.5	-1.3	-4.1	-1.7	-6.2	-3.7	1.6	-1.6	7.3	0.4	5.7
2009-Q4	-0.2	-1.8	5.3	-1.8	-0.9	-3.0	-2.6	-2.9	-1.4	-2.9	2.9	-1.5	2.6	4.9	11.6	13.2	5.5
2010-Q4	2.7	3.6	5.7	3.9	2.3	4.5	2.2	0.5	2.0	4.7	9.8	3.2	2.8	6.1	9.9	10.5	6.4
2011-Q4	1.7	3.1	2.6	3.9	1.6	2.4	-1.1	-1.8	1.3	3.3	10.0	0.2	3.3	2.9	8.7	3.8	5.9
2012-Q4	1.3	0.7	2.6	3.0	0.1	0.2	-2.8	-3.5	1.5	1.7	4.3	0.3	3.0	2.1	8.0	5.0	5.8
2013-Q4	2.7	3.6	2.6	1.2	1.1	1.6	-0.8	-0.2	2.6	2.3	6.8	2.8	2.4	3.5	7.6	6.0	5.5
2014-Q4	2.7	2.5	-0.1	3.4	0.9	1.9	0.2	2.2	3.3	0.2	5.7	-0.3	2.2	2.8	7.1	7.5	5.0
2015-Q4	2.0	0.3	-5.5	2.8	1.0	1.3	1.2	3.8	2.1	-2.7	7.1	1.2	2.7	3.2	6.8	9.4	5.1
2016-Q4	1.8	2.0	-2.4	3.3	1.2	1.9	1.0	3.0	2.0	0.5	3.9	1.5	2.5	2.6	6.8	6.0	4.9
2017-Q4	2.6	3.0	2.2	1.6	2.8	2.9	1.6	3.1	1.4	0.9	7.1	2.0	2.4	2.8	6.8	7.7	5.2
2018-Q1	2.8	2.3	1.6	2.3	2.2	2.3	1.4	3.0	1.2	1.2	9.4	1.1	3.0	2.8	6.8	7.7	5.1

Trend Real GDP Growth (%) - Last 8 Years

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	USA	Canada	Brazil	Mexico	France	Germany	Italy	Spain	United Kingdom	Russia	Turkey	Japan	Australia	S. Korea	China*	India	Indonesia
2006-Q4	2.9	3.1	3.2	2.5	2.2	1.7	1.7	3.9	2.8	7.6	5.1	1.3	3.3	6.1	11.6	7.2	5.4
2007-Q4	2.5	2.7	3.8	2.3	2.0	1.6	1.3	3.7	2.7	7.2	5.8	1.5	3.3	5.2	13.0	7.2	5.3
2008-Q4	1.8	2.2	3.4	1.8	1.4	1.1	0.4	2.9	1.9	6.0	4.3	0.6	3.3	4.3	11.4	7.1	5.1
2009-Q4	1.7	1.8	4.1	1.8	1.1	0.6	0.1	2.1	1.4	5.1	5.9	0.6	3.1	4.2	11.0	8.0	5.5
2010-Q4	1.8	1.8	4.2	2.1	1.3	1.1	0.2	1.8	1.3	5.0	5.6	0.9	3.0	4.1	9.6	8.9	5.8
2011-Q4	1.5	2.0	4.4	2.4	1.3	1.5	0.1	1.2	1.0	4.4	6.0	0.6	2.9	4.0	10.1	8.3	5.9
2012-Q4	1.3	1.6	4.0	2.3	1.0	1.5	-0.4	0.4	1.0	3.9	5.5	0.6	2.9	3.9	8.8	7.8	5.7
2013-Q4	1.2	1.6	4.0	2.0	0.9	1.5	-0.7	-0.2	0.8	3.2	5.1	0.6	2.8	3.7	8.1	7.3	5.8
2014-Q4	1.3	1.8	3.4	2.0	0.7	1.1	-1.0	-0.4	1.1	2.2	5.2	0.4	2.7	3.4	7.6	7.0	5.7
2015-Q4	1.3	1.5	1.9	2.1	0.5	1.0	-0.9	-0.4	0.9	0.8	5.4	0.4	2.6	3.0	7.2	7.0	5.6
2016-Q4	1.9	1.8	1.4	2.6	0.9	1.4	-0.3	0.1	1.7	1.0	6.6	1.1	2.7	3.5	6.9	7.7	5.5
2017-Q4	2.2	2.4	1.0	2.9	1.4	2.1	0.2	0.9	2.0	1.4	7.1	1.4	2.7	3.3	6.8	7.0	5.5
2018-Q1	2.2	2.2	0.8	2.9	1.3	2.0	0.2	0.9	2.0	1.3	7.4	1.3	2.7	3.1	6.8	7.1	5.4

*Note: Trend growth for China uses only the last 3 years.

Last 4 Quarters Real GDP Growth Deviation from 8-Yr Trend (%)

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	USA	Canada	Brazil	Mexico	France	Germany	Italy	Spain	United Kingdom	Russia	Turkey	Japan	Australia	S. Korea	China*	India	Indonesia
2006-Q4	-0.5	-1.6	1.6	0.8	0.3	3.2	0.9	0.3	-1.9	0.8	0.7	0.2	-0.2	-1.4	1.2	2.6	0.5
2007-Q4	-0.6	-0.5	2.9	0.2	0.1	0.7	-1.4	-0.1	0.4	1.6	-0.8	-0.6	0.5	1.3	0.9	1.8	0.4
2008-Q4	-4.6	-2.1	-2.4	-2.5	-3.1	-2.8	-3.9	-4.2	-6.0	-7.7	-10.5	-4.3	-1.7	-5.9	-4.0	-6.7	0.6
2009-Q4	-2.0	-3.6	1.2	-3.6	-2.1	-3.6	-2.7	-5.0	-2.8	-8.1	-2.9	-2.1	-0.5	0.7	0.6	5.2	0.0
2010-Q4	0.9	1.8	1.5	1.8	1.0	3.4	1.9	-1.3	0.7	-0.2	4.2	2.4	-0.2	2.0	0.3	1.6	0.7
2011-Q4	0.2	1.1	-1.8	1.5	0.3	1.0	-1.2	-3.0	0.3	-1.2	4.0	-0.4	0.3	-1.0	-1.4	-4.5	0.0
2012-Q4	0.0	-0.9	-1.4	0.7	-0.9	-1.3	-2.4	-3.8	0.5	-2.2	-1.2	-0.2	0.0	-1.8	-0.9	-2.8	0.1
2013-Q4	1.4	1.9	-1.4	-0.9	0.2	0.1	-0.1	0.0	1.8	-1.0	1.6	2.2	-0.4	-0.2	-0.5	-1.3	-0.3
2014-Q4	1.4	0.8	-3.5	1.4	0.2	0.8	1.2	2.6	2.2	-2.0	0.5	-0.7	-0.5	-0.7	-0.4	0.5	-0.7
2015-Q4	0.7	-1.2	-7.4	0.7	0.5	0.3	2.0	4.2	1.2	-3.5	1.7	0.8	0.1	0.2	-0.4	2.3	-0.5
2016-Q4	0.0	0.2	-3.8	0.7	0.3	0.4	1.4	2.8	0.3	-0.5	-2.7	0.4	-0.2	-1.0	-0.1	-1.7	-0.6
2017-Q4	0.4	0.6	1.2	-1.3	1.5	0.8	1.4	2.2	-0.6	-0.4	0.0	0.5	-0.3	-0.5	0.0	0.7	-0.3
2018-Q1	0.6	0.1	0.7	-0.6	0.9	0.2	1.2	2.1	-0.8	0.0	2.0	-0.2	0.3	-0.3	0.0	0.6	-0.4

*Note: Trend growth for China uses only the last 3 years.

Unemployment rates in major economies such as the USA, Canada, Germany, Japan and the UK, are at very low levels, substantially off their peaks. Central banks are reducing stimulus and normalizing rates, or should be. Need to build dry powder in good times to have flexibility to stimulate in bad times.

Global Unemployment Rates

Douglas T. Breeden, Duke University

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	USA	Canada	Brazil	Mexico	France	Germany	Italy	Spain	UK	Russia	Turkey	Japan	Australia	S Korea	China	India	Indonesia
2006-Q4	4.4	6.1	0.0	3.8	8.3	10.1	6.5	8.3	5.5	6.8	8.8	4.0	4.5	3.4	4.1	0.0	0.0
2007-Q4	4.8	5.9	0.0	3.7	7.4	8.5	6.4	8.6	5.2	5.9	9.4	3.8	4.3	3.2	4.0	0.0	0.0
2008-Q4	6.9	6.6	0.0	4.5	7.7	7.6	6.9	13.8	6.4	7.2	11.4	4.1	4.4	3.3	4.1	0.0	0.0
2009-Q4	9.9	8.5	0.0	5.5	9.5	8.1	8.2	18.8	7.8	8.1	12.3	5.2	5.6	3.6	4.3	0.0	0.0
2010-Q4	9.5	7.7	0.0	5.5	9.2	7.4	8.3	20.2	7.9	6.9	10.4	5.0	5.1	3.5	4.1	0.0	0.0
2011-Q4	8.6	7.4	0.0	5.0	9.3	6.8	9.1	22.6	8.4	6.3	8.5	4.5	5.2	3.2	4.1	0.0	0.0
2012-Q4	7.8	7.3	7.3	5.1	10.1	6.8	11.4	25.9	7.8	5.1	8.6	4.2	5.4	3.1	4.1	0.0	0.0
2013-Q4	6.9	7.1	6.9	4.7	10.1	6.8	12.3	25.8	7.2	5.5	9.1	3.9	5.8	3.1	4.0	0.0	0.0
2014-Q4	5.7	6.7	6.9	4.5	10.5	6.6	12.7	23.7	5.8	5.2	10.4	3.5	6.2	3.6	4.1	0.0	0.0
2015-Q4	5.0	7.1	9.5	4.3	10.2	6.3	11.6	20.9	5.1	5.7	10.3	3.3	5.8	3.5	4.1	0.0	0.0
2016-Q4	4.7	6.9	12.6	3.6	10.0	6.0	11.8	18.7	4.8	5.4	11.8	3.1	5.7	3.6	4.0	0.0	0.0
2017-Q4	4.1	6.0	12.0	3.4	9.1	5.8	11.1	16.6	4.2	4.9	10.1	2.7	5.5	3.7	4.0	0.0	0.0
2018-Apr/May	3.8	5.8	12.7	3.2	8.8	5.6	11.0	16.1	4.1	4.9	9.9	2.5	5.5	4.0	4.0	0.0	0.0

Country By Country SBCLI Scores Monthly From 2004 to June 2018

Do note that positive SBCLI predicts positive deviations of next 4 quarters GDP growth from long-term (10-year) trends. On average in developed markets, a 1 point SBCLI difference is 0.5% more or less real GDP growth. Negative SBCLI signals indicate below-trend growth.

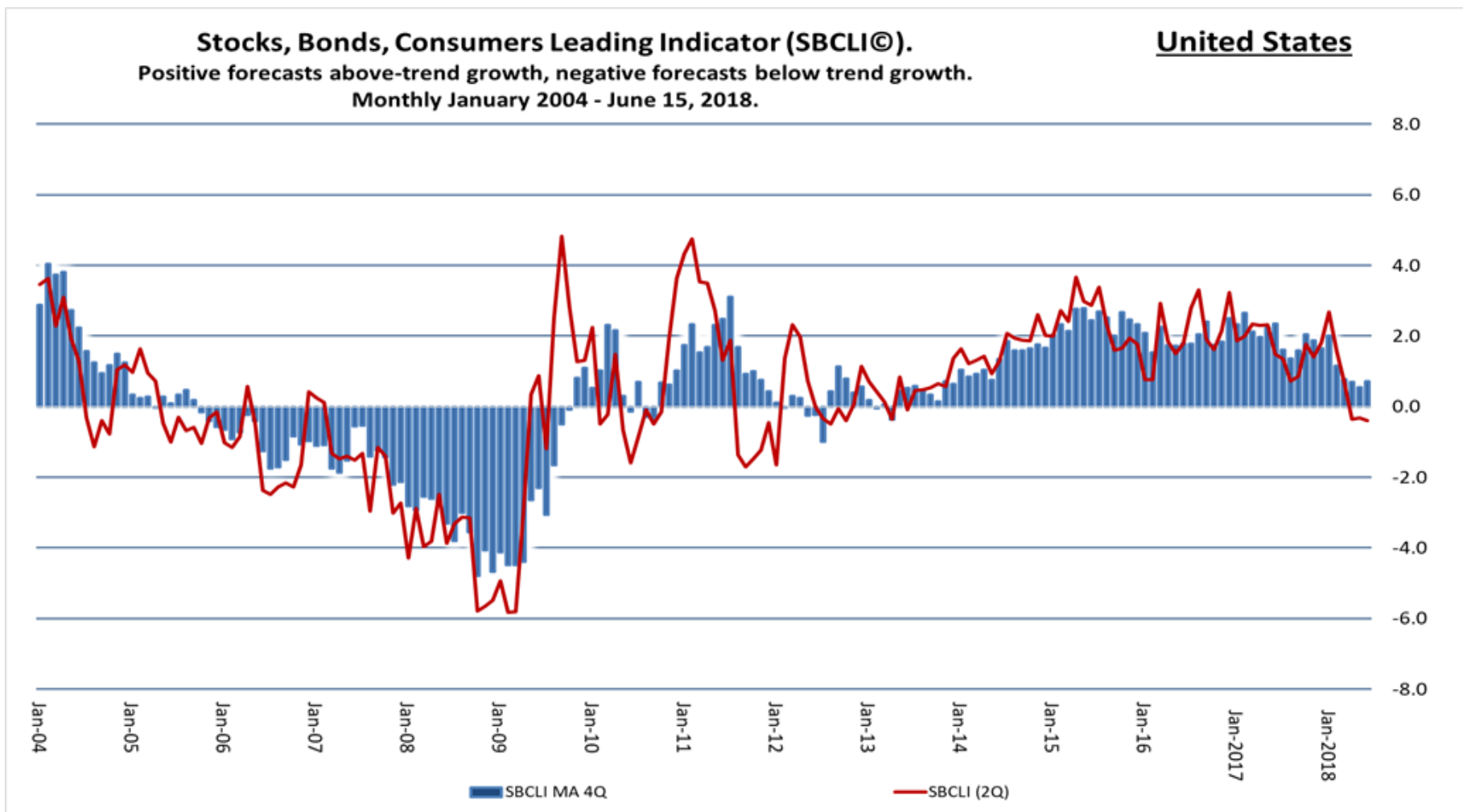
SBCLI also predicts changes in unemployment rates. A 1 point higher SBCLI portends about an 0.3% drop in the unemployment rate in the following 6 months.

Stock market, bond market and consumer spending component readings of SBCLI for 17 largest economies show significant drops due to stock price falls, wider EM credit spreads at June 15 2018.

Summary of Components of Breeden's Stocks, Bonds, Consumers Leading Indexes for 17 TDEs																			8 Yr Trend		
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SBCLI Weights			6/19/2018 7:08													GDP	RIGDP	Implied			
			Stock Market Z-Scores (x1)			Bond Market Z-Scores			Consumer Z-Scores			Total SBCLI (2Q)		Last 2Q	Last 4Q	Sensitivity	Trend*	GDP Growth			
S	B	C	Dec-2016	Dec-2017	Jun-2018	Dec-2016	Dec-2017	Jun-2018	Dec-2016	Dec-2017	Jun-2018	Dec-2016	Dec-2017	Jun-2018	Jun-2018	to SBCLI P	8 Yr, Pct	Forecast			
United States	2	1	1	0.6	0.9	-0.2	0.4	-0.4	-0.4	1.7	0.4	0.4	3.2	1.8	-0.4	0.7	0.50	2.2	2.6		
Canada	2	1	1	1.1	0.6	-0.3	-0.2	-0.6	-0.7	0.4	1.3	1.2	2.3	1.8	-0.2	0.8	0.41	2.2	2.6		
Brazil*	2	1	1	1.1	1.2	-0.6	0.2	0.8	0.1	-2.6	-0.4	-0.3	-0.2	2.9	-1.3	0.8	1.03	1.4	2.2		
Mexico	2	1	1	-0.5	-1.1	-0.7	0.1	-0.1	-0.5	0.5	0.4	0.4	-0.4	-1.8	-1.5	-1.7	0.42	2.9	2.2		
France	2	1	1	0.9	0.0	-0.1	-0.3	-0.4	-0.3	1.5	0.0	-0.1	3.0	-0.4	-0.4	-0.4	0.36	1.3	1.2		
Germany	2	1	1	0.8	0.1	-0.3	-0.5	-0.4	-0.4	0.7	0.0	-0.1	1.8	-0.2	-1.2	-0.7	0.66	2.0	1.6		
Italy	2	1	1	0.5	0.4	-0.3	-0.4	-0.3	-1.0	1.4	0.6	0.5	1.9	1.1	-1.2	0.0	0.53	0.2	0.2		
Spain	2	1	1	0.4	-0.6	-0.5	-0.1	-0.1	0.1	1.6	0.6	0.8	2.5	-0.7	-0.2	-0.4	0.91	0.9	0.5		
United Kingdom	2	1	1	1.2	-0.3	-0.1	0.2	0.0	0.0	0.9	-0.2	0.0	3.5	-0.8	-0.1	-0.5	0.46	2.0	1.8		
Russia	2	1	1	0.9	1.1	0.2	-0.4	0.0	0.1	-0.9	0.3	0.3	0.6	2.6	0.7	1.6	1.62	1.3	4.0		
Turkey	2	1	1	-0.4	0.2	-1.7	0.1	-0.8	-1.1	-0.4	0.5	-1.2	-1.2	0.2	-5.6	-2.7	0.76	7.4	5.4		
Japan	2	1	1	1.4	0.9	-0.1	-1.2	-1.2	-1.2	0.0	-0.3	-0.3	1.6	0.4	-1.7	-0.7	0.34	1.3	1.1		
Australia	2	1	1	0.4	0.5	-0.1	0.9	0.7	0.7	0.2	0.1	0.2	1.9	1.8	0.8	1.3	0.29	2.7	3.1		
South Korea	2	1	1	0.0	0.3	-0.7	-0.5	-0.1	0.3	-0.3	-0.4	-0.1	-0.7	0.1	-1.3	-0.6	0.07	3.1	3.1		
China*	1	2	1	0.4	0.1	-0.7	0.2	0.1	0.5	0.6	-0.4	-0.3	1.3	-0.1	0.0	0.0	0.72	6.8	6.8		
India	2	1	1	-0.2	0.4	0.5	0.1	0.8	1.1	0.0	-0.3	-0.2	-0.2	1.4	2.0	1.7	0.34	7.1	7.6		
Indonesia	2	1	1	0.3	0.4	-0.6	0.5	1.0	1.3	-0.3	-0.6	-0.5	0.9	1.3	-0.4	0.4	0.40	5.4	5.6		
Averages				0.5	0.3	-0.4	0.0	0.0	-0.1	0.3	0.1	0.0	1.3	0.7	-0.7	0.0	0.58	3.0	3.0		

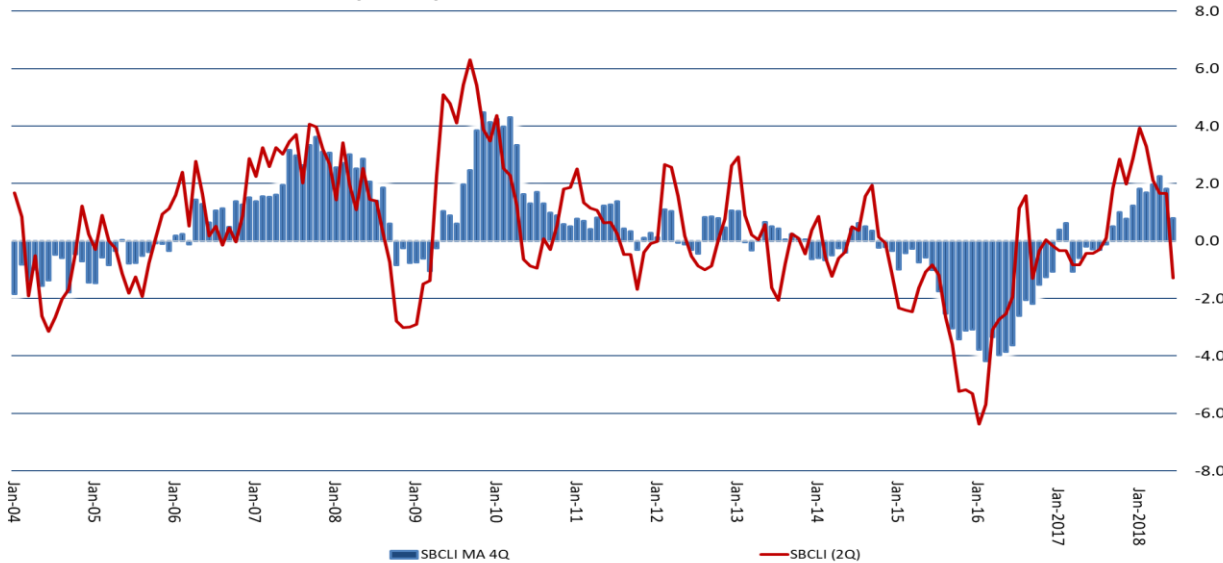
*China trend is 3 years, Brazil 10 years, and 8 years for other countries.

After 4 years of strong readings, SBCLI has fallen significantly in the USA and in several countries in the first half of 2018. Stocks topping out, flatter term structure, and reduced strength of consumer spending (relative to wealth) caused USA SBCLI to drop to negative. President Trump's aggressive trade war moves cause concerns.



Stocks, Bonds, Consumers Leading Indicator (SBCLI®).
Positive forecasts above-trend growth, negative forecasts below trend growth.
Monthly January 2004 - June 15, 2018.

Brazil



Brazilian stocks have fallen sharply and its sovereign credit spread has widened, leading its SBCLI back into negative territory. President Temer's needed structural reforms are quite unpopular. Unemployment has started to rise again.

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Mexico



After doing quite well for 7 years after the Great Recession, Mexico's SBCLI has fallen significantly negative. Trade issues are weighing on the economy, given Trump's NAFTA renegotiation and tariffs. Stocks have fallen, and credit spreads have widened, pushing SBCLI negative, despite solid consumer spending.

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Canada

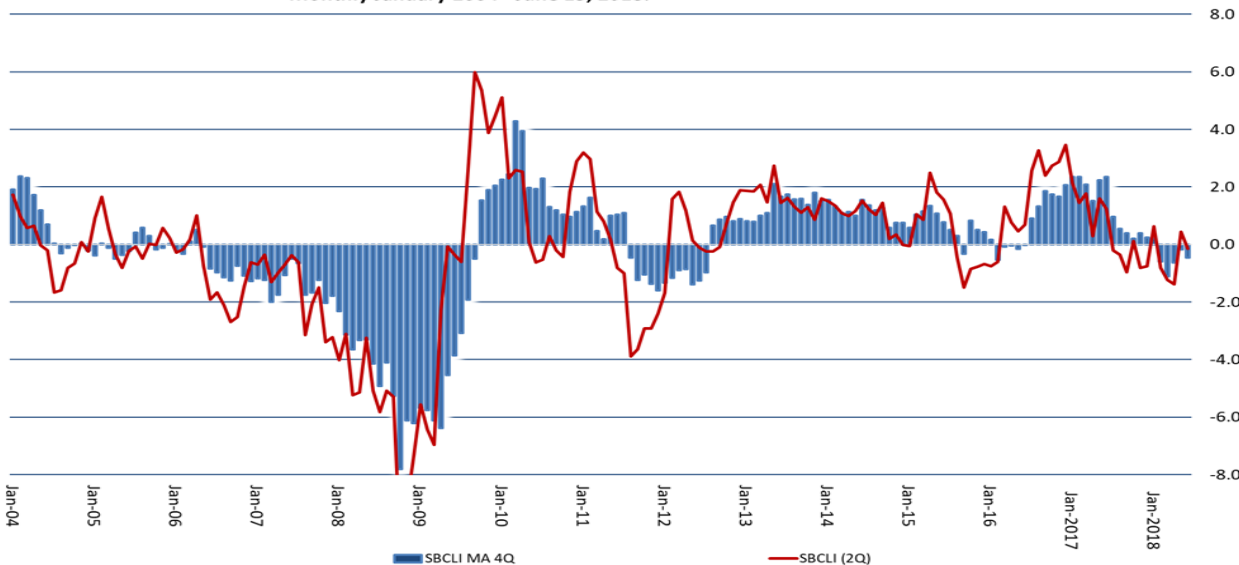


Canada has done relatively well in the past 2 years and recently, with consumer spending leading the way and offsetting recent negative readings from stock and bond markets. USA trade spat concerns.

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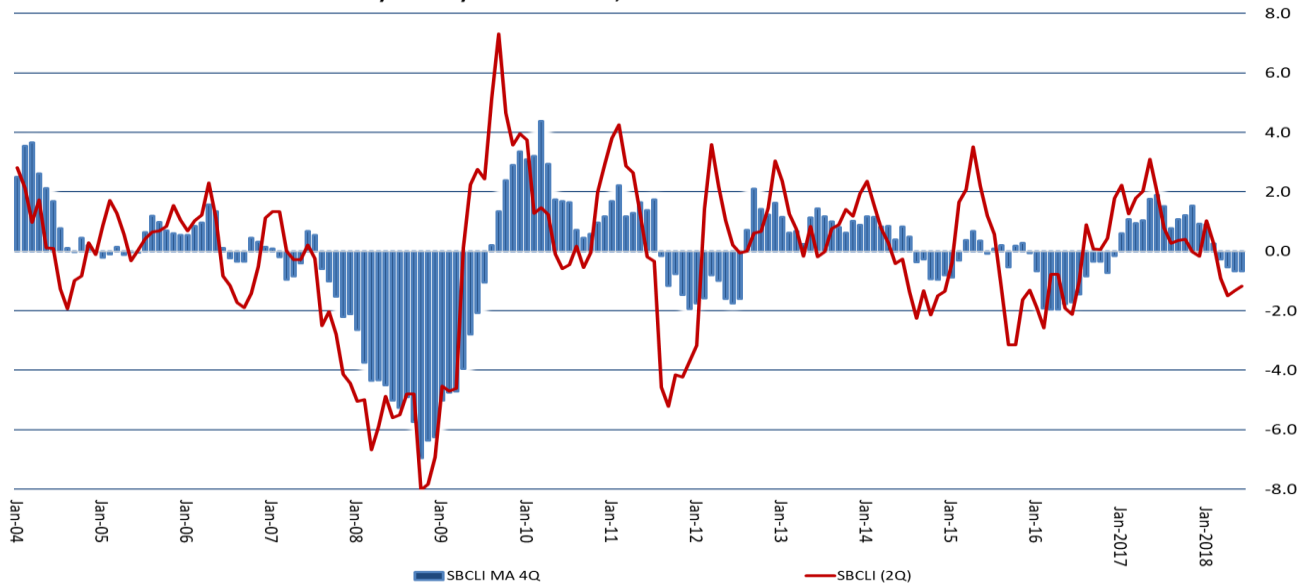
United Kingdom



Brexit worries continue to weigh on UK performance. But stock prices remain strong and consumer spending is as expected, so SBCLI is not as negative as we might expect, given difficult Brexit issues. Unemployment is very low.

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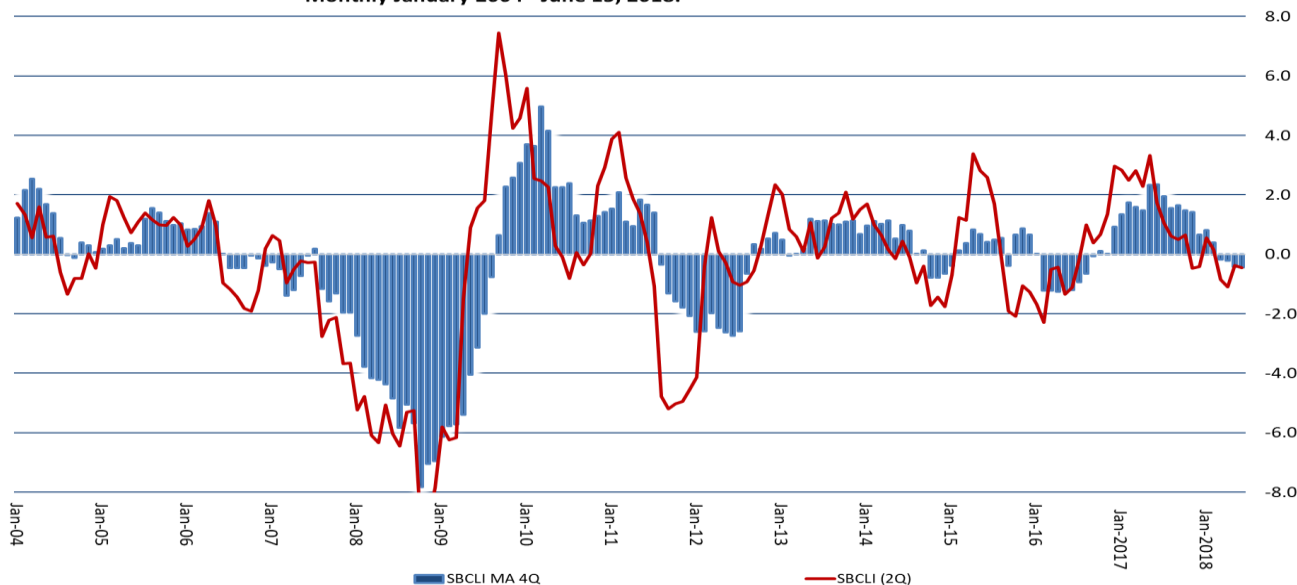
Germany



Germany has very low unemployment and a sound economy. SBCLI moves have been muted and slightly negative due to lower stock prices and a flatter slope. Consumers are cautious in Germany.

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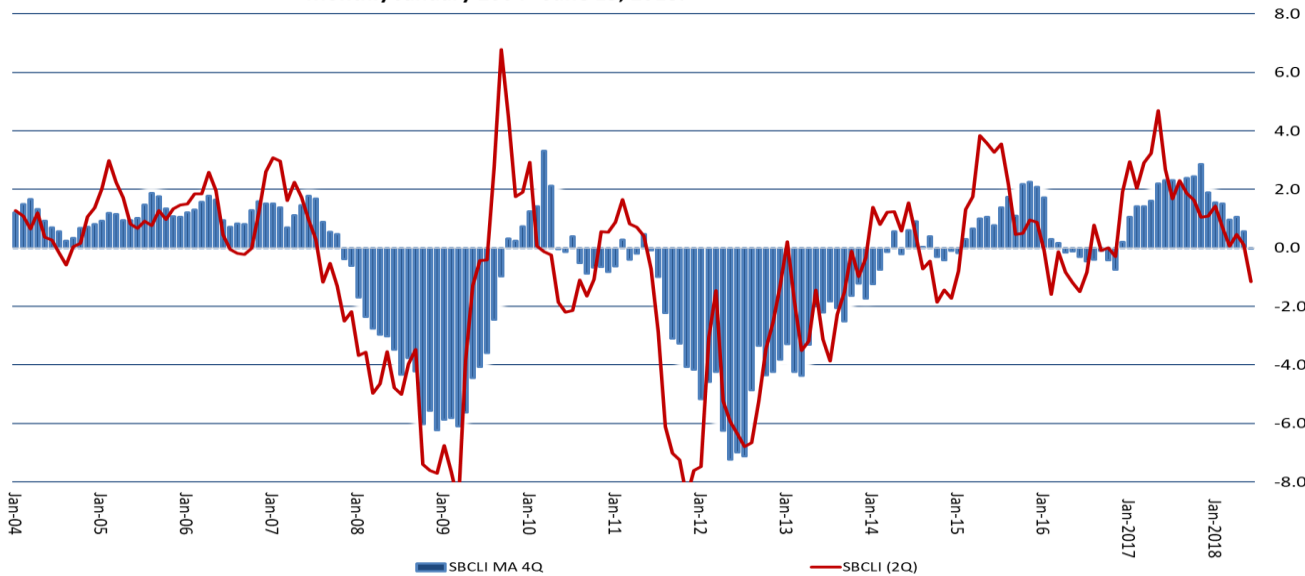
France



France's SBCLI has dropped slightly negative, given global trends in stocks and bonds. But France's economy has strengthened due to important structural reforms introduced by President Macron. Unemployment is finally dropping.

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 Positive forecasts above-trend growth, negative forecasts below trend growth.
 Monthly January 2004 - June 15, 2018.

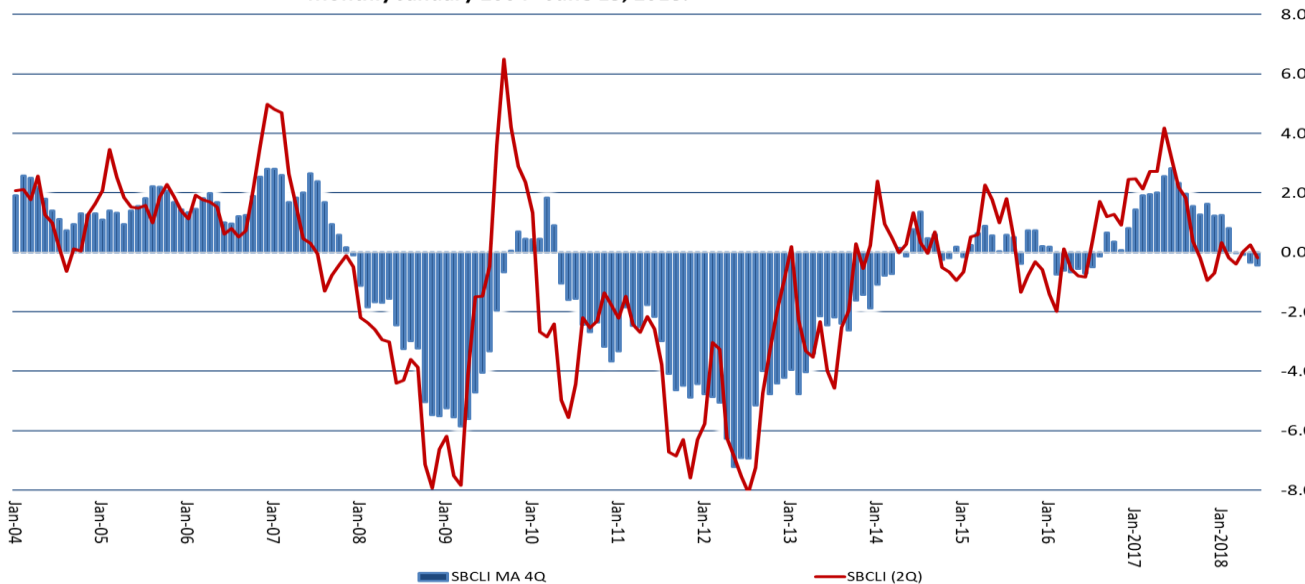
Italy



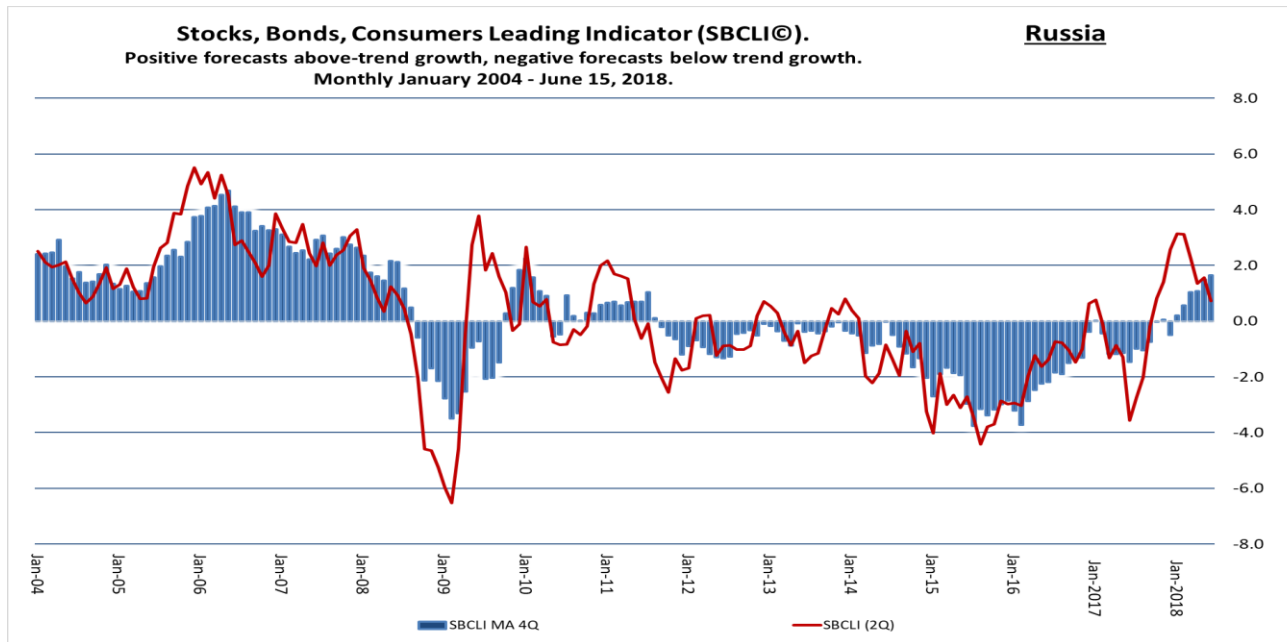
Italy had been doing well, but stock prices fell sharply and sovereign credit spreads widened sharply taking SBCLI negative, with the new populist, anti-EU coalition government. Consumer spending remains solid in Italy.

Stocks, Bonds, Consumers Leading Indicator (SBCLI©).
 Positive forecasts above-trend growth, negative forecasts below trend growth.
 Monthly January 2004 - June 15, 2018.

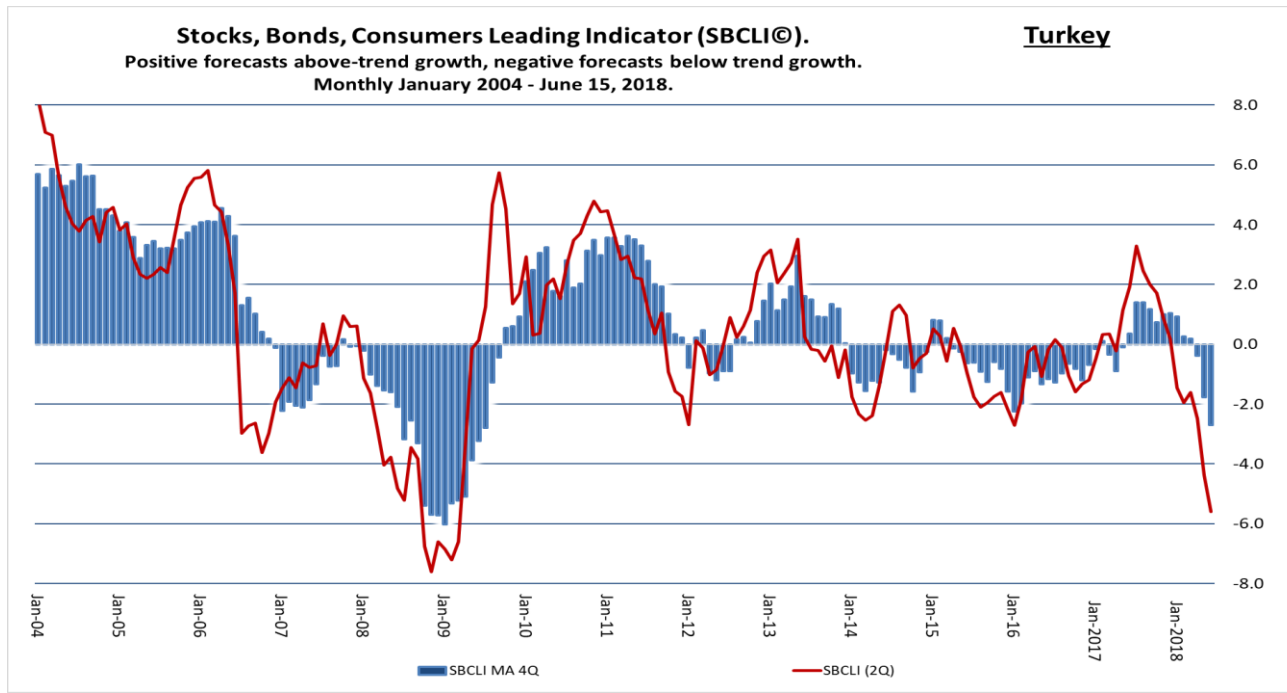
Spain



Spain's recovery continues from a Great Depression level of unemployment in the Sovereign Debt Crisis. Unemployment has dropped from 26% to 16%. SBCLI has weakened recently with global forces, but economy is good.



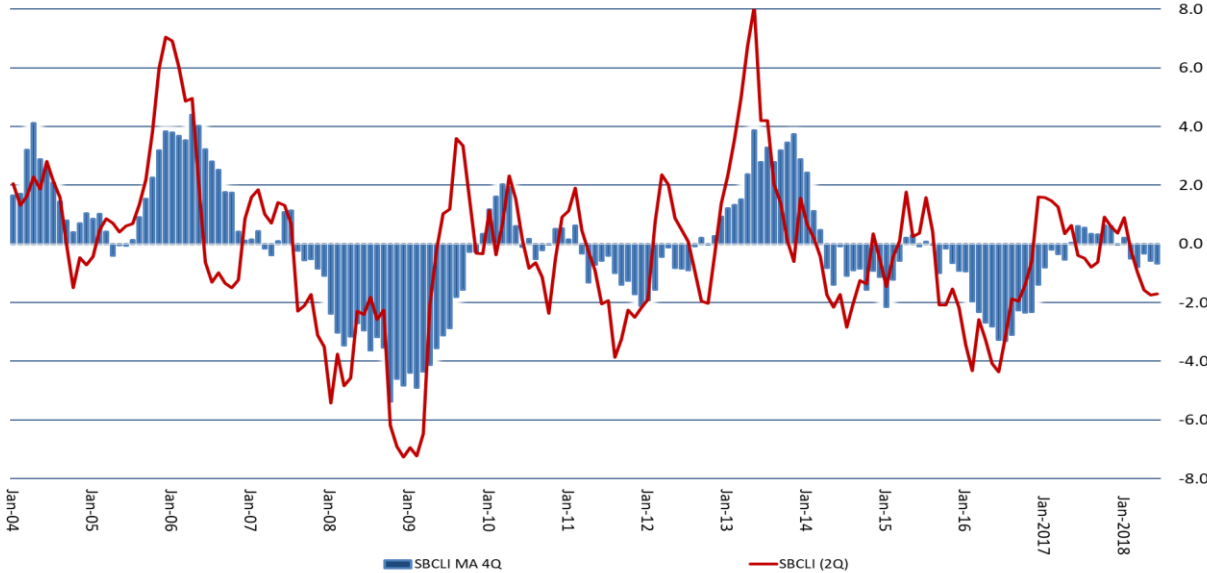
In Russia, stock prices are now 13% off their January high, after large gains. Credit spreads had narrowed, but recently widened, given Trump's trade tariffs and US 2016 election investigations. Consumer signals are positive, so Russia SBCLI is positive for growth.



Turkey has plunged in the first half of 2018, with stocks off 22% from their January high. Political turmoil is very high and sovereign credit spreads have widened sharply, as bond investors worry. SBCLI is negative, auguring slower growth.

Stocks, Bonds, Consumers Leading Indicator (SBCLI©).
 Positive forecasts above-trend growth, negative forecasts below trend growth.
 Monthly January 2004 - June 15, 2018.

Japan



Japan's SBCLI is slightly negative, but is deceptive. The stock market signal has shrunk from strong positive to neutral, and consumers continue to be cautious. The negative signal is primarily due to poor policies by the Bank of Japan, which is holding down long-term rates, despite super-low unemployment of 2.5%.

Stocks, Bonds, Consumers Leading Indicator (SBCLI©).
 Positive forecasts above-trend growth, negative forecasts below trend growth.
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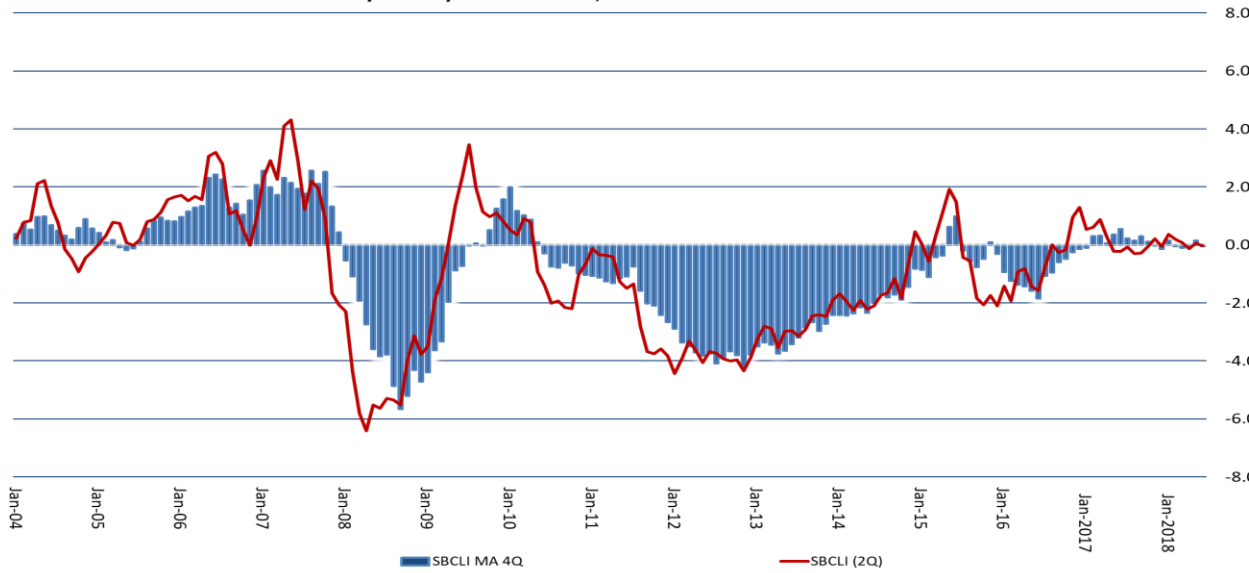
Australia



Australia continues its long-term stellar performance. Stocks are doing well (1% **above** January 2018), and consumers are spending a bit better than expected, given strong stocks. Steep term structure slope is a strong positive signal.

Stocks, Bonds, Consumers Leading Indicator (SBCLI©).
 Positive forecasts above-trend growth, negative forecasts below trend growth.
 Monthly January 2004 - June 15, 2018.

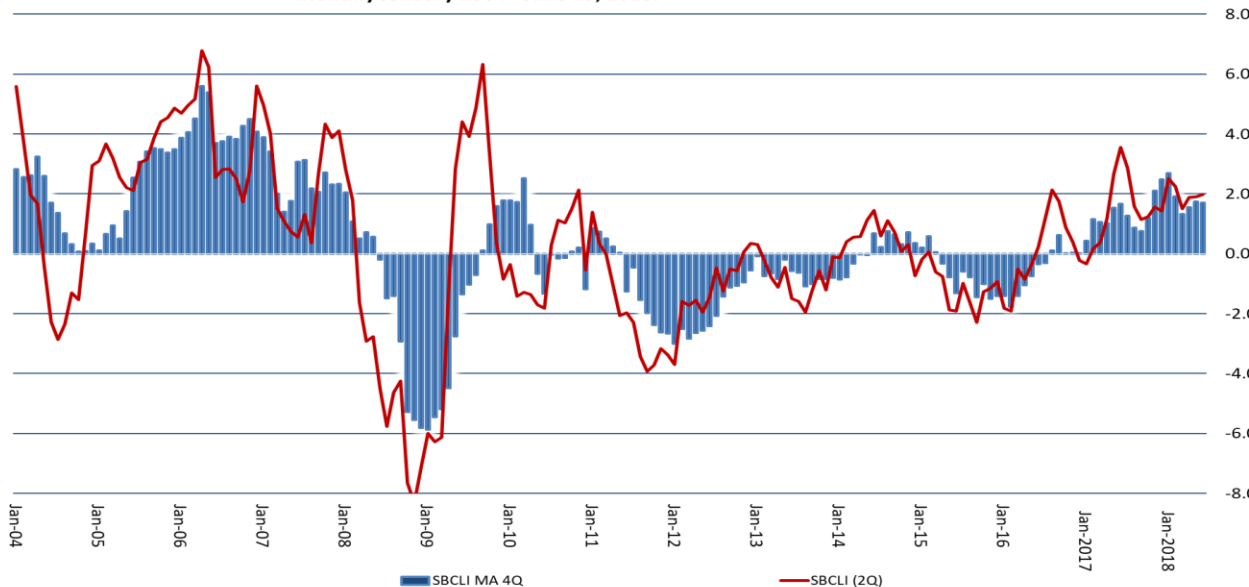
China



China’s SBCLI remains in a neutral, trend position, with growth at 6.8%. Stocks dropped 15% from their January high, and consumer spending is weaker than projected, but China’s sovereign credit spread narrowed. Is it becoming a “safe haven” as they are more steady and statesmanlike than the USA?

Stocks, Bonds, Consumers Leading Indicator (SBCLI©).
 Positive forecasts above-trend growth, negative forecasts below trend growth.
 Monthly January 2004 - June 15, 2018.

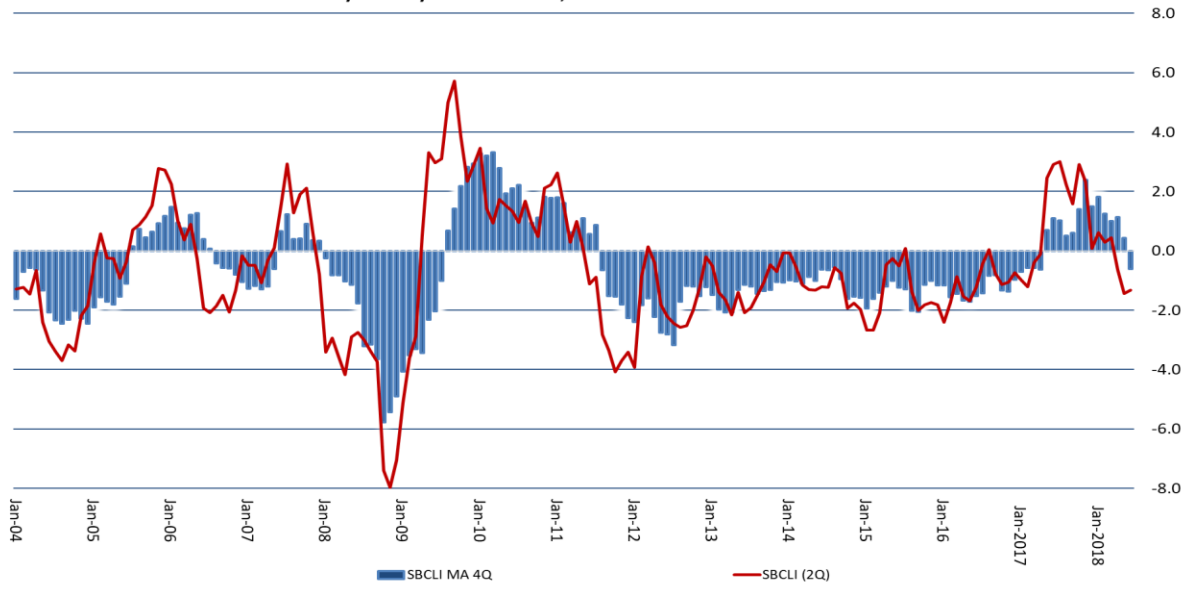
India



India’s economic performance is very strong, with 7.7% real growth, and SBCLI is highest of all 17 TDEs. Stocks are just 1% off their January highs, and credit spreads are narrow, though a bit wider recently. Consumers remain cautious.

Stocks, Bonds, Consumers Leading Indicator (SBCLI©).
 Positive forecasts above-trend growth, negative forecasts below trend growth.
 Monthly January 2004 - June 15, 2018.

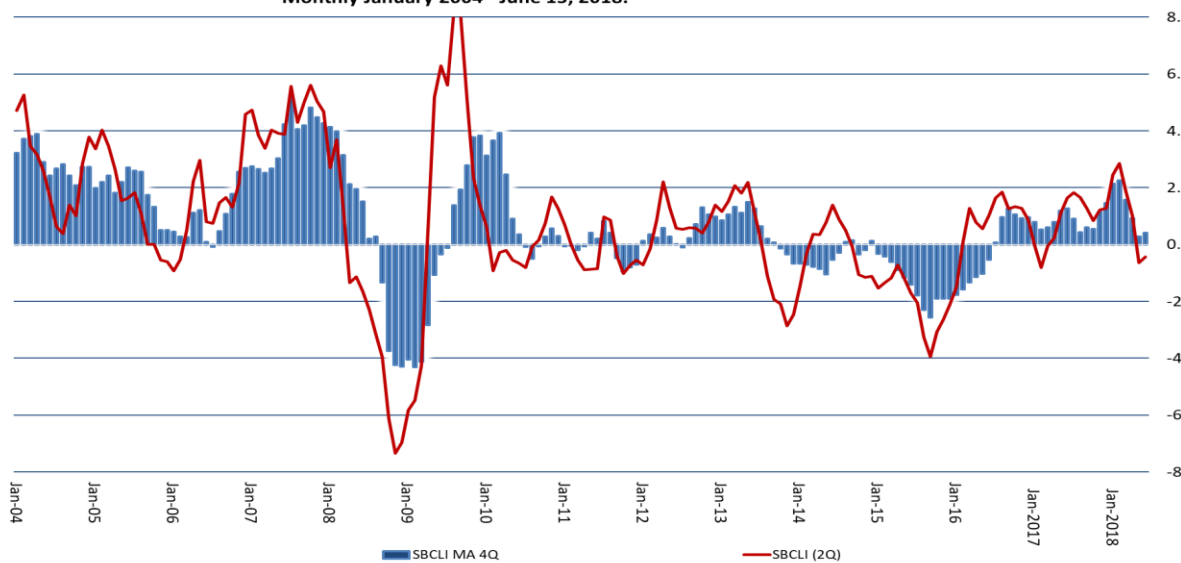
South Korea



South Korea's economy remains quite steady. Stock prices are down 3% YTD and 7% off highs, driving the slightly negative SBCLI. But consumer spending is as expected, and a positive term structure slope is bullish. USA/North Korea summitry likely is reducing tail risk.

Stocks, Bonds, Consumers Leading Indicator (SBCLI©).
 Positive forecasts above-trend growth, negative forecasts below trend growth.
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Indonesia



Indonesia's economy continues to produce steady, 5% real growth. But with political issues, stock prices are 10% off highs, driving a good SBCLI back to neutral. Sovereign credit spreads are narrow, a bullish sign, offsetting stocks and cautious consumer spending growth.

Stocks: In the first half of 2018, stock prices have fluctuated a great deal, with India, the USA and France leading with 4%+ YTD gains. Biggest losers are emerging markets Turkey (-18%), China (-9%), Brazil (-7%) and Indonesia (-6%). Domestic political issues are often significant, and USA interest rate increases and trade war issues are viewed as negatives for the trade-dependent emerging markets, too.

Global Stock Market Performance to June 2018: Developed Economies Strong, Emerging Markets Hurt

6/17/2018 18:47

Douglas T. Breeden, Duke University and Amundi Pioneer Consultant

Major Stock Price Indexes		Americas				Europe							AustralAsia					UK FTSE250		
		United States	Canada	Brazil	Mexico	France	Germany	Italy	Spain	United Kingdom	Russia	Turkey	Japan	Australia	S.Korea	China	India	Indonesia	United Kingdom	
Year End 2015	12/31/2015	2,044	13,010	43,350	42,978	4,637	10,743	21,418	9,544	6,242	757	71,727	19,034	5,296	1,961	3,539	26,118	4,593	17,122	
February 2016 Low	2/11/2016	1,829	12,087	39,318	42,359	3,897	8,753	15,773	7,746	5,537	671	70,942	14,953	4,765	1,835	2,746	22,952	4,714	15,179	
Brexit Voting Day Jun 23 2016	6/23/2016	2,113	14,131	51,560	46,146	4,466	10,257	17,966	8,885	6,338	941	77,990	16,238	5,281	1,987	2,892	27,002	4,874	17,334	
Post-Brexit Low 6/27/2016	6/27/2016	2,001	13,690	49,246	44,282	3,985	9,269	15,104	7,646	5,982	889	75,161	15,309	5,137	1,927	2,896	26,403	4,836	14,968	
Year End 2016: Trump elected	12/30/2016	2,239	15,288	60,227	45,643	4,862	11,481	19,235	9,352	7,143	1,152	78,139	19,114	5,666	2,026	3,104	26,626	5,297	18,077	
Year End 2017: Global Strength	12/29/2017	2,674	16,209	76,402	49,354	5,313	12,918	21,853	10,044	7,688	1,154	115,333	22,765	6,065	2,467	3,307	34,057	6,356	20,726	
Stock Market High, January 2018 YTD	1/26/2018	2,873	16,239	85,531	51,065	5,529	13,340	23,857	10,595	7,666	1,287	120,702	23,632	6,050	2,575	3,558	36,050	6,661	20,616	
Stock Correction. US Wage Inflation YTD	2/8/2018	2,581	15,066	81,533	47,862	5,152	12,260	22,467	9,756	7,171	1,211	114,264	21,891	5,891	2,408	3,262	34,413	6,545	19,328	
Recent Adv Stocks Back, EM Hurt YTD	6/15/2018	2,780	16,314	70,758	46,939	5,502	13,011	22,190	9,851	7,634	1,117	94,541	22,852	6,094	2,404	3,022	35,622	5,994	21,006	
Percentage Changes in Stock Prices from Prior Yearends																				
Brexit voting days vs 12/31/15	6/23/2016	3.4%	8.6%	18.9%	7.4%	-3.7%	-4.5%	-16.1%	-6.9%	1.5%	24.3%	8.7%	-14.7%	-0.3%	1.3%	-18.3%	3.4%	6.1%	1.2%	
PostBrexit Low	6/27/2016	-2.1%	5.2%	13.6%	3.0%	-14.1%	-13.7%	-29.5%	-19.9%	-4.2%	17.4%	4.8%	-19.6%	-3.0%	-1.8%	-18.2%	1.1%	5.3%	-12.6%	
Year End 2016: Trump elected	12/30/2016	9.5%	17.5%	38.9%	6.2%	4.9%	6.9%	-10.2%	-2.0%	14.4%	52.2%	8.9%	0.4%	7.0%	3.3%	-12.3%	1.9%	15.3%	5.6%	
Year End 2017: Global Strength	12/29/2017	19.4%	6.0%	26.9%	8.1%	9.3%	12.5%	13.6%	7.4%	7.6%	0.2%	47.6%	19.1%	7.0%	21.8%	6.6%	27.9%	20.0%	14.7%	
Stock Market High, January 2018 YTD	1/26/2018	7.5%	0.2%	11.9%	3.5%	4.1%	3.3%	9.2%	5.5%	-0.3%	11.5%	4.7%	3.8%	-0.2%	4.3%	7.6%	5.9%	4.8%	-0.5%	
Stock Correction. US Wage Inflation YTD	2/8/2018	-3.5%	-7.1%	6.7%	-3.0%	-3.0%	-5.1%	2.8%	-2.9%	-6.7%	4.9%	-0.9%	-3.8%	-2.9%	-2.4%	-1.4%	1.0%	3.0%	-6.7%	
Recent Adv Stocks Back, EM Hurt YTD	6/15/2018	4.0%	0.6%	-7.4%	-4.9%	3.6%	0.7%	1.5%	-1.9%	-0.7%	-3.2%	-18.0%	0.4%	0.5%	-2.6%	-8.6%	4.6%	-5.7%	1.3%	
Amount off Jan 26 2018 High	6/15/2018	-3.2%	0.5%	-17.3%	-8.1%	-0.5%	-2.5%	-7.0%	-7.0%	-0.4%	-13.2%	-21.7%	-3.3%	0.7%	-6.6%	-15.1%	-1.2%	-10.0%	1.9%	

Bonds: In the first half of 2018, term structure slopes first steepened, then flattened, ending generally flatter in the USA, France, and Germany, a bearish signal. In emerging markets, sovereign credit spreads have widened significantly in Brazil, Italy, Turkey and Indonesia, giving bearish signals. China's credit spread narrowed, as it has been a steady hand and may be viewed as a new safe haven and global leader, given US instability.

Global Bond Market Signals: Term Structure Slopes for Advanced Economies; Sovereign Credit Spreads for Emergings

6/17/2018 11:57

Douglas T. Breeden, Duke University and Amundi Pioneer Consultant

Country Slopes and Credit Spreads		Americas				Europe							AustralAsia					
		United States	Canada	Brazil	Mexico	France	Germany	Italy	Spain	United Kingdom	Russia	Turkey	Japan	Australia	South Korea	China	India	Indonesia
		Slope	Slope	Credit	Credit	Slope	Slope	Credit	Credit	Slope	Credit	Credit	Slope	Slope	Slope	Credit	Credit	Credit
Year End 2015	1/4/2016	2.08	0.91	14.16	3.99	1.39	1.15	0.98	1.15	1.37	7.35	8.54	0.28	0.78	0.54	0.61	5.40	2.41
February 2016 Low	2/11/2016	1.38	0.59	14.67	4.44	0.98	0.68	1.53	1.59	0.83	8.64	8.85	0.15	0.19	0.31	1.21	5.96	2.92
Brexit Voting Day Jun 23 2016	6/23/2016	1.46	0.78	10.68	4.31	0.97	0.70	1.30	1.37	0.93	6.81	7.50	0.10	0.48	0.18	1.18	5.68	2.10
Post-Brexit Low 6/27/2016	6/27/2016	1.19	0.60	10.81	4.56	0.83	0.55	1.62	1.57	0.59	7.09	7.89	0.05	0.30	0.03	1.40	5.97	2.39
Year End 2016: Trump elected	12/30/2016	1.95	1.27	8.93	4.97	1.59	1.19	1.61	1.18	1.42	5.92	8.64	0.46	0.60	0.23	0.59	4.07	1.88
Year End 2017: Global Strength	12/29/2017	1.02	0.99	7.83	5.24	1.56	1.20	1.58	1.14	0.83	5.08	8.94	0.20	0.98	0.80	1.48	4.92	1.17
Stock Market High, January 2018	1/26/2018	1.24	1.06	7.04	4.88	1.48	1.33	1.38	0.78	1.17	4.74	8.90	0.23	0.98	0.80	1.28	4.69	0.94
Stock Correction. US Wage Inflation.	2/8/2018	1.28	1.19	7.03	4.82	1.58	1.46	1.23	0.69	1.29	4.32	8.78	0.23	0.98	1.13	1.06	4.64	1.06
Most Recent: Adv Stocks Back, EM Hurt	6/15/2018	0.98	0.98	9.19	5.09	1.34	1.02	2.20	0.89	0.87	4.79	9.37	0.17	0.98	0.29	0.70	4.98	1.55
Changes in Bond Market Yield Spreads from Prior Yearends																		
Brexit voting day vs 12/31/15	6/23/2016	-0.62	-0.14	-3.48	0.32	-0.42	-0.45	0.32	0.22	-0.44	-0.54	-1.04	-0.18	-0.31	-0.36	0.57	0.28	-0.31
PostBrexit Low	6/27/2016	-0.89	-0.32	-3.36	0.58	-0.56	-0.61	0.64	0.42	-0.78	-0.26	-0.65	-0.23	-0.49	-0.51	0.79	0.56	-0.02
Year End 2016: Trump elected	12/30/2016	-0.13	0.36	-5.24	0.99	0.20	0.04	0.63	0.02	0.05	-1.43	0.10	0.18	-0.19	-0.31	-0.02	-1.34	-0.54
Year End 2017: Global Strength	12/29/2017	-0.92	-0.29	-1.10	0.26	-0.02	0.01	-0.03	-0.04	-0.60	-0.84	0.30	-0.26	0.38	0.57	0.89	0.85	-0.71
Stock Market High, January 2018	1/26/2018	0.22	0.08	-0.78	-0.36	-0.08	0.13	-0.21	-0.36	0.34	-0.34	-0.04	0.03	0.00	0.00	-0.20	-0.23	-0.23
Stock Correction. US Wage Inflation.	2/8/2018	0.26	0.21	-0.79	-0.42	0.01	0.25	-0.35	-0.45	0.46	-0.76	-0.16	0.04	0.00	0.33	-0.41	-0.27	-0.11
Most Recent: Adv Stocks Back, EM Hurt	6/15/2018	-0.04	-0.01	1.36	-0.15	-0.23	-0.18	0.62	-0.24	0.04	-0.29	0.43	-0.03	0.00	-0.51	-0.77	0.07	0.39
Change from Jan 26 2018 High	6/15/2018	-0.26	-0.08	2.15	0.22	-0.15	-0.31	0.83	0.11	-0.30	0.05	0.47	-0.06	0.00	-0.51	-0.58	0.29	0.62

Consumer: Consumer signals are spending deviations from wealth effects. Most are nearly neutral at present, with a strong Canada being a positive exception. Spending growth is strong, but so is wealth, giving many neutral readings. Turkey's and Indonesia's consumers are relatively negative, given substantial political uncertainties in those countries. Perhaps surprisingly, Italy and Spain's consumer signals are good thru Q1 2018, despite the worries about Southern Europe.

Consumer Signals (Z)																	
	United States	Canada	Brazil	Mexico	France	Germany	Italy	Spain	United Kingdom	Russia	Turkey	Japan	Australia	South Korea	China	India	Indonesia
Z Multiplier	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2013-Q1	-1.5	0.1	0.4	-0.4	-1.2	-0.6	-1.7	-2.0	0.0	0.2	-0.3	-0.2	-0.9	-0.5	-0.4	-0.3	-0.1
2013-Q2	-1.9	0.5	0.6	0.0	-1.4	-0.9	-1.8	-2.1	-0.2	0.2	0.0	-0.3	-1.2	-0.6	-0.5	-0.1	-0.3
2013-Q3	-1.3	0.9	0.8	0.0	-0.9	-0.5	-1.5	-1.7	0.1	0.2	0.6	0.1	-1.0	-0.5	-0.4	-0.1	-0.3
2013-Q4	-1.4	0.2	0.1	0.0	-0.9	-0.8	-1.2	-1.6	0.1	0.0	0.7	0.1	-0.6	-0.6	-0.3	-0.1	-0.3
2014-Q1	-0.7	-0.1	0.5	0.0	-0.8	-0.8	-0.6	-0.9	0.1	0.1	0.0	0.4	-0.4	-0.3	0.0	-0.1	0.0
2014-Q2	-0.2	-0.4	0.1	0.0	-1.0	-0.8	-0.2	-0.5	0.2	0.1	-0.7	-0.3	-0.3	-0.4	0.3	0.1	0.0
2014-Q3	0.6	-0.4	-1.0	0.1	-0.3	-0.9	0.1	0.0	0.5	0.0	-1.0	-1.5	-0.2	-0.7	0.2	-0.7	-0.2
2014-Q4	1.6	0.4	-0.3	0.1	-0.1	-0.4	0.3	0.1	0.5	0.0	-0.7	-1.3	-0.2	-0.7	-0.1	-0.8	-0.3
2015-Q1	2.2	0.6	-0.4	0.4	0.1	-0.2	0.5	0.3	0.4	-0.7	-0.2	-1.6	-0.4	-0.7	-0.6	-0.6	-0.7
2015-Q2	2.5	0.4	-1.4	0.1	0.4	-0.2	0.9	0.7	0.6	-1.5	0.4	-1.1	-0.3	-0.7	-1.2	-0.7	-0.7
2015-Q3	3.1	1.2	-1.7	0.3	0.2	-0.1	1.4	1.1	0.9	-1.8	0.0	0.1	-0.1	-0.4	-0.6	0.2	-0.4
2015-Q4	2.9	1.6	-2.1	0.8	0.1	-0.1	1.5	1.4	1.0	-2.0	-0.2	-0.1	0.0	-0.1	-0.4	0.5	-0.2
2016-Q1	3.0	2.0	-2.3	0.9	0.7	0.4	1.6	1.7	1.3	-1.6	-0.2	-0.1	0.3	0.1	0.2	0.3	0.0
2016-Q2	2.1	1.3	-2.7	0.6	1.3	0.5	1.4	1.7	1.1	-1.0	-0.2	0.0	0.3	0.0	0.5	0.3	-0.1
2016-Q3	1.4	0.3	-3.1	0.2	1.4	0.7	1.4	1.7	1.0	-0.9	-0.4	-0.1	0.3	0.0	0.5	0.3	-0.2
2016-Q4	1.7	0.4	-2.6	0.5	1.5	0.7	1.4	1.6	0.9	-0.9	-0.4	0.0	0.2	-0.3	0.6	0.0	-0.3
2017-Q1	0.9	0.3	-2.5	0.4	0.9	0.4	1.3	1.1	0.4	-0.7	-0.1	-0.1	0.0	-0.5	0.3	-0.3	-0.5
2017-Q2	1.0	1.1	-1.4	0.6	0.1	0.6	1.2	0.7	0.2	-0.1	-0.7	0.1	-0.1	-0.6	0.1	-0.1	-0.5
2017-Q3	0.6	1.6	-0.8	0.5	0.1	0.5	0.8	0.6	-0.2	0.1	0.3	0.0	0.0	-0.7	-0.3	-0.3	-0.5
2017-Q4	0.4	1.3	-0.4	0.4	0.0	0.0	0.6	0.6	-0.2	0.3	0.5	-0.3	0.1	-0.4	-0.4	-0.3	-0.6
2018-Q1	0.4	1.2	-0.3	0.4	-0.1	-0.1	0.5	0.8	0.0	0.3	-1.2	-0.3	0.2	-0.1	-0.3	-0.2	-0.5

Time Series of SBCLI 2Q Readings Since Before the Great Recession

Stocks, Bonds, Consumers Leading Index (SBCLI), 2Q																		
Douglas T. Breeden, Duke University and Amundi Pioneer Consultant																		
6/18/2018 7:25																		
	Americas				Europe				AustralAsia									
Countries	United States	Canada	Brazil	Mexico	France	Germany	Italy	Spain	United Kingdom	Russia	Turkey	Japan	Australia	South Korea	China	India	Indonesia	
Z Multiplier	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Dec-06	0.4	0.9	2.9	4.6	0.2	1.1	2.6	5.0	-0.6	3.9	-1.9	0.9	2.3	-0.2	0.9	5.6	4.6	
Jun-07	-1.5	-0.6	3.5	2.8	-0.3	0.2	1.0	0.3	-0.4	2.0	-0.7	1.3	4.2	1.5	2.9	0.5	3.9	
Dec-07	-2.7	-1.0	2.7	-1.6	-3.7	-4.4	-2.2	-0.5	-3.2	3.3	0.6	-3.5	-0.6	-0.8	-2.1	4.1	4.7	
Mar-08	-4.0	0.6	2.0	-1.1	-6.1	-6.7	-5.0	-2.6	-5.2	0.8	-2.8	-4.8	-7.6	-3.6	-5.8	-1.6	1.3	
Jun-08	-3.9	1.5	1.4	-0.4	-6.0	-5.6	-4.8	-4.4	-5.1	0.9	-4.8	-2.4	-7.2	-2.8	-5.6	-4.5	-1.6	
Sep-08	-3.2	-0.7	-0.7	-2.6	-5.3	-4.8	-3.5	-3.9	-5.3	-2.0	-3.8	-2.3	-5.6	-3.7	-5.5	-4.2	-4.0	
Dec-08	-5.5	-5.9	-3.0	-4.9	-7.9	-6.9	-7.7	-6.6	-7.4	-5.2	-6.6	-7.3	-9.7	-7.1	-3.8	-7.1	-7.0	
Mar-09	-5.8	-4.5	-1.4	-5.3	-6.2	-4.6	-8.7	-7.8	-7.0	-4.6	-6.6	-6.5	-7.4	-2.9	-1.1	-6.1	-4.3	
Jun-09	0.9	4.2	4.8	-1.1	1.6	2.8	-0.4	-1.5	-0.4	3.8	0.1	1.0	3.5	3.0	2.3	4.4	6.3	
Sep-09	4.8	5.8	6.3	3.7	7.5	7.3	6.8	6.5	6.0	1.6	5.7	3.3	8.7	5.7	1.1	6.3	8.1	
Dec-09	1.3	2.6	3.5	1.7	4.6	3.9	1.9	2.4	4.5	-0.1	1.7	-0.3	5.1	2.9	0.8	-0.9	1.4	
Jun-10	-1.6	1.2	-0.9	0.2	-0.1	-0.6	-2.2	-5.6	-0.6	-0.8	1.5	0.1	-1.5	1.3	-1.4	-1.8	-0.7	
Dec-10	3.6	3.6	1.9	2.4	2.9	2.9	0.5	-1.8	2.9	2.0	4.4	0.9	1.5	2.2	-0.7	-0.5	1.3	
Jun-11	1.3	0.0	0.7	-0.5	0.4	-0.2	-0.7	-2.6	-0.8	-0.6	2.2	-2.0	-1.1	-1.1	-1.5	-2.0	-0.9	
Dec-11	-0.5	-1.8	-0.1	0.6	-4.5	-3.7	-7.6	-6.3	-2.4	-1.8	-1.8	-2.2	-3.0	-3.4	-3.8	-3.4	-0.5	
Jun-12	0.0	-0.7	-0.5	0.7	-0.9	0.2	-6.4	-7.5	-0.1	-0.9	0.0	0.5	-1.7	-2.2	-3.7	-1.5	0.6	
Dec-12	1.1	0.9	2.6	1.4	2.3	3.0	-1.3	-0.9	1.9	0.7	3.0	1.4	1.4	-0.2	-3.9	0.3	1.4	
Jun-13	-0.1	-0.3	-1.6	-1.4	-0.1	-0.2	-3.1	-4.0	1.4	-1.5	0.2	4.2	-0.3	-2.1	-2.9	-1.5	1.1	
Dec-13	1.4	2.3	0.4	1.2	1.5	1.9	-0.3	0.2	1.6	0.8	-0.2	1.6	2.2	-0.1	-1.9	-0.1	-2.5	
Jun-14	1.3	1.1	0.5	0.5	0.5	-0.3	1.5	1.3	1.5	-0.9	-0.2	-1.7	0.9	-1.2	-2.1	1.4	1.4	
Dec-14	2.0	-1.2	-1.2	-0.1	-1.8	-1.3	-1.7	-1.0	0.0	-3.2	-0.3	-0.5	-1.2	-2.0	0.5	-0.7	-1.1	
Jun-15	2.9	0.0	-0.8	1.3	2.6	1.2	3.3	1.0	1.6	-2.7	-1.0	0.4	0.8	-0.5	1.5	-1.9	-1.7	
Dec-15	1.8	-1.7	-5.3	-0.2	-1.3	-1.3	0.9	-0.6	-0.7	-3.0	-2.2	-2.2	-1.7	-1.8	-2.1	-0.9	-2.1	
Jun-16	1.8	1.1	-2.0	1.5	-1.1	-2.1	-1.5	-0.8	0.7	-1.4	-0.2	-4.4	0.2	-1.2	-1.6	0.2	1.0	
Dec-2016	3.2	2.3	-0.2	-0.4	3.0	1.8	1.9	2.5	3.5	0.6	-1.2	1.6	1.9	-0.7	1.3	-0.2	0.9	
Mar-2017	2.3	0.9	-0.8	-0.6	2.8	1.8	2.9	2.7	1.8	-1.3	0.3	1.3	2.4	-0.4	0.9	0.4	-0.1	
Jun-2017	1.5	-0.4	-0.4	1.5	1.7	2.0	2.7	3.2	1.2	-3.6	1.9	-0.4	0.8	2.9	-0.2	3.5	1.6	
Sep-2017	0.9	0.0	1.8	1.1	0.5	0.4	1.9	0.4	-1.0	-0.2	2.0	-0.6	0.0	1.6	-0.3	1.1	1.3	
Dec-2017	1.8	1.8	2.9	-1.8	-0.4	-0.2	1.1	-0.7	-0.8	2.6	0.2	0.4	1.8	0.1	-0.1	1.4	1.3	
Mar-2018	0.7	0.1	2.1	-2.7	-0.9	-0.9	0.1	-0.4	-1.2	2.3	-1.6	-1.0	1.5	0.4	0.1	1.5	1.9	
Jun-2018	-0.4	-0.2	-1.3	-1.5	-0.4	-1.2	-1.2	-0.2	-0.1	0.7	-5.6	-1.7	0.8	-1.3	0.0	2.0	-0.4	

Time Series of Smoother SBCLI 4Q Readings Since Before the Great Recession

		Stocks, Bonds, Consumers Leading Index (SBCLI), 4Q																
		Douglas T. Breeden, Duke University and Amundi Pioneer Consultant																
		Americas				Europe							AustralAsia					
Countries		United States	Canada	Brazil	Mexico	France	Germany	Italy	Spain	United Kingdom	Russia	Turkey	Japan	Australia	South Korea	China	India	Indonesia
Z Multiplier		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dec-06		-1.0	-0.7	1.5	2.1	-0.4	0.1	1.5	2.8	-1.3	3.3	-0.1	0.1	1.1	-1.0	2.1	4.1	2.7
Jun-07		-0.5	0.2	3.2	3.7	0.0	0.7	1.8	2.7	-0.5	2.9	-1.3	1.1	3.2	0.7	1.9	3.1	4.2
Dec-07		-2.1	-0.8	3.1	0.6	-2.0	-2.1	-0.6	-0.1	-1.8	2.6	-0.1	-1.1	1.8	0.3	0.4	2.3	4.3
Mar-08		-2.6	0.4	3.0	0.0	-4.2	-4.4	-2.8	-1.7	-3.6	1.6	-1.4	-3.5	-3.2	-0.8	-1.9	0.5	3.1
Jun-08		-3.3	0.3	2.1	-1.0	-4.8	-5.0	-3.5	-2.5	-4.1	2.1	-2.1	-3.0	-3.9	-1.8	-3.8	-0.2	1.5
Sep-08		-3.6	0.0	0.6	-1.8	-5.7	-5.7	-4.2	-3.2	-5.3	-0.6	-3.3	-3.5	-6.6	-3.7	-5.7	-2.9	-1.3
Dec-08		-4.7	-2.2	-0.8	-2.6	-7.0	-6.3	-6.2	-5.5	-6.2	-2.2	-5.7	-4.8	-8.5	-4.9	-4.7	-5.8	-4.3
Mar-09		-4.5	-2.6	-1.1	-3.9	-5.7	-4.7	-6.1	-5.9	-6.1	-3.3	-5.2	-4.4	-6.5	-3.3	-3.3	-5.2	-4.1
Jun-09		-2.3	-0.9	0.9	-3.0	-3.1	-2.1	-4.1	-4.0	-3.9	-0.7	-3.2	-3.1	-3.1	-2.0	-0.7	-1.4	-0.3
Sep-09		-0.5	0.6	2.5	-0.8	0.6	1.3	-1.0	-0.7	-0.5	-1.5	-0.4	-1.6	0.7	1.4	0.0	0.1	1.9
Dec-09		1.1	3.4	4.1	0.3	3.1	3.4	0.7	0.4	2.1	1.8	0.9	0.3	4.3	2.9	1.6	1.8	3.8
Jun-10		-0.1	1.9	1.3	1.0	2.2	1.7	-0.1	-1.6	1.9	-0.5	1.6	-0.1	1.8	2.1	-0.3	-1.3	0.3
Dec-10		1.0	2.4	0.5	1.3	1.4	1.2	-0.8	-3.7	1.1	0.6	3.0	0.5	0.0	1.8	-1.0	-1.2	0.3
Jun-11		2.5	1.8	1.3	0.9	1.7	1.4	-0.1	-2.2	1.0	0.7	3.3	-0.6	0.2	0.6	-1.1	-1.3	0.2
Dec-11		0.4	-0.9	0.3	0.1	-2.1	-1.9	-4.2	-4.4	-1.6	-1.2	0.2	-2.1	-2.1	-2.3	-2.7	-2.7	-0.7
Jun-12		-0.2	-1.3	-0.3	0.6	-2.7	-1.7	-7.0	-6.9	-1.3	-1.3	-0.9	-0.8	-2.4	-2.8	-3.8	-2.4	0.0
Dec-12		0.6	0.1	1.1	1.0	0.7	1.6	-3.8	-4.2	0.9	-0.1	1.5	0.9	-0.1	-1.2	-3.8	-0.6	1.0
Jun-13		0.5	0.3	0.5	0.0	1.1	1.4	-2.2	-2.5	1.7	-0.4	1.6	2.8	0.6	-1.1	-3.4	-0.6	1.3
Dec-13		0.6	1.0	-0.6	-0.1	0.7	0.9	-1.7	-1.9	1.5	-0.3	0.0	2.9	1.0	-1.1	-2.4	-0.8	-0.7
Jun-14		1.3	1.7	0.4	0.9	1.0	0.8	0.6	0.8	1.6	0.0	-0.2	-0.1	1.6	-0.6	-2.0	0.7	-0.5
Dec-14		1.7	0.0	-0.3	0.2	-0.7	-0.8	-0.1	0.2	0.7	-2.0	-0.2	-1.1	-0.1	-1.6	-0.8	0.4	0.1
Jun-15		2.5	-0.6	-1.0	0.6	0.4	-0.1	0.8	0.0	0.8	-3.0	-0.6	-0.1	-0.2	-1.2	1.0	-1.3	-1.4
Dec-15		2.3	-0.8	-3.1	0.5	0.7	-0.1	2.1	0.2	0.4	-2.9	-1.6	-0.9	-0.4	-1.2	-0.3	-1.4	-1.9
Jun-16		1.8	-0.3	-3.6	0.6	-1.2	-1.7	-0.3	-0.7	0.0	-2.2	-1.2	-3.3	-0.8	-1.5	-1.8	-0.3	-0.5
Dec-2016		2.5	1.7	-1.1	0.5	0.9	-0.2	0.2	0.8	2.1	-0.4	-0.7	-1.4	1.1	-1.0	-0.1	0.0	1.0
Mar-2017		2.1	0.8	-1.1	0.2	1.6	0.9	1.4	2.0	2.1	-1.2	-0.4	-0.3	1.6	-0.6	0.3	1.1	0.6
Jun-2017		2.4	1.0	-0.3	0.5	2.4	1.9	2.3	2.8	2.3	-1.5	0.4	0.6	1.4	1.1	0.5	1.7	1.3
Sep-2017		1.6	0.5	0.5	0.3	1.7	1.1	2.4	1.5	0.4	-0.8	1.2	0.3	1.2	0.6	0.3	0.7	0.6
Dec-2017		1.6	0.7	1.2	-0.2	0.7	0.9	1.9	1.2	0.2	-0.5	1.0	0.0	1.3	1.5	-0.1	2.5	1.5
Mar-2018		0.8	0.1	2.0	-0.8	-0.2	-0.3	1.0	0.0	-1.1	1.0	0.2	-0.8	0.7	1.0	-0.1	1.3	1.6
Jun-2018		0.7	0.8	0.8	-1.7	-0.4	-0.7	0.0	-0.4	-0.5	1.6	-2.7	-0.7	1.3	-0.6	0.0	1.7	0.4