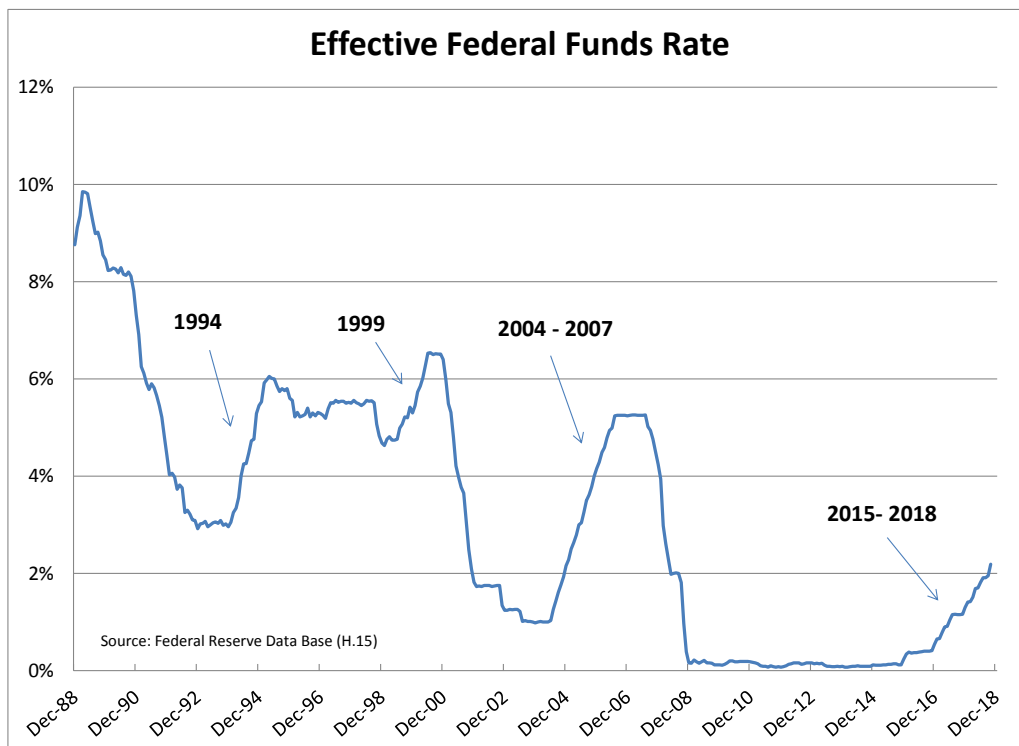


## Global Equity Allocation during Episodes of Fed Tightening

-John Mullin

A broad variety of equity indicators have provided effective signals for country allocation over the past 30 years. Our research has identified indicators with strong track records in several categories, including valuation, growth, risk, interest rate trends, and price momentum. In the valuation category, for example, a hypothetical investor using trailing price-to-earnings ratios for country allocation could have achieved an average annualized alpha of 4.6% relative to MSCI ACWI during 1989-2018.<sup>1</sup> However, although many indicators have proved effective over the long haul, their performances have varied considerably over various sub-periods, and stretches of mediocre performance have not been uncommon.

This note examines indicator performance during the four most recent episodes of Fed tightening: 1994, 1999, 2004-2007, and 2015-Present. We find that the record is mixed. Most investment indicators performed well during the tightening episodes of 1999 and 2004-2007, but the indicators generated near-zero alpha on average during the tightening episodes of 1994 and 2015-Present. We conclude the note by discussing the possibility of a pattern in indicator alphas that hinges on credit conditions prior to the respective Fed tightening episodes.



<sup>1</sup> The alphas referred to in this note are calculated gross of any fees or transactions costs. They are based on the back-test results of the HGA proprietary country allocation model, which overweights and underweights countries on a monthly basis relative to MSCI ACWI. The HGA model's overweights and underweights are determined by countries' relative attractiveness according to investment indicators (in this case, trailing price-to-earnings).

The table below shows the alphas associated with 20 different investment indicators during the four Fed tightening episodes. The table also shows the average alphas over the past 30 years, irrespective of Fed policy. The bottom row shows averages across the 20 indicators.

Indicator performances were quite mixed during the 1994 Fed Tightening Episode. Most of the valuation indicators generated negative alphas, with the exceptions of Price-to-Book and Earnings Yield vs. Historical Average. In the growth category, GDP Forecast Revisions and the Terms-of-Trade Trend turned in strong performances, but Forecast ROE showed a substantially negative alpha. The risk indicators were also mixed (although Real Exchange Rate Overvaluation and Current Account/GDP turned in positive performances). The interest rate indicators had positive alphas, while Year-over-Year Price momentum produced a markedly negative alpha. On average, the 20 indicators generated a near-zero (0.6%) alpha.

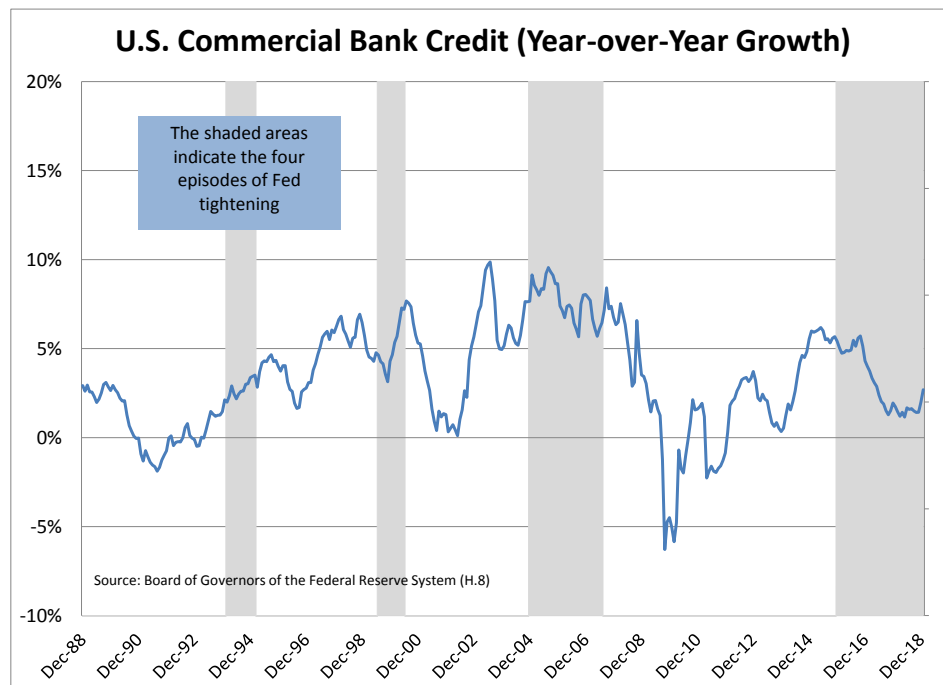
<b>HGA Model Alphas During Fed Tightening Episodes</b>						
Single-Indicator Model Alphas (Annual Average %, Relative to MSCI ACWI)						
		Four Fed Tightening Episodes				Past 30-Years: Unconditional Average*
Category	Indicator	1994	1999	2004-2007	2015- 2018	
Valuation	Price-to-Book	7.7	22.0	9.1	-0.3	3.3
	Price-to-Earnings (Trailing)	-0.4	16.7	11.2	0.0	4.6
	Price-to-Earnings (Forward)	-3.7	25.4	12.3	0.2	4.3
	Earnings Yield vs. Historical Average	2.0	8.2	4.2	0.5	1.6
	Earnings Yield Gap	-3.8	-1.5	6.7	-0.5	3.2
	Dividend Yield	-2.1	6.1	9.0	-1.5	2.2
Growth	GDP Forecast Revisions	2.9	9.6	12.3	-1.5	2.3
	OECD Leading Indicator Acceleration	1.1	14.7	3.2	-0.9	2.2
	Upward Company Revision Ratio	1.0	4.6	5.5	2.0	3.6
	Upward Estimate Revisions Ratio	-3.7	4.2	6.2	1.6	3.5
	Terms of Trade Change	9.3	16.4	10.5	-0.9	3.2
	Forecast ROE	-10.5	12.4	9.6	-0.5	3.7
Risk	Beta Risk	-1.1	-3.2	3.8	0.1	2.3
	Real Exchange Rate Overvaluation	4.6	24.1	4.5	-0.9	3.5
	Current Acc. / GDP	4.7	12.1	7.3	-0.5	2.3
	Excess Domestic Credit Growth	-1.5	13.2	7.8	-1.0	3.7
	Sovereign Yield Spread Change	na	na	12.2	-1.3	2.5
Interest Rate Trend	Nominal Rate Change	2.3	8.6	9.2	-0.9	3.8
	Real Rate Change	6.7	4.8	8.3	-0.1	3.8
Momentum	Year-over-Year Price Momentum	-5.0	4.5	14.4	-1.9	5.2
<b>Average Across 20 Indicators</b>		<b>0.6</b>	<b>10.7</b>	<b>8.4</b>	<b>-0.4</b>	<b>3.2</b>
Source: Heckman Global Advisors						
* Includes both tightening and non-tightening periods.						

Indicator performances were generally strongly positive during both the 1999 and 2004-2007 Fed Tightening Episodes. With only one exception, the valuation indicators performed extremely well, with Price-to-Earnings (Forecast) standing out with the highest alphas. All of the growth indicators had positive performances (with Term-of-Trade Trend putting in the strongest performance across the two tightening episodes). All of the risk indicators performed well, with one exception: Beta performed poorly during 1999, which makes sense intuitively, given that 1999 was an unabashed bull market in which one would expect low beta markets to underperform. Rounding out the list, the interest rate and momentum indicators all posted positive performances during the two episodes. On average, the 20 indicators generated a 10.7% alpha during the 1999 episode and an 8.4% alpha during 2004-2007.

The 2015-Present Fed Tightening Episode has been marked by generally muted indicator alphas. Not a single indicator had an alpha worse than -2% or better than +2.0%. On average, the indicators generated a -0.4% alpha during the episode.

Overall, the data suggest no simple pattern of indicator performance across the last four Fed tightening cycles. This raises the question: What can explain the strength of indicator performance during the 1999 and 2004-2007 periods and the weakness of indicator performance during the 1994 and 2015-2018 periods?

One possibility that comes to mind is that the 1994 and 2015-2018 episodes of Fed tightening came on the heels of U.S. and foreign banking crises. The 1994 tightening came in the aftermath of the late 1980s S&L crisis and the “Credit Crunch” of the early 1990s. The impact of the U.S. credit crunch can be seen in the chart below, which shows that U.S. commercial bank credit was shrinking on a year-over-year basis in the early 1990s. At the time, U.S. banking system weakness coincided with Japanese banking weakness following the crash of the 1980s Japanese credit-fueled real estate and stock market bubbles.



The most recent episode of Fed tightening—like the 1994 episode—came in the aftermath of U.S. banking system weakness and a prolonged and substantial contraction of U.S. commercial bank credit. Also like the 1994 episode, U.S. banking system weakness dovetailed with non-U.S. financial weakness—in this case, the European financial crisis.

By contrast, the balance sheets of U.S. commercial banks were arguably more robust at the onset of the 1999 and 2004-2007 episodes of Fed tightening. Granted, global financial markets had experienced significant duress in 1998 due to the Asian Flu (which began with the Thai baht devaluation of July 1997), the Russian devaluation and default, and the Long Term Capital Management crisis, which came to a head in September 1998. However, the U.S. banking system weathered this turmoil without a single month of negative commercial bank credit growth.

The interpretation offered here is far from conclusive. But the results suggest that the efficacy of country allocation indicators declines in Fed tightening periods that come in the aftermath of simultaneous U.S. and non-U.S. credit difficulties.

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