

Economic and Market Perspective

April 6, 2016

Bringing you national and global economic trends for more than 30 years

A capital constraint



James W. Paulsen, Ph.D.
Chief Investment Strategist,
Wells Capital Management, Inc.

Since its record high in 2009, the U.S. capital to labor (KL) ratio has experienced one of its longest and most severe declines of the post-war era. Perhaps not surprisingly, the dip in the KL ratio has coincided with the worst productivity performance of any economic recovery in post-war history. However, the economic and financial market fallout from this lapse in investment spending may be far from over. Historically, changes in the U.S. KL ratio have tended to lead the pace of real economic growth, corporate profit results, and the performance of the stock market by as much as five years. That is, the U.S. economy and its financial markets may just be entering a “capital constraint” which could last several years.

U.S. Capital-Labor (KL) Ratio

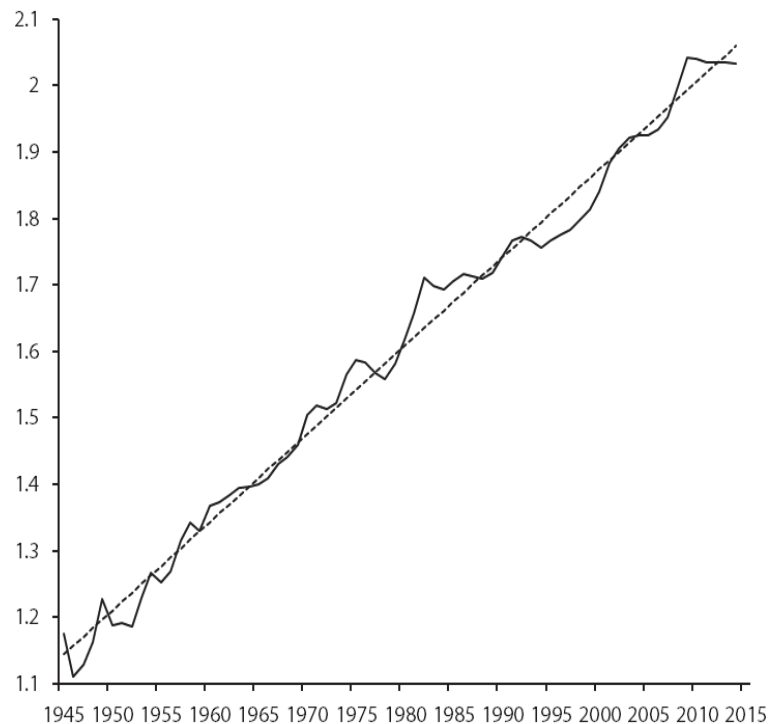
Since 1945, the level of the real capital stock per employee has risen by about 1.3 % per annum (i.e., the slope of the trendline shown in Chart 1). Constantly providing labor with a rising level of capital has been an important factor behind the post-war U.S. economic miracle. However, in the last five years (between 2009 and 2014), capital per worker has declined on average by about 0.2 % per year. Although the KL ratio has declined significantly in the past (e.g., in the late-1940s and again in the early-1950s) or has remained essentially flat for several years (e.g., during the 1980s), it has rarely declined as sharply and for as long as it has since 2009.

What is the future impact of such a large and prolonged reduction in the U.S. KL ratio? Is this why the pace of U.S. economic growth and productivity has remained weak in this recovery? Has it impacted the stock market? Could these disappointing trends be quickly improved if the KL ratio soon starts to increase again? Or, even if capital spending does soon improve, can the U.S. avoid the lagged impact a weak KL ratio has typically had on the performance of the economy and the financial markets during the next few years?

Chart 1

U.S. Capital to Labor Ratio*

*Ratio of the net stock of real private U.S. non-residential assets (table 4.2 of the Bureau of Economic Analysis (BEA) fixed asset tables) relative to non-farm U.S. payroll employment. Natural log scale and dotted line represents the post-war trendline of the capital to labor ratio.



The impact of the KL Ratio lingers

Adding capital to the labor supply does not often have immediate impact. Full implementation of a capital spending program takes time and labor usually faces a learning curve. Consequently, the impacts of changes in the KL ratio on both the economy and the financial markets have historically lasted much longer than most would expect.

This is illustrated in Chart 2, which compares the growth in real GDP to lagged changes in the KL ratio (based on yearly data since 1945). The solid line in this chart is the trailing five-year average annualized growth in real GDP. The dotted line is the level of the KL ratio (from Chart 1) as a percent above or below its post-war trendline level. That is, when the dotted line rises (falls), the KL ratio is rising faster (slower) than its post-war average growth rate. Importantly, the dotted line is “pushed forward or is leading” the pace of real GDP growth (solid line) by five years.

Surprisingly, changes in the KL ratio appear to have about a five-year lagged relationship to real GDP growth. As shown in Chart 2, this is far from a perfect relationship. The magnitude of changes in the KL ratio does not necessarily correspond to similar size changes in real GDP growth. For example, real GDP growth rose much more dramatically than did the KL ratio in the 1960s, and real GDP growth did not fall nearly as much as the KL ratio did in the early-2000s. However, “directionally,” changes in the KL ratio have provided a fairly good indication whether real GDP growth is likely to rise or fall in the ensuing five years. For example, the KL ratio rose significantly between 1980 and 1985 correctly predicting that the five-year annualized real GDP growth rate would accelerate between 1985 to 1990. Similarly, growth in the KL ratio declined during the first half of the 1960s suggesting real GDP growth would ease in the second half of the decade. More recently, the KL ratio as a percent of its trendline began rising in 2006 leading an acceleration in the five-year growth rate of real GDP by five years starting in 2011. And most recently, real GDP growth peaked in 2014 exactly five years after the KL ratio peaked in 2009.

This same five-year lagged relationship is also evident between changes in the KL ratio and its ultimate impact on both corporate profits (Chart 3) and on the stock market (Chart 4). Again, while the relationship is far from perfect, most major tops and bottoms in the five-year growth rates of real GDP, corporate profits and the U.S. stock market correspond reasonably close to the peaks and valleys in the KL ratio (relative to its trendline) “five years earlier”!

Chart 2

U.S. real GDP vs. Capital-Labor Ratio

Solid (left scale) — Trailing five-year annualized percent change in U.S. real GDP.

Dotted (right scale) — U.S. Capital-Labor Ratio as a percent above or below its post-war trendline level. PUSHED FORWARD (or leading GDP growth) by five years.

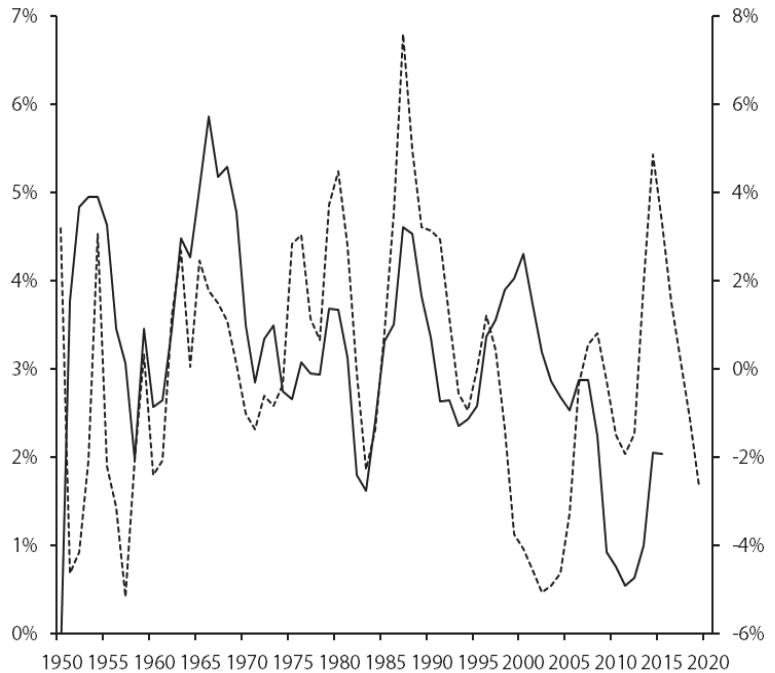
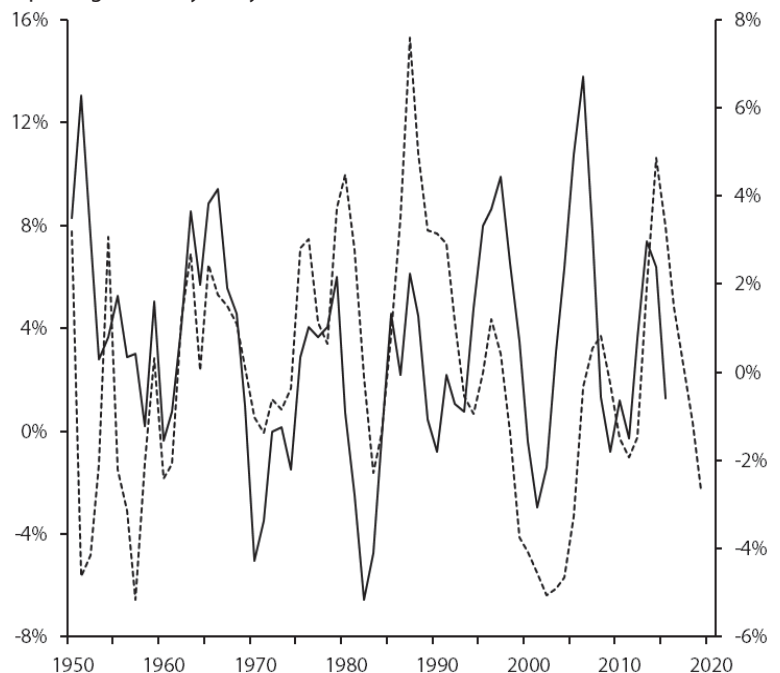


Chart 3

U.S. real corporate profits vs. Capital-Labor Ratio

Solid (left scale) — Trailing five-year annualized percent change in U.S. real corporate profits.

Dotted (right scale) — U.S. Capital-Labor Ratio as a percent above or below its post-war trendline level. PUSHED FORWARD (or leading profit growth) by five years.



Current implications?

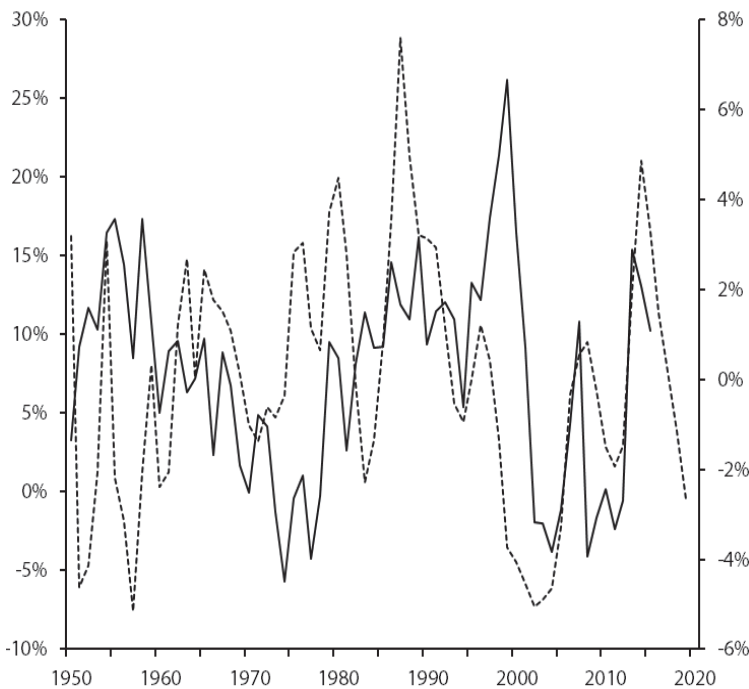
As shown in Chart 1, the U.S. KL ratio has been declining since 2009. However, the primary impact of this decline on the pace of economic growth, corporate profit performance, and the stock market might just be beginning. Indeed, as suggested by Charts 2, 3 and 4, this recovery may suffer from a lack of capital investment during the next four years!

Chart 4

U.S. stock market vs. Capital-Labor Ratio

Solid (left scale) — Trailing five-year annualized percent change in the S&P 500 Composite Stock Price Index.

Dotted (right scale) — U.S. Capital-Labor Ratio as a percent above or below its post-war trendline level. PUSHED FORWARD (or leading stock market changes) by five years.



The relationships highlighted in this note say little about what may happen economically or in the stock market during the balance of this year. However, they do suggest investors should consider an added challenge faced by this economic recovery which may intensify in the next few years.

The fact the U.S. KL ratio has declined in the last five years does not imply the impact of that decline is now over. Nor does it necessarily suggest an imminent recession, a collapse in corporate profits, or a looming bear market. Rather, the significant decline in the KL ratio since 2009 may just now become more noticeable in terms of its impact in slowing economic growth, reducing profitability, and lowering future stock market returns.

While we expect the economic recovery to most likely last several more years, investors should realize the best of this cycle is probably past. The pace of economic growth, corporate profit performance, and stock market returns will likely be less satisfactory during the balance of this recovery as it increasingly struggles with the lagged impact of a prolonged "capital constraint."

Thanks for taking a look!!
JWP

Written by James W. Paulsen, Ph.D.

An investment management industry professional since 1983, Jim is nationally recognized for his views on the economy and frequently appears on several CNBC and Bloomberg Television programs, including regular appearances as a guest host on CNBC. *BusinessWeek* named him Top Economic Forecaster, and *BondWeek* twice named him Interest Rate Forecaster of the Year. For more than 30 years, Jim has published his own commentary assessing economic and market trends through his newsletter, *Economic and Market Perspective*, which was named one of "101 Things Every Investor Should Know" by *Money* magazine.

Wells Fargo Asset Management (WFAM) is a trade name used by the asset management businesses of Wells Fargo & Company. WFAM includes Affiliated Managers (Galliard Capital Management, Inc.; Golden Capital Management, LLC; Nelson Capital Management; Peregrine Capital Management; and The Rock Creek Group); Wells Capital Management, Inc. (Metropolitan West Capital Management, LLC; First International Advisors, LLC; and ECM Asset Management Ltd.); Wells Fargo Funds Distributor, LLC; Wells Fargo Asset Management Luxembourg S.A.; and Wells Fargo Funds Management, LLC.

Wells Capital Management (WellsCap) is a registered investment adviser and a wholly owned subsidiary of Wells Fargo Bank, N.A. WellsCap provides investment management services for a variety of institutions. The views expressed are those of the author at the time of writing and are subject to change. This material has been distributed for educational/informational purposes only, and should not be considered as investment advice or a recommendation for any particular security, strategy or investment product. The material is based upon information we consider reliable, but its accuracy and completeness cannot be guaranteed. Past performance is not a guarantee of future returns. As with any investment vehicle, there is a potential for profit as well as the possibility of loss. For additional information on Wells Capital Management and its advisory services, please view our web site at www.wellscap.com, or refer to our Form ADV Part II, which is available upon request by calling 415.396.8000.