Are Interest Rates too Low for Savings?

By Brian Fabbri

Visiting Research Fellow, CAMRI & President, FABBRI Global Economics

More savings needed

Everyone, everywhere is worried about savings especially inadequate savings. The populations of the world’s biggest economies (US, EU, China, Japan), and the smaller ones (South Korea, Taiwan, Singapore), are aging very rapidly and dependency ratios in these economies will soon turn unfavorable for retired workers. Thus, personal savings will have to be boosted to ensure adequate life styles and survival.

Savings Rates fall in US & Japan

The global savings situation turned more adverse over the past decade in light of the extremely low interest rate environment we have been confronted with. As chart 1 reveals, savers in the US and in Japan used to save much more of their current income than they do now. In Japan the situation is particularly acute as the savings rate has fallen below zero. More about Japan later.

Savers in the past counted on their pool of savings to earn a return to compensate for inflation and to expand the nest egg at a moderate rate. With bank deposit rates near zero and real returns on some government securities negative, savers are forced to choose between foregoing more present consumption and increasing their savings rate, or elevating their risk profile and investing their savings in more risky assets.

Saving and economic growth

Savings is traditionally defined as income not spent, or deferred consumption. It is income deferred into the future to finance future consumption. Savers usually place their savings into very low risk financial assets
such as bank deposits or government backed securities in an effort to preserve their capital for future use. However, deferred income can also be invested in riskier assets and it will continue to be considered savings. Naturally, income not spent reduces current consumption and therefore present economic growth. Albeit, savings that is invested (and not horded under a mattress) can be used to build a nation’s stock of fixed capital, which over time leads to greater economic growth.

**Savings equals Investment**

In classical economic theory, economies are always moving toward equilibrium where savings equals investment. Economists believed that interest rates would change sufficiently to raise one (savings for example) and lower the other (investment) until equilibrium is reached. However, empiricists discovered that savings and investment were relatively interest inelastic; that is it would require a very large shift in interest rates to move either savings or investment back to a path toward equilibrium.

Over the past several years we have experienced a huge shift in interest rates everywhere, which according to theory, should stimulate a change in personal savings and business investment behavior. But, have they?

**Interest rates, Income and Confidence**

To understand people’s recent savings behavior I have looked at three key factors that theory suggests should influence the decision to save: interest rates, income, and confidence.

**Frugality went out the window**

For most of the past three decades, interest rates in the US have fallen and so have savings rates. In the 1970s interest rates rose appreciably reflecting the advance of inflation and the Federal Reserve’s attempts to reduce it. The savings rate rose in the 1970s with interest rates and then began a long decline from 1980 onwards. Thus, a positive correlation seems to have been established between the savings rate and interest rates.

![SR and Interest rates 1969-2006](image)

**Savings rates (SR) and interest rates**

The positive relationship between the savings rate and interest rates broke down during the ‘great recession’. Interest rates plunged further, however, the savings rate in the US rose significantly. Subsequently, interest rates have since remained near zero, however, the savings rate has
stabilized in the past two years at around 5%. In contrast to the US, savings rates in Japan did not rebound during the ‘great recession’. Consequently, their savings inputs have not been able to match the outflows in savings from the elderly. Savings rates in Japan may hence never recover as they did in the US.

Japan’s savings rates sink to negative
Japan is another country with near zero interest rates and where savings rates have been declining from relatively high levels for more than twenty years. Recently the savings rate in Japan has sunk below zero. Ultra-low interest rates have prevailed in Japan for the better part of two decades and this may partly explain the drop in the savings rate. In contrast to the US other factors such as the stagnation in income and the slow depreciation of household wealth have also contributed to the reduction in the savings rate. Perhaps the most glaring reason behind the steady decline in the Japanese savings rate has been the rapidly aging demographic profile of its population. Aging has caused a rise in the proportion of the elderly and they have begun to use their savings to support their lifestyle. Meanwhile, there are fewer younger people and they have smaller propensities to save than the older generation had. Consequently, their savings inputs have not been able to match the outflows in savings from the elderly. Savings rates in Japan may hence never recover as they did in the US.

Savings and Income
Over the past 45 years real personal income per capita has risen, even through the many business cycle recessions. Since individuals cannot save without income one would expect that income and the savings rate should be positively related. However, as the next chart makes abundantly clear, the savings rate falls throughout nearly all of this 45-year period. This implies that as US individuals’ income advances, their motivation to save as much as in the past has diminished.
implications from these last two charts, especially to make the inference that income does not matter for savings. But, we could infer that as income mounts at a relatively consistent basis over time, it probably diminishes the need for more savings and thus there probably is an inverse relationship between per capita income and the savings rate.

**Savings and confidence**

Economists have long believed that individuals have several motives to save: precaution, either fear of present economic and political circumstances, or uncertainty about the future, and a desire to extend spending well into the future.

For most of the past 45 years the savings rate in the US fell irrespective of the movement of consumer confidence, which rose and fell in sympathy with the business cycle. In the last decade the savings rate did rise from extremely low levels coinciding with the advance in consumer confidence following the great recession. However, confidence has continued to soar recently, but the
savings rate fell back and stabilized at a moderate level. All this suggests that consumer confidence plays only a small role in determining the economies aggregate personal savings rate.

Savings and wealth

After exploring all of these variables (interest rates, per capita income and confidence) and their relationship to the savings rate, the one variable that seems to hold the most promise is household wealth. There has been a very long inverse relationship between the accumulation of household wealth and the decline in the savings rate. As household wealth advances, people assumed that it was unnecessary to raise their savings rates and in fact it probably caused them to reduce their savings from current income. When wealth plunged during the ‘great recession’, savings rates jumped and the savings rate remained high until wealth again climbed steadily higher. Once individuals began to observe that their wealth was increasing, they started to save less. Unfortunately household wealth is highly skewed toward the wealthiest, which leaves those that need savings for retirement the most in trouble.

SR and Household Wealth

Interest rates and Investment

In the present interest rate environment in the US and in other developed economies with interest rates hovering around zero, one would expect that under these highly unusual circumstances, savings and investment would be adjusting.

Average Growth in Real Fixed Business Investment During Recent Expansions

As chart 8 reveals, the average growth in business fixed investment in this economic expansion is slightly higher than the average growth path during the past five business cycle recoveries, in spite of the prevailing ultra-low levels of interest. BAA corporate bond rates are at their lowest in 40 years. Real interest rates are exceptionally low (below zero in some cases), which would
suggest little or no return on investment. However, corporate profitability has been exceptionally high throughout the past 6 years justifying the use of burgeoning retained earnings for fixed investment.

Business Fixed Investment and Interest rates

Once again this suggests that interest rates have not been an important motivating factor behind the decision to invest. Rather, corporate cash flow, business confidence, and corporate tax policy seem to matter more than interest rates to influence the pace of corporate investment.

Conclusion for policy makers

A key question for policy makers is: will savings rise along with the planned increase in official interest rates? A further increase in the savings rate will reduce current consumption. Surely no one should expect savings rate to budge after a 25 basis point increase in the fed funds rate and all the other money market rates that are linked to it. However, if it is the beginning of a sustained increase in the structure of interest rates over the next year or two, then the question of a return to a positive correlation between the savings rate and interest rates becomes material with respect to the rate of economic growth.

For more information, please contact camri@nus.edu.sg
KEY INDICATORS TABLE (AS OF 15 SEPTEMBER 2015)

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Source: Bloomberg

GLOSSARY OF KEY TERMS (Source: Bloomberg, with tickers in parenthesis. In US$ where applicable)

S&P500: capitalization-weighted index of the prices of 500 US large-cap stocks (SPX)
FTSE: capitalization-weighted index of the prices of the 100 largest LSE-listed stocks (UKX)
NIKKEI: capitalization-weighted index of the largest 225 stocks of the Tokyo Stock Exchange (NKY)
HANG SENG: capitalization-weighted index of companies from the Hong Kong Stock Exchange (HSI)
STI: cap-weighted index of the top 30 companies listed on the Singapore Exchange (FSSTI)
EUR: USD/EUR exchange rate: 1 EUR = xx USD (EUR)
YEN: YEN/USD exchange rate: 1 USD = xx YEN (JPY)
CMCI: Constant Maturity Commodity Index (CMCIP)
Oil: West Texas Intermediate prices, $ per barrel (CLK1)
3MO LIBOR: interbank lending rate for 3-month US dollar loans (US0003M)
10YR UST: 10-year US Treasury yield (IYC8 – Sovereigns)
10YR BUND: 10-year German government bond yield (IYC8 – Sovereigns)
10YR SPG: 10-year Spanish government bond yield, proxy for EU funding problems (IYC8 – Sovereigns)
10YR SGS: 10-year Singapore government bond yield (IYC8 – Sovereigns)
US ISM: US business survey of more than 300 manufacturing firms by the Institute of Supply Management that monitors employment, production inventories, new orders, etc. (NAPMPMI)
EU PMI: Purchasing Managers’ index for the 17 country EU region (PMITMEZ)
JP TANKAN: Bank of Japan business survey on the outlook of Japanese capital expenditures, employment and the overall economy, quarterly index (JNTGALLI)
CHINA IP: China’s Industrial Production index, with 1-month lag (CHVAIOY)
LC: Local Currency

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