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Brad's Musings

The Big, Big Problem of Low Interest Rates

Who benefits from low interest rates? The most obvious beneficiary of low interest rates are long-term bond investors, as every bond is worth more the lower yields go. We know that President Trump likes lower interest rates because he has told us many, many times. The stock market likes lower interest rates too. Lower interest rates make equities more attractive relative to bonds. Real estate assets are also worth more as interest rates fall as mortgage costs and capitalization rates decline. All cash flow streams are valued using a risk-free interest rate plus a risk premium assumption. When the Federal Reserve openly communicates that it is going to keep interest rates low, all things being equal, investors are willing to use a lower discount rate on future cash flows resulting in higher valuations. When central bankers go one step further and reassure equity investors that they stand ready to do "whatever it takes" to support asset values (quantitative easing and other unconventional tools) investors respond by lowering their risk premium assumptions, driving asset values higher still. This phenomenon has become religion. There is no gilded rule of investing more enshrined than ***thou shalt not fight the Fed***.

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The difference between the S&P500 at 2,347 on the morning of December 26, 2018, and the same index at 2,907 on April 16, 2019, is largely explained by Jerome Powell's pivot from hawkish to dovish. Investors endearingly refer to this loving embrace of asset values by the Federal Reserve as the "Powell Put" and refer to Powell and his colleagues as the "Plunge Protection Team". Perhaps the biggest beneficiary of low interest rates is the United States federal government with total debt outstanding of $22 trillion[1]. With a mortgage that big, Uncle Sam is much happier paying 2.6% interest today compared to the 7.9% he was paying in 1991[2]. Everyone, it seems, is benefiting from lower interest rates: bondholders, stock market investors, corporate borrowers, the President of the United States, and every single tax payer in the United States.

Is there not someone, somewhere, who isn't on the low interest rate gravy train? Well, I know at least one person who would benefit if interest rates were allowed to normalize at higher levels without central bank manipulation. Her name is Elva, she lives in a nursing home and she is my Grandma. She is a real life example of someone who lives on a "fixed income". Unfortunately for her, and many other members of the Greatest Generation, that income has been fixed by central banks at levels barely above zero. As a result, she has no

[1] Source: The Balance: The US Debt and How it Got So Big
[2] Source: macrotrends: 10 Year Treasury Rate – 54 Year Historical Chart

choice to but to eat into her principal each year and hope that she doesn't outlive her money. Actually, she has had one other option and it appears to be the one that Ben Bernanke and Jerome Powell have always wanted her to select and that is to move up the risk spectrum and buy high yield debt and growth stocks. But somehow that doesn't strike me as a prudent way for a 92 year old living in a nursing home to invest. It may be easy for society to forget about people like my Grandmother while debating Federal Reserve policy but there is a much larger group that has been disadvantaged by low interest rates. This group makes up more than 50% of the US population[3] and they've formed an effective voting block, the manifestation of this is what the media refers to as populism. What this voting block will want from its politicians in the coming decades will have a major impact on your portfolio.

Watching my Grandparents move into a nursing home just after the financial crash of 2008 showed me how difficult it is to generate income and the incredible amount of savings that is needed to meet even modest cash flow needs when interest rates are near zero. The inspiration for this musing came to me while listening to a James Grant podcast in which he interviewed former Federal Reserve governor, Kevin Warsh. I recommend you listen to this podcast, which originally aired on October 9, 2018, in its entirety but the portion

[3] Source: YAHOO Finance: GOBankingRates survey found that 58% of Americans have less than $1,000 of savings while 32% have none

that led me to recall the plight of my Grandparents a decade ago begins at the 10:08 mark:

James Grant:

You know there are two sides to a pancake, two sides to a balance sheet and Peter Fischer, I think of one of the most thoughtful people who has ever passed through the portals of the Fed, points out that you can't raise up asset prices without raising also the cost of liabilities. So way back when interest rates were a little higher you needed only so much money to generate so much interest income… say $1 million would produce $50,000 per year at 5% rates well if rates are 1% you need many more millions so in lifting up asset prices, lifting up bond prices and pressing down yields the Fed not only expanded assets on the balance sheet but also expanded the cost of those funding liabilities. So was it not rather a wash?

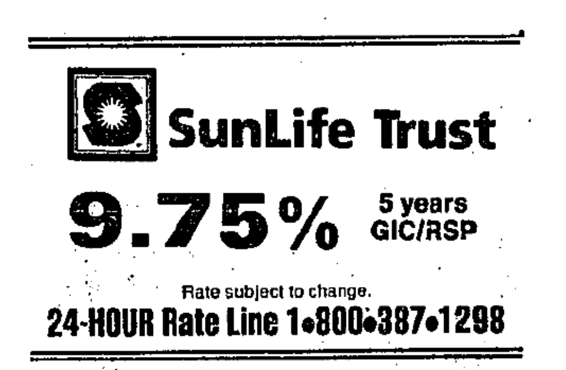
Kevin Warsh:

So, maybe at best a wash. You and I walked through cobblestone streets downtown here on Wall Street to get here and so those who we passed in these high, beautiful buildings, it's not a wash to them, they are better off. These asset prices are worth more than they would otherwise be if there weren't the perception of a Federal Reserve put, if there weren't a subsidy going to asset holders. But 52% of our fellow Americans have no balance sheet wealth to speak of. They live off their W2 income.

Two Retirement Scenarios

I'd like you to imagine that it is 1991 and you have decided to retire at age 70. You were 8 years old when the Great Depression started and 18 at the start of the Second World War. You served in the army during the war and upon its completion you settled down and raised a family in Owen Sound, Ontario. You know the value of a dollar and the importance of a job, you avoid debt like the plague and you've always been a saver. In the mid 1960's you started a small printing business in your home town and had a successful career. After selling your business, your total lifetime savings available to fund your retirement is $500,000.

As you sit down to enjoy your morning coffee on April 2, 1991, you open the Report on Business in the Globe & Mail. On the top banner of the newspaper the following advertisement catches your eye:



Investing your retirement savings into 5 year Guaranteed Investment Certificates (GIC's) earning 9.75% would produce $48,750 of annual income. While that may not seem like a lot by today's standards, the minimum wage in Ontario was only $6.00 per hour in 1991[4]. Working 40 hours per week for minimum wage would earn you $12,480 per year. As a retiree with only $500,000 of investible savings, you are able to earn 3.9x the annual minimum wage. This would be equivalent to working fulltime today and earning $54.74 per hour (3.9x today's minimum wage). One could actually retire and live comfortably on only $500,000 of savings invested very conservatively. To put that amount of savings in perspective, our review of some microfilmed copies of the Owen Sound Sun Times from 1991 leads us to estimate that 3 bedroom bungalows were worth about $135,000 at the time. Therefore, a retiree in 1991 living in Owen Sound could earn 3.9x the annual minimum wage with savings equal to 3.7x the value of a modest home invested conservatively in a 5 year GIC.

Now I'd like you to consider another scenario in the present day. You and your spouse are 80 years old (born in 1940) and have been retired for about a decade. You have no debts and you own your own home also in Owen Sound, Ontario. You never dreamed your home would be worth $350,000 when you

[4] Source: Government of Canada: Hourly Minimum Wages in Canada for Adult Workers

bought it in the early 1960s. You have been able to live fairly comfortably off of your savings and Canada Pension Plan benefits. Then, suddenly, everything changes when you and or your spouse experience a life changing health event. It could be a stroke, an immobilizing fall or the onset of a degenerative disease like Alzheimer's. At first you try to keep living in your home with the help of your family and some additional support but ultimately you and your family come to realize that the only option is to move into a retirement or nursing home. After selling your home you find yourself with $500,000 of investible savings. Your daughter has been trying to help you navigate this transition. She uses Google and opens Ratehub.ca and reads you the following 5 year, redeemable GIC quotes:

Rate	Provider	Insured by
1.95% View details	RBC RBC Royal Bank	CDIC
1.80% View details	HSBC	CDIC
1.60% View details	TD TD Bank	CDIC

[5]

Investing in the best possible rate will earn you only $9,750 of annual income. This is only 0.3x the annual minimum wage of $29,120 per year. To put this

[5] April 16th, 2019, best 5 year redeemable rate

level of income into context, a private retirement home with a basic level of as needed care in towns like Owen Sound will typically range between $2,000 - $2,750 per month / person. Increased levels of dedicated care can run as high as $3,000 - $4,000 per month. Depending on individual health care needs of an elderly couple, it can cost between $48,000 and $96,000 per year for living expenses. With less than $10,000 per year of interest income coming in that means dipping into your savings to bridge the shortfall. What happens if you live another 10 to 20 years?

To have the same purchasing power as a retiree in 1991, you would require annual income of $113,859 (3.9x annual minimum wage). At today's best interest rate for 5 year GICs, this would require investible savings of $5,838,933. That's 11.7x as much savings as a retiree needed in 1991! The fact that your house has increased from a value of $135,000 in 1991 to $350,000 today doesn't really help your funding problem[6]. The required amount of savings is 16.7x the value of a modest home in Owen Sound compared to only 3.7x required in 1991. As James Grant explained so well in his podcast, the liability side of the balance sheet has expanded more than most people's assets. And while there are many people who have no home or stock market

[6] Based on review of current listings in Owen Sound

equity to speak of, everyone has to face the prospect of retiring and living on a fixed income one day.

Now, I ask you, how many retirees in Owen Sound, Orillia, or Peterborough have $5,838,923 of investible savings? What about all the people in Prince George, Red Deer, Moose Jaw, Rouyn-Noranda or Moncton? Only 0.77% (not even 1 in a 100) of Canadian households have a net worth at this level or above[7]. Perhaps I am being unfair assuming a retired couple living in a retirement home with health issues would insist on investing in a redeemable GIC issued by a Schedule A Bank. If we go up the risk spectrum and buy a non-redeemable 5 year GIC (can't touch your capital for 5 years) we have a few more options:

Rate	Provider	Insured by
3.30% View details	Peoples Trust	CDIC
3.25% View details	MAXA Financial	Province
3.15% View details	Implicity Financial	Province
3.10% View details	Parama Credit Union	Province

[8]

[7] Source: Frugal Fringe: Worthometer Canada
[8] April 16th, 2019, best 5 year non-redeemable rate

Now, I have never heard of any of these financial firms but it's a hell of a lot easier to live off 3.3% than it is 1.95%. If you buy this GIC from People's Trust your annual income rises to a whopping $16,500 per year. Even at a 3.3% interest rate you would still need $3,450,279 of investible savings to earn the same purchasing power as a retiree in 1991, or 9.9x the value of your home. Only 2.38% of Canadian households have a net worth at or above this level[9]. According to Statistics Canada, the median net worth of a Canadian Household in 2016 was only $478,600. Couples over 65 years of age had a higher median net worth of $762,900 ($381,450 per person), while seniors living alone had a median net worth of only $277,000[10]. Senior citizens today don't even have savings equal to 1x the average Canadian house value let alone multiples of 9.9x – 16.7x needed to be as well off as a retiree in 1991.

The following table provides an extreme representation of the problem. To save me the effort of looking up 5 year GIC rates in old newspaper microfilms, I have assumed that retirees invest in 10 year Canada bonds to earn their income as the data is readily available:

[9] Source: Frugal Fridge: Worthometer Canada
[10] Source: Statistics Canada: Total and median net worth by age and family type

Year	Ontario Min Wage	Annualized Ontario Min Wage	Canada 10-Year Yield	Savings Needed to Earn 3.9x Min Wage
1951	$0.43	$897	3.5%	$100,504
1956	$0.55	$1,136	4.0%	$111,852
1961	$0.64	$1,331	4.9%	$105,364
1966	$1.00	$2,080	5.9%	$138,785
1971	$1.65	$3,432	6.5%	$205,185
1976	$2.65	$5,512	8.7%	$248,580
1981	$3.50	$7,280	15.0%	$189,765
1986	$4.35	$9,048	8.7%	$408,235
1991	$6.00	$12,480	8.5%	$572,061
1996	$6.85	$14,248	6.4%	$871,553
2001	$6.85	$14,248	5.4%	$1,030,054
2006	$7.75	$16,120	4.0%	$1,584,351
2011	$10.25	$21,320	2.0%	$4,184,799
2016	$11.40	$23,712	1.7%	$5,352,998
2019	$14.00	$29,120	1.7%	$6,717,357

[11]

Wages, rents, health care and living costs are inflating…

While Interest rates have been falling and the amount of savings needed to produce income has been expanding

Conclusion:

Only a fraction of Canadians have enough money to retire comfortably and without the fear of outliving their savings. Interest rates hovering just above zero have reduced the income available to retirees. While only some of us own assets that have benefited from such low interest rates, all of us have a liability in the future that has grown enormously for the same reason. Ultimately, I

[11] Prior to the start of minimum wage, in 1951 and 1956, we imputed a minimum wage by maintaining the same average ratio of minimum to average wage

believe this unfunded liability will be paid for by tax payers. Guess who pays most of the Federal and Provincial taxes collected in Canada? The people who own all the real estate and equities that have benefited from low interest rates. According to a study by the Fraser Institute, the top 20% of Canadian income earners pay 70% of all Federal and Provincial taxes, while the bottom 40% of income earners pay zero taxes[12]. In reality, every tax paying Canadian has a large and growing off-balance sheet debt offsetting their asset gains. Canadians who pay little or no income taxes have a large and growing off-balance sheet asset. No one knows how this transfer of wealth will play out politically over the coming decades but I suspect those with a good knowledge of game theory will have fun figuring this out. I suspect that tax payers will seek to mitigate this liability by spreading the pain. The obvious ways to do this are by hitting corporations with higher taxes and by giving a higher share of profits to wage earners and customers through government regulation. Not coincidentally, corporate profit margins are at all-time highs and will make an easy target for governments. Allowing interest rates to rise to higher levels will help to reduce the size of the liability. Finally, given the choice between 70% marginal tax rates and inflation, I believe tax payers will choose to inflate away the government debts incurred to fund retirement costs. That is, of

[12] Source: Financial Post: Trudeau is right: 40% of Canadians don't pay income taxes, which means someone else is picking up the bill

course, after selling their stocks and real estate and buying short term government bonds poised to benefit from the higher interest rates.

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