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The Fallacy of the Risk Free Rate

“Nothing is so firmly believed as what we least know” – Michel de Montaigne

Every business student learns about the risk free rate of return. It is a cornerstone of Modern Portfolio Theory and CAPM. It is the rate savers use to judge the attractiveness of potential investments. An important asset class, it would appear. Except it exists not, but in theory.

What is meant by risk free? Risk free assets could be defined as those that preserve purchasing power and are at all times liquid. In other words, it's not just getting your money back, inflation adjusted, it's also getting it back when you want it. Bank deposits and sovereign bonds are most commonly seen as proxies for the risk free asset. However intervention by governments, commercial and Central Banks have distorted reality on a massive scale, leaving investors with a misplaced idea about risk and return. This article explains why.

Different types of bank deposits

There are two types of bank deposits: (instant) demand deposits and time deposits. They are very distinct products. The contract for a time deposit is to return an equivalent amount of money at a specific time in the future. On the other hand, the contract for a demand deposit is such that an equivalent sum of money must be returned to its owner *at a moment's notice*.

To make things more explicit, let's term demand depositors as 'savers' and time depositors as 'investors'. Savers take no chances. Though they may not in fact touch the money for a long time, its availability at a moment's notice is critically important to them. The only way a bank can be sure of delivering cash when it's demanded is to fully back all deposits with cash ("100 percent reserve backing"). This cash must be stored in a vault and guarded, a costly operation for which the banks will charge depositors, implying a *negative* rate of return. Think of safety deposit boxes in Swiss banks – they don't offer their services for free! So fully-backed demand deposits don't preserve purchasing power. And that's not the full story, as inflation will erode the value of money in a vault over time.

Those who wish to term out their savings become investors. They must understand the risks they run. The bank will take possession of their money and do with it as it pleases, to be paid back at the end of term – with interest if the bank's activities have been successful, with a haircut if not. The economics are simple enough: deposit investors give use of their money to the banks, who in turn loan the money out and generate interest income, a portion of which the banks offer deposit investors as compensation for risk.



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The reality is that banks pool both types of deposits and loan them out for varying maturities. No distinction is made between deposit savers and investors. Clearly deposit savers are being cheated – their cash should never leave the vaults until they ask for it back. But deposit investors too are wronged; term deposits are typically not very long, perhaps a year or less, yet banks regularly grant loans of up to thirty years or more.

It wasn't always like this. Jesús Huerta de Soto is a leading 'Austrian' economist and banking scholar. In his book *Money, Bank Credit and Economic Cycles* he documents how the earliest bankers in ancient Greece and Rome were required to hold a 100 percent reserve ratio on demand deposits. No interest was paid on demand deposits either; in fact Roman law stated that if interest was received on a deposit it necessarily made it a loan to a banker, or a time deposit. Roman law was very specific on the requirement for a full backing of demand deposits. Bankers that could not return clients' money on demand were guilty of theft and were subject to interest penalties on late payments, public floggings and hard labour. In Barcelona in the fourteenth century, bankrupt bankers were forced to live on a strict diet of bread and water until the full amount of deposits was paid back. The last serious attempt to carry out the business of banking in accordance with the principles of the demand deposit contract was the Bank of Amsterdam, set up in 1609. It maintained a 100 percent reserve backing of deposits for over 150 years. In 1672, when the king of France looked likely to capture Amsterdam, every last depositor was able to withdraw their money at short notice. Apparently some of the coins withdrawn appeared to have been damaged in the building fire that struck the bank over 60 years previously!

The historic desire for 100 percent backing of deposits was not borne out of a spiteful desire to 'get one over' on bankers. It grew out of necessity, that without such protection many people could (and did) lose real money. But greed is strong. And many a king with a war on his hands turned to bankers (and the deposits they minded) to fund them, so it's easy to see how the legal or bureaucratic requirement for 100 percent reserve backing diminished over time.

Modern day banking relies on depositor inertia – the old rule of thumb that 'typically' less than 10% of depositors look for their money at the one time. Apologies to all those grannies who believe their savings are down in the bank's vaults. Their €100 deposit is actually €30 of cash and other relatively liquid assets, and €70 in very illiquid, possibly very risky, heterogeneous loans. Try finding that in the fine print of a deposit account description. Let's call a spade a spade – banks effectively steel from depositors, like the office clerk who borrows from the company's petty cash float with the intention of replacing it before anyone notices. It is institutionalised embezzlement with a government seal of approval. Anyone with a pulse during the recent financial crisis should know that depositor default risk is not theoretical, but very real. Risk free indeed.

The perception that deposits are risk free comes from the implicit / explicit guarantee given by all but the most heartless of governments (shame on you, Denmark¹!) to make good any deposits not returned whole. However, even that perception has been severely strained

¹ Danish banks Amagerbanken and Fjordbank Mors failed in 2011. Deposits up to DKK750,000 (around €100,000) were protected; above that level depositors lost 41% and 26% respectively.

during the continuing financial crisis. A government can probably handle losses from a single bank, but looks decidedly weak-kneed when faced with entire banking system failures (printing money has its drawbacks, see below). Ireland faced this problem in 2008. Laughably, the government there 'guaranteed' roughly €500bn of banking liabilities, a figure more than three times the size of GDP. What would they have done if their bluff had been called by all funding sources withdrawing their support?

Government debt – high quality subordinate bonds (with liquidity risk)

Government bonds can hardly be described as risk free either. Investors in such instruments can be likened to the deposit investors described above: money taken for a contracted period, in return for time value and default risk.

They say that a gentleman's word is his bond, which is just as well because all government bonds are collateralised by nothing more than the word of the issuer, which is a lot of trust for what is supposed to be a risk *free* asset.

The corporate world by comparison appears far more ordered. Bond investors are ranked by seniority (junior or senior) and may be secured or unsecured. The senior bond of a stable and profitable company (say a **Johnson & Johnson**), secured on specified, ring-fenced assets worth a multiple of the value of outstanding debt is probably as risk free an asset as you'll find anywhere.

In contrast, the current situation in Greece highlights the weak position assumed by bondholders. Greek government debt outstanding is ballpark €300 billion, 140% of GDP. On the face of it this is a pretty serious situation. The government ran a 10% budget deficit in 2010. Cutting this gap requires higher taxes and less spending, which would undoubtedly shrink economic output, further causing pressure on tax revenues. It's a tricky situation and their militant electorate is not happy about it. Pressures are building for the government to renegotiate on their outstanding debt, on the premise that they can't afford to repay their debt pile.

A closer look at the facts sheds a different light on the situation. The IMF has estimated that Greece has €300 billion of publically owned assets. While the true size of this war chest – and their ability to realise it – is an open debate, what seems clear is that Greece is not a poor country and it has the wherewithal to repay what it owes. So the question becomes one of willingness rather than ability to pay. The reality for bondholders is that their *gentleman* is actually a politician looking to get re-elected in a couple of year's time. And Greek voters are letting their politicians know in no uncertain terms how they feel.

One key reason that governments don't default nearly as often as corporations is that governments control the monetary printing press. Under the gold standard, paper money could be swapped for its equivalent weight in gold, so printing paper money without the backing of gold would sooner or later lead to a change in the conversion ratio. Thus, the currency devaluation was very obvious. So while a bondholder may have received the contracted amount of coupons and principle back, it was clear that the value of the investment had fallen. It's all much more subtle under a fiat monetary system, as paper

money is convertible into, well, equally useless paper money (*“Would you like to convert that \$100 note into two \$50 notes or ten \$10 notes, sir?”*). Did the US government default in 1971 when it moved off the gold standard? All else equal, printing lots of paper money will lead to inflation and a degradation of the value of that paper money; again it’s a default by another name. Buying inflation-linked bonds is not a satisfactory answer either, as the government can always manipulate the inflation data (see John Williams’ website www.shadowstats.com for more on this topic).

Far from being the risk free rate, holders of government bonds face numerous uncertainties. Firstly, they cannot give all investors access to their cash at the same time access – investors can only exit their position if there is a willing buyer in the secondary market. While this might be an overly pedantic point given the highly liquid nature of sovereign debt markets, it can happen. Ask LTCM if you don’t believe us.

Most importantly government bonds are uncollateralised and typically are junior to a country’s civil servants, pensioners, welfare recipients and healthcare system – not to mention the IMF (EU / ECB?), who assume a ‘super senior’ position in a crisis. Investors also face stealth devaluation through printing press activities. Admittedly owners of short-term government notes are better protected than longer notes, but short dated debt holders face reinvestment risk.

Gold as the risk free asset?

The arguments for and against gold are many. Perhaps chief among them in the ‘against’ camp is that gold doesn’t produce any income, so how can it be valued? And if it can’t be valued then how do you know you are paying too many dollars per ounce? And of course, paying too much for any asset is a sure way of a permanent impairment of capital, the value investor’s definition of risk. This is a powerful rebuttal of gold as a risk free asset.

Gold does have many favourable traits, which are well known. Principally, its supply is relatively fixed, which reduces stealth devaluation risk, and it has been viewed as an acceptable means of exchange from early civilisation to this day. Interestingly, gold shares a key similarity with demand deposits: it has a negative interest rate (after storage costs).

All assets are risky

In considering some of the issues raised here, the conclusion is stark. Putting liquidity risk to one side, how can any individual deploy capital in such a way as to guarantee preservation of purchasing power over the long-term? The honest answer is that there is no such way – there are no guarantees in life. Throughout our history, man has never had any means of ensuring with certainty that his reserves can be preserved in current terms – why should the men of today have it any easier? Those that dislike cash or bonds because of the risk of default, implicit or explicit, may decide to own gold. This provides no guarantees either – perhaps supply might increase as technology improves mining techniques; perhaps counterfeiting might yet become possible with technological advances; perhaps future governments may confiscate some or all private gold ownership. How might the purchasing power of one’s gold be affected by any of these scenarios? Similar arguments can be made

against any other commodity.

There are no risk free assets. Charlie Munger says that all intelligent investing is value investing, so it would seem unintelligent not to incorporate this thinking into a value-investing framework. Or do like Homer Simpson: *"I'm normally not a praying man, but if you're up there, please save me, Superman."*

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