HORIZON KINETICS

Under the Hood: What's in *Your* Index?
(An Ongoing Series, August 2015)

Your Bond Index: Part of the ETF Bubble

Here's a valuation sobriety test – but we're going to avoid equities, because the value of almost any stock, even one with a P/E of 100, may be legitimately argued. Arguments for overvaluation don't fall on deaf ears so much as get set side by side with all the other viewpoints, with a sort of moral equivalency applied to all. Amazon.com Inc. ("Amazon"), for instance, who is to say what future sales and profit margins might ultimately be? The valuation of bonds, on the other hand, is rather narrowly limited, and by fairly objective criteria. A bond will be worth par (at most) by a given date, based on contractual obligations and usually rather observable balance sheet and cash flow data.

So, if one were told that a 10-year U.S. Treasury Note – essentially the benchmark for no-credit-risk, liquid borrowing – now sells for a 2% yield, and had to guess at the yield of a 10-year investment-grade corporate bond, like International Business Machines Corporation ("IBM"), which has a AA- Standard & Poor's ("S&P") credit rating, what extra yield would one require for a decade's worth of the extra risk? A percentage point or so? That's about right: a 10-year IBM bond trades at a 3.4% yield to maturity[1]. How about a non-investment grade, but recognizable credit, like the 10-year The Wendy's Company ("Wendy's) International bond, Wendy's being profitable and able to pay its interest expense, but nevertheless rated CCC+? Another few points? That's about right. The 10-year Wendy's bond trades at a 6.3% yield. As a check, the iShares High Yield Corporate Bond ETF ("HYG") has a 6.6% yield to maturity.

So, the sobriety test will consist of several major holdings in the iShares Emerging Markets High Yield Bond ETF ("EMHY"), and the question for each will be: what should the yield to maturity be? Essentially, what price for the extra risk, bearing in mind that the best one can do is to recoup 100 cents on the dollar? Answers will be provided at the end of the test. As a frame of reference, the weighted average maturity of EMHY is 9 years, comparable to the examples above, with a weighted average yield to maturity of 8.9%.

First up, Russian Federation 7.5% bonds due March 2030. This is U.S. dollar-denominated debt, as are all the bonds in this ETF, so there is no currency risk. Russian sovereign debt is rated BB+ by S&P. As to circumstances, there has been a sharp decline in oil and gas prices as well as gold, and the government needs that revenue to balance its budget, which it cannot do. In July, in respect of the budget, the government dismissed 110,000 employees. Government spending is to be cut by 10%. The GDP should contract by 3.8% this year, according to the International Monetary Fund. What is the yield of this bond?

Next up, the 5.375% bonds due January 2021, of Petrobras, the partly government-owned Brazilian oil giant. More than 20 of this company's executives are now in prison, charged with falsification of corporate documents, criminal conspiracy, and money laundering, among other corrupt activities. They have yet to be convicted, but cannot be given bail since they would be unlikely to remain in Brazil. Among other irregularities, the value of the Petrobras service contracts was inflated. The excess funds were channeled to political parties, including the so-called Workers Party of Brazil's president, Dilma Rousseff. Thirty four politicians from both houses of the Brazilian Congress are under investigation, including the speakers of both houses. All but one of these is a member of the governing coalition.

[1] Sources: Bloomberg, iShares, company and news reports. Data as of August 21, 2015

The Petrobras accounting is quite interesting: in the first quarter of 2015, despite oil prices having declined by 50% and interest expense having more than doubled, to $1.96 billion, earnings decreased by only 18.5%, from $2.28 billion to $1.86 billion. Without the higher interest expense, reported earnings would have risen. What interest rate would you require – or think that others would – to buy this 5 ½ year bond?

There are many more interesting bonds in EMHY, but in consideration of space, just one more: the Lebanese Republic 8.25% due April 2021. Can you guess the yield to maturity? In fairness, it is not an easy country to analyze, partly because the most recent figures compiled about the GDP of Lebanon that might be remotely reliable date from 2013. The reason is that the government is hardly functional at that level. At that time the public debt was 134% of GDP and the budget deficit was 8.9% of GDP, as calculated by a firm called FocusEconomics. There are now 700,000 Syrian refugees in Lebanon, which has caused a decrease in salary levels due to competition for jobs. There are violent clashes between various religious and ethnic factions on an almost daily basis, and Hezbollah, which functions as a state within a state in the south, is a participant in the Syrian Civil War from the Lebanese side. The market capitalization of all the equities on the Beirut Stock Exchange is $11.4 billion, a bit more than twice the daily *trading volume* of Apple Inc. ("Apple"). The Lebanese Republic U.S. Dollar Bonds trade on the Beirut Stock Exchange and don't trade on most days, for reasons that should be obvious. Lebanon is a nation that could be in civil war at any minute.

Before the answers, some additional information. The Russian Federation bonds are the largest position in EMHY, a 3.67% weight; more importantly, Russian Federation credits total 15.3% of the fund. The Petrobras bond is the 3rd largest holding, at 1.01%, and Brazilian credits amount to 12.1% of the fund. The Republic of Lebanon bond is a 0.56% position, and Lebanon is one of the top 10 allocations, at 2.1%.

Answers:

Russian Federation 7.5% due March 2030:	3.66% YTM
Petrobras Global Finance 5.38% due January 2021:	8.40% YTM
Republic of Lebanon 8.25% due April 2021:	5.74% YTM

How is it possible that Russian Federation 15-year bonds trade at the yield of 10-year IBM bonds? How does a company in the midst of a massive fraud investigation, its senior executives in prison, trade at a yield not much above a diversified index of U.S. high yield bonds? And, really, how does a nation the size of Vermont, on the brink of collapse, situated where Lebanon is, borrow more cheaply than Wendy's?

If these yields to maturity are really inadequate compensation for the risk assumed by owning these bonds, do the prices result from some other factor, such as artificial supply-and-demand pressures? In EMHY, new money is allocated based on float. In other words, the more debt a nation has issued, the greater the allocation to the bonds of that nation because it has a greater capitalization. That is the mathematical model, and that is entirely logical – to a point.

Somewhere in this country, a robo advisor has just instructed an individual, and an asset allocation committee for a public pension fund has just made an adjustment to their exposures, and both have decided to establish, or add to, their emerging markets high yield segment. EMHY has $228 million in Assets Under Management ("AUM"). If this one pension fund is $10 billion (which wouldn't even make the list of the largest 300 global pension funds) and wished to allocate merely one-half of 1% of its portfolio to EMHY, that would be $50 million, or 20% of the ETF. That's a lot. If the ETF could exercise subjective judgment, perhaps some decisions would be made about how to allocate that $50 million other

than according to the existing float-based weightings and other than immediately. But in this instance, the mathematical model becomes the reality – which is not a good idea. The computer cannot calculate the subjective judgment, however realistic that subjective judgment might be, of the probability of default, nor is there a "valuation" factor, extreme or otherwise, in its program – they simply don't exist. Accordingly, not only does the computer purchase additional Lebanese bonds in the precisely correct ratio, but if Lebanon issues more bonds in order to stay afloat, the total capitalization of Lebanese bonds increases, and the ETF will assign yet a higher weight to Lebanon and purchase proportionately more. That is how it has a 5.6% yield.

Now, for the real point of this writing. Instead of thinking about this exercise about how indexation as now practiced can radically and very obviously inflate the clearing prices of various bonds egregiously beyond what they are reasonably worth – even in the eyes of the non-expert observer – think about it in terms of the more familiar stock indices (and Facebook, Inc., Amazon, Netflix Inc., Biogen Inc., American Tower Corp, Tesla Motors Inc. and, of course, Shake Shack Inc). That is where most of the allocations are, and it is fair to think that they are at risk.

As a final note, if the combined weights of Russian, Brazilian and Lebanese bonds is about 30% of EMHY, and if their yields to maturity are substantially lower than the 8.6% average YTM of the fund, the balance of the fund must have a much higher yield than 8.6%. From where does the extra yield come? Partly from bonds like the Bolivarian Republic of Venezuela, which has a 6.3% weight in the index. Within this segment is an August 2031 bond with a yield to maturity of 32%, and the Petroleos de Venezuela 8.50% due November 2017 that trades at 65 with a yield to maturity of 61%. When a bond trades at a yield to maturity in excess of 60%, it is perhaps not unfair to assert that there is at least some question as to its repayment prospects. Some might assert that a 61% yield to maturity is a way of saying that the ultimate return will *not* be 61%. Consequently, the technically correct fact that the iShares Emerging Markets High Yield Bond ETF has an 8.12% yield, without stating that this includes bonds with dubious repayment prospects, is not, at the least, very informative. The return one should expect is very much lower.

The iShares Emerging Markets High Yield Bond ETF ("EMHY") seeks to track the investment results of an index composed of U.S. dollar-denominated, emerging market high yield sovereign and corporate bonds. The iShares iBoxx $ High Yield Corporate Bond ETF ("HYG") seeks to track the investment results of an index composed of U.S. dollar-denominated, high yield corporate bonds. Shares® is a product of Blackrock®.