The Ten Biggest Mistakes Bank Portfolio Managers Make – And How To Avoid Them

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The performance disparity has been similarly large from 2002–2017.

MISTAKE #1
FAILURE TO QUANTIFY THE RISKS AND REWARDS OF CALL OPTIONS
The typical community bank investment portfolio contains approximately 25% agency issued bonds that are callable, by the issuer, at some point in the future, usually in one year. The callable agency market is a $300-$500 billion annual market. In addition, many of these bonds have fairly long maturities relative to the shortness of the call (i.e., 5 years maturity with a 1-year call.) The yield received is somewhat more than a non-call bullet agency of the same final maturity, and usually substantially more than the non-call bullet that matures on the call date. In 2017, the new issue callable agency bond market remains alive and well.

Wall Street sells the strategy of buying callable agencies as a win-win – if rates go up (and the bond is not called), the investor “wins” by exceeding the income of the non-call bullet of the same maturity; if rates go down (and the bond is called), the banker “wins” because he received more income to the call than the shorter non-call bullet. This “win-win” thinking is wrong and is a mistake!

The reality of new issue callable agencies (and most in the secondary market), is that the banker is not being compensated nearly enough for selling the call option. If rates go up, the benefit of the premium
received for selling the option is dwarfed by the bond’s price depreciation. If rates go down, the absence of any price appreciation reflects the pain of reinvesting all the proceeds at lower rates. When the true risks and rewards of newly issued callable agencies are measured properly, they are easily exposed as poor risk-reward investments. In financial terminology, these callable bonds have a high degree of negative convexity that is being borne by the investor without proper compensation. In fact, if callable agencies were a game in Las Vegas, nobody would play. Because in Las Vegas, somebody would have calculated the odds of winning and declared the game a bad bet. Over the years, the agencies have made some attempt to increase one-time calls and other features to make them more attractive to portfolio managers, but in general, they remain a very poor risk/reward proposition.

Of course, bankers have many embedded options on their balance sheets in addition to callable agencies, and many of those other embedded options (assets and liabilities) also have questionable risk-reward profiles. However, in my experience, the purchase of newly issued callable agencies stands out as the most clear-cut and common “mistake” that is made in the area of option selling. In general, bankers have increased implementation and enforcement of prepay penalties and have made other attempts to reduce their balance sheet optionality with mixed results.

**HOW TO AVOID MISTAKE # 1**
Call options are not evil by nature. If the issuer is providing enough compensation, they can be attractive. Unfortunately, newly issued callable agencies as a product class generally do not compensate the option seller enough to bear the risk, and therefore should generally be avoided. This situation may change in the future, especially if enough bankers avoid them at current levels of compensation. However, you must have a methodology for determining the relative value of this asset class versus other available asset classes at the time of purchase. Most community bankers lack the methodology for determining the relative risk-reward profiles of callable bonds and whether the compensation for selling the call is adequate.

**MISTAKE # 2**
**USING YIELD AND SPREAD AS A PROXY FOR RETURN**
Many investment portfolio managers use yield and spread to Treasury as a proxy for return. Unfortunately, yield and spread are not good indicators of real return on mortgage pools, CMOs, ARMs, callable agencies, balloons and many other securities – even if you hold all bonds to maturity. Amortizing securities potentially create a lot of reinvestment of principal before you get to maturity, especially in a rates-down scenario. Consequently, your “yields” can disappear quickly as more and more principal gets reinvested at lower rates. In some cases, the portfolio manager would be better off accepting lower yields from a more stable investment at the time of purchase rather than seeking higher yields that can disappear quickly.

Accepting a lower yield from more stable cash flows is especially important because institutions traditionally have little money to invest in a high-rate environment and large quantities to invest in low-rate environments – they must carefully invest when rates are high to avoid too much extra investing when rates are low. The overemphasis on high yield and spread at the time of purchase often leads to problems when rates go up as well, because the higher-yielding instruments typically also have the most duration and extension risk. So using yield and spread to select investments can result in big problems in both rates-down and rates-up scenarios.

**HOW TO AVOID MISTAKE #2**
Maximize future total return potential, not current yield, when investing. Total return considers all coupon income, plus all future reinvestment income to be generated from an investment (total future wealth), over the lifetime of the principal. In fact, estimating potential future total returns is the best mathematical way to compare investments. If a proper total return methodology is adopted, it can reveal investments with more protection and better future performance, especially in a volatile
rate environment. Using yield and spread to select investments is a “mistake” and generally leads to portfolios with too much interest rate risk, a lot of surprises and poor long-term wealth generation for the institution. As of 2017, relatively few depository institutions have adopted a total return methodology for their portfolio or balance sheet.

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MISTAKE # 3
FAILURE TO USE THE PORTFOLIO APPROACH

Many portfolio managers look at each bond purchase as a separate investment. Unfortunately, this type of thinking was reinforced by the FFIEC’s high-risk security test, which was in effect from 1992-98. The test gave a “thumbs up” for acceptable CMOs and the “thumbs down” for those that were deemed too risky for bank ownership. This “test” was dropped by the regulators because Wall Street started designing bonds with hidden risks that would pass the test. Unfortunately, some portfolio managers still use the test as a purchase criterion.

Using the bond-by-bond methodology, the portfolio manager may be approached with a bond (Bond A) that has a great reward in a rates-down scenario, but too much risk in a rates-up scenario, so the bond is rejected. Subsequently, he or she may be approached with a bond (Bond B) that has a great reward in rates-up, but too much risk in rates-down, so it is also rejected. As a result, the portfolio manager purchases Bond C, which has a smaller risk than Bond A in rates-up and a smaller risk than Bond B in rates-down. This kind of bond-by-bond investing is a “mistake.” At best, it can lead to very mediocre and possibly bad results for the institution.

In many cases, the combination of rejected Bond A and rejected Bond B described above will be better in all rate scenarios than Bond C. As an aside, since many portfolio managers use similar “thumbs up” and “thumbs down” bond-by-bond methodologies, Bond C becomes in demand and very expensive as well. Bonds A and B, however, have less demand and therefore have more attractive pricing. So the better risk-reward profile in combination has more attractive pricing than the so-called “less risky” Bond C. Who says markets are efficient?

Most institutions fail to use the portfolio approach in making purchase decisions, leading to poor peer performance. Many bond sectors have very different risk profiles and act as natural hedges for each other. The risk of the entire portfolio should be the paramount issue – not the risk of individual bonds that can be easily offset by other bonds or bond sectors (not to mention the rest of the balance sheet).

HOW TO AVOID MISTAKE #3

ADOPT A METHODOLOGY THAT LOOKS AT THE FUTURE PERFORMANCE OF THE WHOLE COMBINED PORTFOLIO ACROSS MULTIPLE RATE SCENARIOS OVER THE SAME TIME HORIZON.

Since risk profiles of individual securities are “additive,” you can “add up” risk profiles of individual bonds to check the performance of two or more bonds in a particular sector (i.e., pools.) Then, you can go one step further and “add up” the risk profiles of all the sectors to capture the risk profile of the entire portfolio.

In the most recent FFIEC Supervisory Policy Statement, the banking regulators have recommended the adoption of a methodology that has the capability of capturing the risk of the entire portfolio. The use of a single parametric measure, such as duration, is usually available to bankers as a proxy to capture portfolio risk. However, the duration of the portfolio does not capture the true risks of many security sectors (especially those with option risk). Therefore, a better portfolio risk measurement and management system is necessary. The bond-by bond approach is a common “mistake” and must be overcome to achieve potentially outstanding performance with acceptable risk tolerances. Bond-by-bond investing
is still a common practice today, while current duration is also used prevalently as the primary measure of rates-up risk for bonds and portfolios. More sophisticated portfolio management tools like total return stress testing has been adopted by a relatively small number of depository institutions.

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MISTAKE # 4 LABEL INVESTING
Most portfolio managers engage in some kind of “label investing” – the practice of buying or rejecting investments based on their labels and not on their true merits or shortcomings. For example, I have heard more than one portfolio manager say “CMOs are bad” or “Pools are good.” Some say “PAC CMOs are good” and “Z bonds are bad.” I have even heard “Revenue bonds are bad” and “GOs are good.” This type of thinking is prevalent, and it is a mistake. Label investing makes broad assumptions about risks and rewards that may be false and misleading (while saying nothing about relative value), leading to bad decisions and bad performance.

Wall Street is too smart for the kind of simple thinking described above. For example, when Wall Street got wind of the fact that many bankers were thinking “PACS are good,” they started creating more and more bonds with PAC labels. Some of these “PAC” bonds have very questionable risk-reward profiles, not to mention some of the worst risk-reward profiles being issued today. On the other hand, Wall Street has had a hard time overcoming the “Z-bonds are bad” label, so it had to “cheapen up” the Z-bond offerings, meaning many Z-bonds ironically have attractive risk-reward profiles. We can give many examples where the so-called “good” label is actually a bad risk-reward investment, and a “bad” label is actually a good risk-reward investment. It is clear that using labels to guide your investment selections is a mistake and can lead to very poor performance.

HOW TO AVOID MISTAKE #4
Find a way to judge bonds on their true risk-reward profiles and not on the labels attached to them. This may require an up-front investment of time and effort to learn more about bonds, bond math and logic. Dumping the label investing approach can lead to greater performance. Fortunately, there has been some improvement over the years when it comes to this “mistake,” as more investors have realized that buying or not buying bonds because of their labels without further analysis may not be such a good idea.

MISTAKE #5 USING FLOATING-RATE BONDS AS A PANACEA FOR RATES-UP PROTECTION
Many institutions, for a variety of reasons, have a need for rates-up protection. Some of this need is due to ownership of bonds with longer maturities already in the investment portfolio or other asset/liability reasons. As a result, many institutions have chosen to purchase a wide variety of floating-rate bonds to provide the needed rates-up protection, but this is a mistake. The following five reasons help explain why floating-rate bonds are not guaranteed to provide the rates-up protection these institutions need:

1 PRICE VOLATILITY
Although it is widely believed that floating-rate bonds will never have big price changes, this is wrong. Most floating-rate bonds have a great deal of price depreciation potential. If rates rise aggressively, the price depreciation can overwhelm the increase of income due to the floating rate.

2 CAPS
The presence of interim or lifetime caps can seriously impair the performance of floating-rate securities in both income and price. Even if the caps are never reached (so the income is unaffected), the presence of the caps will be felt in price depreciation
as rates go up. In a rates-up environment, newly issued floaters will have higher caps than the “older” floaters you own, so the “older” bonds will suffer in price when the new buyers are comparing the products. Caps, which have very little effect at the time of purchase, can have a high negative impact in a rising-rate environment, even if the coupon does not “approach” the cap.

3 INDEX RISK
Many floaters are tied to indexes that tend to underperform. It has been widely documented that Treasuries have been “disconnecting” from the swap curve and other product curves in recent years. This has led to underperformance for any floating-rate asset tied to Treasuries. In addition, other indexes, such as COFI, have been underperforming for many years. Again, the price you will pay for owning a floating-rate bond tied to an underperforming index will come in the form of price depreciation. Unfortunately, a high percentage of the floating-rate bonds issued are tied to underperforming indexes. The recent demise of Libor offers another example of an index you can’t depend on.

4 RELATIVE VALUE VS. FIXED-RATE BONDS
When rates are considered “low” by the marketplace, floating-rate bonds tend to look good relative to fixed-rate alternatives. Since fixed- and floating-rate bonds are both very low yielding, why not buy the bond that has a chance to float up when rates go up? However, when rates do go up, there is a different perception in the marketplace. As rates rise, the newly issued fixed-rate bonds start to look better and better relative to the floating-rate bonds. When rates rise aggressively, the fixed-rate bonds are considerably more attractive. In other words, why buy a floating-rate bond at 7.5% (with a long maturity) when a 2-year fixed-rate bond can be purchased at 7.5%? How does the market adjust to this relative attraction to fixed-rate bonds in a “high” rate environment? It beats up the price of the floating-rate bond – even if there are no caps! Floating-rate bonds can experience significant price depreciation in a rates-up environment because of their relative value versus fixed-rate alternatives.

5 POOR STRUCTURE
Floating-rate bonds, especially CMO floaters, are often offered in structures that have poor risk-reward characteristics. They often support cash flows that can extend dramatically in rates-up scenarios and disappear quickly in rates-down scenarios. The floating rate will not mitigate the risks of a poorly structured security. Unfortunately, a large percentage of floating-rate bonds are issued on bonds with poor structure characteristics.

HOW TO AVOID MISTAKE #5
Unfortunately, as outlined above, floating-rate securities purchased with the best of intentions rarely provide rates-up protection. As mentioned, the main culprit is unforeseen price depreciation that can occur for a variety of reasons. Although floating-rate bonds are not evil by nature, at current and historical prices, they are and have been highly suspect as meaningful insurance in a rising-rate environment.

They should be purchased very cautiously using a methodology that has the ability to accurately estimate price depreciation in a rates-up environment due to caps, structure, index risk and relative value to alternative fixed-rate bonds. For less sophisticated investors without the ability to adequately quantify, they should be avoided. In general, market participants have become more aware that some floaters are better than others. However, given the lack of major rates-up events in recent years, they have not necessarily recognized that it takes quite a bit of expertise to make a proper pre-purchase analysis of floating-rate bonds in order to estimate their future rates-up price volatility.

MISTAKE #6
USING AND TOLERATING BAD POLICIES
Many portfolio managers buy poor-performing securities because their policies steer them that way. In an attempt to limit risk, these misguided policies often limit rewards substantially, and in many cases actually increase risks significantly. For example, many institutions, with good intentions, limit MBS purchases to 30-50% of the portfolio in order to limit prepayment and extension risk. In many cases, the portfolio manager increases the purchase of
callable agencies as a result of this policy. As a result, the risk of the portfolio increases in both rates-down and rates-up scenarios. If rates go down, the prepayment of principal on the callable agency will be 100% – more than the typical MBS. If rates rise, the typical callable agency will experience more price depreciation than the typical MBS. Therefore, a policy with the intention of reducing risk actually could very likely increase risk in both a rates-up and rates-down environment.

Most policies that attempt to limit certain categories of bonds in an effort to reduce risk usually do not achieve their goals. More than likely, another risk is being introduced (i.e., credit risk) or the new product category has the same or more IRR risk than the limited sector. Many portfolio managers have a false sense of security that if one sector “blows up,” the other sectors will be okay. In interest rate risk, however, knowledgeable investors can diversify properly within good risk-reward sectors and not force themselves into buying poor risk-reward sectors. After all, if Sector A generates higher returns than Sectors B, C, and D in a variety of interest rate scenarios, then why not 100% of Sector A? Policies that attempt to diversify risk by using percentage limitations have had mixed results over the years. In the case of credit risk, they have been much more helpful than in the area of interest rate risk.

**HOW TO AVOID MISTAKE #6**

Policies should be adopted that allow enough flexibility to outperform yet limit IRR risk to the whole portfolio. Since limiting sector types rarely reduces interest rate risk and in many cases increases it, these types of limits should be reduced or eliminated. However, for sectors with considerable credit risk (i.e., corporates, non-rated munis), these types of limits may still be appropriate. Most institutions would benefit significantly from a major overhaul of their policies and limits to better reflect true risks and rewards.

**MISTAKE #7**

**INVESTING WITH THE WRONG HORIZON**

Many portfolio managers (Type As) invest with too short a time horizon. For example, they buy a bond (portfolio), and three months later get very upset because rates are up somewhat and the bond (portfolio) is underwater. Other portfolio managers (Type Bs) invest with too long a time horizon. For example, they buy a bond (portfolio) and show no emotion whatsoever when rates rise and prices fall precipitously; after all, they are buy-and-hold investors and therefore don’t care until maturity. Both the Type As and the Type Bs described above are making the same mistake – they are using the wrong time horizon to judge or measure investment performance.

The Type A described above is trying to measure results too soon. Virtually no income is accumulated during this period, which may offset price depreciation down the road. It is too soon to bemoan a bad decision or celebrate a good one – the jury is still out, so to speak.

The Type B described above is like the proverbial ostrich with its head in the sand. If a 10-year bond (portfolio) is acquired, the performance during those ten years could have a serious impact on the institution’s performance – good or bad. At some point before the ten years are up, the bond’s (portfolio’s) performance should be measured against benchmarks and/or alternatives to determine the relative value derived from the investment. Hindsight is 20-20, but only if you look and measure. Also, at the point of purchase, if you know the time horizon to be used, you can then make “predictions” to that point of future measurement. The horizon chosen is an art and not a science, but needless to say six months is too short and ten years is too long; an intermediate point must be chosen.

In many cases, the Type A behavior described above creates a situation where the portfolio manager becomes like a “deer in the headlights” and refuses to invest in anything with risk (and reward) – the result is underperformance due to buying only low-yielding securities. On the other hand, the Type B described above creates a situation where the portfolio manager refuses to invest in anything without high reward (and high risk.). Again, the result is
over time due to high price depreciation in rates-up scenarios and large prepayments in rates-down scenarios. Both mentalities are mistakes.

**SLOPE**
The muni curve generally provides more slope than any other product curve; therefore, munis offer a great “bang for the buck” when measuring reward versus risk.

**NEGATIVE CONVEXITY**
BQ munis have the added advantage of having much lower negative convexity than MBS and other “callable” bonds. In a lower rate environment, they do not receive a lot of prepayments, and in a higher rate environment, they do not extend (in fact, they get shorter). This is a very big advantage to a bank that already has considerable call risk and extension risk.

**TAX ADVANTAGES**
BQ municipals have distinct tax advantages for both public and subchapter S banks. Besides the obvious advantage of no federal taxation, there are other potential tax advantages of owning BQ municipal bonds.

**HOW TO AVOID MISTAKE #7**
Choose some intermediate horizon point in the future (1-3 years) where the clock will be stopped and results will be measured either after the fact or prospectively at various points along the way. At this horizon date, bonds can be compared to other bonds, sectors to other sectors and portfolios to other portfolios. If this date is chosen carefully, the Type A banker described above will no longer be afraid to invest in what is really needed, and the Type B banker may no longer be willing to “stretch it” with too much risk. Investing with the proper horizon for your institution can lead to more balanced investment decisions and better performance. In general, horizon scenario analysis has had only limited adoption over the years and therefore the somewhat emotional “too short” and “too long” mentalities are still prevalent.

**HOW TO AVOID MISTAKE #8**
Although BQ municipal bonds are complicated and somewhat difficult to understand, most banks should be involved in this market, which means portfolio managers should take the time to learn the mathematics. As with any other sector, there are large quality differences in municipal issues, ranging from credit risk (beware of nonrated issues) to interest rate risk to structure risk, so the risks and performance characteristics must be understood before diving in. However, getting involved with BQ municipals in the proper amount and on the right part of the curve for your institution can lead to better long-term performance. In the past 15 years, long municipal bonds have been far and away the highest performing total return of all bond sectors except for crash-related short-term price anomalies in private label MBS that caused huge performance numbers for a few years post-crash.

**MISTAKE # 8 – FAILURE TO UNDERSTAND BQ MUNICIPAL BONDS**
Many banks that pay taxes regularly do not invest in BQ municipal bonds at all. When asked why, many portfolio managers say they avoid BQ bonds because they don’t fully understand them. In other cases, even banks that do own BQ munis have inadequate investments in the sector or are involved in the wrong part of the curve. This is a common mistake. Low cost of funds and subsequent low TEFRA disallowances have allowed banks to expand into GM municipals, so BQs are not the only option anymore. In general, as municipal bonds have consistently outperformed other bond sectors, they have garnered more participation.

BQ municipal bonds are more complicated than the typical bond sectors, but they are an excellent risk-reward sector for a variety of reasons:
Failure to properly measure results is a common mistake that leads to repeated mistakes, because portfolio managers are unaware of how poorly their strategies are performing.

**MISTAKE #9**
**FAILURE TO MEASURE RESULTS**
As a bank examiner, I would always ask the portfolio manager the same question on day one: “How’s the portfolio doing?” The portfolio manager at every bank would always say the same thing: “Fine – just fine.” In reality, very few portfolio managers know how they’re doing because they don’t measure results. Many portfolio managers do refer to their UBPR yield numbers, but we know from Mistake #2 that using yield to measure results is a mistake.

Failure to properly measure results is a common mistake that leads to repeated mistakes, because portfolio managers are unaware of how poorly their strategies are performing. These repeated mistakes are the most prevalent reason that bank portfolios underperform. Again, hindsight is 20/20, but only if you look – and not enough institutions look at past performance.

**HOW TO AVOID MISTAKE #9**
Look back on purchases (and the portfolio) and measure results in the form of total returns. These total returns to date can be compared to alternatives available at the time of purchase and also to benchmarks such as a Treasury ladder. In this way, the portfolio manager can learn from mistakes and victories. This process provides great insight into which current purchases can provide the best possible future performance for the portfolio. This method of looking back and comparing to alternatives can be used for both individual securities and the portfolio as a whole.

Measuring and reviewing results (total returns) regularly on individual securities, sectors, and the total portfolio can lead to better future decision making and improved performance.

**MISTAKE # 10**
**FAILURE TO QUANTIFY POTENTIAL OUTCOMES**
In my experience, most institutions do not properly stress test individual securities or the portfolio across a wide range of interest rate scenarios. Some banks do price shocking at the time of purchase which is good, but instantaneous price shocking alone can lead to false conclusions. Instantaneous price shocking has no income component, so securities with high income/high volatility are penalized because the income component is never considered.

Some high-income securities (with high price volatility) provide enough income over time to overcome a large price depreciation, and price shocking alone would not capture this. Another problem with instantaneous price shocking is that it has no time component. Rates do not generally rise 300 bps in one day – they rise over some time period (a month, six months, a year, etc.). During this passage of time, a bond could extend, contract or change in some way. Therefore, a more realistic (and accurate) stress testing of bonds should involve some passage of time as rates change. This is generally referred to as horizon analysis.

I have seen many instances where portfolio strategies turn sour and the portfolio manager says, “I didn’t know that could happen!” This is unacceptable. Bonds are mathematical instruments that are quantifiable. Price depreciation in rates-up situations is predictable. Prepayments are predictable (within a reasonable range) in different rate scenarios. Coupon income and reinvestment income are also predictable. Therefore, a portfolio manager should have a very good idea of the performance of securities if rates go up, go down or stay the same. Failure to quantify potential outcomes for purchases, and the portfolio as a whole, in a variety of interest rate scenarios is a common mistake.

**HOW TO AVOID MISTAKE #10**
At the time of purchase you can make some fairly
accurate predictions of price, prepayments and income in a variety of interest rate scenarios for individual bonds and the whole portfolio. The proper methodology for quantifying potential outcomes would be to quantify potential total returns over some reasonable horizon period. Total return is the total coupon income expected plus the expected income from all reinvested cash flows, plus or minus the price appreciation or depreciation expected in the particular rate scenario. Measuring potential total returns in a variety of interest rate scenarios over a reasonable horizon can lead to better decision-making and dramatic increases in performance.

CONCLUSION
I hope you have gained some insights from my observations of the ten most common mistakes portfolio managers make. You may have recognized some of these mistakes as practices you have engaged in over the years.

The good news is that these mistakes can be avoided, and improved performance in the investment portfolio will likely be the result. Avoiding some of these mistakes, however, will require learning some new skills and methodologies for most portfolio managers. This will require an upfront investment of time and effort. But the effort will be worth it when the portfolio creates improved wealth with less risk for your institution for years to come.

While I am proud that this article is still relevant, I would have also predicted 15 years ago that by now, many more institutions would have adopted methods and policies to overcome these mistakes. Unfortunately, the progress toward improvement and the subsequent increased potential performance has been much less than anticipated, and these mistakes remain prevalent today.