PERSPECTIVE

Rethinking Revenue Diversification, Warren Buffett Style

BY JUSTIN MARLOWE

Billionaire Warren Buffett is famous for his blunt commentary on everything from tax policy to baseball to ukulele playing. And of course, his advice on investing has moved markets and made personal fortunes. According to some recent research, his ideas on picking stocks might also be good advice for managing local government revenues.

Local government revenue structures are front and center these days. For this we can thank GFOA's pathbreaking "Rethinking Revenue" initiative. Rethinking Revenue is a deep dive into big questions—what local governments tax, why they tax it, and how they can build better tax structures for the future. One of its core principles is that "today local revenue structures are largely based on assumptions that no longer hold true as digitization, globalization, demography, political changes, and other trends continue to shift the landscape."

Many of these assumptions surround local revenue systems' ability to generate the requisite resources for essential services. Tax policy experts call this "revenue adequacy." Rethinking Revenue points out that adequacy is under assault for many reasons that local governments can't control. Consumers continue to shift a growing portion of their spending away from goods that are subject to local sales taxes. Reliable revenue sources like charges for services have been shown to disproportionately affect the poor—and so on.

But there's another, often-overlooked dimension of adequacy: performance over time. A revenue system that can produce big annual revenue increases sounds exciting. And yet, the laws of financial physics tell us that the system is also prone to big annual decreases.

Most local budgeting officials will trade the chance at a budget windfall for the certainty of avoiding a budget shortfall. This lines up well with Buffett's most famous investment advice: "The first rule of an investment is don't lose money. And the second rule of an investment is don't forget the first rule."

That leaves us with a challenging question: how can we ensure that a local revenue system generates enough revenue, and minimizes the risk of large annual declines?

The answer is diversification. Professional money managers have espoused the virtues of a diversified investment portfolio for decades. Stocks, bonds, real estate, and other assets tend to move in different directions as markets improve or decline. It follows that holding a mix of otherwise uncorrelated assets can prevent unexpected losses. Academic researchers have applied this same principle to local government revenues. They have carefully studied how local governments distribute their revenue burden across different revenue sources, and what happens when new revenue sources are made available.

The problem with this approach is that broader does not always mean more predictable. In fact, research has shown that when revenue systems increase their dependence on new but pro-cyclical revenue sources—for example, those that generate more revenue when the economy is growing, and vice versa—such as local sales taxes, they often become less stable.

Rethinking Revenue calls this out as a key consideration for the future of local revenues. It asks, "Does (the revenue source) contribute to a system wherein the productivity of the revenue sources that make up the system are not correlated with each other? This is the essence of diversification.'" Here, Rethinking Revenue once again sounds a bit like Buffett, who once said, "Wide diversification is only required when investors do not understand what they are doing."

All this leads us to a different way of thinking about diversification. Instead of analyzing dependence on different revenue sources, we should instead examine if the sources we use tend to move together. Professional money managers have a well-developed set of tools to that effect. One of those tools is a measure—known as "portfolio variance"—of the tendency for an investment portfolio's annual gains/losses to deviate from their long-term trend. We calculate portfolio variance by observing whether the prices of individual assets in a portfolio increase or decrease in tandem over time—if they tend to move independently of each other, if there's less variance, and if the portfolio's gains and losses are more predictable. Many investors strive to build a portfolio that maximizes investment gains while minimizing variance.

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Until now, no one has applied these concepts to local government revenues. But in some recent research at the University of Chicago's Center for Municipal Finance, we did just that. We used the Census of Government's data to compute the five-year revenue portfolio variance for all local governments with populations greater than 25,000 from 1970 through 2020. What did we learn?

First, local revenue systems are volatile. The average five-year revenue portfolio volatility—as indicated by its standard deviation—was around 25 percent. That means if you had to guess the annual change in a local government's total revenues, you'd be correct at least two-thirds of the time if you guessed +/- 25 percent. Depending on the size and type of government, that volatility can be as little as +/- 10 percent or as much as +/- 48 percent.

Does that mean actual revenue collections will fluctuate by 25 percent each year? Not necessarily. In fact, most localities' actual revenue collections fluctuate by around +/- 6 percent. Volatility is based on past fluctuations. Whether that pattern of fluctuations continues depends on the condition of the real estate market, consumer confidence, and many other factors. In general, those intervening factors stabilize actual revenue collections.

Second, we find that volatility is tightly linked with fluctuations in actual revenues. This is especially true for losses. More volatility is almost always associated with revenues falling well short of their long-run trend at some point in the following three to five years. To put it differently, revenue structures that are more diversified in the portfolio management sense of the word—meaning they have less correlation across revenue sources and lower overall volatility—are also more stable. This reinforces the idea that less volatility makes for easier budgeting.

Third, and perhaps most important, diversification as it's been measured so far has little to do with volatility. We find that our revenue portfolio variance measure and traditional measures of diversification as distribution barely correlate. In fact, local governments that depend on fewer revenue sources often have lower volatility, so long as they are "own source" revenues like property taxes and utility taxes.

When we think about local revenues the way investors think about investments, we find that diversification doesn't always pay dividends. In fact, as Warren Buffett reminds us, smart local finance professionals might prefer less diversification. These complex links between diversification and predictability are an essential part of rethinking revenue.

Learn more about GFOA's Rethinking Revenue initiative:

gfoa.org/rethinking-revenue

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