

INVENTION IN BANKING

by [Steve Brown](#)

Ralph Waldo Emerson gave some famous advice to us all when he said, "build a better mousetrap and the world will beat a path to your door." Things were different back in 1899 when the patent was granted on the original snap trap design. Since then, more than 4,400 mousetraps have been patented. That is the history lesson, but what does it teach us and how good is any mousetrap if someone moves the cheese? To understand that, we take a closer look at yield maintenance provisions in loan documents. Stop nearly any independent banker on the street and they will tell you the best prepayment protection in a loan is a declining balance. Such prepayment penalties are structured as a fixed percentage of the outstanding loan amount and decline over time (i.e. 5% in loan year one, 4% in loan year two, 3% in loan year three and so on). Note that as the prepayment percentage declines, so does the outstanding loan amount. The thought behind this concept is that the closer a loan gets to maturity the lower impact prepayments have on the lender's profit. The good thing about a declining balance penalty is that it is easy to understand and easy to market to borrowers. This is the main reason so many independent banks use them. One problem with such an approach is that declining balance penalties are also a very blunt way of trying to protect the bank against prepayment. They mismatch interest rate risk protection, reduce flexibility and can even serve to increase the default risk of borrowers (an article for another day). But, is there a better mousetrap? To find out, we shift to yield maintenance, which we estimate large banks include in about 95% of their loan documents. Does anyone really believe big banks are dumb or inflexible and not driven by profit and risk? Perhaps it makes more sense that they are actually doing this for a specific reason. Yield maintenance is based on interest rate movement. Borrowers are free to prepay at any time, but in so doing, are also responsible for making the bank whole for the present value of the remaining loan payments (over and above the swap rate), discounted back at the then-current market rate. The effect of this is to provide the lender the ability to roll over dollars of any prepaid loan into new ones that will yield the same return as if the original loans were in place to maturity. In its purest form, when rates rise, yield maintenance would dictate a payment be made to borrowers that pay off their loans. In this environment, banks want loans to prepay, so they can originate new ones at higher prevailing coupon rates. When rates fall, on the other hand, banks do not want borrowers to prepay since they would have to reinvest the money at a lower prevailing market rate. As such, borrowers can still prepay their loans, but they must also make the bank indifferent to the prepayment. Despite the payment a borrower would have to make the bank if rates fell and they wanted to prepay, borrowers may still be willing to do so. This is because they may be able to take advantage of a market opportunity that could provide a benefit in excess of the prepayment fee. Most often, this occurs because borrowers sell their underlying property, take a cash-out refinance, or simply roll the loan over to take advantage of prevailing lower market rates. Unfortunately, we are out of room today, so we'll have to find out who moved the cheese in the next edition on Monday.

BANK NEWS

Acquisition1

U.S. Bancorp (\$210B, MN) will acquire Vail Banks, Inc (\$705mm, CO) in a transaction valued at nearly \$98mm or 1.14x book.

Acquisition2

UMB Financial (\$6.5mm, MO) will acquire Mountain States Bancorporation (\$282mm, CO) for an undisclosed sum.

Acquisition3

Citizens First Corporation (\$195mm, KY) will acquire Kentucky Banking Centers (\$122mm, KY) from Farmers Capital Bank Corporation (\$1.7B, KY) in a transaction valued at nearly \$20mm or 2.11x book.

Acquisition4

SLM Corp., provider of student loans, will acquire Upromise Inc, a saving-for-college company for an undisclosed sum.

Acquisition5

NYSE Group has reached an agreement to acquire Euronext, Europe's 2nd largest stock exchange, for nearly \$9.96B, creating the first transatlantic securities market. If shareholders and regulators approve the deal, the two exchanges will handle nearly \$2.1T in stock trades monthly.

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