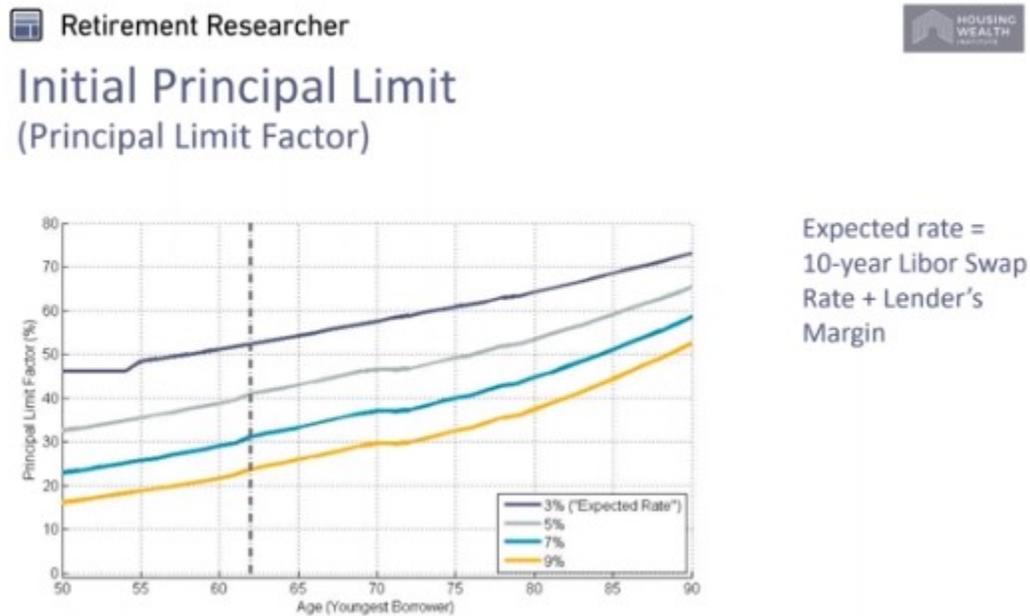


## Best Times to Establish a Line of Credit

Dr. Wade Pfau

The factors that determine the initial borrowing capacity or the principal limit factor, which is the percentage that you then apply to the appraised home value up to that lending limit, it relates to your age and interest rates, the expected rate.

Higher interest rates mean less borrowing capacity. So, this can be an advantage of Reverse Mortgages in a lower interest rate environment. It's a present value calculation. With a lower interest rate, you have a higher present value. The idea is that the home is the collateral that will be used to repay the loan balance. And you don't want the loan balance to exceed the value of that collateral.



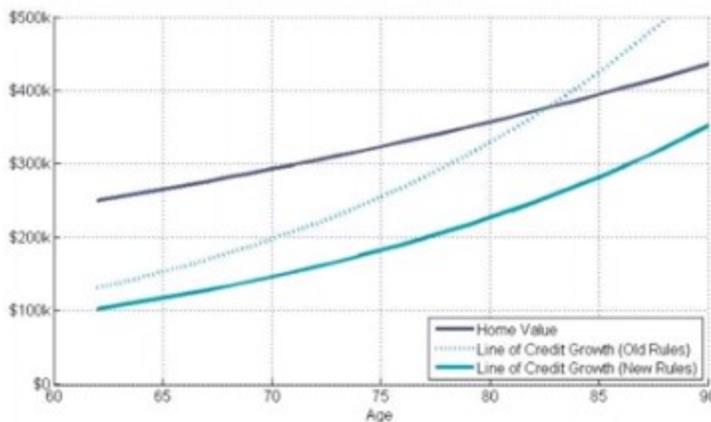
So, with lower interest rates you can borrow more, because it's expected that the loan balance would grow more slowly overtime. And so, from this chart you can see at lower interest rates you have a higher initial borrowing capacity. And then at higher ages you have a higher initial borrowing capacity. But, the interest rate effect can potentially be a lot stronger than the age effect.

So, that if interest rates increase a little bit, you can see how it could take potentially quite a long time before you get old enough to then have the same principal limit factor as when interest rates were lower. And so, that can help to provide a motivation of thinking about the Reverse Mortgage, setting it up in a lower interest rate environment.

Retirement Researcher



## Line of Credit Growth: Before and After Oct. 2nd Rule Change



Age 62

10-Year LIBOR  
Swap Rate: 2.25%

Lender's Margin:  
2.75%

One-month LIBOR  
rate: 1.25%

And this is now kind of part of the presentation, now a year removed from the rule changes. But, the principal limit growth was really more exciting and to some extent before the October 2<sup>nd</sup> rule change if you were thinking about that as a line of credit growth. Now, if you're thinking about principal limit growth as a loan balance growth, the new rules make it more exciting because now the loan balance will grow more slowly. But, in the old days ... well, today now it also means the line of credit will grow more slowly.

So, what is being compared here? The dash line was showing how in the initial version of this presentation, before that rule change last year, the line of credit or the principal limit grew at a much faster pace and surpassed the value of the home at about age 83. Then with the more solid colored cyan colored curve, the line of credit of principal limit growth under the new rules, still growing, still catching up the home value, but at a much slower pace than under the old rules.

Now, that's the line of credit growth, but that's also loan balance growth. If you're refinancing a traditional mortgage, it means your loan balance is also going to grow more slowly. And that's

being driven primarily because the ongoing mortgage insurance premium is lower than it used to be. It's now a half a percent instead of 1.25%.

Now, I've been talking about line of credit growth and that can be one of the key issues that's hard to understand. And that can seem too good to be true. And so, it's worth just spending another minute to discuss that concept.

There is something called the principal limit, that's the borrowing capacity of the Reverse Mortgage. The initial principal limit is just what percentage of the home value can you borrow? And that's always going to be equal to the equation you see here is always true. The principal limit is always equal to the loan balance, plus the line of credit, plus set-asides for the financial assessment. But, that's usually small. And we can just ignore that to make this even easier.

Conceptually, principal limit is loan balance, plus the line of credit. That's always true. All three of those factors grow at the same rate. So, if you've borrowed something, it's always going to be growing at that factor. If you got the line of credit, the ratio of loan balance to line of credit will always stay the same. Everything's growing at the same rate. Now, if you borrow from the line of credit, you move some of that over to the loan balance. You have a new ratio between the two, but then they always grow at the same collective rate.

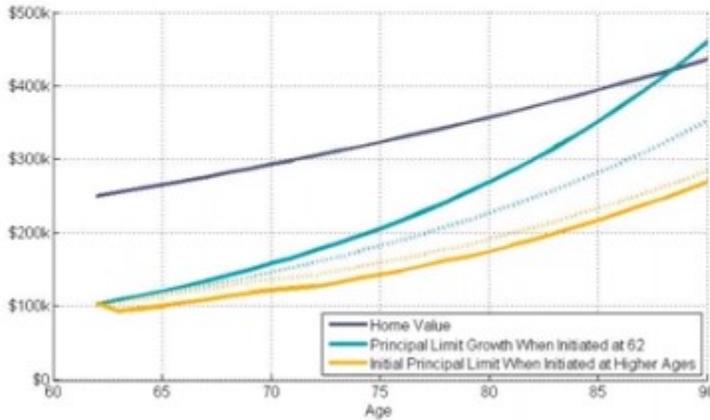
And if you voluntarily repay some of the loan balance, you move some of it from loan balance back in the line of credit. You have a new ratio between the two. But, then they're still always growing at the same rate. In policymakers, for the most part probably five people would use Reverse Mortgages because they want to borrow from them. So, principal limit growth if it's all loan balance, it reflects loan balance growth.

The interesting planning implication and that's what you know Barry Sacks research was pointing out how you could then treat this as a buffer asset, is if you open Reverse Mortgage and you keep a low loan balance, (you have to keep a nominal amount in the loan balance to keep the loan open) But, if you otherwise mostly treat it as line of credit, then it's as though the line of credit is growing at the same rate as a loan balance would grow, but it's not a loan balance, it's a line of credit.

And it's a line of credit that can continue to grow and at some point get to levels potentially even close to the value of the home.

## Understanding Line of Credit Growth

Comparing Principal Limits Based on When the Reverse Mortgage Opens



Impact of  
1% interest  
rate increase  
later in the  
first year

So, this is just comparing if you open the Reverse Mortgage at age 62 and let the line of credit grow and interest rates never change that that's cyan colored curve you can see it's growing faster than the yellow colored curve, which is if you waited until each subsequent age to open the Reverse Mortgage.

If you wait, you'll get to borrow more because the chart here shows how the home value is growing over time. So, you get as an older person, a higher percentage of the growing home value. So, the yellow line is growing, but opening the Reverse Mortgage right away at age 62 is allowing for more line of credit growth than the line of credit you would get by waiting to open a Reverse Mortgage.

Now, admittedly this chart was more impressive before the rule change. Whereas you recall that dashed line got you, so that the line of credit exceeded the home value by age 83. It's not quite as exciting now, but if we still think about this in the context of a low interest rate environment, here's what happens. If just simply at age 62, we open the Reverse Mortgage, or we don't, and then sometime in that first year we see a permanent increase in interest rates by 1%.

Well, the cyan colored curve is now growing at a much faster clip because now that variable interest rate component is 1% higher forever, and the yellow curve drops. Because now with interest rates permanently 1% higher, all the future expected rates are going to be less than

they would have otherwise been. And so, here that gap between the cyan curve and the yellow curve is a lot more impressive.

It really reflects the value of opening the Reverse Mortgage before you might potentially need to use it as an asset in retirement so that you can get that line of credit growth process begun.

Low interest rates do favor the home equity conversion mortgage program by helping to support a larger initial principal limit. And then also, to the extent that interest rates might rise in the future helping to have that accelerated growth for the credit and the principal limit.

<https://youtu.be/iJM43-ckFUY>