Todd Ballenger


How banks make money | and how you can too!


In 2007, to help consumers understand the real cost of their money - I created a concept called EPR (Effective Percentage Rate). The idea was simple. Each debt has a cost in the form of interest rate that measures the risk the lender is willing to price into their lending you money. In most cases the EPR is the note rate of the debt (but in some cases, mortgages may have additional tax benefits). We'll assume in this series that the main focus is on the note rate, as few consumers will receive mortgage interest benefits beyond their standard itemized deductions.

As an example, we researched today's rates for the 'Big 3' debts that banks provide using national averages.

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Mortgage (rates today range from 5.290 - 6.865\%)
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## Auto (rates today range from 3.650 to 15.96\%)

## Credit Card (rates today range from 16.90\%-21.10)

Why a range? Credit scores and other factors impact the risk of the borrower. If you are a lowest risk borrower you could secure a 3.65\% (or lower) rate when buying a car, however that same car for a high risk borrower might cost $15 \%$. That's how the initial loan is booked from a risk perspective, and that final note rate is the EPR of that debt.

That said, if you can take out a new mortgage today at $5.5 \%$, we'll say your EPR is $5.5 \%$ as that is the Effective Percentage Rate of that debt.

## The Tale of Two Tellers

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How do banks make money lending? Let's use a lesson from our CLA course called 'Tale of Two Tellers' to illustrate a simple concept. If you walk up to the 'Red' deposit teller and give the teller $\$ 80,000$ as a deposit for a CD (certificate of deposit) paying 2\%, you have an asset at the bank, and the bank has a liability for the same amount.

If you walk over to the 'Green" teller at that same bank and say you want to borrow $\$ 80,000$ for an auto loan at $8 \%$, you have a liability at the bank, and the bank has an asset. You are earning 2\% on your money you deposited as your return, and you are paying $8 \%$ for the money you borrowed as your rate.

Think about this, you deposited \$80,000 and you borrowed \$80,000. To the bank you are neutral, they have an \$80,000 asset (your loan) and an \$80,000 liability (your deposit)... but they are making good money from you as a customer.

That spread is a function of the gap in the EPR - your EPR you earn is $2 \%$ on the deposit, and their EPR the bank earns is 8\% on their loan, so the $6 \%$ EPR profit (LAG) goes to the bank.

TIP: The bank can typically borrow 10X on every dollar you deposit to provide new lending and use leverage to increase their returns. If you deposit $\$ 80,000$, they can now lend $\$ 800,000$ so their profits can grow higher through leverage.

See how much leverage banks use by clicking here:

TIP: In our example above, on this single transaction over 45 years you are a customer of the bank they'll make over $\$ 1.1 \mathrm{M}$ doing this again and again. They can take a little risk and reap great rewards... and so can you.

TIP: You can do the same thing in your life, every day.

Over your lifetime as a client - contributing \$80,000 in (checking, savings, cds, etc.) at 2\% EPR OR LESS return, and the bank lending that money at 8\% EPR OR MORE creates a wealth gap. We call that the LAG - or liability asset gap. That could easily be worth $\$ 1 \mathrm{M}+$ to the bank over their lifetime (which we use as 45 years) for a conservative time frame. AS we prove in my book - Borrow Smart Repay Smart - you can turn the tables and by properly managing liabilities - do the same thing and increase their wealth by \$1M or more over 30-45 years.

We'll be using our Simple Savings Calculator for many of the examples- I recommend you follow along and do you own calculations.

Download Simple Savings Calculator


In a new example, let's say you have 3 loans at the following rates:

> Auto Loan is $3.650 \%$ Mortgage Loan at $5.25 \%$ o Credit Card Loan at $16.5 \%$ one

## How does EPR help with the Tale of Two Tellers?

You \$4,500 in after tax income deposited into your checking account each month and their average expenses are $\$ 4,000$. This leaves you at the end of each month with $\$ 500$ left over - this happens each month.

> There are 3 Actions you can take with their $\$ 500$ dollars: Spend, Save, Repay.

Spend - you go have fun and spend the $\$ 500$ on lifestyle today.

Save - you invest the \$500 to grow for their lifestyle tomorrow.

Repay - they apply the \$500 toward an existing debt and increase cash flow for your lifestyle today or your lifestyle tomorrow.

Which choice is the right choice for you?
It Depends!

On what? On the logical financial math and the emotional peace of mind that comes with any decision that might be considered.

TO RECAP! If you can manage your cash flow, and spend less each month than you earn, you have 3 choices each month.

$$
\begin{aligned}
& \text { Spend - the } \$ 500 \text { on your lifestyle today. } \\
& \text { Save - the } \$ 500 \text { on your lifestyle tomorrow. } \\
& \text { Repay - the } \$ 500 \text { toward your existing debt. }
\end{aligned}
$$

If you have more month than money (meaning you spend more than you make each month) you have 1 choice each month.

Borrow - the $\$ 500$ from your lifestyle tomorrow.


Now we're back to EPR as a tool.
You have $\$ 500$ left in your account at end of month. You have three debts:

> Auto Loan is 3.65\%
> Mortgage Loan at 5.25\%
> Credit Card Loan at 16.5\%

- If you spend the $\mathbf{\$ 5 0 0}$, you enjoy whatever the $\$ 500$ brings to you today.
- If you save the $\mathbf{\$ 5 0 0}$, you enjoy whatever the $\mathbf{\$ 5 0 0}$ earns for your future.
- If you repay the $\mathbf{\$ 5 0 0}$, you enjoy less now which means better cash flow.

Let's say you are fine not spending the money today. That's the first step in wealth development: realizing you have a future self that you care about as much as your current self. If you like being secure financially, it always starts now.

If there is money left over, you start by considering the safety, liquidity and return on the (location, location, location) of where you could locate that \$500 - you do this each month consistently - it's a single decision you make at the beginning of each month. What's the location, location, location of my $\$ 500$ ?

Where should you put it? It Depends is the answer to most financial questions as there are many variables, but each month you are faced with this same question, of where?

Save in a checking account:
Safety (guaranteed), Liquidity (high), Return (low - <1\%)

Save in an investment account:
Safety (variable), Liquidity (variable), Return (variable)

Repay an existing debt:
Safety (guaranteed), Liquidity (variable), Return 3.65\%-16.5\%)

# Learning how to answer this question each month is a, if not the, foundation of a healthy financial life everything compounds over time. 

Location, Location, Location



TIP: Most financial decisions are not about picking the right investment, but creating the right mindset - one that allows you to start early, keep it simple, and stay consistent over time. The Teller always wins because they bank has always been in the game, they make it simple for you to deposit and harder to borrow, and they consistently earn their spread as long as you play their game... much like a casino.

Also - this is all leading to the most important decision for most of us, and that's the decision to borrow to buy a house, which we'll talk more about!

Let's say of the three options, you aren't spending, and that decision leaves you with two options! Save or Repay?

## The options are to save, or repay

If we look at this simple decision to save or repay - you want to consider the location of where you would save or repay. We always look at that decision from a Safety, Liquidity and Return perspective:

Location, Location, Location


Example: Save location: checking account earning 1\%.

Safety - yes it is guaranteed

Liquidity - yes you can get it immediately via online transfer

Return - 1\%

If you choose to Save you are losing $15.5 \%$ monthly by doing that in this situation - if you are earning $1 \%$ on that $\$ 500$ in checking while still paying $16.5 \%$ on credit card - that is a poor RETURN. The bank is winning big!

Example: Save location: investment account paying 8\% dividend.

Safety - yes but not guaranteed

Liquidity - yes you can get it immediately via online transfer

Return-8\% (we'll say tax free for simplicity)

If you choose to Save in an investment account in this example you are losing 8.5\% monthly by doing that - if you are earning 8\% on that $\$ 500$ in an investment while still paying $16.5 \%$ on credit card - that is a poor RETURN. The bank is winning big.

Example: Repay location: credit card balance.

Safety - guaranteed

Liquidity - yes you can get it immediately via using the card again

If you choose to Repay you are earning the $16.5 \%$ interest you would have paid on the credit card - that is a great RETURN. You have really flipped the table and converted your 2\% bank interest to $16.5 \%$ repayment interest.

> We'll repeat this in multiple examples, but the decision is the same: If there is money available you can spend it, save it, or repay it.

Let's look at a simple impact of one decision over time:


TIP: You can think of these decisions as insignificant - but a good decision you make now is likely a decision you'll repeat in the future. A single decision now to repay -vs- spend a small amount of $\$ 500$ can have huge implications over longer periods of time. Once the debt is paid off, you ask again where is the right location, location, location now?

Do things change when you buy a house? It depends. You are still ultimately borrowing from a banking institution at a 'rate' that you will repay to satisfy their current risk. Any time we borrow that 'rate' is a measure of the risk the lender is willing to take against their security of repayment. The security of repayment is in the 'asset itself' and 'your ability and willingness to repay.'

Reminder: Any time we borrow, we are moving our future purchasing power forward to have use and control of something today that we either can't pay for with cash, or don't want to pay for with cash.

## We said there are 3 choices with money you have: Spend, Save or Repay.

> There is only 1 thing you can do if you need money you don't have: Borrow.

Borrowing is always about need or want - you borrow when we need something you can't pay for in cash, or you borrow when you want to borrow to accomplish other financial goals (like a better opportunity cost for your current location, location, location).

Let's look at buying a house versus buying a couch - in both cases you 'can't afford it today'!

You want to buy $\$ 3,000$ couch. You have an extra $\$ 500$ a month in cash flow. You can save and pay cash in 6 months and get the couch then, or you can borrow today on a credit card, get the couch today, and you'll have to pay $\$ 3,000$ for the couch plus interest. Getting the couch now, means it may take 7-8 months or more to pay it off with interest. You pay a premium to have it now, versus saving and waiting. Most importantly by the time it is paid off, the couch is likely worth substantially less than what you paid for it based on depreciation.

Borrowing for a depreciating asset is not ideal.



You want to buy a $\$ 300,000$ house. You could save your $\$ 500$ a month savings: $\$ 300,000 / \$ 500=600$ months $=50$ years. That's assuming the house doesn't go up in value, which has only happened three times in history. When you want a house we really can't typically pay in cash, and you can't wait 30 years either as the house doesn't depreciate, over time it appreciates. You can use that to your advantage.

When you borrow for an appreciating assets that can be a sound financial strategy and flips the tables again on the bank - as you use their money now to buy you something today that will be worth more in the future.

Banks do this all the time. They 'leverage up' and for every $\$ 1,000$ in deposits they can lend \$10,000 or more. They can also buy assets and leverage up a $1 \%$ return to generate $100 \%$ returns. Consumers can do this too, when they buy real estate.

When you buy a house using debt you have the use and control of a $\$ 300,000$ asset (the house) with as little as $\$ 15,000$ in cash savings. This allows you consumer to save up to buy a house in a few years as you only need a portion of the house asset price. You are playing the banks game, of using their money to control an asset that is likely to appreciate. By using $\$ 15,000$ cash to buy a $\$ 300,000$ asset you are acting more like a bank.

TIP: If you buy a \$300,000 asset with \$15,000 down payment, you have 20-1 leverage. When you buy an asset the appreciation (or depreciation) is of the assets. If the house goes up in value by $5 \%$, that is $5 \%$ appreciation X $\$ 300,000=\$ 15,000$ in new value. With a 20-1 leverage the $5 \%$ return $\times 20=$ $100 \%$ growth. Your house is now worth $\$ 315,000$ and you only invested $\$ 15,000$. You now have a $100 \%$ growth return on your investment. You are able to make money the way the bank makes money. Unfortunately it works both ways, if the house goes down by $5 \%$, you would lose $\$ 15,000$ in value.

Let's try another example. You don't want into a bank every day, but what is happening every day is your transacting and exchanging money - the transaction might be a local coffee store.


You walk into a Starbucks and you pay $\$ 5$ for a nice coffee. Enjoy it! You worked hard for the $\$ 5$ and you had to likely perform some work for that $\$ 5$. That work is stored in this thing we call money. You release that energy again when you spend it by trading that $\$ 5$ (which is just a piece of paper or some 1 's and 0's in the ether) into something you really want - coffee!!!

That coffee makes an experience happen, you feel warm, excited, etc. The coffee itself is rarely what you want, it is the experience you have with the coffee that you really want.

When you trade that $\$ 5$ for the coffee, you get the coffee. You also lose something. You lose every other possible use of that $\$ 5$ (anything it could have bought (SPEND), and anything it could have earned (SAVE) or any debt you could have paid off (REPAY).

Remember, if you have an extra $\$ 5$ in your pocket you can Spend, Save, or Repay. The choice to buy coffee is a Spend decision. I'm speaking in small terms here because these small decisions are simply small decisions today, but they add up over time. Spend decisions are great, that's why we work. It is important though that we consider the impact of our choices.

> Spend $\$ 5$ on coffee $=$ get coffee, but lose everything that \$5 could have purchased.

Save $\$ 5$ = lose spending now (no coffee), but gain everything that $\mathbf{\$ 5}$ could earn from interest over time.

Repay $\$ 5$ - lose spending now (no coffee), but gain all interest that $\mathbf{\$ 5}$ repayment saves you in future earnings.

When we had liability management conversations with consumers we often found they were repaying their debt by making extra payments each month, with the average prepayment of $\$ 300$ a month. We found in our conversations that people wanted to be debt free, but they really believed they were saving a lot of money by repaying their mortgage. In some cases the problem was waiting years to buy a house and while saving the house became too expensive. They didn't understand the Tale of Two Tellers.

The LAG, or Liability Asset Gap, helps. Each month when you have available cash, looks at your options. If the credit card debt is at $16 \%$, and the stock market is returning $10 \%$ over time and your mortgage debt is at $5 \%$, then the EPR of where to put your cash becomes easier to manage.

You use EPR to navigate and direct your choices. You have \$5 that you don't spend on coffee, you can earn $16 \%$ on that money right now repaying the credit card debt, or 5\% repaying the mortgage debt, or 10\% by saving for the long term as an investor. And don't forget about Safety, Liquidity and Return. It I want to use that money soon, then repay credit card debt or investing in the stock market makes more sense, as repaying mortgage debt is easy in, but difficult to get out.
$\$ 5$ doesn't seem like a lot of money,
but it is the concept that is key.

TIP: Train yourself over time to think about the decision you are making as similar to the Tale of Two tellers, that there is something gained now but also something lost.

TIP: Saving isn't just saving, it's really spending postponed so you can spend larger in the future.

TIP: As a more advanced consideration, $\$ 5$ you spend is actually about $\$ 6.25$ earned. You have to earn $\$ 6.25$ to have $\$ 5.00$ after tax, so you are spending money that you worked to earn and what you spend is typically after tax. Said another way, $\$ 5$ saved is $\$ 6.25$ earned.

TIP: Money you have to repay debt, should be utilized to repay the highest interest rate debt first, but be careful when you repay debt that is financed at rates much lower than other savings opportunities, or pay off debt that is illiquid and difficult to access the money later (like a mortgage loan).

Remember most decisions, financial or otherwise, have a logical, and an emotional component. This is really true of investing, but it has a special please in the world of real estate. What's more important than where you live to your personal security and peace of mind?

# You could say you have a house side of your brain (the logical - my house is a shelter) and the home side of your brain (the emotional - my home is my life experienc inside a house). 

— Todd Ballenger - from the Certified Liability Advisor course

## Perspective 'House -vs- home'

House -

- Appreciation
- Tax Benefits
- Diversification
- Collateral
- Place to Work
- Leverage
- Credit
- Mortgage

LOGIC - the house as a physical shelter.


Home -

- Family
- Hobbies
- Friends
- Neighbors
- Relaxation
- Privacy
- Freedom
- Security

EMOTION - experience you have in a house.

House and home are two very different things, and you'll often find you are focused on the home or the house. Listen when you speak about it internally to yourself, are you focused on the house or the home? Both are equally important.

Just as in the house and home, the Tale of Two Tellers story reveals this constant tug of math (logical) that I want to save more money and the feeling (emotional) that right now I want a cup of coffee, a new couch or a house.

These decisions are difficult because we focus on who we are and what we want right now, forgetting there is a future version of us that will want many of the same things we enjoy now at some point in the future. The right now often wins, the urgent over the important.

Just as saving to buy a house is an important financial decision, in both the rent saved, future appreciation and all the house and home benefits, the owning of a house demands we think about the highest and best use of our cash flow when paying off a house quickly, which is often an emotional decision that trumps key logic. Use EPR, and pay off a high interest rate debt first and then consider other locations.

## You can be like the bank, and employ your money for the best returns.

The Tale of Two Tellers

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