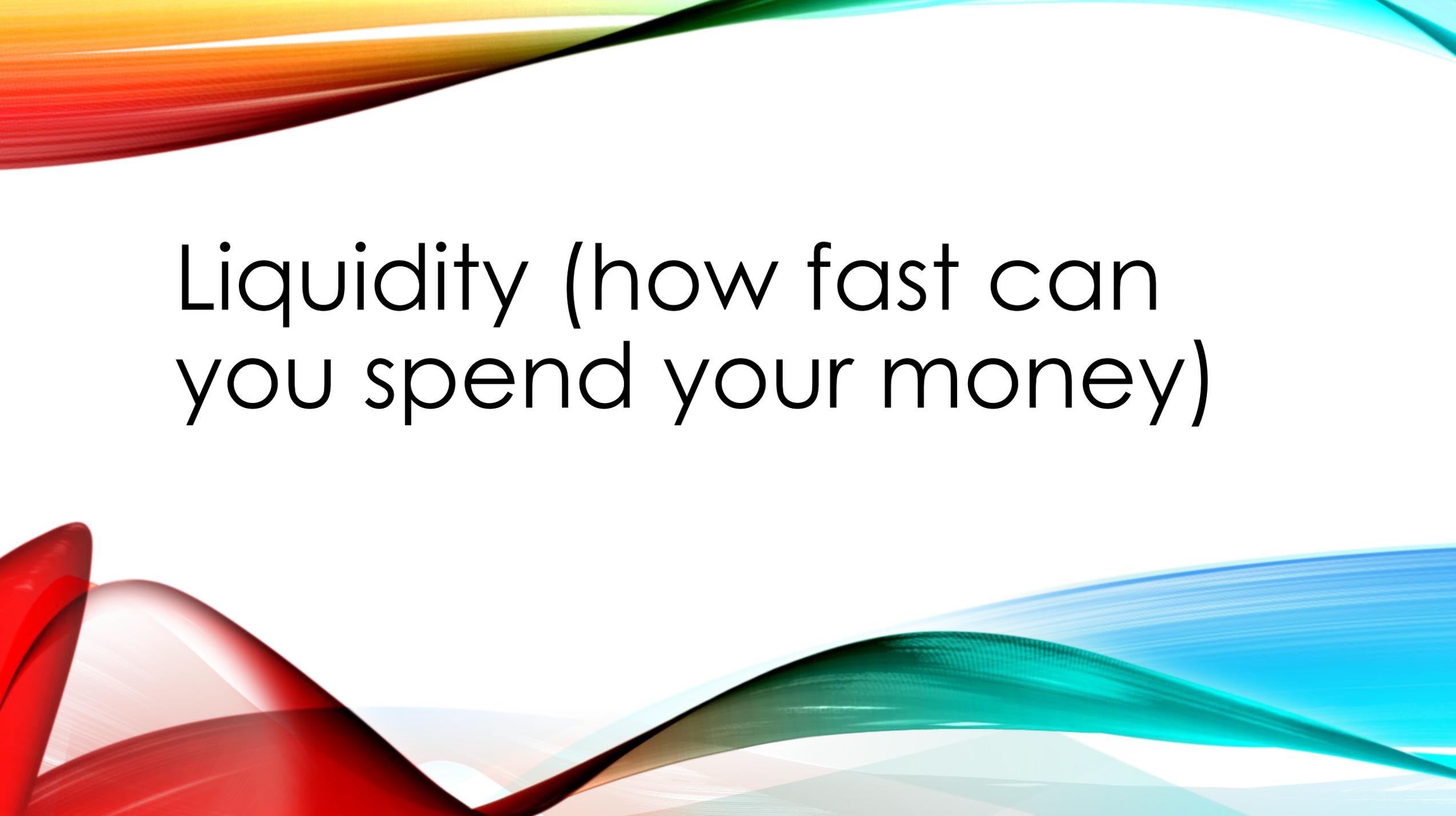
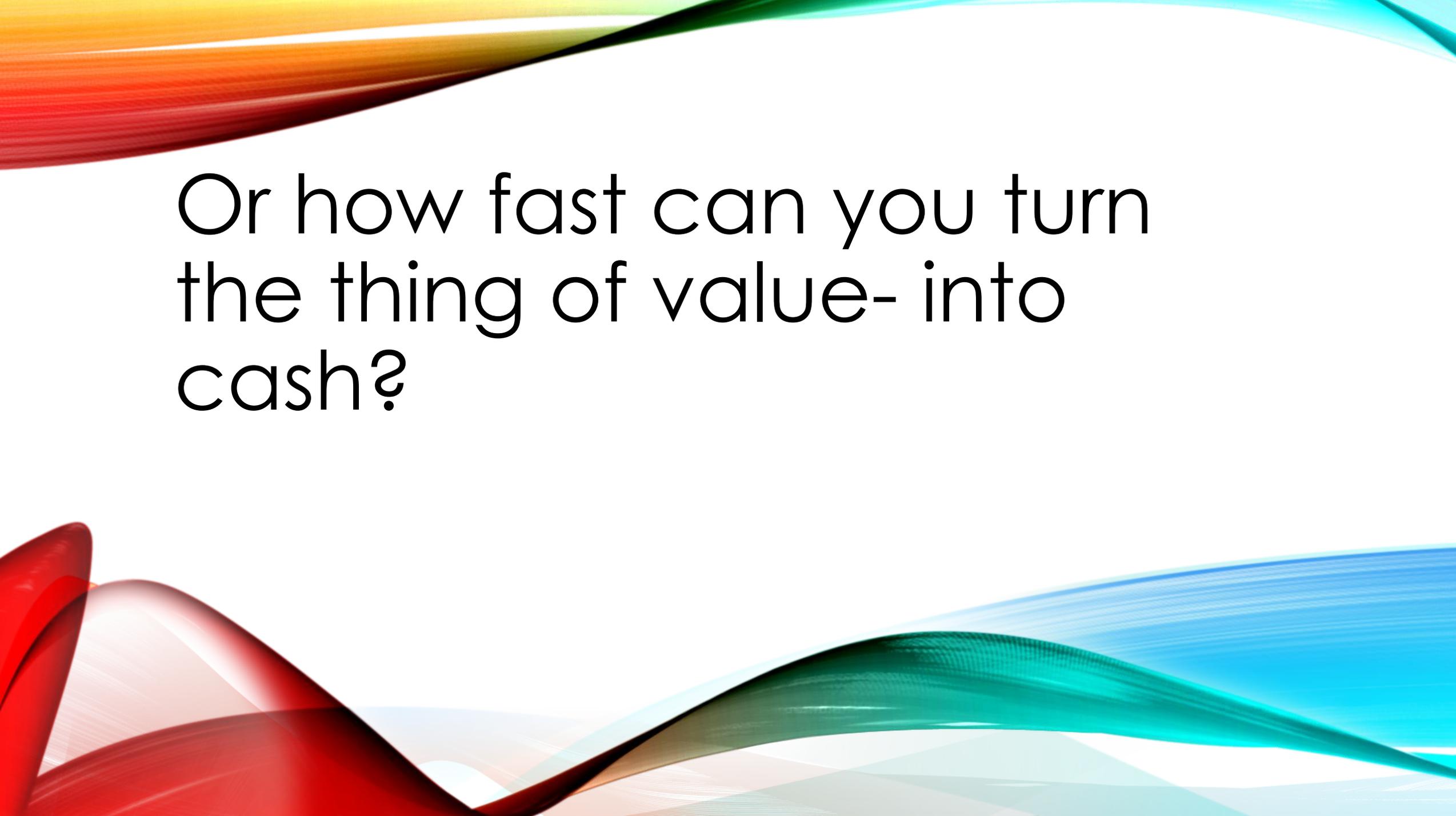




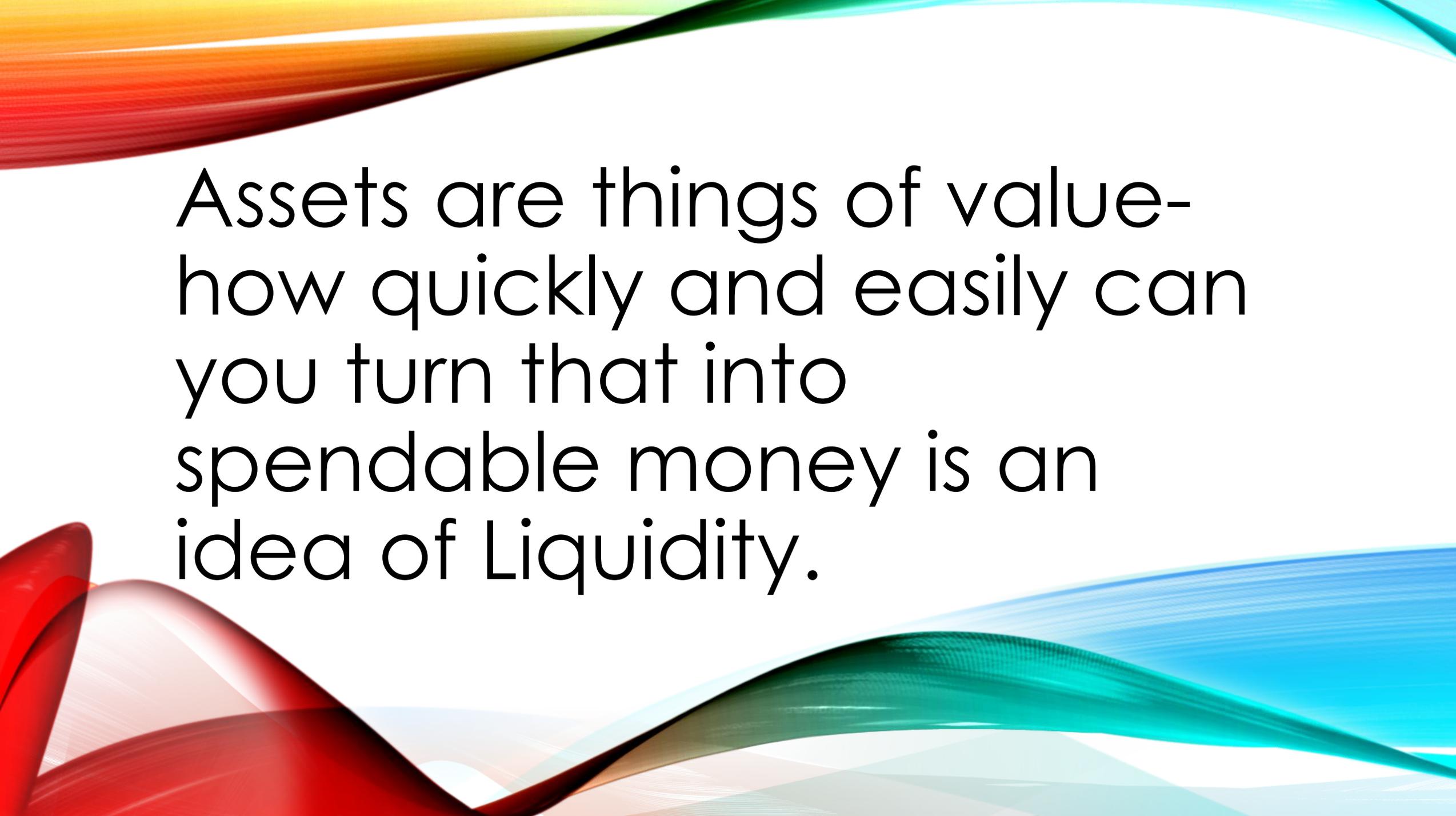
Saving v Investing



Liquidity (how fast can
you spend your money)



Or how fast can you turn
the thing of value- into
cash?



Assets are things of value-
how quickly and easily can
you turn that into
spendable money is an
idea of Liquidity.



Investments

Types of Assets

Cash

Money

Stocks

Represent partial ownership in a company

When a company issues (sells new) stock it is selling ownership in itself breaking the ownership down into smaller chunks

Whoever holds (owns) a stock is a partial owner of the company

Bonds

Represents an amount owed to whomever is holding the bond on certain dates

Bonds pay interest

When a bond is issued (sold for the first time) it is really the issuer taking out a loan, but instead of borrowing all the money from a bank in one big loan...it is sold on the market in a bunch of smaller, more tradeable bonds.

How assets pay

Cash

It Doesn't

Cash is liquid

Cash can be spent BOOM

The trade-off is that Cash doesn't earn you any income

Stocks

Dividends- when a company turns an accounting profit one option is to divide up that money to the owners (stockholders) proportionally.

The other way people can increase wealth by purchasing stocks, and then selling them later at a higher price.

Bonds

Bonds make interest payments

Bonds are making these payments on a regular schedule

If a firm is going out of business, it must pay off or (down) all the debts (bonds)

Before it can pay anything to stockholders

Bonds

- ◆ Also called Treasury Bills, T-Bills, Government Securities (whatever they are called) you don't need to worry about it. These represent Government debt which is tradable and if the key thing is that it is NOT Reserves.
- ◆ A Bank that has these assets can NOT use these assets in order to make a new loan.

Some other things about money and investing (totally not about AP so you don't need to read for class)

Mutual Funds

- ◆ Mutual Funds are ways to invest where your money gets thrown in with a big pot (figuratively) with the money from a bunch of other people and a fund manager (which may be a piece of code) invests it all.
- ◆ This allows the investors have diverse holdings so that their risk is spread out over a whole bunch of assets

ETF

- ◆ ETF are like Mutual Funds in that the money is put in one big pot and buys diverse assets to and lessen risk
- ◆ Biggest difference is that an ETF is more likely to be passively managed (almost certainly done by code) to simply track a market, (Nasdaq or S&P 500) whereas a mutual fund is more likely to **Attempt** to BEAT the market

Often the decisions are made on these factors

Risk

Risk is not greatbut
in order to have big
returns- it is expected
that the investment will
have more risk

Return

Big returns are
awesome---but also
come frequently at
much higher risk– and
perhaps lower liquidity

Liquidity

Liquidity is awesome to
have---- but as you gain
liquidity in an
investment it often
loses return

Balance

- ◆ Individual investors- most of the time need to seek a balance
- ◆ Keep some liquidity in case of emergency expenses (some financial advisors suggest 3-6 months worth of expenses)
- ◆ Safety- individual tolerance
- ◆ Stage of life- can you hold an asset you think will recover if it takes a big downturn- or you will that cause you to delay retirement etc....

CD (Certificate of Deposit)

This is similar to a Saving accounts- but less liquidity - You are not allowed to take the money out of a CD (you can but there is \$\$\$ penalty taking it out early)

Interest

Simple interest

If there is 5 % interest on 100 dollars then after the period of the loan the borrower pays back 105 (and the lender gets 105)

Compound interest

When there is a 5% loan with compounding interest- the loan interest paid to the lender (saver) is paid interest (and then gets paid interest on the interest)

Rule of 72 (or 70 to keep math easy)

This is sometimes called the doubling rule- how long it will take a saver/investor their money.

So if somebody gets 7% interest year in and year out- they will double their money in about 10 years.

It is the secret of compounding interest and saving

if

$70/\text{Interest rate} = \text{years until saver doubles their money}$