Answers and Opportunities: Investing in Today's Uncertain Environment

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I. Interest Rates – *Current Market and Outlook*

- Historically, inflation and economic growth were the primary drivers of interest rates.
- Today, there are *multiple factors* influencing market interest rates …*many of these are unique.*

Key Factors Influencing Rates

The argument for *lower* future rates

- Weak economic growth and slowing inflationary pressure
- The growing national debt …and containing debt service costs
- Extraordinarily low *global* yields (massive quantitative easing in Europe and Japan)
- Trade disruption, uncertainty

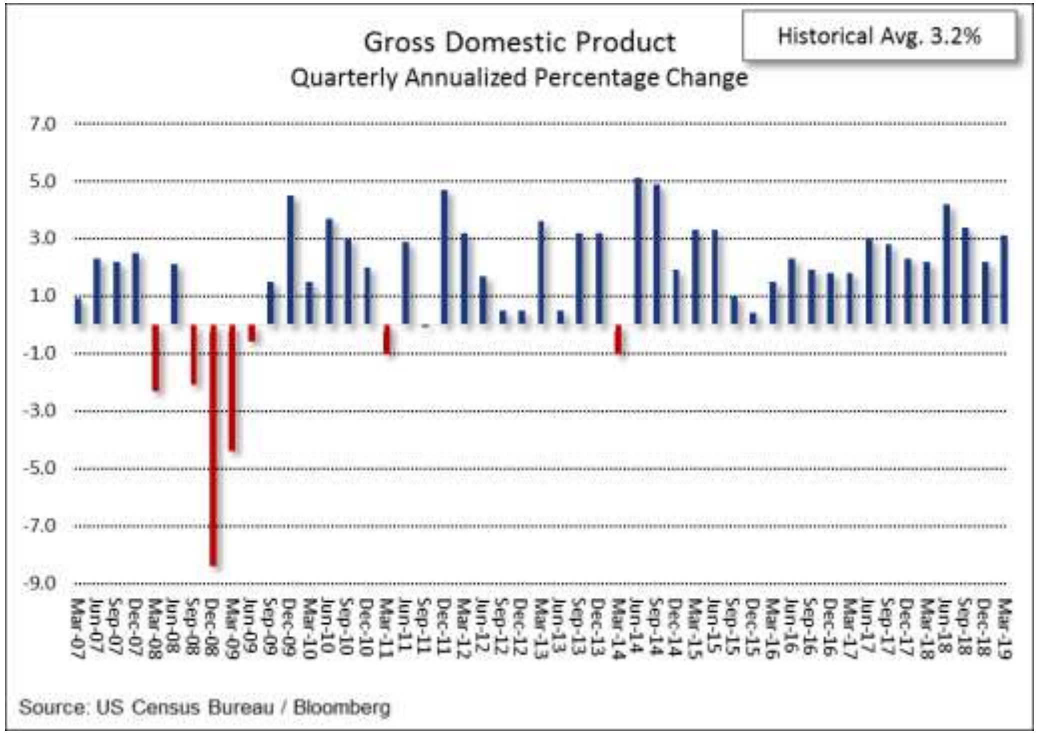
The argument for *higher* future rates

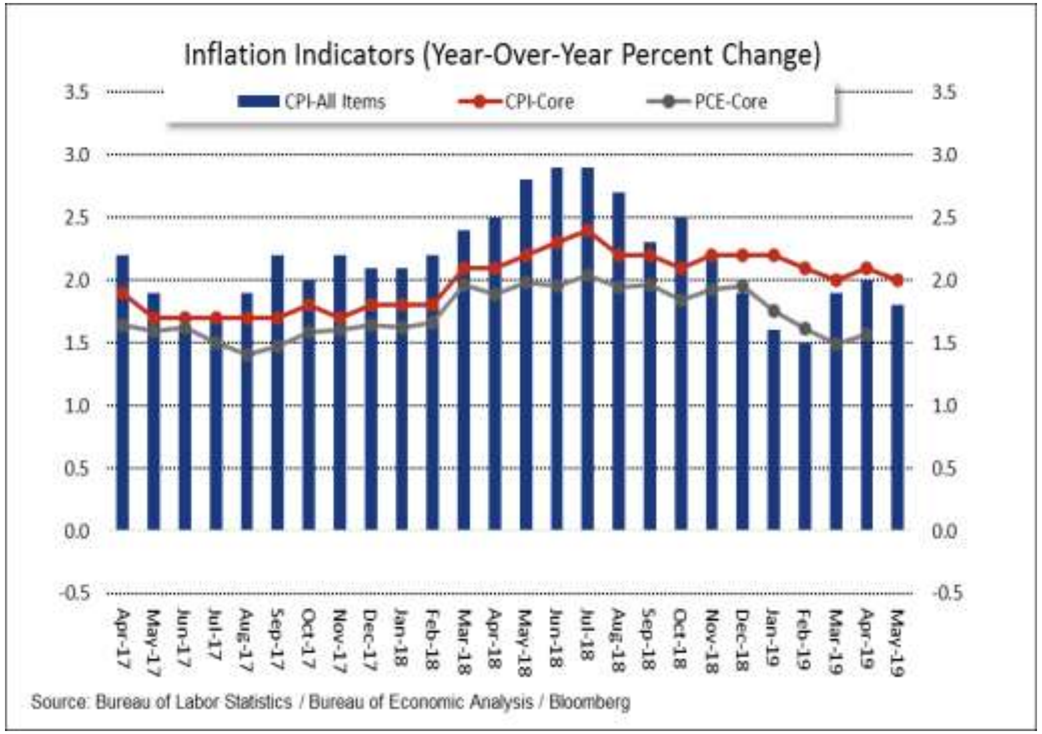
- Fed policy (monetary policy)
- Fiscal policy

The Fed's Monetary Policy

- The Fed directly controls *only* the overnight fed funds rate 
- In 1981, the overnight target was 20%; In 1989: 9.75%; In 2000: 6.5%; In 2003: 1.0%; In 2007: 5.25%; In December 2008, the Fed effectively cut the funds target to *zero*, and held it in a range of 0.00% to 0.25% for seven long years.
- Since then, it's been a challenge to "normalize." *...no one is really sure what normal looks like anymore*.
- After nine 25 bps rate increases, the overnight target is now within a range of 2.25% to 2.50%.
- Historically, inflation and economic growth were the primary drivers of Fed rate policy. ...excessive growth sparks inflation, so the Fed raises interest rates to slow growth and in doing so, slows inflation. ...but GDP growth has been mediocre at best and (traditional) inflation has fallen below target.

GDP Growth and Inflation





The current "recovery," at 120 months, is longest on record. (The average post-war recovery is 58 months.) But, this one has been unusually weak, averaging just +2.4% growth.

Because the recovery has been so weak, it hasn't generated excess demand, and as a result, there is <u>very little inflation</u>.

The Fed's <u>Conundrum</u>

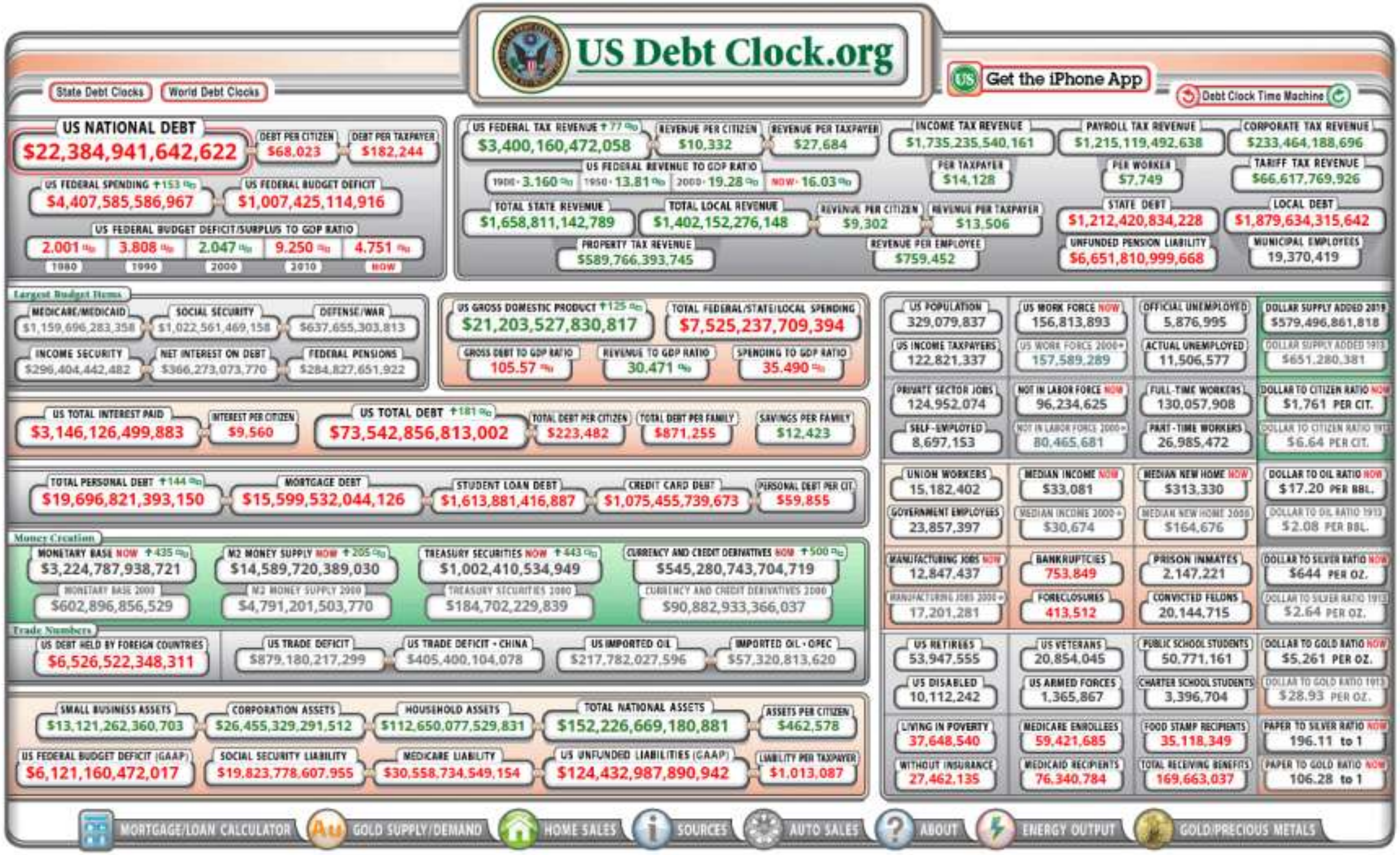
- Neither low core inflation nor slow economic growth argue for rate hikes.
- But, the Fed would feel more comfortable with higher rates as a starting point …*in the event that they have to cut rates to combat a financial crisis.*
- By raising rates preemptively (or prematurely), some fear the Fed usher in recession.
- After nine 25 bps rate increases, the Fed hasn't completed its' "normalization," but trade issues have recently thrown a wrinkle into their plans, and suddenly an "insurance cut" is on the horizon.

The Fed's Current *Monetary* Policy Plan

- ~~Upward bias – targeting a 3.25% terminal funds rate by 2020~~.
- ~~Reducing the Fed's $4.5 trillion balance sheet~~
- ~~But, *how high can rates rise without crippling the budget?*~~
- ***Paused*** *…a wait-and-see approach*
- *Downward bias*

The National Debt and the Cost to Service

www.usdebtclock.org



Lower Rates Contain Interest Expense

__1990__
National Debt: $2.8 Trillion
Interest Expense: $169 Billion

__2000__
National Debt: $5.7 Trillion
Interest Expense: $225 Billion

__2008__
National Debt: $9.6 Trillion
Interest Expense: $241 Billion

__2016__
National Debt: $19.2 Trillion
Interest Expense: $227 Billion

__2019__
National Debt: $22.4 Trillion
Interest Expense: $366.3 Billion

Fiscal Policy

- The prevailing thought when Trump was elected was that *fiscal policy would replace monetary policy* as the primary driver of economic growth.
  - Tax reform
  - Infrastructure spending
  - Deregulation

- A major tax cut was announced in December 2017, paving the way to reel-in super-accommodative monetary policy.

Low Global Yields

- Massive quantitative easing programs and zero interest rate policies exist all around the world.
- By late June 2019, over $12 trillion in government bonds around the globe were trading at negative yields.

Sovereign Debt	2-Year	5-Year	10-Year
USA	1.86%	1.86%	2.11%
Canada	1.43%	1.37%	1.48%
United Kingdom	0.58%	0.62%	0.84%
France	-0.62%	-0.42%	0.11%
Germany	-0.69%	-0.60%	-0.24%
Italy	0.42%	1.65%	2.37%
Switzerland	-0.92%	-0.85%	-0.50%
Japan	-0.21%	-0.24%	-0.12%

- This exerts downward pressure on U.S. bond yields

Why are global yields so low?

- Foreign Central Banks have bought up virtually all of the existing and new supply of eligible bonds in order to:
    - stimulate economic growth
    - Increase price pressure (inflation)
    - Contain debt service costs

The U.S. Bond Supply

Ultimately, it's the supply/demand relationship that drives yields

- The agency market is shrinking.
  - Fannie, Freddie, FHLB and FFCB debt outstanding was $3 T in 2008, now down to $1.5 T
- Treasury issuance slowed as the federal budget deficit declined …now shifting *as the deficit rises. There will be less agencies and more Treasuries.*
- Continued healthy global demand for U.S. bonds is pushing yields lower.
- Current *flight-to-quality* is also exerting downward pressure on yields.
- And, investors are overwhelmingly expecting future rate cuts.

Where do we go from here?

Bloomberg Economist Survey Forecasts

	Survey date 6/20/19	Q3 19	Q4 19	Q1 20	Q2 20	Q3 20	Q4 20
Median Fed Funds (Upper)	2.50%	2.25%	2.00%	2.00%	2.00%	2.00%	2.00%
Median Fed Funds (Lower)	2.25%	2.00%	1.75%	1.75%	1.75%	1.75%	1.75%
	6/12/19						
Avg. 2-Yr T-note yield	2.05%	2.11%	2.16%	2.16%	2.20%	2.24%	2.20%
Avg. 10-Yr T-note yield	2.30%	2.37%	2.35%	2.35%	2.41%	2.41%	2.36%

Take these projections with a grain of salt. They were calculated with then prevailing data …which changes every minute.

- The current recovery is now the longest on record; a recession is out there somewhere, and a mistake in Fed policy could usher it in.

- The Fed would actually *prefer* to raise rates now, so they have capacity to lower them later, but the trade dispute is spooking the markets and slowing growth, so *rate cuts are suddenly in play*.

- Federal debt service costs are a very real problem that no one's talking about.

- *Global bond yields are likely to continue to be very low for a long time*.

- Bond supply in the market is increasing along with the budget deficit.

- But, all of this is subject to change.

II. Common Investments for Local Govenments

- Treasuries: *When does it make sense to buy?*
- The agencies: *Is there a need to worry?*
- Commercial paper: *Know your issuers!*
- *Municipal debt: Hidden value, but be careful.*
- *CDARS and other shared CD programs …Plus insured savings accounts*
- *Pools – CP vs government*
- *Money market funds – "Prime funds" vs governments funds*

Getting Started – Basic Thoughts

- The financial markets are unpredictable. The best way to protect financial assets against the unknown is to diversify. The only way to avoid market risk is to hold fully liquid investments, but keeping all your money in pools can incur significant opportunity costs.
- Look for the low-lying fruit first. 
  - Are you maximizing your cash?
  - What will your depository bank pay on liquid deposit accounts? CDs?
  - Is the earnings credit rate (ECR) fair?
- Discuss proposed strategy with your governing body.
- Make sure you have a written policy and trade procedures in place.
- Make gradual moves. Don’t reach too far. Yield is still secondary.
- *Remember - You’re not spending your money; you’re investing it.* 

U.S. Treasuries

- Bills, notes, bonds and strips
- *Full-Faith-and-Credit* guarantee
- High liquidity
- Typically lower yields in comparison to other investment options
- S&P downgraded U.S. Treasury long-term debt in August 2010 to AA+; Moody's and Fitch still maintain Aaa / AAA.
- The "Safe Harbor" of the U.S. Treasury market
- The upcoming supply increase

Federal "Agencies" *…actually instrumentalities*

- General term used to describe the four most common Government-Sponsored Enterprises (GSEs) – Freddie Mac, Fannie Mae, FHLB, and FFCB.

- GSE credit is not explicitly backed by the U.S. government.

- Note that **Freddie** and **Fannie** have been in government conservatorship since September 2008. *The U.S. government effectively owns and manages both companies.*

- *The GSE credit ratings mirror the U.S. Treasury – AA+ / Aaa / AAA.*

- Agency bonds include:
  - Discount notes or "discos"
  - Non-callable or "bullet" bonds
  - Callables
  - Step-ups
  - Mortgage-backed securities (frequently used as collateral)

“Fannie” and “Freddie”

- From the perspective of the bond investor, Fannie and Freddie are now safe investments. Not only are they both profitable companies, but the quality of their retained portfolios has significantly improved along with the overall quality of loans in the market.

- The two mortgage giants have now returned a combined $218.7 billion in return for $187.5 billion in assistance received while under conservatorship.

- All profits generated are transferred to the U.S. Treasury.

- Discussions continue on how the two *government-owned and operated companies* can be transitioned to the private sector.

- *If and when this happens, Fannie and Freddie will eventually stop issuing agency bonds.*

- *Another consideration is that both essentially have no retained capital. Any future losses will require government support. This might be a headline risk in the event of a severe recession.*

Agency Callable Notes

- Bonds with embedded call options giving the issuer the *right* to call bonds away prior to maturity.
- Callables should always have higher yields than non-callable bonds.
- Unique call structures determine value from one callable bond to the next.
- *Don't purchase callables with the expectation that they will be called away.* Plan to hold until maturity.
- In theory, callable bonds are most effective when rates are stable or increasing.
- The "roll-down" effect

Some Less Common Agencies

- Ginnie Mae (Mortgage-backed Securities only)
  - Full-faith-and-credit
- Federal Housing Authority (FHA)
  - Full-faith-and-credit
- Small Business Administration (SBA)
  - Full-faith-and-credit
- Housing and Urban Development (HUD)
  - Full-faith-and-credit
- Farmer Mac *(*Unrated GSE – *by choice)*
- Tennessee Valley Authority (TVA) – *Backed by project revenues*
- Export / Import Bank
- Sallie Mae (*Gave up its GSE status and privatized in 1997*)

Commercial Paper

- Unsecured promissory note, with maturities ranging from 1-270 days, issued by corporations, financial institutions or local governments as a source of working capital, or to provide for other short-term financing needs.
- CP is generally exempt from SEC registration due to its short maturity.
- Direct or indirect investment (through pools and money market funds)
    - Direct investment requires due diligence / risk is still present in indirect investment

- The supply of available high quality issues has dropped in recent years.
- Not particularly liquid – buy and hold
- Program types - 3(a)3; 3(a)2; 3(a)7 vs. Private Placement 4(2) 144A

Commercial Paper in Investment Portfolios

- Verify whether CP is permitted in your investment policy, and determine whether you have the time/ability/expertise to properly evaluate and monitor issuers.
- Limit all purchases to “Prime” credit ratings (A-1, P-1, F-1 or better).
- *Determine if the incremental earnings justify the additional risk.*
- Establish a short, <u>pre-approved list</u> of CP programs.
- Establish percentage limits/diversify by industry sector, commercial paper type, maturity and issuer.
- Develop purchase procedures.
- Maintain information on file for all issuers in the portfolio.
- Monitor ratings and outlook on a frequent basis.
- Conduct ongoing financial reviews.

Municipal Debt

- Direct obligations of the state or local governments or state agencies
    - Commercial paper and *short* bonds (most muni bond maturities are long)
- Historical default rate on muni debt is very low, but this is a new environment …*so be careful.* Due diligence is required. Be familiar with your issuers.
- GO debt is usually a safer bet than revenue debt.
- Seek minimum credit rating of A …*but AA or better is preferred.*
- Muni CP should follow the CP ratings guidelines - A1/P1 or better.
- **EMMA** to monitor

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CREDIT RATINGS OF U.S. STATES

Aaa Credit (15 States)	Indiana (Aaa)	Iowa (Aaa)	Missouri (Aaa)	Texas (Aaa)
Aa Credit (30 States)	Kansas (Aa2)	Ohio (Aa1)	Wisconsin (Aa2)	Michigan (Aa2)
A Credit (1 State)	New Jersey (A2)			
Baa1 Credit (1 State)	Illinois (Baa1)			

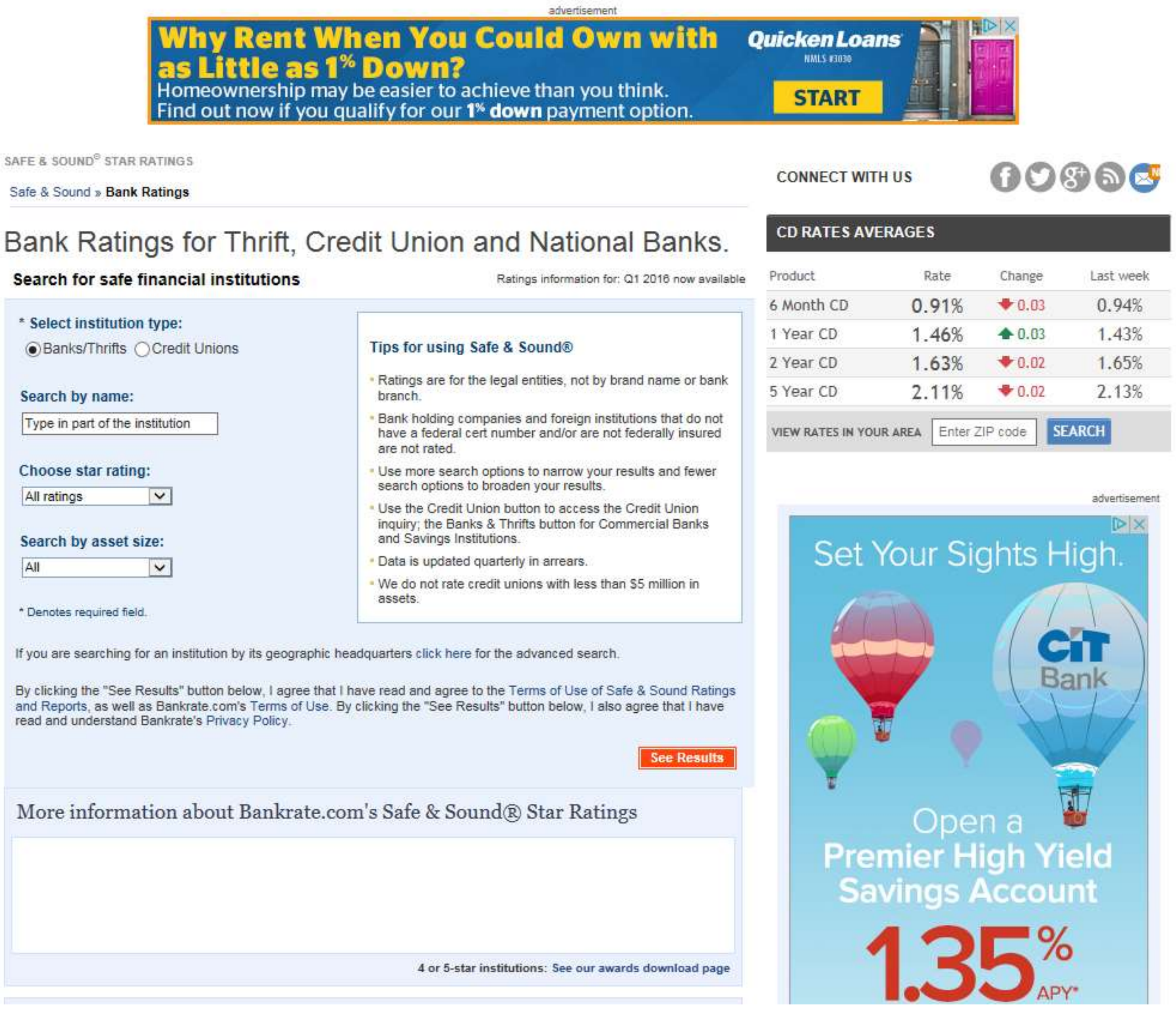
Source: Moody's Investors Service

Certificates of Deposit (CDs)

- Deposits must be secured one way or another
  - FDIC insurance
  - FHLB LOCs
  - Surety Bonds
  - Permitted security collateral
- Liquidity issues
- Brokered CDs
- *What is the CDARS program?*

Resource

"Safe & Sound Ratings" provide bank financial information in a digestible format: http://www.bankrate.com/rates/safe-sound/bank-ratings-search.aspx?t=cb



CDARS …and other shared CD programs

Plus, insured savings accounts

- The Certificate of Deposit Account Registry Service (CDARS) is an investment option that takes in your deposit and breaks it up into multiple FDIC-insured bank CDs across the nation in increments of less than $250k.
- There are other shared CD programs using the same concept.
- The shared CD idea has evolved to include more liquidity. The insured saving account is essentially the same thing – deposits are divided amongst banks within a network, but funds can be withdrawn weekly or in some cases daily without penalty.

Investment Pools

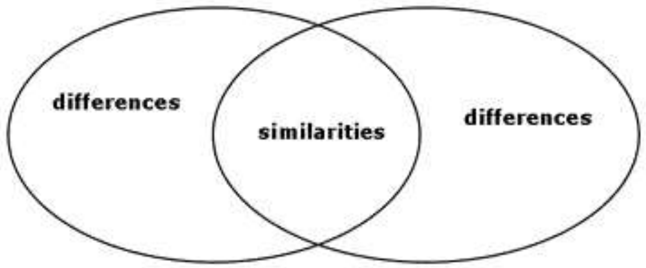
- Government pools vs Commercial Paper pools
    - Classic risk/reward decision
- *Understand what's in the underlying portfolios*

- *Using multiple pools isn't a good example of diversification; pools are mostly homogeneous*

Money Market Funds

- Money market funds are investment pools with higher fee structures.
- "Prime" money market funds include commercial paper and other riskier and less liquid security types. As a result, the SEC now requires floating net asset value reporting, and has instituted liquidity fees and redemption gates.
- *Government* money market funds retained constant dollar reporting and are not subject to the additional fees and restrictions.
- There was a massive exodus from Prime into Government funds after SEC changes, but *in recent years this has shifted as investors embrace risk* (for better or for worse).

Similarities and Differences:
Investment Pool and Money Market Funds

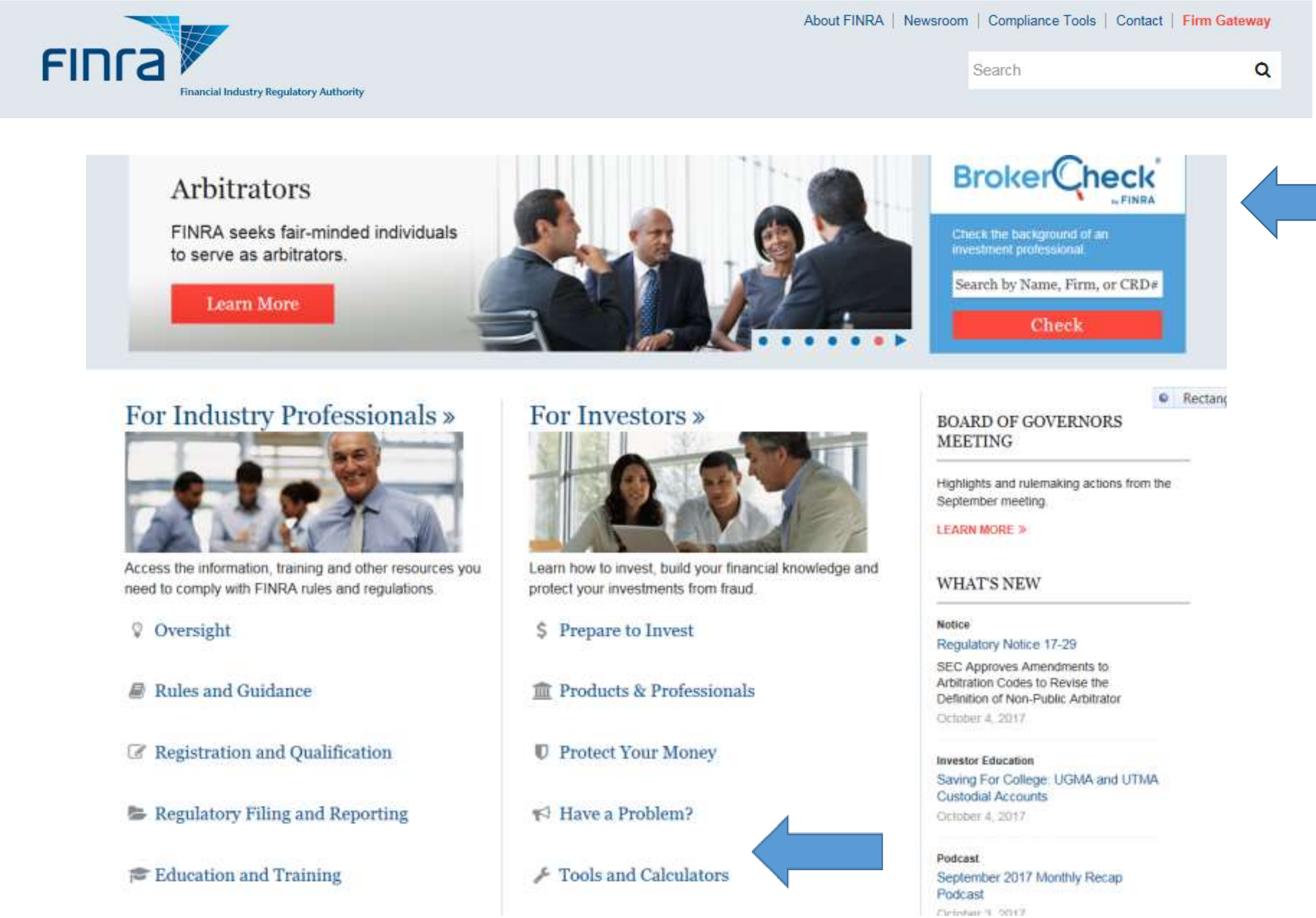


- Investment pool and money market fund portfolio compositions are frequently identical.
- The primary difference is the fee structure - *pools charge much lower fees.*
- Investment pools were unaffected by SEC reform.

Investment Costs and Trade-offs

- Treasuries offer “full faith and credit” *but* at the cost of spread loss to Government Agencies, municipal and corporate securities, etc.
- Commercial paper relative value waxes and wanes. If CP is authorized, it still may not make sense to buy if the spread isn’t attractive.
- Pools reflect a current market while the yield curve reflects expectations. Pools tend to outperform as rates rise, underperform as rates fall.

Resource
www.FINRA.org



- To improve investment returns, start with the easy stuff – maximize earnings on cash.
- You’re not *spending* your money; you’re investing it.
- Buy Treasury issues if agencies with comparable maturities don’t offer any yield advantage.
- Money market funds are just investment pools with higher fee structures.
- Understand what’s in your chosen investment pool’s underlying portfolio.
- Diversify!

III. The Risks

- Market Risk
- Credit Risk
- Liquidity Risk
- Event Risk
- Opportunity (cost)

Market Risk

<u>Risk that your investments will lose value as a result of a decline in the overall market</u>

Remember: As market yields rise, portfolio values will fall.

- Risk controlled by:
  - ✓ Shorter maturities
  - ✓ Floating or variable rate securities
  - ✓ Diversification/ laddering

Suggested Procedures for Managing Credit Risk

- ✓ Establish a pre-approved issuer list – *know the issuer*
- ✓ Restrict investments to the familiar, domestic names
- ✓ Set concentration limits (issuer/sector/region/maturity)
- ✓ Understand the issuer’s intended use of funds
- ✓ Monitor ongoing financial condition of issuer

Possible Market Reactions to Events

- Flight to Quality – The U.S. bond market is considered the safest and most liquid in the world. Thus, nervous investors might sell stocks and riskier investments during periods of panic or uncertainty and buy Government securities, driving Government bond prices higher and yields lower.

- Extreme Volatility - When investors are uncertain about how something will turn out bond prices and corresponding yields rise and fall more frequently and more dramatically.

- Market Sell-off - Some events or unexpectedly positive economic news may cause a market sell-off, driving bond prices lower yields higher.

Opportunity Risk (Cost)

<u>Risk that you will not earn a competitive rate of interest as a result of not actively investing funds</u>

- Risk controlled by:
  - ✓ Diversification

- Not a problem …if rates are rising or the curve is flat.

- Sometimes being too conservative is a sure-fire way to lose money!

Making Investment Decisions and Managing Risk

- Update investment policy
- Consider cash flow needs
- Determine risk tolerance
- Set target average maturity
- Analyze economic data
- Consider investment choices in historical perspective
- Understand credit risk
- Assess the relative value of each maturity and sector
- Shop among multiple brokers and dealers
- Determine benefit of selling before maturity vs. holding to maturity

- As market yields rise, prices on existing portfolio securities will fall.
- The unrealized losses will generally increase in proportion to the maturity date.
- Yields are always higher for riskier investments …there are very few exceptions in the fixed income arena.
- Know your issuer!
- Sometimes being too conservative is a sure fire way to lose money.
- Internet resources – FINRA, EMMA and Bankrate.com

Questions?

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