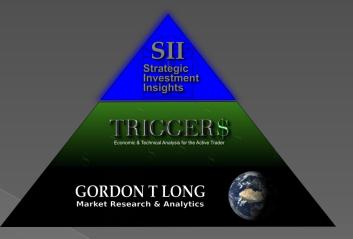


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#### **Advanced Technical Analysis**







#### YCC v NEGATIVE REAL RATES?

#### NOTE

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The content of this slide should not be considered investment advice of any sort, nor should it be used to make investment decisions. Use of this slide is considered to be your explicit acceptance of the Disclosure Statement and the Terms of Use found on the last page of this document.

# YIELD CURVE CONTROL



VERSUS



NEGATIVE REAL RATES

# **AGENDA**

#### **REAL RATES**

- Real Rates
- Fisher's Equation

**ACHILLES HEEL: SHORT TERM FUNDING** 

**NEGATIVE REAL RATES** 

Lenders v Borrowers

#### FLAWED DETERMINATION

Inflation Breakevens v TIPS

# YIELD CURVE CONTROL WHAT ALL THIS MEANS

- To Lenders
- To Borrowers
- To Investors



BANKS DON'T LEND UNLESS THEY CAN MAKE A PROFIT!

BORROWERS REQUIRE REAL COLLATERAL!

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A lender who lends money for repayment at a later point in time expects to be compensated for:

- 1. The **TIME VALUE OF MONEY**: Not having the use of that money while it is lent.
- **2. RISK**: The expected value of the loss of purchasing power when the loan is repaid.
  - i. **DEFAULT**: The possibility that the borrower will default or be unable to pay on the originally agreed upon terms,
  - ii. COLLATERAL: The collateral backing the loan will prove to be less valuable than estimated
  - iii. TAXATION & REGULATORY: The possibility of changes in taxation and regulatory changes which would prevent the lender from collecting on a loan or having to pay more in taxes on the amount repaid than originally estimated;
  - iv. PURCHASING POWER: The loss of buying power compared to the money originally lent, due to inflation.
- **NOMINAL INTEREST RATES**: Measure the sum of the compensations for all four sources of loss, plus the time value of the money itself.
- **REAL RATES:** Differ from nominal rates of interest by excluding the inflation compensation component.

**REAL INTEREST RATE:** is the rate of interest an investor, saver or lender receives (or expects to receive) after allowing for inflation.

# The real interest rate is approximately the nominal interest rate minus the inflation rate.

**EXAMPLE:** an investor were able to lock in a 5% interest rate for the coming year and anticipated a 2% rise in prices.

- They would expect to earn a real interest rate of 3%.
- The expected real interest rate is not a single number, as different investors have different expectations of future inflation.
- Since the inflation rate over the course of a loan is not known initially, volatility in inflation represents a risk to both the lender and the borrower.

In the case of contracts stated in terms of the nominal interest rate, the real interest rate is known only at the end of the period of the loan, based on the realized inflation rate; this is called the ex-post real interest rate.

# FISHER'S EQUATION: SIMPLE TO UNDERSTAND

Nominal interest rate = Expected inflation rate + Real interest rate





- HOW TO WE DETERMINE THE INFLATION RATE?
- WHERE CAN WE FIND IT?

**BORROWERS** will BORRROW at Negative Nominal and Real Rates! **LENDERS** are not going to LEND at NEGATIVE REAL RATES

- Unless they see Major Deflation Coming,
- Unless they expect the Currency to Appreciate

# **Fisher Equation**

The relation between real and nominal interest rates and the expected inflation rate is given by the Fisher equation

where

i = nominal interest rate:

r = real interest rate:

= expected inflation rate.

For example, if somebody lends \$1000 for a year at 10%, and receives \$1100 back at the end of the year, this represents a 10% increase in her purchasing power if prices for the average goods and services that she buys are unchanged from what they were at the beginning of the year.

However, if the prices of the food, clothing, housing, and other things that she wishes to purchase have increased 25% over this period, she has, in fact, suffered a real loss of about 15% in her purchasing power. (Notice that the approximation here is a bit rough; since 1.1/1.25 = 0.88 = 1 - 0.88 = .12, the actual loss of purchasing power is exactly 12%.)

#### The Fisher Effect:

When expected inflation changes, the nominal interest rate will increase.

However, inflation will not affect the real interest rate.

## KEY MIS-UNDERSTANDINGS IN THIS SIMPLE FORMULA

**INFLATION:** Is a measure of domestic inflation moves the nominal rate. The Inflation Rate of the country does not move the real rate

**REAL RATES:** Are impacted by a shift in:

The relative value of the currency,

Global inflation pressures and

Credit worthiness.

**INTRINSIC VALUE:** Falling Real Rates reflect a reduced intrinsic value of a Bond. Fisher's Equation says this will result in a reduced Nominal Rate as the interest revenue stream is perceived to be of less value.

**MONETIZATION:** Rising domestic inflation, due to the monetization of debt, will inevitably impact the domestic currency which then reduces the real rate, making nominal rates and their interest revenue stream worth less.

# HISTORICAL

	POSITIVE NOMINAL RATES	POSITIVE REAL RATES
	6%	6% - (+2%) = 4%
BORROWER	6%	6%-(+2%) = 4%
	Lending Risk = 0% (Risk Free)	
LENDER	6% - Risk (0%) = 6%	6% - (+2%) = 4%
	Carry = 2%	
- Carry Lender	6% - 2% = 4%	4% - (+2) = 2%

BORROWER = GOVERNMENT

LENDER = BOND BUYER

#### SINCE DOTCOM BUBBLE IMPLOSION

	POSITIVE NOMINAL RATES	POSITIVE REAL RATES
	3%	3% - (+2%) = 1%
BORROWER	3%	3%-(+2%) = 1%
	Lending Risk = 0% (Risk Free)	
LENDER	3% - Risk (0%) = 3%	3% - (+2%) = 1%
	Carry = 2%	
- Carry Lender	3% - 2% = 1%	1% - (+2) = -1%

BORROWER = GOVERNMENT

LENDER = BOND BUYER

Forced to Change Lending Standards: Deposit Ratio of 10:1 Basel Accord Capital Adequacy Ratios Maintain Collateral in Treasury "Risk Free" to improve VaR

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# COMPLETE RE-ALIGNMENT OF LENDING (Over Last 25 Years)

WAS (Low Inflation): BORROW LONG (Cheap), LEND SHORT (Expensive)
SHIFT to (Higher Inflation): BORROW SHORT (Cheap), LEND LONG (Expensive)

Money Market Lending, Commercial Paper Lending, ABS, MBS Forced to Change Lending Standards: Deposit Ratio of 10:1 Basel Accord Capital Adequacy Ratios

Treasuries as "Risk Free" Collateral = 'Unlimited'.

"REPO" MARKET SINCE 2008 (Evident During EU Banking Crisis)

Short Term Repo Lending (FROM THE FED) (Novation)

Excessive Reserves Held At Fed

# SHORT TERM FUNDING DISRUPTIONS

2000 DOTCOM Derivatives

2008 GFC ABS/MF/CDO

2012 EU BANKING CRISIS (Greece / Cyprus, PIGS) CDS / Derivatives

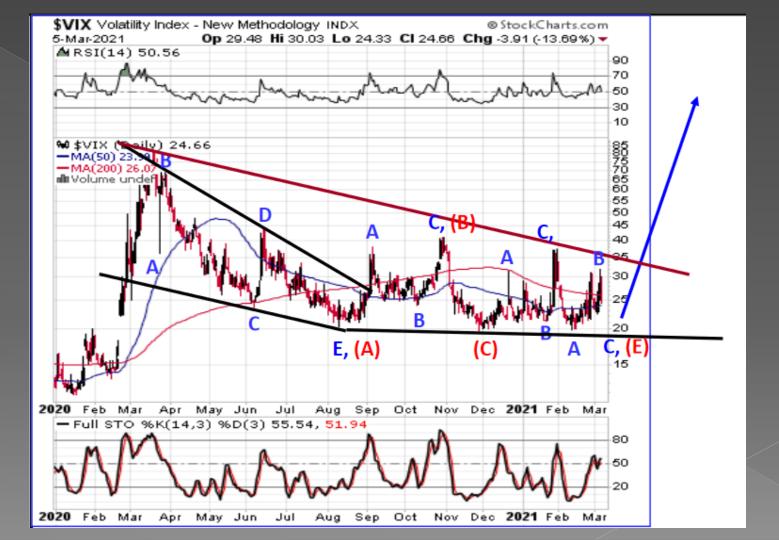
2018 "MNUCHIN MASSACRE" VIX SHORTING

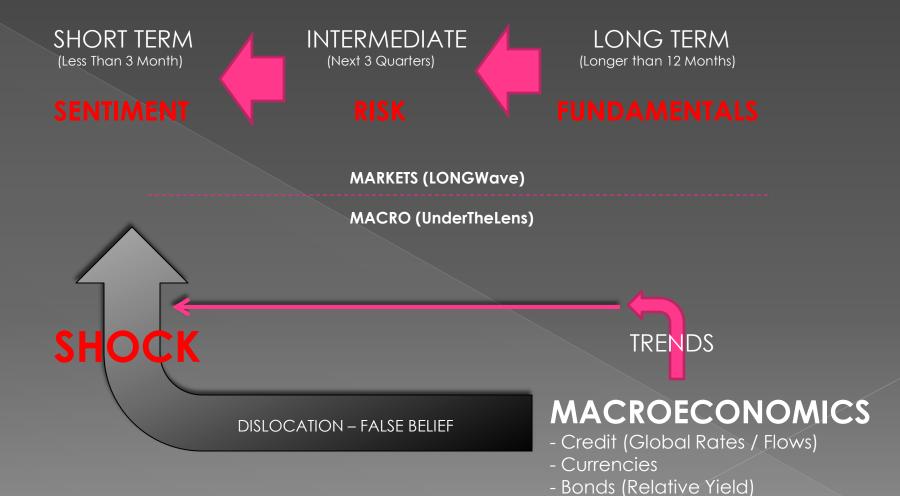
Leverage in the Short Term Funding Market

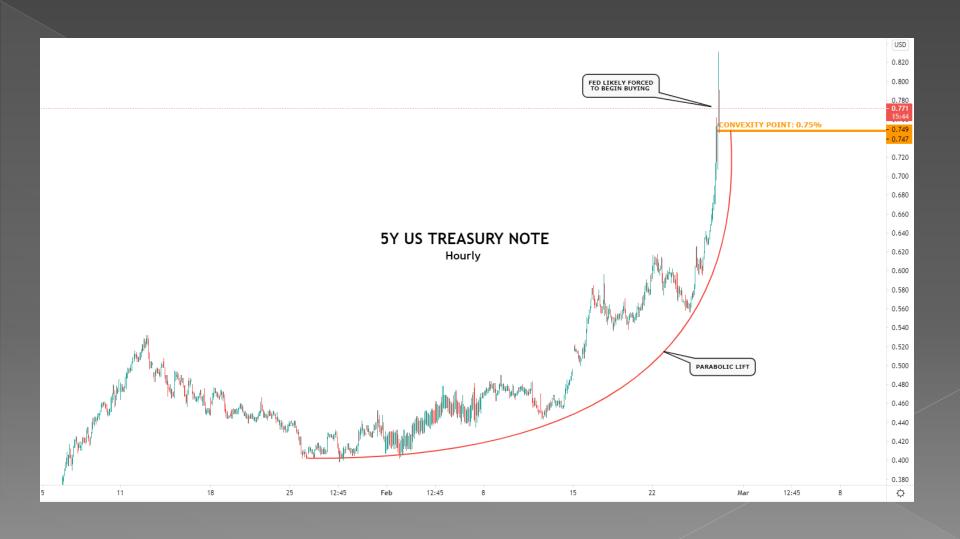
### Pre – Q4 2018 "VIXAMEGGON"

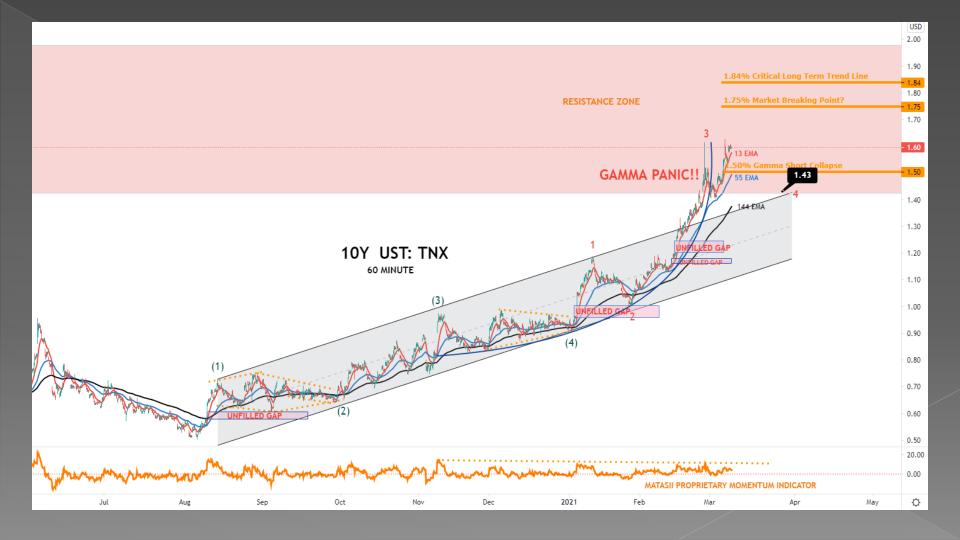
	POSITIVE NOMINAL RATES	POSITIVE REAL RATES	NEGATIVE NOMINAL RATES	NEGATIVE REAL RATES
	1.5%	1.5% -(+1.5%)=0		
BORROWER	1.5%	1.5% -(+1.5%) = 0%		
	Lending Risk =0%			
LENDER	1.5% - Risk (0%)=1.5%	1.5% - Risk (0%)=1.5%		
	Carry=1%(Leverage)	Pile on the Leverage to keep Positive Real Rates		
- Carry Lender	1.5% - 1% = 0.5%	0.5% - (+2) = -1.5%		

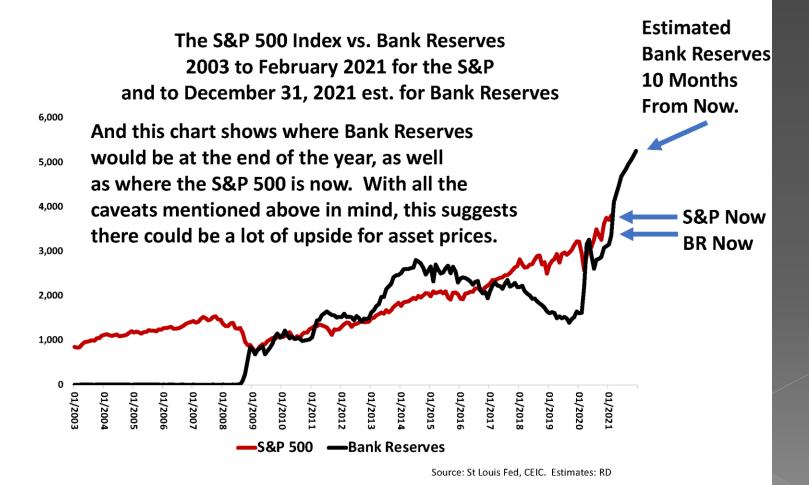
Shorting VIX For Short Term Repo Capital Post Q4 2018 "VIXAMEGGON"











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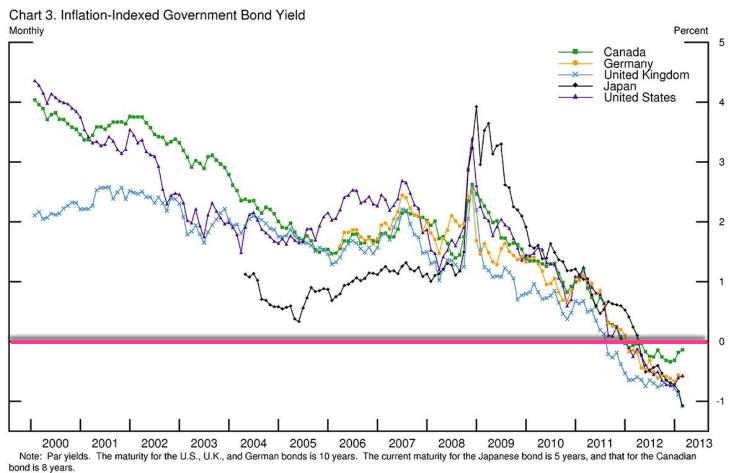
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BANKS DON'T LEND UNLESS THEY CAN MAKE A PROFIT!

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Source: Bloomberg.

## **NEGATIVE RATES: NOMINAL v REAL**

**Real interest rates** can be **negative**, but nominal **interest rates** cannot.

**Real interest rates** are **negative** when the **rate** of inflation is higher than the nominal **interest rate**.

Nominal **interest rates** cannot be **negative** because if banks charged a **negative** nominal **interest rate**, they would be paying you to borrow money!

#### ZERO BOUND

The nominal interest rate can only go down to Zero percent.

## **NEGATIVE RATES: NOMINAL v REAL**

A negative interest rate environment occurs when the nominal interest rate drops below zero percent for a specific economic zone. This effectively means that banks and other financial firms have to pay to keep their excess reserves stored at the central bank, rather than receiving positive interest income.

With **negative interest rates**, central **banks** charge commercial **banks** on reserves in an effort to incentivize them to spend rather than hoard cash positions. With **negative interest rates**, commercial **banks** are charged **interest** to keep cash with a nation's central bank, rather than receiving **interest**.

If a <u>central bank implements</u> In theory, **negative rates** would boost the economy by encouraging consumers and banks to take more risk through borrowing and lending money.

**Sweden**, **Switzerland**, **Japan** and the 19 nations of the Eurozone all took interest rates below zero. In **Switzerland**, negative interest rates have also helped to discourage investors from pouring money into the country during times of uncertainty.

## **NEGATIVE RATES: NOMINAL V REAL**

The Federal Reserve has never brought its benchmark rate into negative territory and, according to Fed Chairman Jerome Powell, the central bank is not considering going to negative interest rates now. Experts agree. (He is referring to the Federal Funds Rate)

- NEGATIVE REAL INTEREST RATES ARE AN IMPORTANT FACTOR IN GOVERNMENT FISCAL POLICY
  - Since 2010, the U.S. Treasury has been obtaining negative real interest rates on government debt, meaning the inflation rate is greater than the interest rate paid on the debt,
  - Such low rates, outpaced by the inflation rate, occur when the market believes that there are no alternatives with sufficiently low risk, or when popular institutional investments such as insurance companies, pensions, or bond, money market, and balanced mutual funds are required or choose to invest sufficiently large sums in Treasury securities to hedge against risk.
  - Lawrence Summers stated that at such low rates, government debt borrowing saves taxpayer money, and improves creditworthiness.
  - In the late 1940s through the early 1970s, the US and UK both reduced their debt burden by about 30% to 40% of GDP per decade by taking advantage of negative real interest rates, but there is no guarantee that government debt rates will continue to stay so low.
  - •Between 1946 and 1974, the US debt-to-GDP ratio fell from 121% to 32% even though there were surpluses in only eight of those years which were much smaller than the deficits.

# **NEW ERA**

NEW: **INFLATION HAS ARRIVED -** MONETARY DEBASEMENT - FISCAL EXCESS

NEW: COLLATERAL DEBASEMENT - US\$ RESERVE ISSUE

NEW: POLICIES THAT MAKE US ENERGY DEPENDENT AGAIN

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# **FISHER'S EQUATION**

Nominal interest rate = Expected inflation + Real interest rate





Since the introduction of inflationindexed bonds, ex-ante real interest rates have become observable.

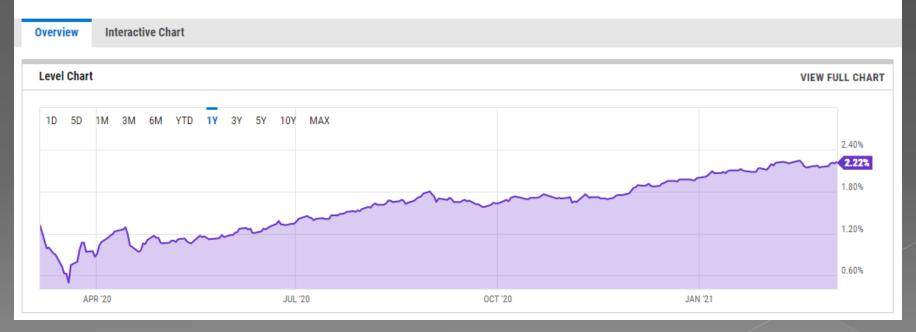
On an economy-wide basis, the "real interest rate" in an economy is often considered to be the rate of return on a risk-free investment, such as US Treasury notes, minus an index of inflation, such as the rate of change of the CPI or GDP deflator.

The US "TIPS" as a measure of the US Real Rate is flawed and as such this has consequences

# 10Y UST BREAKEVENS

#### 10 Year TIPS/Treasury Breakeven Rate

2.22% for Mar 05 2021

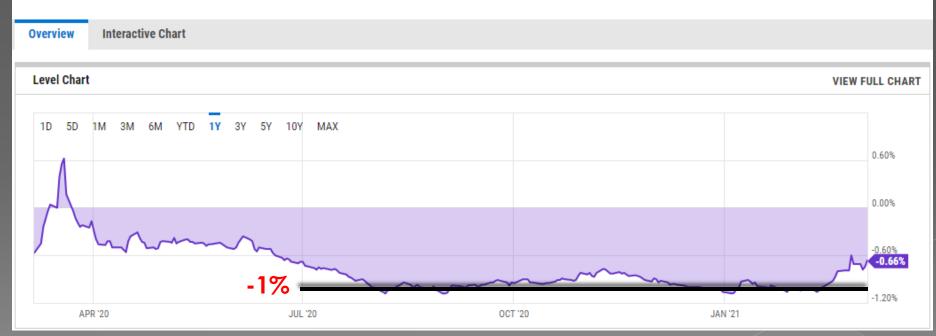




# **REAL RATES - TIPS**

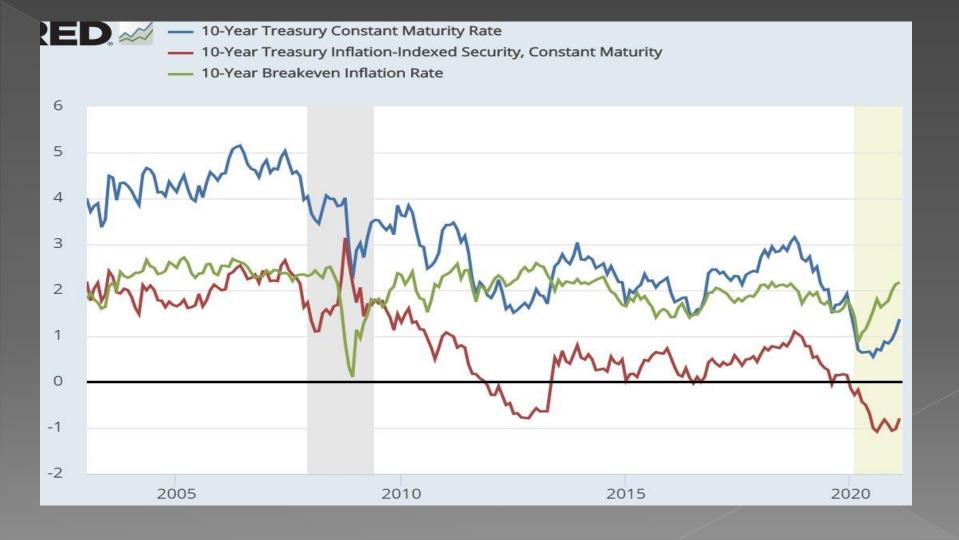
## 10 Year Treasury Inflation-Indexed Security Rate

-0.66% for Mar 04 2021





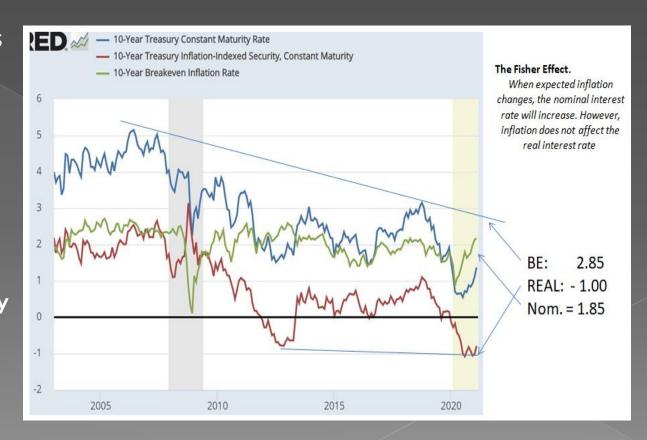
BE: 2.22 REAL: - 0.66 Nom. = 1.56%

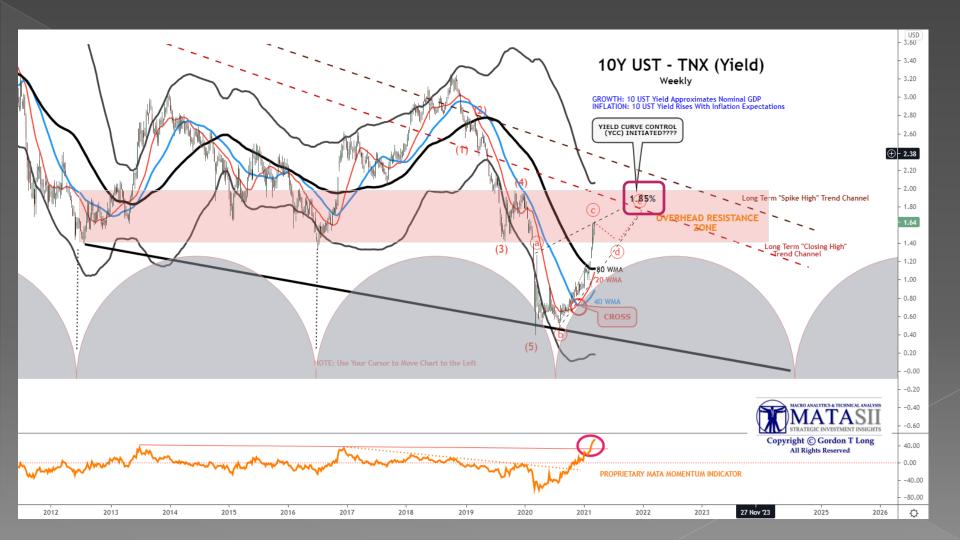


## **BOUNDARY CONDITIONS**

Our current expectations are for:

Break-Evens:
Approaches 2.85%
Real Rates:
Will approximate 1.0% to reflect the Chinese Credit Impulse Correlation
Nominal Rates:
Will peak at approximately 1.85%





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## DIFFERENCE BETWEEN QE v YCC

#### QE:

DID NOT EXPLICITLY ALLOW THE FED TO CONTROL THE LEVEL OF INTEREST RATES

#### YCC:

Has the specific goal of targeting particular interest rates across the entire yield curve



Steering rates and setting rates are not the same. The question for the Fed is, how can they control interest rates for longer-term securities?

# YIELD CURVE CONTROL (YCC)

- YCC essentially allows the Fed to do unlimited amounts of QE with no time restraints.
- Embedded in YCC is the specific goal of targeting particular interest rates across the entire yield curve,

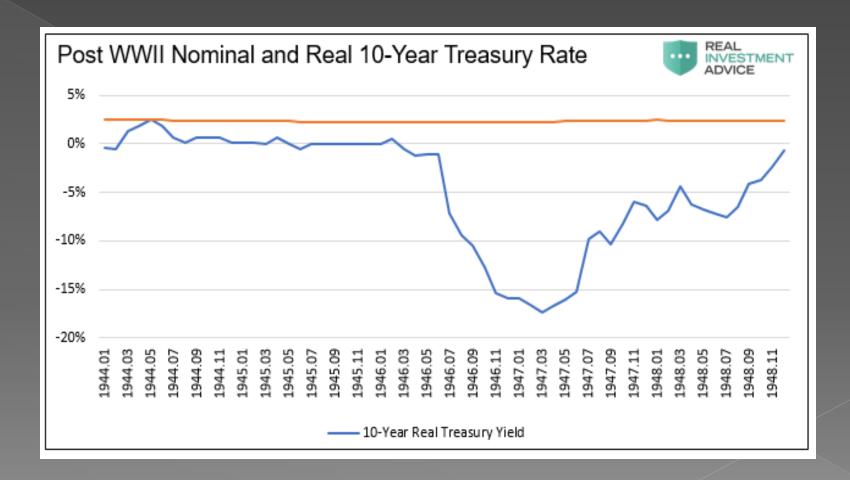
YCC is a euphemism for PRICE CONTROLS

PRICE CONTROLS are government interference and regulation, establishing prices for specified goods and services.

THIS ABOUT PRICE CONTROLS ON MONEY!

# YIELD CURVE CONTROL (YCC)

- It is called yield curve control because the central bank effectively manages the shape of the yield curve.
- A steeper yield curve benefits the banks as they tend to borrow short term and lend long term. Larger profit margins increase their desire to lend and therefore stimulate debt-driven economic activity. Conversely, a flatter or inverted yield curve inhibits lending due to narrower bank profit margins, and consequently, it curtails debt issuance and economic activity.
- The problem for the Fed is how they can steepen the yield curve to stimulate lending without letting longer-term rates rise too much? Under YCC, they may squirm out of one trap only to find themselves in a bigger trap.



# YIELD CURVE CONTROL (YCC)

Federal Reserve Bank of New York President John Williams says that:

Policymakers are "thinking very hard" about targeting specific yields on Treasury securities.

Given what we have observed, it seems likely they will implement YCC and, in doing so, choose to keep digging and try to push problems out further into the future.

The problem with these actions is they engender anemic rates of economic growth. Equally concerning, they directly contribute to income inequality, a driving force for social unrest.

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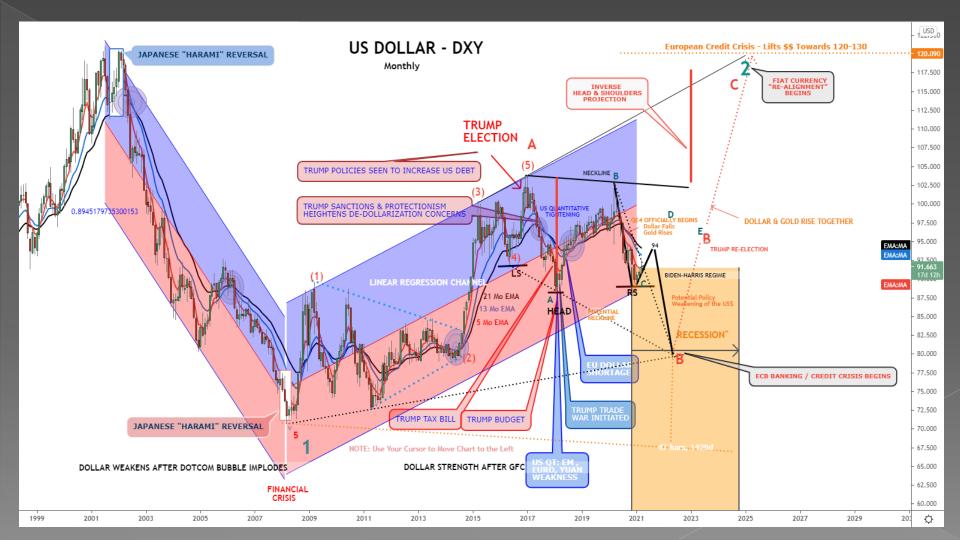


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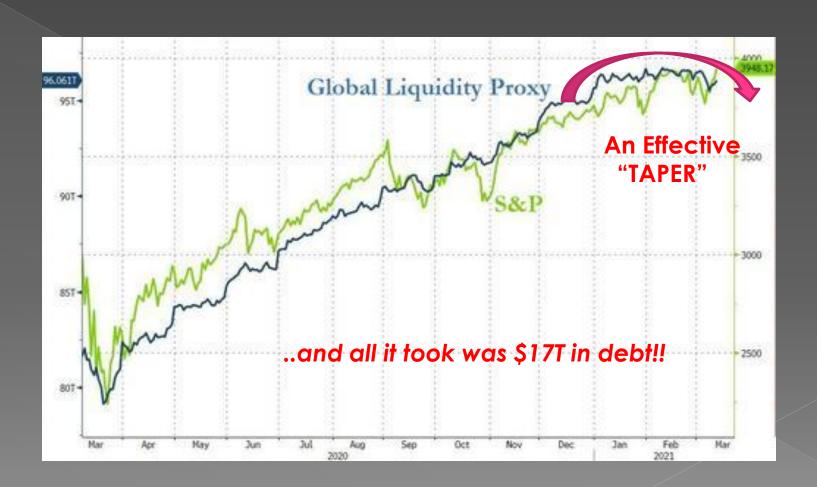


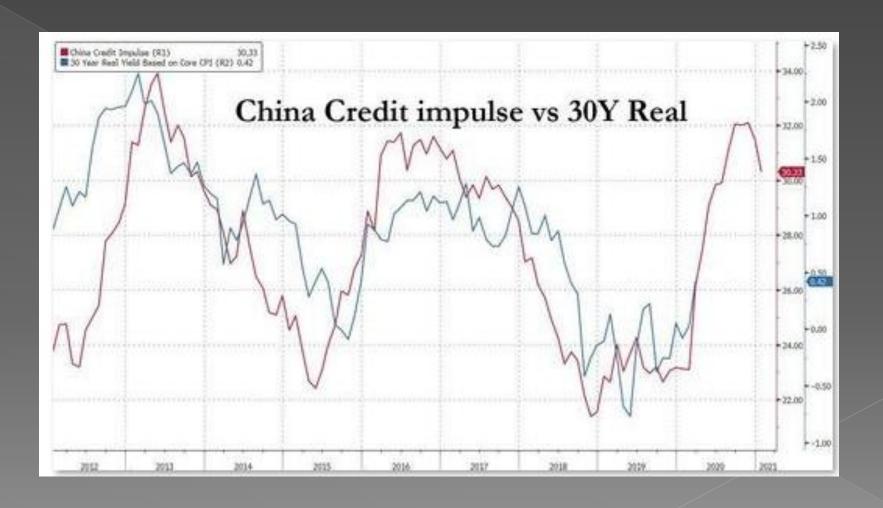
# DOLLAR - YUAN – GOLD RELATIONSHIP We need to remember that Gold has been tracking the real rate of the US 10Y note and the 10Y note has been tracking the Chinese Credit Impulse.

We laid this out in our last two newsletters:

(<a href="https://conta.cc/3cuttgK">https://conta.cc/3cuttgK</a>, <a href="https://conta.cc/38CL1WV">https://conta.cc/38CL1WV</a>)







## **BOUNDARY CONDITIONS**

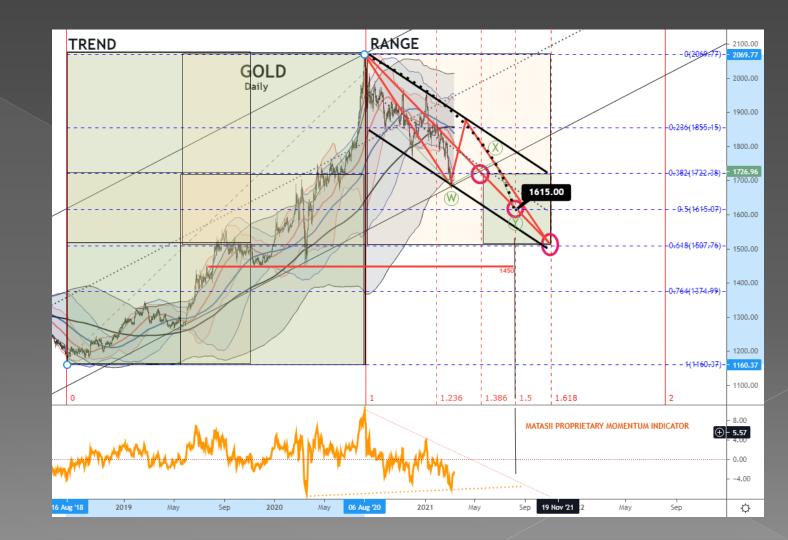
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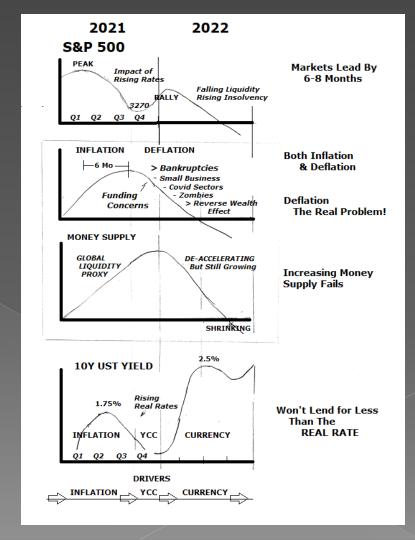




## CONCLUSION

There is a strong possibility that the Fed will:

- •Let the Long End of the Curve rise using an effective "TAPER" to control rates somewhat,
- This will negative impact the over-leverage equity markets,
- A "Flight to Safety" will initially take the dollar higher through August
- As the economy's focus shifts from Inflation to Deflation the Fed will launch YCC,
- •YCC will take the US% lower assisting the Fed.
- •The Fed will sacrifice the US\$ to be able to stabilize lending and government debt requirements.



## ADMINISTRATIONS CHANGE – BUT THE PRINTING NEVER DOES

DON'T WORRY, THEY WILL PRINT THE MONEY!

#### **EVERYONE IS NOW IN PLACE & READY!!**

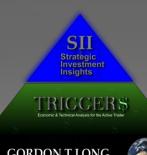








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IT IS THE ONLY PAYMENT WE ACCEPT FOR POSTING THIS FREE YOUTUBE CONTENT

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	Carry=1%(Leverage)	Pile on the Leverage to keep Positive Real Rates
- Carry Lender	1.5% - 1% = 0.5%	0.5% - (+2) = -1.5%

Value at Risk: VaR Measures
Never Reinstated "Mark-to Market" for Options & Futures Contracts

# CENTRAL BANKING COMMERICAL CONSUMERS **BANKS US TREASURY** MONEY CENTERED BANK GLOBAL BANKS PRIMARY DEALERS SHADOW BANKS

=== Zero Bound

US FEDERAL RESERVE

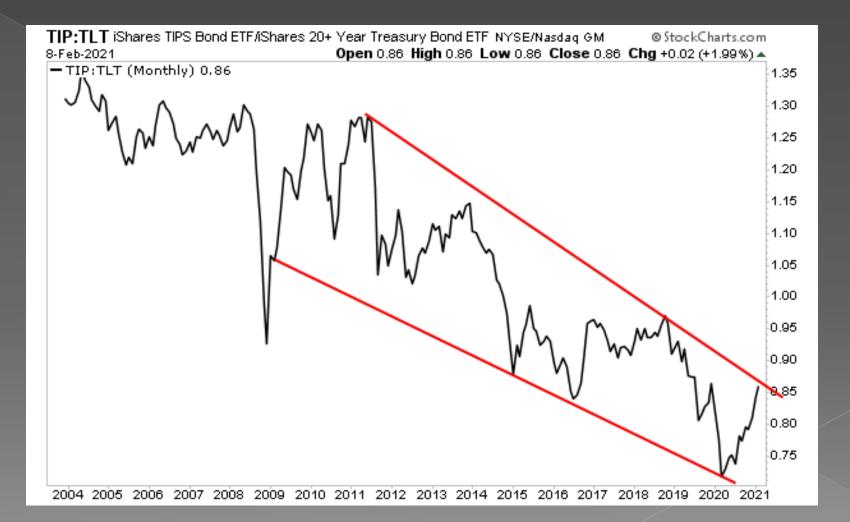
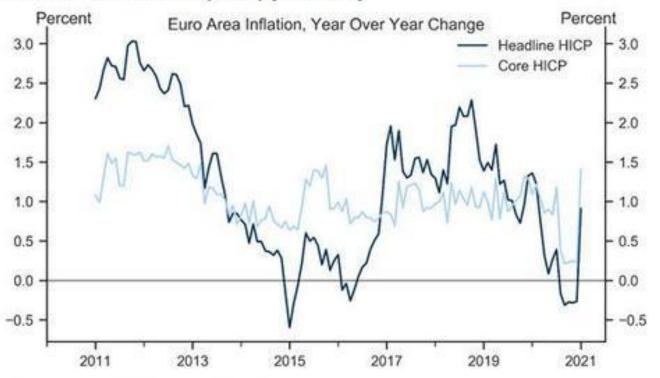


Exhibit 1: Inflation Picked Up Sharply in January



Source: Eurostat, Goldman Sachs Global Investment Research