

# Traditional Investment Choices and Emerging Alternatives

Mike Norman

*Senior Principal*

Galliard Capital Management, Inc.

AGRiP and NLC-RISC Investment Management  
& Oversight Conference

October 2011

# Fixed Income 101



## **What we will cover:**

### Bonds & Bank Products

- What are the options
- The cryptic world of bond vocabulary
- The yield curve and why is it important?

## **Covered in a later session:**

Equities, bond math, investment strategies

## Public Risk Pools

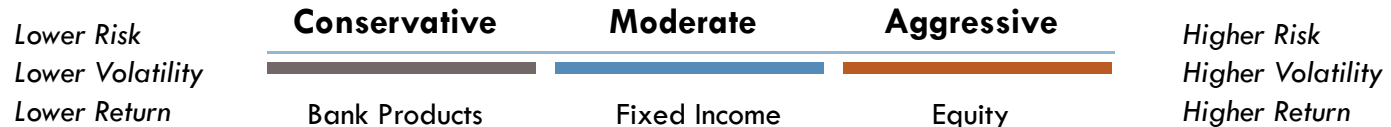
# What Can They Invest In and Why?



- Investments dictated by:
  - Statutes/Legislation
  - Insurance industry regulations
  - Conservative investment policies
  - Investment guidance committee/board
- Investment policy will dictate final guidance
  - Need to take into account liquidity needs
  - One of the main goals is principal preservation

# Investment Options

## Is There a Difference?



### Fixed Income Securities

- US Government
- Corporate
- Municipals
- Structured Products
  - Mortgage Backed
  - Asset Backed
- Sovereign/Supranational

### Bank Products

- Demand Deposit
- Savings Accounts
- Certificate of Deposit
- Sweeps
- Bankers Acceptances

# Why Fixed Income?

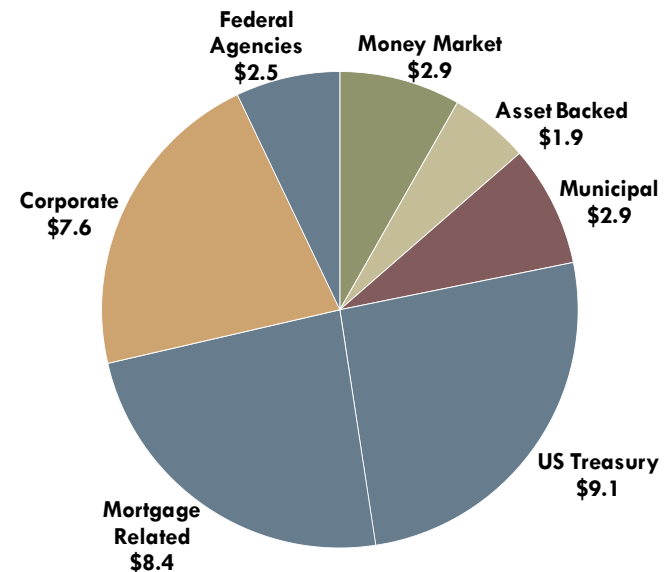


- Bonds are loans – different than equity participation
  - Ahead of equity interests in payment waterfall
  - Characteristically lower volatility than equity
  - Investments can be structured for principal protection
- Getting started:
  - Bonds trade OTC – think used cars

# US Government Related

- Explicitly Backed
  - US Treasuries
  - Federally related institutions
- Implicitly Backed
  - Government Sponsored Enterprises (GSEs)

Q1 2011 U.S. Outstanding Public and Private Debt (listed in trillions)



Source: FINRA

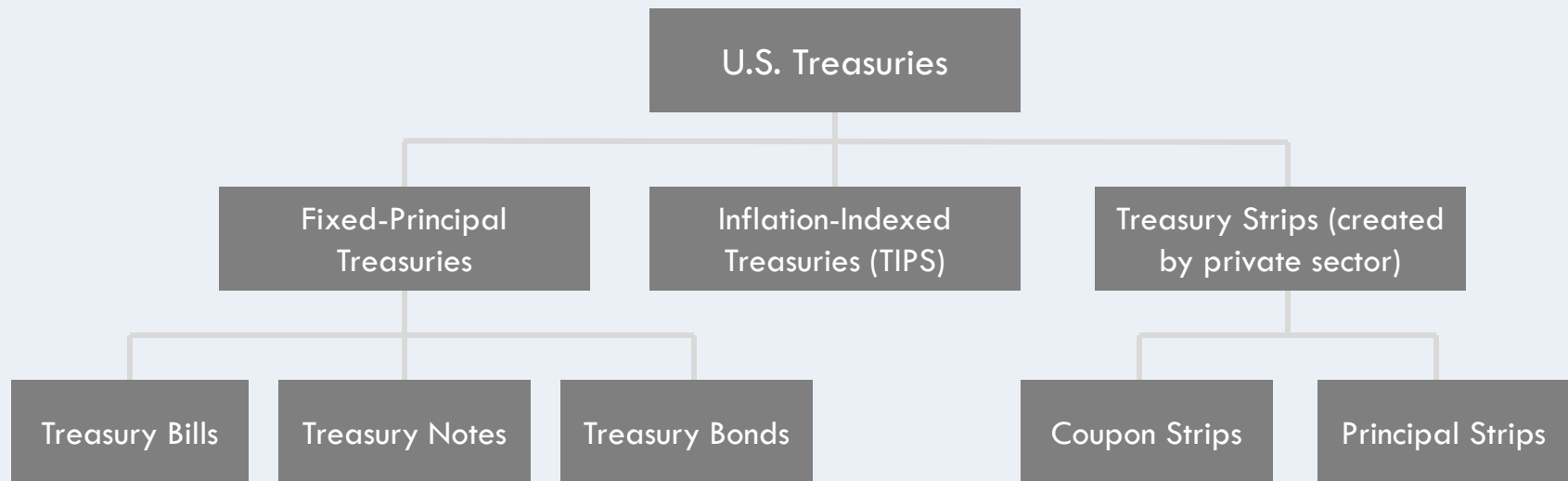
# US Government – Treasuries



- T-Bills
  - Less than one year
  - No periodic interest payments
  - Principal and accrued interest at maturity
- Treasury notes
  - Maturity between 1 and 10 years
  - Bi-annual interest payments
- Treasury bonds
  - Maturity greater than 10 years
  - Bi-annual interest payments
- Treasury inflation-protected securities (TIPS)
- STRIPS

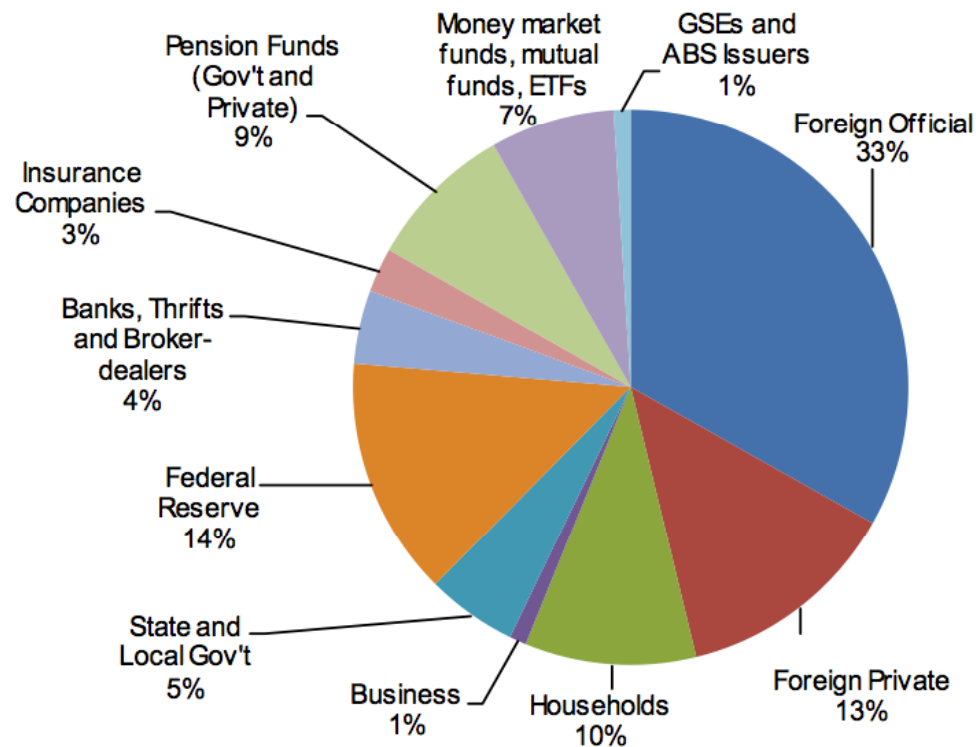
# US Government – Treasuries

## Overview of U.S. Treasury Debt Instruments



# US Government – Treasuries

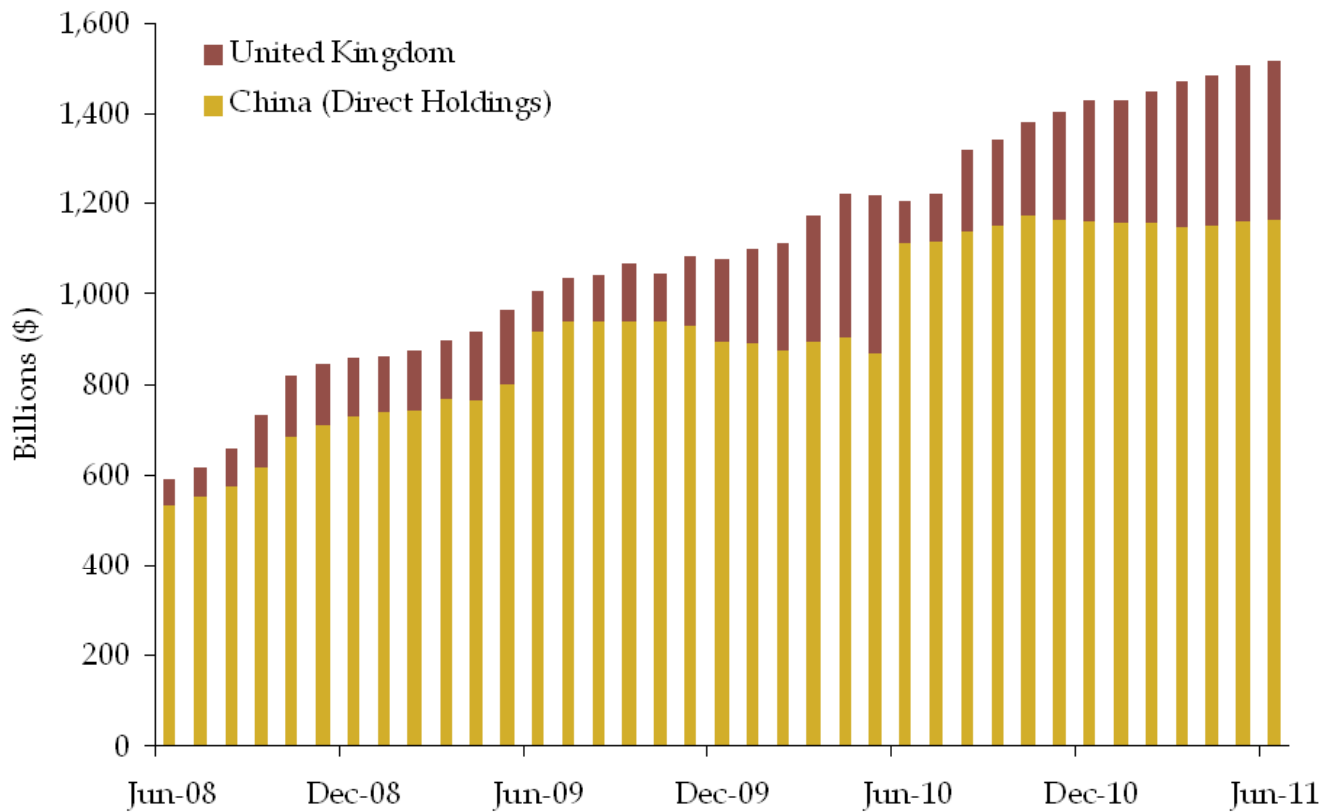
## Who owns Treasury Debt?



Source: Global Insight, SG Cross Asset Research/Economics via The Big Picture

# US Government – Treasuries

## Chinese Treasury Holdings



# US Government – Agencies

- Issue different types of debt
  - Direct debentures
  - Structured products
- Not all agencies are created equal
  - Federally related institutions
  - GSEs

<b>GSEs</b>			<b>Federally Related Institutions</b>		
FHLB	FHLMC	FNMA	TVA	CCC	FHA
FFCB	REFCORP	USPS	GSA	GNMA	MA
FICO	GTC	FAMC	PEFCO	REA	RTB
SLMA			SBA	WMATA	HUD
			OPIC		

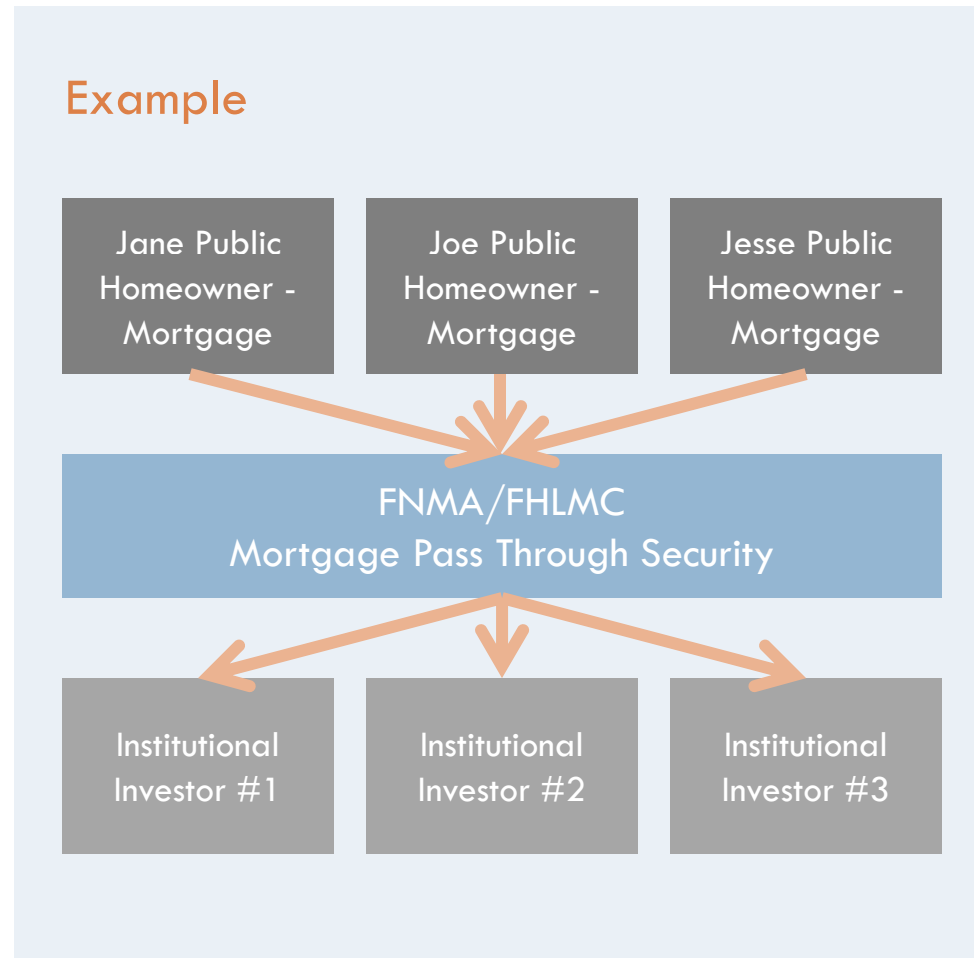
# Structured Products



- Residential Mortgage Backed Securities (RMBS)
  - Backed by cash flows from mortgages on one-to-four family residential properties
- Commercial Mortgage Backed Securities (CMBS)
  - Backed by cash flows from mortgages on mixed-use, commercial or multi-family properties
- Asset Backed Securities (ABS)
  - Backed by cash flows from other assets
    - Student loans, auto loans, leases
- Agency vs. non-agency structured products

# RMBS/CMBS

- Pool of mortgages held in trust
- “Pass-through”
  - Even cash flows among investors in pool
- Collateralized mortgage obligations (CMO)
  - Uneven cash flows among investors in pool – “waterfall”



# ABS



- Pool of other (non-mortgage) assets held in special purpose vehicle
  - Car loans
  - Credit card receivables
  - Airplane leases
  - Home equity loans
- The market has evolved...examples of previous ABS deals include:
  - Eric Clapton, David Bowie, Britney Spears
  - Brazilian cow futures
  - Marvel Entertainment movie revenues

# Municipal



- Taxable vs. tax exempt
- Types of securities
  - General obligation
  - Revenue bonds
  - Pension obligation bonds

# Municipal

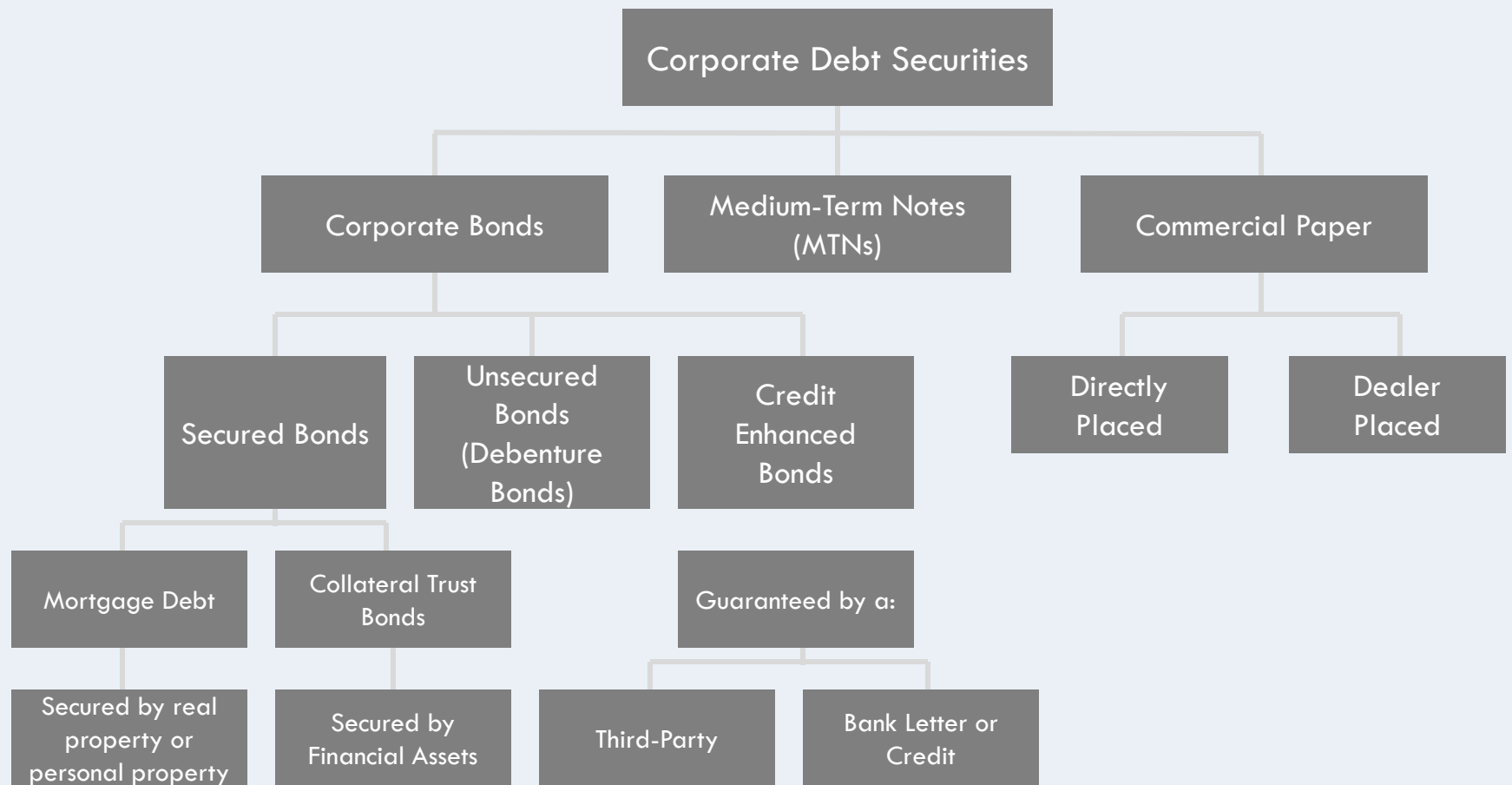
## Municipal Bond Issuance by State



Source: The Bond Buyer

# Corporates

## Overview of Corporate Debt Securities



# Corporates



- Long-term corporate debt
  - Typically debentures
  - Yankees
    - Not bonds issued by the baseball team
  - Rule 144A
- Commercial paper
  - Short-term (maturities to 270 days)
    - Unsecured
    - Sold on a discount
- Medium-Term notes

# Corporates

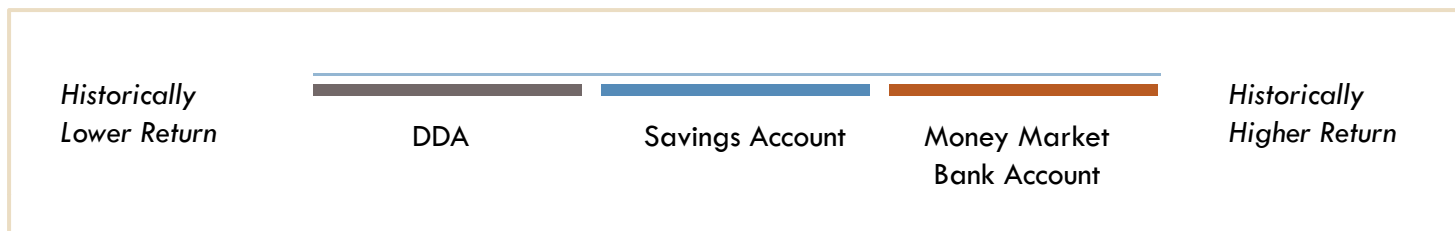


- Other terms to watch for:
  - Senior vs. subordinated
  - Floating vs. fixed rate
  - Covered bonds
  - Mortgage bonds
  - Convertible bonds
- What do bond managers look at?
  - Cash flow, covenants, collateral

# Sovereign and Supranational

- For terms of this discussion; let's assume foreign countries or governmental agencies issue in US \$ denominated securities
- Sovereign
  - Issued by foreign countries
    - The “PIIGS”
- Supranational
  - International agencies issuing bonds to promote economic development
    - World Bank
    - International Bank for Reconstruction and Development
    - KFW
    - EIB
    - Inter-American Development Bank

# Bank Accounts



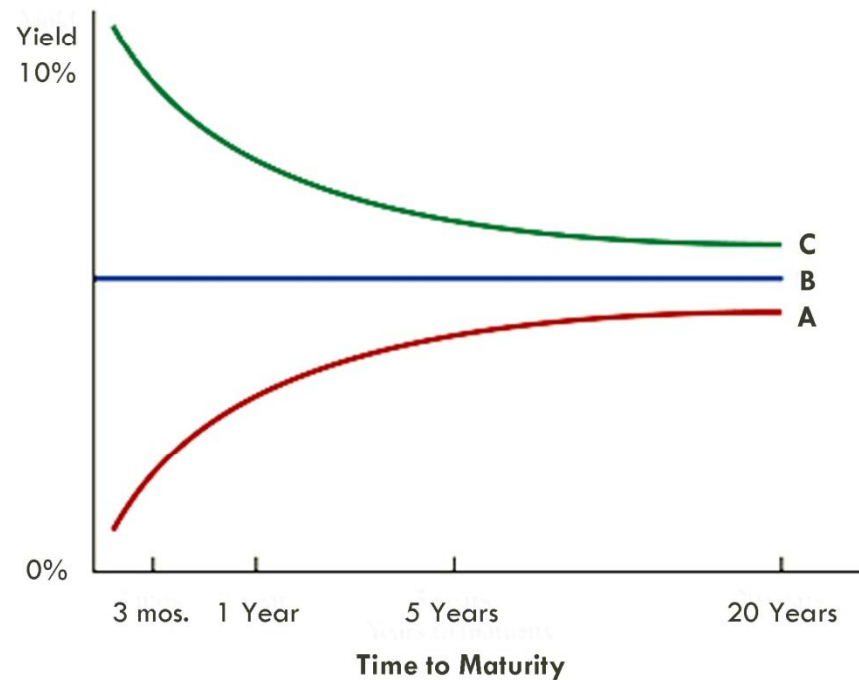
- Demand deposit account
- Savings account
- Money market account

# Bank Issued Investments



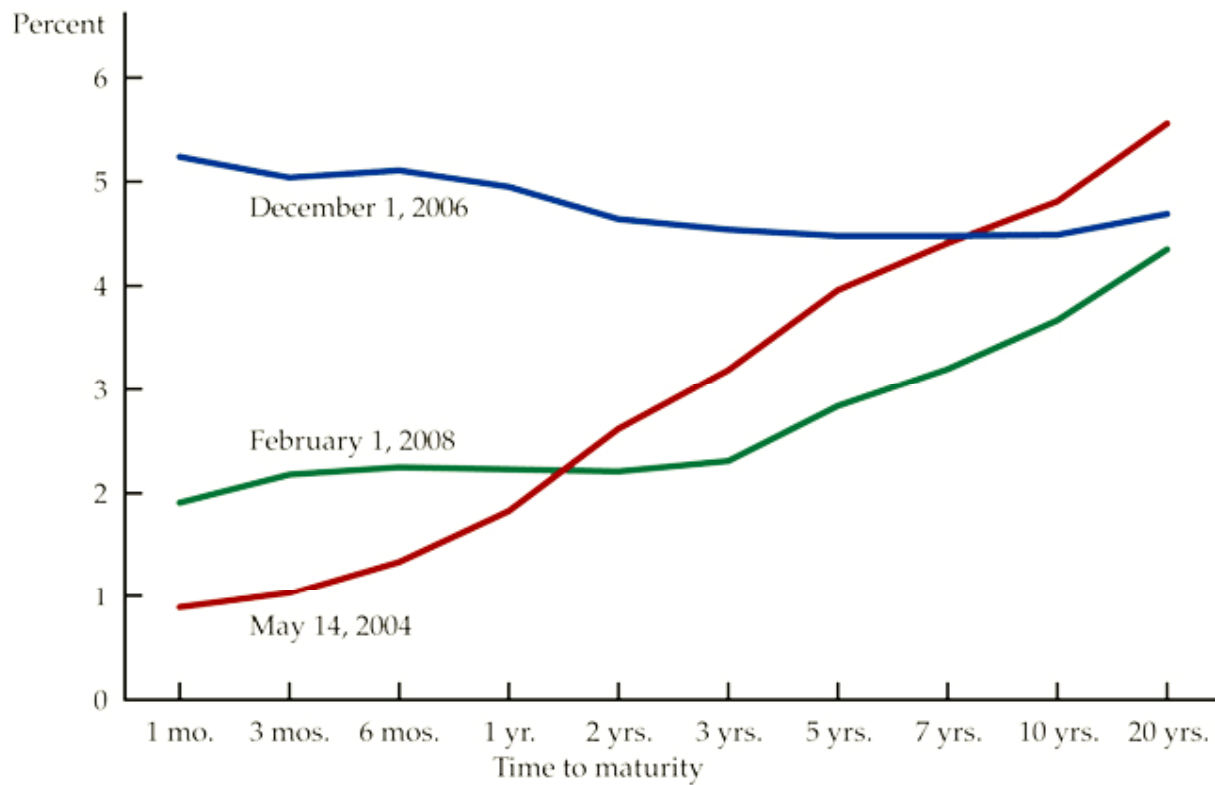
- Certificates of Deposit (CDs)
- Sweep vehicles
  - Various levels of liquidity and return
  - May be comprised of bank deposits or be a money market vehicle
- Bankers acceptances
  - Credit instruments used to finance self-liquidating transactions, typically import/export related
- Cash management options/techniques should remain independent yet coordinated with longer term strategies

# Introduction to the Yield Curve



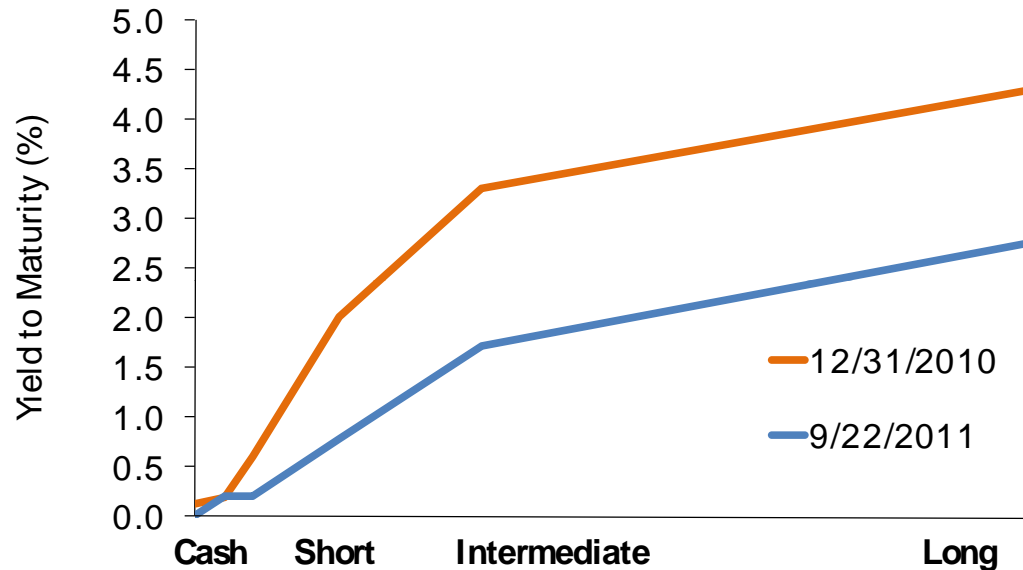
- Relationship of yield and maturity

# Movements of the Yield Curve



Source: Pearson Addison-Wesley

# Movements of the Yield Curve



	12/31/2010	9/22/2011	Change
1 Mo	0.06	-0.01	-0.07
3 Mos	0.12	0.01	-0.11
6 Mos	0.19	0.20	0.01
1 Yr	0.27	0.09	-0.18
2 Yrs	0.60	0.20	-0.40
3 Yrs	0.99	0.34	-0.65
5 Yrs	2.01	0.78	-1.23
7 Yrs	2.70	1.23	-1.47
10 Yrs	3.30	1.72	-1.58
30 Yrs	4.34	2.80	-1.54

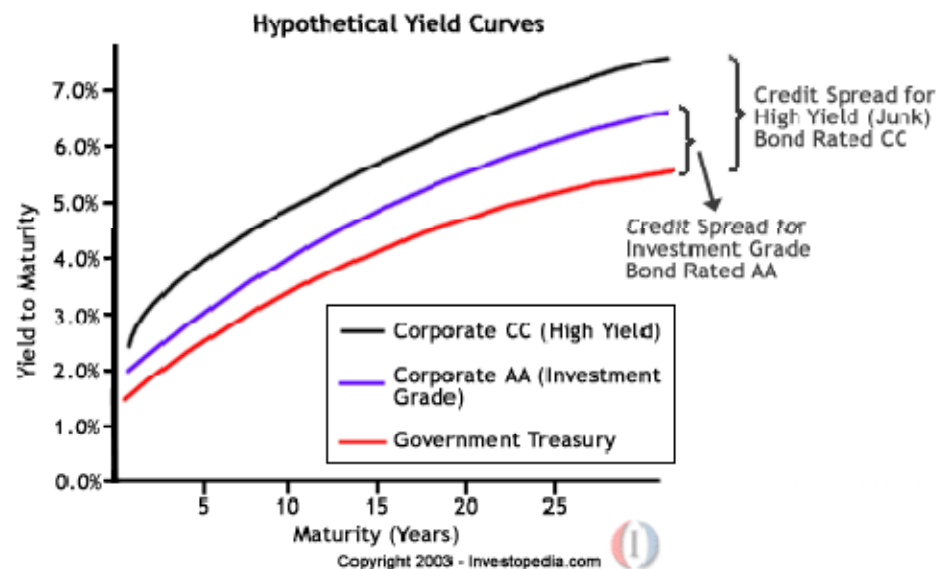
Source: Bloomberg

# Main Drivers of the Yield Curve



- No one factor or entity “sets” the yield curve
- Main drivers
  - Economic environment
    - Both domestic and global
  - Monetary policy
  - Quantitative easing/the “twist” – did it/does it work?

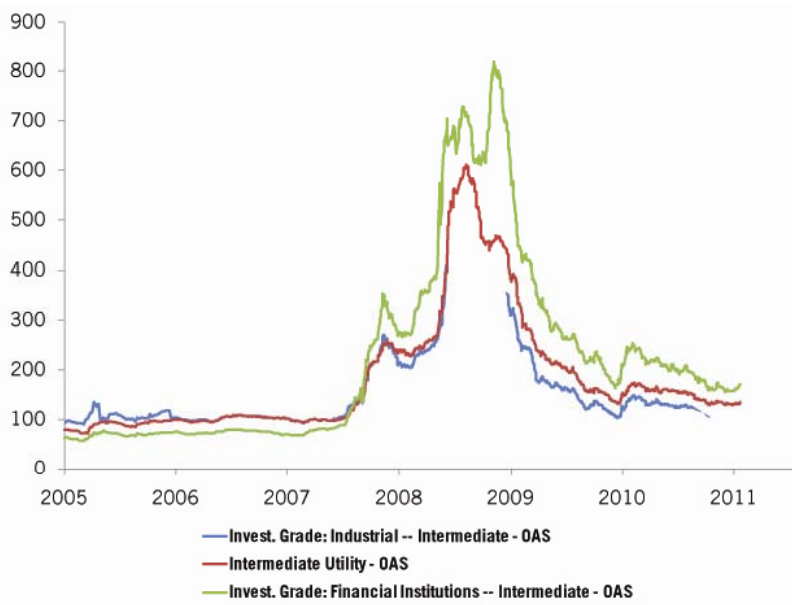
# Treasury Yield Curve Drives Other Yield Curves



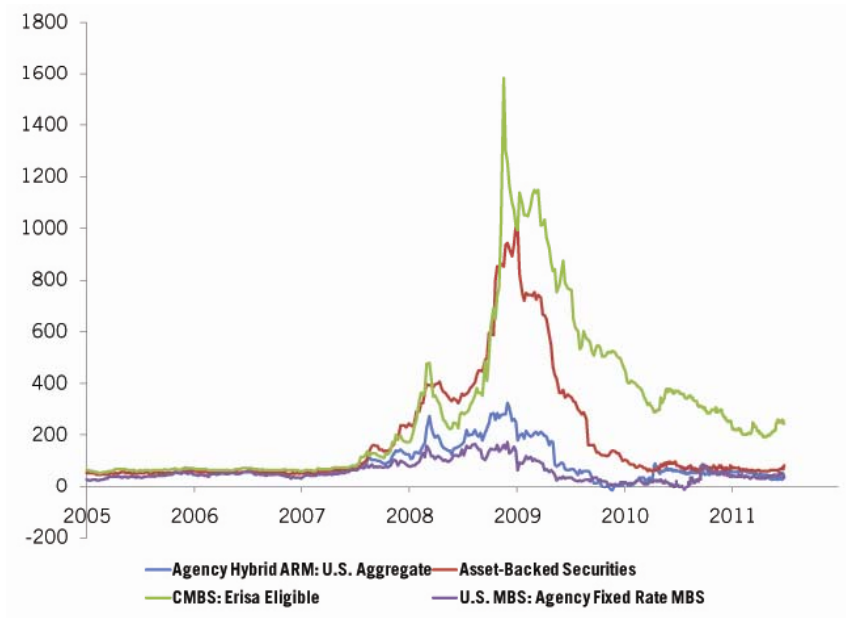
- Treasuries = historically viewed as “risk-free rate”
- Corporate bonds require risk premium

# Different Types of Securities React Differently Due to Market Conditions

## Corporate Credit



## Structured Product

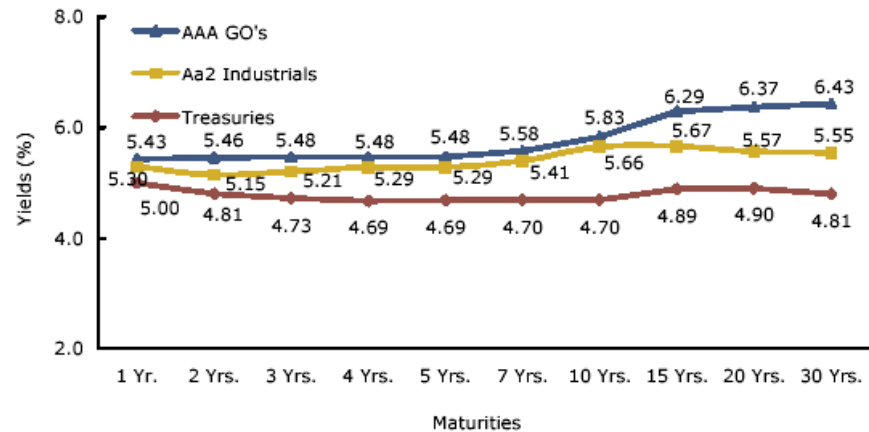


Source: Bloomberg

# Credit Quality

- Why does credit quality matter?
  - May drive pricing
  - May affect compliance
- Various types of ratings

Taxable Equivalent Yields: General Obligation Munis, Industrials and Treasuries as of Dec. 31, 2006



Sources: Bloomberg, Municipal Market Data, PIMCO

Note: Fully tax-equivalent yields are derived from the following: 35% federal rate applied to Treasury and corporate bond income; 5% state tax rate applied to muni, Treasury and corporate income; federal benefit given for state taxes paid; and no state taxes paid on Treasury interest.

# Credit Quality

Moody's	S&P	Fitch	
Long-term	Long-term	Long-term	
Aaa	AAA	AAA	
Aa1	AA+	AA+	
Aa2	AA	AA	
Aa3	AA-	AA-	
A1	A+	A+	
A2	A	A	
A3	A-	A-	
Baa1	BBB+	BBB+	
Baa2	BBB	BBB	
Baa3	BBB-	BBB-	Investment Grade
Ba1	BB+	BB+	Non-Investment Grade
Ba2	BB	BB	
Ba3	BB-	BB-	
B1	B+	B+	
B2	B	B	
B3	B-	B-	
Caa1	CCC+		
Caa2	CCC		
Caa3	CCC-	CCC	
Ca	CC		
	C		
		DDD	
C	D	DD	
		D	


# Fixed Income Risk Factors

- Interest rate risk
  - Price inversely related to interest rates
  - Factors of interest rate risk
    - Maturity
    - Coupon rate
    - Embedded options
- Reinvestment risk
  - Additional risk of callable/amortizing securities
- Credit risk
  - Default risk
  - Credit spread risk
  - Rating downgrade risk
- Liquidity/market risk
  - Over-the-counter market
- This is *not* an all inclusive list

# Other Terms



- LIBOR
- Premium vs discount
- Alphabet soup
  - CDOs, CLOs, CDS, IOs, POs
    - Should you be concerned?



The information contained herein reflects the views of Galliard Capital Management, Inc. and sources believed to be reliable by Galliard as of the date of publication. No representation or warranty is made concerning the accuracy of any data and there is no guarantee that any projection, opinion, or forecast herein will be realized. The views expressed may change at any time subsequent to the date of publication. This publication is for information purposes only; it is not investment advice or a recommendation for a particular security strategy or investment product. Graphs and tables are for illustrative purposes only.

**FOR INSTITUTIONAL INVESTORS ONLY**