Short-term Investing

Examination of Products, Strategies and Markets

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In the investment world, the rearview mirror is always clearer than the windshield.

Warren Buffet

The Menu

Eligible Investment Alternatives

Fixed Income Market

* **U.S. Treasury Issues**
  * T-Bills, T-Notes, T-Bonds, T-Strips

* **Government Sponsored Enterprises (GSE)**
  * Federal Home Loan Bank (FHLB)
  * Federal Farm Credit Bank (FFCB)
  * Federal National Mortgage Association (FNMA)
  * Federal Home Loan Mortgage Corporation (FHLMC)
  * Student Loan Marketing Association (SLMA)

* **Repurchase Agreements**

* **Certificates of Deposit**

* **Bankers Acceptance**

* **Commercial Paper**

U.S. Treasuries

Characteristics

* **Description:** U.S. Treasury securities are debt obligations issued by the Treasury to finance U.S. government operations.
  * **Treasury Bills:** short term securities with original maturities of 6 months or less issued at a discount to face value (mature on Thursday, each week).
  * **Treasury Notes:** intermediate, interest-bearing (semi-annual) securities with original maturities of 2 to 10 years.
  * **Treasury Bonds:** longer-term, interest bearing debt instruments with original maturities of 10 years or longer.
  * **Treasury Strips:** Treasury note and bond issues with their coupons "stripped-off", sold at discount to face value (mature on the 15th of February, May, August, and November, each year).

* **Credit:** All Treasury issues are direct obligations of the U.S. government, therefore, they offer investors the highest credit quality supporting their investments.

* **Issuing schedule:**
  * The Treasury brings new issues to the market on a regular basis:
    * **T-Bills:** One, three, and six month bills are auctioned weekly.
    * **T-Notes:** A two year issue is auctioned once a month, five and ten year issues are auctioned once a quarter.
    * **T-Bonds:** The thirty year issue is currently auctioned on a semi-annually (February and August).

* **Maturity and Interest payments:**
  * T-Notes and T-Bonds mature and pay interest every 6 months (either on the 15th or last day of month). If the payment date falls on a holiday or weekend the investor will not receive their funds until the first business date following the payment due date.

* **Pricing:** T-Bills and T-Strips are priced at a discount. T-Notes and T-Bonds are at a dollar price stated in 32nds.

Government Sponsored Enterprises (GSE)

Characteristics

* **Description:** Government Sponsored Enterprise (GSE) securities raise funds needed to finance the operations of the various agencies who were created by the U.S. Congress to fulfill specific public policy functions.
* **Credit:** GSE securities are not guaranteed by the U.S. government but are direct obligations of the issuing Government Sponsored Enterprise (GSE.) GSE's have borrowing privileges with the U.S. government. GSE's are characterized as having an "implied guarantee", due to the importance of GSE's in promoting public policy. Because GSE securities are not directly guaranteed by the U.S. government, they normally carry a higher yield than direct U.S. Treasury securities.
* **Issuers:**
  * **FNMA:** established to provide supplemental liquidity in the mortgage market (purchase mortgages from originating lenders).
  * **FHLMC:** established to stabilize the secondary market for home mortgages by helping to distribute investment capital available for financing home mortgages (FNMA and FHLMC are both publicly traded companies).
  * **FHLB:** a primary funding source for banks, thrift institutions, and credit unions that make mortgage loans.
  * **FFCB:** borrows funds in the capital markets to assist the agriculture industry.
  * **SLMA:** provides funds to banks, thrifts, and other lenders that originate Guaranteed Student Loans (GSLs), SLMA creates a national secondary market for GSLs.
* **Issuing schedule:**
  * GSE's bring new issues to the capital markets on a daily basis. The largest issuers are the housing GSE's (FNMA, FHLMC, and FHLB).
* **Maturity payment:**
  * GSE issuers set final maturities to fall on good business days (callable issues will sometimes be exercised on a non-business day, in these cases the GSE's will continue to pay interest until the day the principal is paid).
* **Pricing:** GSE discount notes are priced at a discount. Coupon issues are at a dollar price quoted in decimals.

Callable GSE Bonds

* **Definition:** interest bearing GSE issues that can be redeemed by the issuer on a contracted date(s) prior to the final stated maturity date of the bond.
* **Credit:** same financial backing as non-callable (bullet) GSE issues.
* **Terms:**
  * **Lock-out Period:** time between bond's original issuance and first call date.
  * **Call Price:** GSE's typically have a par (100.00) call price.
* **Types of Calls:**
  * **American Option:** continuously callable once holding period reaches call-date.
  * **Bermudan Option:** callable only on specified dates (monthly, quarterly, semi-annual, annual).
  * **European Option:** callable only on one specific date.
* **Yield Behavior:**
  * **Issue purchased at Par:** yield to call and maturity date will equal coupon rate.
  * **Issue purchased at Premium:** yield to final maturity will exceed yield to call date(s) (priced to call).
  * **Issue purchased at Discount:** yield to call date(s) will exceed yield to maturity (priced to maturity).
* **Accounting Considerations:**
  * Issues purchased at a premium (or discount), the premium paid should be amortized (or accreted) to the first call date.
* **Step-up Callable Bonds:**
  * Callable GSE bond where the contracted coupon rate will be increased on designated dates (typically coupon change dates coincide with call dates). The new coupon rates and adjustment date are disclosed on the initial offering date.
* **Issuing Schedule:**
  * New issues and structures are offered daily by the various GSE's.

Repurchase Agreements (repo)

Characteristics

* **Description:** is a short-term secured (collateralized) liability of an issuing bank or broker/dealer. A repo is the sale of designated securities to the investor by the bank with a simultaneous commitment by the bank to repurchase the same securities at the same price with a specified rate of interest. Repurchase agreements may be entered into for periods up to 90 days.

* **Credit:** Investment is secured by marketable securities. Repo's should have minimal collateral coverage of 102% with approved securities (U.S. Treasuries, Government Sponsored Enterprise issues).

* **Documentation:** Pursuant to the Government Securities Act of 1986, all repo investors must have a Master Repurchase Agreement on file.

* **Maturity options:**
  * **Overnight:** Principal and interest returned next day.
  * **Term:** Maturity and rate can be fixed for terms of 2 to 90 days (interest paid at maturity).
  * **Open:** No set maturity date, investor has daily access to funds, rate can change daily (interest is normally paid-out monthly if position is left open longer than 30 days).

* **Pricing:** Repo's are purchased at par (100.00).

Certificates of Deposit

Characteristics

* **Description:** Certificates of deposit represent a deposit of funds with a bank for specified period of time at a specified rate of interest.

* **Credit:** CDs are insured with all other deposits of the depositor up to the first $100,000 per depositor per bank by the FDIC.

* **Collateralization:** CDs should be collateralized with approved securities (U.S. Treasuries, GSE's). The market value (including accrued interest) of the collateral should be a least 100%.

* **Maturities:** Seven days to five years.

* **Payment of interest:** Typically maturities of 6 months or less pay interest at maturity. For maturities longer than 6 months, interest may be paid monthly, quarterly, or semi-annually (the interest payment schedule is agreed upon between the issuing bank and the investor; CD's that pay monthly interest may be offered at lower rates than those with longer interest payment periods).

* **Pricing:** CD's are priced at par (100.00).

Bankers Acceptance (BA)

Characteristics

* **Description:** A bankers acceptance is a low risk, highly liquid money market instrument that arises primarily in the course of international trade. The instrument itself is a time draft, drawn on a bank, that specifies an amount and a date at which the bank will pay that amount to the bearer. Once the draft is accepted by the bank, it becomes a financial instrument that can readily be sold on the open market.

* **Credit:** The bank issuer of the BA has the primary obligation to pay the face amount of the draft at the stated maturity date. However, a BA is not a deposit of the issuing bank. The credit strength of the issuing bank determines the credit quality of the BA. The investor also has the secondary recourse to the bank customer.

* **Maturities:** Because BA's are the result of a specific trade transaction, each BA has a specific maturity, usually between 30 and 180 days. There is an active secondary market in BA's.

* **Ratings:** BA's carry the rating of the issuing bank. These ratings are typically provided by companies such as Standard & Poor's Corporation, Moody's Investor Services, Inc., and Fitch Inc. The strongest issuers are rated A1/P1/F1. Missouri public entities are limited by statute to purchasing bankers acceptances and commercial paper with only the strongest investment ratings.

* **Pricing:** BA's are priced on a discount basis.

Commercial Paper (CP)

Characteristics

* **Description:** Commercial paper represents short-term unsecured promissory notes issued by large corporations. Proceeds from commercial paper are used to finance short-term debt requirements of the issuing company (normally working capital).
* **Credit:** Commercial paper is an unsecured obligation of the issuing company.
* **Ratings:** As with BA's, commercial paper issuers are rated by the major rating companies.
* **Maturities:** CP is offered from 1 to 270 days.
* **Program Types:**
    * **Direct Issue:** direct debt of the issuing corporation (some issuers may carry credit enhancement).
    * **Asset-Backed Issue:** the securitization of receivables and similar assets (typically carries credit enhancement).
* **Types of Credit Enhancement:**
    * **Irrevocable Direct Pay Letter of Credit (LOC):** credit risk to investor is LOC bank. Principal, interest, and liquidity are guaranteed by LOC provider. Commercial paper programs with this type of enhancement are called fully supported.
    * **Liquidity Facility:** credit risk to borrower is underlying borrower. Liquidity provider stands ready to provide liquidity (cash) in case of failure to re-market tendered bonds by purchase date (liquidity provider does not guarantee principal or interest payment to investors). Commercial paper programs with this type of enhancement are called partially supported.
* **Statute Limitation:** Eligible paper is limited to issuing corporations that have total commercial paper program size in excess of $500 million. No more than 5% of total market value of the portfolio may be invested in commercial paper or bankers acceptances of any one issuer.

Short Term Rating Definitions

Moody's Investor Services, Inc.

* **Prime-1(P1):** Short-term ratings are opinions of the ability of issuers to honor senior financial obligations and contracts. Issuers rated P1 have a superior ability for repayment of senior short-term debt obligations. P1 repayment ability will often be evidenced by many of the following characteristics:
  * Leading market positions in well-established industries.
  * High rates of return on funds employed.
  * Conservative capitalization structure with moderate reliance on debt and ample asset protection.
  * Broad margins in earnings coverage of fixed financial charges and high internal cash generation.
  * Well-established access to a range of financial markets and assured sources of alternate liquidity.

Standard & Poor's Corporation:

* **A1:** An obligor rated A1 has strong capacity to meet its financial commitments. It is rated in the highest category by Standard & Poor's. Within the category, certain obligors are designated with a plus sign (A1+). This indicates that the obligor's capacity to meet its financial commitments is extremely strong.

Long Term Rating Definitions

Moody's Investor Services:

Aaa: Bonds and preferred stock which are rated Aaa are judged to be of the best quality. They carry the smallest degree of investment risk and are generally referred to as "gilt edged." Interest payments are protected by a large or by an exceptionally stable margin and principal is secure. While the various protective elements are likely to change, such changes as can be visualized are most unlikely to impair the fundamentally strong position of such issues.

Standard & Poor's

AAA: An obligation rated AAA carry the highest rating given by Standard & Poor's. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.

Source: Moody's and Standard & Poor's

The Map

Choosing the Correct Route

* **Develop Investment Policy:** www.treasurer.mo.gov/invest/policy2.doc
  * Policy should encompass: objectives, responsibility and authorization, maturity parameters, concentration limits, approved investment types, prohibited transactions, safekeeping / custodial issues, reporting.
* **Determine Liquidity Requirements:**
  * Develop cash flow forecast through the projection of revenues and expenditures. Reviewing historical monthly cash balances for at least three years to establish trends and baseline.
* **Control Risks:**
  * Credit, market, liquidity, inflation, interest rate, reinvestment, event.
* **Establish Contact:**
  * Development and nurture relationship with investment professional(s).
* **Set a Course:**
  * Develop strategy and initiate investment plan.

Basic Investment Strategies

* **Daily:**
  * Cash is invested in depository account, securities with one day maturities, or over-night repurchase agreements.
* **Matched:**
  * Maturity dates of securities correspond to the investor's debt schedule.
* **Laddered:**
  * Investment portfolio is structured in a chronological sequence to provide a steady liquidity stream (method of maximizing returns in a positive yield curve environment) (can be structured weekly, monthly, quarterly etc.).
* **Barbell:**
  * Strategy to enhance returns by extending farther out yield curve. Working capital is invested in short-term liquid instruments. Core cash is invested in intermediate maturities (short and intermediate holdings can be structured using ladder or balloon techniques).
* **Balloon:**
  * Positioning large percentage of investment portfolio to mature on a specific date.
* **Rolling:**
  * Invest in set amount of securities at regular intervals.
* **Event:**
  * Maturity dates of securities correspond with key events that could impact financial markets, such as, the Federal Open Market Committee Meetings or major economic releases.

The Landscape

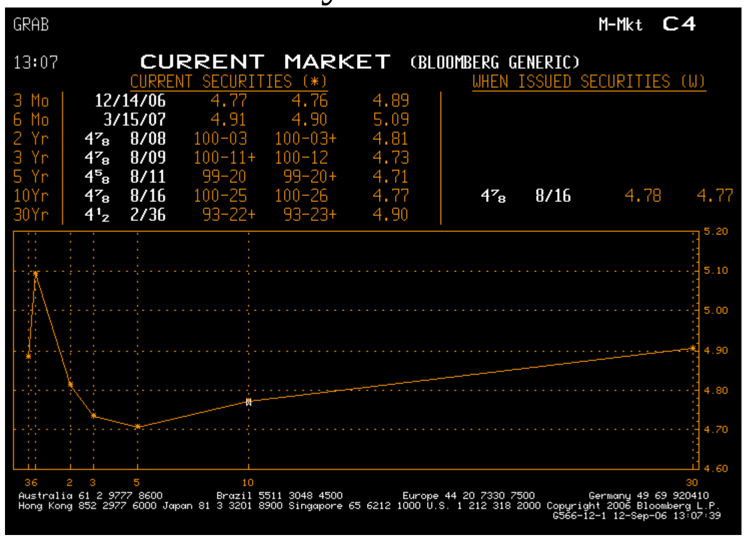
Investment Yield Comparison

Rates obtained from **Bloomberg**, as of **9/12/2006**

*** Returns stated in money market yield (360 day basis)**

Issue	1 day	14 day	1 mo	3 mo	6 mo	9 mo	1 yr
U.S. Treasury:							
T-Bills		4.74%	4.67%	4.83%	5.02%		
T-Notes					4.95%	4.98%	4.94%
U.S. Federal Agency:							
Discount Notes	5.17%	5.16%	5.17%	5.21%	5.23%	5.24%	5.23%
Coupon Bearing				5.25%	5.28%	5.29%	5.25%
Callable Agency (3 months of call protection)							5.32%
Repurchase Agreements (Repo)	5.04%	5.11%	5.13%	5.21%	5.20%		
Certificate of Deposit (collateralized)		5.04%	5.05%	5.14%	5.12%	5.06%	5.01%
Bankers Acceptance		5.20%	5.21%	5.26%	5.31%		
Commercial Paper	5.22%	5.23%	5.24%	5.29%	5.34%		

U.S. Treasury Yield Curve 9/12/06



Sample Investment RFP

ABC School District
Contact: Max Profit
Phone: 660-123-4567

Request for Investment Offerings

Firm:________________________________

Amount	**Desired Maturity**
____________	____________
____________	____________
____________	____________
____________	____________

Offerings:

PAR	TYPE	MATURITY	RATE	360 day YIELD	PRICE	COST

Please submit bids by __________ on __________for settlement____________

Offerings can be e-mailed to: max.profit@abcsd.k12.mo.us
or faxed to: 660-123-4568

ABC School District reserves the right to accept or reject any and all offerings

Notes