

THE PUBLIC INVESTMENT PORTFOLIO: PART 1 – INTRODUCTION TO MONEY MARKETS

UNDERSTANDING BANKER'S ACCEPTANCES AND COMMERCIAL PAPER

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July 8, 2015

10:00 AM – 11:00 AM

Disclaimer

2

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PART 1 – INTRODUCTION TO MONEY MARKETS

Understanding Banker's Acceptances and Commercial Paper

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Wednesday, July 8, 2015

Money Market Securities

“The money market is a market in which large borrowers raise short-term money by selling various debt instruments...”

Marcia Stigum / Frank Fabozzi,
The Dow Jones-Irwin Guide to Bond and Money
Market Investments, page 6

Money Market Securities

- Generally maturities less than one year
- Rated by NRSRO's
- Securities are in "bearer" form
- Marketable securities, purchased as direct issues or secondary market.

Types of Money Market Securities

- U.S. Treasury Bills
 - U.S. Treasury Cash Management Bills – limited issues
- Federal Agency Discount Notes
- Commercial Paper
- Bankers Acceptances
- Negotiable Certificates of Deposits
- Repurchase Agreements
- Money Market Funds / L.A.I.F.

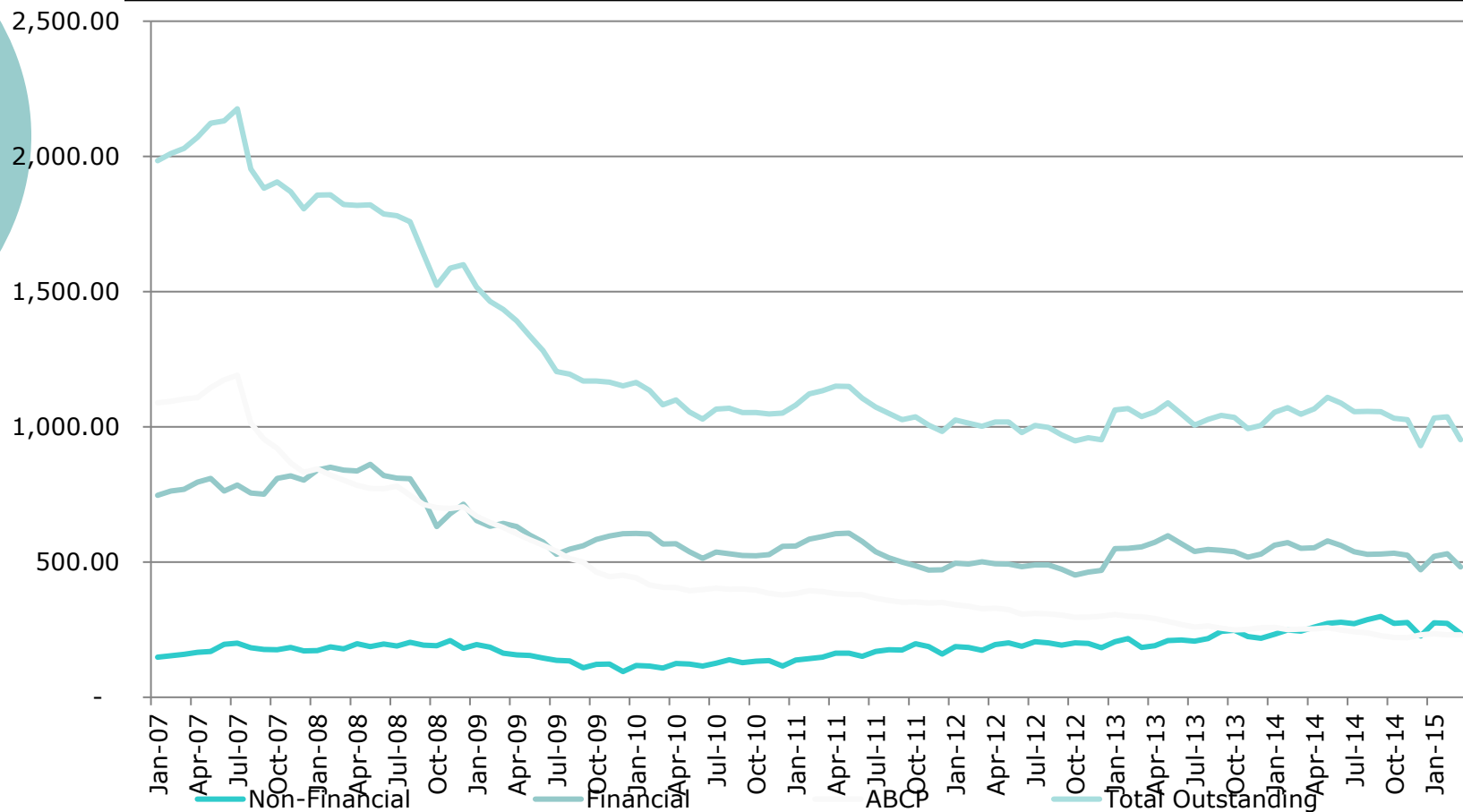
COMMERCIAL PAPER

Commercial Paper

- Historical background
 - Means of short-term funding
- Commercial Paper – a type of personal property
 - Article 3 Uniform Commercial Code

A written instrument or document such as a check, draft, promissory note, or a certificate of deposit, that manifests the pledge or duty of one individual to pay money to another.
- Generally a short-term unsecured promissory note
 - Does not create an ownership right
- Most issued in discount form with interest at maturity
 - Some CP may be purchase at par
- Typically held to maturity

Outstanding Commercial Paper



Source: SIFMA

Investment Authority

- California Gov. Code, Section 53601 (h):

Commercial paper of “prime” quality of the highest ranking or of the highest letter and number rating as provided for by a nationally recognized statistical rating organization (NRSRO). The entity that issues the commercial paper shall meet all of the following conditions in either paragraph (1) or (2):

Section 53601 (h) - Paragraph (1)

- Paragraph (1): The entity meets the following:
 - (A) – Is organized and operating in the United States as a general corporation
 - (B) – Has total assets of five hundred million dollars (\$500,000,000)
 - (C) – Has debt other than commercial paper, if any, that is rated “A” or higher by an NRSRO

Section 53601 (h) - Paragraph (2): Asset Backed Commercial Paper (ABCP)

- The entity meets the following:
 - (A) – is organized within the United States as a special purpose corporation, trust, or limited liability company
 - (B) – Has program wide credit enhancements including, but not limited to, overcollateralization, letters of credit, or a surety bond
 - (C) – Has commercial paper that is rated A-1 or higher, or the equivalent, by an NRSRO

Further Restrictions On All CP

- Eligible commercial paper shall have:
 - ...maximum maturity of 270 days or less
 - ... local agencies, other than counties or a city and county, may invest no more than 25 percent of their moneys in eligible commercial paper
 - Section 53635 - Counties (including City and County of San Francisco and the City of Los Angeles) may invest up to 40% of eligible funds in commercial paper
 - ... local agencies may purchase no more than 10 percent of the outstanding commercial paper of any single issuer

Banker's Acceptance Creation



Exporter



Letter of Credit



Importer



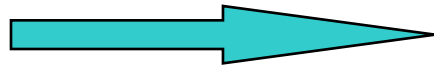
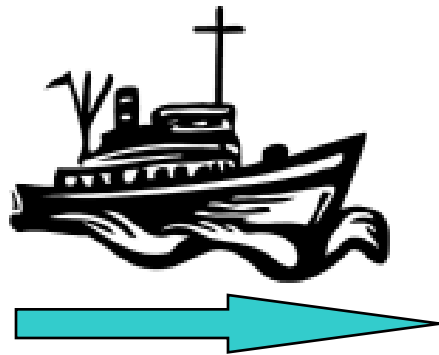
Banker's Acceptance Creation



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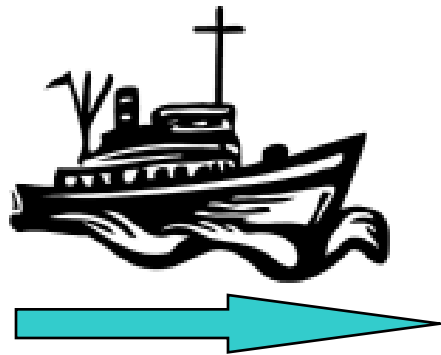
Time Draft



Exporter



Importer



Investment Authority

- California Gov. Code, Section 53601 (g):
 - ... Bankers' acceptances otherwise known as bills of exchange or time drafts that are drawn on and accepted by a commercial bank.
- Restrictions:
 - Purchases of Bankers' Acceptances shall not exceed 180 day's maturity,
 - Purchases of Bankers' Acceptances shall not exceed 40 percent of the agency's money...
 - ...no more than 30 percent of the agency's moneys may be invested in the banker's acceptance of any one commercial bank...

Definition

- Two types of bankers' acceptances:
 - Those eligible for discount or purchase by Federal Reserve banks
 - Those which are ineligible
 - Have the same characteristics of an eligible BA, but do not meet the strict criteria of an "eligible" BA.
 - These BA's do have the maintenance of a reserve requirement.

Definition

- BA's eligible for purchase by Federal Reserve (strict requirements):
 - Acceptance must finance a short-term (six months or less)
 - Self-liquidating commercial transaction of specific types
- Federal Reserve system member banks are not required to maintain reserves against eligible acceptances sold to investors
- Most banker's acceptances are backed by invoices, bills of lading or warehouse receipts creating an interest in the commodity itself

CALCULATIONS

Price and Yield Calculations

- Trade at a Discount to Par (Face) Value
- Accrete to Par Over the Life of the Security
- Interest Income
 - Difference Between Discounted Amount and Par
- Security Types
 - Treasury Bills
 - Agency Discount Notes
 - Commercial Paper
 - Bankers' Acceptances



Calculating the Discount, Price and Cost

Example: \$1 Million CP due in 182 days @ 1.00%

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Days to Maturity = 182

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$$\text{Discount Amount} = \frac{182}{360} \times 1.00 = 0.505555$$

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$$\text{Price} = 100 - 0.50555 = 99.494444$$

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$$\text{Days to Maturity} = 182$$

$$\text{Discount Amount} = \frac{182}{360} \times 1.00 = 0.505555$$

$$\text{Price} = 100 - 0.50555 = 99.494444$$

$$\text{Cost} = 1,000,000 \times .9949444 = \$994,944.44$$



Calculating Bond Equivalent Yield

$$\text{BEY} = \frac{\text{Discount}}{\text{Dollar Price}} \times \frac{365}{\text{Days to Maturity}} \times 100$$

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Calculating Bond Equivalent Yield

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$$\text{BEY} = \frac{0.5055555}{99.494444} \times \frac{365}{182} \times 100$$

$$\text{BEY} = 1.0218$$

Bond Equivalent Yield: For Maturities Greater Than 182 Days

$$\sqrt{\left(\frac{\text{DTM}}{365}\right)^2 - \left(4\left(\frac{\text{DTM}}{2 \times 365} - 0.25\right)\left(\frac{\$ \text{ Price} - 100}{\$ \text{ Price}}\right)\right)} - \frac{\text{DTM}}{365}$$

Yield =

$$2\left(\frac{\text{DTM}}{2 \times 365}\right) - 0.25$$

Allows the ability to compare the yield with securities that pay a regular coupon, in this instance a semi-annual coupon



Uses of Money Market Securities

- These are defined as “Money Market Securities”
- Use for short-term money management investments for cash flow needs of your agency
- Provides “Diversification” of investment securities for your cash management program, i.e. “Safety”
- Ensures appropriate “liquidity” for daily cash operations

Diversification Across Asset Classes

- Industry best practices recommend that you consider exposure to any one issuer across all asset types in the portfolio
- Most issuers have outstanding issues in multiple types of securities
 - Commercial Paper
 - Banker's Acceptances
 - Corporate bonds
 - Certificates of Deposit

Safekeeping

Industry best practices recommend the use of “Delivery versus Payment” (DVP) on the purchase of all investment securities

- Use of 3rd party custodian account
- Ensures the correct security (issuer, amount, maturity, rate of interest, etc.) is delivered to the custodian **before** payment is made
- Ensures securities are in name of local agency and satisfies GASB risk levels

Sources

- The following are some additional sources of information:
 - Stigum, Marcia, Fabozzi, Frank J, The Dow Jones-Irwin Guide to Bond and Money Market Investments, Dow Jones-Irwin, 1987
 - Stigum, Marcia, The Money Market: Myth, Reality, and Practice, Dow Jones-Irwin, 1978
 - Miller, Girard, Investing Public Funds, 2nd edition, GOFA, 1998
 - Anon, Handbook of U.S. Government and Federal Agency Securities & related Money Market Instruments, 34th edition, The First Boston Corp, 1990

Sources

- The following are some additional sources of information:
 - Kacperczyk, Marcin and Schnabl, Philipp, When Safe Proved Risky: Commercial Paper during the Financial Crisis of 2007-2009, Journal of Economic Perspectives, Vol 24, Number 1, Winter 2010, pp, 1987
 - Federal Reserve System, www.federalreserve.gov
 - Securities and Exchange Commission, www.sec.gov

Questions & Answers

Thank you!

Public Investment Webinar Series: The Public Investment Portfolio

38

Webinar 4: Money Markets

Part 2: CDs, Deposit Placement Services and
Collateralized Bank Deposits

Postponed to
September 9

Part 3: Repurchase Agreements, Reverse Repos
and Securities Lending

August 5

Webinar 5: Corporates

August 19

Webinar 6: Asset-Backed Securities, Mortgage-Backed Securities and Collateralized Mortgage Obligations

Sept 2

Webinar 7: Mutual Funds, Money Market Mutual Funds and Local Government Pooled Investments

Sept 16

For more information or to register, go to

<http://www.treasurer.ca.gov/cdiac/webinars/2015/portfolio/description.asp>

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Wells Fargo Securities, LLC

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