

Infrastructure Financing and Strategy

Course Number 26:834:546

Course Credits (3)

Professor Gerald J. Miller

COURSE DESCRIPTION AND OBJECTIVE: This course provides the basic information required to finance a capital improvement plan, specifically infrastructure items such as streets, parks, public utilities, airports, highways, bridges and tunnels, and other public works. Methods of financing span both the short and long term horizons and provide a mix of markets in which funds might be sought.

Above all, this course means to be practical. Combining an approach that emphasizes strategy with another that focuses on process, the course puts you in the field. You will select an organization, gain as much data from the managers of that organization as possible, and then design a financing program for a subset of the projects in that organization's capital plan.

TEXTS FOR THE COURSE: The bibliography for a capital finance course overstates what is actually written down (as opposed to what is kept secret in investment banking houses). We will try to use the most current and creative pieces of writing available. The best follow:

Preserving the Federal-State-Local Partnership (Anthony Commission ISBN 0-89125-141-3) Government Finance Officers Assn.

Articles will be pre-assigned to individual students for each class. Each student is responsible to have thoroughly read their article, be prepared to present an overview of the article, and be prepared to respond to questions from the instructor and the class. A summary should be prepared to hand out to the class. A summary is a brief overview of the article. It briefly outlines the article's key themes, major points, and conclusions. There are some specific questions one should consider while reading the article and developing a summary. *Students are responsible for reading all of the articles prior to class but only have to prepare a written summary for their pre-assigned article.*

1. What is the major subject and theme of the article?
2. What is the major research question the author addresses?
3. What techniques, tools of analysis, or methods are employed to answer the question?

4. What major points does the author make?
5. What do the author conclude? What suggestions are made?
6. What is the relevance of the article to theory or practice? (What does it mean?)

Public Securities Association, FUNDAMENTALS OF MUNICIPAL BONDS, 4th ed.

White, Wilson: BASICS: THE MUNICIPAL BOND MARKET, Financial Press.

Joseph, James C.: DEBT ISSUANCE AND MANAGEMENT: A GUIDE FOR SMALLER GOVERNMENTS, Government Finance Officers Association.

Helpful, but optional and useful for those who find they need something else:

Gerald J. Miller, GOVERNMENT FINANCIAL MANAGEMENT THEORY.

Elected Officials Guide to Debt Finance (no author ISBN 0-89125-165-0)
Government Finance Officers Assn.

I will provide the parts or all of the following:

Miller, "Capital investment and budgeting" (in Rabin, HANDBOOK OF BUDGETING, Marcel

Dekker, Inc.). Miller, "Debt networks" PUBLIC ADMINISTRATION REVIEW 53:1 (1993): 50-58.

Miller, "Strategic finance, public authorities and network politics" POLICY STUDIES JOURNAL 18:4 (Summer, 1990), pp. 961-973.

Mitchell and Miller, "Public authorities and contemporary debt finance" in Mitchell, PUBLIC AUTHORITIES AND PUBLIC POLICY: THE BUSINESS OF GOVERNMENT, Greenwood Press.

Vogt, "Budgeting capital outlays and improvements" in Rabin, Hildreth and Miller, BUDGET MANAGEMENT, University of Georgia Institute of Government, upcoming 1994.

OUTLINE OF THE COURSE: The sequence of meetings in the course will follow, generally, the events that transpire in a municipal financing; much, in fact, will deal with a simulated financing, complete with numbers.

Meeting Subject

1 Introduction: Model, Philosophy, Technique, Definition

Course administrative procedure; overview of financing strategy and process

Assignment: Select a municipality or government entity to study.

2 A General Introduction to Financing: The Basics

Financing in a political economy; a general description of what goes on in an financing; as well as definitions of the concepts time value of money, amortization, interest, bidding, and trading.

References: GUIDE, 3; BASICS, 1, 9-10; FUNDAMENTALS, 1, 2, 8, Appendix. A timetable of a financing.

3-4 Formulating Debt Policy and The Important Actors That Do It

The players (who to hire under what circumstances); the types of financings; and the general conditions underlying both

References: GUIDE, 4-6; BASICS, 2-4; FUNDAMENTALS, 3-5; Miller, pp. 115-136; Mitchell and Miller; ELECTED OFFICIALS GUIDE (entire).

Assignment: Schedule a financing; construct a scratch amortization program (in class).

Meeting Subject

5 Capital improvement plans and budgets for infrastructure

Do we need separate capital budgets; what relationship exists with capital improvement plans; is capital improvement related to economic development; what is a public good and what rationale exists for financing these goods with debt.

References: GUIDE, 1-2; Vogt, "Budgeting Capital Outlays....."; and Miller, "Capital Investment and Budgeting."

6 Understanding and forecasting condition or the ability to repay debt

Is condition related to repaying debt; what factors tend to suggest ability to repay; financial condition, retrenchment, bankruptcy, and investment grade securities.

References: Provided from my own research (Hildreth and Miller, "Can the . . . community afford ... ?").

7 Financing strategy: Issue structure and sizing and factors that affect the term structure of interest rates

What types of deals look like what; what is involved in computing size and how should the actual structure of the debt look and why. Topics include some creative types of financings, sizing, call dates, structure, credit supports.

References: Miller, "Capital Investment"; GUIDE, 7-8; BASICS, 11-27; FUNDAMENTALS, 6.

Assignment: Determine the size of the issue, given a project to finance. Describe a budget and marketing strategy that seems appropriate to the project; structure the issue in those terms.

8-9 Disclosure and the Offering Statement; Debt Rating

What disclosure means; what standards control disclosure; the offering statement's connection with disclosure; getting information for the offering statement; publishing these data.

References: GUIDE, 9-10; FUNDAMENTALS, 7; BASICS, 5-8.

Meeting Subject

10-11 Marketing and Underwriting

Marketing the issue, competitively bidding or negotiating with an underwriter; judging bids and calculating Net Interest Cost and True Interest Cost; awarding bids; naming paying agents; abiding by arbitrage regulations and starting the project.

References: BASICS, 11-27; Miller, "Strategic Finance"; Miller, "Debt Networks".

Assignment: In the exercise I lead, bid for the bonds; calculate the winning bidder.

12 Creative Financing (intermediate level of that already done)

References: GUIDE, 11.

Assignment: Suggest and support alternative ways of financing the same project done above.

13 Arbitrage, Administration of Debt and Advance Refunding (time permitting)

References: GUIDE, 12.

Assignment: Prepare debt service schedules and supporting tax statements for the city; Determine when an advance refunding might work.

MATERIALS NEEDED FOR CLASS: You can handle most of the work you do with a hand held calculator of the cheapest sort.

However, you can work on microcomputers for some of the tasks you have to complete for homework or class projects. If you do so, you must provide at least one floppy disk for an IBM-compatible microcomputer.

Needless to say, you could use either a microcomputer spreadsheet program or a hand calculator that can calculate the time value of money. **HOMEWORK AND CLASS PROJECTS:** Homework ground rules are:

1. Make sure you know what you're doing; I assume you do until you ask.
2. Make the work legible and understandable if you want the benefit of the doubt.
3. Hand it in on time.

Note to everyone about your handed in work: Keep copies of *everything* you give me; I will hand back graded work but will ask for it back to keep in my files. If you want copies of your work; make copies. For your grade at the end of the course, I will count only the work I have in my files.

GRADES: Grade weights should work as follows:

Scratch amortization program	15%
Sized issue computation	15%
Issue structure (Midterm exam)	30%
Evaluation as a Rating Committee	15%
Bid and Bid Calculation (Final Exam)	25%
TOTAL	100%

All of the work is individual work except for the Rating Committee exercise.

OFFICE HOURS: My office is 720 Hill Hall, telephone 648-5093, hours 3-5 pm Tuesdays and by appointment with me.