



Indiana University
O'Neill School of Public and Environmental Affairs

SEMINAR IN PUBLIC CAPITAL AND DEBT THEORY

Fall 2024, F667-12521

Dr. Craig L. Johnson
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Class Room & Hours: PV273, T/TH: 1:15-2:30pm
Office Hours: T/TH: 5:00-6:00pm and by appt.

COURSE OVERVIEW & LEARNING OUTCOMES

This seminar is an advanced course on capital markets and debt management. The emphasis of the seminar is on using financial economic theories and financial management techniques to solve complex financing problems in securities markets. Students will develop a thorough understanding of the municipal securities market, including how to analyze sophisticated credits, develop innovative financing techniques, and work through important public financial management policy issues. Students will acquire the ability to create financial instruments and analyze capital financing decisions.

REQUIRED READINGS

Craig L. Johnson, Martin J. Luby, and Tima T. Moldogaziev. State and Local Financial Instruments: Policy Changes and Management. 2nd Edition. *Studies in Fiscal Federalism and State-local Finance*. Edward Elgar Publishing, Inc., 2021. (This book is hereinafter referred to as “Johnson, Luby & Moldogaziev.”)

Craig S. Maher, Sungho Park, Bruce D. McDonald III and Steven C. Deller. Understanding Municipal Financial Health: A Model for Local Governments in the USA. Routledge Taylor & Francis Group, 2023. (This book is hereinafter referred to as “Maher, et. al.”)

Craig L. Johnson & Kenneth A. Kriz. Tax Increment Financing and Economic Development: Uses, Structures, and Impact. 2nd Edition. State University of New Press, Albany, 2019. (This book is hereinafter referred to as “Johnson & Kriz.”)

SUGGESTED READINGS

Governmental Accounting Standards Board (GASB). An Analysts' Guide to Governmental Financial Statements. March 2018. (Do not purchase until instructed to by the instructor.)

Other required and suggested readings will be placed on Canvas (C) as needed.

EMMA (Electronic Municipal Market Access) is an information service provided by the MSRB (Municipal Securities Rulemaking Board). According to the MSRB, "EMMA is the official repository for information on virtually all municipal bonds, providing free access to official disclosures, trade data and other information about the municipal securities market." The glossary of terms frequently used in the municipal securities market is located at www.msrb.org/glossary.aspx.

CLASS SCHEDULE

This class is structured as an in-person course that will be taught using In-Class, In-Person synchronous lectures, and ZOOM synchronous lectures (**Z**). Days that the class does not meet are denoted by (**NC**). Classes are In-Class, In-Person unless otherwise indicated.

SPECIAL COURSE PROCEDURES AND PROTOCOLS

DURING THE CORONAVIRUS PANDEMIC AND OTHER HEALTH CONCERNS

Please keep up with IU COVID-19 related guidance for students, faculty and staff at www.iu.edu/covid/index.html. When we meet in-class, in-person during the semester: 1. Populate seats from the back of the classroom to leave several rows in the front of the classroom empty; this is designed to maintain the appropriate amount of social distance between students and the instructor. 2. The instructor may wear a mask whenever in class except when lecturing. 3. Students must maintain six ft. social distance with the instructor at all times, and follow other guidance on social distancing. 4. Students should be prepared to go to remote learning at any time during the semester. 5. The university could, as it did in the Spring 2020 semester, cancel in-person instruction and go to remote learning at any time. 5a. Also be forewarned, if the instructor has reason to believe that the virus provides a direct and current threat to the health of any members participating in in-person, in-class sessions, the instructor will immediately move the course to remote learning only. That means the in-person portion of the class will be indefinitely suspended. 6. The in-person portion of the course may be indefinitely suspended at any time for personal health reasons.

OFFICE HOURS & EMAIL POLICY

My office hours are T/TH from 5:00-6:00pm, and other days and times by appointment. These office hours are primarily for one-on-one meetings. So, let me know by email when you'd like to meet and we'll set up either a Zoom appointment, meet in my office, or meet outside when weather permits. I plan to return emails within 48 hours. If it's an important class matter, and if it's a direct question with a straight forward reply, I will try to get back with you sooner.

ACADEMIC INTEGRITY

Academic integrity is critical to your success in the course. Please refer to student responsibilities at <http://www.iu.edu/~code/>. Also, please note the following about note selling and online course materials.

Note Selling: Several commercial services have approached students regarding selling class notes/study guides to their classmates. Selling the instructor's notes/study guides in this course is not permitted. Violations of this policy will be reported to the Dean of Students as academic misconduct (violation of course rules). Sanctions for academic misconduct may include a failing grade on the assignment for which the notes/study guides are being sold, a reduction in your final course grade, or a failing grade in the course, among other possibilities. Additionally, you should know that selling a faculty member's notes/study guides individually or on behalf of one of these services using IU email, or via Canvas may also constitute a violation of IU information technology and IU intellectual property policies; additional consequences may result.

Online Course Materials: The faculty member teaching this course holds the exclusive right to distribute, modify, post, and reproduce course materials, including all written materials, study guides, lectures, assignments, exercises, and exams. While you are permitted to take notes on the online materials and lectures posted for this course for your personal use, you are not permitted to re-post in another forum, distribute, or reproduce content from this course without the express written permission of the faculty member. Any violation of this course rule will be reported to the appropriate university offices and officials, including to the Dean of Students as academic misconduct.

Use of AI (such as ChatGPT) in this class: Using AI (such as ChatGPT) to assist in completing assignments will be allowed in a limited way as stated below. Keep in mind that a student who submits any ideas or materials taken from AI without full acknowledgment has committed plagiarism, as defined by IU.

“Plagiarism is defined as presenting someone else's work, including the work of other students, as one's own. *Any ideas or materials taken from another source* for either written or oral use *must be fully acknowledged*, unless the information is common knowledge. What is considered ‘common knowledge’ may differ from course to course.” <https://studentcode.iu.edu/responsibilities/academic-misconduct.html>. (emphasis added).

So, the only way ChatGPT (or other AI) content can be used in this class without being in violation of IU's Rights and Responsibilities is if you cite the source and you either use quotation marks and cite ChatGPT (if you take the material directly from ChatGPT) or cite ChatGPT without quotation marks (if you use chat's “ideas”). You have not committed plagiarism if you, for example, ask ChatGPT to find three articles on a particular topic (just like you could use Google Scholar to find three articles on the topic), read the articles, and cite the articles.

If the above is not clear, or you have any questions, I suggest you check with me prior to using AI in this course.

ASSIGNMENTS & GRADING

You are expected to regularly make an informed and productive contribution to the course. Your participation should demonstrate a critical understanding of assigned readings. Your grade will be based on your performance on the following:

Case Study Presentation	10%
Exam - Essentials of the Municipal Securities Market	30
Debt Service Structure Analysis	20
Credit Analysis	35
Oral Presentation/Slide Show:	50%
Written Report (Executive Summary)	50%
Class Participation	<u>5</u>
TOTAL:	100%

Any late assignment will receive an automatic one-time deduction of 20 percent.

Case Study Presentations: Each student must analyze and make a class presentation on one case study. Choose either a TIF case from the book Tax Increment Financing and Economic Development: Uses, Structures, and Impact, or a case on municipal financial health from the book Understanding Municipal Financial Health: A Model for Local Governments in the USA. See the Sign-Up Sheet List in the Files, Case Study subfolder on Canvas.

Municipal Securities Market Exam: This exam will cover the financial, economic and legal foundations of the municipal securities market, and will emphasize what makes the municipal market different from other financial markets. The exam may include true/false, multiple choice, identification, matching, short- and long-essay questions, and analytical problems.

Debt Service Structure Analysis: Analyze the debt service structure of a recent, sophisticated serial bond issue structure (to be provided by instructor). You will need to use a spreadsheet program like Excel to complete the assignment.

Credit Analysis: Write a credit analysis of a general obligation bond issued by a large, complex municipal issuer, preferably a city or state government. You are required to analyze all the factors involved in a credit rating analysis. You will use the official statement (prospectus) of the bond issue as the primary, but not sole, source of information. The issuer and official statement must be approved by the instructor. Disclosure documents can be found on EMMA.

You are required to write a professional executive summary that in a maximum of 3 single-spaced pages summarizes your analysis and justifies your credit rating and outlook. Use 12 pt. font and 1-inch margins. The oral/slide show presentation must be no longer than 5 minutes, and will be followed by a Q&A session. Create a reference section to cite your resources. The executive summary is worth 50% of the score on this assignment, the oral/slide show presentation is worth 30%. The credit analysis will be assigned on 11/19 and the assignment is due on 12/17. Executive summaries and slide shows are due by 11am, and presentations will start at 12:40pm.

TOPICS - LEARNING OBJECTIVES - READING ASSIGNMENTS

The following describes the subject matter, learning objectives and reading assignments covered in the seminar. Topic and reading assignment dates are subject to limited change in the event of unforeseen circumstances.

**MODULE I:
INTRODUCTION AND OVERVIEW OF
THE MUNICIPAL SECURITIES MARKET**

8/27: No Class (NC) – Review syllabus and start reading *Johnson, Luby & Moldogaziev*.

8/29 (Z) & 9/3:

**OVERVIEW OF THE MUNICIPAL SECURITIES MARKET &
THE BASIC CHARACTERISTICS OF MUNICIPAL FINANCIAL INSTRUMENTS**

Develop an overview of fixed income debt and the structure of financial markets in general and the municipal securities market in particular.

Issuers, Intermediaries and Investors

Term-to-Maturity

The Interest Rate

The Municipal Auction Rate Securities (MARS) Market

Repayment Pledges

Intermediaries and Regulators

Johnson, Luby & Moldogaziev, ch. 1.

9/5:

TAX INCREMENT FINANCING – OVERVIEW, IMPLEMENTATION & STRUCTURE

Johnson and Kriz, chs. 1, 2, 12 & 4.

9/10 & 9/12:

TAX INCREMENT FINANCING – ECONOMIC, SOCIAL & FISCAL IMPACT

Johnson and Kriz, chs. 13, 14, 15 & 16.

9/17 & 9/24:

WHAT MAKES THE ‘MUNI’ MARKET DIFFERENT?

THE TAX-EXEMPTION OF MUNICIPAL DEBT - I

Develop an understanding of the history and importance of the tax status of municipal securities.

Tax Exemption: The US Constitution and Supreme Court Rulings

The Legislative Prerogative

The Demand for Municipal Securities

State Income Taxation and Market Segmentation

Taxable Debt

Tax-Credit Bonds as a Federal Policy Device

Build America Bonds

Johnson, Luby & Moldogaziev, ch. 2.

9/19 (NC) - Work on TIF Case Study Presentation

9/24: (Z)

WHAT MAKES THE ‘MUNI’ MARKET DIFFERENT?

THE TAX-EXEMPTION OF MUNICIPAL DEBT - II

Develop an understanding of the history and importance of the tax status of municipal securities.

Taxable Debt
Tax-Credit Bonds as a Federal Policy Device
Build America Bonds
Johnson, Luby & Moldogaziev, ch. 2.

9/26:

**STATES AS FISCAL ‘SOVEREIGNS’: IMPLICATIONS FOR ABILITY
AND WILLINGNESS TO PAY IN FULL AND ON TIME**

Understand the direct and indirect state and local fiscal rules and institutions that govern municipal debt issuance and management.

Do Fiscal Rules and Institutions Strengthen the Municipal Market?

The ‘Local’ In Subnational Government Debt

State-Level Oversight Systems

Johnson, Luby & Moldogaziev, ch. 3.

10/1: TIF Case Study Presentations

MODULE II:

CREATING DEBT INSTRUMENTS FOR THE MUNICIPAL MARKET

10/3:

**SUBNATIONAL GOVERNMENT DEBT FINANCIAL MANAGEMENT I:
FINANCING PRINCIPLES AND POLICIES**

Understand the basic principles behind debt policies and practices.

Public Accountability and Transparency

Economic Efficiency and Management Flexibility

Effectiveness and Equity

Certainty and Measurability

Johnson, Luby & Moldogaziev, ch. 5.

10/8 & 10/10:

**SUBNATIONAL GOVERNMENT DEBT FINANCIAL MANAGEMENT
II: BRINGING AN ISSUE TO MARKET - NETWORKS AND PRACTICES**

Understand the theory, the process and choices involved in bringing a debt issue to market, including working with financial service providers.

The Debt Management Network

Principal-Agent Theory and the Bond Issuance Process

Contracting for Services Requires Making Key Decisions

Method of Sale, Financial Intermediaries and Debt Issuance

Enhancing Municipal Credit

Johnson, Luby & Moldogaziev, ch. 6 & 12.

October 15: Municipal Securities Market Exam

October 17 – (NC) Research municipal credits; sign-up for your credit by 10/24.

**MODULE III:
FINANCIAL STRUCTURE AND THE RISK/REWARD TRADE-OFF**

10/22 (Z):

THE SECONDARY MARKET & MUNICIPAL DISCLOSURE –

Understand the secondary market and its relationship to debt issued in the primary market.

The Muni-OTC Market

Municipal Market Indices

Information Disclosure and Secondary Market Pricing

Mechanisms for Municipal Disclosure

What can issuers learn from the secondary market?

Johnson, Luby & Moldogaziev, ch. 8.

10/24 & 10/29:

THE SERIAL DEBT ISSUE STRUCTURE

Demonstrate the ability to analyze and create a debt issue.

Understanding Debt Service

TIC (True Interest Cost)

Pricing Debt Issues

Johnson, Luby & Moldogaziev, ch. 7, pgs. 102-113; Appendices A & B.

10/31 & 11/5:

REDUCING DEBT SERVICE BY REFUNDING DEBT

Demonstrate the ability to analyze a debt refunding.

Types of Refunding: The Federal Government View

Bond Refinancing Analysis

Debt Refinancing Principles

Debt Refinancing Recommendations

Johnson, Luby & Moldogaziev, ch. 10.

Martin J. Luby. “Not All Refinancing’s Are Created Equal: A Framework for Assessing State and Local Government Debt Refinancing Measures.” State and Local Government Review.

March 26, 2014 (C)

Debt Service Structure Analysis assigned: A: 10/31; D: 11/12

11/7:

FINANCIAL ENGINEERING

Understand the importance and risk/reward structure of derivative securities in general and interest rate swaps in particular.

Types of Financial Derivatives

Interest Rate Swaps

Interest Rate Swaps ‘Gone Awry’

Financial Derivatives – Best Practices and Dodd-Frank

Johnson, Luby & Moldogaziev, ch. 9.

11/12: Turn-in Debt Service Analysis and start Municipal Credit Analysis readings

11/14: (NC) Work on Municipal Financial Health Case Study Presentations and continue Municipal Credit Analysis readings

**MODULE IV:
MUNICIPAL CREDIT ANALYSIS**

11/19 (Z) & 11/21:

ANALYZING TAX-SUPPORTED DEBT: FINANCIAL CONDITION ANALYSIS AND THE OPEN SYSTEMS MODEL

Demonstrate the ability to conceptually understand and apply an open systems model of financial condition.

Maier, et. al., chs. 1 – 8, 14 & 15.

Credit Analysis: A: 11/19; D: 12/17.

Demonstrate the ability conduct a credit analysis and determine the rating and outlook of a large, complex city or state government.

12/3 & 12/5:

ANALYZING TAX-SUPPORTED DEBT: THE CREDIT ANALYSIS FRAMEWORK AND INDICATOR VARIABLES-

Demonstrate the ability to prepare and implement a framework for analyzing municipal credits and perform credit analysis.

Feldstein & Goode. "How to Analyze General Obligation Bonds." (C).

Craig L. Johnson, Sharon N. Kioko, W. Bartley Hildreth. Government-wide Financial Statements and Credit Risk. Public Budgeting and Finance. Spring 2012. (C).

Moody's Investors Service. "Moody's Ratings Methodology, US States and Territories," April 2018 (C).

Moody's Investors Service. "Adjusted Pension Liability Medians for US States." June 27, 2013. (C).

S&P Global Ratings. "Public Pension Funds" February 26, 2021. (C).

FitchRatings. "U.S. Tax-Supported Rating Criteria." April 18, 2016. (C)

Suggested Reading: Governmental Accounting Standards Board. An Analyst's Guide to Governmental Financial Statements. March 2018.

ANALYZING REVENUE BONDS -

Revenue Bond Capacity and Bond Sizing

Legal and Demand Analysis

Bond Covenants

Johnson, Luby & Moldogaziev, ch. 7, pgs. 114-118.

Feldstein. "General Analytical Framework for Assessing the Credit Worthiness of Revenue Bonds." (C).

12/10: Municipal Financial Health Case Study Presentations

12/12: (NC) - Work on credit analysis written report and oral presentation.

12/17:

Turn-in Written Credit Analysis and Presentation Slides– 11:00am

Oral Presentations – 12:40-2:40pm