

FIU


Business

COURSE: FIN 3403 – FINANCIAL MANAGEMENT
SECTION: U01 **REFERENCE:** 15178
TERM: SPRING 2017 **DATES:** 1/10/2017 - 4/25/2017
CLASS: TUESDAY, 9:30AM - 12:15PM
LOCATION: CBC 155
INSTRUCTOR: JIM KEYS
HOME PAGE:
<http://faculty.fiu.edu/~keysj/Jim Keys - Home Page.pdf>

CONTACT INFORMATION

Instructor · Jim Keys Office · RB 229B, MM Campus Email · keysj@fiu.edu · Syllabus · http://faculty.fiu.edu/~keysj/fin3403syl_S17.pdf		Office Phone · (305) 348-3268 Finance Department · RB 210 (305) 348-2680 Fax · (305) 348-4245	
Office Hours	Monday	Tuesday	You are free to visit my office any time you are on campus, an appointment is not necessary. Class attendance is essential for success!
	10:00AM – Noon 2:30PM – 4:30PM	2:30PM – 4:30PM	

TEXTBOOK AND MINDTAP™ ACCESS

	<p>Fundamentals of Financial Management, Concise 9th Edition Eugene F. Brigham Joel F. Houston ISBN: 9781305635937 ©2017 Cengage Learning</p> <hr/> <p>Items included in the Textbook Bundle/Package:</p> <ol style="list-style-type: none">1. Fundamentals of Financial Management - Concise (Loose-Leaf)2. MindTap™ Printed Access Code (Includes ebook) <p>Purchase Bundle From Cengage: Click Here (9781337205443) MindTap™ Course Key: MTPN-3S2P-8JJJ MindTap™ Web Address: https://login.cengagebrain.com/course/MTPN-3S2P-8JJJ</p> <p>Student Companion Site: Click Here</p> <p>Special Note: If you decide not to participate in the MindTap assignments (see Course Requirements below) and wish to purchase the printed textbook, you should be OK with the 8th edition (or earlier) (9781285065137) of this title.</p>
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COURSE PREREQUISITES

Please review information about prerequisites for this course: ACG 3301, STA 2023 or STA 2122, and MAC 2233 or MAC 2311, or equivalents with a grade of 'C' or higher, minimum 45 credit hours earned, UGBU standing.

COURSE DESCRIPTION AND OBJECTIVES

FIN 3403 is the core finance course required of all business majors and it serves as the basis for all other courses in the area of finance as well as providing the basic tools that every business student will need to be successful in their chosen career. Emphasis is placed on the underlying principles and practices and how they relate to the decision-making process faced by a financial manager charged with the objective of shareholder wealth maximization and value creation. Although the focus is on corporate decision-making, the knowledge and skills obtained in this course will also aid the student with personal financial and small business decision-making.

COURSE LEARNING OUTCOMES

- Explain the concept of shareholder wealth maximization and how it relates to other possible objectives of the firm's management as well as the nature of the agency relationship inherent in the corporate structure.
 - Describe how interest rates are determined and the role played by financial markets and institutions in the global financial system.
 - Apply the concepts of compounding and discounting and utilize these tools to calculate the future value and present value of lump sums, annuities, and uneven cash flow streams and in addition calculate the value of other variables such as the interest rate, time period, and periodic payment.
 - Calculate the expected rate of return and risk of an individual investment as well as a portfolio of assets, including concepts and measurements such as standard deviation, correlation, diversification, and the CAPM (Capital Asset Pricing Model).
 - Explain the determinants of intrinsic value and utilize these concepts to determine the value and yields of bonds and preferred and common stocks.
 - Calculate various measures of project profitability using traditional capital budgeting techniques including Payback Period (PB), Net Present Value (NPV), Internal Rate of Return (IRR), and Modified Internal Rate of Return (MIRR).
 - Analyze the concept of the cost of capital and how it is affected by the firm's capital structure and apply these concepts to capital budgeting decision making and dividend policy.
 - Utilize the information included in the income statement and balance sheet, discuss the importance of the cash flow statement and explain the difference between accounting net income for the firm and cash flow; analyze a firm's financial performance using financial ratio analysis.
 - Distinguish between business and financial risk and discuss the analytical framework used to determine the optimal capital structure.
 - Describe the risk-return trade off involved in working capital management and explain how firms choose appropriate levels of working capital and sources of short term financing.
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MAJOR AND CURRICULUM STUDENT LEARNING OUTCOMES TARGETED

Apply critical thinking skills to complex business problems including: Identifying and evaluating relevant issues and information; generating and evaluating possible solutions to problems. Use quantitative analytical skills to: Identify and analyze material factors that are involved in business problems; determine and apply appropriate problem solving techniques to business problems. Use information technology as a tool to perform essential business tasks.

TEACHING METHODOLOGY

The structure of this class makes your individual study and preparation extremely important. You should read and be familiar with the material in the assigned chapter and attempt to solve some problems before the lecture. The lecture will focus on the more difficult aspects of each chapter and on problems and concepts that deal with the

material. After the class you should review your notes and in the process work additional relevant problems and questions at the end of the chapter. There are additional resources available in MindTap™ that many students will find helpful.

Participation: You are expected to attend all of the lectures for the semester. If you miss any material, it is your responsibility to view the recorded lectures or obtain the information from another student. Please do not conduct private conversations while class is in session, however, participation in class discussions is expected.

Suggested study procedures:



Textbook

- Access the Textbook folder in **MindTap™** for the reading content. Before class and prior to reading the chapter, complete the “Why Is This Important to Me” survey (graded).
- Utilize the (non-graded) assessments and resources in the MindTap™ Reader (Quizzes, ConceptClips, Problem Walkthroughs, Videos, Notes, etc.) to enhance your understanding of the material.
- Review the Self-Test Questions and Problems found at the end of each Chapter. Solutions are found in Appendix A of the text for the selected chapter.
- Assemble exam-type questions using the **Adaptive Test Prep** app for each section of the textbook. Review your results, including the question rationale, and focus on problem areas.



Practice Assessments and Resources

- Access the Practice Assessments and Resources folder in MindTap™ for practice problems and cases, exam-type questions, Excel spreadsheets, and lecture notes (see below for more details).



Graded Assessments

- Access the Graded Assessments folder in MindTap™ and complete the two assignment sets (see below for more details) by the due dates listed in the Course Calendar.
- Participate in class discussions and activities both verbally as well as with the **Socrative** tool (see below).
- Access the **Recorded Lectures** through **Blackboard** to review the material covered in class.
- Track your progress and grades for all assignments (graded and ungraded) using the Progress tab in MindTap™.
- Employ the library of learning apps (MindApps) accessible via the MindApp bar in MindTap™ to customize your learning experience, including the **Adaptive Test Prep** app which enables the student to practice exam-type questions.
- Post your questions in the Discussion Forum in **Blackboard** and view previously answered questions.
- Utilize the services of the course Teaching Assistant (TA); visit the Finance Department office in RB 210 for schedule and availability.
- Use Course Mail in Blackboard, my FIU email address (keys@fiu.edu), or visit during office hours to communicate privately.
- Prepare for and take the on-campus Exams as scheduled in the Course Calendar.

MINDTAP™

MindTap™ is a fully online, highly personalized learning experience, combining readings, multimedia, activities, and assessments into a singular Learning Path. The MindTap™ course is enriched through a library of learning apps called MindApps accessible via the MindApp bar. Examples of apps include homework solutions, text-to-speech, dictionary, web video, social media integration, and more. The MindTap™ learning path begins by engaging students in the content by showing its relevance to their own lives. It then continues the progression of learning with a new, interactive eReader and valuable videos providing students with on-demand problem-solving examples. Continuing on in each chapter, MindTap™ then provides practice opportunities complete with immediate, written feedback, before finally asking students to move on to complete their graded homework assignments.

MINDTAP™ PRACTICE ASSESSMENTS AND RESOURCES

There are a number of resources in MindTap™ that will help you to learn the material and prepare for exams.

Preparing for Finance - Calculator tutorials (HP-10BII+ and TI-BAIL Plus) and prerequisite review material in the areas of Accounting, Economics, Math, and Statistics.

Interactive Reader with ConceptClips and Quizzes - In addition to eReader tools that allow students to capture highlights and notes in a common location for easy review, an app that will read the text aloud to them, and embedded practice quizzes, students will find interactive tools (ConceptClips) that support learning key financial terminology.

Practice Assessments and Resources - Includes Blueprint Problems and Finance in Action question sets designed to deepen your understanding and appreciation of core financial concepts. Problem Walkthroughs further explain difficult concepts and homework roadblocks by walking students through solving problems similar to those in the text from start to finish. Problem solutions are provided using each of the following methods, where appropriate: A formulaic approach, solving with a financial calculator, and solving using Excel.



Adaptive Test Prep - Students decide how many quiz questions they want to review, and the app generates a preparatory quiz -- using questions similar to exam questions. The app provides students with feedback on every question, and students can continue practicing until they feel confident about taking the exam.

MINDTAP™ GRADED ASSIGNMENTS

There are three types of graded assignments that you will take in MindTap™. You will have a limited number (3) of attempts and all of the graded assignments have firm deadlines (see below). Before taking a graded assessment, it is recommended that you read the chapter, ask questions, and use additional resources (see below) to prepare. Your assignment grade will be based upon the total points that you accumulate out of the total points available.

Why Is This Important To Me?

Students, particularly non-Finance majors, commonly wonder why it's important for them to learn and understand certain concepts in corporate finance. By beginning the learning path for each chapter with "Why is this Important to Me?", MindTap™ sets the stage for students to understand how the topics covered in that chapter will have a direct, positive impact in their own lives – thus more effectively engaging them in the material to follow.

Each chapter that we cover will have a "Why is this Important to Me? assignment/survey in which participation points are awarded upon completion. Deadlines will be indicated in the Course Calendar (below) and are firm.

Graded Problem Sets

Most chapters that we cover will have an assignment taken from the Problems section at the end of each chapter. The problems will be the same as found in the text although the numbers will change with each attempt. You will be given three attempts for each problem and the highest grade will be recorded for grading purposes. Deadlines will be indicated in the Course Calendar (below) and are firm. **Note:** Submit each question individually!

Graded Assignment

Each chapter that we cover will have an assignment which will include both quantitative and qualitative (conceptual) items. You will be given three attempts for each problem and the highest grade will be recorded for grading purposes. Deadlines will be indicated in the Course Calendar (below) and are firm. **Note:** Submit each question individually!





DISABILITY NOTICE

If you have a disability and need assistance, please contact the Disability Resource Center (University Park: GC190; 305-348-3532) (North Campus: WUC139, 305-919-5345). Upon contact, the Disability Resource Center will review your request and contact your professors or other personnel to make arrangements for appropriate modification and/or assistance.

RELIGIOUS HOLIDAYS

The University's policy on religious holidays as stated in the University Catalog and Student Handbook will be followed in this class. Any student may request to be excused from class to observe a religious holy day of his or her faith.

SOCRATIVE

	<p><u>Socrative</u> is a free cloud-based student response system for enhancing classroom engagement, assessment and personalization. Socrative runs on tablets, smartphones, and laptops.</p>	
Device	Download / Access Application	
<p>The browser-based solution supports Internet Explorer, Firefox, and Chrome browsers.</p>	<p>https://b.socrative.com/login/student/</p>	<p>Room #873687</p>
<p>Requires iOS 6.0 or later. Compatible with iPhone, iPad, and iPod touch.</p>	 	
<p>For Android devices. Requires Android 4.0.3 and up.</p>		

FINANCIAL CALCULATOR AND TIME VALUE OF MONEY RESOURCES

<p>Calculators with financial functions:</p>	<p>Hewlett-Packard <u>Financial: HP-10bII+ • HP-12C • HP-17bII+</u></p> <p>Texas Instruments <u>Financial: BAII Plus • BAII Plus Professional</u> <u>Graphing / Financial: TI-83 • TI-84</u></p>
<p>Financial calculator Tutorials and Guidebooks:</p>	<p>http://www.tvmcalcs.com/ http://faculty.fiu.edu/~keysj/Other_Resources.htm</p>
<p>How to choose a financial calculator:</p>	<p>http://www.tvmcalcs.com/calculators/financial_calculator_recommendations</p>
<p>Time value of money formula sheet:</p>	<p>http://faculty.fiu.edu/~keysj/TVM_Formulas_Brigham.pdf</p>
<p>Time value of money interest tables:</p>	<p>FV • FVA • PV • PVA</p>
<p>Business Finance Online (online calculators)</p>	<p>http://www.zenwealth.com/businessfinanceonline/Calculators.html</p>

RULES, POLICIES, AND ACADEMIC MISCONDUCT

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All

students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

It is expected that interactive learning and teaching will enrich the learning experience of all students, and that each student will work in partnership with the professor to create a positive learning experience for all. Student engagement is a necessary condition for an effective learning experience, and includes contributions to debate and discussion (if any), positive interaction with others, and an enthusiastic attitude towards inquiry. Everyone is expected to be a positive contributor to the class learning community, and students are expected to share the responsibility of teaching each other. By taking this course I promise to adhere to FIU's Student Code of Academic Integrity. For details on the policy and procedure [click here](#).

Exam Conduct: No computers, cell phones, PDA's, iPods, or other electronic devices will be permitted to be out or accessible during exams. Be sure that such items are either not brought to class on exam days or are properly secured in a backpack or purse where you will not have access. The Exams are multiple choice and are not comprehensive although some material will carry through. There will be three in-class exams given throughout the term. Students should bring their FIU Panther IDs, #2 pencils, and calculator ("**cell phone**" **calculators are not permitted**). Formula sheet(s) will be attached to the exam. Further instructions will be provided before each exam.

Exam Policy: You must take each and every exam at the date and time announced in class. Failure to do so will result in zero credit for that exam. This includes the final exam. Any deviation from this policy because of illness or emergency must be cleared in advance and supported with the appropriate written documentation. Absolutely no incomplete grades or make-up examinations will be given if these policies are violated. In cases of medical or catastrophic emergencies, please contact the [Registrar's Office](#) to apply for a Late Drop or Refund.

COURSE REQUIREMENTS AND ASSESSMENT WEIGHTS

COURSE REQUIREMENTS	WEIGHT	OR	WEIGHT*
Exam #1 (in-class, see Course Calendar)	22%		33 $\frac{1}{3}$ %
Exam #2 (in-class, see Course Calendar)	22%		33 $\frac{1}{3}$ %
Exam #3 (in-class, see Course Calendar)	22%		33 $\frac{1}{3}$ %
Assignments in MindTap™ (see Course Calendar for due dates)	24%		
Class Attendance & Participation (in-class Socrative activities)	10%		
TOTAL	100%		100%

*Please note that if you do not wish to use MindTap to complete assignments, your grade will be based on the three exams only. Most students will achieve a higher grade in the course if they complete the MindTap assignments and participate in the class discussions using Socrative.

GRADING SCALE POLICY

90 - 100	A	80 - 83	B	70 - 73	C
87 - 89	A-	77 - 79	B-	60 - 69	D
84 - 86	B+	74 - 76	C+	0 - 59	F

All grades will be posted in the Discussion Forum in Blackboard under your personal code. Calculate your personal code by going to <http://business.fiu.edu/cba/index.cfm> and entering your **FIU Panther** ID number.

Note: For all FIU students admitted to the College of Business for the Fall 2016 and later terms, the following apply. Earn a "C" in all upper-division Business Core Courses. Each of the nine upper-division Business Core Courses cannot be attempted more than three times. Drops after the add/drop period, which result in a DR grade, are considered an attempt in the course and count as an unsuccessful enrollment.

COURSE CALENDAR

Date	Chapter	Topic(s)	Due Dates For MindTap™ Assignments		Business Finance Online*
			Why Is This Important To Me?	Graded Problem Sets and Assignments	
January 10	Syllabus 1, 2	An Overview of Financial Management Financial Markets and Institutions			
January 17	3, 4	Financial Statements, Cash Flows, and Taxes Analysis of Financial Statements	DUE DATE: Chapters 1, 2 (10:00AM) <i>Why Is This Important To Me?</i>		<u>BFO</u> <u>BFO</u>
January 24	4, 4A, 5	Analysis of Financial Statements The Time Value of Money (lump sums)	DUE DATE: Chapters 3, 4 (10:00AM) <i>Why Is This Important To Me?</i>		<u>BFO</u>
January 31	5	The Time Value of Money (annuities and uneven cash flows)	DUE DATE: Chapter 5 (10:00AM) <i>Why Is This Important To Me?</i>		
February 7	1 - 5	Exam #1 – 9:30AM ~ 12:15PM	SOFT DUE DATE: Chapters 1 – 5 (11:59PM) Problem Sets and Assignments		
February 14	6, 7	Interest Rates Bonds and Their Valuation	DUE DATE: Chapter 6 (10:00AM) <i>Why Is This Important To Me?</i>		<u>BFO</u>
February 21	7, 7A, 7B, 7C, 8	Bonds and Their Valuation Risk and Rates of Return	DUE DATE: Chapter 7 (10:00AM) <i>Why Is This Important To Me?</i>		<u>BFO</u>
February 28	8, 8A, 9, 9A	Risk and Rates of Return Stocks and Their Valuation	DUE DATE: Chapters 8, 9 (10:00AM) <i>Why Is This Important To Me?</i>		<u>BFO</u>
March 7	10, 10A	The Cost of Capital	DUE DATE: Chapter 10 (10:00AM) <i>Why Is This Important To Me?</i>		
March 13 - 18	SPRING BREAK				
March 20	DROP DATE				
March 21	6 - 10	Exam #2 - 9:30AM ~ 12:15PM	SOFT DUE DATE: Chapters 6 – 10 (11:59PM) Problem Sets and Assignments		
March 28	11	The Basics of Capital Budgeting	DUE DATE: Chapter 11 (10:00AM) <i>Why Is This Important To Me?</i>		<u>BFO</u>
April 4	12, 12A-F, 13, 13A	Cash Flow Estimation and Risk Analysis Capital Structure and Leverage	DUE DATE: Chapters 12, 13 (10:00AM) <i>Why Is This Important To Me?</i>		
April 11	14, 14A	Distributions to Shareholders: Dividends and Share Repurchases	DUE DATE: Chapter 14 (10:00AM) <i>Why Is This Important To Me?</i>		
April 18	15, 15A, 15B	Working Capital Management	DUE DATE: Chapter 15 (10:00AM) <i>Why Is This Important To Me?</i>		
April 25	11 - 15	Exam #3 - 9:45AM ~ 11:45AM	FINAL DUE DATE: Chapters 1 – 15 (11:59PM) Problem Sets and Assignments		

*BFO – Business Finance Online covers corporate finance topics and includes many useful online calculators.

How to access your MindTap™ course

FIN 3403 - Financial Management - Spring 2017 - Section U01 – Reference #15178

Instructor : Jim Keys

Purchase Link: <http://services.cengagebrain.com/course/site.html?id=1576977>

Start Date (for MindTap access) : 01/04/2017

What is MindTap?

MindTap empowers you to produce your best work – consistently.

MindTap is designed to help you master the material. Interactive videos, animations, and activities create a learning path designed by your instructor to guide you through the course and focus on what's important. Get started today!

Registration

1. Connect to <https://login.cengagebrain.com/course/MTPN3S2P8JJJ>
2. Follow the prompts to register your MindTap course.

Payment

After registering for your course, you will need to pay for access using one of the options below:

Online: You can pay online using a credit or debit card, or PayPal.

Bookstore: You may be able to purchase access to MindTap at your bookstore. Check with the bookstore to find out what they offer for your course.

Free Trial: If you are unable to pay at the start of the semester you may choose to access MindTap until 11:59 PM on 01/18/2017 during your free trial. After the free trial ends you will be required to pay for access.

Please note: At the end of the free trial period, your course access will be suspended until your payment has been made. All your scores and course activity will be saved and will be available to you after you pay for access.

If you already registered an access code or bought MindTap online, the course key to register for this course is:

MTPN-3S2P-8JJJ

System Check

To check whether your computer meets the requirements for using MindTap, go to

<http://ng.cengage.com/static/browsercheck/index.html>

Please Note: The System Check is also accessible in the drop down box next to your name located in the upper right corner of your MindTap page.

http://faculty.fiu.edu/~keysj/MindTap_CourseKey_Spring_2017.pdf

#	TVM	Annual Compounding/Discounting	Non-Annual Compounding/Discounting	Continuous Compounding/Discounting
1	Future Value of a Lump Sum ($FVIF_{I,N}$)	$FV_N = PV(1+I)^N$	$FV_N = PV\left(1 + \frac{I}{M}\right)^{(M*N)}$	$FV_N = PV(e)^{(I*N)}$
2	Present Value of a Lump Sum ($PVIF_{I,N}$)	$PV = \frac{FV_N}{(1+I)^N}$	$PV = \frac{FV_N}{\left(1 + \frac{I}{M}\right)^{(M*N)}}$	$PV = \frac{FV_N}{(e)^{(I*N)}}$
		$PV = FV_N(1+I)^{-N}$	$PV = FV_N\left(1 + \frac{I}{M}\right)^{-(M*N)}$	$PV = FV_N(e)^{-(I*N)}$
3	Effective Annual Rate Given the Nominal Rate	$EFF\% = I_{NOM}$	$EFF\% = \left(1 + \frac{I_{NOM}}{M}\right)^M - 1$	$EFF\% = (e)^I - 1$
4	Solve for the Time Period (lump sums)	$N = \frac{\ln\left(\frac{FV_N}{PV}\right)}{\ln(1+I)}$	$N = \frac{\ln\left(\frac{FV_N}{PV}\right)}{M*\ln\left(1 + \frac{I}{M}\right)}$	$N = \frac{\ln\left(\frac{FV_N}{PV}\right)}{I}$
5	Solve for the Interest Rate (lump sums)	$I = \left(\frac{FV_N}{PV}\right)^{\left(\frac{1}{N}\right)} - 1$	$I = M\left[\left(\frac{FV_N}{PV}\right)^{\left(\frac{1}{(M*N)}\right)} - 1\right]$	$I = \frac{\ln\left(\frac{FV_N}{PV}\right)}{N}$

TVM Calculator

PV: \$ -100 Rate: 5 %
 PMT: \$ 0 Periods: 3
 FV: \$ 115.76 Annual ▼

[Time Value of Money Calculator](http://www.zenwealth.com/BusinessFinanceOnline/TVM/TVMCalculator.html)

This online calculator works similarly to the Time Value of Money functions of the HP 10BII and TI BA II Plus calculators.

<http://www.zenwealth.com/BusinessFinanceOnline/TVM/TVMCalculator.html>

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Legend

I = the nominal, or annual percentage rate (APR)	N = the number of periods in years
M = the number of compounding/discounting periods per year	EFF% = the effective annual rate
ln = the natural logarithm; the logarithm to the base <i>e</i>	e = the base of the natural logarithm $\approx 2.71828...$
PMT = the periodic payment or cash flow	Perpetuity = an infinite annuity

#	TVM	Annual Compounding/Discounting	Non-Annual Compounding/Discounting
6	Future Value of an Annuity (<u>FVIFA_{I,N}</u>)	$FVA_N = PMT \left[\frac{(1+I)^N - 1}{I} \right]$	$FVA_N = PMT \left[\frac{\left(1 + \frac{I}{M}\right)^{(M \cdot N)} - 1}{\frac{I}{M}} \right]$
		$FVA_{\text{due}} = FVA_{\text{ordinary}} (1+I)$	$FVA_{\text{due}} = FVA_{\text{ordinary}} \left(1 + \frac{I}{M}\right)^M$
7	Present Value of an Annuity (<u>PVIFA_{I,N}</u>)	$PVA_N = PMT \left[\frac{1 - \frac{1}{(1+I)^N}}{I} \right]$	$PVA_N = PMT \left[\frac{1 - \frac{1}{\left(1 + \frac{I}{M}\right)^{(M \cdot N)}}}{\frac{I}{M}} \right]$
		$PVA_N = PMT \left[\frac{1 - (1+I)^{-N}}{I} \right]$	$PVA_N = PMT \left[\frac{1 - \left(1 + \frac{I}{M}\right)^{-(M \cdot N)}}{\frac{I}{M}} \right]$
		$PVA_{\text{due}} = PVA_{\text{ordinary}} (1+I)$	$PVA_{\text{due}} = PVA_{\text{ordinary}} \left(1 + \frac{I}{M}\right)^M$
8	Present Value of a Perpetuity	$PV_{\text{perpetuity}} = \frac{PMT}{I}$	$PV_{\text{perpetuity}} = \frac{PMT}{\left[\left(1 + \frac{I}{M}\right)^M - 1 \right]}$
9	Present Value of a Growing Annuity	$PVA_N = \frac{PMT_1}{(I-g)} \left[1 - \left(\frac{1+g}{1+I} \right)^N \right], \text{ where PMT grows at a constant rate } g.$	
10	Present Value of a Growing Perpetuity	$PVA_N = \frac{PMT_1}{(I-g)}$	