FINANCIAL MODELING INSTITUTE

LEVEL 1:
ADVANCED FINANCIAL MODELER (AFM)

AFM STUDY GUIDE

Introduction

The Level 1 Advanced Financial Modeler (AFM) exam is focused on the skills and knowledge required to build a financial model of a company.

This Study Guide document contains four sections intended to help AFM candidates to prepare for the exam:

1. Steps to prepare for the AFM exam
2. An eight-week preparatory study guide
3. A summary study table to help gauge study progress
4. A recommended exam day plan

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I. Steps to Prepare for the AFM Exam

1. Overview

1. **Take a Course**
   If you are starting out in your career and are not yet a proficient financial modeler, you might want to take a course from a reputable provider to learn how to build a financial model of a company. The AFM Skills Checklist is a great way to assess your proficiency as it lists the AFM exam topics.

   If you decide to take a course, please see our website for a list of training courses offered by the FMI's Approved Training Providers.

2. **Review the AFM Body of Knowledge and AFM Grading Guidelines**
   The AFM Body of Knowledge and AFM Grading Guidelines contain the core knowledge and competencies that form the grading rubric for the Level 1: AFM. These materials represent the FMI mandated best-practices for financial modeling; you will need to build your AFM exam in accordance with this content to be successful. In any AFM practice that you do, you should make sure that you are applying these principles. *Please note that the AFM Grading Guidelines are not yet available.*

3. **Practice**
   While the resources above cover what to consider when building a strong financial model, modeling mastery is all about practice. On average, individuals typically devote between 25 and 100 hours of practice (depending on prior experience) to prepare for the AFM exam.

4. **Review the AFM Selected Readings**
   As part of your preparation process, you may want to review some of the chapters that are referenced in the AFM Selected Readings document. Please note that these readings are not mandatory and are meant as supplement resources to aid in exam preparation.

5. **Ask questions in the Candidate Slack Channel**
   Registered candidates are given access to the FMI Slack channel where they can ask other candidates and partners any questions that they have. Think of it as an online study group!

6. **Write Mock Exams**
   The FMI provides registered candidates with AFM Practice Exams made up of industry-prepared sample exams and previous AFM exams. Each practice exam contains:

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a. ***Exam Case*:** instructions and a case study that you can expect to receive at the beginning of the AFM exam.
b. ***Exam Worksheet:*** an Excel file with historical financial statements that you can expect to receive at the beginning of the exam. This Worksheet will be where you construct your financial model and solutions in your exam.
c. ***Example Solutions:*** Example models that would result in a passing grade if submitted by a candidate during the exam. Note that these exams are real candidate submissions and may still contain minor errors. Candidates are able to choose whichever model style they prefer during the exam.

We encourage you to set aside 4 hours to write these practice exams under simulated exam conditions. Please note that you will likely want to be able to complete your simulated exam in less than the allotted time to accommodate for the additional stress of being in an exam situation and that you will be writing the exam using a case study which you have not seen before.

7. **Attend an AFM Prep Session**
From time to time the FMI hosts virtual preparatory sessions for the AFM exam and shares news about sessions run by our Approved Training Providers. Make sure to sign up for FMI Updates (email newsletter) and follow our social media to be informed of the next AFM Prep Sessions coming up.

8. **Complete the Eight-Week Preparation Guide**
The Eight-Week Preparation Guide in this document has been developed to assist candidates to be exam-ready in 8 weeks or less. The guide divides the AFM exam into sections that can be approached sequentially. We recommend that you use the Eight-Week Preparation Guide to direct your training and development, especially if you are not taking a course from an Approved Training Provider.

9. **Review the Exam Day Plan**
The end of this document contains some helpful tips to be successful on exam day. Please review and good luck!

Please remember that you can email us at info@fminstitute.com, at any time, for assistance.

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II. Eight-week Preparation Guide

Overall, candidates should apply whatever studying techniques work best for themselves. However, for additional assistance, the following resource outlines an eight-week study program for the AFM exam. As noted above, the recommended preparation time will vary between candidates based on financial modeling experience.

1. Week 1: Model Planning, Setup and Assumptions

1. Choose a public company of your preference in a simple industry. Read their most recent annual report
2. In a new Excel file, re-name the first five tabs: Cover, Summary, Assumptions, Scenarios, and Model
3. Enter three years of the company's historical financial statements (income statement, cash flow statement, balance sheet) on the Model tab (the historical financial statements will be provided in an Excel spreadsheet during the Exam)
4. Create the cover tab. Include all relevant information, including the company name, date, etc. Use the sample model as a guide
5. Think about all of the inputs and assumptions that are needed to forecast this company's financial statements. Enter these variables onto the "Assumptions" tab
6. Build Scenarios for critical variables

Topics to Understand: model structure, design, and planning, inputs and assumptions, scenario analysis

2. Week 2: Revenues

1. The focus during week 2 is on building a clear revenue schedule to forecast the company's sales
2. It is recommended to forecast revenue as a function of price and volume as opposed to simply applying a revenue growth rate
3. Use the sample company as a guide
4. For your chosen company, think about their prices and volumes and forecast these items into the future
5. If the company has multiple segments, forecasts and prices and volumes for the largest and most important segments
6. If the company has small or insignificant segments, these can be grouped into a row called "Other" that you simply grow at an assumed growth rate
7. Build your revenue schedule by factoring in prices, volumes and any discounts or deductions that might impact the company's revenues
8. Use the sample model as a guide

Topics to Understand: prices and volumes, gross and net revenues, capacity constraints

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3. Week 3: Operating Costs and Depreciation Expense

1. The focus during week 3 is on creating an operating cost schedule that properly captures the company's fixed and variable costs and a depreciation schedule to forecast the company's depreciation expense
2. For your chosen company, think about which of their costs are fixed and which are variable
3. Forecast their variable costs on a per-unit basis and then multiply these costs per unit by their annual sales volume in order to arrive at their total variable costs
4. Using the sample model as a guide, forecast the company's fixed costs on an aggregate basis
5. Properly capturing a company's cost structure will allow you to evaluate their operating leverage (how much profitability changes with changes in revenues)
6. Link the total revenue and total cost lines into the income statement and then calculate gross profit, EBITDA and operating profit on the income statement
7. Review the common methodologies that companies use to depreciate their fixed assets
8. Using the sample model as a guide, calculate the depreciation on existing assets
9. Use a lookup function to display the company's capital expenditures vertically
10. Build a waterfall on the depreciation schedule to calculate the company's depreciation expense on their forecasted capital expenditures

Topics to Understand: fixed and variable operating costs, operating leverage, income statement, depreciation expense methodologies, capital expenditures, capitalizing fixed assets, lookup functions

4. Week 4: Income Tax Expense and Working Capital

1. The focus during this week is on creating a tax schedule to forecast the company's cash tax and deferred tax expense and a working capital schedule to forecast the company's non-interest bearing short term assets and liabilities
2. Forecast depreciation expense using local government rules
3. Calculate pre-tax earnings as they would appear on the accounting statements and on the company's tax return
4. Automate the number of days per period in the forecast using Excel's date functions
5. Calculate the historical days for each of the working capital accounts (ie. days receivable, days inventory, and days payable)
6. Forecast the working capital balances for each account into the future
7. Calculate the company's change in working capital, which will impact the cash flow statement
8. Use the sample model as a guide

Topics to Understand: major timing differences between accounting rules and government rules, with a particular focus on depreciation differences, cash taxes versus deferred taxes,

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deferred tax liabilities, a company's need for working capital, how to calculate a company's working capital line items into the future, the impact of these line items on cash flow

5. Week 5: Debt, Interest and Shareholders' Equity

1. The focus during this week is on creating schedules to forecast all of the company's debts, interest expense, and shareholders' equity
2. Create a section on the debt schedule for each piece of debt that will appear on the balance sheet
3. Create sections for both short-term and long-term debt
4. Make sure the model includes a section for bank debt (ie. a revolving credit facility) so that the company can access cash in the event of a bad year in the future
5. Calculate the company's total interest expense, and link this interest expense line into the income statement
6. Create a section on the equity schedule for each piece of equity that will appear on the balance sheet, including sections for common shares, preferred shares if applicable, and retained earnings
7. Calculate any dividends on the common and preferred shares and link these lines into the cash flow statement
8. Include a section to calculate shares outstanding that factors in any assumed share issuance and/or repurchases
9. Use the sample model as a guide

Topics to Understand: different types of debt, modeling fixed and variable interest rates, different types of equity, modeling dividends, calculating shares outstanding

6. Week 6: Financial Statements

1. The focus during this week is on forecasting the financial statements for your company so that they are linked and fully integrated
2. Using the schedules that were created in the prior weeks, create the financial statements by linking each line to the appropriate schedule
3. Use the sample model to review all appropriate linkages to create the financial statements
4. Understand circular references and decide whether or not to include circularity in your model

Topics to Understand: the purpose, make-up and creation of each of a company's financial statements, the linkages and interrelationships between the financial statements, model circularity

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7. Week 7: Summary Page, Formatting, Presentation and Speed

1. The focus during this week is on creating a summary page to summarize key model outputs and proper formatting to ensure polish and presentation
2. Create a summary table that includes outputs for the base case, best case and worst case scenarios
3. Automate the summary page so that it updates each of the cases automatically whenever changes are made to the model
4. Add automated headers and footers onto each page
5. Set up print ranges so that the model prints nicely and looks like a presentation
6. Review and practice keyboard shortcuts to build the model as quickly as possible

Topics to Understand: creating and automating an effective summary page in the model, formatting a professional and presentable financial model, ensuring a print-ready document

8. Week 8: Model Troubleshooting, Fixing Errors and Avoiding Pitfalls

1. The focus during this week is on troubleshooting a model in order to find and resolve errors
2. Review key skills to check and audit a financial model
3. Understand how to find errors that prevent a balance sheet from balancing
4. Review modeling best practices to ensure a model is built as effectively as possible

Topics to Understand: model auditing and troubleshooting

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III. Study Guide Summary Table

1. Weekly Planner

Week	Topic	Start Date	End Date
1	Model Planning, Setup and Assumptions		
2	Revenues		
3	Operating Costs and Depreciation Expense		
4	Income Tax Expense and Working Capital		
5	Debt, Interest and Shareholders' Equity		
6	Financial Statements		
7	Summary Page, Formatting, Presentation and Speed		
8	Model Troubleshooting, Fixing Errors and Avoiding Pitfalls		

If you complete all of the eight weeks of content and you can build a model from a blank spreadsheet in less than 3.5hours, you are ready to write the AFM exam. You can test your preparedness by writing a mock closed-book exam using the practice exams provided to registered candidates.

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IV. Exam Day Plan

1. Strategies on Exam Day

Given the time constraints of the AFM exam, it is helpful to have a “game plan” when writing the exam. Here is a recommended plan for exam day:

1. Create a tab for each section of the model that you are required to build (this will vary depending on whether you are using a horizontal or vertical approach)
2. Build your cover page immediately to ensure “easy marks”
3. Read the case study and centralize/organize your model assumptions and scenarios using the information provided
4. Proceed with your financial model in an organised fashion. For example, you can build sections/schedules as needed for the financial statements (eg. starting with the income statement, build a revenue schedule, a cost schedule, etc.)
5. Build the summary section last and ensure it is customized to fit the needs of the case
6. Allow enough time to format the exam in order to maximize your exam score. For example, ensure everything is appropriately labelled, the exam is printable, footnotes are added, etc.
7. Maximize your exam score against the AFM Grading Guidelines. For example, if your model doesn’t balance and you are running out of time, you should prepare a summary section since marks will be awarded for this.
8. You can leave comments or notes to the grader within your exam worksheet if you feel it is necessary to explain something.

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We are dedicated to global excellence in Financial Modeling and recognized certifications.