

Introduction to Corporate Finance

(Welch, Preface + Chapter 01)

Ivo Welch

UCLA Anderson School, Corporate Finance, Winter 2017

December 15, 2016

Did you bring your calculator? Did you read these notes and the chapter ahead of time?

What is the point of finance? What is the point of a finance course?

- ▶ Method and Language: How do corporations, investment banks, consulting firms, and academic financial economists think?
- ▶ What language are these people speaking?
 - ▶ For example, what do they mean by NPV, WACC, and a thousand other impenetrable phrases?
- ▶ What is all this stuff in the WSJ or The Economist or the Financial Times?

How do corporations, investment banks, consulting firms, and academic financial economists decide?

- ▶ How can you convince your boss to fund a project?
- ▶ How can you convince an employer to hire you, i.e., that you are worth the money?
- ▶ How can you/corporations get money from investors and elsewhere? What is the price of such investments? What is a financial claim and how should you think of them?
- ▶ Should you/corporations get money? For what kind of projects?
- ▶ (Investments for Corporate Finance: Where should you invest your money? What is a good reward for risk?)
- ▶ How do you add value? What exactly is value?

Until you learn how to estimate value, you cannot answer the preceding questions.

Requisite Knowledge

Mathematics:

- ▶ Finance uses a lot of arithmetic, because the questions are often about dollars and cents.
- ▶ Algebraic formulas are just translated arithmetic.
- ▶ **Mathematical sophistication** does not help. There is no higher math in this course: 99.9% of what we do is 10th-grade high school level. The remaining 0.1% is a few logarithms, and perhaps one or two derivatives. (There are no integrals, no linear algebra, vectors, and matrices, much less real algebra.)
- ▶ **Mathematical aptitude** does help, and tremendously so. The reason is that it makes working with numbers and formulas easier. If you have little mathematical aptitude, you have to work three times as hard. With good attitude and work, everyone can do well. Without it, you will fail.

Statistics:

- ▶ Means and variances.
- ▶ Basic covariances, correlations, line-fitting (linear regression).

Economics:

- ▶ Preferences. Demand and Supply.
- ▶ Incremental (Marginal) Analysis.
- ▶ Economic Rents. (Zero Competitive Rents.)

Computers:

- ▶ Very basic use of Excel.
- ▶ Web access. (Course website and Yahoo!*Finance*.)

From the California Master Plan

- ▶ UC is designated the State's primary academic research institution...
- ▶ CSU's primary mission is undergraduate education...
- ▶ The California Community Colleges have as their primary mission providing academic and vocational instruction...
- + (Not in the plan:) Technical schools such as DeVry are even more vocational. Think painting by numbers. They are often very good at what they do.

This course is **not** vocational. Are you at the right school?

Nevertheless, this course is very applied. If you want to get a job in investment banking, corporate consulting, or a corporate finance department, this is subject matter you must know inside out.

Philosophy

- ▶ It is more important to know the basics well and be able to apply them to new situations, than it is to know everything there is to know. In particular, institutional details are often better taught on-the-job.
- ▶ The goal of our course is ambitious: it is not only for you to learn corporate finance, but also for you to learn how to approach financial and economic problems.
- ▶ This course exists to give you the basic concepts and to help **you** learn **applying these basics**.

Course Capstone: A Pro-Forma

- ▶ At the end of the course, you will be asked to integrate all your knowledge. I will force this by asking you to produce a so-called *pro forma analysis* of a business or business opportunity.
- ▶ Creating a pro forma requires understanding everything: capital budgeting, financial statements, the cost of capital, financing and capital structure, governance, etc.
- ▶ Pro formas are the bread and butter of many business presentations.

Your Part

- ▶ You have to supplement the material taught in this course with your own research and external information.
- ▶ Count on a solid 15 hours per week (including lectures, homeworks, readings) for this course.
- ▶ The main 3-step method:
 1. Always have read topical chapter before class.
 2. Come to class. Always bring calculator and printout of handout.
 3. Always read topical chapter after class again.

If you always do this, you should be able to do well in this course. I am only here to help you if you want to learn. I cannot make you learn.

Jargon

The nature of our questions means finance requires a great deal of quantitative computation. It is not just “is this project good?,” but “what is the value of this project” aka “how good is this project”?

However, perhaps even more importantly, finance also requires that you acquire the “finance mode of thinking” and the “finance jargon.” It is *the standard* for conversation in the world out there. And, of course, you still need to learn finance first before this makes sense to you.

Please **stop me** if I use jargon that you do not know. Financial jargon is natural to me, so I often do not realize when I speak jargon.

Financial jargon can be viewed as a method of a generally accepted method of conversing about business projects.

Useful Applications of Finance

This course will give you a hammer, which you can then use smartly or stupidly—in real life, a little knowledge can be a dangerous thing.^{1,2}

You need one important filter for everything you do:

Understand what you are doing on a common-sense level!

Nothing, including a finance course or any strict rules, can ever replace common sense.

¹Not Dilbert, but Alexander Pope, *An Essay on Criticism*, 1709.

²—*but, then, so is a lot* is a modifier by Albert Einstein.

Think in Examples

- ▶ We will first solve numerical examples, and then translate them into formulas. We will try to think in the simplest possible examples first, and then complicate up.
I want you to learn how to use this as a method of thinking about all sorts of new problems and subjects, not just those that are financial in nature.
- ▶ Any complex method **must** also work in a simple setting, where it is easiest to understand. Otherwise, the complex method is flawed.
***More formally, you can call this “the bullshit test.”
Or the “Emperor’s New Clothes” test.***
- ▶ Often, but not always, subsequent generalization is straightforward.
- ▶ The opposite is not necessarily the case. (A simple method may be inapplicable in a more complex environment.)