Project #2

Financial Simulation: Capital Budgeting

Prof. Kainan Wang

Learning Objectives

- Explore the problem of resource allocation within a corporation by looking at many projects from the senior-management perspective.
- Illustrate the potential effects of capital rationing on capital investment choices.
- Exercise and interpret the basic tools used in investment analysis: NPV, IRR, payback, and PI.
- Understand how capital budgeting affects a company's future performance and market position.

Brief Introduction

- On average, the simulation takes 30 to 60min to run.

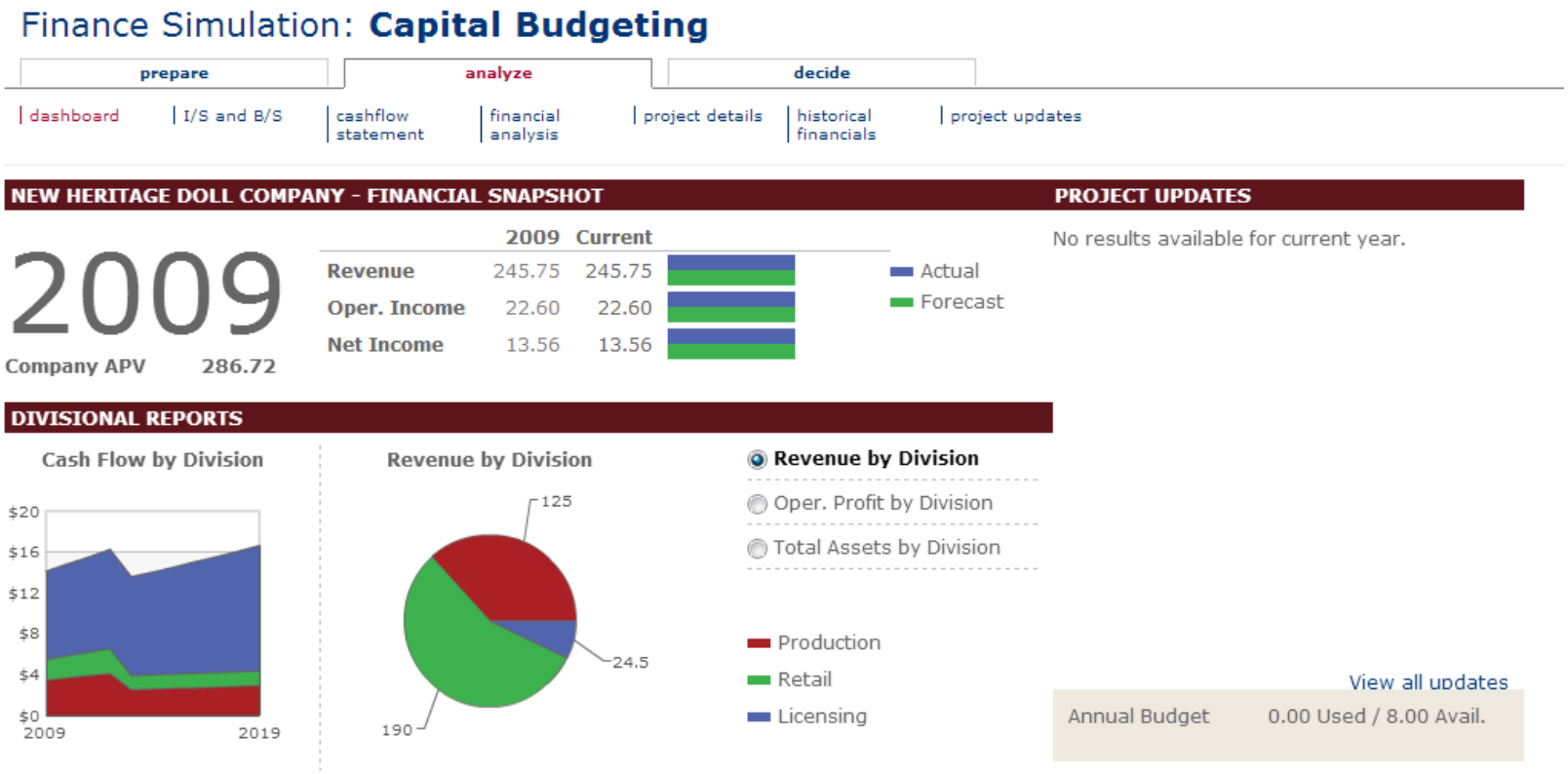
- Each group will be assigned a budget constraint (see the coursepack for details), which is one of the followings:
  - A fixed constraint of $8M per year
  - A constraint that starts at $8M in 2010 and declines by 1M each succeeding year
  - A constraint equal to a constant 15% of EBITDA

Brief Introduction, cont'd

- 5 year investment horizon with a pool of 27 projects from 3 divisions.
  - Projects are interdependent.
  - Some projects are available only once, others are available in multiple years.
  - You may select to open multiple stores in the "Retail Store Expansion in Northeast" project.

- You may play the simulation multiple times to get the best result.

Interface -Analyze



Interface –Decision

Finance Simulation: **Capital Budgeting**

prepare | analyze | decide

make decisions

2010 Budget Constraint 8.00
2010 Budget Remaining 8.00

Submit Decisions

View		NPV	IRR	Profit. Index	Payback (yrs)	Lifetime Prj. Costs	2010 Prj. Costs	1 Yr. EBITDA	5 Yr. EBITDA
	Toddler Doll Accessory Line	6.82	24.80%	3.19	8.70	3.14	2.14	-0.63	3.37
	'Match my Doll' Clothing Line	9.17	22.24%	2.01	9.21	5.57	4.57	-0.53	5.51
	Retail Store Expansion in Northeast	8.68	34.84%	6.43	5.33	1.29	1.25	0.00	3.82
	Warehouse Facility Consolidation	4.68	15.35%	0.62	8.23	10.50	7.50	0.00	3.75
	New Doll Film/DVD	9.25	238.61%	8.81	1.43	3.50	1.05	-1.75	15.85

Benchmark

Finance Simulation: **Capital Budgeting**

class summary | decision history | scenario setup

| overview | EBIT | EBITDA | APV | sales | net income | assets

Choose a student: Kainan Wang Choose a scenario: All Scenarios

Copy To Clipboa

User	Scenario	Sim Year	EBIT	EBITDA	APV	Sales	Income	Assets	Accum. Debt-Free Net Income
Kainan Wang	Starts at $8M and decreases by $1M each year, 0% carry over	2014	45.91	65.42	491.34	387.95	27.54	227.16	91.82
Kainan Wang	15% EBITDA carry over	2014	40.09	59.99	518.51	372.83	24.05	236.02	75.96
Kainan Wang	$8M per year, 0% carry over	2014	44.18	64.54	547.83	394.30	26.51	244.32	73.75

Report

- Follow the write-up instructions on BB. The total number of pages should be less than 10.
- Each group will present their results in the project presentation session. The presentation should be no more than 15 min.
- Your project grade will be determined based on layout, writing, analysis, interpretation, and peer evaluation.