LEVEL 3 OF 5 OF THE CAPITAL VALLEY GAME

Shares and bonds: the two ways of financing a company and earning an income from it

Class	From Grade 12 (US) / Year 13 (UK), ages 17-18
Duration	1 session of 55 minutes
Prerequisites	Levels 1 and 2 finished and their reviews seen
Materials	A web browser. Nothing to install, no student account, no personal data collected.

A level runs for 12 turns, about 30 minutes of play, and covers a year in the life of an investor. This sheet covers level 3, which closes the Advanced course and ends with a review.

Place in the curriculum

Curriculum fit: **how economic agents finance themselves**, the heart of the topic: direct financing, shares and bonds, interest rates, the cost of credit (Grade 11 (US) / Year 12 (UK), ages 16-17). Also the main market failures (information asymmetries).

Concepts covered: debt financing and equity financing, coupon, risk premium, income from the cash flow and change in price, following a chain of causes, investment horizon, unrealised loss and realised loss, consensus and information.

Objectives of the session

By the end of the session, students can:

1. Tell lending (the bond, a fixed coupon paid every turn) from owning (the share, a price that moves), and link each one to a way of financing the company.
2. Explain the risk premium: why a company pays a higher coupon than a government.
3. Follow a chain of causes from a news item down to a sector it never names.
4. Name the two traps of a story that runs for several turns: selling at the first dip, and putting everything in on the first news item.

How the game works

Each student looks after a virtual portfolio. Every turn brings one or two news items (official announcements, rumours and so on), an investment decision, and then, on the following turn, the consequences, explained by an "Understand" sheet. A virtual adviser, a character in the game, introduces everything new and comments on the results. Nothing in the game is left to chance: the world is the same for every student in a game, only their decisions differ, and that is what makes a rigorous debrief possible.

What level 3 makes students live through

These moments are guaranteed in every game, but this sheet says neither when they come nor how they turn out: the teacher can build the debrief on them, and a student who reads it gains nothing. The subject of the stories drawn depends on the game; their mechanism does not.

- Arrival in Geneva. The virtual advisor introduces the bond: lending to a state or a company in return for a coupon paid every turn. Two bonds open, at a fixed value, sellable at any time; the company pays a higher coupon than the state.
- On the third turn of the level, the results season: the accounts of the previous level, good, mixed or disappointing, and everything listed reacts.
- Revelations: the first news item names no company (a study, a fashion, a public decision); the following turn, a company's price moves and the follow-up item names it. Whoever understood who the story would help or hurt is a turn ahead; the others get in after the first move.
- Reversals: the correction (two turns of rises, then investors cash in, which is profit-taking, named by the virtual advisor the first time) and the rebound (bad news, a rescue rumour, then the repair or the disappointment).
- One story in five ends otherwise than the news suggested: the lead goes cold, the correction lasts, the rumour was not enough. That is the surprise, and it costs whoever believed too early.
- A story where the market judges before it knows: an investment's value rises on a rumour, then the facts confirm or deny it. The player cannot guess in advance: that is the lesson.
- A macroeconomic news item that names no sector, then a sector that suffers the consequence the next turn: the link belonged to the player.
- Sometimes, a news item that changes nothing: noise, which the market ignores.
- The level review: an investment pays in two ways, through a rising price or through the income it pays out; and a share kept after its story has ended earns nothing more, it only shakes.

Minute-by-minute plan (computer room)

1. Picking up (5 min). Each student reopens their game. A one-sentence reminder of the level 2 review: the turn when everything listed moved at once, and why.

2. Guided opening turn (5 min). On the projector: the virtual advisor's brief and the two bonds. A quick question before everyone confirms their decision: "who would you rather lend to, the state or the company? Why does one pay more than the other?"

3. Independent play up to the review (25 min). Students move at their own pace. Two freeze-frames, in one sentence: at the first news item that names nobody ("who does it help, in your view?") and at the first correction ("two turns of rises, then a dip with no bad news: what do you do?").

4. Class debrief (12 min). Working from the reviews on the students' screens, a discussion guided by the questions below. Show of hands: who lent to the state, who to the company, who guessed a revelation before the first move, who sold at the profit-taking, who was surprised by a story.

5. Summary (8 min). Four lines to write down: lending pays a fixed coupon, owning pays if the price rises; more risk, more coupon; a news item does not always say who it is about; a story has a beginning and an end, and one in five ends otherwise.

Flipped classroom

What to set at the end of the previous session: "play level 3 for next time, about 30 minutes; write down how much of your result came from coupons and how much from prices, and what you did at the news item that named no sector". In the next session, 20 minutes of debrief with the same questions, then the summary.

Questions for the class

- A news item talked about the economy in general, not about a sector. Who made the link before the price moved? What other consequences could you imagine, and for which sectors?
- The coupon was paid every turn, whatever happened. On your review, what share of your result comes from income paid out, what share from rising prices? What is that regularity worth, and what does it cost?
- Why does the company pay a higher coupon than the state? What would happen if it paid the same?
- A news item named no company, and a company moved the next turn. Who had guessed it, and from what clue? Getting in after the first move: was it too late?
- After two turns of rises, a price fell back with no bad news at all. Who sold? Who held? Is profit-taking bad news?
- A story ended otherwise than the news suggested. Who was caught out? How much did it cost? Was there a clue, or nothing?
- A share's price rose several turns in a row on a mere rumour. Was the market "right" during those turns? Is a rising price information?

Ways to take it further

- Next session: level 4, liquidity, diversification and crisis. Previous session: level 2.
- Writing activity: starting from a real news item about a commodity (wheat, copper, oil), write out the chain of causes down to a sector it never names.
- Taking part in Global Money Week (March) with a tournament between classes.

Practical information

- Access: https://capitalvalley.app/education
- The student version needs no account, no email address and no personal data. Suitable for use in school, in the computer room or on a smartphone.
- Teacher contact: education@capitalvalley.app