Financial Products and Markets – A.Y. 2019-20

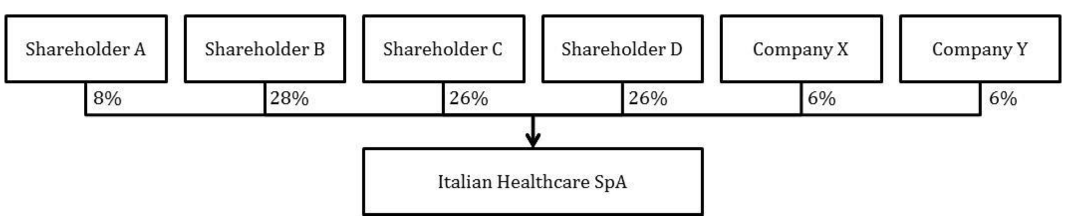
Assignment's due date: June 3, 2020, 10:00 AM

Instructions.

A report should be delivered to the instructor (by email) no later than the date of the final class test, 10 AM. Students will have to solve the assignment as a group (minimum 1, maximum 3 students per group), and the solution will consist in a report (one PDF file, named as "SURNAME1_SURNAME2_SURNAME3.pdf", in alphabetical order and using capital letters). Only one file per group will be accepted. The assignment will be graded and assigned a mark of 0 to 3 points, to be added to the final grade of the module. There is no upfront "cost" required to "buy" this assignment, contrarily to what initially mentioned in the syllabus, due to the extraordinary teaching conditions of the current academic year. Please note that there will be only one grade per group, no matter how the workload is distributed among the group members. Students will be required to pick their own group members and to let the instructor know their (a) names and surnames, (b) ID, and (c) email addresses in the text of the email accompanying the PDF file.

Italian Healthcare SpA (IH) is one of the leading Italian biomedical companies, manufacturing systems for the treatment of organ failures, mainly renal and heart failure. The company's target market is selling devices and providing services to the National Health Service (NHS) and private clinics.

The company's ownership structure is the following.



The transaction involves the acquisition by a special purpose vehicle (SPV), "HoldCo", of the 100% of Italian Healthcare's equity. At the closing, to complete the acquisition, HoldCo will be endowed with equity for €8.5

million and with debt for €13.6 million (i.e., bank financing for €10 million, and a vendor loan for the difference).

The equity of HoldCo, composed of 1 million shares of stock with a nominal value of €1 each, will be provided by the current management (€0.408 million), a private equity fund (€7.225 million), Shareholder A (€0.3 million), Shareholder C (€0.3 million), Shareholder D (€0.267 million) (please see the following table).

	Number of shares	Stock value	Share	Share premium	Equity capital
Management	48,000	€ 48,000	4.80%	€ 360,000	€ 408,000
Private equity fund	850,000	€ 850,000	85.00%	€ 6,375,000	€ 7,225,000
Shareholders A, C, and D	102,000	€ 102,000	10.20%	€ 765,000	€ 867,000
Total	1,000,000	€ 1,000,000	100.00%	€ 7,500,000	€ 8,500,000

Italian Healthcare and HoldCo will merge during the 12 to 15 months following the closing of the operation.

The private equity fund and shareholders A, C, and D (the “investors” in what follows) will grant the “management” of the company an option to purchase some of the company’s share (executive stock option, ESO). According to this ESO, the “management” will be allowed to buy shares from the “investors”.

The option is ATM, and the exercise of such option is subject to the following conditions:

(1) the “investors” will realize a minimum IRR of at least 20% when selling their shares (on “exit”);

(2) the “bad leaver” clause has not been triggered by the “management”.

The number of shares underlying the stock option to the “management” varies from a minimum to a maximum (see the following table, where stakes are computed on the total number of shares, i.e. 1 million), depending on the annual IRR achieved by the “investors” when selling their shares at the “exit”.

IRR	40%	35%	30%	25%	20%
Shares underlying ESO	12.50%	11.00%	9.00%	6.00%	2.50%

For an annual IRR lower than 20%, no shares of the “investors” will be assigned to the “management”.

For an annual IRR higher than 40% there will be no increase of the number of shares underlying the ESO (i.e., 12.5%).

For an annual IRR between the IRR ranges displayed in the table above, the stake is determined in a linear fashion. For example, if the annual IRR is comprised between 20% and 25% the following linear formula applies: 2.50% + [(6.00% – 2.50%) × (IRR – 20%)/(25% – 20%)].

The “exit” of the “investors” is expected no later than five years from now.

The probability of “exit” at the end of each of the following 5 years is increasing over time, according to the following table.

Exit at year:	Probability
1	0%
2	5%
3	15%
4	30%
5	50%

As a consultant of the private equity fund interested in investing in Italian Healthcare, you are asked to assess the value of the ESO granted to the management and to write down a report detailing your evaluation exercise.