A Online Appendix: statistical information

Table A1: *Firm value and debt structure in each round of the experiment.*

Round	v	$s = s(v)$	D
1	3.552	*Medium*	75
2	1.268	*Low*	110
3	3.344	*Medium*	40
4	4.473	*High*	0
5	388	*Low*	75
6	4.246	*High*	40
7	3.659	*Medium*	110
8	673	*Low*	0
9	1.016	*Low*	40
10	5.358	*High*	110
11	2.223	*Medium*	0
12	5.639	*High*	75

Table A2: *RE (risk neutral) equilibrium prices for the Public and Private treatments.*

		D (per bond)				
s	Asset	0	40	75	110	M
Low	stock	25.01	1.00	0	0	**25.01**
	bond	-	24.01	25.01	25.01	
Medium	stock	75.01	35.01	6.26	0	**75.01**
	bond	-	40.00	68.76	75.01	
High	stock	125.01	85.01	50.01	16.01	**125.01**
	bond	-	40.00	75.00	109.00	

Table A3: *PI (risk neutral) equilibrium prices and allocations for the Private treatment.*

		D (per bond)					
s	Asset	0	40	75	110	Holder	M
Low	stock	75.01	40.34	18.76	5.34	uninformed	**75.00**
	bond	-	34.67	56.26	69.68	uninformed	
Medium	stock	75.01	40.34	18.76	5.34	uninformed	**-**
	bond	-	40.00	68.76	75.01	informed	
	firm (M)	**75.01**	**80.34**	**87.51**	**80.35**		
High	stock	125.01	85.01	50.01	16.01	informed	**125.01**
	bond	-	40.00	75.00	109.00	informed	

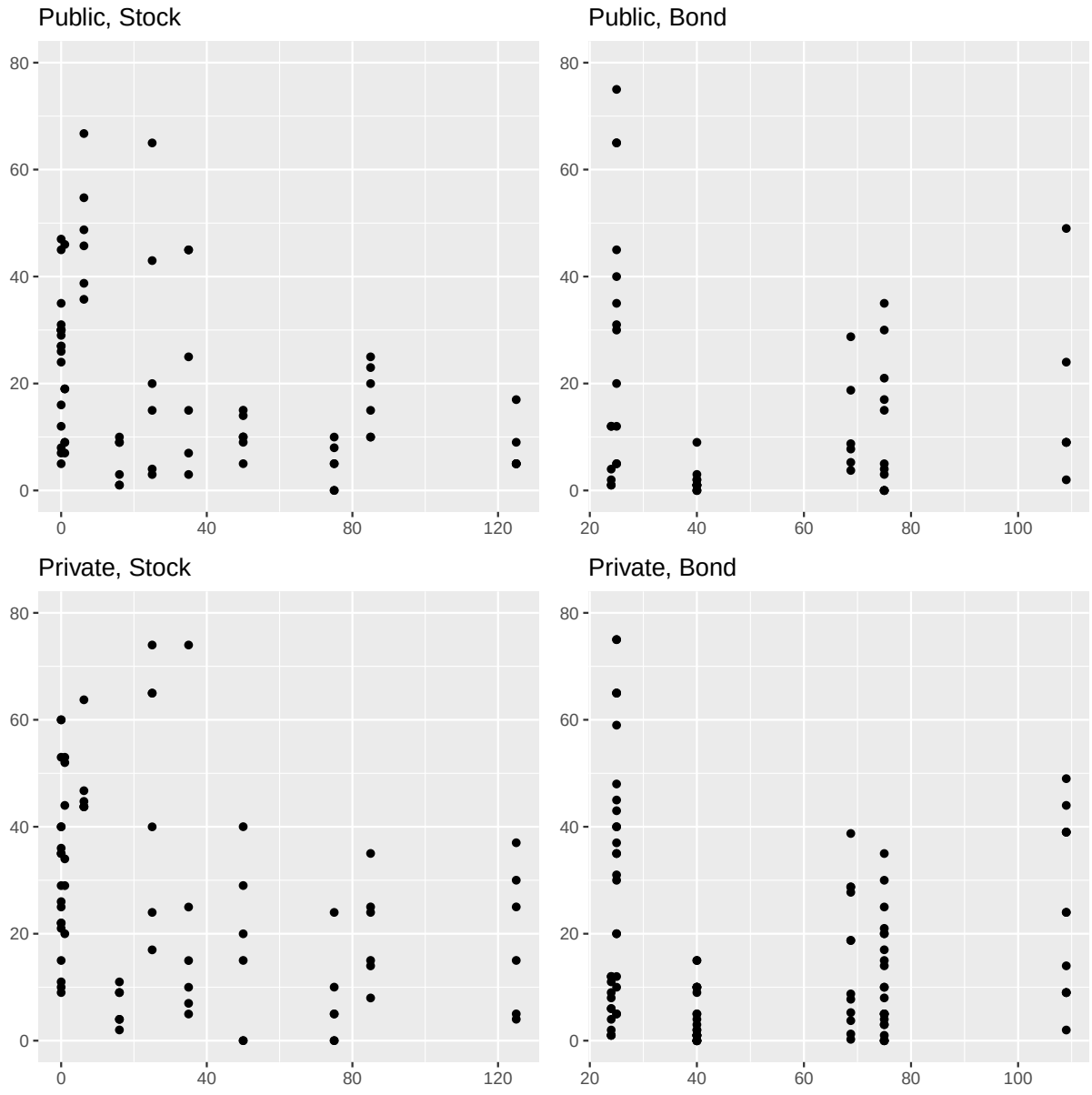

Figure A1: *Scatter plot of the "excess market value" (y-axis, in ECU) versus the RE (risk neutral) valuation (x-axis).*

Figure A2: *Scatter plots of the time (x-axis, in seconds) and price (y-axis, in ECU) of each recorded transaction for the stocks. The panels indicate the signal s, the debt level (D) and the order in which the markets were played (rd). The risk-neutral valuation conditional on s is represented by a continuous red line and the purple line indicates the ex-ante (signal-unconditional) risk-neutral valuation. A smoother blue line is included to summarize the evolution of the prices through time, while the black one is the Public treatment's smoother line from the same panel, included for comparison.*

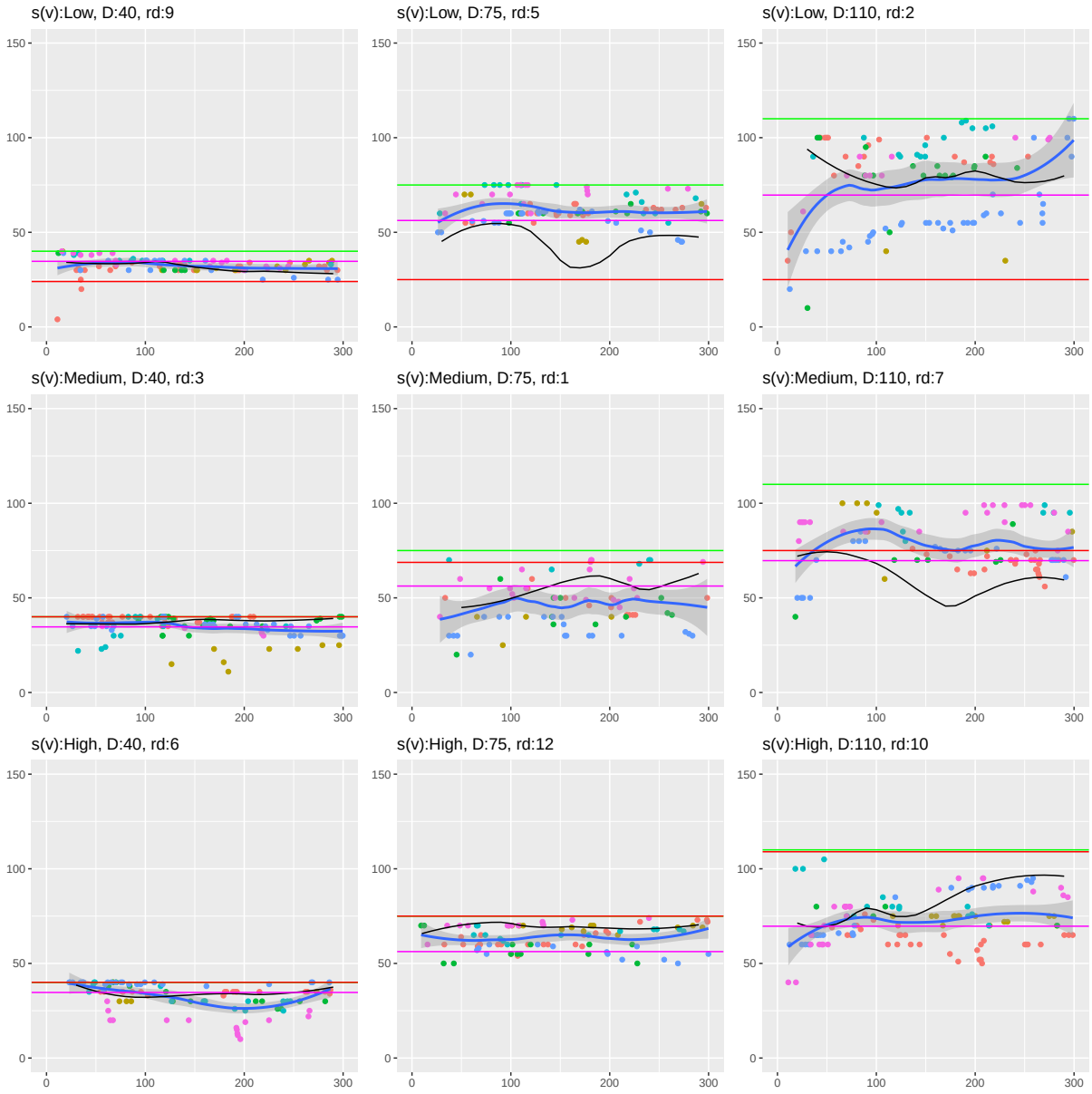

Figure A3: *Scatter plots of the time (x-axis, in seconds) and price (y-axis, in ECU) of each recorded transaction for the bonds. The panels indicate the signal (s), the debt level (D) and the order in which markets were played (rd). The risk-neutral valuation conditional on s is represented by a continuous red line, the purple line indicates the signal-unconditional risk-neutral valuation and the nominal value of the bond is the green line. A smoother blue line is included to summarize the evolution of the prices through time, while the black one is the Public treatment's smoother line from the same panel, included for comparison.*

Table A4: *Excess market value regressed against the knowledge gap variables disaggregated by treatment (Public Knowledge Gap and Private Knowledge Gap).*

	Stock	*Bond*
Intercept	17.80**	3.36*
	(1.57)	(1.44)
Public Knowledge Gap	0.27**	0.71**
	(0.08)	(0.12)
Private Knowledge Gap	0.70**	1.11**
	(0.09)	(0.07)
R^2	0.44	0.69
Observations	144	144

The cluster robust (by group of participants) standard deviations and p-values are computed. The standard deviations are presented in parentheses. Significance at 1% is represented by (**), and significance at 5% is represented by (*).

B Online Appendix: instructions for market participants

B.1 General instructions

Welcome! Thanks for coming. The purpose of this session is to study how people make financial decisions.

In addition to the 5 Euros provided for your participation, you can earn an additional amount of money depending on your decisions during the experiment. To ensure that the experiment is developed properly, we ask that you abide by the following rules:

1. Please do not talk to other participants.
2. Please turn off your mobile phone.
3. If you have any questions, please raise your hand, and we will answer.

If you do not meet these standards the data obtained will not be useful for us, and we will exclude you from the session, in which case you will not receive any compensation. All payments that you will see will be expressed in ECU ("experimental currency units"). We will pay you a third of a cent of a Euro (= Eur 0.0033) per ECU earned during the experiment. That is, ECU 300 in the experiment equals one Euro. As the amount of money you acquire depends on your decisions, it is important to carefully read the instructions. If you are not sure you understand something, do not hesitate to call us at any time so that we can answer your questions.

B.2 General description of the experiment

At the beginning of the experiment, each of you will be randomly assigned to a group of ten participants, who will be your partners in the experiment. Groups will not change during the experiment, and different groups will not interact at all. In this experiment, consisting of 13 trading periods, each of the participants is going to have the opportunity to buy and sell two assets (a bond and a stock) issued by the same company; the sum of the profits of the 12 last periods will determine the final payment (in Euros); that is, the first trading period is for training purposes.

The enterprise value is determined by a random drawing, in which each natural number between ECU 0 and ECU 6,000 is equally likely. The company has a certain level of

indebtedness that changes in each period. In this experiment we will use 4 levels of possible indebtedness: ECU 0, ECU 1,600, ECU 3,000 and ECU 4,400.

In each period, each of the 10 members of a group receives 4 stocks and 4 bonds (if there is debt). Therefore, the company issues a total of 40 stocks and 40 bonds (if there is debt). That means that the nominal value of each bond is ECU 40 if total debt is ECU 1,600, ECU 75 if the total debt is ECU 3,000 and ECU 110 if the total debt is ECU 4,400. In addition, each player receives in each period ECU 4,000 in cash, which can be used to buy stocks and bonds, but must be returned (without interest) at the end of the period.

When the market opens, all players are informed of the nominal value of the debt incurred by the company and the subinterval (0,2000], (2000,4000] (4000,6000] where the value of the company has fallen. In the screen, the above range is also shown with ends divided by 40, that is, the range in which the payment for having at the end of the period a bond and a stock in the portfolio moves. For example, if the display shows that the total company value is in the interval (2000,4000], the interval (2000/40, 4000 / 40] = (50,100] is also reported, which is where the payment to be received at the end of the period for maintaining a bond and a stock of the company moves. Obviously, players can have at all times any combination of stocks and bonds in their portfolios.

For Private Treatment: *When the market opens, all players are informed of the nominal value debt incurred by the company. Additionally, four players are randomly chosen to be informed about the subinterval {(0,2000], (2000,4000] (4000,6000]} where the value of the company has fallen. Players receiving the signal information are chosen randomly in every period; the other six players do not receive the signal information, and they see the interval (0,6000] on the screen. The screen also shows the above range with ends divided by 40, that is, the range in which the payment for having at the end of the period a bond and a stock in the portfolio moves. For example, if the display shows that the total company value is in the interval (2000,4000] the interval (2000/40, 4000 / 40] = (50,100] is also reported, which is where the payment to be received at the end of the period for maintaining a bond and a stock of the company moves. Obviously, players can have at all times any combination of stocks and bonds in their portfolios.*

The market remains open for five minutes (= 300 seconds). At the end of each period, the real value of the company, the final value of portfolio assets and the benefit of the player is shown on the screen. Next, we will explain how profits are computed for each player.

B.3 Profits

If the company has issued debt, bonds have a senior claim on the value of the company until the full redemption of their nominal value. If complete redemption is not possible, they receive a pro rata share of the full value of the company. The remaining value after the nominal redemption of bonds, if available, is distributed equally among the 40 stocks of the company.

Two examples of the terminal value of the company and the distribution of the value between bonds and stocks are proposed next. In both examples, we compute the profits for the two players, that is, both examples have the same final portfolios: Player A has at the end of the period 6 bonds, 5 stocks and 3,500 ECU in her account. Player B has 3 bonds, 2 stocks and ECU 4,700 in her account.

Example 1: The company has issued 40 bonds with a nominal value of ECU 40 each (total debt of ECU 1,600), and it is worth ECU 4,000. Therefore, the nominal value of the bonds is paid in full, and the 40 stocks have ECU 2,400 to divide, that is, ECU 60 per stock.

1. Player A profit:(6 bonds × ECU 40/bond + 5 stocks × ECU 60/stock + ECU 3,500 - ECU 4,000 [for the return of the cash loan]) = 240 + 300-500 = ECU 40

2. Player B profit:(3 bonds × ECU 40/bond + 2 stocks × ECU 60/stock + ECU 4,700 - ECU 4,000) = 20 + 120 + 70 = ECU 940

Example 2: The company has issued 40 bonds with a nominal value of ECU 75 each (total debt is ECU 3,000), and it is worth ECU 2,000. As the enterprise value is less than the debt issued, stocks do not receive remuneration. On the other hand, the 40 bonds share equally the value of the firm, resulting in an income for every bond of ECU 50.

1. Player A profit: (6 bonds × ECU 50/bond + 5 stocks × ECU 0/stock + ECU 3,500 - ECU 4,000)=300-500 = ECU -200.

2. Player B profit: (3 bonds × ECU 50/bond + 2 stocks × ECU 0/stock + ECU 4,700 - ECU 4,000)=150+700 = ECU 850.

B.4 Market Operation

Purchases and sales of bonds and stocks are made electronically. See the screen structure in Figure B1):

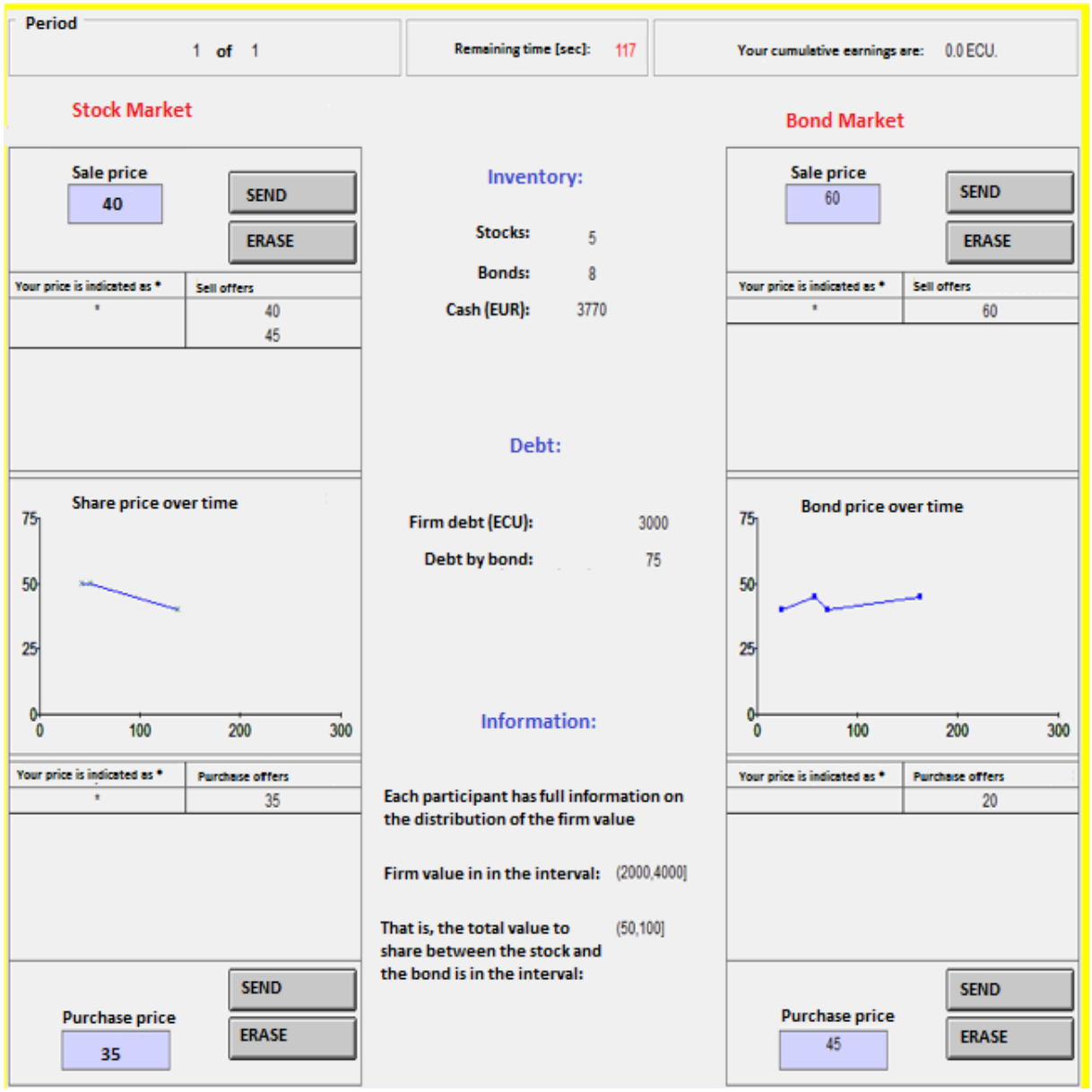

Figure B1: *Trading screen as seen by a participant.*

The screen is divided into three parts. The left side of the screen is used to perform sales transactions and receive information on stocks, and the right is completely analogous but allows the management of the bond portfolio. When the company has not issued debt, the number of bonds in any portfolio is zero, and the bond market does not appear on the screen. In the center of the screen is reported:

1. Each player's holdings of cash, stock and bonds.
2. The level of debt of the company (by bonds and in total).
3. Information on the value of the company in the form of the subinterval of the interval (0,6,000] that contains the total value of the company. The above range is also indicated by its ends divided by 40, i.e., the range in which a payment for a bond and a stock moves.

With this screen, each player can issue an order to buy or sell a bond or stock, set a purchase price (maximum willingness to pay) or a sale price (minimum willingness to charge) for each security (bond or stock), and press the "send" button. As it makes no sense for a participant to be willing to sell an asset for less money than she is willing to buy it, or to be willing to buy it for a lower price than she willing to sell, the program prevents:

1. A purchase order price for an security higher that the sale order in effect.
2. A sell order price for an security lower than the purchase order in effect.

Orders to buy or sell are always positive numbers. The maximum value for a purchase or sale order for a bond will be equal to its nominal value, and for a stock will be equal to the value that it would receive in the event that the company is worth ECU 6,000, i.e., (6000/40 = ECU 150) less the face value of the bonds issued in the same period.

There is a list of buy and sell orders on the screen where the owner's orders are marked with an asterisk. A player can override their own order (to buy or sell), clicking with the mouse on that order and pressing the corresponding delete button.

Purchase orders for whose execution the buyer does not have enough money available, or sell orders for whose execution the seller does not have the relevant asset in her portfolio cannot be issued. Each player may have at most ONE purchase order and ONE sell order at each market.

For each market, you can see a queue of purchase and sell orders and the recent evolution of purchase prices (in a graphic).

The order execution rules are:

1. The orders are executed sorted by the purchase price and inverse sale price order.

2. The first sale occurs when in the market queue, a purchase order enters with a price higher than the cheaper sell order in effect, or when a new sales order with a higher price than the most expensive purchase order in place enters the queue.

3. The purchase order is executed according to the oldest price (of either supply or demand) involved in the transaction executed. Once the orders are executed, they are removed from their respective queues.

Example: Suppose that in the queue of one of the two securities there exists two orders of sale amounting to ECU 40 and 30, and three purchase orders ECU 20, ECU 15 and ECU 10, respectively. Under these conditions, the cheapest sale order is ECU 30, the most expensive purchase is ECU 20, and no order can be executed. A player enters a new purchase order for ECU 41. That purchase order has a price greater than the cheapest sales order (ECU 30). Therefore, the newly entered order is executed at a price equal to the oldest of the two (the ECU 30 sell order).

As consequence of the sale, the buyer obtains the security in return for ECU 30, which is reflected in the inventory of cash and securities of both players (the buyer sees an increase in her inventory of assets, and her cash is reduced by ECU 30; the seller reduces its asset inventory in one unit, and its cash account is increased by ECU 30).