

# 1865 SARDINIA

## *Rulebook*



*Benjamin H. Piercy*



**RAILWAYS, FINANCING & ENGINEERING** *With* **BENJAMIN H. PIERCY**

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36	Train cards
8	Maritime cards
1	Priority card
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80	Circular labels
80	15mm wooden discs
40	8mm black cubes
20	10mm purple cubes
30	12mm blue cubes
1	Play money (optional)

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*To my everlasting love Roberta*

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*Note: none of us has English as his first language; we made every effort to produce a solid rulebook in plain English and we hope that some inevitable grammar error will be forgiven.*

The 1865 Sardinia Integrated Game System (otherwise referred to as "1865 Sardinia") is © 2009 Alessandro Lala, who is hereby declared the Author of 1865 Sardinia for all purposes.

The Author recognizes that 1865 Sardinia incorporates, and, indeed, would not be possible without, numerous subsystems and concepts originally used in other Integrated Game Systems belonging to the so called 18xx game series.

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*PIERCY, BENJAMIN ( 1827 - 1888 ), civil engineer ; born near Trefeglwys, Mont. , 16 March 1827 , the third son of Robert Piercy. Benjamin was trained in his father's office, and became, in 1847, chief assistant to Charles Mickleburgh , surveyor and land-agent , of Montgomery .*

*In 1851, Henry Robertson, sought his assistance to prepare plans for the Shrewsbury and Chester Railway Bill, and later for a railway from Oswestry to Newtown. He commenced independent practice as engineer for the Red Valley Railway Bill for constructing a line from Shrewsbury to Minsterley . The Bill was rejected, but he succeeded in piloting, against strong opposition, a Bill for a railway from Shrewsbury to Welshpool , with a branch to Minsterley . This feat established his reputation as a witness in parliamentary committees, and thereafter he was engaged upon nearly every project for introducing railways into Wales. In these constructions he performed feats of engineering, notably bridges over the Severn, the Mawddach , and Traeth Bychan estuaries , the fine stations at Oswestry and Welshpool , and the Talerddig cutting.*

*In 1862 he began a long term of work in connection with the Royal Sardinian Railway Company, involving the resurveying and planning of the standard and narrow gauge lines on the island, and the construction of a harbour on the Golfo di Aranci . He acquired large estates in Sardinia, where his descendants still reside, and did much to improve agriculture on the island by drainage and afforestation projects and by the breeding of cattle, horses, and sheep. He became an intimate friend of Garibaldi, whose son, Ricciotti , became his pupil. His services to Sardinia were recognized by his creation as a Commendatore of the Crown of Italy.*

*In France, he was engineer-in-chief of the Napoléon-Vendée Railway from Tours to Sables d'Olonne . He was also engineer to the Assam Railway in India, and projected its extension into Burma. In 1881 he purchased the Marchwiel Hall estate, and for the last years of his life devoted his attentions mainly to the resuscitation of railways in North Wales, consolidating their finances, and planning extensions to develop mineral resources.*

*He was a fine chess player, and he laid out one of the best cricket grounds in the country at Marchwiel . He died in London 24 March 1888, and was buried in the Kensal Green cemetery. By his wife Sarah, daughter of Thomas Davies of Montgomery, whom he married in 1855, he had three sons and six daughters.*

## Introductory Notes


### *Introduction and key differences with other 18xx games*

This game presents many features that make it very different from other games belonging to the 18xx genre. Scope of this section is therefore to introduce the different game components and clarify some of the main mechanisms of the game for the benefit of either the expert 18xx player as well as the beginner. Throughout the rulebook please refer to the symbols on the right for additional tips on how to play 1865 Sardinia.

The game map      Unfold the game map. You will immediately spot two islands: Sardinia and Corsica with a superimposed hexagonal grid. Different objects are depicted on the map: white circles represent **cities** and in particular there are 6 **large cities** in yellow identified by a letter C, O, N, S, P, B. Across the two islands, there are also 8 white circles with a shovel and a pick pictured nearby, these are **mines**. Small black dots are spread here and there, these represent **towns**. Along the hexagonal borders you can notice rivers in blue and mountains depicted as dotted brown lines. Finally the two islands are connected by dotted sea routes in white colour.

#### ICON KEY

-  Beginner Tip
-  18xx Expert
-  Strategy
-  Example of play

 *Mines are not a new concept in the 18xx series; however the way they work in 1865 is sensibly different than in other games. Also note that mountain and rivers are positioned only on the border between hexes and this affects how construction costs are paid.*

Public Companies      There are 8 railway public companies in the game starting in the 8 cities with the corresponding company logo. Each company comes with its own company chart, certificates and tokens. A public company could be minor or major. At the beginning every company starts as minor and could then grow up to major after reaching its historical destination (indicated by a coloured marker on the map). The following table summarizes the public companies in the game.

Acronym	Colour	Full name	Start	Destination
FMS	Red	Ferrovie Meridionali Sarde	Cagliari	Serbariu
RCSF	Green	Regia Compagnia delle Ferrovie della Sardegna	Oristano	Cagliari
SFSS	Blue	Strade Ferrate Settentrionali Sarde	Sassari	Olbia
FCS	Brown	Ferrovie Complementari di Sardegna	Isili	Nuoro
SFS	Orange	Societa' Italiana Strade Ferrate Secondarie della Sardegna	Arbatax	Cagliari
FA	Yellow	Ferrovia degli Aranci	Nuoro	Olbia
CFC	Grey	Chemin de fer Corse	Bastia	Ajaccio
CFD	Black	Chemins de Fer Départementaux	Portovecchio	Bastia

A **company's chart** is where money, tokens, traffic chips and trains are kept. On the company charts there are 7 slots for tokens and space for all the other assets.

**Certificates** are used in 1865 to represent each player's share ownership in a public company. A shareholder certificate of a minor company represents 20% share ownership while the Presidential certificate represents 40%. It is considered a **double share**, but counts as one certificate. A shareholder certificate of a major company represents 10% share ownership while the Presidential certificate is a double share representing a 20% share ownership. Please make yourself familiar with the following table that summarizes the characteristic of certificates and shares in the game.

Certificate type		Share ownership		Value
<b>Minor Company</b>	Presidential certificate	double share	40%	2 times the value on the stock market
<b>Minor Company</b>	Shareholder certificate	single share	20%	exactly the value on the stock market
<b>Major Company</b>	Presidential certificate	double share	20%	2 times the value on the stock market
<b>Major Company</b>	Shareholder certificate	single share	10%	exactly the value on the stock market



❖ *Note the important difference between certificates and shares. A certificate may represent 10%, 20% or 40% share in a public company and still count as one certificate. Players are limited in the number of certificates they may own depending on the number of players in the game; they are also limited in the percentage of shares they may own, not more than 60% in each company. Note: The first five shares of a major company are on the back of the corresponding “minor” certificates for that company.*

**Maritime Companies** There are 8 Maritime companies in the game associated with different coastal locations on the map. Each player will get two Maritime companies at the very beginning of the game. The following table summarizes the Maritime companies in the game.

Acronym	Full name	Bonus Location
<b>M1</b>	Compagnia Marittima Golfo Aranci	Olbia
<b>M2</b>	Compagnia Marittima Arbatax	Arbatax
<b>M3</b>	Compagnia Marittima Cagliari	Cagliari
<b>M4</b>	Compagnia Marittima Carbonia District	Serbariu, Monteponi, Su Zurfuru
<b>M5</b>	Compagnia Marittima Oristano	Oristano
<b>M6</b>	Compagnia Marittima Sassari	Sassari
<b>M7</b>	Compagnia Marittima Ajaccio	Ajaccio
<b>M8</b>	Compagnia Marittima Calvi	Calvi

When in players' hands, maritime companies simply pay a fixed amount of money at the beginning of each operating round. During the game, a player can transfer a Maritime company to one of its Public companies



for free. When owned by a Public company the Maritime company provides additional coverage and traffic chips therefore increasing the company's revenues.

★ *Maritime companies serve a function similar to Private companies in other games. They provide a fixed income to the players in the early phases of the game and have bonus functions that can be exploited later. The card must be flipped to the back side when transferred from a player's hand to a public company.*



The stock market and the bank pool

The Stock Market is at the bottom of the game board and governs the value of shares in the public companies. Each grid space has a number representing the value of one single share of a company.

The price on the stock market is the value of a 20% share of a minor company or a 10% share of a major company. The presidential certificate, being a double share, is always worth twice the value indicated in the stock market. Values range from as low as L.10 up to L.490. The significance of the smaller values in these spaces will be clear later (they are used when buying shares from the Dragons or when liquidating shares during an absorption).

<b>70</b>	<b>80</b>	<b>90</b>	<b>100</b>	<b>110</b>	<b>120</b>	<b>130</b>	<b>140</b>	<b>150</b>	<b>165</b>	<b>180</b>	<b>195</b>
$\frac{75}{90}$	$\frac{85}{100}$	$\frac{95}{110}$	$\frac{110}{130}$	$\frac{120}{140}$	$\frac{130}{150}$	$\frac{140}{160}$	$\frac{150}{170}$	$\frac{160}{180}$	$\frac{180}{200}$	$\frac{195}{215}$	$\frac{210}{230}$

Also included on the game board is the Bank Pool. This is where shares are placed after being sold and where the same shares are available for purchase in a stock round.

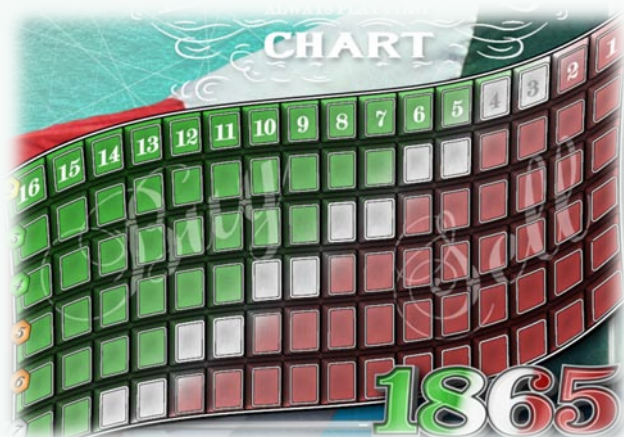
★ *The stock market presents no colored zones and no ledges. The key difference with other games is in the movement of the share price. The share price does not move backwards if the company withholds its dividends but stands where it is. Share price moves forward if a dividend is paid and if the company purchases a brand new train from the available trains pile. Therefore a company that pays a dividend and buys a brand new train from the available trains pile can effectively make a 'double jump' on the stock market.*

The Dragons Chart

The Dragons are foreign investors that trade in certificates along with the human players. Dragons rely on an indicator called **the company's rank** for buying/selling certificates and the Dragons Chart on the bottom right of the map is used for this purpose. A company's rank is the sum of its trains phase and the number of tokens laid on the map. Dragons' actions are performed by players during a stock round according to a well defined algorithm.

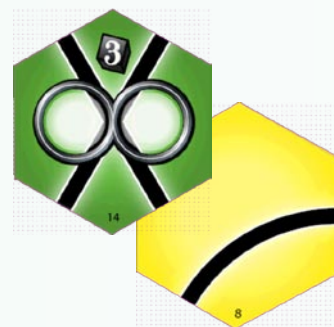
◆ *You can imagine Dragons as ghost players seating at your table between human players. After one-two games you will be able to anticipate their moves and even manipulate them at your own advantage.*

★ *Dragons and a company's rank are completely new concepts in 18xx and expert players are recommended to familiarize well with the detailed rules presented later.*



**Track Tiles** Track is in the form of hexagonal tiles and comes in different types: plain (no stations), town (small dots), city (white circles) and mines (pick and shovel); and in different colours: yellow, green, brown and gray. Cities and towns present a number with a cube: this is the **traffic** generated by that particular station when a company token is placed along a route intercepting that station. Cities have normally a higher traffic than town stations and large cities (the ones identified by a letter) have a higher traffic than regular cities. Often, different colours imply different traffic values for a station; so gray is more valuable than brown, brown than green and green than yellow. Mines follow a different rule: they provide their traffic in each operating turn but as far as the game proceeds their traffic value diminishes.

- ◇ *You will also notice another smaller number on the tile. This is the tile number and serves to identify that particular tile for reference purposes.*
- ★ *Note that differently from other 18xx games, there is no revenue printed on a town or city station tile. As explained, the number printed on the tile is the traffic of that station. Later I will explain that there is no terrain cost for laying a tile and that the upgrade rules are much less strict than in other titles.*



**Station Markers** Colored tokens represent headline stations of your company. They are placed on an empty token slot in a city tile or a mine. When a new token is placed on the map, the company will collect traffic for the destination as well as any other station intercepted along the route. This will be clearer later but for now it is important to remember that tokens and traffic are closely linked.

- ◇ *Your railroad will always start with one token in the home base city. Tokens are used for two main purposes in this game: to collect traffic and to have access to other railway lines (or in turn, to block other companies in accessing certain railway lines).*



**Traffic Chips**



Traffic chips are the black cubes in the game. These are used to keep track of how much traffic a company collects as far its railway line expands. Small black cubes are worth 1 traffic unit; medium sized purple cubes are 5 traffic units and large blue cubes represent 10 traffic units.

**Trains**

There are 6 different types of trains in the game from the phase-2 trains to the phase-7 trains (often abbreviated as PH2, PH3, PH4 trains and so on). Each train is characterized by its **coverage** (how much traffic they can absorb) and its cost. PH2 trains are very basic trains: they offer 8 coverage and cost L.100. PH3 are slightly better and so on with the PH7 trains being the most technologically advanced of all, serving 35 traffic and costing L.800. During a company's operating round trains will circulate and generate revenue for the company.

On the game board there is an Available Trains pile where all the trains available for purchase are placed. The Future Trains pile is used to accommodate all the trains of the next phases.

- ◇ *The easy way to imagine how your train works is to think of a coverage point as a seat on your train while each traffic unit is a passenger. Your trains have as many available seats as your total coverage and can carry that maximum number of passengers (traffic chips). Each passenger that can find an empty seat on your train will pay your company L.10. Those passengers who cannot find a seat on your trains will be left on the platform and will pay nothing.*



- ★ *At this point you will have certainly noticed that the way trains work and how the company's revenues are calculated is a totally different matter than in any other 18xx game. This is called "the traffic based system" and has the advantage that players do not need to find the best route for their trains. During the company's operating round, simply look at the total coverage of your trains and the total traffic in your railroad to derive your revenue for that turn.*
- ☺ *Note that the last train of each type PH2, PH3 and PH4 comes with a discount. It is useful to time your train purchase so that your company benefits of these savings.*

#### State Loans

State Loans are worth L.500 and represent financial aid from the Italian Government for consolidating railroads. Loans, in fact, are only available when a Public company acquires another Public company (absorption) and only under well defined circumstances.

- ★ *A company is not allowed to access loans for laying track, placing tokens, purchasing trains and so on. Loans are only available for acquiring another company.*
- ☺ *The absorption mechanism is fully explained later in the rulebook. A smart use of absorption and taking advantage of State Loans can also be determinant for victory.*



**Other components** The priority card is used to indicate the first player to play in a stock round. The play order cards are only used during the game start-up to randomly allocate the seating order. In a 4-players game use the priority card as play order num. 4. After having arranged the seating order, the play order cards can be put back in the box.

The Game Round display on the bottom left corner of the game board can be used to keep track of the current game turn by stealing a small cube and using it as a marker.

Now that you have familiarized yourself with the different components it is time to learn how to play the game!



# Game Structure

*Prepare for the game, understand the different game phases and the Maritime Companies*

## 2.1 GAME OVERVIEW

1865 Sardinia is a stock market and railroad building game where the players take the roles of railway investors and company presidents. In these roles, players try to accumulate wealth. Players do this through the ownership of shares of stock in the railroad companies. When a company earns money and pays dividends, the dividends are paid to the players owning shares in the company. As shares increase and decrease in value, so does the wealth of the owning players.

The players' wealth is the sum of their cash in hand and the current value of their public company shares. The objective is to have the most wealth at the end of the game.

Players may become shareholders in any company. The shareholder with the greatest number of shares in each company is the president and is responsible for making all decisions on behalf of that company. These decisions need not always to be in the best interests of the company, but they are almost always in the best interests of the president. The presidency of a company changes anytime there is a change in majority ownership. Sometimes this occurs when a player manages to acquire more shares than the current president. Sometimes, the current president manages to plunder a company and then dump it on another shareholder.

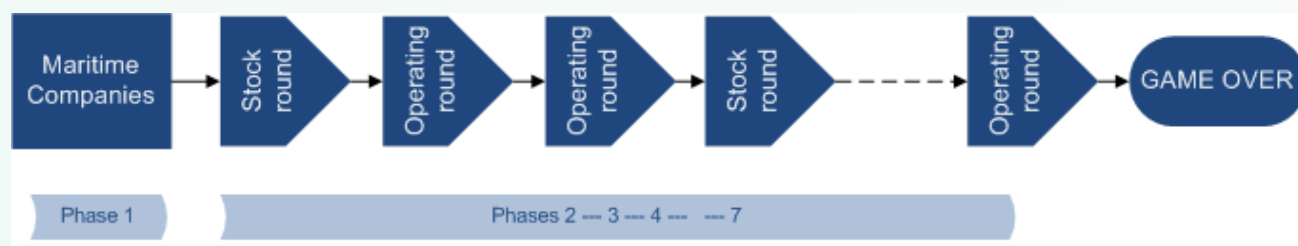
A game played by players familiar with the rules should require about 3-4 hours. If several players are playing for the first time, the game runs somewhat longer. With two or three players it is possible to play the short game (see related chapter) that takes place on the Sardinia Island only. The short game is recommended when playing in two. A short game requires about 2-3 hours for expert players.

## 2.2 GAME SEQUENCE

The passage of time in 1865 is represented by 7 phases in the game. The beginning of each new phase is normally keyed to the purchase of successively larger trains. A transition from a game phase to another can impact on the game rules and trigger certain events.

The game starts in phase 1. In this phase, two maritime companies are assigned per player.

The game then proceeds through a series of one stock round (when human players and Dragons play) followed by two operating rounds (when maritime and public companies play). During each stock round, players attempt to improve their financial positions by buying and selling shares of stock. During each operating round, the railroad companies lay or upgrade track, build stations, run trains to earn revenue, and buy trains.



★ *Some 18xx games have a variable number of operating rounds depending on the game phase. In 1865 Sardinia there are always one stock round followed by two operating rounds.*



The table below summarizes the main rules/events related to the different game phases.

PHASE	Triggered by	Rules/Event
<b>1</b>	Game start	Assign maritime companies
<b>2</b>	Assignment of Maritime Companies	Yellow tiles available Train limit 4 All companies start as Minor Starting values from 60 to 100 available Minor companies can convert to major Maritime companies can be transferred
<b>3</b>	Purchase of first PH3 train	Green tiles available Train limit 3 Starting values from 110 to 130 also available
<b>4</b>	Purchase of first PH4 train	Phase 2 trains scrapped
<b>5</b>	Purchase of first PH5 train	Brown tiles available Maritime companies still in players' hand are discarded All companies start as Major Starting values from 140 to 150 also available
<b>6</b>	Purchase of first PH6 train	Train limit 2 Phase 3 trains are scrapped
<b>7</b>	Purchase of first PH7 train	Grey tiles available Phase 4 trains are scrapped

- ❖ *Note that unless said differently, an event activated in one phase is valid in the following phases too; e.g. in phase 3 green tiles become available; these tiles will be also available in phases 4, 5, 6 and 7.*
- ☺ *Taking control and preparing for a phase change it is a key determinant to victory. In particular, make sure that your companies still have valid trains after a phase change and, at the same time, try to damage your opponents by triggering a phase change.*

### 2.3 ETIQUETTE

Considerate players speed the play of the game and make the experience more fun for everyone. In a game of this length, players should plan their stock purchases and company moves in advance of their turns, including, when possible, tile lays or upgrades and the routes for their tokens.

The shares a player owns are laid out in an orderly manner so that all can easily see them. All players are allowed to know how much money others have and what certificates they own. The trains, traffic, and loan stamps a company has are displayed on the company charter for all to see. The company treasury is stacked on the charter in clear sight, and the amount in the treasury has to be made public. Players wanting clarification of any of this information, time their requests so as to not interrupt another player's turn.

### 2.4 GAME SETUP

For setting up the game performs the following operations:

Make sure that the Bank has exactly 8,000 lire (L.8,000) in funds. One player should volunteer to be the banker and sit next to the bank tray. Distribute starting money to players. Initial capital is L.360 per head in a 2 players game; L.330 per head in a 3 players game and L.300 per head in a 4 players game.

Place the PH2 train cards on the Available Trains pile on the top left of the game board with the discounted trains at the bottom of the pile. The remaining trains will go onto the Future Trains pile sorted by phase and with the discounted train always at the bottom of the corresponding stack of trains. Place all the **minor** certificates of public companies in the initial offer on the left of the game board with the 40% share presidency on the top. Place all home base tokens of the public companies on the respective home cities (check the company's logo for help in identifying the right spot).

Play order and seating sequence at the table is decided randomly. Players will blindly pick up one play order card each. Whoever picks up number one receives the priority card, who picks number two plays second and seats at the left of the priority card and so on.

Now you can play phase 1.

## 2.5 PHASE 1 – MARITIME COMPANIES ASSIGNMENT

Maritime companies are allocated in phase 1. This is a compulsory step.

The player with the priority card starts choosing one maritime card out of the 8 available and adding it to his hand. No payment is required for maritime cards. The second to play in seating order choose one maritime card among those left. The play proceeds with the other players if any; each of them can take one maritime card.

The last player, after having picked one maritime card, can now choose a second maritime card to add to his hand. The play reverts in opposite play order with each player now able to add a second maritime card to his hand. The player with the priority card will therefore always be the first and the last one to choose a maritime card.

Every player will end up with exactly two maritime cards. Any maritime company left will be discarded and will never re-enter the game.

From now on, play a sequence of one stock round and two operating rounds till the game ends

❖ *It is a 3 players game: Alan (A), Bob (B) and Carl (C). A has the priority card and choose maritime M3 adding it to his hand. B comes second and picks maritime M1. C can now choose two maritime companies and picks M7 and M8 both in the Corsica island. It is now back to B that chooses M2. Finally A picks M6. Maritime companies M4 and M5 are discarded.*

## 2.6 MARITIME COMPANIES

Maritime Companies represent shipping companies transporting passengers and goods across the Sardinia and Corsica islands and the Continent.

When owned by a player, a Maritime Company will simply pay the owner a fixed income of L.20 at the beginning of each operating round (front of the maritime card).

At any moment during a public company's turn in an operating round, a player may pass one or more of his Maritime Companies to the operating company. The player will receive no compensation for this transfer but the receiving company will benefit in a number of ways.

First of all, when transferred to a public company, the Maritime Company immediately provides 8 coverage points similarly to phase 2 trains (flip the maritime card on the back side to show its new function) and can therefore increase the revenue generated by the company.

Secondly, if a company has a token on the location highlighted on the maritime card, the company immediately receives a number of traffic chips equal to the number of the current phase.

- ❖ *In phase 4, during company FMS turn, Alan transfer to FMS the maritime company M3 located in Cagliari. The FMS happens to have a token in Cagliari, so the company immediately collects 4 traffic chips.*

The bonus is also granted if a company places such a token later in the game, after receiving the maritime company. In this case the company will receive a number of traffic chips equal to the number of the phase when the token is placed.

- ❖ *In phase 4, during company RCSF turn, Alan transfers to RCSF the maritime company M3 located in Cagliari. The RCSF does not have a token in Cagliari, so no traffic bonus is granted. However, later in phase 6, the RCSF places a token in Cagliari and immediately collects 6 traffic chips.*

Note: the Maritime Company M4 “Carbonia District” is associated with three mines in the Carbonia district. For the bonus to be granted, a public company can place a token on any one of these mines.

Maritime Companies only operate in conjunction with ordinary trains. A company owning Maritime Companies only and no trains does not generate revenue in its turn. Also, a Maritime Company does not satisfy the requirement for a company of owning a train at the end of its operating round. A company owning Maritime Companies only, must buy a train at end of its operating round.

Maritime Companies still in a player’s hand are immediately discarded when phase 5 is triggered. However Maritime Companies owned by companies will continue to operate until the very end of the game. This is indeed an additional benefit of transferring Maritime Companies to public companies.

Once transferred to a public company, the Maritime Company cannot be transferred again. A Maritime Company however can be transferred between companies as consequence of an absorption (see absorption section).

- 🕒 *The correct timing of transferring a Maritime Company to a Public Company is important. Normally you want to be sure that, by increasing the dividends paid by the Public Company, the Maritime Company will provide you with more money than its fixed income. To do that, the Maritime Company must serve an adequate amount of surplus traffic left in the Public Company.*

## 2.7 GAME END

The game ends when the bank runs out of money.

If the bank runs out of money during an operating round, complete the entire set of two operating rounds before determining the winner.

If the bank runs out of money during a stock round, complete the stock round and the subsequent set of two operating rounds before determining the winner.

The winner is the player with the highest combined total of cash and stock valued at market value. Note that at the end of the game, all companies with outstanding state aid loans will have their share values reduced by L.50 per outstanding loan. Also, any player who has been granted personal state aid loans as the result of a bankruptcy will have their score reduced by the total amount of the value of the loans received.



## Playing a Stock Round

### *Launching a company, shares dealing and the stock market*

#### 3.1 STOCK ROUND TURN

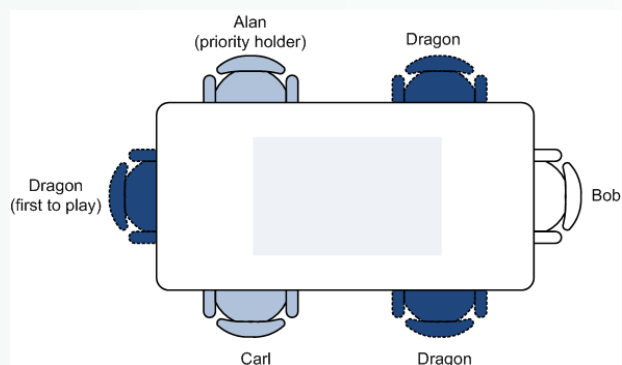
In a stock round, players and Dragons take turns buying and/or selling certificates.

A stock round always begins with the Dragons followed by the player with the priority card and continues clockwise until all players and Dragons have passed in order.

#### 3.2 DRAGONS

The Dragons are foreign investors that buy and sell certificates in the stock round. They are always the first to play in the stock round and continue playing between players.

- ❖ *A new stock round begins. The Dragons go first and buy a certificate of company SFSS. Alan has the priority card and is next, he sells one FCS and buy one certificate of SFSS. Dragons play next, they buy another FCS certificate. It's Bob turn now, after him the Dragons will have another turn and so on.*



The sell/buy actions of the Dragons are governed by a well defined algorithm based on **the company's rank**. A company's rank is the sum of a company's trains phase numbers and the number of tokens laid on the map as indicated on the Dragons Chart.

- ❖ *The FMS company has 3 tokens on the map and two PH2 trains, its rank is therefore 7. The RCFS company has only two tokens on the map and one PH3 train, its rank is 5. The SFSS company has 5 tokens on the map but no train at the moment, its rank is 5.*
- ❖ *Note that the company rank is determined only by the tokens played and the trains owned by the company. The type of company (minor/major) has no effect on the rank. For the same reasons, the company rank can change only during an operating round when the company has the possibility of placing more tokens and purchasing new trains; the company rank will never change during a stock round.*

The Dragons Chart on the game board is used to keep track of a company rank. A company floated in phases 2, 3 or 4 will start from rank 1 (because of the home station) on the first row of the Chart. A company floated in phases 5, 6 or 7 will start from rank 1 on the second row of the Dragons Chart.

The Rank indicator will move horizontally along the same row following the changes in the number of company's placed tokens and type of owned trains. The Rank indicator will move vertically along a column per effect of a phase change as explained in chapter 3.12.

The Dragons Chart presents a green, white and red region. The position of the Rank Indicator in a certain region will affect how Dragons invest and divest in companies certificates.

Dragons in fact follow the following algorithm. Appoint a player that has well understood the algorithm below and let him perform the proper actions on behalf of all the Dragons.

- Dragons will immediately sell to the Bank Pool any certificate ranked in the red region of the Dragons Chart.
- At this point, if below the certificate limit, the Dragons will buy from the Initial Offer or the Bank Pool one available certificate ranked in the green region of the Dragons Chart. If different certificates are available in the green, they will buy first
  - a. the certificate that better diversifies their portfolio in terms of number of certificates owned (not shares).
  - b. If several certificates meet this condition, they will buy the highest ranked certificate.
  - c. If again several certificates meet this condition, they will buy the cheapest certificate available.
  - d. If again several certificates meet this condition, they will buy the one at the top of the stock market pile
- If the Dragons have reached the certificate limit, they will pass



Every time the chosen certificate is available both in the initial offer and the bank pool, they will always buy the one from the initial offer. If there are no certificates available to buy in the green region of the Dragons Chart, they will pass.

The Dragons are not interested in certificates ranked in the white region e.g. they will not sell certificates in the white region and they will not buy certificates in the white region. Also, the Dragons can never be appointed presidents of a railroad even if they own more shares than any other player.

Limit of share ownership: the Dragons will never own more than 50% shares in a company (the human limit is 60% shares).

Limit of certificates: the Dragons follow a certificate limit that is different by human players and this limit changes with the game phases.

	Phase 2	Phases 3-4	Phases 5-7
<b>Limit of certificates</b>	6	10	16

All the money transactions from/to the Dragons are made with the Bank. This is where the Dragons hold their money accounts. Consequently the Dragons have no money of their own: when Dragons sell/buy certificates with the Bank Pool there is no physical transfer of money; when the Dragons buy a certificate from the Initial Offer transfer the proper amount of money from the Bank to the Company's Treasury.

Dragons' certificates are kept in the Dragons Pool, an open area on the game board placed all around the Dragons Chart.

❖ *Imagine the following situation: three companies in play, FMS (rank 7, value L.120, major), RCSF (rank 5, value L.80, major) and SFSS (rank 5, value L.100, minor). All companies are in the green part of the Dragons' table. The Dragons already own two 10% certificates of FMS, one 10% certificate of RCSF and one 20% certificate of SFSS. Which certificates they may buy next? Answer: RCSF, SFSS, FMS, RCSF, SFSS, FMS and so on. Let's see why:*

- *in their next turn, point a) in the algorithm eliminates the FMS as a possible choice because they already own two FMS certificates and a third will not help in diversifying their portfolio. point b) does not help as both RCSF and SFSS have the same rank; point c) tells you that they will buy **RCSF** because the RCSF will cost them less.*
- *when the Dragons will play next they will own two certificates each of FMS and RCSF and only one SFSS, because of point a) they will immediately buy **SFSS**.*
- *next turn of the Dragons, now they own two certificates each of all three companies, so point a) does not help; point b) however applies and they will buy **FMS** because it is the company with the highest rank.*

☉ *Once familiar with the algorithm above it will be easy to predict the Dragons' actions in a stock round and manipulate them at your own advantage. One immediate thing to notice is that, as a consequence of this algorithm, Dragons will only sell shares in their very first turn in the stock round (because the company's rank cannot change during a stock round) and they will never buy shares in a company that has just been launched (because a company just launched has only the token in its home station and no trains, its Rank is therefore 1 which is always in the red region on the Dragons Chart).*

☉ *A typical strategy with the Dragons is to position your company in the green area of the Dragons Chart just after you convert from minor to major. After the conversion in fact, five new company certificates will appear in the Initial Offer and, if your timing is right, you may sell most of them to the Dragons so guaranteeing a quick inflow of cash into the Company's Treasury.*

### 3.3 PLAYERS

During each player's turn in a stock round, the player may sell any number of certificates and then buy one certificate. This order is strict, e.g. a player cannot buy a certificate and then sell certificates. Also, a player can never buy more than one certificate per turn. A player may also choose to pass, neither buying or selling. Once a player has completed these actions, the turn passes to the Dragons and then to the next player in clockwise order.

A player buying and/or selling in a stock turn is guaranteed another stock turn. Each player usually gets several turns within each stock round. The stock round ends when all players and Dragons pass in turn. When that occurs, the round marker is moved to the first operating round position on the Game Round display.

### 3.4 SELLING CERTIFICATES

A player can sell several certificates from his hand to the Bank Pool. When a player sells certificates, he receives the current market price for the shares as indicated on the stock market. Single shares pay exactly the value on the stock market, double shares pay twice that value.

Double shares e.g. a presidential certificate cannot be sold unless another player holds at least two single certificates of that company. In that case an exchange of certificates takes place as explained in chapter 3.10, Transfer of Presidency.



After the player receives money for the sold certificates, that company's token on the stock market may drop in value. If the certificates are sold by the President of the Company himself or the Dragons, the company's value token is moved down one space for each share sold. No drop in price takes place if the shares are sold by players other than the president of the company.

When selling more than one certificate of a company, the amount received from the bank is the same for each share sold. A player may not choose to sell multiple certificates of one single company as multiple transactions in the same turn of a stock round.

When selling certificates of different companies, the player may sell them in any order he chooses.

The following exceptions apply to all certificate sales:

- A certificate of a company that has not operated yet cannot be sold.
- There may never be more than 50% of the shares of any company in the Bank Pool. Players may not sell certificate if by doing so they would exceed this limit.

- ❖ *In his turn of a stock round, Carl decides to sell 3 certificates of company FA (major) and 1 certificate of company FMS (minor). Both companies have operated at least once and there are no shares in the bank pool. All Carl's certificates are single shares as he is not President of these two companies. FA is valued L.110 on the stock market while FMS is valued L.70. Carl receives L.400 and the sold shares are put in the bank pool. The company's value token on the stock market does not drop.*
- ❖ *Imagine now a different situation. Again, Carl decides to sell 3 certificates of company FA (major) and 1 certificate of company FMS (minor). Both companies have operated at least once but there two FMS certificates already in the bank pool, for a total of 40% shares. Carl is not allowed to sell his FMS certificate, because by doing so he would violate the 50% limit of the bank pool.*

### 3.5 BUYING CERTIFICATES

When buying a certificate, a player may purchase one certificate from the Initial Offer, the Bank Pool or the Dragons' Pool. Initial offering certificates must be purchased in order (e.g. the president's certificate is always the first purchased).

Certificates are bought at current market value from the initial offer, the money is paid to the company.

Certificates are bought at current market value from the bank pool, the money is paid to the bank

Certificates are bought at current market value from the Dragons' pool plus a premium if the company is ranked in the white or green areas of the Dragons' table. The highest cost applies if the company is ranked in the green and a lower premium is demanded if the company is ranked in the white (these values are pre-printed on the stock market itself). The money is paid to the bank (where the Dragons accounts are deposited).

- ☉ *Why you may want to buy certificates from the Dragon, and possibly at a premium? There may be several reasons like no other available certificates of that company in the Initial Offer or because you are trying to take over a company from one of your opponents or because you are playing defensively preventing the Dragons to sell these certificates later in the game (because you know the company is going to end up in the red region of the Dragons Chart). One more subtle reason for buying from the Dragons is to free empty slots if you know that the Dragons are willing to buy certificates of your own company.*

The following rules apply to all certificates purchases:

- A player may never make a purchase that would violate his certificate limits.

	2 players game	3 players game	4 players game
<b>Limit of certificates per player</b>	36	24	18

- Once a player has sold a certificate of a company, that player may not buy another certificate in that company in the current stock round.
- A player cannot own more than 60% in shares of each company

### 3.6 LAUNCHING A NEW COMPANY

The first certificate purchased for each company must be the president's certificate. When a player buys the president's certificate, that player becomes the president of the company and sets the stock market value at one of the values in the yellow area (L.60, L.70, L.80, L.90, and L.100) on the stock market. More values (L.110, L.120, L.130, L.140, and L.150) become available as the game proceeds. If one or more stock market value tokens are already in this box, the new token is placed at the bottom of the stack.

The President immediately pays twice the selected stock market value to the company's treasury and takes the company chart. This is used to keep track of the various assets and liabilities of the company, namely trains, traffic, money, tokens and state aid loans.

❖ *One important principle in 18xx games is that President's personal assets and company's assets must be kept completely separated. The President manages the railroad on behalf of its shareholders and he does not own the company's assets. Therefore he cannot freely transfer money between his personal hand and the company and vice-versa. The charter and its contents are given to the new president in case the presidency should change hands.*

At this stage the company is not floated and therefore cannot operate yet. At least 60% shares in the corporation must be sold for the company to be considered floated and be allowed to operate in the next operating rounds.

When the company has floated, one token is placed in the proper row on the ranking table on rank 1 (first row for companies floated in phases 2, 3 or 4; second row for companies floated in phases 5, 6 and 7) and one token is placed on the revenue track.

Give the company any traffic chip provided by its home base and a variable number of tokens depending on the type of company you are forming as explained in the next two chapters.

### 3.7 MINOR COMPANIES

Before phase 5, all new companies must start as minor.

Minors have 20% shareholder certificates and a 40% presidential certificate. In order to launch a company a player must buy the initial 40% share president certificate. In order to float one more certificate must be bought by players, so providing the 60% shares needed to operate.

The minor company receives money for the shares as far as they are bought by the players and the Dragons.

When floated, a minor company has 3 tokens in total: the home base token already on the map plus two more tokens on the company's chart. When converting to major, the company will receive additional tokens.

- ❖ *In phase 2, Alan starts the CFD as a minor company setting the price at L.90. He immediately pays L.180 for the presidential certificate, this money flows into the CFD treasury. In his following turn in the stock round, Alan buys another certificate in the CFD paying L.90 to the CFD treasury. The company has floated and will operate in the following operating rounds. Later Carl also buys a certificate in the CFD paying L.90 to the company treasury. The stock round ends. The CFD has L.360 in the treasury and three tokens (one of them in Portovecchio), Alan has 60% in shares of the company, Carl has 20% shares in the company. The one remaining certificate is in the Initial Offer. The price of the CFD on the stock market is L.90.*

### 3.8 MAJOR COMPANIES

A major can enter the game in three possible ways:

- As the result of a conversion from minor to major (see chapter 3.9).
- After phase 5, when all the newly launched companies start as major
- A company may also re-enter the game as a major at any time after being absorbed (see chapter 5).

Majors have 10% shareholder certificates and a 20% presidential certificate.

After phase 5 has been triggered (or when a company re-enters the game after being absorbed), all newly launched companies start as major. Launching a major company requires the player to buy the initial 20% share president certificate. In order to float, four more certificates must be acquired by the players, so providing the 60% shares needed to operate. The major company receives money for the shares as far as they are bought by the players and the Dragons. When floated, the company receives 7 tokens in total, one of them in its home base on the game board.

- ❖ *In phase 5, Bob starts the FMS as a major company setting the price at L.110. He immediately pays L.220 for the presidential certificate, this money flows into the FMS treasury. In his following turns in the stock round, Alan buys a further three certificates in the FMS paying L.330 in total to the FMS treasury. The FMS has not floated yet (only 50% shares sold). Later Alan comes to the rescue and buys a certificate in the FMS paying L.110 to the company treasury. The company has floated (60% shares sold) and will operate in the following operating rounds. The stock round ends. The FMS has L.660 in the treasury and seven tokens (one of them in Cagliari), Bob has 50% in shares of the company, Alan has 10% shares in the company. There are four remaining certificate in the Initial Offer. The price of the FMS on the stock market is L.110.*

### 3.9 CONVERSION FROM MINOR TO MAJOR

The conversion from minor to major can only take place in the preliminary operations prior to the stock round (see chapter 3.12).

In order to become major, a company must be connected through a **direct-route** from one of its tokens on the map to its destination (this is identified by a mark of the same company colour on the map). A direct-route consists of a continuous sequence of track from a city/mine already occupied by a company's token to any city/mine not intercepting other cities (e.g. must be a direct city/mine-to-city/mine connection).

How many towns are included in the direct-route does not matter, the only condition to have a valid direct-route is that no other cities are intercepted along the way. Also note that placing a token at destination is not



required. Having a direct-route is the only condition needed for having reached the company's historical destination.

When becoming major, the current 20% certificates in play are flipped to show the 10% share ownership and the 40% presidential certificate is flipped to show the 20% share ownership. Five new 10% shares are placed in the initial offer; when these shares are sold, additional funds can flow into the company's treasury.

The company will also receive a number of additional tokens depending on the game phase when the transformation happens: 1 more token in PH2, 2 additional tokens in PH3, 3 additional tokens in PH4 and 4 additional tokens when converted between phases 5 and 7.

- ❖ *In phase 3, at the beginning of a stock round, Alan decides to convert his CFD minor company to major. He is eligible in doing so because his company has a direct-route connection to its historical destination. Alan flips his two certificates (presidential + another) reducing his share ownership from 60% to 30%. Carl also has to flip his CFD certificate reducing his share ownership from 20% to 10%. The CFD receives 2 more tokens and 5 more CFD major certificates are placed in the initial offer, the CFD stock market price remains unchanged. Now Alan has 30% in shares of the company, Carl has 10% shares in the company. There are six remaining certificate is in the Initial Offer. Note that the value of the certificates owned by Alan and Carl is the same as before. There was no gain/loss in converting from a minor to a major company, however their share ownership in the company has dramatically reduced.*

### 3.10 TRANSFER OF PRESIDENCY

If any player ever owns a greater percentage in shares of a company than the current president, that player becomes the new president and assumes all responsibilities for the company. This may occur either through player purchases or sales of shares by the current president.

Transfer of Presidency via a purchase: as the president of a company must always hold the president's certificate, the new president trades two single share certificates with the current president for the president's certificate. The new president receives the company charter with its contents (trains, tokens, traffic chips, maritime companies, state aid loans and money).

- ❖ *CFD is now a major company. Alan has 30% ownership in it (the president certificate plus another one), Carl has 10% ownership with only one certificate. Carl keeps buying CFD certificates in his turns of the stock round and when he buys his fourth certificate his shares in the company become 40% and a transfer of presidency occurs. Alan exchanges his president certificate for two single certificates owned by Carl. Alan has now 3 single certificates and 30% ownership in the company. Carl has 3 certificates for a 40% shares in the company, he is the new president and receives the company's chart and assets.*

Transfer of Presidency via a sale: the president of a company may sell sufficient shares of the company to cause a transfer of the presidency only if another player owns two or more certificates in that company and if there is enough space on the bank pool to receive the sold certificates (remember in fact that the bank pool would not accept more than 50% shares in any company).

If both these conditions are met, the president declares how many shares are being sold. The player who will have the largest share holding in the company becomes the new president. If two or more players hold an equal number of shares, the player to the left (moving clockwise around the table) of the current president becomes the new president.

As the president of a company must always hold the president's certificate, the new president trades two single certificates with the current president for the president's certificate. The current president then completes the declared sale. The new president receives the company charter with its contents (trains, tokens, traffic chips, maritime companies, state aid loans and money).

- ❖ *CFD is now a major company. Alan has 30% ownership in it (the president certificate plus another one), Carl has 10% ownership with only one certificate. Carl buys one more CFD certificate in his next turns of the stock round. Alan decides to get rid of his company and sells his 30% shares. Alan exchanges his president certificate for two single certificates owned by Carl. Alan can now sell to the bank pool his 3 single certificates. Carl is left with the president certificate for a 20% shares in the company, he is the new president and receives the company's chart and assets.*

### 3.11 MOVEMENTS ON THE STOCK MARKET

The value tokens on the stock market move according to the following rules:

Up one space

- Every time, during an operating round, an operating company pays a non-zero dividend
- Every time during an operating round, an operating company buys one or more brand new trains from the Available Trains pile (if buy more than one train still goes up one space only).

Down one space

- for each share sold by the President or the Dragons either during a stock round or during a forced sale by a company president.
- Every time during an operating round, an operating company declares a zero dividend

If a value token is moved into a box where there are one or more tokens, the newly arriving token is placed at the bottom of the stack of value tokens that are already there.

If the company withholds, the value token does not move.

- ❖ *During an operating round, company FMS pays a dividend of L.130 and buys a brand new PH3 train from the available trains pile; the company value in this case increases in value of two spaces to L.150 and the value token is placed at the bottom of the stack of tokens already there. Company RCSF instead withdraws L.160 in the treasury and use that money to buy the PH3 train from company FMS; the value token does not move in this case. Finally, company SFSS declares a dividend of zero and buys one brand new PH4 from the available trains pile; the value token moves one space backward and then one space forward; the value token is placed at the bottom of the stack of tokens already there.*

### 3.12 OPERATIONS AT THE BEGINNING OF A STOCK ROUND

The following operations must be performed immediately before starting a stock round.

#### Downgrade mines

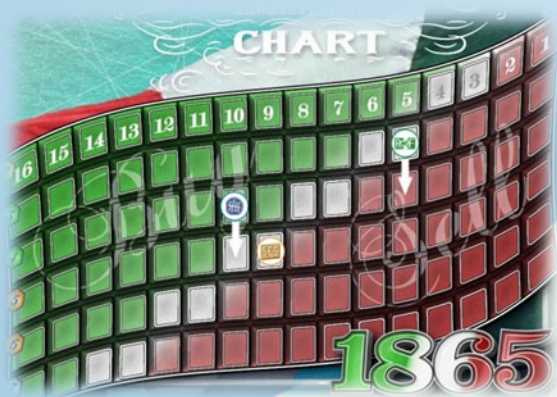
All tokened mines must be automatically downgraded one step to the next available tile. E.g. if the game is in phase 3 or higher, all yellow tokened mines on the map are automatically downgraded to green mines; if the game is in phase 5 or higher also all green tokened mines are automatically downgraded to brown mines.

Note that mines with no token on them are not downgraded. Also mines downgrade one step per time e.g. if the game is in phase 5 or higher, a yellow mine just tokened will be downgraded to green, not to brown, at the beginning of the following stock round.

### Adjust the company's rank

Each company must adjust its ranking on the ranking table (vertical movement). If a company is positioned on a row different than the current game phase, it will move down one row in the attempt to catch-up with the current phase. If positioned on the row corresponding to the current phase, it does not move.

Note that the rank will move vertically of maximum one row per time e.g. if the game is in phase 4 and the company's rank is positioned on the PH2 row of the Dragon's chart, the rank will move down to the PH3 row, not the PH4 row.



- ❖ *The game is in phase 5. At the end of a stock round, the RCSF rank moves down one row entering the red region of the chart. The SFSS rank moves down to the PH5 row entering the white area of the chart. Finally, the SFS rank does not move because it is already on the PH5 row of the chart, corresponding to the current game phase.*

### Convert to a major company

Each President of a company eligible to transform from minor to major is asked in operating round order if he wants to do so. All the actions related to a conversion from minor to major take effect at the moment the President declares to transform the company.

#### 3.13 OPERATIONS AT THE END OF A STOCK ROUND

- At the end of a stock round the priority is given to the player to the left of the player who performed the last sell and/or buy action in the stock round (Dragons do not count for the purpose of the priority assignment).

- ★ *In many 18xx games there is a stock market value bonus when all the certificates of a company are fully sold. This bonus is not available in 1865 Sardinia.*

## PLAYING AN OPERATING ROUND

*Laying track and tokens, collecting traffic, running trains and paying dividends*

### 4.1 OPERATING ROUND SEQUENCE

During an operating round, all operating companies operate and produce income. Maritime companies operate first if they are in the hands of a player. The bank pays the owner of each maritime company the L.20 revenue listed on that maritime card.

The public companies then operate in descending share value order. If two or more share value tokens occupy the same value box on the stock market, the company whose share value token is uppermost in the stack operates before any lower un-operated company(s).

Each eligible public company operates only once during each operating round. The company president performs the following actions on behalf of each company in the order indicated:

- Lay or upgrade track (optional)
- Operate mines
- Place a station marker (optional)
- Operate trains and calculate income
- Purchase trains (optional)

❖ *Remember that maritime companies can be transferred to a public company at any time during the company's operating turn. Also absorptions and state aid loans repayment can happen during an operating turn as explained in chapter 5.*

After all eligible companies have operated, the operating round marker is moved to the next space on the Game Round display. This will indicate whether the next round is another operating round or a stock round.

### 4.2 LAY AND UPGRADE TRACK

The building of railroad track in 1865 is represented by the placing of coloured hexagonal tiles on the map. Initially, the only track on the map can be found on the six yellow hexes having pre-printed track.

Each operating company may place for free one track tile on a map hex during its turn of the operating round. A second track tile may be placed by paying L.20 from the company's treasury.

Once laid, a tile becomes part of the map and may only be removed when replaced by another tile (this operation is called "an upgrade").

There are two types of possible upgrades: traffic upgrade and competitive upgrade.

**Traffic upgrade:** replace a tile with a tile of a different colour. All the track segments on the replaced tile must be preserved during a traffic upgrade even if not connected to adjacent tiles.

- Yellow tiles may only be placed on light green map hexes.
- Green tiles replace yellow tiles (note, they can also be placed on pre-printed yellow map hexes).



- Brown tiles may only replace green tiles.
- Gray tiles may only replace brown tiles.

When a city increase in traffic value as result of a traffic upgrade, immediately distribute the increased value in traffic chips to all those companies with a token on it.

❖ *Nuoro is green (traffic value is 4) and companies RCSF and FA have both a token on it. When brown tiles become available Nuoro is upgraded to brown, its traffic value is now 5. Companies RCSF and FA immediately receive 1 traffic chip each.*

When a town increases its traffic value as result of a traffic upgrade, none benefit immediately of the increased traffic value. However the improved traffic value will be available to those companies that, later in the game, will lay a token intercepting that town.

**Competitive upgrade:** replace a tile with another tile of the same colour. All the existing connections of the replaced tile with adjacent tiles must be maintained during a competitive upgrade. However unconnected track segments do not need to be preserved.

★ *The traffic upgrade is a very common mechanism in 18xx games that usually increases the revenue of the tile in question and adds new track segments. The competitive upgrade is an entirely new concept; it is a less restrictive form of tile upgrade and it is generally used to free otherwise blocked track.*



❖ *On the left an example of a traffic upgrade and a competitive upgrade. The company FCS with base in Isili and a token in Oristano firstly upgrades its home base with a green tile. This is a traffic upgrade and FCS receives 1 traffic chip. Next, FCS pays L.20 for laying a second tile and replaces the straight town in Sanluri with a curved town. This is a competitive upgrade instead.*

The company placing (or replacing) a tile must be connected by track of any length from one of its station markers to and along one of the new track segments. A city fully occupied by other companies' tokens blocks this connection and therefore companies cannot lay tiles beyond blocked cities.

The track tiles must be placed in alignment with the map hex, but may be placed in any of the six orientations as long as the following guidelines are followed:

- Hexes with a small town may only have tiles with a small town laid on them. Similarly, hexes with a city indicated by large white circle may only have tiles with a corresponding large white circle placed on them.
- The yellow map hexes (Cagliari, Oristano, Nuoro, Sassari, Portovecchio and Bastia) have specific green, brown and grey tiles indicated by the letters C, O, N, S, P and B.
- A track segment cannot end in the open sea. However, the dotted connections between the Sardinia and Corsica island must be treated as pre—printed track and are therefore valid connections for tile laying purposes

- Brown tile #63 can only be played in Isili, Olbia and Ajaccio. Brown city tiles #700 can only be played on Arbatax and Calvi. Brown town tiles #146 can only be played on coastal towns (Alghero, Tempio, Propriano etc.).
- Mine tiles #173, #174 and #175 can only be played on the eight mines on the map. Mines are never upgraded by players; this operation is done automatically at the beginning of each stock round. Please note that mines upgrade reduce the traffic (and therefore is often referred to as a downgrade).

Upgraded tiles are removed from the map and are again available to companies. See 'Tile Manifest for a list of the legal tile traffic upgrades.

#### 4.3 OPERATE MINES

Each turn, the company collects traffic chips from any tokened mine

Mines have one token slot only. A mine generates traffic for the company with a token on it in each operating turn. However, mine production is reduced as far as the game proceeds (yellow mines generate 2 chips every turn; green mines 1 chip every turn; and brown mines no chips at all)

Each company is permitted to place only one token in any the three mines located in the Carbonia district.

#### 4.4 PLACE STATION MARKERS

A company may place one and only one station marker during each operating round (the home base token is laid at the beginning of the game for all companies or when the presidential certificate is bought for absorbed companies re-entering the game).

To place a station marker, the company must be able to trace a **direct-route** from any of its existing station markers to the city or mine it wishes to place the new station marker. A direct-route consists of a continuous sequence of track from a city/mine already occupied by a company's token to any city/mine not intercepting other cities (e.g. must be a direct city/mine-to-city/mine connection) The target city/mine must also have space for the station marker. A company may not have more than one station marker on any single tile.

There is a cost associated in laying a token depending on the terrain intercepted along the direct-route (L.10 for each plain border; L.40 for each river; L.60 for each mountain). If more valid direct-routes are available to the destination city/mine, the company's president is free to decide which one to use; terrain cost and traffic collected will be those of the chosen direct-route.

The railroad collects all the traffic chips along the chosen direct-route as printed on the small towns intercepted and the destination city or mine reached (note: the starting city on the direct-route does not provide traffic).

Once a station marker is placed, it cannot be moved or removed, unless the company is involved in an absorption. When a city has all its station marker spaces occupied, only companies with station markers in that city may pass through the city for tile laying purposes.

#### 4.5 OPERATE TRAINS AND CALCULATE INCOME

In order to generate income, a company operates its trains as follows:

The president compares the total value of traffic chips in the treasury with the total coverage offered by its trains. Each traffic chip covered by a train point provides the railroad with L.10 in revenue. The total is the company's revenue.

❖ *A company has 14 traffic chips and two PH2 trains (total coverage 16), revenue is 140. Another example, a company has 30 traffic chips and one PH2 and one PH3 train (total coverage 22), revenue is 220 in this case*

The president decides whether to pay the revenue as dividends or withhold the company earnings in the company treasury.

If dividends are paid, each share receives the corresponding percentage of the earnings, e.g. a 20% share will provide 20% of the earnings, a 10% will provide 10% of the earnings. Dividends of shares in the bank pool or owned by the Dragons are paid to the Bank (note no movement of money is needed in this case). Shares still in the initial offering pay their dividends to the company.

If the company withhold, pay the full amount to the company's treasury instead.

Adjust the share value token on the stock market one space upwards if dividends are paid. Companies that declare a revenue of L.0 see their share value token to move backward one space. If the company withhold, the share value does not move.

#### 4.6 PURCHASE TRAINS

At this point, a company has the option to purchase one or more trains, provided it does not exceed the listed train limit. Maritime companies do not count towards the limit.

Train	Coverage	Cost	Quantity available	Scrapped when
PH2	8	100 / 70	6	First PH4 is sold
PH3	14	200 / 160	5	First PH6 is sold
PH4	20	350 / 300	4	First PH7 is sold
PH5	25	500	2	Permanent
PH6	30	650	3	Permanent
PH7	35	800	Unlimited	Permanent

Because the purchase of a train may trigger a phase change, trains must be purchased one at a time. Thus, if a company wishes to purchase more than one train, it would purchase one, resolve any phase change, purchase another one, and so on. If the purchase of a train triggers a phase change and that change reduces the number of trains a company may own, the company is not allowed to purchase that other train. A company may not discard or scrap a train to make space for a new train. If, however, buying a train initiates a phase change causing a company to possess too many trains, the excess trains from these companies are discarded into the bank pool without compensation.

Trains may be purchased from the Available Trains pile, the bank pool, or other companies willing to sell them. The Available Trains pile sells new trains and will only sell them in numerical order. All trains of the current phase must be sold before trains of the following phase can move from the Future Trains pile to the Available Trains pile. Thus, all phase 2 trains must be sold before the first phase 3 train becomes available, all phase 3 trains must be sold before the first phase 4 train is available, and so forth. Trains purchased from the Available Trains pile or the Bank Pool are always purchased at the price printed on the train card. Please note that the last train of type PH2, PH3 and PH4 comes at a discount. Trains purchased from companies may be bought at any price (with a L.1 minimum) that is mutually agreed to by the president(s) of the two companies involved. A company may buy another company's last train. When a train is purchased from another company, the entire transaction must be done during the purchasing company's turn. A company is not required to buy a train from another company if it is offered, regardless of the price.

A company that does not have any traffic chip does not need to own a train. However, an operating company with at least one traffic chip or more must own a train and is forced to purchase one during this step of its operating turn if it does not possess one.

#### 4.7 MANDATORY TRAIN PURCHASE

If a company must buy a train and does not have enough money to do so, the president must make up the difference. When the president is forced to contribute to the purchase of a train, the following special rules govern the transaction:

- Only one train may be purchased.
- The train must be purchased from the Available Trains pile or the Bank Pool and may not be purchased from another company.
- If there are several trains available for purchase from the Available Trains pile and the Bank Pool, the player can choose which one to buy. In other words, the player is not forced to buy the cheapest train available, however he is still subject to all other rules e.g. he cannot buy a train not yet available or a train with a discount when there are other trains of the same phase available.
- The president must contribute only enough money for this single purchase and use all the cash available in the company treasury.
- If the president does not have enough money to make up the difference, the president must sell personal stock (see Forced Stock Sales).

#### 4.8 FORCED STOCK SALES

When the president is required to contribute to the purchase of a train as described above, he may be forced to sell shares. The following rules apply to all forced stock sales.

- The sales may not cause a change in the presidency of the company that is trying to buy a train, although they may cause changes of presidency in other companies.
- The president decides what to sell, in what order to sell it, and how to sell the shares.
- All shares sold from a given company must be sold in a single block.
- All normal rules regarding the stock market and share and certificate limits must be followed.
- The president may only sell enough shares to make the forced purchase or payment.
- If the president cannot raise enough money through stock sales, that player is bankrupt.

#### 4.9 BANKRUPTCY

When a player cannot raise sufficient cash to make a required train purchase, that player is bankrupt. The player will be granted with the necessary number of personal state aid L.500 loans to complete the train purchase and will continue playing.

The granted L.500 loan will be deducted from his wealth when calculating the players' score at the end of the game.





❖ *As an example, let's follow the development of company FMS.*

*Fig. 1 - First operating round. FMS traffic at the start is 3 because of the value of Cagliari, its starting city. In its first operating round, FMS lays two pieces of track: one gentle curve and one mine. It pays L.20 for the right to place a second piece of track. Next, FMS places its second token on the mine, this costs L.70 (crossing one plain edge and one mountain edge). FMS collects 2 traffic from the mine. It has no trains and therefore its revenue is zero. The stock value token moves backward. Next FMS buys one PH2 train paying L.100 to the bank and its stock value token moves forward.*



*Fig. 2 - Second operating round. FMS lays two more pieces of track, one straight town and one gentle curve in direction of Oristano. This costs L.20. No traffic is collected from the town but the mine produces 2 more traffic. Total traffic is now 7. FMS only PH2 train offer 8 of coverage and FMS declares a revenue of L.70. Alan, decides to pay this money as dividends and the stock value token moves forward one space. Next the FMS buys one more PH2 train from the Available Trains pile and the stock value token moves forward again. The FMS has made a double jump on the stock market.*



*Fig. 3 - A stock round has been played and a new operating round commences. Note that the FMS was not eligible for converting into a major company because its historical destination has not been reached yet. The FMS lays once again two pieces of track paying L.20 and connecting to Oristano via a direct route. Now the FMS can place a token on Oristano by paying L.80 (crossing one river and four plain edges). The FMS receives 5 more traffic chips because of this token (3 for Oristano and 2 for the two towns intercepted). 2 more traffic are provided by the mine. Total FMS traffic is now 14. Train coverage is 16 and the declared revenue is L.140. Alan decides to withhold this money within the company and the stock value token does not move. He does not buy trains and his turn ends.*



*Fig. 4 - This is the fourth operating round played by company FMS. The President decides to lay one piece of track only and this will be promoting Cagliari to green, a traffic upgrade in fact. FMS receives 1 traffic chip for Cagliari and again 2 traffic from the mine. Total FMS traffic is now 17. Train coverage is still 16 and the declared revenue is therefore L.160. Alan pays a dividend and the stock value token moves forward. FMS traffic is increasing fast and the company trains struggle to accommodate all passengers. Alan is now left with a key strategic decision: if to buy a new train or not.*

## ABSORPTION

*How to consolidate companies and receive state aid*

### 5.1 ABSORPTION

This mechanism allows for a company to acquire another company. Typical reasons for absorption are consolidating your companies to run them more efficiently, freeing certificate slots when you have reached the certificate limit or for rescuing a trainless company.

An absorption always involves two companies belonging to the same player (e.g. whose President is the same of both companies).

The absorbing company is called the “**acquirer**”, the company to be absorbed is called the “**target**”. The process could be initiated in either the acquirer or the target operating turn. The main principle to keep in mind is that the target company will always skip its operating turn where the acquiring company will play its operating turn normally.

PASSIVE Absorption: At the beginning of its operating turn, a company can decide to be absorbed by another company rather than operate. The target company skips its operating turn.

ACTIVE Absorption: Alternatively, at the beginning of its operating round, a company can absorb another company that has not operated yet. Once completed an absorption, the acquiring company may proceed with a new absorption if capable of doing so. After completing all the absorptions the acquiring company wishes to perform, the acquirer will perform its operating round.

### 5.2 ELIGIBILITY

For an absorption to be allowed the following conditions must be met:

- Both the acquirer and the target have operated at least once
- The two railroads are connected (e.g. have tokens in the same city or in two different cities/mines connected by a direct-route)
- The acquirer must have access to enough money to compensate all the target certificates in play (either through its own funds, the funds of the target company, the sale of its own shares and any allowed state aid loan as explained later)

Please note that a minor company may acquire a larger major company or vice-versa. The minor/major status of a company does not restrict or limit absorptions.

### 5.3 COMPENSATION PROCEDURE

The acquiring company must liquidate in cash all the certificates of the target company in play. In other words, certificates owned by the Players, the Bank and the Dragons must be fully and duly compensated. No compensation is needed for the target certificates still in the initial offer.

Shares are paid at current market value plus a premium if the company is ranked in the white or green areas of the Dragons’ table. The highest price applies if the company is ranked in the green and a lower premium is demanded if the company is ranked in the white (these values are pre-printed in brackets on the stock market itself).

The compensation procedure follows this order:

- Firstly the acquiring company receives all the cash from the target company and tries to liquidate the target certificates using the consolidated cash of the two companies
- If this is not enough, the acquirer must raise enough cash by selling as many of its own certificates in the initial offer to the bank at the current market price (remember however that the bank will never accept more than 50% of shares in the pool). When selling certificate in this way the share value does not drop.
- If this is still not enough, the acquiring company must take as many state aid loans as necessary (but never exceeding the combined limit of three loans between the acquiring and the target company).

Once completed the compensation procedure, the certificates of the target company return to the initial offer. In a following stock round, the company may be re-launched as a major corporation as detailed in chapter 3.6. The starting base of the new company is decided by the player acquiring the presidential certificate and could be any city with an empty slot.

#### 5.4 POST ABSORPTION EFFECTS

After a successful absorption the following takes place:

- All the target company assets (traffic chips, trains, maritime companies and eventually outstanding loans) are transferred from the target to the acquirer
- The newly enlarged company will have the max number of tokens; so provide the acquiring company with any additional token so that it has 7 tokens in total between the ones already on the map and the ones on the company's chart
- The acquiring company is, at this point, allowed to vacate any mine where it has a token already. Removed tokens return to the company chart and are available for further play.
- The acquiring company must replace all the tokens laid on the map by the target company with its own tokens.

There is no cost to pay for replacing the target company's tokens.

The acquiring company is not obliged to replace the target tokens on mines. If the president does not wish to replace a token on a mine, the mine is simply left vacant.

However the acquiring company is obliged to replace all the tokens of the target company placed on a city. For those locations where the acquirer already has a token, the target token is not replaced and the acquiring company receives L.50 compensation from the bank (synergies). Tokens that cannot be replaced (e.g. the acquirer has not enough tokens to replace them all) are lost with no compensation.

When the acquiring company has not enough tokens left to replace all the tokens of the target company, it is compulsory to maintain the railroad network connected, e.g. the replaced tokens must be connected to at least another token of the company through a direct-route.

#### 5.5 STATE AID LOANS

State aid loans are worth L.500 (note: L.1,000 loans count as two loans) and are available to public companies only when the company wants to adsorb another company and has not enough funds, even after selling any of its own certificates, to complete the transaction.

At no time a company can have more than 3 outstanding loans. That means that if the acquiring and/or the target company already have outstanding loans, the acquiring company will be limited on the number of loans she can take so that the resulting company post-acquisition still has no more than 3 loans.

State aid loans are only available to players when they go bankrupt in order to sort out their obligations and stay in the game. There is no limit to the number of state aid loans a player can take.



No interest is due on the state aid loans.

A company can repay loans at any moment during its operating turn; the full loan amount of L.500 must be repaid. Players instead are not allowed to repay loans.

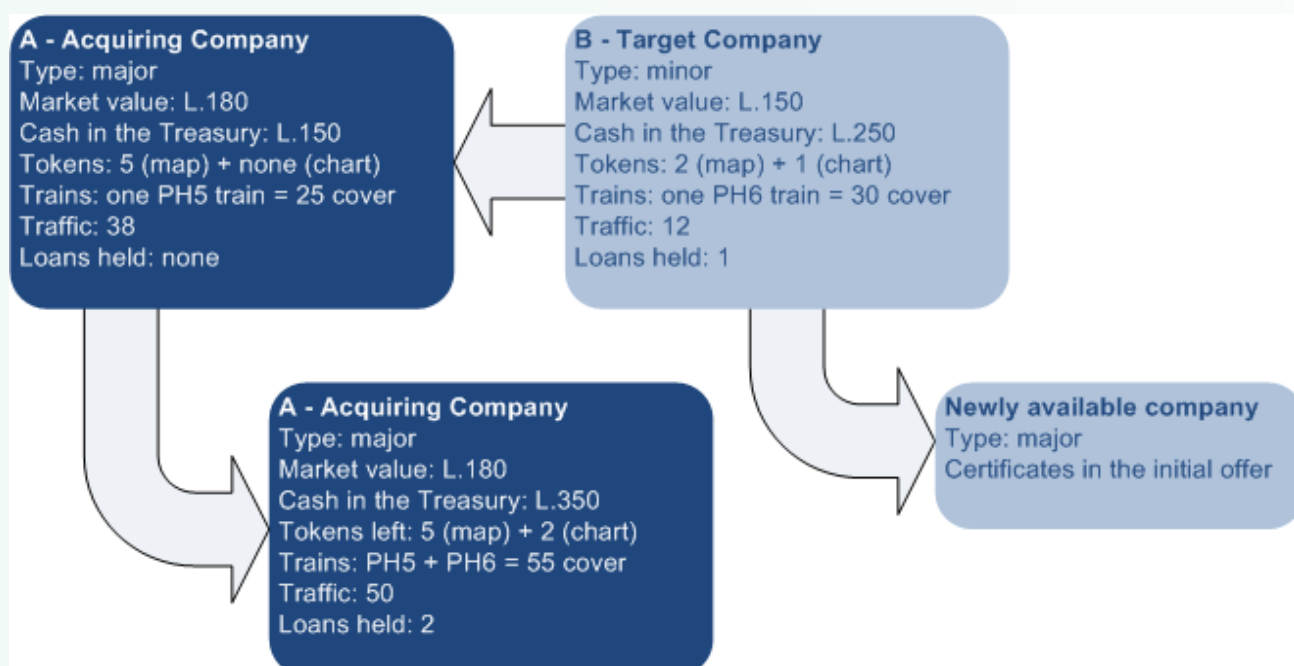
When calculating the players' score at the end of the game, readjust as per below:

- Any outstanding loan in the company's treasury causes the share price of the company to be reduced by L.50 per outstanding loan. The share value can be negative as a consequence of loans.
  - Any outstanding loan owned by a player cause the player's score to be reduced by L.500 per outstanding loan.
- ❖ *The following example illustrates how a typical absorption works. Bob is president of both companies A and B below. The two companies run un-efficiently as A has too much traffic but no coverage while B has better trains but no traffic. Bob decides to fix this situation and after having checked the existence of the eligible conditions described in chapter 5.2, at the beginning of the operating round of company A declares that A will adsorb B.*

*B is a minor company and is worth L.150 on the stock market. There are 4 certificates of B in play (the fifth certificate is still in the Initial Offer) and A has to liquidate all of them for a total value of L.600. Luckily for Bob, company B rank is in the red area of the Dragons' chart, so no premium is required. Bob combines the cash of the two companies for a total of L.400. Unfortunately there are no shares of company A in the Initial offer so Bob cannot sell A shares to raise the missing L.200. Company A will have to take a L.500 Loan to raise enough funds and complete the acquisition.*

*A receives all assets of B (one PH6 train and 12 traffic chips). Also receives two more tokens to get to the total of 7 tokens. One mine occupied by company A is now brown and produces nothing. Bob decides to vacate this mine, the number of available tokens on A company chart is now 3. Next Bob replaces one of B tokens on the map, the other B token is on a city already occupied by an A token. A receives L.50 as a compensation for being unable to replace that token.*

*The final situation is illustrated in the figure below. Certificates of company B return to the Initial Offer and will be available as a newly major company to start in the next stock rounds. A can now play its operating turn.*





## VARIANTS, DESIGN NOTES AND CREDITS

### 6.1 SHORT GAME VARIANT

The following rules allow for a shorter game between 2 (recommended) or 3 players.

Map – use the Sardinia map only. Laying tiles or tokens on the Corsica Island along the red dotted connections is prohibited

Maritime companies – remove from the game the two maritime companies M7 and M8 based on the Corsica Island

Public Companies – remove from the game the two companies CFC and CFD based on the Corsica Island.

Trains – remove from the game 1 train PH2, 1 train PH3, 1 train PH4 and 1 train PH6. Removed trains must not be the ones carrying the discount.

Certificate limit – the new certificate limit is 27 with two players and 18 with three players

Bank – remove L.2,000 from the bank, so that there are L.6,000 in total.

Tiles – there is no need to remove tiles from the game but please note that the two special tiles marked with letters B and P are redundant. Two mine tiles in yellow, green and brown are redundant as well.

### 6.2 DESIGN NOTES

1865 Sardinia was initially conceived as a short game for two or three players. I always felt in fact the need for a small 18xx game to present in front of the casual guest and I never got completely satisfied with what was currently available.

The core mechanism I had in mind was the use of external investors, (e.g. the Dragons) to give momentum to what would be otherwise a scarcely interactive buy-my-own-shares and get-the-first-permanent-train type of game. The starting point was a Cinderella mechanism developed by Davide De Martino and myself in the good old days when we used to play a lot of 1830 – that system allowed for “ghost” players to influence the game and we had good fun using it.

However, in this case, I needed a smarter set of rules for governing the buy/sell action of the external investors and after much thinking, the company’s rank proved to be the right metric. I was then lucky enough to spot the right values for the Dragons’ table pretty early and that saved me a lot of design time.

The absorption mechanism is instead the result of a very long development process. Initially I intended to allow for hostile takeovers, again with the goal of increasing the interactivity between players. I tried with different sets of rules but hostile takeovers always proved too nasty and caused too much unbalance in the game, so ultimately I had to scrap the idea (for the records, Davide reacted badly saying that for whatever reason I always tend to remove from my designs the funniest elements).

The final absorption mechanism is a milder solution and allows for a gentle game where mistakes can be forgiven. It also provides for a more vibrant and faster end of the game. As companies tend to consolidate in order to increase the dividend per share and to free certificate slots for the owning players, the bank depletes more rapidly in the final stages of the game.

Game speed was in fact the other primary goal when developing this game. The “traffic based train system” inherited from my yet unpublished 18FB game brings, in my opinion, a great benefit in speeding up things. The same positive effect is given by small design elements like the no-penalty in share value when

withholding, the advancement in share price when buying a brand new train from the bank and the discount on the last train of each phase.

Again, I was probably too aggressive in the first prototypes having share values moving backward when the company paid dividends and moving forward when withholding. That set of rules always caused much disconcert among the unfortunate playtesters and, despite I am still today not fully convinced it was such a bad idea, I finally decided to throw it in the bin.

The addition of the Corsica Island and the expansion to 4 players came much later, when I took the game to conventions around UK and realized that it would have been too restrictive to allow for 3 players maximum. At the time, I called the expansion set 1865plus but I quickly changed things upside down and now it is the short 2-3 players version to be the variant and not the other way round.

The final self-publishing effort proved quite a struggle. Certainly it was very demanding financially but also very time consuming from a project management point of view. Thankfully I had a great help from Cory that took care of the artwork taking it to a professional level.

This is the short story behind this game. I truly hope you will enjoy 1865 Sardinia as much as I enjoyed designing it. Have a good time!

### 6.3 CREDITS

Design and development: Alessandro Lala

Artwork: Cory Williamson

Core playtesting team: Lucio Abbate, Davide De Martino

Additional playtesters: Steve Thomas, Paul Heald, Jon Draper, Fred Tanton, Lyndon Gurr, Carlo Gualdi

The 1865 Sardinia Integrated Game System (otherwise referred to as “1865 Sardinia”) is © 2009 Alessandro Lala, who is hereby declared the Author of 1865 Sardinia for all purposes.

The Author recognizes that 1865 Sardinia incorporates, and, indeed, would not be possible without, numerous subsystems and concepts originally used in other Integrated Game Systems belonging to the so called 18xx game series.

## QUICK REFERENCE TABLES

## SUMMARY OF PUBLIC COMPANIES

<u>Acronym</u>	<u>Colour</u>	<u>Start</u>	<u>Destination</u>
FMS	Red	Cagliari	Serbariu
RCSF	Green	Oristano	Cagliari
SFSS	Blue	Sassari	Olbia
FCS	Brown	Isili	Nuoro
SFS	Orange	Arbatax	Cagliari
FA	Yellow	Nuoro	Olbia
CFC	Grey	Bastia	Ajaccio
CFD	Black	Portovecchio	Bastia

## MARITIME COMPANIES

<u>Acronym</u>	<u>Bonus Location</u>
M1	Olbia
M2	Arbatax
M3	Cagliari
M4	Carbonia district
M5	Oristano
M6	Sassari
M7	Ajaccio
M8	Calvi

## SUMMARY OF PHASE CHANGES

	<u>Trigger</u>	<u>Rules/Event</u>
1	Game start	Assign maritime companies
2	Assignment of Maritime Companies	Yellow tiles available Train limit 4 All companies start as Minor Starting values from 60 to 100 available Minor companies can convert to major Maritime companies can be transferred
3	Purchase of first PH3 train	Green tiles available Train limit 3 Starting values from 110 to 130 also available
4	Purchase of first PH4 train	Phase 2 trains scrapped
5	Purchase of first PH5 train	Brown tiles available Maritime companies still in players' hand are discarded All companies start as Major Starting values from 140 to 150 also available
6	Purchase of first PH6 train	Train limit 2 Phase 3 trains are scrapped
7	Purchase of first PH7 train	Grey tiles available Phase 4 trains are scrapped

## LIMIT OF CERTIFICATES

		<u>Normal</u>	<u>Short</u>
		<u>Game</u>	<u>Game</u>
	PH2	6	6
Dragons	PH3-4	10	10
	PH5-7	16	16
Players	2players	36	27
	3players	24	18
	4players	18	-

## LIMIT OF SHARES

Dragons	50%
Players	60%
Bank Pool	50%

## INITIAL CAPITAL

2players	L.360
3players	L.330
4players	L.300

## TRAINS

	<u>Coverage</u>	<u>Cost</u>	<u>Quantity</u>	<u>Scrapped when</u>
PH2	8	100 / 70	6	First PH4 is sold
PH3	14	200 / 160	5	First PH6 is sold
PH4	20	350 / 300	4	First PH7 is sold
PH5	25	500	2	Permanent
PH6	30	650	3	Permanent
PH7	35	800	Unlimited	Permanent