

Crown of Glory

Emperor's Edition

Appendix



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10. ADVANCED ECONOMY

The advanced economy rules supplement the simple economy rules. In a few instances they replace them, as noted below.

10.1 ADVANCED RESOURCES

The Advanced Economy has more resources than the Simple Economy. Money is worth about half of what it is worth in the simple economy, and more resources are collected from protectorates. Military units and developments need these resources in addition to Money and Labor, requiring more management of the economy. (See the in-game Appendix for a chart of unit and development costs in the Advanced Economy.)

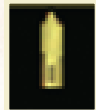
Stockpile limits are:

- 20,000 Money
- 150 Labor
- 3000 of any other type of resource.

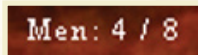
There are two kinds of resources: untradeable resources and tradable resources.

10.1.1 NON-TRADABLE RESOURCES

Men – This represents the workers immediately available for conscription. Each province a nation controls has a stockpile of Men, representing its population of available workers—1 Men equals roughly 10,000 population. When building a military unit, for example, Men are taken not from all over the nation, but specifically from a single province, and/or its neighboring provinces. (A national stockpile is provided for Men, but they are nevertheless drawn from only at the provincial level.) They affect the production of the Labor resource, and the consumption of the Food resource, as described below. The level of Men for a province is shown on its provincial control box: the smaller number to the left shows the current level of Men; the larger number to the right shows the threshold level of Men that the province can increase to without extraordinary Food demands.



Men can be produced by Food consumption (as described below) and can be lost from war and starvation. Each province has a threshold level of Men, beyond which it cannot grow without Roads developments. The Roads development can increase population above this level (see the Roads section below for details).



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Production of military divisions requires recruiting one or more levels of Men either from the stockpile of the province producing the unit, or from that of a nearby province. The supply of Men is also used to replenish divisions already in the field via the military draft, explained in the advanced Economy Advisor rules below.

Labor – In the Advanced Economy, Labor is produced in proportion to a province's level of Men: each level contributes .1 Labor per turn.

The level of Factories development also contributes to Labor: each level increases Labor by 50% in that province.

10.1.2 TRADABLE RESOURCES

Money – In addition to the production modifiers in the simple economy, if a province's level of Men is less than 50% of its threshold population level, Money production is reduced by 10%; if Men is less than 25% of threshold population level, then Money is reduced by 20%.

Horses

Horses are necessary to purchase several types of military units, consuming the Horses and placing them into the units.

Each level of the Farms Development increases production of Horses by 10%.



Food

Food is consumed by a nation's population and military. 1 level of Men consumes 1 level of Food, up to a province's threshold population level. This is taken from the monthly production of Food, or from the Food stockpile. The Roads development (see below) can increase Men above the threshold level, but they require exponentially more amounts of food to sustain them: 1 level of Men above the threshold level consumes 2 Food (1+1); 2 levels consume 5 Food (1+4); 3 levels consume 10 Food (1+9); and so on.



Each level of the Farms Development increases production of Food by 10%.

- **Population Growth** – At the end of a turn, after population is fed, each 100 Food remaining in the Food stockpile produces 1 Men, and is subtracted from the stockpile. This growth is assigned to a random province, but the further a province's level of Men is from its threshold level, the greater the chance it will grow.
- **Population Loss** – If a nation's total level of Men is greater than its Food levels (from both production and stockpile), then for every level of Men greater than the levels of Food, a random province has a chance to lose population. The more Men a province has, the greater its chances of losing this population.

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Iron

Iron is consumed to purchase military units and can also be used to pay for provincial developments.



Each level of the Factories Development increases production of Iron by 10%.

Timber

Timber is consumed to create military units, especially ships, and also to pay for provincial developments.



Each level of the Farms Development increases production of Timber by 10%.

Textiles (Wool and Cotton)

Textiles production, being perhaps the most important economic activity of the era, is representative of a nation's general capacity for advanced economic activity, and as such Textiles are the prerequisite for several advanced military units, as well as ships. Their consumption affects National Morale and Glory (see below).



Each province has its own levels of Wool and Cotton that are produced each turn. In addition, the Wool and Cotton from a nation's stockpile are converted to Textiles each turn by Labor allocated to Textiles, which consumes the Wool and Cotton.

Either 4 Wool or 4 Cotton can be converted to 1 Textile. Wool and Cotton are converted separately and simultaneously. The total amount a province actually converts each turn is equal to its Men x the percentage of labor allocation in Textiles / 100. (See the Advanced Advisors chapter below for information on labor allocation.)

For example, a province with a population of 10 Men, and a Textiles labor allocation of 20%, can produce up to 2 Textiles a turn ($10 \times 20 / 100 = 2$). If it had 4 Wool and 4 Cotton in its stockpile, it would convert all 4 Wool into 1 Textiles, and all 4 Cotton into 1 Textiles, for a total Textiles production of 2. However, if it only had 3 Wool and 3 Cotton, no Textiles would be produced.

Each level of Farms increases production of Wool and Cotton (and hence also Textiles) by 10%.

In addition, the amount of Textiles a nation consumes per turn, above 100 Textiles, affects that nation's National Morale, as described below.

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Sumptuous Goods (Wine, Spice, and Luxuries)

“Wine” includes drinks like vodka and beer; “Spice” might include chocolate or caviar. “Luxuries” include any other luxuries, such as furs and jewelry.



Each level of Farms increases production of Wine and Spice by 10%.

Each level of Factories increases production of Luxuries by 10%.

10.1.3 TEXTILE AND SUMPTUOUS GOODS CONSUMPTION

Like other resources, nations consume a certain amount of Wine, Spice, Luxuries, and Textiles each turn, but unlike other resources, their National Morale may be affected by the amount of each of these resources that they consume.

Each turn, a nation consumes Wine, Spice, and Luxuries in portions equal to its Men / 5, if available. Once a nation produces at least 100 Textiles, it also consumes Textiles in the same portions (but never below 100). When a nation consumes this portion in a resource once, it will do so again so long as it is available. Nations will therefore consume these resources between 0 and 8 times—0, if insufficient resources are available, but up to 2 times for each of the 4 resources. The total number of times a nation consumes these amounts affects its National Morale and Glory. (This replaces the automatic +25 NM gain in the Simple Economy.)

For example, a nation of population 200 will, if possible, consume 10 Wine, 10 Spice, 10 Luxuries, and 10 Textiles (if it has 110 or more Textiles). That would count as 4 consumptions. That nation will also, if possible, consume an additional 10 Wine, 10 Spice, 10 Luxuries, and 10 Textiles, which would count for a total of 8 consumptions.

Number of Times that Textiles and/or Sumptuous Goods are Consumed	Modifier to National Morale	Modifier to Glory
0	-50	-3
1	-25	-1
2	0	0
3	+50	0
4	+10	+1

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Number of Times that Textiles and/or Sumptuous Goods are Consumed	Modifier to National Morale	Modifier to Glory
5	+25	+2
6	+50	+4
7	+75	+6
8	+100	+8

10.2 ADVANCED DEVELOPMENTS

The Advanced Economy has more developments than the Simple Economy (which only has Guns, Walls, Barracks, and Docks). The additional development areas are:

10.2.1 ROADS

Roads increase the speed of Development construction, raise maximum population, and boost Initiative. Note that Roads development levels are not the same things as the roads drawn on the strategic map; they have different effects as follows:

- **Development Construction Time** – If a Development’s new level is less than the level of Roads, the development time is halved.
- **Maximum Population** – Roads also increase the maximum population of a province above its threshold level. The increase is 50% per level of Roads over the threshold Men level. Population in excess of the threshold level requires significantly more Food consumption (see the Food resource section for details).
- **Initiative Increase** – Each level of roads increases the Initiative of units in the province by 5%.

10.2.2 BANKS

Each level of Banks increases Money income from a province by 10%.

10.2.3 CULTURE

Culture adds a bonus to Glory, National Morale, and a nation’s Empire Rating, as described above in Advanced Economic Effects. Cultural effects can be viewed, if necessary, on the Culture Report, which is reached from the Economy Advisor screen (see the Economy Advisor section of the Advanced Advisors chapter below).

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- **Culture and Attitude of Other Nations and Countries** – Nations are assigned a Subsidy Multiplier based on their Culture ranking. The Subsidy Multiplier multiplies the effect of the amount of Money nations pay to subsidize other nations and countries. The subsidy multipliers, in order of highest cultural development to lowest, are: 1.2, 1.1, 1.05, 1.0, 1.0, .9, and .8.
- **Culture and Economic Waste** – Culture also affects the amount of production a nation loses due to economic inefficiency. See the Waste section below for details.

10.2.4 FARMS

Farm developments increase the output of agricultural commodities in a province. Each level of Farms increases the output of agricultural commodities – Horses, Food, Timber, Wool, Cotton, Wine, and Spices – in a province by 10%.

10.2.5 FACTORIES

Each level of Factories increases the output of Labor in a province by 50%, and increases the output of manufactured goods – Iron and Luxuries, and Textiles – by 10%.

Artillery Prerequisites – Factories are a pre-requisite for building certain artillery units in a province:

Level of Factories	Producible Units
3	Artillery
4	Howitzer
5	Heavy Artillery

Artillery Unit Morale – Factories also improve the Morale of artillery built in a province by $(\text{Barracks}/20) + (\text{Factories}/5)$.

Artillery Unit Production – In addition, Factories improve the speed at which new artillery units are constructed. If a province has 4 levels of Factories then the production time for artillery is decreased by 1 month; if 8 levels, 2 months; if 10 levels, 3 months.

10.2.6 COURTS

Courts provide diplomatic, Insurrection, and Waste benefits.

- **Diplomat Production and Skill Levels** – A province needs Courts of 3 or more to build a Diplomat unit. Each newly-built diplomat gets 20 points of diplomatic ratings for each level of Courts in the province, randomly allocated among their Espionage, Influence, and Legal ratings. (No score may be above 70.)
- **Diplomatic Actions** – Courts add to available Diplomatic Actions (7 levels of courts provides +1 action; 10 levels, +2 actions).
- **Courts and Insurrection** – Courts lower the chance of Insurrection in a province.
- **Reduced Waste** – Courts at a level of 5 or higher mean that the province does not count towards additional Waste (see Waste section below).

10.2.7 SYNERGISTIC EFFECTS OF FACTORIES AND BARRACKS

If a province has 5-7 levels of both Factories and Barracks then the build-time for units in this province is decreased by 1 month. If it has 8-9 levels in both, then the build-time is decreased by 2 months. If it has 10 levels, the time is decreased 3 months.

10.2.8 OCCUPATION EFFECTS ON BUILDING DEVELOPMENTS

The presence of one or more enemy units in the Advanced Economy stops all production on developments.

10.3 EFFECTS OF ADVANCED ECONOMY ON STRATEGY

Province Control Box

- **Men** – Shows a provinces population in Men resource levels, and the threshold level of Men beyond which the province incurs extraordinary Food demands (see Advanced Resources below).
- **Top Three Resource Production** – Province control boxes now show the top three areas of tradable resource production in the province, in the amount that the province would produce under normal conditions.

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- **Province Management** – Clicking the Province Management button on a selected province's control box displays the Development Advisor screen for the currently selected province. This screen includes detailed information and options regarding the economic development of the province, and is explained further in the Development Advisor section of the Advanced Advisors chapter.

Map

- **Show Production** – The Map option on the right-click menu now toggles Top Three Resource production figures, plus Money figures, on and off for each province on the main map. This is likewise true for the 'm' button.
- **Show Trade Routes** – For the Map option on the right-click menu, this now toggles trade routes on and off the main map. (See the Trade section below.)



Advanced Supply: Food – Infantry units also require 2 Food to remain in supply, and cavalry and artillery units require 1 Food.

Advanced Plunder: Resources – Plundering always steals a small amount of resources. In addition, for each level of development destroyed, the plundering player acquires one resource point each of Horses, Iron, Timber, Wool, Textiles, Wine, Spice, and Luxuries (see Advanced Resources below).

If Culture developments are plundered in an enemy province, the Culture development level of one of the plundering nation's provinces will be increased by

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one level, though Culture developments stolen in this way may only be transferred to a province with a lower level of Culture than the province that was plundered (see Advanced Developments below).

Ottoman Builds Are Slow – The Ottoman player suffers a penalty to development build time.

Ships Captured in Combat Turned to Timber – Ships captured during pursuit after battle, if not placed into a fleet, are converted to Timber resources.

Diplomat Abilities

- **Trade Stop** – Uses Legal to cancel a random trade route originating in the Diplomat's province.

Income Stolen by Privateers/Income Captured by Privateers – When located along a trade route, a single Privateer can steal up to four resources each turn (see the Trade sub-section below). Players can lose resources to other nations this way, and can also capture resources from other nations using their own Privateers. These resources are subtracted and added to the resource pools of the nation controlling the Privateer.

Colonies: Spice – Colonies also produce 1/2 of a Spice resource each turn.

10.4 EFFECTS OF ADVANCED ECONOMY ON POLITICS

Empire Modifiers

- +4 if the nation has the highest Culture rating (see below)
- +2 if the nation has the second highest Culture rating

Glory Modifiers

- Best trade income (+2) and second-best trade income (+1)
- Each level of Culture development adds, on average, .05 to a nation's Glory each month. The nation with the highest total levels of Culture receives an additional 1 Glory each month.

National Morale Modifiers

- Nation gains NM (+1) if NM is positive and population has sufficient Food
- Nation loses NM (-1) for each level of Men lost from starvation
- Nations no longer gain +25 NM automatically each turn, instead losing or gaining NM from Textile and Sumptuous Goods consumption,

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between -50 and +100 for every 10 goods consumed (see the Advanced Resources section above).

- Feudal Dues reduce NM from -2 for low levels to -25 for high levels. There is a 1 in 6 chance that higher levels will produce catastrophic losses as high as -400.
- Taxation reduces NM by 1/2 of the percentage difference from the basic tax rate of 15%—so nations lose NM for higher tax rates, but gain it for lower ones.
- Welfare levels increase or decrease NM proportionally, but become less effective over time.
- Canceling a trade route (-30)
- If National Morale is less than a nation's total levels of Culture x 5, then National Morale is increased by the nation's total levels of Culture / 5 that month. This continues until National Morale is no longer less than the total levels of Culture x 5.

National Morale Effects – A nation's interest rate is also affected by the level of that nation's National Morale (interest rates are explained in the Economy Advisor section of the Advanced Advisors chapter)

Trade

- **Blockades** – Blockades now also block trade routes from flowing through a port.
- **War** – Trade routes established between nations at war have a 50% chance of being canceled during each turn of war.
- **Attitude** – Attitude also increases the chances a nation or country will make a trade agreement with a player. In addition, having a trade agreement increases Attitude with a nation or country.
- **Treaty Clauses**
 - » **Embargo** – In addition to canceling Merchant income, nations cannot initiate trade routes with the embargoed nation, and all existing trade routes are broken.

10.5 TRADE

Nations can make trade route proposals with other nations and countries during the Orders Phase. Income from Trade is provided on the Economy report.

Each trade route sends some of a province's top three resources and/or Money, to another nation or country's province, in exchange for some of that province's top three resources and/or Money. Trade route proposals are reviewed by the other nation or country during the Movement Phase, during which time they are either accepted or rejected. (See the Economy Advisor section for more details.)

Trade Proposals From Other Players – If a player receives a trade proposal, he will get a pop-up trade window at the end of the turn, with options to accept, decline, or wait. Waiting puts off a decision until next turn—however, the nation that offered the proposal then has the opportunity to withdraw the offer, or change the terms of the trade.

The proposal states whether the nation's Trade Expert thinks the proposal is fair (even if the Trade Expert is turned off)—i.e., whether the value of goods exchanged would be equal. This does not necessarily mean that it would be to the player's advantage to accept—he may need to keep his own goods for one reason or another.

Trade Proposals in PBEM Games – In PBEM games players may propose trades, but the decision whether or not to accept proposals is made automatically. To set one's priorities regarding what types of resources to accept one should use the Set Policies option on the right-click menu from the main map.

Trade Routes – When a trade is accepted, a trade route is put into place that follows the shortest path across provinces. If the route passes through a sea zone containing an enemy Privateer, the Privateer will steal one or more of the resources of the trade route (see Merchants and Privateers below). Trade routes may pass through neither enemy territory nor a blockaded port. Players can view the active trade routes by right-clicking on the main map, and then selecting Map → Show Trade Routes from the menu; trade routes can be hidden by selecting Hide Trade Routes from the same menu.

Breaking Trade Routes – Nations may elect to break their trade routes during any turn, at a cost to National Morale. If one or more of the resources becomes unavailable for trade from that province, the trade route may also be broken, but in that case they do not incur a penalty to National Morale.

Blocked Trade Route – A trade route that cannot find a path between the source and destination provinces will be blocked. (For example, trade routes may not pass through nations at war with one of the trading partners, nor may they pass through provinces containing enemy units. They may also not pass through blockaded ports.) However, it may become un-blocked if a path is found again.

Trade Expert – From the Trade tab on the Economy Advisor screen, the player can click the Trade Expert checkbox to turn the Trade Expert on and off. If the Trade Expert is on, the A.I. will automatically propose trades for the player each turn and will automatically accept or decline any trade proposals offered to the player by other nations. (See Advanced Advisors below for details.)

- **Set Policy for Trade Expert** – The Trade Expert's behavior can be managed using the Set Policy command, available by right-clicking the main screen, even for non-PBEM games.

10.6 WASTE

In the Advanced Economy, nations lose resources from economic inefficiency based on the number of provinces owned by the nation. This is called Waste, and the amount of Waste each turn is provided on the Economy report.

Owning Too Many Provinces Causes Waste: Each province a nation owns in excess of 30 provinces causes production of each tradable resource in each of its core provinces to be reduced by 2%, and in each of its conquered or protected provinces by 4%. Note that protectorates do not cause Waste, but they do suffer its effects.

- For example, if a nation possesses 40 provinces, with 30 core, 5 conquered, and 5 protected, then production in core provinces is reduced by $((40-30) \times 2\%) = 20\%$, and in conquered/protected provinces by $((40-30) \times 4\%) = 40\%$.

More Courts Lower Waste: Core provinces with 5 or more Courts, and conquered provinces with 7 or more Courts, do not cause Waste either, though they do suffer its effects.

- So, if a nation possesses the same 40 provinces as above, but 5 are core provinces with 5 or more Courts, only 35 provinces count towards the total, providing Waste of $((40-35) \times 2\%) = 10\%$ in core provinces and $((40-35) \times 2\%) = 20\%$ in conquered/protected provinces.

More Courts and Culture Exempts from Waste: 7 or more Courts, or 5 or more Culture, in a province reduces that province's Waste by -2% (from 4% to 2% for conquered/protected provinces, and from 2% to 0% for core provinces). 9 or more Courts, or 7 or more Culture, in any province reduces waste to 0%.

- So, even with Waste of 10% in core provinces and 20% in conquered/protected provinces, core provinces with 7 or more Courts neither contribute towards Waste nor suffer its effects, and likewise for conquered/protected provinces with 9 or more Courts. Note that provinces with high levels of Culture still cause Waste, even though the effects are mitigated.

The maximum level of Waste is 90%. Once this level is reached, the addition of further provinces will not increase the amount of waste.

11. ADVANCED ADVISORS

In addition to the Economy Advisor button, which is present for both the simple and advanced economy, in the advanced economy a Development Advisor button can be found in the lower-left corner of the screen.

11.1 ADVANCED ECONOMY ADVISOR

For the basic functions of the Economy Advisor, see the discussion in the Economic Advisor chapter above. This section only covers features not found in the Simple Economy.

Note that in the Advanced Economy, trade is also managed from the Economy Advisor, and the Trade Expert can be turned on to govern it (see Making Trades below)



11.1.1 MILITARY READINESS

In the Advanced Economy, Military Readiness temporarily returns military Strength to a nation's population in units of Men, for the purposes of calculating Labor. The population returned is equal to the total Strength of a nation's units, multiplied by the percentage below 100% that Military Readiness is set to. This Strength is then returned at a rate of 1 Men per every 10000 Strength, proportional to the percentage of total population that a province holds (so .1 Men if a provinces gets 1000 back, .2 if 2000, etc.). The additional Men are used to calculate Labor, then ignored for all other purposes.

11.1.2 DRAFT

In the Advanced Economy, recruits are drafted in units of Men from a nation's supply of the Men resource, and the age of these draftees can be controlled. Otherwise, the draft is similar to the draft in the Simple Economy.

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- Draftees are drawn from a nation's population, in units of Draft Strength, each amount of Strength equivalent to 1 Men, and placed into a training pool.
- Draftees move from the training pool to the draft pool, if the pools are less than the Combined Pool Target, as in the Simple Economy.
- The draft pool replenishes Strength, as in the Simple Economy.
- **Minimum and Maximum Draft Age** – By adjusting the Draft Age, the player can adjust the Draft Strength, but this will also affect the Morale of units that the draft produces. Widening the age range will increase Draft Strength and decrease the Morale of the new troops, and narrowing it will decrease Draft Strength but increase their Morale.

The remaining controls, and replenishment rules, operate the same as in the Simple Economy.

Statistics – The following statistics are added:

- **Draftable Population** is the amount of potential Strength in a nation's population available to be drafted.
- **Draft Strength Per Men** is the base amount of potential Strength drafted from a nation's population into training each month, and is equivalent to 1 Men. (Again, this base amount is multiplied by the Draft Size to determine the total number of draftees per turn.)

The remaining statistics, and draft costs, are the same as in the Simple Economy.

11.1.3 ADVANCED INCOME AND EXPENSES

The following are included on the Income ledger in the Advanced Economy:

- **Taxes** – Total Money income from all active trade agreements is included in Taxes, whether positive or negative.
- **Feudal Income**

And the following are included on the Expenses ledger:

- **Welfare**
- **Trade** costs, in terms of Money traded away
- **Waste** costs.

11.1.4 TAX RATE

Nations have a Tax Rate in the Advanced Economy, displayed on the Economic Advisor screen. The Tax Rate can be changed to increase the amount of monetary income produced by provinces each turn.

Basic Tax Rate – The basic Tax Rate is 15%, representing the percentage of a nation's wealth that is collected as Money. At this basic level, the Tax Rate has no effect on production, but lower Tax Rates spur production of tradable resources, while Rates above 15% inhibit this production. (This is covered in detail in the Summary of Resource Production sub-section of the Development Advisor section below.) Low taxes also increase National Morale by $\frac{1}{2}$ the change from the rate at the start of the scenario, whereas higher taxes lower National Morale by the same fraction.

11.1.5 FEUDAL DUES

In the Advanced Economy, players may control their levels of Feudal Dues and Feudalism directly.

Feudal Dues and Feudalism – Nations can choose to increase or decrease their level of Feudal Dues using the adjustment bar provided on the Economy Advisor screen, and thus increase or decrease their Feudalism. Feudal Dues are not taken from income; they are provided free of cost, and determine a nation's level of Feudalism: every 25 Money provided by Feudal Dues increases the Feudalism level by 1. Feudalism provides certain benefits and imposes certain costs on a nation:

- **Resource Production** – Each level of Feudalism increases income in Money by 8 and Labor by 2.5, but lowers a nation's income in Iron, Timber, Wool, Cotton, Wine, Spices, and Luxuries by 1. Food and Horses are unchanged.
- **Luxury Replacement** – Feudalism greater than 4 eliminates the penalty for being low on Luxuries.
- **Developments** – Each level of Feudalism adds two months to the development time for a new level of development in any province possessed by this nation.
- **Merchant Income** – Each level of Feudalism lowers the amount of Merchant income by 50 Money, or 20% of the normal level of the income, whichever is greater.
- **Draft Replacement** – Higher levels of Feudalism can replenish units in the field in place of draftees, saving Men for resource production. Each level of Feudalism provides 250 Strength each month to a nation's troop replenishments, leaving 250 draftees behind in the draft pool. Over time, this will slow the draft rate, leaving more Men available for resource production.

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- **Military Upkeep** – Each level of Feudalism defrays the total cost of military unit Upkeep by 12 Money.
- **Feudal Levy** – Each level of Feudalism can also provide free production of regular infantry and cavalry during the May turn via the springtime Feudal Levy. Each conquered non-island province provides 1.5 regular infantry units, +1 if Culture is 5 or more, and +1 regular cavalry if Culture is 10. (Russia and the Ottoman player receive their own distinctive units, Cossack Infantry/Cavalry and Nizam-i-Cedid respectively, according to the rules for each provided in the in-game Appendix.)
- At very low levels of troops nationwide, Feudal Levy units can be provided at random throughout the year, until the size of a nation's military increases to an adequate level.
- **National Morale** – levels of Feudalism reduce a nation's National Morale, as described above (from -2 for low levels to -25 for high levels, plus a 1 in 6 chance that higher levels will produce catastrophic losses as high as -400).

11.1.6 WELFARE

Spending Money on Welfare can increase a nation's National Morale. The amount spent is equal to the nation's Welfare level, multiplied by the amount of Money a nation has stockpiled, then divided by the total population in Men. So, Welfare expenditures are increased by raising Welfare levels, but also by growing Money stockpiles or falling population. They are decreased by lowering Welfare levels, but also by falling Money stockpiles or growing population.

National Morale is then raised or lowered by the amount that a new Welfare level differs from the old. For example, if Welfare expenses were 100 Money, and they are raised to 120, National Morale will increase by +20 the next turn. However, over time the nation will become adjusted to the current level of Welfare spending, and the bonus to National Morale will slowly shrink back down to +0. Welfare expenses would need to be raised or lowered again in order to affect National Morale.

11.1.7 THE TRADE TAB AND THE TRADE EXPERT

In the Advanced Economy, the Trade tab contains the controls for making trades. Clicking on this tab takes you to the “Proposing Trade” screen, where you can either automate trade or make and respond to trade offers.

Note that in PBEM games trade offers made by players are accepted or rejected automatically, based on their merit and any national priorities established using the Set Policy command.



Trade Expert – The Trade Expert checkbox, which can be toggled on to automate trade, is found toward the lower-left corner of the screen.

11.1.8 MAKING TRADES

In the Advanced Economy, players can make their own trade proposals from the Trade tab. Provinces owned by the active player appear on the list at the left; provinces owned by other nations and countries appear on the right. To propose a trade route, the player selects exactly one of his own provinces, and one province owned by another player, by left-clicking on the province name (use the scroll bar to scroll up and down the lists).



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The player then selects an amount of Money and/or the province's top three resources to offer, using the arrows above and below the resource icon.



When finished, the player selects the Propose Trade button to propose the trade. A message box in the lower-left corner of the screen will tell the player whether or not the proposed trade is roughly equal in value for both sides. The Trade Advisor image next to this message will also change based on how favorable the proposed trade is.



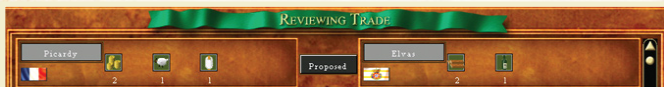
Resources Available for Trade – To the right of the Trade Advisor image are a series of bars representing a nation's total resources available for trading. The lighter green shade represents the amount of expected net national production for each resource on a scale of 1-100. Note that unlike other resources, Food is measured on a scale of 1=1000.

The actual expected amount is shown below the bar, and below that is the stockpile. Note that the amount of a resource available for Trade in any given turn is never more than the current level of production, even if the nation has a stockpile of that resource.

Trade Income and Expenses – Despite the fact that trade is limited by the expected net amount of production, resources involved in trade are added to and subtracted from a nation's stockpiles of each resource at the end of the turn, one at a time in no particular order, after other income and expenses are calculated and added or subtracted as necessary. This could leave a stockpile without enough to complete certain trades, in which case the trade routes will be broken.

11.1.9 THE REVIEW TRADE TAB

Clicking on the Review Trade tab opens the Review Trade screen.



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A list of all active and proposed trades appears in the center of the screen. By clicking the button between each pair of provinces, a player can elect to break one of his trade routes, but loses -25 points of National Morale as a result. All trade for the last turn is also summarized on the Economy report.

11.2 DEVELOPMENT ADVISOR

The Development Advisor provides a summary of your nation's economic activities and production in each unoccupied province, and allows you to control each one's resource production parameters.

There are two ways to get to the Development Advisor screen: clicking the Province Management button on a province's control box directs the player to the Development Advisor screen for that particular province, while clicking on the Development button in the lower-left corner of the screen will go to the province that is alphabetically first, from which it is possible to scroll to the other provinces by clicking on the arrows flanking the province's name (see Navigating Provinces section below).

Based on the level of developments in the province, the Development Advisor image will change his expression in either a favorable or unfavorable manner.



11.2.1 PROVINCE RESOURCE PRODUCTION BARS

At the top right of the screen, you will see a dozen resource production bars for the province, below each of which are three numbers representing provincial and nationwide production and stockpile figures, along with the production figures for each (including the effect of all economic parameters) below the bars, prior to expenses, such as unit purchases. The height of the lighter green bars represents each resource's proportion of the total net production of all resources in that province, showing a province's best resources. (The Men resource does not have a production bar. The level of Men is shown towards the lower-left corner, in terms of current / maximum Population.)

The first row of numbers below the bars is the expected production of that resource in that province for that turn, taking all economic factors into account; the second is the same expected production of that resource for that turn but also including active trade routes for that province; and, the third row is the nation's stockpile of that resource. (The exception is the first row for Textiles, which lists the maximum production capacity for Textiles that turn, as explained in the Economy section, rather than the expected production. The actual production of Textiles will be calculated according to the rules in the Economy section, which are summarized below.

Actual Income – The figures shown on this screen only represent net production prior to expenses. Costs for unit and development construction, for example, are subtracted from net production figures at the end of a turn to get actual income. Other factors that can affect actual income are summarized below. Actual income figures for a turn are always provided the following turn in the Economy report.

11.2.2 PRODUCTION LABOR ALLOCATION

When viewing the Development Advisor screen for a particular province, you will see seven labor allocation adjustment bars in the allocation box at the upper left. (Note that labor allocation is not the same as the Labor resource: it refers to how much economic emphasis is placed on provincial development or producing particular resources.) Players can adjust these to boost or reduce production of different resources or the speed of development in the province. Each adjustment bar shows the percentage of production allocated to that area, while above the bars the amount of unallocated labor is displayed. To adjust the allocation percentage for a particular area, click on the level to which you wish to adjust production. When you do so, production in the other areas will automatically readjust, visibly rising or falling. Right-clicking on the bars will lock each one in place, so that you can adjust one or more without this automatic readjustment occurring.

Increases or decreases in the production of resources due to labor allocation will be reflected in the changing heights of the green resource production bars on the right-hand side of the screen (described above). The areas of allocation and their effects are:

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- **Developments** – affects the speed with which developments in this province are completed
- **Labor** – affects unit production
- **Wood** – affects Timber production
- **Iron** – affects Iron production
- **Textiles** – affects Cotton and Wool production (and hence Textiles)
- **Agriculture** – affects production of Food, Horses, and Wine
- **Luxuries** – affects production of Spice and Luxuries

Each area of production has a basic “unadjusted” level, at which the production of that resource is unaffected by labor allocation. These levels are:

Resource	Allocation Area	Basic Level of Allocation
Developments	Developments	20%
Labor	Labor	10%
Timber	Timber	10%
Iron	Iron	10%
Wool, Cotton (and Textiles)	Textiles	10%
Food, Horses, Wine	Agriculture	30%
Spice, Luxuries	Luxuries	10%

Allocation above or below these levels only increases or decreases labor by half the change. So, increasing labor allocation towards Iron from 10% to 30% only doubles Iron production: the difference between 30% and 10% is 20%, and half of that is 10%, which doubles the base production of 10%. Decreasing it to zero only halves it: the difference between 0% and 10% is 10%, and half of that is 5% cutting the base production of 10% in half.

Allocation can only be increased to 75% for any one resource. Money and Men are not affected by allocation.

11.2.3 SUMMARY OF RESOURCE PRODUCTION

This summary explains in detail how the figures on the resource production tables appearing in the Economy report are calculated.

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Base Production – Each province has a basic level of production of each resource. (Labor is determined by Men.) The basic amount is the amount the province would produce at a Normal difficulty setting, National Morale of 0, Tax Rate of 15%, with no Welfare, no Waste, no enemy units in the province, good weather, no trade, and no expenses for military units or developments.

Difficulty Level – The basic amount is then modified by the difficulty level. Each game difficulty level above Normal reduces base production of every resource in every province by 3.3% below the Normal levels. This applies to human players only. The Top Three Production of each resource is this modified basic amount.

Synergy Effects and Developments – Each resource is then modified as follows:

- **Men** – For every unused 50 Food a nation produces in a turn, a province adds 1 Men. This is assigned to the province that is furthest under its threshold level.
- **Labor** – Each level of Men in a province contributes .1 Labor. Each level of Factories increases that total by 50%. Allocation of production to Labor affects this as described above (no effect for 10%, halved for amounts above and below).
 - » **Military Readiness and Adjusted Population** – As described above in the Advanced Economy Advisor section, each percentage below 100% that Military Readiness is set to (1% for a Military Readiness of 99%; 2% for 98%; and so on) temporarily increases Men for the purposes of calculating Labor. The percentage below 100% is multiplied by the total unit Strength that the nation has in the field, converted to Men, and divided fractionally among a nation's provinces proportional to each province's share of total population. The temporary increase per province is just the proportion of a nation's population that a province holds. The adjusted Population is used to calculate Labor, but does not actually change a province's level of Men, and is then ignored for all other purposes.
- **Money** – Each level of Banks in a province increases the basic production of Money in that province by 10%. Tax rates above and below 15% increase or decrease production by an amount proportional to 15% (e.g., Money production is doubled at a 30% tax rate, but halved at a 7.5% tax rate). Additional Money is gained from merchants, privateers, and trade, in addition to borrowing and treaties.
- **Agricultural Resources (Food, Horses, Timber, Wool, Cotton, Wine, and Spice)** – Each level of the Farms development in a province increases the production of all these resources in that province by 10%. Labor allocation also affects their production as described above.

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- **Manufactured Resources (Iron and Luxuries)** – Each level of Factories in a province increases the production of both Iron and Luxuries in that province by 10%. Labor allocation also affects their production as described above.
- **Textiles** – Textiles are not directly produced: Wool and Cotton are converted into Textiles. 1 unit of Textiles is converted from 4 units of either Wool or Cotton.

Taxation – For each percentage point above 10% that a nation's Tax Rate is set at, the production of all resources besides Money and Labor is reduced by 1%. A Tax Rate of 20% would reduce production of all resources besides Money and Labor by -5%, and a Tax Rate of 10% would increase production of all such resources by +5%.

National Morale – National Morale modifies production by a percentage equal to the nation's National Morale / 100. For example, a National Morale of -1000 reduces production by 10%, and a National Morale of +1000 increases production by 10%.

Feudal Dues – Each level of Feudalism increases income in Money by 8 and Labor by 2.5, but lowers a nation's income in Iron, Timber, Wool, Cotton, Wine, Spices, and Luxuries by 1. Food and Horses are unchanged.

(These adjustments for Feudal Dues are not included in the "Income by Province" table on the Economy Report. They are only included in the final "Income Report" table on the same report. The money bonus is labeled separately on the Economy Report as "Feudal Dues Collected.")

Waste – If a player owns 30 or more provinces, then the player's nation experiences Waste. For each number of provinces above 30 a nation owns, Waste reduces production in core provinces by 2%, and in conquered and protected provinces by 4%. Waste can be reduced by:

- **Protectorates** – Since protectorates do not count toward Waste levels, turning conquered countries into protectorates can often reduce Waste in a nation's other provinces.
- **Court Developments** – Core provinces with 5+ levels of Courts developments do not contribute towards Waste levels, and conquered/protected provinces with 7+ levels of Courts do not either.
- In addition, 7+ Courts eliminates Waste in Core provinces, and halves it in conquered/protected provinces. 9+ Courts eliminates Waste in any province.
- **Cultural Improvements** – 5+ Culture in core provinces also eliminates Waste there, and 7+ Culture eliminates it in conquered/protected provinces.

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So, all owned provinces contribute towards Waste unless they have sufficient levels of Courts. Then, after the Waste level is calculated, provinces are exempted individually based on either their Courts level, or their Culture level.

Production Limit – A province may produce no more than 75 of each resource during any one production phase, besides Money.

The total so far is what is displayed on the Development Advisor screen, as well as on the Trade tab of the Economic advisor.

Post-Turn Modifiers – After a player ends his turn, the net production of each resource can be modified further by the following factors:

Enemy Units – 1 or more enemy divisions in a province reduces all resource production from that province to zero.

Political/Economic Events from the Turn – Other events may occur during the turn that have an effect on production (new provinces may be conquered, for example, increasing Waste levels; national parameters may be adjusted, changing taxation levels; population levels may change, affecting Labor; and so on). The figures on the Development Advisor obviously cannot take such events into account, but the Economy Report always takes into account all actual factors that became involved throughout the course of the turn.

The Economy Report notes the elimination of production due to enemy units in the relevant provinces, summarizes the effects all Developments, National Morale, Taxation, and Waste, and then itemizes losses from Feudal Dues (all of which are already included in the total figures in the Income Report table).

The end result is the provincial resource production for each resource as listed on the Income by Province table on the Economy Report.

Merchant/Trade Effects, Actual Income, and Totals – To get the actual national income for each resource:

- trade is then included
 - » shown on the “Import/Export” table (on the Economy Report)
- along with total Money income/losses from Merchants and Privateers
 - » shown at the top of the report under “Merchant Ship Activity”
- colonial income in Money and Spices
 - » shown under “Dues and Colonies”
- Money and Labor income from Feudalism
 - » shown on the “Feudal Dues Collected” line under “Dues and Colonies”

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- and the deductions caused by Feudal Dues
 - » shown on the “Feudal” line on the “National Production Adjustment Table”

This total is shown on the Economy Report as

- the “Income” column on the Income Report table, and is then
- added to the nation’s stockpile, resulting in the “Total” column on the Income Report table.

Stockpile Deductions and Final Stockpiles – It is then that costs are subtracted from stockpiles (food consumption, Upkeep and supply, depots, new unit construction, new development construction, textile production, and so forth).

The result of subtracting costs is the player’s stockpile at the beginning of the next turn.

11.2.4 MILITARY PRODUCTION

The player can add units to the military production queue for this province and can inspect units currently in the military production queue by clicking on the Choose Production button.

Reinforce To... – Newly-built units can be given orders to move automatically to a container unit once they are produced, in the same manner as described in the Main Menu and Main Screen chapter. Click on the Reinforce To button, and select from the list of available units. New units built in the province will then move to that container unit once it is produced, without a need for further orders.

11.2.5 DEVELOPMENTS

The player can set a development area to improve for this province, just as he can from the strategic map.

11.2.6 BEST RESOURCES AND POPULATION

The tradable resource with the highest base production value, after Money and Food, is listed as the “Best Resource.” If there is also a substantial production of a second tradable resource (besides Money and Food), then that is listed as well. In case of a tie, the two are listed alphabetically. Since these are determined by base production, they will not necessarily correspond to the production bar values, and since they are selected alphabetically in case of ties, they may not correspond to the Top Three Production resources on the control box, either.

The current population level and the threshold maximum are also provided.

11.2.7 DEVELOPMENT EXPERTS

Province Development Expert – If the Province Development Expert is toggled on the computer will try to optimize labor allocation in every province automatically for the player.

Military Production Expert – If the Military Production Expert is toggled on the computer will purchase military units for the player.

11.2.8 NAVIGATING PROVINCES

You can navigate through your provinces in the Development Advisor in two ways. The first way is to scroll through them using the scroll bar in the center of the screen. The provinces are alphabetized by the principal city, which is shown on the scroll bar along with its province. Below the scroll bar are shown the flag of the nation, and the number of cities belonging to the nation. The arrows to either side will scroll you through the list of your provinces in alphabetical order—however, occupied provinces (whose production is blocked) are not shown.

Clicking on the small map to the right of the scroll bar will display the development advisor screen for the province whose area you clicked on.

11.2.9 FOOD, TEXTILE, AND LUXURY CONSUMPTION

At the bottom of the screen are listed some vital statistics for the province: expected population growth, based on the listed Food consumption; and the consumption of Textiles and sumptuous goods, along with the resulting increase in National Morale.

11.2.10 CULTURE REPORT

This button opens a pop-up report on the total Culture rankings of all nations in the game.

APPENDIX

MOUSE CONTROLS

Control	Action
Left-click	Select a unit or province
select unit + Left-click	Order all selected units to move to valid province or into valid container unit
CTRL + Left-click	Select a unit without losing current selection; if a stack, also selects all units in the stack.
Right-click on unit	Opens an Attachment Box showing all units that the unit contains or represents.
select unit + right-click	De-selects all selected units
Right-click on province	Opens the right-click menu for the possessor of the province.
CTRL + Right-click on friendly province	Opens an attachment box for the entire province
CTRL + mousewheel	Zooms map in and out

KEYBOARD SHORTCUTS

MAIN SCREEN

Control	Action
space bar	deselect all units
[‘	deselect the last selected unit
’]	add a division from province under the cursor to currently selected units
CTRL + ‘+’ / ‘-‘	zooms map in and out
‘m’	issue a move order into province under the cursor without losing selection

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Control	Action
'v'	select all divisions in province under the cursor
's'	issue a support order into province under the cursor
'd'	toggle depot at province under the cursor
'u'	offer a subsidy of 10 Money to nation/ country under the cursor
'T'	show relations advisor
'p'	show list of all nations and countries
'+' / '-' (on the keypad)	cycle through top level non-city units that have not received any order this turn
move mouse cursor to edge of screen	scroll map in direction of screen edge
arrow keys	scroll map
SHIFT + move mouse	scroll map in direction of mouse cursor movement
ESCAPE	open Game menu
TAB	toggles the Relations Summary Bar on and off
DELETE	toggles the Control Box on and off
F1	opens the in-game Help menu
F2	opens the Economic Advisor
F3	opens the Overview screen
F4 / ENTER / RETURN	Opens the Military Advisor
F5	opens the Unit List
F6	opens the Diplomacy Advisor
F7	opens the City List
F8	Opens the Development Advisor
F9	Opens the Upgrades list

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DETAILED COMBAT

Control	Action
Left-click on hex	Active unit moves to this hex, facing along the direction of motion.
Right-click on hex	Active unit faces in the direction of this hex.
Left-click enemy unit	Attack enemy by fire-attack, if possible.
Left-click allied unit when white dot is shown	Supply Caisson re-supplies a friendly unit within its movement range.
Left-click sentried or fortified unit	Wakes up unit.
Right-click on any unit	Displays unit information (enemy unit information is estimated)
'c' or Charge button	Charge adjacent enemy unit in the direction of the active unit's facing.
's' or Split button	Splits a unit into two units of equal Strength, which may not move until the next turn. Only units with a minimum of 8,000 Strength may split.
'k' or Skirmish button	Deploys or recalls skirmishers.
'm' or Force March button	Unit gains additional movement points but loses Morale, and has a chance of losing its "fresh" status and becoming fatigued.
'w'	Unit waits, or delays. It will move later in the movement sequence but loses a few movement points each time it does this.
'f'	Fortify. Unit does not become active again until it is awakened. A fortified unit will also rally.
'y'	Sentry. Unit does not become active again until it is awakened, enemy units move within its line of sight, or it is attacked. A sentried unit will also rally.

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Control	Action
'e'	Wakeup. Unit under cursor becomes un-fortified or un-sentried.
'g'	The active unit's general (if any) is detached from this unit and attached to the friendly unit that is under the cursor when the 'g' key is pressed. A unit may have at most one general attached to it.
'+'	Toggles between the standard view and the chit view.
TAB	Toggles an information overlay on and off, with information about the units on the map.
ENTER	Centers screen on active unit
Arrow Keys	Scroll map
SHIFT + Mouse	Scroll map along direction mouse is dragged.
Left-click on Mini-Map	Centers main map on the location clicked
Spacebar / Skip Turn Button	Active unit skips the rest of its turn. This gives the unit a chance to rally, recovering Morale and possibly losing fatigue.
Line Button	Orders the unit to attempt to form the Line formation. The approximate chance of success is given below the Line Button.
Column Button	Orders the unit to attempt to form the Column formation. The approximate chance of success is given below the Column Button.
Square Button	Orders the unit to attempt to form the Square formation. The approximate chance of success is given below the Square Button.
Disordered Display (Options menu)	Shows whether or not unit is disordered. This is only available from the Options menu at the strategic level.
Surrender Button	Orders unit to lay down arms and surrender.

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Control	Action
Skip All Button	Skip turns for all your units till the end of the turn.
Retreat Button	Orders a Retreat. All your units will be routed. The battle ends and pursuit casualties are determined.
Reinforce Button	Call reinforcements (corps/armies) from adjacent provinces, if available. Reinforcements arrive one or two units at a time at the edge of the map.

UPGRADES

All bonuses multiply with other bonuses in the area of the Upgrade's effect. Most upgrades affect detailed combat, except where noted.

Advanced Scouting I	+1 to fog-of-war penetration range during daytime turns in detailed combat.
Advanced Scouting II	+1 to fog-of-war penetration range during daytime turns in detailed combat. If a nation has both Advanced Scouting I and II then it also gets +1 during nighttime turns.
Artillery Drivers	+3 MP to artillery.
Artillery Organization	+10% to firefight casualties dealt by artillery.
Artillery Ranging	Unit makes assaults in detailed combat as if at 1 hex closer for range of 3 or more; at brigade-level, unit attacks as if at 2 hexes closer for range of 3 or more.
Bayonet Practice	+10% to charge casualties dealt by infantry.
Cannonball Standards	Artillery use only 1 supply when attacking.
Cavalry Ferocity	+33% to chance for cavalry to displace defenders.
Cavalry Operations	Cavalry can retain MP after charging.
Cavalry Organization	+33% to effective Morale for cavalry changing formation.
Cavalry Pursuit	+25% to the pursuit points for light cavalry, Cossacks, and lancers.
Cavalry Training	+20% to charge casualties dealt by cavalry.

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Colonial Regiments I	Colonies provide $((\text{Colonies}/4) + 1)$ regular infantry units during spring feudal levy.
Colonial Regiments II	2x the effect of Colonial Regiments I.
Colonial Warfare I	Gives nation a 10% chance to capture 1 colony (=1 colony point) of another nation that is at war (with anyone) each month. Also gives the nation -4% to chance of having colonies captured (by other nations that have Colonial Warfare).
Colonial Warfare II	2x the effect of Colonial Warfare I.
Column Fighting	+25% to casualties dealt by units in Column formation.
Corps System	+1 to capacity of nation's corps.
Desert Fighting	No penalty to casualties for desert combat; no MP penalty for rough terrain in desert combat (but leaves penalty in place for Clear).
Divisional Artillery	+20% to casualties dealt by infantry. +50% at ranges of 2 or more hexes in division-level detailed combat, and at 3 or more hexes in brigade-level detailed combat. +10% chance for infantry to smash Fortress walls during firefight attacks on units in Fortresses. +25% to resource costs for building infantry.
Double Line Formation	+33% to casualties dealt by infantry when in Line formation. +1 to basic MP cost per hex for infantry to move in Line formation.
Efficient Supply	Units resupply to 13 levels of supply, instead of 10.
Elite Guard	Guard units boost Morale at 2x the normal distance.
Engineering Corps	- 50% to MP cost for crossing rivers. +20% to casualties dealt when assaulting Chateaus or Fortresses. 20% fewer casualties when defending in a Village. +20% chance to smash Fortress wall when attacking; -10% chance of Fortress wall being smashed while defending within a Fortress.

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Espionage I	+25% to the strategic Scouting Value for intelligence reports.
Espionage II	+25% to the strategic Scouting Value for intelligence reports .
Esprit de Corps	+33% to Morale regained by rallying.
Fast Reinforcements	Lowers the player's reinforcement delay.
Field Medicine I	-8% to casualties taken.
Field Medicine II	-8% to casualties taken.
Flanking Tactics	2x to flanking bonus for casualties dealt.
Formation Drilling	Raises the chance to change from one formation to another when well-ordered. Chance is always 100% when not in threat zone, initial Morale is 3 or greater, and unit is well-ordered.
Grand Strategy	Permits the Flanking battle setup option to appear (50% of the time).
Hot Shot	Raises chance for artillery to cause fires when making assaults.
Impromptu Squares	Raises chance to form impromptu Squares
Independent Command	General gives +1 to unit reaction radius and 2x charge casualties dealt.
Irregular Tactics	Irregular Cavalry/Cossacks deal fewer charge casualties, but retain more MP afterwards, and are less likely to become disordered.
Krumper System	Triplies the stockpile limit for Labor.
Levee en Masse	+50% to training-to-draft rate, and to draft Strength per Men in the advanced economy.
Light Infantry Training	Allows Light Infantry to be built.
Line Marching	+4 MP to infantry in Line formation.
Longer Cavalry Screens	+2 hexes to length of cavalry screens.

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March Logistics I	+10% to strategic-level Initiative.
March Logistics II	+10% to strategic-level Initiative.
March Logistics III	+10% to strategic-level Initiative.
March Training I	+2 MP to infantry.
March Training II	+2 MP to infantry.
Massed Artillery I	+16% to maximum Strength of artillery.
Massed Artillery II	+16% to maximum Strength of artillery.
Massed Artillery III	+16% to maximum Strength of artillery.
Mixed Order	Raises chance to form a Line, but -25% to firefight casualties dealt by non-Guard infantry in Line. If they have 9 MP or more before making an assault, they also get an automatic charge assault, if the defender can be charged and is disordered.
Mobile Squares	+1 MP for infantry in Square formation.
Mobile Supply	+3 MP for supply caisson.
Nationalism I	+10 to National Morale if < 100
Nationalism II	+25 to National Morale if < 100
Nationalism III	+50 to National Morale if < 100
Organized Foraging	-50% to foraging casualties. +1 bonus supply caisson when foraging units enter detailed combat.
Patriotism	+5 Morale when fighting in a homeland province.
Organized Withdrawal	Adds +25% to the unit's Withdrawal value (in points) when retreating.
Quality Horses	+20% to cavalry MP.
Rapid March	Corps or Army ordered to force-march get an additional move in the turn sequence.
Rocket Horse	Horse Artillery deal an extra +20% Morale loss to target.

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Seppings Method	-20% to resource cost of 1st/2nd-rates, -4 turns to construction time. -2 turns to construction time of other ship units.
Skirmisher Doctrine	Permits regular infantry to deploy skirmishers.
Skirmisher Tactics	Raises chance for infantry to deploy skirmishers.
Skirmisher Training	-20% to casualties taken by infantry in Line formation from non-flanking attacks.
Square Firepower	Squares get -25% to fireattack damage (instead of -50%)
Target Practice I	+10% to firefight casualties dealt by infantry.
Target Practice II	+10% to firefight casualties dealt by infantry.
Tight Cavalry Screens	- 2 hexes to cavalry screen length. Lose -2% less cohesion from enemy units per turn.
Universal Mobilization I	+10% to mobilization limit.
Universal Mobilization II	+10% to mobilization limit.
Universal Service	-20% to Food required for population growth.
Wheel Training	-50% to MP cost of changing facing in Line formation.
Winter Fighting I	-33% fewer casualties in Winter.
Winter Fighting II	If also have Winter Fighting I, then no MP penalty in Winter.
NAVAL UPGRADES	
Improved Naval Signals	Ships more likely to move earlier in the turn sequence
Improved Tacking System	+10% to chance for making a stay check.
Naval Academies I	+ .5 to Morale of newly-built ships
Naval Academies II	+ .5 to Morale of newly-built ships
Merchant Marine I	+10% to Merchant ships' crew, rigging, and +8 more Long Guns

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Merchant Marine II	+10% to Merchant ships' crew, rigging, and +8 more Long Guns
Letters Of Marque I	+20% to Privateers' crew, + 6 more long guns
Letters Of Marque II	+20% to Privateers' crew, + 6 more long guns
Marine Training	2x Marine damage at range 2.
Master Of Arms	+10% crew damage caused in boarding actions
Naval Board Admiralty	Fleet upkeep cost reduced to 0.
Naval Guns	Enemy ships get -1 to assaults and counter-assaults in quick combat. +10% more Long Guns to player's ships in detailed combat.
Naval Maneuvers	Ships move earlier in turn sequence. +15% to the chance of tacking. -50% to the chance of inertial movement at the beginning of a turn.
Naval Repairs	+1 to ship counter-assaults in quick combat. +10% to the chance of repairing damage (except for Rudder Destroyed) to a maximum of 90%. +1 to the rigging and hull HP fixed by the repair action.
Super Frigates	Allows the Super Frigate special ability.

REGIONAL BONUS UNITS

Nations that establish a protectorate or protectorates that include all the provinces listed for any of the political areas below will receive bonus units each spring levee from these protectorates. Some nations may not be able to benefit from regional bonus units. The areas and the associated provinces are:

Political Area	Provinces	No Benefit
Duchy of Warsaw	Warsaw, Posen, Petrokov, Plotsk, Masovia	Not Prussia, Russia, Austria, or Turkey
Kingdom of Bavaria	Bavaria, Nuremburg, Augsburg	Not Turkey
Kingdom of Naples	Naples, Calabria, Sicily, Abruzzi	Not Turkey

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Political Area	Provinces	No Benefit
Kingdom of Italy	Lombardy, Venetia, Modena, Romagna	Not Turkey
Confederation of the Rhine	Bavaria, Nuremburg, Augsburg, Baden, Wurttemberg, Nassau, Hesse, Berg	Not Turkey
North Africa	Morocco, Oran, Algiers, Tunisia, Tripoli, Benghazi, Cyrenaica	Only Turkey
Kingdom of Serbia	Serbia, Belgrade, Nish	Not Turkey

It is possible that these bonus units may become practically unavailable for some regions due to the political division of countries among nations.

DETAILED COMBAT MOVEMENT POINTS

Name	Basic MP
Infantry	12
Militia	11
Guard	13
Light Infantry	12
Rifle Infantry	12
Landwehr Infantry	10
Guerilla Infantry	16
Cossack Infantry	14
Jager Infantry	15
Nizam-i-Cedid	13
Cavalry	24
Heavy Cavalry	20

Appendix

Name	Basic MP
Light Cavalry	28
Cossack Cavalry	26
Irregular Cavalry	26
Lancers	28
Artillery	10
Heavy Artillery	10
Horse Artillery.	16
Howitzer	10
Supply Caisson	10

MOVEMENT SUB-PHASES

The Movement Phase has several sub-phases, which are always carried out in the following sequence:

- A) **Sieges** – units of sufficient strength unopposed by enemy units besiege enemy cities; successful sieges capture cities (cities can also be captured at the end of the turn, after the movement sub-phases below);
- B) **Diplomats** – Diplomat units perform their special orders;
- C1-C6) **Movement Sub-Phases 1-6** – units move and do battle during a sequence of six movement sub-phases;
- D) **Political** – declarations of war come into effect, offers of alliance and surrender are made;
- E) **Income** – provinces, colonies, and merchant ships produce income for the nations that control them;
- F) **Upkeep** – nations pay to support units, maintain depots, uphold treaty clauses, and to consume luxuries;
- G) **Weather** – a new weather pattern is generated for the upcoming turn;
- H) **Production** – work proceeds on units and provincial development under construction;

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1) **Treaty** – newly ratified treaties come into effect, treaty clauses of existing treaties are enforced.

MOVEMENT INITIATIVE PENALTIES

TERRAIN TYPE

Terrain	Infantry	Cavalry	Generals	Artillery
Clear	0	0	0	0
Desert	-25%	-30%	-25%	-35%
Forest	-20%	-40%	-20%	-30%
Marsh	-30%	-50%	-30%	-40%
Mountain	-40%	-60%	-40%	-50%
River	-20%	-30%	-10%	-40%
Water	X	X	X	X

WEATHER TYPE

Weather	Initiative Multiplier	Supply Multiplier
Snow	.5	2
Heavy Snow	.3	3
Ice	.6	2
Rain	.9	1
Storm	.4	3
Flood	.3	2
Fog	.8	1

Appendix

UNIT COSTS (ADVANCED ECONOMY)

Here the actual sub-phases of movement are listed: 2-4 for Normal, 1-6 for Privileged, and 2-5 for Delayed.

Unit	Money	Horses	Labor	Population Cost (Men)	Iron	Timber	Textiles	Experience	Upkeep Cost	Turns to Build	Base Initiative	Scout Chance	Moves on Sub-Phase
Army	50	20	20	0	0	0	40	0	15	6	60	25	2-4
Corps	100	20	20	0	0	0	80	0	15	2	60	15	2-4
Infantry (regular)	50	20	20	2	20	0	0	0	2	3	50	10	2-4
Militia	0	0	20	2	0	0	0	0	2	1	50	10	2-4
Guard	250	20	20	1	40	0	40	25	2	6	60	10	2-4
Light Infantry	50	20	20	2	20	0	60	5	2	4	60	15	2-5
Rifle Infantry	50	0	50	2	120	0	40	0	2	12	50	10	2-4
Guerilla Infantry	50	0	20	2	20	0	0	0	0	3	50	10	2-4
Jager Infantry	0	20	10	2	20	0	200	7	2	4	50	10	2-4
Landwehr Infantry	25	0	30	3	0	0	0	0	0	3	50	10	2-4
Cossack Infantry	50	20	20	2	20	0	0	0	0	3	50	10	2-4
Nizam-i-Cedid	50	20	20	2	20	0	0	7	0	3	50	10	2-4
Cavalry (regular)	100	80	20	1	10	0	0	0	4	6	70	30	1-6
Irregular Cavalry	0	140	10	1	0	0	0	0	2	2	60	10	1-6
Heavy Cavalry	100	120	20	1	40	0	40	7	4	8	60	30	1-6

Appendix

Unit	Money	Horses	Labor	Population Cost (Men)	Iron	Timber	Textiles	Experience	Upkeep Cost	Turns to Build	Base Initiative	Scout Chance	Moves on Sub-Phase
Light Cavalry	100	80	20	1	10	0	40	5	4	6	70	55	1-6
Lancer	200	80	20	1	10	0	120	25	2	9	70	55	1-6
Cossack Cavalry	100	80	20	1	10	0	0	0	0	6	95	30	1-6
Artillery (regular)	100	20	40	1	100	10	0	0	2	9	40	2	2-4
Heavy Artillery	20	20	20	1	300	30	0	7	2	10	20	2	2-4
Howitzer	75	20	40	1	200	10	0	0	4	9	40	2	2-4
Horse Artillery	100	80	60	1	100	10	0	15	2	9	60	2	2-4
Fleet	100	0	20	0	20	100	40	0	15	4	85	15	1-6
Ship (3rd Rate)	150	0	60	1	10	50	20	0	4	12	85	10	1-6
1st/2nd Rate	200	0	60	1	20	100	40	0	6	15	75	10	1-6
4th Rate	50	0	30	1	0	50	20	0	2	9	75	10	1-6
Frigate	150	0	30	1	10	50	20	0	4	9	95	30	1-6
Privateer	0	0	0	1	0	150	0	0	0	9	60	10	1-6
Merchant	0	0	0	1	0	0	200	0	4	8	60	5	1-6
General	0	0	0	0	0	0	0	0	0	0	85	10	2-5
Diplomats	300	0	0	0	0	0	100	0	20	6	75	10	2-5
POW's	0	0	0	0	0	0	0	0	0	0	50	15	2-4
Depot	0	0	0	0	0	0	0	0	15	0	0	0	0
City	0	0	0	0	0	0	0	0	0	0	0	20	0
Port	0	0	0	0	0	0	0	0	0	0	0	20	0

SPECIAL UNIT COMBAT MODIFIERS

LIGHT INFANTRY – MORE NIMBLE AND FLEXIBLE

- **In Quick Combat:**
 - » -1 to assault
 - » +2 to counter-assault
- **In Detailed Combat:**
 - » Require only half as many MP to change formation as regular infantry
 - » Can deploy skirmishers more easily, with 2 MP, usually without failure
 - » Deal more casualties with skirmishers deployed than regular infantry
 - » Movement costs fewer MP compared to regular infantry with skirmishers deployed
 - » Have a chance to sidestep enemy infantry charges
 - » Fire out of Villages, Forests, and Orchards without terrain penalties
 - » Scout one hex further than regular infantry

RIFLE INFANTRY – DEADLIER

- **In Quick Combat:**
 - » +2 to assault
- **In Detailed Combat:**
 - » Deadlier and longer assault range than regular infantry
 - » At close range, deal +20% more casualties than regular infantry
 - » Casualties dealt are doubled vs. artillery; quadrupled at brigade-level

Appendix

GUERRILLA INFANTRY – FASTER AND DEFENSIVE

- **In Quick Combat:**
 - » +3 to counter-assault
- **In Detailed Combat:**
 - » Can retain MP after firefight assault
 - » Receive 2x defensive terrain bonuses
 - » 50% chance to avoid charges from enemy infantry
 - » Take -33% fewer casualties from most assaults
 - » -1 to MP cost in rough terrain
 - » No extra MP cost when moving adjacent to enemy units
 - » Deal -50% damage when firing, -33% damage when charging,
 - » Can move through enemy zones of control, at 2x MP cost
 - » Severe penalties to enter Line formation

JAGER INFANTRY – DEADLIER FORM OF LIGHT INFANTRY

- **In Quick Combat:**
 - » +1 to assault
- **In Detailed Combat:**
 - » Have all skirmishing, movement, and scouting abilities of Light Infantry
 - » Deadlier at long range than Light Infantry

LANDWEHR INFANTRY – SLOWER VERSION OF MILITIA THAT CAN FIGHT ABROAD

- **In Quick Combat:**
 - » Fight as Militia
- **In Detailed Combat:**
 - » -2 fewer MP than regular infantry

Appendix

COSSACK INFANTRY – FASTER BUT WEAKER

- **In Quick Combat:**
 - » More MP, but shorter assault range
- **In Detailed Combat:**
 - » As regular infantry, with fewer MP and shorter range

NIZAM-I-CEDID – HEAVY OTTOMAN INFANTRY

- **In Quick Combat:**
 - » +1 to assault
- **In Detailed Combat:**
 - » Receive a 10% damage bonus

IRREGULAR CAVALRY – WEAKER BUT STURDIER

- **In Quick Combat:**
 - » -1 to assault compared to regular cavalry
 - » -1 to counter-assault compared to regular cavalry
- **In Detailed Combat:**
 - » Deal +20% fewer casualties than regular cavalry
 - » Never begin battle fatigued, even after force-march or as part of reinforcements

HEAVY CAVALRY – DEADLIER BUT SLOWER

- **In Quick Combat:**
 - » +1 to assault
 - » +2 to assault
- **In Detailed Combat:**
 - » Deal +20% more casualties and take -33% fewer casualties when charging than regular cavalry
 - » -20% fewer MP than regular cavalry

Appendix

LIGHT CAVALRY –

SLOWER AND WEAK VS. CAVALRY, BUT STURDIER AND NIMBLER

- **In Quick Combat:**
 - » +1 to counter-assault
- **In Detailed Combat:**
 - » When charging regular cavalry or Heavy cavalry, deal -50% casualties than regular cavalry
 - » About +20% more MP than regular cavalry
 - » Can continue to move after firefight assault (if MP available)
 - » Have 50% chance to sidestep charges by other types of cavalry
 - » See one hex farther through fog-of-war than most other units.
 - » Never begin battle fatigued, even after force-march or as part of reinforcements

LANCERS – LIGHT CAVALRY GOOD AT BREAKING SQUARES

- **In Quick Combat:**
 - » +1 to counter-assault
 - » -3 to counter-assault instead of -5 when attacking infantry in the defensive region; when raining, this penalty is 0
- **In Detailed Combat:**
 - » Move as Light Cavalry
 - » Have 40% chance to break infantry Squares when charging
 - » Deal +12% more charge casualties compared to regular cavalry
 - » Never begin battle fatigued, even after force-march or as part of reinforcements

COSSACK CAVALRY – WEAKER, BUT NIMBLER AND STURDIER.

- **In Quick Combat:**
 - » -1 to assault
- **In Detailed Combat:**

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- » Can sidestep charges like Light Cavalry
- » More MP than regular cavalry
- » Take -10% fewer casualties than regular cavalry units
- » Never begin battle fatigued, even after force-march or as part of reinforcements

HEAVY ARTILLERY – DEADLIER

- **In Quick Combat:**
 - » +2 to assault
- **In Detailed Combat:**
 - » Deal +25% more casualties than regular artillery
 - » Longer assault range
 - » Have +20% greater chance of damaging Fortresses than regular artillery

HOWITZERS – WEAKER BUT MAY FIRE OVER UNITS

- **In Quick Combat:**
 - » May fire over an intervening unit
 - » Deal fewer casualties than regular artillery
- **In Detailed Combat:**
 - » May fire over an intervening unit
 - » Deal more casualties at range 1, but fewer at longer ranges
 - » Shorter range than regular artillery for division-level combat
 - » Opposing unit does not get a counter-assault

HORSE ARTILLERY – WEAKER BUT FASTER

- **In Quick Combat:**
 - » +1 counter-assault
- **In Detailed Combat:**
 - » Deal -10% less casualties than regular artillery
 - » +50% more MP than regular artillery

FIRST/SECOND RATES

- **In Quick Combat:**
 - » +2 to assault
 - » +1 to counter-assault

FOURTH RATES

- **In Quick Combat:**
 - » -5 to assault
 - » -3 to counter-assault

FRIGATES

- **In Quick Combat:**
 - » -2 to assault
 - » -2 to counter-assault
 - » help to protect a fleeing group of ships from enemy pursuit

PRIVATEERS

- **In Quick Combat:**
 - » -2 to assault

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MERCHANT SHIPS

- In Quick Combat:

- » -4 to assault

- » -2 to counter-assault

SPECIAL ABILITIES

“M>=” is the minimum Morale necessary for the special ability. “Unit” indicates which unit(s) can be given the ability (I=infantry, C=cavalry, A=artillery, N=naval)

Ability	Mo >=	unit type	Description
Strategic-Level			
Savage	4	IC	100% success when plundering.
Foragers	4	ICA	No foraging casualties.
Hardy	4	ICA	When force-marching, unit moves +1 province, gets 60% chance to avoid entering detailed combat fatigued.
Detailed Combat			
Quartermaster	6	IA	+1 supply caisson to any detailed combat that includes this unit (up to the maximum allowed number of caissons).
Baggage Train	3	IA	Unit gets 20 supply at beginning of detailed combat, and re-supplies to 15. -2 MP.
Scouts	4	C	Unit's daytime sight range extended; permits unit to see through terrain and other units for a 3 hex radius.
Quick Reaction	5	IC	Unit gets larger reaction radius: Lt. Cavalry types, 9; Cavalry 6; Hv. Cavalry 4; Infantry +1.
Determined	4	IC	2x Morale regained by rallying.
Brave	5	IC	Zero loss of Morale from charges.

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Organized	4	ICA	+2.0 to effective Morale when making formation changes (improves chances of changing formation).
Stubborn	2	I	-50% to Morale loss from firefight assaults when unit's Morale is <4, and Will-to-Fight of unit's side is less than enemy Will-to-Fight. Generals do not provide their Morale bonus to rallying Stubborn units.
Independent	5	I	Need only 3 MP to deploy/recall skirmishers; Light Infantry/Jager need 0 MP.
Disciplined	5	ICA	Need only 1 MP to change formation; 2 MP at brigade-level combat.
Fast	5	ICA	+3 to unit's MP.
Oblique Fire	4	ICA	Making a fire assault does not necessarily end turn but still costs 6 MP.
Night Owls	4	ICA	No movement penalty at night, halves the firefight and charge casualty penalties at night.
Wild	5	IC	Unit gets opportunity charge after disordering an enemy in firefight assaults. Having the Mixed Order upgrade provides a synergy bonus to this opportunity charge.
Iron Wall	6	I	Charges against this unit when it is well-ordered have a 50% to degenerate into a firefight.
Square	4	I	100% success to form Square.
Engineers	4	IA	In detailed combat, greatly increases chances of destroying enemy fortress walls. At strategic level, this unit counts as a triple-Strength unit when determining siege strength for each side in a siege. (Not cumulative with the tripling for artillery.)
Shooters	5	ICA	10% bonus to firefight casualties dealt.
Flankers	5	ICA	Double flanking bonus to casualties dealt.

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Polar Bears	4	ICA	Take no additional casualties from firefight assaults in Winter.
Woodsmen	4	ICA	+33% to casualties dealt when making firefight assaults from Forest (instead of penalty).
Sustained Volley	4	ICA	-25% to casualties taken from firefight counter-assaults.
Chargers	4	IC	+25% to casualties dealt when charging.
Blasted	5	IC	+50% to casualties dealt when charging artillery.
Bloodthirsty	5	C	+33% to casualties dealt when charging disordered units.
Sharpshooters	5	I	+50% to firefight casualties dealt to artillery at division level (+100% for Rifle Infantry vs. artillery), and +200% at brigade level (+300% for Rifle Infantry vs. artillery).
Street Fighters	4	I	No terrain penalty for charges into or out of urban hexes.
Steady	4	ICA	50% chance to avoid becoming disordered after firefight assault or counter-assault casualties
Bulldogs	5	ICA	-2 to number of enemy flankers.
Legendary Grenadiers	6	I	In brigade-level combat, the first brigade in this division gets +.5 Morale.
Antique	2	A	-33% MP and casualties dealt in assaults.
Detailed Naval Combat			
Extra Guns	3	N	10% more Long Guns.
Extra Marines	3	N	+20% more Marines.
Super Frigate	3	N	Increases the basic statistics of a frigate.
Legendary Captain	7	N	+5 Leader points. Occasional bonuses to Action Points.

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Shipshape	5	N	Damage Control orders provide two damage control actions.
Trim Sails	5	N	+1 MP for Full Sail.
Nimble	5	N	+1 MP for Fighting Sail
Copper Plating	3	N	50% chance for +1 MP if movement rate is at least 3.
Storm Sailors	4	N	No penalty to attack roll due to High Winds.
Reinforced Hull	3	N	-2 to assaults against hull.
Deadeye	5	N	+1 to Long Gun assaults at range >7
Lucky	5	N	75% chance to avoid critical hits.
Dauntless	5	N	-50% to Morale loss when boarding another ship.
Admiral	5	N	25% chance for +1 to Morale of ships before combat.
Quality Admiral	6	N	75% chance to raise Morale of ships before combat by +1.
Horatio Nelson	*	N	+1 to Morale of ships before combat; 50% chance for +1.5.
Legendary Surgeon	6	N	+5 to Morale of ships before combat.

*--Horatio Nelson cannot be purchased; the British player begins some scenarios with him.

Appendix

DETAILED COMBAT WEATHER MODIFIERS

Weather	Movement Multiplier	Charge Attack Multiplier	Fire Attack Multiplier	Supply Multiplier
Snow	.5	1.5	.85	2
Heavy Snow	.3	1.7	.65	3
Ice	.6	1.3	1.3	2
Rain	.9	.7	.25	1
Storm	.4	.5	.18	3
Flood	.3	.8	.8	2
Fog	.8	.6	.3	1

DIVISION-LEVEL RANGE DAMAGE MODIFIERS

Unit	R=1	2	3	Charge
Regular infantry / Lt Inf / Landwehr	1	.3	.15	1
Rifle/Jager	1.2	.8	.4	1
Janissaries	1.1	.2	-	1
Guerilla/Cossack Inf	.8	.4	-	1
Cavalry / Lt Cav.	.1	.05	-	2
Irr Cav	.1	.05	-	1.6
Lancers	.05	-	-	2.4
Coss Cav	.1	.02	-	1.8
Hv Cav	.1	.05	-	2.7
Artillery	12	8	2	-
Hors Art	10	5	.5	-
Howitzer	18	4	-	-
Hv Art	16	12	4.5	-

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BRIGADE-LEVEL RANGE DAMAGE MODIFIERS

Unit	R=1	2	3	4	5	6	Charge
Regular infantry / Lt Inf / Landwehr	1.2	.6	.5	.24	.12	-	1
Rifle/Jager	1	.5	.25	.12	.06	-	1
Janisaries	1.2	.5	.25	.12	.06	-	1
Guerilla/Cossack Inf	.8	.4	.2	.1	-	-	1
Cavalry / Lt Cav.	.1	.05	-	-	-	-	2
Irr Cav	.1	.02	-	-	-	-	1.6
Lancers	2.4	.02	-	-	-	-	2.4
Coss Cav	.1	.02	-	-	-	-	1.8
Hv Cav	.1	.05	-	-	-	-	2.7
Artillery	12	8	3	1	.5	.25	-
Hors Art	10	6	2	1	.25	-	-
Howitzer	18	6	2	.5	.2	.1	-
Hv Art	15	10	5	2.3	1	.5	-

NAVAL COMBAT TABLES

LONG GUNS VS. RIGGING

Range	Roll=1	2	3	4	5	6	7	8
1	0	2	3	5	6	7	9	12
2	0	1	2	3	4	6	8	10
3	0	1	2	3	4	4	8	10
4	0	1	2	3	3	3	7	9
5	0	0	0	2	3	4	5	6

Appendix

Range	Roll=1	2	3	4	5	6	7	8
6	0	0	0	1	2	3	4	5
7	0	0	0	0	0	2	4	5
8	0	0	0	0	0	1	3	4
9	0	0	0	0	0	0	2	2
10	0	0	0	0	0	0	1	1

LONG GUNS VS. HULL

Range	Roll=1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8	12
2	1	2	3	5	6	7	6	9
3	0	0	1	2	3	5	5	8
4	0	0	0	2	3	3	5	8
5	0	0	0	2	2	3	3	5
6	0	0	0	1	2	3	3	5
7	0	0	0	0	1	2	2	4
8	0	0	0	0	1	2	2	4
9	0	0	0	0	0	0	2	3
10	0	0	0	0	0	0	0	1

LONG GUNS VS. CREW

Range	Roll=1	2	3	4	5	6	7	8
1	0	2	5	7	7	7	15	20
2	0	2	2	5	7	7	10	15
3	0	0	2	5	7	7	12	15
4	0	0	0	2	5	7	10	12
5	0	0	0	0	0	7	10	12

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Range	Roll=1	2	3	4	5	6	7	8
6	0	0	0	0	0	2	5	7
7	0	0	0	0	0	0	2	7
8	0	0	0	0	0	0	2	5
9	0	0	0	0	0	0	1	2
10	0	0	0	0	0	0	0	1

CARRONADE VS. RIGGING

Range	Roll=1	2	3	4	5	6	7	8
1	0	0	0	0	2	3	4	5
2	0	0	0	0	1	3	3	4
3	0	0	0	0	0	1	3	4
4	0	0	0	0	0	0	2	3
5	0	0	0	0	0	0	1	2

CARRONADE VS. HULL

Range	Roll=1	2	3	4	5	6	7	8
1	0	0	1	1	2	3	4	6
2	0	0	0	1	1	2	2	3
3	0	0	0	1	1	1	2	3
4	0	0	0	0	1	1	1	1
5	0	0	0	0	0	0	1	1

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CARRONADE VS. CREW

Range	Roll=1	2	3	4	5	6	7	8
1	0	0	1	2	3	5	7	15
2	0	0	0	0	3	3	5	7
3	0	0	0	0	1	2	5	7
4	0	0	0	0	0	0	5	7
5	0	0	0	0	0	0	2	5

Appendix

NAVAL CRITICAL HIT EFFECTS

Hull Damage	Target takes -5 to hull points.
Water Line Damage	Target takes -10 to hull points, and -20% to crew Strength.
Yard Blown Away	Target takes -10 to rigging points.
Mast Blown Down	Target takes rigging damage equal to -33% of its maximum rigging points.
Double Damage	Target takes 2x normal rigging damage for that assault.
Sail Jammed	The target has its sails jammed in position.
Rudder Destroyed	Ship's rudder is destroyed, and the ship cannot rotate except into the wind until the rudder is repaired.
Anchor Shot Away	Target loses an anchor, and if the target was at anchor, it no longer is.
Fire	+ 1 to Fire level on target ship.
Large Fire	+2 to Fire level on Target ship.
Explosion	Target explodes. All ships within range 6 have a chance to catch on fire.
Leader Casualties	Target loses a variable amount of leader points.
Captain Killed	If the target has at least 6 leader points remaining, then it takes -5 to leader points, otherwise it takes -4 to leader points.
Gun Damage	Target takes an additional amount of gun damage .
Loose Cannon	Target now has a loose cannon. Target will suffer attack penalties until the loose cannon is repaired.
Panic	Target takes -1 point of Morale.

The stage is set, and the curtain rises upon the next act of the Great French War. Drums roll, bugles call, and banners are unfurled above the marching of tens of thousands of troops, wide-eyed recruits in line with battle-scarred veterans, sabers clattering alongside bags of grapeshot, the wheels of hundreds of caissons creaking and groaning, as generals plan and diplomats plot, and as all of Europe reaches with desperate hands for...THE CROWN OF GLORY.

Crown of Glory

Emperor's Edition