8.0 ECONOMICS

"Political economy, considered as a branch of the science of a statesman or legislator, proposes two distinct objects: first, to provide a plentiful revenue or subsistence for the people, or more properly to enable them to provide such a revenue or subsistence for themselves; and secondly, to supply the state or commonwealth with a revenue sufficient for the public services. It proposes to enrich both the people and the sovereign."

***- Adam Smith,* The Wealth of Nations**

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Economic calculations are performed during the Income Phase of the sequence of play, which takes place near the end of the campaign turn after all of the players' turn orders have been performed and resolved. The placement of the Income Phase at the end of the campaign turn ensures that the amount of X.X Economic Points that an empire earned that campaign turn will reflect the events that took place on that same turn. For example, if one of a power's colonies is conquered by an opponent during the Ground Combat Phase, that empire will not receive any income from the colony that turn.

Empires can earn economic points from two primary sources: colonies and commerce. These take the form of X.X Colony Income and X.X Commerce Income, respectively. Adding these two income values together gives you an empire's X.X Gross Domestic Product (GDP), a statistic which is used to gauge an empire's approximate economic potential. A third income source, X.X Miscellaneous Income, is used for an empire's one-time or infrequent earnings.

The amount of income an empire earns from its colonies can be either increased or decreased based on its current economic state (see X.X Economic States). Colonies controlled by empires in a X.X Peacetime economy produce Colony Income normally, while those in a X.X Wartime economy produce more income and those in a X.X Recession economy produce less income.

An empire's income is balanced against its expenses. X.X Purchases Expense is the total Construction Cost of campaign units purchased on the current campaign turn; X.X Maintenance Expense is to the total Maintenance Cost for all of the empire's campaign units; and X.X Miscellaneous Expense is used to track one-time or infrequent expense items. These expenses are subtracted from an empire's income to determine the total number of economic points that will be added or subtracted from the empire's X.X Economic Pool at the end of the Income Phase. If income exceeds expenses, then the number of economic points in the empire's Economic Pool will increase; otherwise, if expenses are greater than income, the number of economic points in the empire's Economic Pool will decrease.

8.1 ECONOMIC POINTS

The basic economic unit is the *economic point (EP)*. An economic point represents a fixed unit of economic potential that an empire can use to purchase new campaign units, establish colonies, improve colony infrastructure, etc.

Empires earn economic points from two principle sources: colonies (X.X Colony Income) and trade (X.X Commerce Income). Both of these income sources are discussed in detail later in this section.

The economic points that an empire earns are placed into its X.X Economic Pool.

8.2 ECONOMIC POOL

An empire's *Economic Pool* serves as its treasury and represents its available economic reserves. When an empire earns or otherwise receives economic points, these points are placed into the empire's Economic Pool. Once in the pool, these economic points can then be used to make purchases, including everything from building new warships to improving the infrastructure of one of the empire's colonies.

Each turn, during the Income Phase, an empire sums its colony income, commerce income, and miscellaneous income, and then subtracts its purchases expense, maintenance expense, and miscellaneous expense from this total. The final result is then added to the empire's Economic Pool.

The maximum number of economic points that an empire can spend during the Turn Orders Phase is equal to the number of economic points currently in its Economic Pool.

Economic points cannot be spent on the same turn that they are earned, as they are not placed into the empire's Economic Pool until the Income Phase at the end of the campaign turn. The reason that the sequence of play is setup in this way is so that the Income Phase can properly reflect the events that occurred on the same campaign turn.

An empire *cannot* spend more economic points each turn than are present in its Economic Pool. If the Economic Pool is reduced to a negative value, the empire will be unable to make any new purchases until the Economic Pool returns to a non-negative value greater than zero.

Furthermore, on the campaign turn after an empire's Economic Pool goes negative, the controlling player must scrap enough campaign units or liquidate enough infrastructure to cover the shortfall. For example, if an empire's Economic Pool is at -16 EP, the player would have to scrap approximately 32 EP of campaign units or a level 4 infrastructure value to make up for its economic deficit.

8.3 ECONOMIC MODIFIER

Each empire is assigned an *economic modifier* which is a percentile multiplier that is multiplied against its colonies' total combined economic output to calculate the amount of 8.4 Colony Income they will generate. Empires begin a campaign with an economic modifier of 100% unless otherwise specified in your campaign scenario.

An empire's economic modifier can be increased by performing 8.3.1 Gearing Up actions, and it can decreased by performing 8.3.2 Gearing Down actions or as the result of negative X.X Wartime Fatigue events.

8.3.1 Gearing Up

During the Turn Orders Phase, a player can order his empire to begin gearing up its economy. Each turn of economic gear provides a +5% bonus to the empire's economic modifier, but it also incurs a +1 Wartime Fatigue penalty.

An empire cannot perform a gearing up action if its current economic modifier is already at 200%.

8.3.2 Gearing Down

During the Turn Orders Phase, a player can order his empire to begin gearing down its economy. Each turn of economic gear down provides a -5% reduction to the empire's economic modifier, but it also provides a -1 Wartime Fatigue bonus.

An empire cannot perform a gearing down action if its current economic modifier is already at 0%.

8.4 ECONOMIC STATE

Empires can exist in one of three economic states: 8.3.2 Peacetime, 8.3.3 Wartime, or 8.3.4 Recession. The amount of X.X Wartime Fatigue that an empire will gain or lose each turn is largely dependent on its current economic state.

8.4.1 Peacetime

Empires are considered to be in a *Peacetime* economy so long as their X.X Economic Modifier is less than or equal to 100% and they do not currently have a War or Total War Declaration issued against an opposing power. During Peacetime, a significant portion of an empire's economic potential is devoted towards private industry and/or domestic spending projects.

Empires that are in a Peacetime economy receive a -1 Wartime Fatigue bonus during the Diplomacy Phase of each campaign turn. An empire's Wartime Fatigue cannot be reduced below zero as a result of this bonus. This fatigue reduction allows an empire that is in a Peacetime economic state to bleed off excess Wartime Fatigue after a conflict ends.

All empires begin in a Peacetime state at the start of a campaign unless otherwise stated in your scenario.

8.4.2 Wartime

When an empire's X.X Economic Modifier is greater than 100% or it has issued a War or Total War Declaration against an opponent, its economy will enter a *Wartime* state as its industry begins mobilizing civilian infrastructure to better meet the military's needs for new equipment and personnel.

When in a Wartime economic state, empires receive a +1 Wartime Fatigue penalty during the Diplomacy Phase of each campaign turn.

8.4.3 Recession

Empires that end a conflict with extremely high Wartime Fatigue may be forced to enter a Recession economy. In this economic state, the empire's economic infrastructure is thrust into a severe depression that allows the power to inflate its currency or repudiate its debt in order to stabilize its balance sheet.

An empire's economic modifier is halved while in a Recession economy. This vast reduction in economy potential causes a major financial panic and limits the amount of economic points the player has to work with, but the Recession state is much more effective at bleeding off excess Wartime Fatigue. Empires that are in a Recession economy receive a -2 Wartime Fatigue bonus during the Income Phase of each campaign turn. An empire's Wartime Fatigue cannot be reduced below zero as a result of this bonus.

Players may decide to enter or exit a Recession economy on any campaign turn, and their empires can remain in a Recession economic state for as long as desired. A player may strategically decide to enter into a Recession for a limited period during a time of war simply to eliminate some of its Wartime Fatigue if a lull in the conflict presents itself.

8.5 COLONY INCOME

A colony's population (Census) is used to leverage local resources (RAW) in order to generate wealth (economic points). Each campaign turn, a colony will earn its empire a total number of economic points

equal to its Census x RAW. This is called the colony's X.X Economic Output.

[Example]

A colony's X.X Morale will also have an effect on its economic output. Colonies that are in X.X Good Order produce their full economic output, while colonies that are in a state of X.X Unrest produce only half their normal economic output (round fractional amounts down), and colonies in X.X Rebellion have their economic output reduced to zero.

[Example]

The economic output of all colonies in an empire are added together and then multiplied times the empire's X.X Economic Modifier to calculate its total colony income. Round fractional colony income totals down.

Example: An empire controls four colonies with economic outputs of 30, 15, 5, and 0 and an economic modifier of 115%. The empire's total colony income is equal to (30 + 15 + 5 +0) x 115% = 57.5, which rounds down to 57 EP.

8.6 COMMERCE INCOME

Empires can engage in interstellar trade by building X.X Trade Links and establishing a network of X.X Trade Routes. An empire's active trade links are used to calculate its total commerce income during the Income Phase.

8.6.1 Trade Value

Each star system is assigned a *trade value* which determines how much commerce income an empire will earn if it operates a trade link there (see X.X Trade Links).

A system's base trade value is derived from the number and type of X.X Jump Lanes connecting to it. Each X.X Interstellar Lane provides a +5 bonus, while each X.X Sector Lane provides a +10 bonus. Unexplored Lanes do not provide any trade value bonus, as they have not yet been explored.

Example: A system has 3 Interstellar Lanes and 1 Sector Lane. None of these are Unexplored Lanes. Its base commerce value is 3 x 5 + 1 x 10 = 25.

The presence of one or more colonies in a star system will increase the system's trade value. For each colony in the system, take the average of the colony's X.X Economic Output, X.X Production Output, X.X Agricultural Output, and X.X Commerce Output values and add the result to the system's base trade value. This will calculate the system's actual trade value. Round fractional trade values up. With this formula, colonies with balanced economies are most lucrative to trade with, but single-industry colonies still offer some trading value.

8.6.2 Trade Links

A *trade link* represents a network of empire-sponsored commercial interests operating in a single star system. When located on a X.X Trade Route, trade links can be used to generate commerce income for their controlling empire.

Initially, empires may only establish trade links in systems where they control a X.X Supply Node. After this initial trade link is established, however, an empire is allowed to establish trade links in systems that are adjacent to a system that already contains one of its existing trade links. These chains of contiguous trade links are called X.X Trade Routes.

Trade links cannot be established in star systems that are either Claimed or Controlled by another empire unless the two empires have signed a X.X Trade Treaty. Trade links located in another empire's Claimed or Controlled systems will be destroyed if the Trade Treaty is broken.

The cost to establish a trade link varies based on the movement cost of the jump lane that connects the two systems, and is equal to 10 EP times this movement cost.

[Example] Normal Lane = 20 EP to place trade link

An empire can purchase multiple trade links in the same star system, but their effects are not cumulative. Only the first trade link that an empire places in a system will generate income; the rest exist solely to provide redundancy should the first trade link be Crippled or Destroyed.

Trade links that are purchased on the current campaign turn are placed during the Construction Phase and will generate commerce income during the Income Phase of the same campaign turn.

8.6.3 Trade Routes

A *trade route* is a contiguous chain of trade links along which commerce income flows from the high frontier back into an empire's core territories.

Trade routes extend outward from an empire's X.X Good Order X.X Supply Nodes. These major colonies possess the administrative infrastructure required to collect tariffs, levy fees, license free traders, and all of the other bureaucratic duties necessary to manage an empire's far-flung commercial interests. Without the imperial supervision that a supply node provides, a trade link simply cannot generate commerce income.

At the beginning of the Income Phase, an empire must evaluate the status of each of its trade links to determine whether or not they are capable of tracing a contiguous chain of trade links back to a Good Order supply node. Those that can are "active" will generate commerce income. Those that can't are

"inactive" and will not generate any income on the current campaign turn.

Trade routes cannot be traced through Contested systems, nor systems that are Claimed or Controlled by an empire with whom your power does not have a current X.X Trade Treaty.

This trade route mechanic makes it possible for an enemy attack to cutoff segments of an empire's trade links from their own space, rendering them inactive and unable to generate income until the enemy force is repulsed and the trade route restored. Players should be mindful of vulnerabilities in their trade routes and maintain adequate system patrols to prevent these routes from being disrupted by enemy attack.

8.6.4 Calculating Commerce Income

To calculate an empire's total commerce income, add together the trade value of all star systems where the power currently possesses "active" trade links and then multiply this total by 10%. Round fractional commerce income values to the nearest integer. The result is the number of economic points the empire earned from trade on the current campaign turn.

8.7 Miscellaneous Income

Occasionally, a random event or other one-time payment will provide an empire with extra income. Any income that an empire earns that cannot be classified as either colony income or commerce income should be recorded as miscellaneous income.

8.8 Gross Domestic Product

An empire's Gross Domestic Product (GDP) is equal to its total income (Colony Income + Commerce Income + Miscellaneous Income) minus expenses ().

8.9 Purchases Expense

An empire's purchases expense on a campaign turn is equal to the total Construction Cost of all campaign units it purchased that campaign turn.

8.10 Maintenance Expense

All campaign units are assigned a Maintenance Cost value, which is the amount of economic points that must be paid each campaign turn to maintain a single unit of that type.

For each unit class that his empire currently owns, the player must calculate the total Maintenance Cost for that class using the following formula:

(1 x Active + 1/2 x Reserve) x Maintenance Cost

Round fractions up

X.X Active units pay their full Maintenance Cost, X.X Reserve units pay half their normal Maintenance Cost, and X.X Mothballed units pay nothing for maintenance. Fractional maintenance values for each class are rounded up. This encourages players to build and maintain units in groups, as a single corvette with a normal Maintenance Cost of 0.10 could otherwise end up costing an empire 1 EP per turn to maintain.

[Example]

8.11 Miscellaneous Expense

Any expenses that an empire incurs that cannot be classified as either purchases expense or maintenance expense should be recorded as miscellaneous expense.