Economic Gears
A modulated system for gradual economic gaming

By Alex Kremer

Version 1.0

About : A game based in a fantasy world used to teach and learn about economic functions in society.

This manual is written in order to allow quick interchangeability between various modules. The only module required to play is 'Module 1.' This has the basic elements for all rules.

Background : As a recent graduate of the Wizards school of Business you have been sent out into a recently changed world. The invention of steam power in the past 5 years has lead to many new inventions and innovations in society. For one new resources must be moved from cities from all over the world. It is your responsibility to build up a network that can successfully move resources through the kingdom, while being able to stay competitive.

Definitions
Tile - A 3X3 grid card which is used to move on.
Tile Pile - A shuffled up pile of all tiles available in a game.
Game sheet - A rudimentary accounting system in which the assets and liabilities of a business are recorded.

Module 1 - "The Required One!"

Turn Phases
Each turn is broken up into three phases :

1)Lay a new tile - Draw a tile from the tile pile. Tiles must be laid next to each other so that 3 squares fit 3 other squares.

Optional : "Show me the tiles now!" - In this format players take turns laying tiles before the game starts.

2)Place resources - Each city will gain one random resource per turn. If there are not enough counters for a city then there is no further supply at the moment. If there is not enough resources to distribute to each city on the map distribute as follows :

A)All Large cities.
B)Medium Cities

C)Any city with a port.
D)Small Cities
E)Any others

3)Move all pieces - At this point each player takes a turn moving pieces around on the board. They may move as far as their, 'movement' allowance is per turn. At the end of their move if they are in a city they may sell their goods. Pieces may not move in a diagonal method.

4)Sell goods - At this point sell any goods to the cities in which you have arrived in. When sold goods are removed from the board. At this point you may also buy new vehicles in which to operate with your business (Applies to buildings also.) No vehicle may sell a good which has been bought from the same area, they must move to at least a new city to do so.

If a player wishes to buy a building or other vehicle and there are no more 'counters' left then it is considered out of supply. They may try to purchase from another player one of these however.

Required printings : 2 Pages of basic tiles. (Pageone.jpg and Pagetwo.jpg)

Starting Money
Players should agree on the amount of money which they receive during a game. A recommended amount is 3-6, depending on the used modules.

Module 2 - "Iron Ore - Basic"

The basic function of Iron Ore is to be a base set that one can use to quickly learn the basics of the game. Iron ore has no use inside the economy other than filling demand in other cities. Place one in each city at the start of each turn. The basic cost of Iron ore is 2 per each one transported.

If playing with more than one resource only small cities should produce Iron Ore.

Using *Module 6* with Iron Ore Basic : In the situation of using this module the economy will change and with it the price of iron ore.

-Bad Outlook : 1 Gold
-Normal Outlook : 2 Gold
-Good Outlook : 3 Gold.

Things to print out : 40 Iron Ore counters.

Module 3 - "Wagon"

A wagon is the basic mover in the world... at least it used to be. Now it is being pushed out of service in favor of more useful transport resources. Wagons are only allowed to travel on land.

Wagons can move one per turn, hold one resource, and costs 3 gold.

Module 34 makes it impossible for this vehicle to pass mountains.

Module 4 - "Barge"

Barges are the most basic of all water craft in the empire. They are speedy, hold a lot, and are effective. Barges may only operate on the water, and are pushed by the wind.

Barges move four, hold four, and cost 12.

Module 5 - "Blimp"

As the first aircraft to engage in intrastate traffic, the blimp is a basic flying machine. Blimps can travel over all manner of land and sea types.

Blimps move two, hold two, and cost six.

Module 34 makes it impossible for this vehicle to pass mountains.

Module 6 - "Random Economic Outlook"

The outlook of the economy can be determined by a roll of a 1d6. This changes the cost of goods and services in the economy. (Most companies are considered to be followers, and thus can not set their own prices.)

Roll a 1d6 every five turns.

Optional : This can be done every 2 or 3 turns depending on the length of the game.

1-2 - Bad Outlook
3-4 - Normal Outlook
5-6 - Good Outlook

Module 7 - "You"

Each player can be allowed to represent themselves on the gaming board. Module 7 is important for future modules because of some of the limitations it causes. For one opening a bank or a warehouse requires you to be present (Or an associate.) Of course your character may ride on your own transports, otherwise they will move at the speed of one per turn.

Module 8 - "Warehouses"

Warehouses can be built in a city by 'you' (Module 7) or an associate. There are three types of warehouses that can be built in the city.

Small Warehouse : Holds up to 3 resources.
     Restrictions : Only small cities or larger.
     Cost : 9
Medium Warehouse : Holds up to 6 resources.
     Restrictions : Only Medium cities or larger, or in any port city.
     Cost : 18
Large Warehouse : Holds up to 10 resources.
     Restrictions : Only large cities, or in any port city.
     Cost : 30

A warehouse may not sell goods on its own. Instead a warehouse can act as a place to store goods in order to wait for a higher price. (Buy low from a region; and sell back high.) The only way in which a warehouse may sell goods is if a reprehensive of the company is present in the city.

Module 9 - "Simple Banks"

Players may set up banks in any town, however they must have a representive of their company in the town. A bank costs 12 gold to start. Anyone may then deposit or take a loan out from this bank. Anytime a player takes a loan from a bank they must pay 1 gold per 12 gold to the player who owns the bank per turn. (Thus if 24 gold is borrowed they pay 2 gold per turn until it is repaid.)

Any time in which a player wishes to deposit money in a bank they may. Banks will pay 1 interest on each 15 gold deposited in the bank per turn. (Example : 45 gold is in a bank, the player gains +3 gold per turn.)

With *Module 9* rates can NOT be negotiated.

Module 10 - "Complicated Banks"

Use the same rules as *Module 9*. But with this module each player may negotiate rates and terms of loans or deposits with the bank, or vice versa.

Optional : Banks can be forced to balance out 1/4th of what they loan out. Thus if the player is about to sell 250 in loans they must have 62 gold in the bank.

Module 11 - "Associates"

An associated (Represented by the counter, 'Rep') is an extension of the business in a different area. This person acts as a, 'You' counter.

Module 12 - "Transformation"

The transformation process is relatively new to the economy in which the game takes place in. Well relatively new, as society has just advanced from a very rudimentary barter / cottage system, they have never seen a large scale transformation of one or two goods into another good.

Module 12 enables the system to change resources when provided with other resources. For example two iron may output one sword.

Module 13 - "Magic Points"

Being a world of magic and steam it was inevitable that wizards would get involved in business. But to move goods over a long range wizards need to use lots of power, and thus must regenerate in mass various resources which allow them to cast magic. Magic points are the direct representation of the manpower of collecting herbs and other resources.

Record the amount of magic points on the game sheet.

Module 14 - "Economic Wizards"

Economic Wizards have one goal : Make money. Each wizard needs 3 magic points in order to transport 1 resource. This one resource can only be transported to a location with a company asset in it (Be it vehicle or warehouse)

Wizards cost 12 gold, move one, and can hold 0. They generate 1

Magic Point per turn, and have a 3 point spell which transports one good to anywhere on the map.

Module 15 - "Hauling"

Under normal game rules no vehicle may haul another (Unless it is considered to be a 'human' (Aka a wizard, rep, or you). However using *Module 15* this rule is allowed for any vehicle. In order to haul another one the vehicle must have a higher hold space then the vehicle it wishes to hold. This hold space is then taken up by the hauled vehicle.

Sometimes this works as a bonus to the use of a vehicle. A barge could transport carts across a river point.

Module 16 - "Docks"

Players can build docks on rivers in order to transport goods to the point. Docks must be built adjunct to the shore, and there must be a rep of the company present. At this point the dock may then be a staging point for other vehicles. Docks cost 12 gold.

Module 17 - "SteamBarge"

Steambarges were one of the first things to be changed into a steam powered vehicle. These are normal barges, however half of their cargo space is turned into steam powering.

Steam Barges move 6, hold two, and cost 12.

Module 34 makes it impossible for this vehicle to pass mountains.

Module 18 - "Foundry"

A building which transforms numerous types of metals into useable resources. These can not be built inside of a city, but on the outskirts or anywhere else. They require that a rep of the company be present.

Cost : 30.

Module 19 - "Swords"

Requires *Module 12.* Swords are produced at a foundry. Each sword requires that two Iron Ore be consumed in the process (Iron ore is

NOT paid for in this process. It is instead consumed directly.) If one player wishes to sell iron ore to another player in the production of swords then in this case money may be exchanged.

Using *Module 6* with Swords : In the situation of using this module the economy will change and with it the price of swords.

-Bad Outlook : 5 Gold
-Normal Outlook : 7 Gold
-Good Outlook : 10 Gold.

Module 20 - "Iron Ore Mine"

Produces one Iron Ore per turn. This mine costs 20 gold. A rep of the company must be present in order for this to be built.

Module 21 - "Medium Wagon"

A medium sized wagon with four wheels. Uses two horses in order to be moved. Still a slow vehicle, but able to hold more resources.

Medium Wagons move one, hold three, and cost nine.

Module 34 makes it impossible for this vehicle to pass mountains.

Module 22 - "Sherpa"

Slow walking mechanical man. This was the first steam powered mechanical man ever made, and its goal? To carry goods over long distances.

Sherpa's move two, hold two, and cost 16.

The sherpa is a unit that can ignore *Module 34's* rules.

Module 23 – "Steam Floater"

When airships first took to the sky they were governed by the laws of the wind. Now they are governed by the laws of steam! This ship uses a balloon to stay buoyant and steam power to move, using giant fans.

Steam Floaters move three, hold one, and cost 12.

Module 34 makes it impossible for this unit to cross a mountain.

Module 24 – "Wind"

Wind is an important factor for 'floating craft.' Using wind roll every two turns on a 1d6 and consult the following chart. (Note if you have an available 1d4 then use this instead.)

1 - North
2 - East
3 - West
4 - South
5 – Stay the same
6 – Reroll

Wind will make any floating aircraft move +1 when traveling with it (In its direction.) A -1 movement penalty is incurred if going against the wind. Meaning if it can move 2 then it can only move 1 per turn.

Module 25 – "Fuel Costs - Basic"

Costs can be incurred for the use of coal in steam ships. Fuel costs will flucate depending on the economy. But the overall use of fuel costs should be used in the same way as a normal resource.

Using *module 6* the following fuel costs will be used per turn of movement.

Bad Outlook : 3 Gold
Normal Outlook : 2 Gold
Good Outlook : 1 Gold

It is easier to move resources in a good economy via steam. Otherwise individuals begin charging high costs because it is unable to get a good supply of coal, or because of uncertainty.

Coal costs are taken at the end of a trip. When a steam powered vehicle moves from one city to another count the amount of turns it took. Then use the current cost of coal and subtract that from the amount made.

Players in this basic module do not own the factors of production to own coal stocks.

Module 26 – "Fuel Costs – Advanced"

Use the same rules as the other area however in this case the players will manage coal consumption on the board. In this set please use

module 27, and 28. If players do not have enough coal in a city to cover the amount needed (One per square moved) then the local economy will cover the amount needed. For each coal used remove one coal counter from the map. Players who have coal in a warehouse in the city are the ones who will gain money first.

Module 27 – "Coal"

Coal is a resource that is produced from coal mines. Coal follows the prices listed in Module 25. Coal is consumed in a city if sold too it. Or it is consumed by a player using it instead of paying a local merchant.

Module 28 – "Coal Mine"

Coal mines are built in a square by a player. They provide coal to cities for the use by others. Coal mines produce 2 coal per turn, as with other rules if there are not enough coal counters to cover the amount than there is no more production at this moment. Coal mines cost 30 to build.

Building a coal mine requires that there be a rep of the company be present.

Module 29 – "Rails"

A basic invention was the steam train. Running on rails it was able to move at a quicker pace then wagons. Rails are built in groups of two squares at a time. Only the player who owns the rails may use them. But that player may also loan out the rail space per usage. Only one train may be in an square at any given time.

Each set of rails costs 5 gold. This does not require a rep of the company to be present.

Module 34 says that rails can not be built in mountains without the use of an engineer.

Module 30 – "1-1-1-1"

The most basic steam train ever invented. It was the reason that rails began to be used in the first place.

Requires the use of Module 29. A 1-1-1-1 moves 2, holds 3, and costs 12

Module 31 – "Wheat Farm"

Wheat farms are scattered all around the world as we know it. It is the basic food resource for the entire nation. However these are usually for local communities and are not transported very far. But with the commercialization of the economy there is now a need for larger farms to feed larger areas.

Wheat farms produce 1 wheat per turn, and cost 15 gold.

Module 32 – "Work Teams"

Work teams are groups who work for the company in order to reduce the costs of buildings. If a work group is present at the construction of a building they reduce the cost of that building by half. They are considered to be 2 if held in a hold.

Work teams cost 10 and move 1 per turn.

Module 33 - "Wheat"

A basic economic resource, which helps feed the people in numerous communities. Wheat has a basic price of 1. Wheat is a direct view of the economy around it. In bad times the farmers sell their wheat at higher prices in order to make just enough money to survive, but in good times they make more wheat and thus sell it at the normal prices.

Using *module 6* the following fuel costs will be used per turn of movement.

Bad Outlook : 2 Gold
Normal Outlook : 1 Gold
Good Outlook : 1 Gold

Module 34 - "Mountains"

Mountains hinder most traffic with in economic gears. Wagons can not get through mountains unless tunnels are built, tracks can not be laid without specialized engineers, and most importantly airships can not fly high enough to get around it.

Module 35 - "Engineer"

Engineers are assets to a company which allow them to modify the mostly impassable landscape. Engineers can move into mountains

and other bad terrain and make it passable for various types of traffic.

Engineers cost 10, and move one per turn.

Module 36 - "Bridge"

Engineers build bridges over water in order to allow ground based vehicles to cross. Each piece of bridge costs 10 gold to construct.

Module 37 - "Tunnel"

Tunnels go through mountains. These tunnels are built by engineers and allow ground units to go through them. The cost of each piece of tunnel is 20 gold.

Module 38 - "Tolls"

While the local governments need to tax citizens in order to stay alive, the tolls which they put on 'certain' squares are purely in the interest of gain. Sometimes local governments need a push in the right direction in order to get a toll passed. If a repetitive is in a city they may lobby the local government in order to put a toll on any square in the 3X range radius. Each time a player moves their vehicle through this area they must pay 2 gold to the 'city.'

In order to get a toll put in place a player must roll 1d6. Only on a 6 or greater will the toll be placed on that area. However for each 10 gold put into the lobbying process add a +1 to your roll.
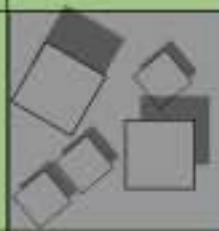
Module 39 - "Taxes"

Players may be forced to pay taxes on the assets which they own. Every 10 turns each player pays 2 gold for each building, 1 gold for each vehicle, and 5 gold from their personal stock. If they are unable to get this money they may sell off their assets in order to meet the need.
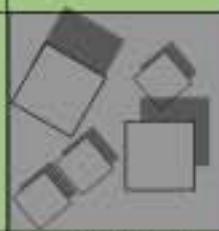
Module 40 - "Public Auctions"

This allows players to sell back any thing they have purchased at ½ the cost. This is only done in an area where a reprehensive is present. At this time other players may buy the goods and use them, so long as they have a reprehensive in the town.
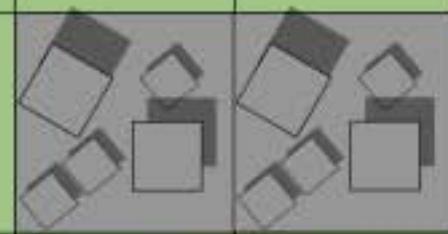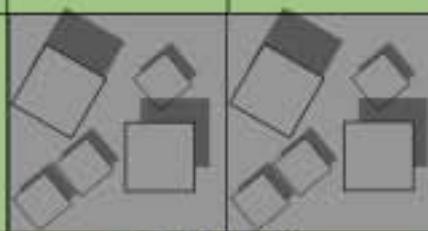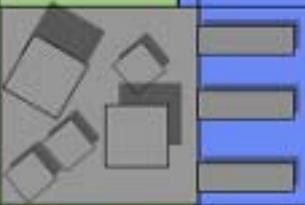
Medium City
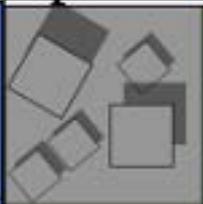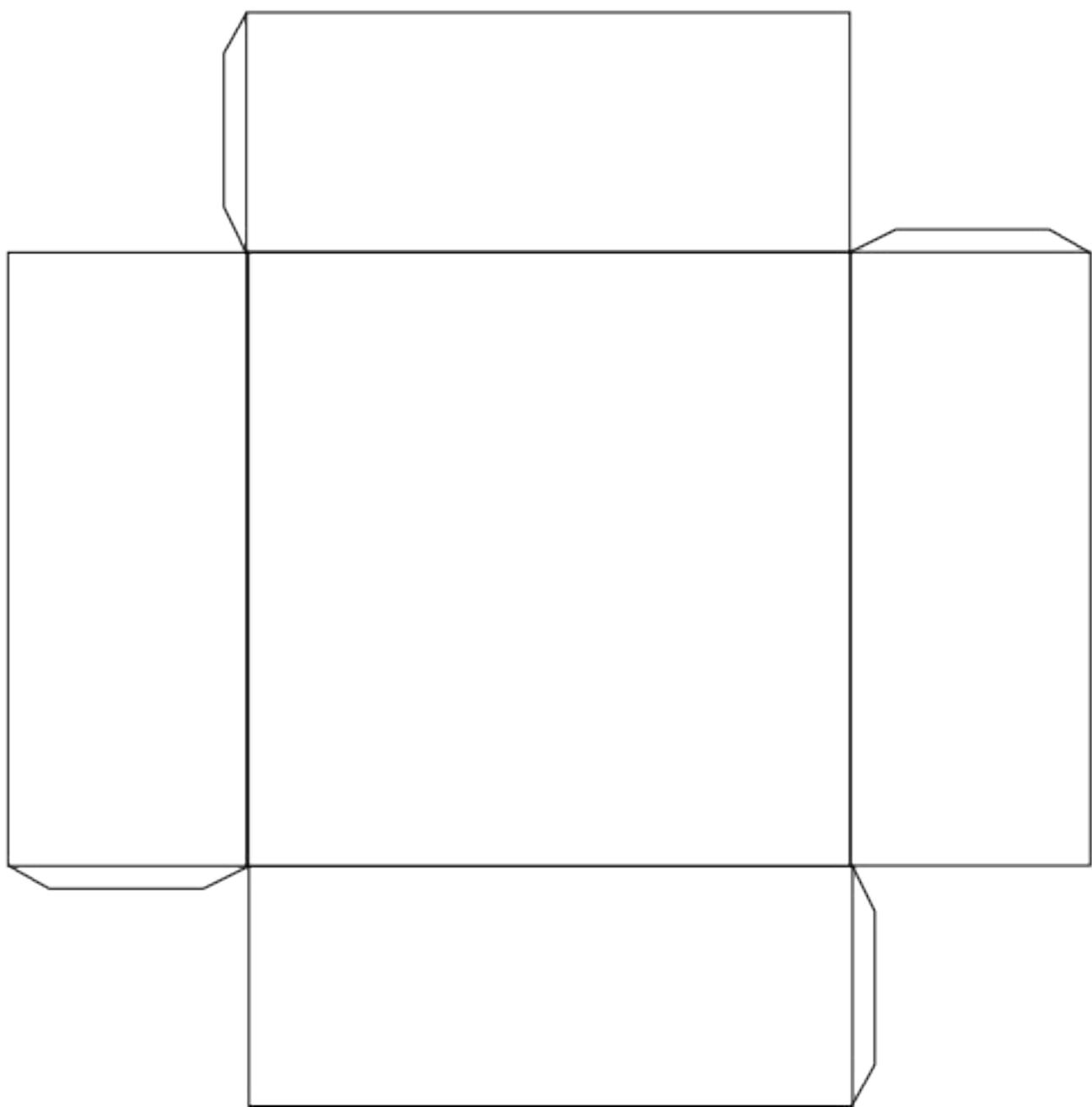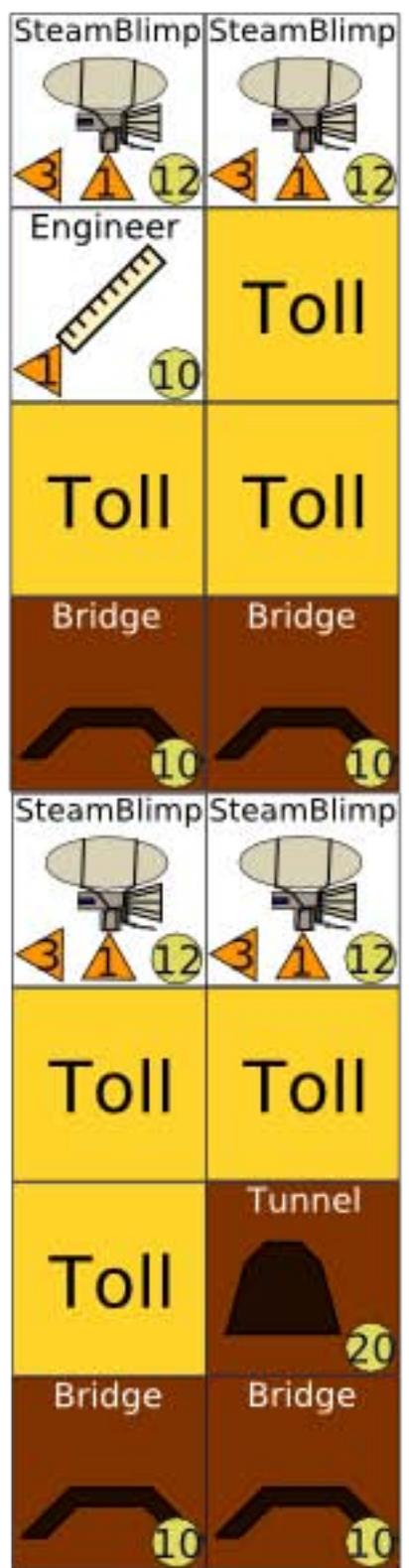
Small City

Small City

Medium City

Small City

Small City

Small City

Small City

Barge	Barge	Barge	Barge	Barge	Barge	Barge
4 4 12	4 4 12	4 4 12	4 4 12	4 4 12	4 4 12	4 4 12
Blimp	Blimp	Wagon	Wagon	Blimp	Blimp	Blimp
2 2 6	2 2 6	1 3	1 3	2 2 6	2 2 6	2 2 6
Blimp	Blimp	Blimp	Blimp	Blimp	Blimp	Blimp
2 2 6	2 2 6	2 2 6	2 2 6	2 2 6	2 2 6	2 2 6
Wagon	Wagon	Wagon	Wagon	Wagon	Wagon	Wagon
1 3	1 3	1 3	1 3	1 3	1 3	1 3
Wagon	Wagon	Wagon	Wagon	Wagon	Wagon	Wagon
1 3	1 3	1 3	1 3	1 3	1 3	1 3
Wagon	Wagon	Wagon	Bridge	Tunnel	Tunnel	Tunnel
1 3	1 3	1 3	10	20	20	20

Iron Ore (grid, 5 columns × 8 rows)

SteamBlimp	SteamBlimp
3 1 12	3 1 12
Engineer	Toll
1 10	
Toll	Toll
Bridge	Bridge
10	10
SteamBlimp	SteamBlimp
3 1 12	3 1 12
Toll	Toll
Toll	Tunnel
	20
Bridge	Bridge
10	10

Work Team	Work Team	Work Team	Work Team	Work Team	Work Team	Rep	Rep	Bank
1 — 10	1 — 10	1 — 10	1 — 10	1 — 10	1 — 10	1 — 12	1 — 12	12
Rep	Rep	You!	Wizard	SteamBarge	Rep	Rep	You!	Coal Mine
1 — 12	1 — 12	1 — 12	1 — 12	6 △2 — 12	1 — 12	1 — 12	1 — 12	30
Wizard	Wizard	SteamBarge	Wizard	SteamBarge	SteamBarge	1-1-1-1	1-1-1-1	Coal Mine
1 — 12	1 — 12	6 △2 — 12	1 — 12	6 △2 — 12	6 △2 — 12	2 △3 — 12	2 △3 — 12	30
1-1-1-1	1-1-1-1	1-1-1-1	Docks	Bank	Docks	Docks	Docks	Coal Mine
2 △3 — 12	2 △3 — 12	2 △3 — 12	12	12	12	12	12	30
Sherpa	Docks	Medium Wagon	Medium Wagon	Wizard	Docks	Medium Wagon	Medium Wagon	Coal Mine
2 △2 — 16	12	1 △3 — 9	1 △3 — 9	1 — 12	12	1 △3 — 9	1 △3 — 9	30
Wizard	Wizard	Sherpa	You!	Medium Wagon	You!	Foundry	Sherpa	Coal Mine
1 — 12	1 — 12		1	1 △3 — 9	1	30	2 △2 — 16	30
Medium Wagon	Foundry	Foundry	Wheat Farm	Small Warehouse	Bank	Sherpa	Sherpa	Coal Mine
1 △3 — 9	30	30	15	9	12	2 △2 — 16	2 △2 — 16	30
Wheat Farm	Wheat Farm	Wheat Farm	Small Warehouse	Medium Warehouse	Wheat Farm	Wheat Farm	Wheat Farm	Small Warehouse
15	15	15	9	18	15	15	15	9
Wheat Farm	Wheat Farm	Wheat Farm	Small Warehouse	Medium Warehouse	Large Warehouse	Iron Ore Mine	Iron Ore Mine	Tunnel
15	15	15	9	18	30	20	20	20
Iron Ore Mine	Large Warehouse	Small Warehouse	Medium Warehouse	Bank	Iron Ore Mine	Small Warehouse	Medium Warehouse	Toll
20	30	9	18	12	20	9	18	

SteamBlimp	Engineer
3 △1 — 12	1 — 10

Toll	Toll

Engineer	Engineer
1 — 10	1 — 10

Toll (×2, right column)

Economic Gears

MIP #28 - Grand Showcase

By Alex Kremer