

Merlin Economics

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Wizard Sano

Credits:

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Dear all,

Welcome Wizard, Witch or sentient newt to Merlin Economics. A simulation game of medieval wizard economies. This is an adaption of Merlin's Theory of Wizard Economics from his second best selling book, *Magical Financing 101 and 100 additional toad recipes*.

The game consists of 4 – 6 players reacting and planning for events as they are foretold, mitigating risk through derivatives, managing properties, trading and bartering, going through economic uncertainty, and ultimately sustaining an ever expanding wizard economy.

Players must use their skills in hand management, commodities speculation, blind auctioning, and more to be able to build out their empires.

Thank you for playing,
Wizard Sano

In it's current state there are no graphics, the rule book is a mess and a lot of the mechanics are not ironed out.

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Introduction

Game Setup

- Playing card without the jokers, and the custom decks are individually shuffled. You should have some paper and pens, and post-its.
- The season wheel, research cost counter, and cost of the living counter are reset to 'the start of summer', 1, and 2 respectively. Have one of each commodity with a bid/ask table underneath.
- Every player receives 10 gold.
- There should be no discard piles, every discarded card should be shuffled back into their respective decks.

For more information on the season wheel, research cost counter, and cost of the living counter refer to the **Indicators** section.

Turn Order

Turn order is determined by **blind auctioning**.

If there is a tie for a position that is **not last**, it is determined by **bartering** from earliest in turn order to last. Players in the tie will negotiate over the position from the other(s) through gold or other means. If there are more than two players in the tie **all** the remaining unplaced players will once again blind auction for the remaining positions.

If there is a tie for last or if there are two recursive ties, all unplaced players will participate in a **blind rank auction** for each place from last on the players left hand side to earliest turn order on their right hand side. If there is recursive tie for

last in the blind rank auction, the player going first receives the position to sell.

Players can only be placed once and only hold one turn order position. Turn order cannot be changed.

For more information on blind auctions and blind rank auctions refer to the **Auctioning** section.

Playing Cards

Most of the playing cards act as permits, **except for 7s, Jacks, Queens, Kings, and Aces.**

Jokers (Optional)

This is an **optional** rule to speed up the game when needed, added and taken out of the deck whenever all the players **unanimously** agree to do so.

Tax men whom take the **tax rate** amount of gold out of all the players reserves. Picked then played, and reshuffled.

For more information on the tax rate, check the **Tax** section.

2,3,4,5,6,8,9,10 Cards

Permits can be bought for the current cost of the living. Card suits differ systematically by ability and mechanic. Lands and Properties are not permit.

For more information on the Cost of the living counter refer to the **Indicators** section.

Clubs

Property that generates gold when the number on the card is rolled. The number of gold generated is

determined by **property value**. Specialized properties like Spell Shops and Breweries generate double property value of gold.

Property can be invested in to generate more gold. The invested gold is doubled when the number on the card is rolled. The generated gold on that turn is **not** included in the calculation. Properties can be bought and sold freely between players on the property owner's turn.

The property owner may also **auction** their property, starting the bid **at or below the property value**. They can also liquidate the property, selling it to the central bank for the property value, and reshuffling it back into the deck.

When a property is perpendicularly placed on another property, **Chaufeurs** are created, where wealth is stored. It allowed for the player to loan money, create margin on derivatives, insurance, issue bonds, stock, or its own currency. It gives the ability to safely invest as if any two numbers on the properties are rolled it will return one gold for every five. Chauffeurs do not generate gold when the number on the properties are rolled. Chauffeurs cannot be targeted by Golems. There are no capital requirements, or reserve limits.

For more information on property and property value, refer to the **Property** page.

Spades

Spell lab that generate spell cards when funded with research grants and the number on the card is rolled. When the number is rolled, the research funding is given to the central bank. Spells negatively affect other players.

The spell lab is considered successful once it has generated 3 spent spells, this can be marked by putting the spent spell upside down under the lab.

When a funded and successful lab is placed perpendicular on a property, a **Spell Shop** is created, reshuffle the spent spells under the lab into the deck. The research funds are given to the **Central Bank**. A Spell Shop grants the player the ability to **sell spells** to the **bank or other players**, and the ability but not the obligation to allow other players to **sell their spells** to the bank and/or other players using your Spell Shop on their turn.

A Spell Shop does **not** generate spell cards, instead when the permit number is rolled a property **maintenance** is paid to the central bank, determined by various factors, but always starting at one gold. Spell Shop's can be invested in.

Hearts

Potion lab that generate potion recipe cards when

funded with research grants and the number on the card is rolled. Recipes **require commodities to activate**. The recipe is **single** use. Potions apply buffs to the player.

The potion lab is considered successful once it has generated 3 spent potions, this can be marked by putting the spent potion upside down under the lab.

When a funded and successful potion lab is placed perpendicular on a property, the player can create a **Brewery**, the research funds are given to the **Central Bank**. A Brewery give the ability to sell a hand of two Essence Grain to the bank as Mead for the price of the current cost of the living.

A Brewery does **not** generate potion cards, instead when the permit number is rolled a property **maintenance** is paid to the central bank, determined by various factors, but always starting at one gold. Brewery cannot be invested in.

Diamonds

Land cards that generate commodities when the number on the card is rolled.

2, 3, 4 – Souls

5, 6 – Elixir Oil

8, 9, 10 – Essence Grain

A land card can only be placed perpendicular on top of unoccupied properties that are not invested in. Any player can create **derivatives** on commodities on their turn. Commodities cannot be auctioned and must be traded or sold using the financial instruments provided.

Land cards and the property underneath cannot be invested in, however you can plant the commodity the land gives you which doubles when the land card is rolled. The generated commodity on that turn is **not** included in the calculation. This mechanic is not allowed for Elixir Oil.

To understand futures and derivatives refer to the **Financial Instruments** section. For more information on everything in this subsection, refer to the **Permit** section.

7s

All 7 cards must be played instantly, increase the **Cost of the Living** by **Volatility** (set to 1 by default –volatility can be manually changed to speed up games, this can be voted on by all players, in the game or not). A type of inflation that affects all aspects of the game. 7s are reshuffled into the deck.

For more information on the Cost of the living counter refer to the **Indicators** section.

Jacks and Queens (11, 12)

Golems that can attack and defend property. Jack and Queens are Stone and Bronze Golems respectively. Red cards (Diamond and Hearts) act as attacking Golems, whilst black cards (Spade

and Clubs) act as defensive Golems. When defending a Golem should be placed parallel to the property, if a Bronze Golem is hit it is turned sideways to indicate damage.

Keep in mind: Statistically Stone Golems have a higher chance of attacking.

On an 11 dice roll, all Stone Golems will attack.

Stone Golems have 1 hit points meaning, when hit, are destroyed.

On a 12 dice roll, all Bronze Golems will attack.

Bronze Golems have 2 hit point, when hit, turned once, and then destroyed on the next hit.

Defensive Golems will only attack incoming attacking Golems, however if there is no attacking force, the defensive Golem will heal the property one hit point if applicable.

All Golems require one **Soul** to be animated and played. Put the commodity into the respective deck before playing the Golem.

Defensive Golem

Defensive Golems can be played on owned or allied properties that add one additional hit point to the property for each Golem protecting said property. A defensive Golem can attack an attacking Golem if both Golems are targeting the property.

Attacking Golem

Attacking Golems can be played on opposing

properties, and deal one point of damage to the property.

When a property generates a resource and an attacking Golem is on the card, instead of the player that owns the property receiving the resource, it is given to the attacking party.

Properties with permits on top (Lands, Spell Shops, Breweries, etc.) have two hit points. When hit, the permit card on top should spin to cover the property underneath. Properties with permits on top that have been hit no longer generate gold on roll, and cannot be invested in.

A property with both an attacking and defending Golem are considered entrenched and will not generate any resource.

Aces

When an Ace is bought, it must be instantly played. A free card is taken from the deck, if it is not a permit, reshuffle into the deck, and take another card until a permit is drawn. The player is given whatever the permit would give on a roll of its number, and gets to keep the permit. The ace is then reshuffled.

Kings

Royal Decrees. Very powerful cards that can change the course of a game. The 4 kings in the deck are picked and played, and add a layer of complexity in future planning. When the player plays the royal decree, it can be used to increase or decrease by one: the cost of the living, research cost, and the tax rate.

The player that plays the card has the ability on that turn to take back any and all investments they currently have on properties.

As a group, all the players must make a **regulation**, change a regulation or delete a regulation. All players can vote on it however they all see fit (ranked voting, majority rule, etc.) The regulation cannot be targeted towards a player, but can target their actions (If a player gains an oil card, they must pay the tax rate. Players cannot lend money to bankrupt players, etc.) In this way, the game constantly changes.

Have a sheet of paper with all the regulations in the game.

The player that plays the Royal Decree is given a crown. This crown can be traded or sold. A crown is a consumable item that allows the player to skip paying taxes for the year it is used.

Players can win the game by having five crowns if they also have the highest net worth among all players. Net worth is calculated as the sum of a player's gold reserves, property values, and investments, minus any outstanding debts or liabilities

After being played, all players take a vote on if the decree should be reshuffled into the deck, majority rule.

Dice

When a player rolls the dice on their turn, everybody that has a permit or land with the number on it will receive one of the

corresponding resources.

If both dice are the same number the season wheel will progress by one.

If a 7 is rolled, the cost of research will increase by one. All invested gold on properties is taken by the central bank. All commodities holders must pay one gold to keep their commodities.

Commodities cost money to hold, and encourages the use of derivative contracts and sustaining the market with asks.

When rolling an 11 or 12, all attacking Golems will attack any property they are on, all defending Golems will either attack any attacking Golems or heal the property one hit point.

More clear information on Golems is above in the Golem subsection.

Gold

Gold that is not invested that is not in a Chauffeur is considered pocket change and can have adverse affects.

Future reading cards

These cards are events that will happen in the future. Meaning, when a specific number is rolled next, or in a number of turns or orbits. These predictions can be wrong and be waived by adverse rolls foretold on the card. Future readings are split into two categories, Tea Leaves and Crystal Balls. The only difference being that Crystal Ball predictions have a higher chance of

occurring compared to Tea Leaves.

All future reading cards are places on the field as they take time to mature and take place. Some may contradict, so effects should take place by first played.

Future reading cards, may incentives a healthier economy by redistributing **R.O.W** tax revenue. If there is not enough gold to be distributed in the manor the card describes to every player, disregard the card.

For more information on R.O.W, check the **Tax** section.

How to Play

Game Loop

The game starts with at least 4 players.

The optimal play would be **4 – 6** players.

Refer to the **Introduction** section for setup instructions.

A blind auction is held for turn order. All blind bets are put in the center as a pot.

Highest bid gets first place, second highest gets second place, etc.

For more info referring to blind auctions refer to the **Auctioning** section.

Information on Turn Order is in the **Introduction** section.

Last place gets half the pot of blind bets. The other half is put in the Central Bank.

If there are **more than 4** players the last two players should **each get half**.

Core Loop

Refer to the **Core Loop** page.

A player wins when every other player is bankrupt. The player can also play five crowns to win.

Core Loop

The player who's turn it is rolls the dice.

If a 7 is rolled.
Research costs increase by one. All invested gold is given to the Central Bank. All commodities holders must pay one gold to keep their commodities.

A Future reading card is revealed.

The player is option(s) to play Golems, spells, potions, permits, invest, sell to specialized properties, and/or research.

Any action in this category can be done in any order at the player's discretion. Players must say the actions they are taking out loud as some spells requires that knowledge.

The player has the option to create trades, open bids and asks, and propose derivatives.

The player then has the option to buy permits at the current Cost of the living.

Buy permits one at a time since the price can change. Permits are bought at the end so they can only be played the turn after you have bought them.

Financial Instruments

Property Investing

Investing in properties equates to putting gold on top of the property to gamble that the number on the card will come up sooner than a 7. Property investments are **locked** in and can only be taken off the card once the money is lost and given to the central bank or doubled when the number is hit on their turn, receiving money from the central bank.

Making it a risky endeavor; betting against the central bank.

The Grand Market

The grand market, or simply the market, is a trading platform for commodity speculation. Buyers and sellers can trade commodities at prices negotiated by all the players. This is done by opening and closing bids and asks.

There are no regulations against spoofing, short ladders, or any other financial manipulation.

All bids and asks must be covered, meaning the long has the money and short has the commodity.

Bid

Bids are created by buyers. A player can create a bid on their turn by putting the amount they would like to pay for a commodity as a stack of gold on top of a slip of paper with a name or identifier. This bid is then placed under the bid section of any commodity. Once a bid is put in place it cannot be taken out of the market for one turn. To indicate a market exit, a player must shift the bid left into the escrow section, in which it

can be collect on the players next turn. Bids in escrow can still be executed. Players can shift a bid up same turn, or create more bids with more slips; however, to shift a bid down the difference must also pass escrow.

Market Stimulus

If the market has no bids for an item and it has been that way for two months, use R.O.W money to create three bids at the current cost of the living.

Ask

Asks are created by sellers. They are useful to avoid the cost of holding commodities. A player can create an ask on their turn by putting the commodity on top of a slip of paper with their name or identifier and price. An ask can be taken out of the market on the players turn, with no indications necessary.

Executing Trades

Players on their turn can execute on bids or asks in the market. Selling or buying a commodity for the sold price.

There are no trade busts or adjustments.

Spot Price

The spot price is the price between the bid and ask. If there are no bids, the spot price is considered zero.

Commodity Derivatives

Commodities can be traded, however because it takes time for commodities to grow, contracts can be traded between players

to mitigate fluctuating prices.

The commodity seller is the short, the long is the buyer of commodities.

Every contract is calculated using **one bushel** which is 3 of the same commodity.

Futures

To create a futures contract between two players only a few things need to be agreed upon between the short and long parties. The bushel type, forward price, expiry date.

On a sticky note,

The short must first write their name or any string identifier (e.g farm name, company name) on top.
Resource being sold.

The forward price.

Expiry date in number of years. (e.g Start of summer, Year 3)

Forward Price

Forward price can be calculated using a formula, or the shorts gut. But for a rule of thumb it should be the three times whatever the short believes will be the future price of commodity.

The sticky note is then placed on the field for players to fulfill by paying the forward price to the short, becoming the long on the contract. The long is allowed to sell the contract on their

turn for however much they see fit, or hold it until expiry.

The contract cannot be assigned until the expiry date.

The short has an obligation to fulfill all contracts, on their first turn after expiry.

Shorts can buy commodities in the market to fulfill the contract, remove asks on the commodity, or settle the contract by assigning a long contract they hold with the same expiry regardless of forward price. If there are no commodities to buy, the contract can be settled by the last **sold price** of the commodity.

If the short fails to deliver,

The second turn after expiry, the player is considered bankrupt.

For more information on what to do when a player is considered bankrupt refer to the **Bankruptcy** section.

Insurance

Players that have a chauffeurs that want to be able to hedge against statistical chances in the game are able to create derivatives contracts with other players for a fixed price.

A more nuanced version of this is called insurance, that relies on seasonal premium changes and leverage.

Selling insurance on statistical chances can be as simple as "If the next roll is a 2,3, or 5. Pays 3:1" to more complex derivatives like "If a spell is played to block production of souls on your property and the number on the land is rolled. Pays 14:3" These

can also include insurance when trading between players.

Insurance periods can be from one turn to multiple years.

Premium costs can only be changed on the changing of the season.

Central Bank

The Central Bank is main economic drain in the game. It collects all the money once it has been used to research, and lost investments.

The Central Bank does not collect Taxes. Tax money is used to fund infrastructure for better commodity growth and incentives for business owners.

For more information on the tax rate, check the **Tax** section.

Trading Between Players

To facilitate a healthy market, trading between players is discouraged.

When trading with others for commodities and other items that can be traded on the market, a D6 is rolled by both players to determine if the paths between kingdoms is safe.

If either player rolls a three or below the cart with all of their items are stolen and reshuffled into the deck or their gold is given back to the central bank.

If the trading partners have ever targeted each other with spells, then this also happens when a two is rolled.

Taxes

There are no guarantees in life other than death and taxes.

Taxes are a healthy part of any economy. Every spring tax season is upon the players. Every player must pay the tax rate to the **Revenue Office of Wizards** or **R.O.W**

This revenue for the government is then spent by future reading cards.

Players must pay the tax rate plus the tax rate multiplied by the number of properties they own, multiplied by two for specialized properties, and if they cannot are considered bankrupt.

After every player has paid the tax rate, the players can unanimously decide to increase or decrease the tax rate by one.

If increased, the cost of the living and research cost are decreased by one.

If decreased, the cost of the living and research cost are increased by one.

Bankruptcy

Players that are considered bankrupt, must try their best to avoid exiting the game. Players facing bankruptcy can exit bankruptcy by paying off any debts they owe to other players, central bank, and or R.O.W. Players are **not forced to liquidate properties**. If a player is still bankrupt by the same time next

year, they are eliminated from the game.

Auctioning

There are many different forms of auctioning. Many of them are used by players to sell properties and businesses. Commodities cannot be auctioned.

Blind Auction

All players participating in the blind auction put the amount they would like to bid in their dominant hand. Once they have accurately counted their bid, players will close their hand into a fist and all put their fists together. Once every player is ready, all players will turn their fist fingers side up and open to reveal their bid in their palm.

Blind Rank Auctioning

Blind rank auctioning is used rarely. When there are multiple Ranks for players to choose over, players can blind bet multiple times or use blind rank auctioning. Blind rank auctioning is done by having every player make stacks of gold pieces in front of them from the least ranked on the players left to the most on the players right. Players must bid at least one gold for each rank so positions are obvious to all other players.

Bid Auctioning

Players can opt to use bid auctioning when selling properties. This simple form of auctioning has every player bid regardless of turn order, increasing the

amount of gold bid every iteration.

Indicators

Season Wheel

The season wheel is a way to add variation along orbits. Whenever a player rolls a double of any number on their turn the season wheel is turned one portion.

Players receive no Essence Grain nor Souls during Winter and will receive double Essence Grain and Souls during Spring.

The game begins during the first of summer.

The Season Wheel may change mid game as the climate gets affected.

Climate Change

As players use resources, climates change to slowly make the game more difficult over time.

For every oil generated, increase the climate counter by one.

The increased climate change will change which season wheel to use.

Cost of the Living

The cost of the living is a play on the cost of living, better known as inflation. It determines the price of things.

There is a Cost of the Living indicator that increases during the game.

When increasing or decreasing the Cost of Living.

There is an optional component which is called Volatility, it is set to 1 by default. Volatility can be manually changed to speed up games, this can be voted on by all players, in the game or not

Research Cost

The research cost is what it costs to research potions and spells. The labs that research, require constant funding to be able to research.

There is a Research Cost counter that increases during the game.

Bid/Ask Table

The Bid/Ask table are used to indicate a new market. The usual three are the different commodities; however, any player can use them to create their own markets for spells, potions, contracts, or their own product as in a stock in that player's profits.

Property

Properties

The most vital part of the game are properties, there are only 8 usable property cards in the game making it rare and even more so as all permits get bought. As I wanted all properties to be of equal value, the statistically edge is offset by property value.

Maintenance

A deterministic factor to owning a business is maintenance. Whenever a Spell Shop or Brewery's permit number is rolled, a maintenance fee is paid to the central bank. Maintenance is one gold, but can fluctuate.

Property Value

The balance to offset statistical edge from dice rolls into gold. The top is the card number, and underneath is the gold value.

2	3	4,10	5,9	6,8
5	4	3	2	1

Specialized properties like Spell Shops and Breweries double the amount of gold generated.

Magic

Potions

A potion is created when the ingredients for a potion recipe are fulfilled and the player puts back those commodities into the deck. To use the potion, it must be placed face down under the property the player would like it to affect or face down in front of them if it affects the player directly. When the activation on the card takes place, the card is then revealed and the cards abilities play out. Once used, it is reshuffled into the deck.

The potion card must be played before the activation occurs. A potion on a non-targeted property does not get activated from actions on other properties.

Spells

A spell can be played at any player. Used to stifle completion. Reveal the card and to whom or property it affects. After using the spell, either reshuffle or use to act as a counter for the spell lab that produced the spell.

Spells that were not produced from that spell lab cannot take credit for it.