

Speculation in the first Bubble Market

by Scott Nicholson

Historical Background

The tulip, a flower native to east Africa, created quite a ruckus upon reaching the shores of Europe in the mid-1500s. When a virus attacks a tulip, the resulting colour patterns can be stunning, but the same virus weakens the tulip and makes reproduction a challenge. These rare tulips have always been quite expensive, even to this day. Many associate Tulipmania with these rare, high-priced tulips, but scholars report that this first bubble market, where buyers pay far more than something is physically worth because of the resale value, actually stemmed from the common tulip market over December 1636 and January 1637.

The Dutch, well-known for their trading prowess, were the centre of the tulip trade. During this time, the bubonic plague was killing off 1 out of every 7 people per year, so the common man saw little reason not to invest foolishly with a good chance of making a substantial profit. These conditions created a situation where the prices of tulips skyrocketed by the day, until the prices hit a point that could not be sustained. The wily investors knew when to sell off, so those who profited most were those who sold just as the market started to turn sour.

You are playing one of those wily investors. You have a network of buyers and colleagues, all of whom are also trying to become wealthy. Your goal is to make smart investments, artificially raise prices, fleece your network at the best time, and then make your escape from Tulipmania with the most money.

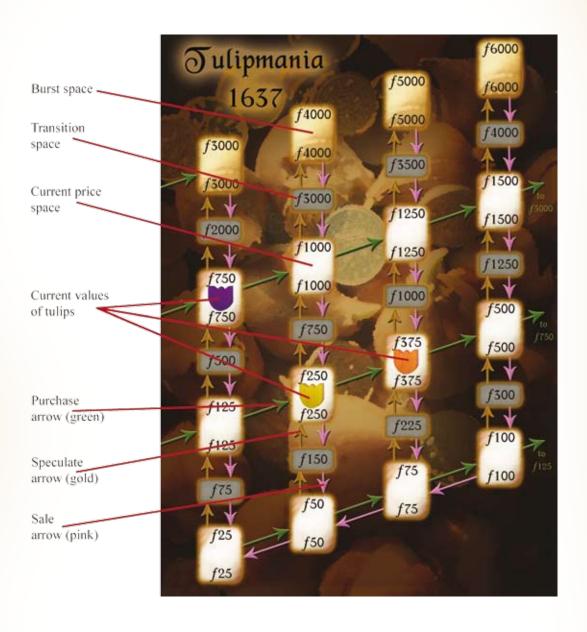
Contents

- 55 tulips, 11 in each of 5 colours
- 40 buyer cards, 8 each in 5 colours
- **25** action cards, 5 each of 5 different actions
- 1 board
- \blacksquare Cash in denominations of f25, f100, f500 and f1,000; 100,000 Florins in total.
- 1 current player card
- 1 priority action card
- These rules

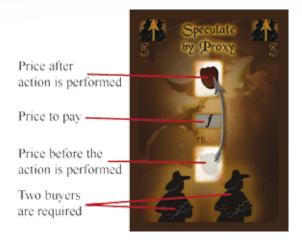
Learn how to play this game with the designer at http://www.jklmgames.com/tulipmania
Scott Nicholson gives a video-tutorial.

Overview

The board contains a number of spaces. These are divided into white "current price" spaces, yellow "burst" spaces and grey "transition price" spaces. The spaces are linked by green "purchase" arrows, gold "speculate" arrows and pink "sale" arrows. There is one tulip of each colour on the board. This is the price indicator tulip for that colour of tulip.



Each player has a set of 5 action cards – one of each different type. Each action card shows the price of the tulip before the action, the new price after the action and the price which is paid for the tulip. If buyer cards are required, then these are also shown.



Each player is buying and selling tulips. The current value of each colour of tulip is indicated by the value of the current price space containing the price indicator tulip of that colour. As the game progresses, the price of each colour of tulip will rise and fall, until eventually it bursts and the market for that colour of tulip collapses.

Each buyer card represents a buyer in your network. Each is interested in buying a tulip of a certain colour. Their money is included in the bank.

The tulips held by each player, and the money held by each player, are public. The number of buyer cards held by each player is also public, but the colour of the buyer cards is secret.

Preparation

For a three player game, remove the following components from the game:

- All the red and blue buyer cards.
- All the red and blue tulips.
- Two purple, two yellow and two orange tulips.

For a four player game, remove the following components from the game:

- All the red buyer cards.
- All the red tulips.
- One purple, one yellow, one orange and one blue tulip.

For a five player game, all the components are used.

Setup

Place the board in the centre of the table, where everybody can reach it.

Give each player 1 tulip of each colour. Place 1 tulip of each colour on the f50 space on the board. Place the remaining 5 tulips of each colour in a stockpile next to the board.

Give each player 5 f100 Notes and 8 f25 Notes (700 Florins in total). Place the remaining money in a bank next to the board.

Give each player one set of 5 action cards – one "4 – Speculate", one "3 – Speculate by proxy", one "2 – Purchase", one "1 – Purchase by proxy" and one "Pass". Remove the remaining action cards from the game.

Shuffle the buyer cards and deal 3 cards to each player.

For a three player game, with the remaining buyer cards, form a buyer deck containing 11 cards and a reserve deck containing 4 cards. Turn over the top 2 cards of the buyer deck and lay them face up on the table.

For a four player game, with the remaining buyer cards, form a buyer deck containing 14 cards and a reserve deck containing 6 cards. Turn over the top 2 cards of the buyer deck and lay them face up on the table.

For a five player game, with the remaining buyer cards, form a buyer deck containing 18 cards and a reserve deck containing 7 cards. Turn over the top 3 cards of the buyer deck and lay them face up on the table.

Give the current player card to the player who most recently planted a tulip. Give the Priority Action card to the player on his right.

Play can now begin.

Setup Summary

Number of Players	3	4	5
Colours used	3	4	5
Tulips per colour	9	10	11
Buyers per colour	8		
Buyer deck size	11	14	18
Reserve deck size	4	6	7
Face-up buyers	2	2	3
Buyer cards per player	3		
Starting money	f700		
Initial tulip value	f50		

Gameplay

Summary

Players take turns to play. Each turn, the player with the current player card performs four actions:

- I. Sell a tulip. He puts a tulip up for sale. The other players simultaneously decide if they wish to purchase the tulip at the current value or to artificially raise the price through speculation. Players can call in an outside buyer to purchase or speculate on a bulb.
- II. Draw a new buyer card, adding to his network of buyers (first three turns only).
- III. Purchase a tulip, adding it to his stock.
- IV. Pass the current player card.

The actions of the players cause the price of the tulips to rise and fall. This continues until a tulip price is pushed too high, at which point the market for that colour tulip crashes and players sell off all of their inventory, preferably to known buyers.

When there is only one colour of tulip which has not crashed, it crashes as players sell their remaining stock and the game ends. The player with the most money wins.

I. Sell a Tulip

If the current player has two or more tulips then he must perform this action. If he has one tulip then he may choose to skip this action. If he has no tulips then he must skip this action.

The current player selects one of his tulips to sell. He places his choice of tulip on the current player card.

Every other player selects one of their action cards, and places it face-down on the table. Once they have all selected an action card, these cards are revealed simultaneously.

If all players have selected the "Pass" action card, then the current player also selects an action card and plays it in front of him, face up. However, this must not be the "4 – Speculate" or the "2 – Purchase" card.

The player who plays the highest numbered action card is the winner of the sale. In the event of a tie, the winner is the player with the priority action card, or if the player with the priority action card is not involved in the tie, then the first player anti-clockwise from the priority action card who is involved in the tie.

If all players, including the current player, play their "Pass" card, then there is no winner.

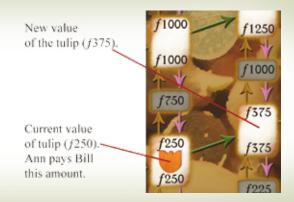
The winner of the sale performs an action according to the action card he played. The actions are as follows:

2 - Purchase

The winner of the sale has chosen to buy the tulip at its current price, with his own money.

- The winner of the sale receives the tulip from the current player.
- The winner of the sale pays the current player the current price for the tulip.
- The price of this colour of tulip rises the price indicator is moved along the green purchase arrow to the next space.

Example of Purchase: Bill selects an orange tulip to sell (current value f250). Ann wins the auction with a 2-Purchase card. Ann receives the orange tulip and pays Bill f250. The price of orange tulips increases to f375.

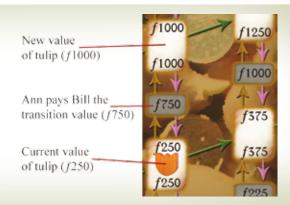


4 - Speculate

The winner of the sale has chosen to pay more than the tulip is worth for the tulip, with his own money, in the expectation of future profit.

- The winner of the sale receives the tulip from the current player.
- The price of this colour of tulip rises the price indicator is moved up the gold speculate arrow to the transition price space above the current space.
- The winner of the sale pays the current player the price in the transition price space for the tulip.
- The price of this colour of tulip rises again the price indicator is moved up the gold speculate arrow to the new current price above the transition price space.

Example of Speculate: Bill selects an orange tulip to sell (current value f250). Ann wins the auction with a 4-Speculate card. Ann receives the orange tulip and pays Bill f750. The price of orange tulips increases to f1000.

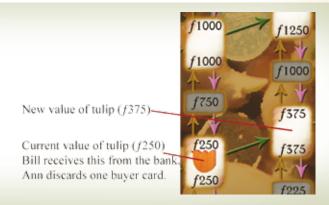


1 - Purchase by Proxy

The winner of the sale has chosen to recommend to one of his buyers that he buys the tulip.

- The winner of the sale discards one buyer card of the same colour as the colour of the tulip. The discarded buyer card is removed from the game.
- The current player places the tulip in the tulip stockpile.
- The bank pays the current player the current price for the tulip.
- The price of this colour of tulip rises the price indicator is moved along the green purchase arrow to the next space.

Example of Purchase by Proxy: Bill selects an orange tulip to sell (current value f250). Ann wins the auction with a 1-Purchase by Proxy card. Ann discards one orange buyer card. Bill places the orange tulip in the stock, and receives f250 from the bank. The price of orange tulips increases to f375.

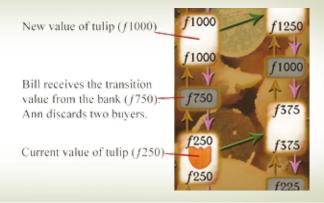


3 - Speculate by Proxy

The winner of the sale has chosen to recommend to two of his buyers that they collectively pay more than the tulip is worth for the tulip, in the expectation of future profit.

- The winner of the sale discards two buyer cards of the same colour as the colour of the tulip. The discarded buyer cards are removed from the game.
- The current player places the tulip in the tulip stockpile.
- The price of this colour of tulip rises the price indicator is moved up the gold speculate arrow to the transition price space above the current spaces
- The bank pays the current player the price in the transition price space for the tulip.
- The price of this colour of tulip rises again the price indicator is moved up the gold speculate arrow to the new current price above the transition price space.

Example of Speculate by Proxy: Bill selects an orange tulip to sell (current value f250). Ann wins the auction with a 3-Speculate by Proxy card. Ann discards two orange buyers card. Bill places the orange tulip in the stock, and receives f750 from the bank. The price of orange tulips increases to f1000.

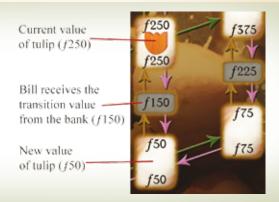


All players passed.

All players, including the player who is selling the tulip, elected to pass. Nobody is interested in the tulip. The markets pay for the tulip, but at a reduced price.

- The current player places the tulip in the tulip stockpile.
- The price of this colour of tulip falls the price indicator is moved down the pink sale arrow to the transition price space below the current space.
- The bank pays the current player the price in the transition price space for the tulip.
- The price of this colour of tulip falls again the price indicator is moved down the pink sale arrow to the new current price below the transition price space.

Example of All Players Passed: Bill selects an orange tulip to sell (current value f250). Everybody passes. Bill places the orange tulip in the stock, and receives f150 from the bank. The price of orange tulips falls to f50.



If the winner of the sale was the player with the priority action card, then the priority action card is passed to the player to his right. There is no restriction on who can hold the priority action card at this stage of the turn.

Once the sale has been completed, the players return the action card they played to their hand.

If the price of the colour of tulip which was sold is now f3000 or above, then the bubble bursts and the price crashes. See "The Bubble Bursts" below.

II. Draw a New Buyer Card

If the buyer deck is not exhausted then the current player must perform this action. Otherwise he must skip this action.

The current player selects a buyer card to draw into his hand. He may either take one of the face-up buyer cards, or the top card off the buyer deck.

If a face-up card is taken, then the top card from the buyer deck is drawn to replace it.

If the buyer deck is now exhausted, then the face-up buyer cards are discarded. No more buyer cards may be drawn by any player. This will always happen after every player has had three turns.

III. Purchase a Tulip

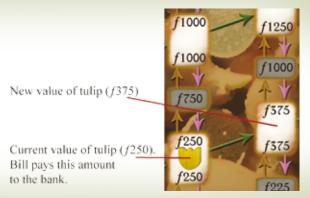
The current player may choose whether to perform this action or skip this action. If there is no tulip he can legally purchase, then he must skip this action.

The current player selects a tulip from the stockpile to buy. This must be a different colour from the tulip he sold at the start of his turn.

The current player pays the bank the current price for the tulip, and takes the tulip.

The price of this colour of tulip rises – the price indicator is moved along the green purchase arrow to the next space. If the price of the colour of tulip which was bought is now f3000, then the bubble bursts and the price crashes. See "The Bubble Bursts" below.

Example of Purchase a Tulip: Bill selects to buy a yellow tulip (current value f250). Bill pays f250 to the bank, and takes the Yellow tulip from the stockpile. The price of yellow tulips increases to f375.



IV. Pass the Current Player Card

The current player passes the current player card to the player to his left.

If the current player card and the priority action card are now held by the same player, then the priority action card is passed to the player to the right (the player who is just ending his turn).

The Bubble Bursts

When the price of a tulip reaches f3000 or more (i.e. one of the yellow "burst" spaces), the bubble bursts for that colour of tulip, and the market for that tulip colour collapses.

If this happens due to a player playing a "4 – Speculate" or "3 – Speculate by Proxy", then all players except the player who played the card must discard one buyer card of the burst colour, if they have such a card in their hand. This represents a buyer deciding that the prices have risen too high for his budget, and terminating his interest.

Each player must now sell off his tulips in this colour as quickly as possible. This is done as follows:

- Each player who has both a tulip and a buyer of the burst colour declares them. He discards one buyer and one tulip, and receives the current value of the tulip.
- The current value of the tulip is then decreased along the pink sale arrow to the spot directly below, which may put the current value on a grey transition space.

This is repeated until no player has a buyer and a tulip of the burst colour.

The remaining tulips are then sold off as follows:

- Each player who still has a tulip of the burst colour then declares it. He discards one tulip, and receives the current value of the tulip.
- The current value of the tulip is then decreased along the pink sale arrow to the spot directly below, which may put the current value on a grey transition space.

This is repeated until no player has a tulip of the burst colour.

Example of The Bubble Bursts: Ann wins an orange tulip from Bill with a 4-Speculate card. The price of orange tulips increases from f1000 to f4000. The price then crashes.

Everybody except Ann discards one orange buyer card.

Ann, Bill and Charles all still have both an orange tulip and an orange buyer card. Each of them discards the orange tulip and the orange buyer card, and receives f4000. The price then drops to f3000.

Charles has another orange tulip and orange buyer card. He discards the orange tulip and the orange buyer card, and receives f3000. The price then drops to f1000.

Charles has a third orange tulip and orange buyer card. He discards the orange tulip and the orange buyer card, and receives f1000. The price then drops to f750.

Nobody still has both an orange tulip and an orange buyer card.

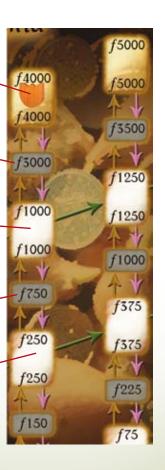
Ann, Charles and Dave still have an orange tulip. Each of them discards the orange tulip, and receives f750. The price then drops to f250.

Dave has another orange tulip. He discards the orange tulip, and receives f250. The price then drops to f150

Nobody still has an orange tulip, so the burst process ends

Before the bubble bursts:

Ann has 2 tulips and 1 buyer.
Bill has 1 tulip and 3 buyers.
Charles has 4 tulips and 4 buyers.
Dave has 2 tulips and no buyers.



The burst colour of tulip is then removed from the game. The tulips are removed from the game, including the price marker on the board. All buyers of the burst colour are discarded from players hands. If any of the face-up buyers are of the burst colour, then they are discarded, and replaced with a card from the reserve deck.

End of the Game

When there is only one colour of tulip which has not burst, the end game is triggered: the last tulip colour immediately bursts and is paid out as above. See "The Bubble Bursts" above. Therefore, the last two tulip colours burst one right after the other to end the game. Note that the burst price for the last tulip colour will be less than 3000 Florins.

Once the final bubble burst has been processed, the game is over. The player with the most cash wins.

Unusual Circumstances

There are a number of circumstances that may occur occasionally, but will not happen in most games. These are detailed below.

Buyer drawn for Burst Tulip Colour

It is possible that when a card is drawn from the buyer deck, it may be of a colour that has been removed from the game. This can occur either due to drawing a card to replace a face-up buyer card, or due to the current player choosing to draw a face-down buyer card. If this happens, then the drawn buyer is removed from the game and replaced with a card from the reserve deck. If this card is also a colour that is no longer in the game, then it is replaced with another card from the reserve deck. This process is continued until a card of a colour that is still in the game is found.

In the very unlikely event that the reserve deck is exhausted without finding a suitable replacement card, then the player does not receive a new buyer card (if the original card was drawn as his choice of card), or there is one less face-up buyer card to choose from (if the original card was drawn to replace a face-up buyer card).

All players passing on a Cheap Tulip

If all players select the "Pass" action when the current price of the tulip is f100 or less, the following occurs:

- The current player places the tulip in the tulip stockpile.
- The bank pays the current player the current price for the tulip.
- The price of this colour of tulip falls the price indicator is moved down the pink sale arrow to the next lower current price. If the current price is already f25, then the price does not change.

All players decline to play

If there is a complete round of the game where:

- all players decline to sell a tulip in the "Sell a Tulip" phase (either because they do not have a tulip to sell, or they only have one tulip and decide not to sell it), and
- all players decline to buy a new tulip in the "Purchase a Tulip" phase, and
- the buyer deck is exhausted

then the game ends. If the game ends in this way, then all tulips are sold at their current market value, and the player with the most money wins.

Player plays an Illegal Action Card

If a player plays an action card which he cannot fulfil, either because he has insufficient cash (in the case of "4 – Speculate" or "2 – Purchase") or he has insufficient buyers (in the case of "3 – Speculate by Proxy" or "1 – Purchase by Proxy"), then he must replace the action card he played with the "Pass" action card. The winner of the sale is then reassessed.

Designer's Notes

I was inspired to create this game when visiting the Tulip Museum in Amersterdam after Essen 2006. As I read about Tulipmania, I thought it would be interesting to have a game where players experienced a bubble market to better understand how it could occur. Bubble markets can occur when people are willing to spend more money on something than it has been worth with the primary goal of reselling it quickly to someone else for more money. This creates a cycle of greed where everyone believes that the item is a good deal because it can be immediately resold. When the market crashes, the biggest losers are those that made the last purchase at the highest price.

The decisions made in this game are based upon my research of Tulipmania and bubble markets. The investors known as "smart money" in such a situation have a network of contacts to use to quickly unload items at a profit. In this game, those contacts are represented both in card form and as the other players around the table. When a market starts to turn, these investors bail out quickly, which causes the rapid plummeting of prices. Looking to the 18xx series of games for the two-dimensional market charts produced a very volatile market, but with pre-set paths of volatility. As I thought about what to add and how the game would progress, I looked at how these markets worked for inspiration and guidance, and the resulting game has the theme deeply embedded into the mechanics.

When you first play Tulipmania, you will undoubtedly be focused on the market values. As you play the game more, however, you will realize that Tulipmania is a game about manipulation, not only of the virtual buyers in your hand, but of the other players around the table. Each of you has the same goal, but when you can enable someone to speculate on your tulips, you profit more than he does unless they are able to get someone else to speculate as well. To be successful, you must be aware of what other players want and then put them in a situation where they want to act, even if it is more beneficial to you. Just as in the real market, the most successful investors are those who can play off of the greed and fear of others.

Tulipmania can also work well as a game for the classroom. It can be used as a way of introducing the Tulipmania phenomenon and how bubble markets continue to this day. It can also be used to start a discussion about the role of speculators in investment. After playing the game, players can realize what power they had as a speculator to cause a market to rise. This can be used as a life lesson about following a trend when investing and realizing that sometimes speculators are making their own trend with the intention of selling off at the right time.

Acknowledgements

I would like to first thank my partner for putting up with my gaming hobby and introducing me to world travel and culture. I'd like to give a special thanks to Ron Krantz and Donald Dennis for all of the time and effort they spent in helping me improve the game. I would also like to thank these playtesters who gave me their attention and advice: David Andrews, Michael Antonov, Donna Balkan, Eric Brosius, Ken Boone, Stu Bretschneider, Bill Cleary, Lincoln Damerst, Charles Davis, Ray Dennis, Ken Drake, Paul Evans, Alan Ernstein, John Garnett, Craig Good, Joe Huber, Bryan Johnson, Shyam Kumar, Chuck Ledger, Bill Masek, Alan Moon, Jeremy Morgan, Kostas Nikolaidis, Sylvio de Pechur, Nikki Pontus, Jared Scarburough, Jim Scheiderich, Brian Stallings, Robert Sumner, Evan Tannheimer, Ralph Valente, Bobby Warren, Markus Welbourne, Tami Whitsett, Lorna Wong, Dale Yu.

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The following sources were used for the historical background information:

- 1. Dash, Mike. (1999), Tulipomania. Random House: New York.
- 2. Menschel, Robert. (2002), Markets, Mobs & Mayhem. John Wiley & Sons: Hoboken, NJ.