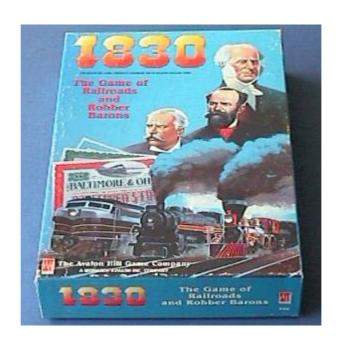
1830

Advanced Strategies & Common Mistakes



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Table of Abbreviations

18xx	A genre of railroad board games	
1830	A railroad board game	
АН	Avalon Hill, a game company (no longer active). Publisher of 1830	
B&O	Baltimore & Ohio, both a private and a stock company in 1830	
B&M	Boston & Maine, a stock company in 1830	
C&A	Camden & Amboy, a private company in 1830	
C&O	Chesapeake & Ohio, a stock company in 1830	
СР	Canadian Pacific Railroad, a stock company in 1830	
D&H	Mohawk & Hudson, a private company in 1830	
Erie	Erie Railroad, a stock company in 1830	
NYNH	New York, New Haven and Hartford Railroad, a stock company in 1830	
NY	New York City, Hex G19 in 1830	
NYC	New York Central Railroad, a stock company in 1830	
OR	Operating Round, the gamephase where the companies act	
Penn	Pennsylvania Railroad, a stock company in 1830	
ROI	Return on Investment	
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Foreword

My very first game of 1830 I played in 1989 – and I still love it. Out of the whole 18xx series, no other game has managed to keep me so motivated to play "one more round". Its diversity from cut-throat competition (frequently) to peaceful cooperation (at times) makes it one of my favourite pastimes even today.

Special thanks go to Chris Lawson, from whose website I have benefited a lot and taken loads of valuable information. Also Crist-Jan Mannien deserves thanks for what I believe is still the best article on 1830 strategy¹ - read it! Westpark Gamers deserve thanks for their compilation of 1830 literature² - a lot of interesting food for thought can be found there.

Many thanks go to Arne Topp, Martin Mathes, Michael Mathes and Harald Träger for keeping the game going – and to Hans Plattner and Joachim Schabrowski for starting it. I owe a special debt of gratitude to Dirk Clemens, who has written the highly helpful administration software³ which has saved me many, many hours which I could then spend to play another round.

This paper skips the basics – introducing the 18xx genre or the 1830 game will be omitted⁴. Instead, this papers aims to be an analysis of practices to try and common mistakes to avoid for the advanced player. If you are aiming to enhance your play, avoid catastrophes and common misconceptions about good playing moves this paper may be right for you.

1830 is not an easy game. Sharks lurk everywhere; bankruptcy is always around the corner. So, how to win at 1830? Just like in all other games: by letting the other guy make more mistakes than you make yourself. Because of that, we will take a thorough look at the most dangerous and frequent mistakes avoiding which will help winning.

Comments are more than welcome. Enjoy!

¹ http://www.18xx.net/1830/1830c.htm

² http://www.westpark-gamers.de/en/1830.html

³ available for free at http://www.18xx.de/

⁴ http://en.wikipedia.org/wiki/18xx, http://www.18xx.net/1830/1830.htm provide excellent coverage

1. General strategies

This chapter will look at some general issues to consider when playing 1830 - as well as what your philosophy on the game should be if you want to be a shark. It does not focus on having a good time with friends or having a peaceful round of a nice game. It focuses on winning the game.

1.1. Keep an eye on the game speed

Game speed in 1830 is determined by purchasing trains and removing trains from play. The faster a game is, the fiercer competition will become and the more likely bankruptcy is to follow. Games with fewer players tend to be quicker than those with a large number of players. The reasons for this are simple: The fewer players a game has, the more influence the individual has on the game – and its speed. Thus, a person unhappy with the way the game is progressing has much more leverage to change its course through individual actions in a game with fewer players. Furthermore, less capital tends to lie around unused in games with few players, because fewer people lack just that small amount of money to buy that extra share.

The different speeds have profound impact on the way the game is played – the 2-trains may run for a very long time in a six-person game, while in a two-person game, they may even never run at all! The more players there are in the game, the more likely a company is to retain its profits sometimes instead of distributing dividends – after all, in a two-person game you can found plenty more companies with plenty of money instead.

Adapt your strategy to the number of players in the game. The fewer players are in the game, the:

- fewer times will trains run.
- higher will be the price of the private companies,
- lower the probability that a company will retain profits,
- more aggressive can you (and should you) play.

So, buying three 2-trains with the NYNH in the first OR for a revenue of 110\$ in the second OR may be a good strategy in the six-person game. It is definitively a suicidal move in a three-player game. Be aware that trains get fewer runs before they rust. Be aware that 1830 with many players is a different game than one with few!

1.2. 1830 is not real life

An objective in real life may be to get rich. In 1830, it is not! The objective is to win the game which you do by having **more than everyone else**. It does not matter if you lose money – as long as the other guys lose more!

Axiom #1 - Absolute money is irrelevant. Relative money matters.

1.3. Play hardball

So you're making money, huh? Your trains are running a nice profit, you stock is rising steadily. Unfortunately, the other guys have even more trains, better tracks than you. You make a lot of money – they make more. Please see axiom #1 - so, if you find yourself making the least amount of money at a given point in time – you need to do something. The people making more than you will have little inclination to speed up the game. The other guys have all those 2-trains? Make sure those 4-trains show up very soon. Keep track of where you are going and whether you are among the players benefiting from the current situation. If not - act!

Axiom #2 - Agreements which include everyone have at least one fool participating. If everyone is happy, only one player is right.

1.4. Money is not the same as money

Money now is worth more than money next round. In 1830, money makes more money unless your individual certificate limit has been reached. Stay fully invested until that point - unless something more important keeps you from it, such as the items described in chapter 5.3 or 5.4.

Axiom #3 - Early money makes more money.

1.5. Being a president is good

Having lots of companies is a good thing in itself. Firstly, the 20% director's share enables you to hold 10% more share total in your certificate limit. Fair enough. But there is much more to being director: it gives you influence. Influence on track building, and therefore company revenues. Influence on number of trains being bought and therefore company revenues and game speed. Influence on which companies are a good investment and which are not - giving you influence on the stock market.

Axiom #4 - Being a company director is power. Power can be converted into money.

1.6. Negotiate

Do not give away freebies. You have some kind of leverage? Use it! "My NYNH is going to build track towards your NYC if your company pays the 80\$ to upgrade the New York hex." is preferable to simply giving the NYC president a free access to New York. Power is money!

Axiom #5 - It's nothing personal, just business.

1.7. See the company for what it is

You have grown this company from scrap, tenderly laid track, fostered its stock value. With loving care you have laid tokens and now you love this brain child of yours. That is really nice. Unfortunately, 1830 is the wrong kind of game for that. Be merciless. If it is in your best interest to kill the company – do it. Private capital counts, a nice company does not. Of the 18xx series, 1830 is probably the one most punishing towards the nice, constructive players. If you do not like that kind of game, other variants of 18xx may be more suitable to your palate.

Axiom #6 - Companies are means to ends, not value in themselves.

2. Private companies

In 1830, there are six private companies. These differ greatly in their respective strengths and the possible profit to be gained from them. In Tab. 1 below, these private companies are listed. Further, the maximum money the owner of a company could have after OR1 if he had been able to sell the private company into a stock company for the maximum amount is listed.

	Cost	Revenue	ROI	Maximum Amount of money gained possible after OR 1830	Max ROI
Schuylkill Valley	20\$	5\$	25%	25\$	125%
Champlain & St. Lawrence	40\$	10\$	25%	50\$	125%
Delaware & Hudson	70\$	15\$	21,4%	85\$	121,4%
Mohawk & Hudson	110\$	20\$	18,2%	130\$	118,2%
Camden & Amboy	160\$	25\$	15,6% - 41,1%	285\$	178,1%
Baltimore & Ohio	220\$	30\$	13,6%	10\$	4,5%

Tab. 1- Private companies

As can be seen, the C&A rules supreme in terms of possible revenue. Considering the fact that the Penn share will be worth at least 67\$, getting the C&A for 160\$ will give it a huge ROI - with a much longer lever of revenues and especially for selling it into a stock company than any of its rivals. Get it for 160\$, find a fool who will open the Pennsylvania for a par value of 100\$ and you are a sure winner. Therefore: *Do not give the private companies away too cheaply-especially the C&A*.

	Base Price	3	4	5	6
Schuylkill Valley	20\$	20\$	20\$	20\$	20\$
Champlain & St. Lawrence	40\$	45-50\$	40-45\$	40-45\$	40-45\$
Delaware & Hudson	70\$	80-90\$	75-85\$	75-80\$	70-75\$
Mohawk & Hudson	110\$	115-135\$	115-135\$	115-130\$	110-120\$
Camden & Amboy	160\$	210-240\$	199-220\$	185-205\$	170-190\$
Baltimore & Ohio	220\$	220\$	220\$	220\$	220\$

Tab. 2- Prices for the private companies with regards to number of players in the game

In Tab. 2 above, the prices which the author deems fair for the private companies are listed for several player settings. The most interesting companies are the C&A, M&H (the flexibility to exchange it for a NYC-share is frequently a strong asset and should not be dismissed lightly)

and the D&H. It is important to make sure in the four-person game that the owner of the C&A does not open a stock company right away. Take care to assure that he does not have 402\$ after the private companies are sold - and that he is unable to get hold of the presidency for the Penn.

Selling your private company into a stock company is one of the primary winning strategies. Remember: you will probably have to pay your company the money back you take from it, unless you find another president for it! Nonetheless axiom #3 reminds us that taking the money from the company treasury is an excellent move even if you have to pay it back later - because in the meantime this money has made more money for you instead of uselessly lying around in the company treasury.

The returns generated by the private companies are very good only in the beginning - until the OR2, every Dollar invested into a private company acquired at a decent price is sure to have led to higher returns than Dollars invested into stock. However, as early as after the fourth OR may the cumulated return on stock be greater! So - get rid of those private companies as soon as you can for maximum revenue.

3. Stock companies

3.1. The respective strengths and weaknesses of the companies

There are eight stock companies in the game. These companies are very different in their prospects and strategies. A short overview will be given in this chapter – focussing on the individual Strengths and Weaknesses of the respective companies as well as the Opportunities and Threats out there for them. Also, an estimate of the companies' potential to build profitable runs for permanent trains is added. In the bottom two rows of the company analyses there is an estimate of the percentage of games in which the company can establish a profitable run for a given train. These are debatable estimates derived from experience rather than scientific analysis - and yet they should be able to give you an impression of which train may be good for which company. Tab. 3 below gives an overview of what company is likely to be able to get good revenues in which phase of the game.

	Chance for excellent revenues in the					
	Opening Game	Middle game	End game			
B&O	very high	very high	very high			
B&M	middle	middle	low			
C&O	middle	middle	middle			
СР	middle	low	low			
Erie	nil	middle	middle			
NYC	low	high	middle			
NYNH	very high	high	low			
Penn	low	high	high			

Tab. 3 - Strengths of the companies in different phases of the game

It is important to note, however, that this does not necessarily mean that the B&O or NYNH is the best investment at the beginning of the game. The quality of an investment is determined by its return on investment, which is determined by the revenues of the company and the price of its shares. As the B&O is very likely to open at either 100\$ or - seldom - 90\$ par value, return on investment may be not or not much higher than the return on others.

Baltimore & C	Baltimore & Ohio					
Strengths:	Access to very profitable runs in the early game, middle-game and end- game – the only company which is good at any phase of the play.					
		s for plenty of trains in the early quently 300\$), 6 (frequently 34	S .			
Weaknesses:	Only three sta	tion markers.				
	Must invest at	least 80\$ for track developmen	t.			
Opportunities:	Access to NY (South) via H18 (C&A) and even NY (North) via G17. Access to Chicago.					
	Cooperation with Pennsylvania for track development very beneficial.					
Threats:	May lose out of	on station marker on H16 if not	headed there directly.			
	Other compan	ies may close down C&A Hex, r	educing its potential.			
The strongest company in the game – by far. Access to all major routes, it only has one drawback – stock tends to be very costly. Make sure you run a lot of trains – nothing is more pathetic than a B&O earning 100\$ or 110\$ with a single 3-train.						
5-Tr	ain	6-Train	Diesel			
100	%	95%	85%			

Tab. 4 - The Baltimore & Ohio Railroad

Boston & Maine						
Strengths:	May make a lo	May make a lot of money early in the game if it cooperates with NYNH.				
Weaknesses:	Only two stati	on markers.				
	At the mercy of	of NYNH & NYC for its New York	c access and other prospects.			
	Seldom able to 220\$).	Seldom able to run more than a five train efficiently (revenue frequently 220\$).				
	More often tha	an not, must invest at least 80\$	for track development.			
Opportunities:	Combined with either NYNH or (preferably) NYC, it may go somewhere.					
Threats:	Without a token on E19, it is frequently doomed to a side-show existence.					
Competes with CP for the price of the "Weakest Link". Easily dominated, few tokens, crammed into the upper-right corner of the board – seldom a winner, unless the NYNH has built tile #1 on Hex F20. And even then It can only run a Diesel profitable in those games where everybody else can, too.						
5-Train 6-Train Diesel						
959	%	50%	1%			

Tab. 5 - The Boston & Maine Railroad

Canadian Pac	Canadian Pacific						
Strengths:	Four station m	narkers. High-value start city.					
Weaknesses:	Very far away cities.	from the rest of the companies	, little access to profitable				
Opportunities:	May make use of Champlain and St. Lawrence and/or Delaware and Hudson features for access to NY.						
Threats:	Champlain and St. Lawrence may be used against it – either by building destructively or by giving CP a track when it does not want one due to lack of funds for a train.						
Competes with B&M for the price of the "Weakest Link". Very little access to anything, it can only hope to find some powerful friends (preferably the NYC) or use the D&H option of going to more interesting places Seldom a winner – a second company (preferably for someone else).							
5-Tr	ain	6-Train	Diesel				
99%		70%	5%				

Tab. 6 - The Canadian Pacific Railroad

Chesapeake and Ohio					
Strengths:	Has control over tile #2, which can be placed on G7 early in the game. Has its own, moderately profitable territory.				
Weaknesses:	Only three station markers. Needs help (preferably from B&O or Penn) for decent long-term prospects.				
Opportunities:	Has a fighting chance for a station marker at H16.				
Threats:	Few.				
The safe choice. Seldom a star, seldom a loser. Will generate steady if mostly modest returns. If it can make its way to H16 and place a token there, it has greatly increased potential. A great addition if you already own the B&O or Penn.					
5-Tr	ain	6-Train	Diesel		
99%		90%	20%		

Tab. 7 - The Chesapeake & Ohio Railroad

Erie	Erie					
Strengths:	Position in the middle of the board makes cooperation with all companies possible.					
Weaknesses:	Can only start	operating in the green phase.				
	Only three sta	tion markers.				
Opportunities:	An access to NY through F16 or E17 is a possibility.					
Threats:	A #59 tile may be unavailable at the time the Erie commences operations.					
	A foreign token on F14 or unfavourable track laying (especially on D10 or F10) may seriously impede its success.					
Erie is a second railroad only – on its own it rarely gets anywhere. Its position in the middle of the board makes it a good match for almost any railroad. Unfortunately, Erie seldom profits greatly from cooperation – its ability to access really profitable places is weak. It can help others (especially the NYC or CP) to make more money.						
5-Tr	ain	6-Train	Diesel			
99%		80%	10%			

Tab. 8 - The Erie Railroad

New York Central					
Strengths:	Has four toker	ns. Will get an access to NY (No	rth) more often than not.		
Weaknesses:	Weak revenue	s in the beginning. NYNH contro	ols its NY access.		
Opportunities:	Has chance of	access to New York (south) usi	ng tile #2.		
	Exchanging M&H for one NYC share may make opening NYC easier.				
Threats:	May need tile #57 to start – which is sometimes (seldom) unavailable.				
NYC is probably the most challenging of the companies: huge potential for productive runs in the middle and end-games, it often turns out a dud – not or not significantly outperforming its smaller twin, the NYNH.					
5-Tr	ain	6-Train	Diesel		
99%		90%	35%		

Tab. 9 - The New York Central Railroad

New York, New Haven and Hartford					
Strengths:	Access to very profitable runs in the early game. Can run a large number of trains profitably in the early game (the more players, the better).				
Weaknesses:	Only two stati	on markers.			
Opportunities:	Has chance of access to New York (south) using tile #2. Very profitable run from NY(North) to NY(South) for 130\$/170\$ with one 3-train possible.				
Threats:	May be reduced to a five-station track (approx 200\$) in the end-game if it puts its token on F22 instead of F16 or E19.				
The NYNH is a great company in the beginning. It has track aplenty to run plenty of 2-trains or both a 3- and a 4-train. Unfortunately, it does not have enough tokens to have good long-term prospects. Aim for a 5-train if at all possible.					
5-Tr	ain	6-Train	Diesel		
99%		80%	5%		

Tab. 10 - The New York, New Haven and Hartford Railroad

Pennsylvania			
Strengths:	Can be floated with only 335\$ (50%, because 10% are already owned by the owner of the Camden & Amboy private company).		
	Has four station markers.		
		s for plenty of trains in the early quently 260-290\$), 6 (frequentl	<u> </u>
Weaknesses:	Base station hex is worth only 10\$, low profitability in the beginning.		
Opportunities:	Access to NY (South via H16 and H18 or G17 and – seldom – North via G17 and F18).		
	Cooperation with B&O for track development very beneficial.		
Threats:	May lose race to H16 if B&O is going there first		
The Penn is frequently among the companies started at the very beginning due to the fact that even in the six-person game, it can be floated without help from other players. Its weak revenues in the first few rounds - it can only rarely run more than one 2-train - quickly get better and it has very decent chances for good revenues once the 3- and 4-trains have shown up.			
5-Train		6-Train	Diesel
99%		90%	50%

Tab. 11 - The Pennsylvania Railroad

3.2. Retaining profit

The fewer players a game has, the more you should do what your companies are supposed to do: pay dividends. If you do retain profits, do so at times when the company is making much money – as opposed to withholding low amounts. In order to reach a share price of 350\$, even B&O can frequently not be allowed to retain even once. If you have a company with distributed holdings, retaining is less necessary than if you share ownership of the company with only one person. In the latter case, retaining may be necessary in order to make the other guy participate in financing the permanent train for the company. Otherwise, he will probably be ahead of you, because he makes a lot of money without paying for a train.

3.3. The bonus shares - yellow, orange and brown

Having a company in the colourful section of the stock market makes changes the options available to a player very much. This company will withhold dividends frequently, providing a steady flow of cash and frequently this company will end up paying for an extra Diesel train accumulated that way. A bonus company is an outstanding thing to have if you get it: early, cheap, and with decent track and train. Cheap is the magic word here: While a bonus company without decent revenues is not very tempting, an expensive bonus company is completely uninteresting. A bonus company is cheap especially if you do not need to retain profits frequently in order to get it into the yellow zone - which means when other people have lowered its price several times by selling the stock. If you can get into the yellow zone yourself is just too costly - both in terms of money you do not get and in terms of potential stock value of the company at the end of the game you destroy.

There is one exception to that rule: if you can dump your own shares early in the game while it is unlikely someone else will pick them up. How that can happen? Easy: Say you have the Penn (60%) and the C&A (lucky you!). Penn buys the C&A (and should now be quite empty of capital), in the next stock round you dump 40% Penn shares. Now everyone ready to become president is more than welcome to do so - but unfortunately, this will seldom be the case. Now you can open a second company and later pick up Penn shares again while you push it deeper into the yellow zone.

One more thing to remember: once the 4-trains have left the game, you probably will never be able to dump a bonus company on someone else, because it will surely act last - and therefore have a train during stock rounds.

4. Track construction – good and bad examples

4.1. Giving freebies to the Penn

In some six-player games I have observed, a truly gruesome line of play was chosen by the B&O president - and defended as "a standard opening". The plot goes like this: the B&O and Penn agree on cooperation very early in the game (frequently a good idea). The president of the Penn asks the B&O to build and upgrade J14 as its first two actions, giving the Penn opportunity to run four trains (2223) for a first revenue of 210\$ (see Fig. 1 below). At a par value of 67\$, this translates to a ROI of 31.3% in one round as compared to the normal revenue of 30\$ and a ROI of 4.5%. B&O, on the other hand will have started at either 90\$ or 100\$ a share and have an initial run of 170\$ - a ROI approximately half of the Penn. And it could have made a similar amount of money (140\$ by building track on I17) without helping the Penn at all! Why would the B&O want to pamper the Penn in that way? An explanation eludes me.

A thought experiment: You are in a six-person game, you have acquired the B&O private company for 220\$ and set a par value of 90\$ for the stock company. You acquire 2 more shares, having 40% B&O and no money left. Another person buys 50% Penn for 335\$ (par value 67\$) and has made no other investments. No other companies start operating and you and the Penn agree on the described course of play. In the first round, you acquire three 2-trains and build the agreed track. The same goes for Penn, which can also acquire three 2-trains and adds a 3-train for good measure. The stock round passes and you continue. You upgrade, place a marker, run for 170\$ and pay dividend, buy a 3-train. Penn connects its track and runs for 210\$, also paying dividend. How much money do you have? 30\$ from the private company, 68\$ from the B&O dividend equals 98\$ - enough for another B&O share. And the director of the Penn? 65\$ he had left at the end of the stock round and 105\$ from dividend - 170\$. Your total value is 360\$ (stock) plus 98\$ - 458\$. The Penn director is worth 505\$ (335\$ stock + 170\$ cash) - almost 50\$ ahead of you after just one OR, with many more profitable runs to come. It gets even worse if the president of the Penn also had one or both of the smaller private companies - you will not stop this person from winning the game.

As a conclusion: if you are the B&O-director, do not choose this line of play. If you are the Penn director - do everything you can to persuade the B&O director to do this for you.



Fig. 1 - Giving freebies to the Penn

4.2. Tile #2

One fact seldom appreciated is the importance of tile #2. It is the optimal tile for Hex G17 if the Delaware & Hudson option is not being used for both the companies in the North (mostly NYNH and NYC, maybe B&M, Erie or CP) and in the South (mostly B&O and Penn, maybe C&O or Erie) - please see Fig. 2 and Fig. 3 below for example routes. It enables direct connections from NY(North) to NY(South) (Fig. 3) and is the only tile to do so! For the South, it enables an outstanding track around NY(South), which is great even if the access to NY(North) does not materialise. Tile #2 makes profitable 5-, 6- and Diesel-runs possible for the company able to obtain it.



Fig. 2 - Optimal track around NY for the South



Fig. 3 - Optimal track around NY for the North

This gives an interesting lever to the C&O, which is also seldom appreciated: It can lay tile#2 on hex G7 as soon as it starts operating - and should not hesitate to do so if a station marker on H16 seems unlikely unless offered a very good incentive (such as being owned by the same president who would benefit from tile #2 on G17...).

4.3. Strategic places for station markers

If you can get a station marker on E19, place it. If you can get a station marker on H16, place it. Do not hesitate - it is worth the investment. These places assure access to where the money is - the hugely profitable area around NY. If F16 is available cheaply and you can get there - place a marker there. Likely you will not get to all of these places - but do your best to get at least one! Normally, E19 will go to NYC (for sure) and NYNH, while H16 will go to B&O and Penn. A Penn without a marker on H16 is a sad Penn indeed - if you are its president, you need that token! H18 is another place to think about placing a token - negotiate with your neighbours about that. Do not negotiate with companies which do not have any more station markers! Many other places may be right for your token - but you should think about very hard if you are really serious about not placing a token at any of the places mentioned above. Because if you play against me, I will.

4.4. Using the Delaware & Hudson

Using the option to "teleport" to Hex F16 is a line of play which is feasible for any of the eight railroads in the game. It has, however, certain caveats:

- it is useful mostly very early in the game the earlier the 3-trains arrive (preferably in the first OR), the better this option is
- it is expensive: frequently, the company using this option will have to use a 40\$ station marker to exercise this option as early as possible
- it frequently limits revenue in the late early and early middle games, because development of profitable track tends to lag behind if this option is use.

Using D&H is often an excellent line of play if laying a #57 tile on F16 is the first thing your company does after getting started. If possible, head for G17 and negotiate with NYNH and/or NYC for an access to both stations on the NY hex.

5. Stock market strategies

5.1. Do not open other people's companies unless you are very, very sure.

Someone is opening a company and you are considering investing in it before the president has 60% of it and the company starts operating? Think about it carefully!

Do it if:

- you have been offered a good deal for doing so which should include the agreement that you will not be made president of a bankrupt company for as long as you hold that stock,
- the company is so attractive that you need the stock (very seldom the case),
- you have no other choice (this is frequently the case at the beginning of six-person games and seldom in other settings),
- you can become president yourself.

Do not do it if:

- none of the above reasons to do it applies,
- especially if the president owns the C&A and has no other way of opening the company.

5.2. Be fully invested

Remember Axiom 3? Money makes money in 1830 - which leads to the rule of thumb to always stay fully invested. When in doubt - buy that extra share you can afford, unless you are keen on the priority deal or need to avoid becoming president of the company.

5.3. Buying the second share

Thinking about buying that second share of somebody's company? Before you do so, analyse the situation. You are considering a risky and possibly profitable decision. The important factors to consider are:

- Does the director have a problem? Will dumping this company now or later better his situation?
- Does the director have a chance to invest his money somewhere else? If no other decent investment is anywhere to be seen - he'll probably want to stick with what he has.
- How many presidencies does the president have? The more he has, the riskier your purchase.

- Which private companies does the president own? The more expensive these are, the more likely the company is to end up without funds.
- Who will act first in the next stock round? If it is you good. If it is him not good.
- Would you have a problem if you got the company? You have a bonus company which keeps retaining large amounts of money anyway? Well then, one more company cannot hurt, can it?
- How good is the company's track? The company has outstanding track? Good news. The company has only limited access to profitable stations? Very bad news.
- When will the company act? If it acts last, it will have a train at the beginning of the next stock round. That may be helpful but not if it is a 3-train.
- How many shares are in the Bank Pool? If the president cannot give up his presidency because of the many shares in the bank pool, you can buy it without much risk. Be aware that other people might buy shares to, thus making further room in the Bank Pool. Be also aware that someone may fill the Bank Pool to its 50% limit making it impossible for you to get at your money.
- How many shares of the company does the president own? If he has but a few, he is
 more likely to use robber baron practises than in the case of being fully invested. Not
 giving the director the 60% he may feel he is entitled to may reduce his zeal to operate
 a profitable company, maybe giving that responsibility to someone else you.
- How many shares of the company work for the president in total? All bank Pool stocks
 and those he owns pay dividends into treasuries he controls i.e. for him. The higher the
 number of shares working for him, the better your decision to pick up another 10% will
 generally be.
- Is it possible that you become president in the operating round? When the president is buying a train for a different company and is selling shares in order to do so, you can even become president in the Operating Round. This happens only very seldom but when it does, it can mean bankruptcy.

It is hard to give hard advice here. The safest decision is to buy something else, if possible. If, however, you have made the decision to take the risk, think about buying all the shares of that company, which may help you and the president to a higher share price.

5.4. The Priority Deal card

The Priority Deal is one of the most important features of the game and frequently overlooked. It determines whether you can sell your stock for the right price, if you can sell it at all, if you can dump your company or become proud owner of somebody else's. Watch the priority deal card closely and be prepared not to buy that last share you could afford in order to have it lie at a more favourable position if you need to. This is one of the few examples where it may be better not to be fully invested. You may want to be especially careful with the priority deal when

- a company may be dumped onto you,
- you may want to dump a company,
- special shares usually the directorship of the most interesting company will be available only in an early position in the next share round.

5.5. Watch your position

As a rule: Holding plenty of stock from the person to your left is good. Holding stock from the person to your right is not. The only way for the person to your left to act before you is when he has the Priority Deal - which you control. If you do not act last in a given Stock Round, you will act before the person to your left in the next Stock Round. So owning shares of that person's companies is a much more comfortable position than holding shares from the person to your right - something you need to be very careful about.

5.6. Consider stock value

Stock value is a very important source of revenue and can be used even early in the game, especially if stock is sold out: think of a situation where you were able to pick up 40% NYNH for 67\$ each in Stock Round 1 - the other 60% are being held by the director. After three runs of 0\$, 5\$ and 5\$, the stock value may have reached 90\$. At that point, your revenue from gains in share price will be 23\$ per share, while revenue from dividend was only 10\$. Admitted, a very positive scenario - but not unlikely at all. If you cannot or do not want to open a company in the first round, buying 40% of one company is a better option than spreading your investment. In the late game, stock value is of utmost importance: the difference between a 350\$ and a 140\$ share amounts to six decently productive Diesel runs - about as much as a Diesel will make in the game.

5.7. Dumping a company

So, you want to get rid of a company. Another person has acquired more than 10% of your stock, there is room aplenty in the Bank Pool and you are ready to do the plunge?

Here's what you want to consider before doing that:

- Is there a decent investment alternative out there? If not what are you going to do with your money and the free spaces towards your certificate limit?
- Does the company have or will the company have the money to buy a permanent train?
- How much money is the company making at present and for how long will that continue?
- How much access does the company have? If that company has a great track, it will be hard to find another company to compensate for that loss.
- How many shares of your company do you hold? More often than not it is not worthwhile having a company of which you own only 30% or 40%. The less you own, the less incentive you have to run it constructively: you are bearing 100% of the risk, but get only 30% of the profits. Sell a private company into it, get its money into a different company, get its decent trains into a different company, put its station markers somewhere out of the way, dump it and let somebody else deal with it.
- How much share value potential does the company have? (e.g.: when it has reached a value of 350\$ and you have another set of ORs you can frequently pick up more profitable shares)

When is it not sensible to dump a company?

- If it has a permanent train or will get one (you may still consider taking the assets into another company, though...). Never dump a company with serious assets in it. What serious assets are depends on the game phase immediately before arrival of die Dieseltrains, a 4-train and 500\$ may be little enough to give the company away. In earlier phases that is a very rich company.
- When it has a great track and rule one applies.
- When it is making lots of money.
- When no decent alternative investment is available for you to stay fully invested.
- When the person with the dumped company then will own so many companies that you
 are unable to maintain speed and assure the arrival of the 6- or Diesel train driving him
 into bankruptcy.

5.8. Stock market manipulation

In many groups, a certain ritual can be observed: the last 4-train is on offer, two or three companies are being opened for 100\$ or 90\$ a share - and everyone seems to be keen to lower the value of these stocks by "looking at" a or several paper/s - selling them in the same stock round as they were bought. The stock will then be acquired by the next player who will continue this ritual, frequently lowering the value of a share from 100\$ to 67\$ or even below that. This is very dangerous and frequently a mistake which decides the game. Admitted - this action costs the owners money. The most important question in that phase of the game is not what my stock is worth or even what it will be worth. The real question is: Which company gets which permanent train? Stock manipulation in that phase should be conducted with utmost care - finetuning the sequence of play of the companies for a beneficial outcome of the train purchases. Set the right priority in that phase of the game. If it is good for you that someone's stock is at 100\$ a share - then leave it there! This phase is where it is decided whether you end up the winner or bankrupt. Do not be penny-wise and pound-foolish!

6. Train strategies

6.1. Having three 2-trains

Having a lot of 2-trains boosts revenues very early in the game and can be seen frequently with the NYNH and B&O. Unfortunately, this line of play is only suitable in six-person games. The more 2-trains you have, the less frequently they will run. Because other companies need to buy trains too, you are bringing the 4-train nearer just by the fact that you have so many of them. Another reason is that other players will want the 4-train to arrive quickly because you have so many of them. In a five- or four-person game, think hard about whether you want to make the investment - chances are you will not like the speed at which the game will progress.

6.2. Not having a 3-train

You do not have a 3-train yet? Buy one. Do it now. Having just 2-trains and waiting for the 4-train to show up is a sure-fire losing option, because it will hurt both your revenues and stock value unless you get the very first 4-train. And these chances are slim, especially if you expose yourself like that and give people the opportunity to hurt your company.

6.3. Having two 3-trains

Having two 3-trains in one company is a very tempting configuration in the mid-game, frequently boosting the company's revenues above 200\$. It has a downside, however, you need to be aware of: If you are not the company buying the first 5-train (and in all likelihood you will not be), you will be unable to buy any of the 5-trains or the first 6-train. At that time, your 3-trains will rust, you will not have a train - and will have to buy one. Worst case scenario: this may well be a 4-train thrown away by someone else which may then never run at all, making you buy another train in the next round - a Diesel for 1100\$. This is a sure road to bankruptcy. Best case: you get the second 6-train. Standard case: if you have two 3-trains, you are booked for a Diesel. Make sure that is what you want - or do something about it (such as opening a second company which may relieve you of one of your 3-trains). More often than not, other people may not want that nasty 3-train even if you give it away for 1\$ (now, if you build some decent tracks for my company and spend 120\$ to build that tunnel, I might relieve you of your problem - see axiom #5...)

6.4. Buying the last 4-train

Don't. Not unless you get at least one 5-train with it.

6.5. Get a 5 train! Get all the 5 trains!

Axiom #7 - 5-trains are your friend (if you have them).

The next chapter explains why.

6.6. Buying a diesel

As a rule of thumb: DON'T. Most of the time, they are not worth it. Have plenty of shares of other people's companies with Diesel trains. If you do have a Diesel train, have as many stocks of it as possible. But do not buy any Diesels at all, if possible.

How often will your Diesel run?

Typically, 6-9 times. (Calculation: somewhere between 8.000 and 11.000 in the bank after purchase of Diesel. Eight companies with average runs of 200\$-400\$ (1600\$ - 3200\$ per Operating Round). Even counting stock purchases taking place in the meantime, the bank very often goes broke in time for the sixth or seventh run to be the last).

How profitable does your diesel need to be to be worth its money?

For the sake of argument, you have 60% of the stock of your company. The company has enough money and the opportunity to buy a permanent train now – or buy a Diesel later in the game. Let's also assume your Diesel would get some comfortable 9 runs. Unfortunately, you would have to make up for the difference in cost between Diesel and 5 or 6-train out of your on pocket.

Extra profitability needed compared to 5-train=
$$\frac{650\$}{9*0.6}$$
 ~ 120 \$

Extra profitability needed compared to 6-train=
$$\frac{470\$}{9*0.6}$$
 ~ 90 \$

The Diesel must - in an optimal setting - earn at least 12\$ per share more than the 5 train or 9\$ per share more than the 6 train to earn the extra cost to its owner. In reality, the numbers are much worse, because:

other companies get the train instead and do not need to buy a D-train,

- of axiom #1 relative, not absolute, returns, matter. If in a five-person game you hold 60% and everyone else 10%, you have a relative advantage of only 50% instead of 60%, reducing the benefit you enjoy of having a Diesel train,
- these other players get the other 40% of the Diesel company without paying for the
 Diesel-train,
- share price will normally fall once without any revenues because the company will be without a train for at least one turn,
- of axiom #3. The money made with the Diesel comes later and is therefore worth less.

But already the 120\$ or 90\$ above are a task many Diesels will not achieve. In fact, most of the time the only company able to run a profitable Diesel is the B&O (also likely candidates are sometimes the Pennsylvania and even less often NYC or C&O. The other companies have only fighting chances for a decent Diesel run.).

Even if you have a decent Diesel track (with a run of at least 300\$ to start with and at least 380\$ in the mid-term) and might be able to afford a Diesel train, think hard about doing so. Hurting your opponents by taking a 5 or 6 train away from them is also frequently a winning move - especially if they must buy a Diesel for a company with questionable track perspectives.

It is easier to destroy other people's Diesel runs than building one yourself

Building a productive Diesel run in a competitive environment is hard. Station markers and unfavourable tiles (preferably non-upgradeable) placed by envious neighbours can make a Diesel owner's life miserable. Why be in that role if you can take the other seat instead?

Exchanging the 4-train

If you can exchange your 4-train for a Diesel, things look very different. The extra profitability needed in that case is within reach of even the B&M or NYNH, the least likely candidates for a good Diesel track. Exchanging has often an additional advantage: it may speed up obsolescing of the 4-trains, hurting the owners of the other three 4-trains. That better not be you!

$$(Extra profitability needed) = \frac{(Cost of Diesel) - (Cost of other train)}{(\# of runs of Diesel) * (stock % in company)}$$

$$Extra profitability compared to 5-train = \frac{350\$}{9*0,6} \sim 60 - 70\$$$

$$Extra profitability compared to 6-train = \frac{170\$}{9*0,6} \sim 30 \$$$

Everyone has a Diesel - and we're building together

Fine. Here's an extreme example (Fig. 4). Unfortunately, now everyone is making a lot of money (B&O leading with 1140\$, but every Diesel making about 1000\$). Remember axioms #1 and #2. If you will end up the winner - good for you. If not, it is time to throw some station markers and start "creative" track construction.



Fig. 4 - A decent diesel network

7. Conclusion

1830 is probably the most aggressive game of the 18xx genre. Even if it may not have been designed with that objective in mind, it has been designed to be won by sharks. If you play this game in the same style you play other 18xx games, the sharks will probably eat you. Be a shark!

The most important lesson is probably the one about the 5-trains and stock value manipulation in the phase prior to them entering the game. In that phase of the game, it is more interesting what your trains will be than what your stock value will be. Ironically, frequently you will be able to gain the stock value which was destroyed by manipulators in that game phase later on because your stock will be sold out due to its quality. Having 5-trains does make you a trustworthy director.

Feel free to comment on the contents of this paper by sending an email or to invite me to an 1830 game you may have planned.

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9. Trivia & historical information

Schuylkill Valley is correctly pronounced "Skookle Valley".

The D&H is a subsidiary of the Canadian Pacific Railway.

M&H was acquired by the NYC in 1853.

The C&A was acquired by the Pennsylvania.

The nickname of the Pennsylvania Railroad was Pennsy.

The Canadian Pacific Railroad was in reality called Canadian Pacific Railway - likewise was the C&O the Chesapeake and Ohio Railway.

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