

# Module 04 – Multiperiod Modeling

## Model Formulation

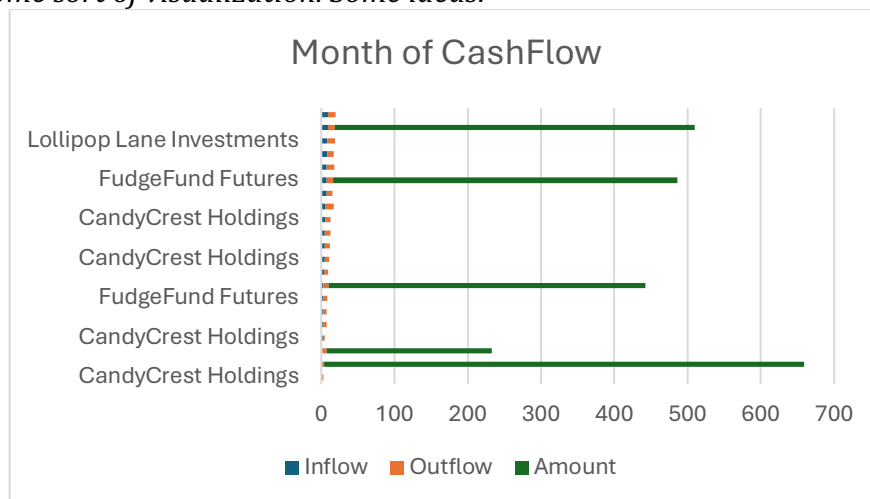
Write the formulation of the model into here prior to implementing it in your Excel model. Be explicit with the definition of the decision variables, objective function, and constraints

## Model Optimized for Least Cost out of Pocket

Implement your formulation into Excel and be sure to make it neat. This section should include:

Month of Cashflow					Cashflow Summary for Months									
Investment	Inflow	Outflow	Amount	Return	1	2	3	4	5	6	7	8	9	10
CandyCrest Holdings	1	2	\$ -	1.99%	-1	1.0199								
FudgeFund Futures	1	3	\$ 655.20	4.21%	-1	<-->	1.0421							
SwizzleStick Strategies	1	6	\$ 225.35	10.94%	-1	<-->	<-->	<-->	<-->	1.1094				
CandyCrest Holdings	2	3	\$ -	1.99%		-1	1.0199							
Lollipop Lane Investments	2	5	\$ -	6.44%		-1	<-->	<-->	1.0644					
CandyCrest Holdings	3	4	\$ -	1.99%			-1	1.0199						
FudgeFund Futures	3	5	\$ -	4.21%			-1	<-->	1.0421					
Peppermint Profit Partners	3	7	\$ 432.79	8.70%			-1	<-->	<-->	<-->	1.087			
CandyCrest Holdings	4	5	\$ -	1.99%				-1	1.0199					
CandyCrest Holdings	5	6	\$ -	1.99%					-1	1.0199				
FudgeFund Futures	5	7	\$ -	4.21%					-1	<-->	1.0421			
Lollipop Lane Investments	5	8	\$ -	6.44%					-1	<-->	<-->	1.0644		
CandyCrest Holdings	6	7	\$ -	1.99%						-1	1.0199			
SwizzleStick Strategies	6	11	\$ -	10.94%						<-->	<-->	<-->	<-->	<-->
CandyCrest Holdings	7	8	\$ -	1.99%							-1	1.0199		
FudgeFund Futures	7	9	\$ 470.44	4.21%							-1	<-->	1.0421	
Peppermint Profit Partners	7	11	\$ -	8.70%								-1	<-->	<-->
CandyCrest Holdings	8	9	\$ -	1.99%								-1	1.0199	
Lollipop Lane Investments	8	11	\$ -	6.44%									-1	<-->
CandyCrest Holdings	9	10	\$ 490.24	1.99%										-1
FudgeFund Futures	9	11	\$ -	4.21%										-1
Total Invested in Months -->			\$ 880.55											
Surplus Funds					\$ -	\$ -	\$ 250.00	\$ -	\$ -	\$ 250.00	\$ -	\$ -	\$ -	\$ 500.00
Req'd Payments					\$ -	\$ -	\$ 250	\$ -	\$ -	\$ 250	\$ -	\$ -	\$ -	\$ 500

- My model is recommending or suggests that we can optimize cash flow by aligning investment returns with required payments. There are projected shortfalls in months 3, 6, and 10 (\$250 and \$500 deficits), which means we have to plan to be more liquid in those months.
- Add some sort of visualization. Some ideas:



## Model with Stipulation

Please copy the tab of your original model before continuing with the next part to avoid messing up your original solution.

*Try one of these 2 scenarios:*

- *If we remove the midterm payments and instead pay the entirety at the end of the time period, does your model change at all? If so, why may there be a change?*
- *An investor normally tries to not be oversubscribed/overexposed to one single investment. Can you add a constraint to your model to limit the amount of exposure in any single investment and describe how the model has changed?*