

## Model Formulation

Solver Parameters

Set Objective:

\$K\$23

↑

To:

☐ Max
 ☒ Min
 ☐ Value Of:

0

By Changing Variable Cells:

\$K\$3:\$K\$22

↑

Subject to the Constraints:

\$K\$3:\$K\$22 >= 0

\$N\$23:\$V\$23 = \$N\$24:\$V\$24

Add

Change

Delete

Reset All

Load/Save

☒ Make Unconstrained Variables Non-Negative

Select a Solving Method:

Simplex LP

Options

Solving Method

Select the GRG Nonlinear engine for Solver Problems that are smooth nonlinear. Select the LP Simplex engine for linear Solver Problems, and select the Evolutionary engine for Solver problems that are non-smooth.

Help

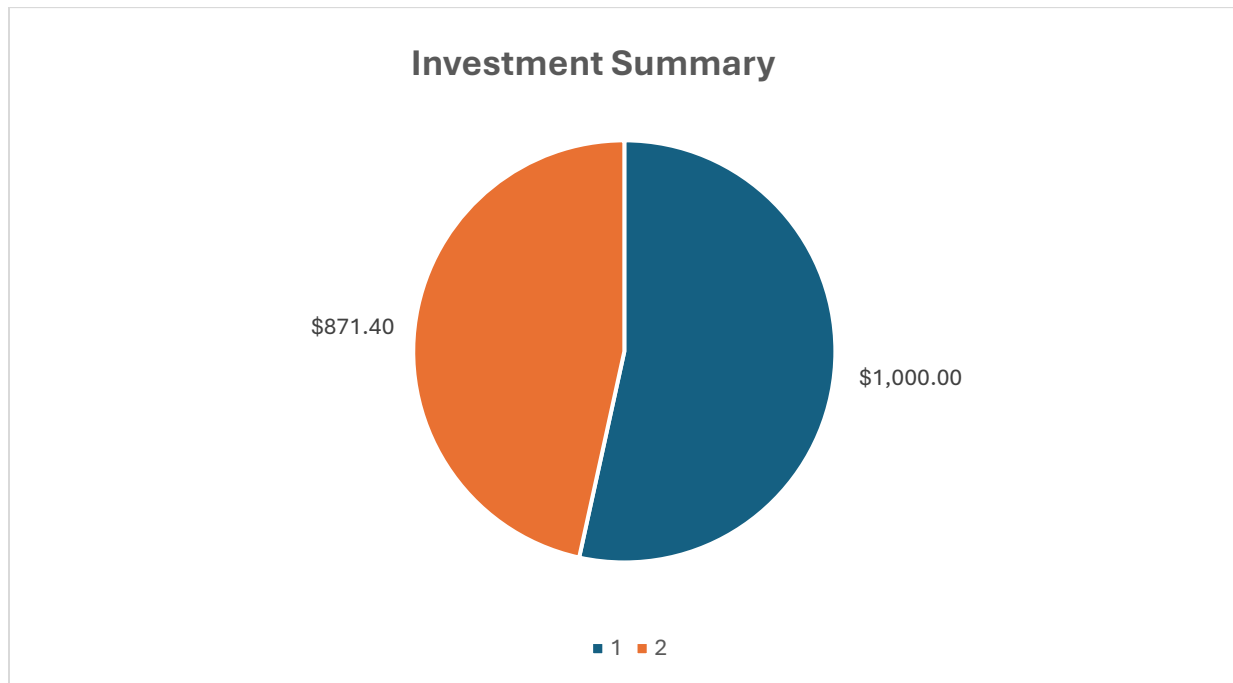
Solve

Close

## Model Optimized for Least Cost out of Pocket

Investment	Month of Cashflow			Amount	Return	Cash Flow Summary for Month									
	Inflow	Outflow				1	2	3	4	5	6	7	8	9	10
Bubblegum Benchmark Fund	1	2	\$ -	2.0%	-1	1.0199									
CandyCorn Capital Partners	1	3	\$ 871.40	4.2%	-1	<-->	1.0421								
Marshmallow Margin Group	1	6	\$ -	10.9%	-1	<-->	<-->	<-->	<-->	1.1093					
Bubblegum Benchmark Fund	2	3	\$ -	2.0%		-1	1.0199								
CandyCrest Holdings	2	5	\$ -	6.4%		-1	<-->	<-->	1.0644						
Bubblegum Benchmark Fund	3	4	\$ 245.12	2.0%			-1	1.0199							
CandyCorn Capital Partners	3	5	\$ -	4.2%			-1	<-->	1.0421						
Caramelized Capital	3	7	\$ 662.96	8.7%			-1	<-->	<-->	<-->	1.0867				
Bubblegum Benchmark Fund	4	5	\$ -	2.0%				-1	1.0199						
Bubblegum Benchmark Fund	5	6	\$ -	2.0%					-1	1.0199					
CandyCorn Capital Partners	5	7	\$ -	4.2%					-1	<-->	1.0421				
CandyCrest Holdings	5	8	\$ -	6.4%					-1	<-->	<-->	1.0644			
Bubblegum Benchmark Fund	6	7	\$ -	2.0%						-1	1.0199				
Marshmallow Margin Group	6	-	\$ -	10.9%						-1	<-->	<-->	<-->	<-->	<-->
Bubblegum Benchmark Fund	7	8	\$ -	2.0%						-1	1.0199				
CandyCorn Capital Partners	7	9	\$ 470.44	4.2%					-1	<-->	<-->	1.0421			
Caramelized Capital	7	-	\$ -	8.7%						-1	<-->	<-->	<-->	<-->	<-->
Bubblegum Benchmark Fund	8	9	\$ -	2.0%							-1	1.0199			
CandyCrest Holdings	8	-	\$ -	6.4%							-1	<-->	<-->	<-->	<-->
Bubblegum Benchmark Fund	9	10	\$ 490.24	2.0%								-1	1.0199		
Total Invested in Month 1 ->			\$ 871.40		Surplus Funds	\$ -	\$ -	\$ 250.00	\$ -	\$ -	\$ 250.00	\$ -	\$ -	\$ -	\$ 500.00
					Req'd Payments	\$ 0	\$ 0	\$ 250	\$ 0	\$ 0	\$ 250	\$ 0	\$ 0	\$ 0	\$ 500

The following table displays that \$1B would be spent normally every 10 months according to the cash flow data. These payments would be reflected in increments of \$250M in months 4 and 7 as well as \$500M in month 10. However, the model recommends that if the inflow and outflow patterns are followed in a way that optimizes return and reduces costs to \$871.4M over the course of 10 months saving the operating system \$128.6M in the process.



## Model with Stipulation

Month of Cashflow					Cash Flow Summary for Month									
Investment	Inflow	Outflow	Amount	Return	1	2	3	4	5	6	7	8	9	10
Bubblegum Benchmark Fund	1	2	\$ -	2.0%	-1	1.0199								
CandyCorn Capital Partners	1	3	\$ (0.00)	4.2%	-1	<...>	1.0421							
Marshmallow Margin Group	1	6	\$ -	10.9%	-1	<...>	<...>	<...>	1.1093					
Bubblegum Benchmark Fund	2	3	\$ -	2.0%		-1	1.0199							
CandyCrest Holdings	2	5	\$ -	6.4%		-1	<...>	<...>	1.0644					
Bubblegum Benchmark Fund	3	4	\$ -	2.0%			-1	1.0199						
CandyCorn Capital Partners	3	5	\$ -	4.2%			-1	<...>	1.0421					
Caramelized Capital	3	7	\$ -	8.7%			-1	<...>	<...>	1.0867				
Bubblegum Benchmark Fund	4	5	\$ -	2.0%				-1	1.0199					
Bubblegum Benchmark Fund	5	6	\$ -	2.0%					-1	1.0199				
CandyCorn Capital Partners	5	7	\$ -	4.2%					-1	<...>	1.0421			
CandyCrest Holdings	5	8	\$ -	6.4%					-1	<...>	<...>	1.0644		
Bubblegum Benchmark Fund	6	7	\$ -	2.0%						-1	1.0199			
Marshmallow Margin Group	6	-	\$ -	10.9%						-1	<...>	<...>	<...>	<...>
Bubblegum Benchmark Fund	7	8	\$ -	2.0%							-1	1.0199		
CandyCorn Capital Partners	7	9	\$ 470.44	4.2%							-1	<...>	1.0421	
Caramelized Capital	7	-	\$ -	8.7%							-1	<...>	<...>	<...>
Bubblegum Benchmark Fund	8	9	\$ -	2.0%								-1	1.0199	
CandyCrest Holdings	8	-	\$ -	6.4%								-1	<...>	<...>
Bubblegum Benchmark Fund	9	10	\$ 490.24	2.0%									-1	1.0199
Total Invested in Month 1 ->			\$ (0.00)	Surplus Funds	\$ -	\$ (0.00)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000.00
Req'd Payments					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000

The following revamped model concludes that if all payments are made in month 10 (totaling \$1B) the total amount invested in Month 1 would be \$0.00 to optimize a minimized cost production model. This is not optimal as only \$470.44M and \$490.24M are

only later accounted for in the amounts tab. As a result, the previous model would produce more optimal solutions, given the stretched-out payment data.