

Phase I Results with All Dollar Bids

This module demonstrates the effect of specific parameters on the duration of [Phase I](#). These parameters are either catalytic injections or ongoing catalysts to the natural demand that drives Phase I.

Unless otherwise specified, these are the parameters used in the demonstrations:

	General Inflation rate	2%	Commons land Appreciation	5.0%
Owners allowing rent to fall times percent of treblers using Elsie		50%		
	Retail Demand/Savers			

The appreciation of property in the [Commons Trust](#) at 5% and general inflation rate at 2% is also referred to as a real commons property appreciation of 3% (5% - 2%). While strictly speaking, only the land is in the Commons Trust, it is an appreciation of the total property value (especially new development) that drives the natural process of Phase I.

Owners allowing rent to fall times the percentage of [treblers](#) using [Elsies](#) is conveniently set at 50%. If the goal is to pay the lowest rent, the most efficient rental strategy is to allow one's rent to fall until [trebled](#) and then [match the trebler](#) (or surrender the property). However, for those at the very top, high [rents](#) bring aristocracy and bragging rights (in [land-based capitalism](#), rents are the new Rolex). For those who live paycheck to paycheck, lack of liquidity prevents matching the trebler. Some would rather pay monthly rent and avoid the hassle of being trebled every year. Everyone will not use the efficient rental strategy.

While treblers tend to be more sophisticated than property bidders at [auction](#) and more invested in the [AFFEERCE business plan](#), there is no assurance that all of them will use Elsie to take advantage of the 0.85% [arbitrage discount](#).

If everybody used the efficient rental strategy, and all treblers used Elsie, the value of this parameter should be set to 100%. If 75% of the property owners used the efficient rental strategy and 66.67% of treblers used Elsie, it should be set to (75% of 66.67% =) 50%. This is the value used by default in runs of the simulation testing the effect of other parameters. During deep discounting (a fall below 99% of peg), a value of 100% is automatically used, regardless of how the parameter is set.

The parameter "Retail demand/savers" is set to 0% (which displays as blank on the spreadsheet). This parameter represents retail holdings as a percentage of property value, including any property appreciation. When performing natural demand simulations, this parameter is always 0.

All simulations are performed with an initial market maker capitalization of \$6 million and a [land fund](#) of \$1 million. This is part of the projected \$24 million startup capital needed for the [ABC/VTLM](#). These values are pretty optimal. If the [investor](#) wishes to add more funds, the simulations show that the most optimal use is to purchase Elsie.

Period	Segment	MM Demand (Mil \$)	Percent Peg	Dividend Percent	Retail Supply Shock(+) Demand Shock(-)	MM Supply Shock(+) Demand Shock(-)	Rescue Mode
	E	\$6.00	99.00%	3.50%			
1	A	\$6.00	99.00%	3.50%			
1	B	\$0.25	99.00%	3.50%			
1	C	\$0.25	99.00%	3.50%			
1	D	\$0.25	99.00%	3.50%			
1	E	\$0.25	99.00%	3.50%	-12800		
2	A	\$6.00	99.00%	3.50%			
2	B	\$12,800.25	99.00%	3.50%			\$100
2	C	\$25,589.09	99.00%	3.50%			
2	D	\$25,589.09	99.00%	3.50%			

Elsie purchases injected into the simulation should be placed in the retail supply shock (+) demand shock (-) column as a negative number in segment E. It is a demand shock. Supply shocks (sale of Elsies) are also entered as positive numbers in segment E of the same column. Other modifications are needed to simulate a supply shock. Readers should read the module [Anatomy of an Elsie Dump](#) before adding supply shocks (numbers). In the diagram above, 12.8 billion Elsies are purchased at the start of the simulation.

Rescue mode purchases are placed in segment B of the rescue mode column. If an average rescue package is \$100 million, then the amount in the above diagram could also be referred to as one rescue. However, this is arbitrary, and the amounts in this column need not be a multiple of \$100 million. The column is designed so that values placed in 2B or afterward recur every year. Values set in 1B are one-time-only rescues. The same is not valid for retail supply/demand shock, as the column is also used for Elsie purchases to lower a rising dividend yield.

Completion of Phase I is defined as attaining over 80 million properties in the Commons Trust at an average price of \$250,000 (2022 dollars). While this much land is necessary for the end of Phase I, it is insufficient. Other conditions are mentioned in the text, primarily that no other property owners are ready, willing, and able to sell their land into the Commons Trust. Phase I continues until that condition is met.

Given these parameters, no initial demand for Elsies, and no rescues, the base case for Phase I ends in 249 years and three months. It is powered entirely by natural demand. In the spreadsheet, this is month 2991. This is the base case for simulations that test specific catalysts.

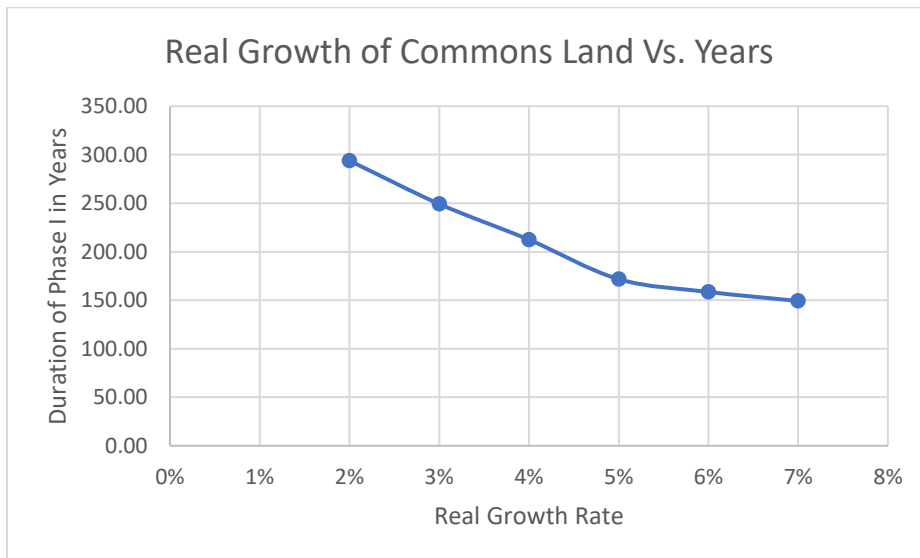
In the worst case, where Commons Trust property growth is 2% over inflation, rather than 3%, Phase I ends in 293 years, ten months. Since growth includes new development, this is not expected in a no-property-tax environment.

Megacities and Property Appreciation

In the first series of simulations, we test the effect of increasing real (inflation-independent) Commons Trust property appreciation. This includes new development, which should be higher than average without [property taxes](#). To find real property appreciation, inflation is subtracted. After inflation, the nominal default 5% property appreciation is a real 3% property appreciation.

Nominal Property Appreciation	Real Property Appreciation	Description
4%	2%	No effect of property tax elimination
5%	3%	Minimal expected growth of Commons Trust property
6%	4%	New centers of population form
7%	5%	Some megacities form
8%	6%	Megacities form
9%	7%	Super megacities form with large population influx

Nominal Growth w/2% INF	Real Growth	Phase I Months	Phase I Years
4%	2%	3526	293.83
5%	3%	2991	249.25
6%	4%	2549	212.42
7%	5%	2061	171.75
8%	6%	1903	158.58
9%	7%	1791	149.25

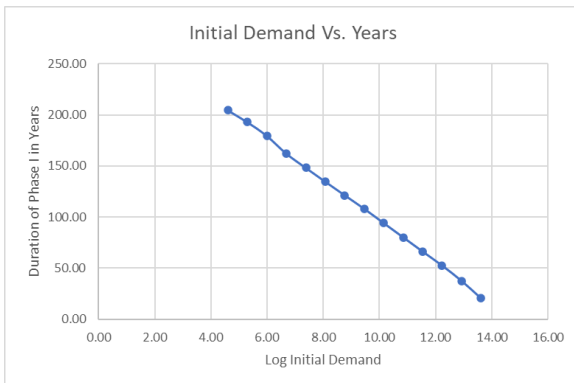


As one might expect, growth loses its effectiveness as duration shortens. If Phase I is completed in 20 or even 40 years, the growth rate has only a small effect.

Initial Direct Purchases

In the next series of simulations, the effect of an initial purchase of Elsie on the duration of Phase I is shown. With a land fund limited to \$1 million, large purchases will take several months to generate sufficient Elsie. However, this is of little significance for the outcome compared to the expense of a larger land fund. Even small buys contribute to natural demand from the moment the property closes. Readers are free to enter these amounts by hand to see the results. Direct purchases of Elsie should always be entered in segment E.

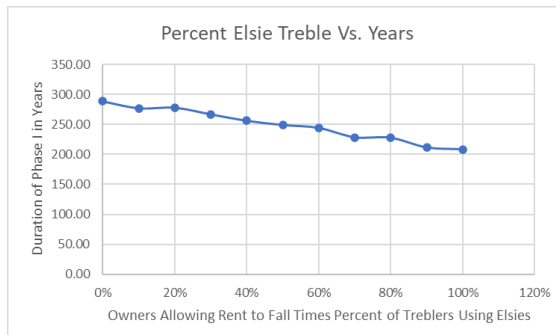
Initial Demand (MIL Elsie)	Phase I Months	Phase I Years	Log Demand
0	2991	249.25	
100	2452	204.33	4.61
200	2314	192.83	5.30
400	2153	179.42	5.99
800	1945	162.08	6.68
1,600	1778	148.17	7.38
3,200	1616	134.67	8.07
6,400	1456	121.33	8.76
12,800	1298	108.17	9.46
25,600	1130	94.17	10.15
51,200	963	80.25	10.84
102,400	796	66.33	11.54
204,800	631	52.58	12.23
409,600	451	37.58	12.92
819,200	246	20.50	13.62



Notice that the initial demand for Elsie must double to linearly affect Phase I's duration. To show this graphically, the log of the initial demand is used for the X-axis. If a consortium of billionaires or nations were to purchase 819.2 billion Elsie at the start of Phase I, Phase I would be completed in 20.5 years. It also follows that once this number of Elsie is purchased in total, Phase I will terminate in less than 20.5 years from that point.

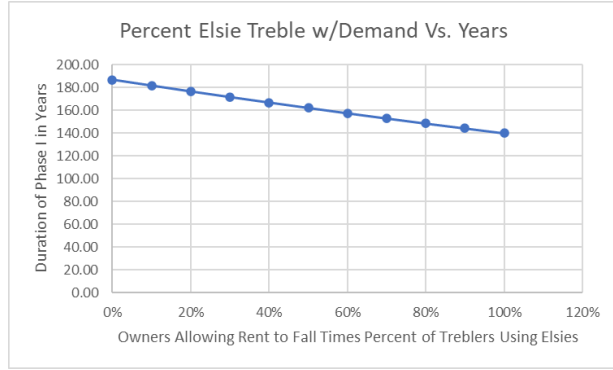
Owners Allowing Rent to Fall Times Percent of Treblers Using Elsie

Treble Percent	Phase 1 Months	Phase I Years
0%	3464	288.67
10%	3326	277.17
20%	3338	278.17
30%	3204	267.00
40%	3075	256.25
50%	2991	249.25
60%	2933	244.42
70%	2744	228.67
80%	2736	228.00
90%	2541	211.75
100%	2503	208.58



This parameter influences the duration of Phase I with a slope of .8 years/percent. The jaggedness of the line shows the statistical effect of discrete periods and heuristics on the small number of properties purchased through natural demand during the initial portion of Phase I. By repeating the simulation with an initial demand for 800 million Elsie, the slope is reduced, and the linear relationship is correctly displayed. The parameter loses significance as other factors shorten the duration of Phase I.

With Initial Demand of 800 million Elsie		
Treble Percent	Phase 1 Months	Phase I Years
0%	2239	186.58
10%	2178	181.50
20%	2117	176.42
30%	2058	171.50
40%	2001	166.75
50%	1945	162.08
60%	1889	157.42
70%	1835	152.92
80%	1782	148.50
90%	1731	144.25
100%	1680	140.00



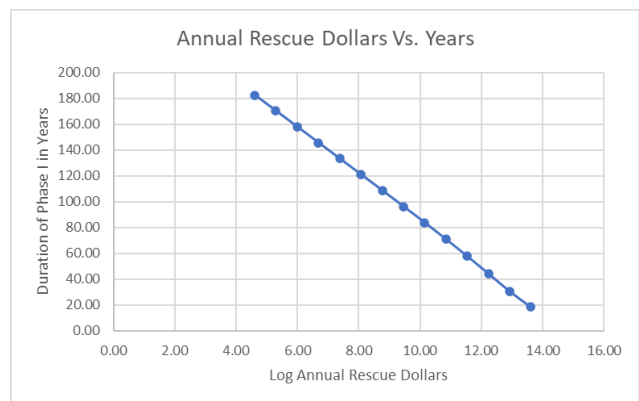
Annual Rescues

Property purchases in rescue mode have a much smaller impact on speeding up Phase I than the direct purchase of Elsie. However, the goodwill generated by such investments more than compensates for this smaller financial impact. Rescue mode purchases demonstrate some of the principles of land-based capitalism. \$100 million will rescue 400 properties, arbitrarily set as the size of a single rescue.

The rescue dollars in the simulation recur annually. While the numbers in the simulation appear to have a more significant effect on the duration of Phase I than the initial direct purchases above, the Elsie purchases above happened once, while these rescues happen every year.

Like direct purchases, the relationship between annual rescues and the duration of Phase I is log-linear. Using annual rescues alone, \$819.2 billion in rescues must happen annually for Phase I to be completed in 18 years and four months. This represents 8,192 \$100 million rescues per year. Realistically, the ABC could build up some 30 to 40 rescues a year around the globe. Beyond that, resources are better spent on other catalysts.

Annual Rescue Dollars	Phase I Months	Phase I Years	Log Rescues
0	2991	249.25	
100	2191	182.58	4.61
200	2044	170.33	5.30
400	1896	158.00	5.99
800	1749	145.75	6.68
1,600	1601	133.42	7.38
3,200	1454	121.17	8.07
6,400	1306	108.83	8.76
12,800	1157	96.42	9.46
25,600	1006	83.83	10.15
51,200	852	71.00	10.84
102,400	694	57.83	11.54
204,800	532	44.33	12.23
409,600	367	30.58	12.92
819,200	220	18.33	13.62

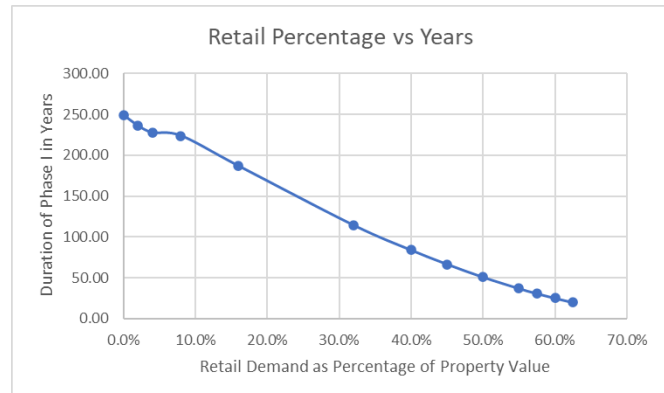


Retail Holdings as a Percent of Property Value

Retail demand for the Elsie is from merchants, consumers, savers, investors, speculators, professional treblers, professional auction bidders, and market makers outside the ABC market maker. It is distinct from natural demand, which includes a single market maker and direct purchases of Elsies to bring the dividend yield back to 6% when it rises above that level. Natural demand dividend processing affects very low percentages of retail demand (as seen in the graph), but otherwise, they are mutually exclusive.

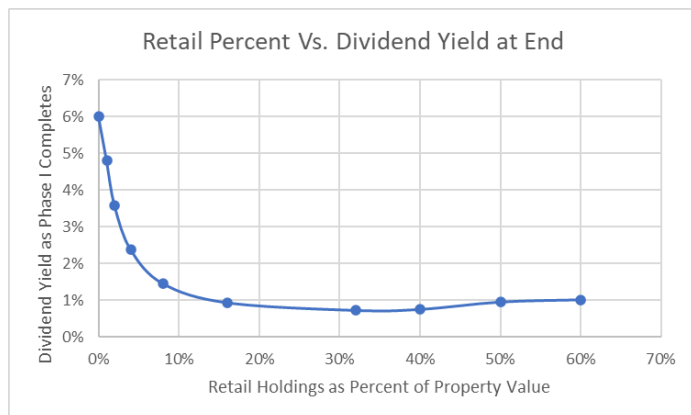
Any value above 62% will ultimately lead to negative market maker inventory in all segments, including A. In such a state, implementation will be restricted only by logistical and political considerations, although the simulation will show a finite time to Phase I completion of around 20 years.

Retail Percentage	Phase I Months	Phase I Years
0.0%	2991	249.25
2.0%	2837	236.42
4.0%	2734	227.83
8.0%	2686	223.83
16.0%	2243	186.92
32.0%	1372	114.33
40.0%	1006	83.83
45.0%	798	66.50
50.0%	608	50.67
55.0%	441	36.75
57.5%	366	30.50
60.0%	298	24.83
62.5%	236	19.67



The natural demand effect of holding yield at 6% influences the graph when retail demand is below 6%. The limiting dividend return is inversely proportional to retail holdings, making it more difficult for the ABC to encourage widespread holding of Elsies. However, Phase II brings rapid appreciation of the Elsie, and high retail holdings (above 60% property value) bring Phase I to a quick termination, slowed only by politics and logistics.

Retail Percent	Dividend Yield at End
0%	6%
1%	4.80%
2%	3.57%
4%	2.38%
8%	1.46%
16%	0.94%
32%	0.73%
40%	0.76%
50%	0.96%
60%	1.02%



Over lengthy Phase I durations, the dividend is proportional to property value growth and [EDSF](#) sequestration. It is also inversely proportional to the number of Elsie's held by retail holders and receiving dividends. As retail holdings increase beyond 32%, the rate of property purchases exceeds the market maker's ability to maintain an inventory, and the return begins to rise again. The market maker inventory is displayed as a negative number, and the simulation records a false increase in the dividend. This is evident when retail holdings reach 40% or more of property value.

Sample Phase I Simulations

Real Growth = 3%		In Million Dollars/Elsies				Investor
Phase 1 Years	Retail Percentage	Annual Rescue \$	Initial Demand	ABC Nominal Revenue	Real Revenue	Annual Real Return
20	51.00%	\$200	3,200	\$1,059,953	\$713,318	96%
20	49.00%	\$400	6,400	\$1,071,078	\$720,805	96%
20	54.50%	\$800	0	\$1,037,993	\$698,540	96%
20	46.50%	\$0	12,800	\$1,103,064	\$742,330	97%
40	38.00%	\$200	3,200	\$1,775,502	\$804,108	40%
40	35.00%	\$400	6,400	\$1,844,744	\$835,467	41%
40	42.00%	\$800	0	\$1,728,404	\$782,778	40%
40	31.50%	\$0	12,800	\$1,923,604	\$871,182	41%
60	27.50%	\$200	3,200	\$2,993,883	\$912,482	26%
60	24.00%	\$400	6,400	\$3,109,542	\$947,733	26%
60	32.00%	\$800	0	\$2,838,463	\$865,113	26%
60	20.50%	\$0	12,800	\$3,218,751	\$981,018	26%

Initial demand is the most potent driver toward Phase I completion. A 20-year Phase I with an initial demand of 12.8 billion Elsie's requires retail demand as a percent of the property value of only 46.5%. In contrast, a 20-year Phase I with rescue dollars of \$800 million per year requires retail demand as a percent of the property value of 54.5%.

These 20-, 40-, and 60-year paths to Phase I completion demonstrate the importance of generating retail demand. Given the same rescue dollars and initial demand for Elsie's, the length of Phase I is determined by retail demand. As we saw above, given only natural demand, a 20-year Phase I requires an initial demand of 820 billion Elsie's or \$810 billion annual rescue dollars.

The ABC's nominal revenue after 20 years is above the well-advertised \$1 trillion, assuming the remainder over \$1 trillion constitutes 20 years of operations expense. Real income is based on the 2% inflation rate used in the simulation, and the actual return is based on an initial investment of \$24 million. Although return is predominantly a function of the length of Phase I, an emphasis on initial demand produces better financial results than an emphasis on rescue dollars. However, they are not mutually exclusive and likely handled by different departments.

The same simulations were done with a 5% real growth rate of commons property (7% commons property appreciation minus 2% inflation).

Real Growth = 5%		In Million Dollars/Elsies					Investor
Phase 1 Years	Retail Percentage	Annual Rescue \$	Initial Demand	ABC Nominal Revenue	Real Revenue	Annual Real Return	
20	47.50%	\$200	3,200	\$1,076,918	\$724,735	96%	
20	45.00%	\$400	6,400	\$1,085,444	\$730,473	96%	
20	51.50%	\$800	0	\$1,022,863	\$688,357	96%	
20	42.00%	\$0	12,800	\$1,112,222	\$748,494	97%	
40	31.50%	\$200	3,200	\$1,843,634	\$834,964	41%	
40	28.00%	\$400	6,400	\$1,919,169	\$869,173	41%	
40	39.00%	\$800	0	\$1,704,764	\$772,071	40%	
40	24.50%	\$0	12,800	\$1,992,732	\$902,489	41%	
60	19.00%	\$200	3,200	\$3,217,328	\$980,585	26%	
60	15.00%	\$400	6,400	\$3,426,031	\$1,044,193	26%	
60	24.50%	\$800	0	\$2,951,154	\$899,459	26%	
60	11.50%	\$0	12,800	\$3,605,793	\$1,098,982	26%	

The only material difference is the smaller retail demand as a percent of the property value needed to complete Phase I. Growth seems to have a small positive effect on real return. However, the variable end of Phase I in the data, within 2 or 3 months either side of 20, 40, and 60-year simulations, complicates exact comparisons.

Parameters of the Implementation Change Over Time

A worthy projection for Phase I duration cannot be accomplished with parameters that do not change over time or are entered once at the start. Given a good CEO, the retail demand for Elsie will be many times the property value for the first few months of ABC operations and drop off to a lower percentage after the property is purchased into the Commons Trust, even as total retail demand rises. The demand for retail Elsie as a percent of property value in the Commons Trust always begins at infinity, if it is defined at all.

Rescue purchases begin with one county rescued a year. As the popularity of this program grows, so does the size of the department and the number of rescues per year. Rescue dollars must also keep up with inflation.

One-time large purchases of Elsie by billionaires and legacy governments will happen sporadically throughout Phase I, not just at the start. Even the percentage of treblers using Elsie and the number of property owners allowing their rent to fall will change over time.

The solution is to break the spreadsheet into multiple spreadsheets, each iteration with its parameter settings and continuing from the previous spreadsheet. The instructions on how to modify the Phase I iterations spreadsheet are below.

The Phase I iterations spreadsheet describes a 30-year, 3-month Phase I in 4 iterations. Each iteration is 100 months long, with the final iteration having 63 months.

Iteration	Months	% Elsie Treble	Real Growth	Annual Rescues	Retail Percent
1	100	50%	3%	100	60%
2	100	50%	4%	200	48%
3	100	50%	5%	400	40%
4	63	90%	3%	800	39%

Despite rising in absolute value, retail holdings as a percent of property value fell over the months. Real growth increases as megacities form but falls back to 3% as the demand for new megacities wanes. As annual rescues become more popular, they double every 100 months. Ultimately, the increased

popularity of both the Elsie and allowing one's rent to fall raises "Owners allowing rent to fall times percent of treblers using Elsies" to 90%. Phase I ends in month 363 on the 4th spreadsheet. Here are the key columns:

Period	Segment	Property Value (Mil \$)	Total Purchases (number of properties)	Retail Elsies	Delayed Disbursement	Sequestered Treble Arbitrage	EDSF	Annualized Dividend	Land Backing	ABC (Mil \$)	ABC/VTLM Revenue per month
363	A	\$42,854,494	80,753,817	17,807,320.26	880.00	4,340,004.25	5,205,985.35	0.00%	59.11%	\$1,376,643.82	\$0.00
363	B	\$42,854,494	80,753,817	17,807,320.26	880.00	4,340,004.25	5,205,985.35	0.00%	59.11%	\$1,376,643.82	\$0.00
363	C	\$42,854,494	80,753,817	17,807,320.26	880.00	4,340,004.25	5,205,985.35	0.00%	59.11%	\$1,376,643.82	\$0.00
363	D	\$42,854,494	80,753,817	17,807,320.26	880.00	4,340,004.25	5,205,985.35	0.00%	59.11%	\$1,376,643.82	\$0.00
363	E	\$42,854,494	80,753,817	17,807,320.26	880.00	4,340,004.25	5,330,495.77	1.09%	59.11%	\$1,409,575.63	\$32,931.80

At the end of Phase I, there are 17.8 trillion Elsies held by the retail sector, about 20% of the world's currency. Treblers have 4.3 trillion Elsies sequestered for trebling, and the EDSF holds about 5.2 trillion Elsies (about 5 trillion if 200 billion Elsies are paid out for Earth Dividends awarded in the last half of Phase I). The large number of retail holdings keeps the dividend at 1.09%. The Elsie is 59.11% backed by land versus 40% at the start of Phase I. By the end of the month, the ABC will have received \$1.4 trillion in revenue over 30 years, with monthly income at \$32.9 billion. Eight hundred eighty million Elsies remain in the 99.16% delayed disbursement inventory because of the rescues, with many billions already paid to the ABC, VTLM, and counties.

Readers are encouraged to copy the worksheets and create additional iterations. They can play CEO and design their Phase I.

Using the Spreadsheets

Microsoft Excel is needed to modify the spreadsheets. Read Appendix I, which describes each spreadsheet column before making changes. The spreadsheets are double zero balanced (Elsies and U.S. Dollars). If the balance is lost, you have made an error. Correct the problem as soon as it is seen, or you will never find your way back to balance. An error is possible, even if the spreadsheet is balanced, if two mistakes are made that cancel each other out. If a transaction involves both Elsies and U.S. dollars, typically, changes must be made to four columns.

Most spreadsheet users will modify the parameters on top, add Elsie demand, or add annual rescues as described above. These are safe, but be sure to add the minus sign to demand and place it in segment E. Rescues must be set in segment B and will propagate annually unless the formula is changed (which is also safe).

Elsie dumping involves adding a positive supply shock to segment E and then lowering the "percent of peg" column until the demand in segment B of the following month is non-negative (black instead of red). This indicates that natural demand at the entered "percent of peg" has accounted for the entire dump. The formula will bring the percent of the peg back up to 99% as quickly as possible (although if there is no negative demand on the way up, the increment in the formula can be increased until negative demand (red-colored) appears).

There is a stand-alone Phase I spreadsheet and a Phase I iterations spreadsheet. The iterations spreadsheet is initialized to the four iterations described above.

The procedure for continuing a worksheet on the next iteration should be followed precisely. If the end of one worksheet is month 104, highlight the six rows from 103-E to 104-E inclusive. Highlight only the

data starting with the period, not the Excel row. Extend the highlighting to the final column on ABC's monthly revenue. ABC monthly revenue for month 103 should be on the first row of the final column, and the monthly revenue for month 104 should be on the last row of the final column. This is a cue that the proper rows are highlighted. Click on copy and go to the worksheet for the next iteration.

In the very first row of the worksheet, showing segment E of a month otherwise not displayed, paste the highlighted text BY VALUE. This places all the highlighted values at the start of the new worksheet. Formulas are not pasted. If the formulas are accidentally pasted, the new worksheet will go haywire. Do not panic. Just paste values only, and the worksheet will correct itself. The new worksheet will continue where you decided the previous spreadsheet should end. Parameters for the new worksheet can be changed as needed.

Iterations have a maximum of 1000 months, with the final iteration supporting 3000 months. Make copies of the 1000-month worksheets to save on memory when creating additional iterations. If 20 or 30 iterations are needed, reduce the size of the worksheets to save on memory. Worksheets can be expanded again by pasting a given number of whole months (A-E) to the end. Never use the first month of an iteration when increasing the size of the worksheet, as it contains only values, not formulas.