

# The Effect of VIP\$ Discounts on Treble Arbitrage



This module was written before the power of bidder arbitration was understood. The deep discounting to 85% of the peg in the very early days is unlikely to occur. However, this module lays the foundation for the TAD curve which plays a critical role in monetary policy.

In the module [Holding 99 Percent](#), it is explained how the [VIP\\$](#) will be fixed just above 99% of its [peg](#) to the U.S. dollar. The 99% VIP\$ is taken for granted in earlier modules such as [Parameters of Ground Rent in Early Days](#).

It is possible the ABC [Land Fund](#) will run dry, in the unlikely event the ABC meets its [ram and jam](#) targets in real time. This module explains the [trebler's](#) [arbitrage opportunities](#) as a basis of VIP\$ demand, and its relationship to wealth creation.

## Treble-danger point (4.61%) for a property in Denver, CO at 99% of peg

Is Property Safe From Trebler?	User Entered	Computed	
Land Share	60.00%		
Purchase Price	\$700,000		
Mortgage Rate	5%		
Land Appreciation	0%		
Structure depreciation	0%		
Land Value at start		\$420,000	
Structure value at start		\$280,000	
Ground Rent as percent of land value	4.61%	\$19,362	
Property Tax percentage	0.5%	\$3,500	
Bank down payment percent	20%	\$140,000	
Closing costs on title acquisition	2%	\$21,000	
Fees on bank loan	1%		
Bank loan term (months)/Total Down Payment	240	\$161,000	
Bank loan principle		\$560,000	
Treble 33.33% structure premium		\$92,400	
Trebled rent		\$57,505	
Loan fees on structure		\$2,772	
<b>VIP\$ as percent of peg</b>	<b>99%</b>		
Treble down pymt = premium + 1 yr advance		\$152,677	
Higher/Lower down payment for Trebler		-\$8,323	
Monthly standard mortgage payment		\$3,696	** Treble Safe **
Total monthly payment for standard bank loan		\$3,987 = \$3,696 + \$292	
Bank loan to trebler on structure - monthly		\$1,829	
Interest on excess down payment		(\$416)	
Average Monthly Rent Refund		(\$159)	
Treble monthly ground rent at start		\$4,792	
Midpoint rent		\$2,739	
Total monthly payment for trebler		\$3,993 = \$1,829 + (\$416) + (\$159) + \$2,739	

These are the parameters used in the examples that follow - VIP\$ as a percentage of peg (in red) changes, as does land share at the top. Ground rent as a percentage of land value (line 8) is set manually to the smallest possible [treble safe](#) value.

In this run, VIP\$ has the standard 1% discount to

99% of peg. [Land share](#) is a high 60% and the lowest safe ground rent is 4.61%.

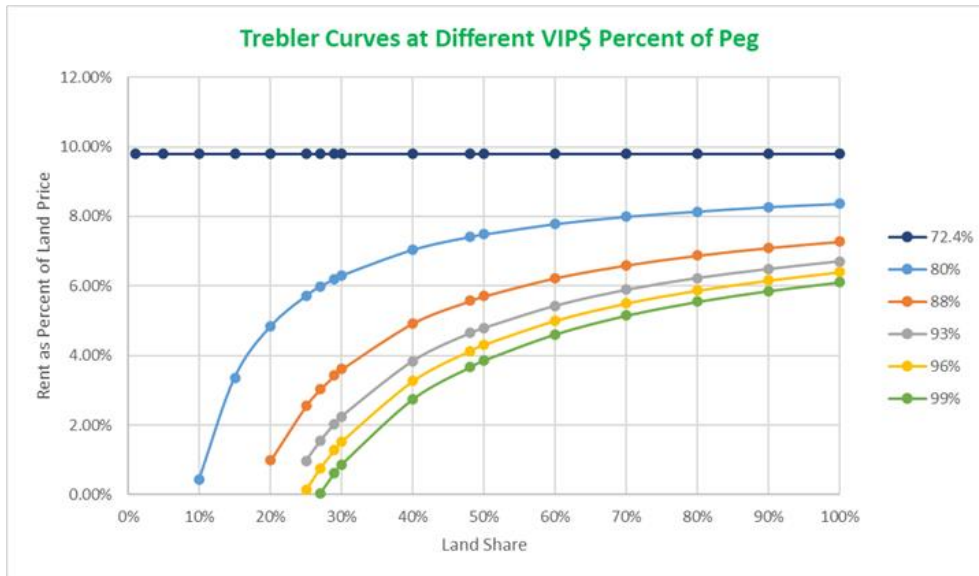
With the VIP\$ discounted by more than 1%, the trebler is willing to [treble](#) for a higher amount, all things being equal. By how much, and how much do results vary by land share?

Discounts are applied to several parameters used in the determination of a treble-safe rent.

1. The [structure value and premium](#) – this is the most important benefit in low-land-share areas where rents are low. Discounted VIP\$ reduce the structure premium, and if low enough, change the structure premium into a discount. Whatever the ground rent, it is only a fixed cost of purchase.
2. The one-year [advance rent](#) – paid in VIP\$, is now paid in discounted VIP\$.
3. The variable loan fees charged by the bank on the structure. This is an automatic benefit, since the amount of the loan is discounted if U.S. dollars are used to purchase VIP\$ at closing.
4. The monthly ground rent – voluntarily paid in discounted VIP\$ as long as the discount remains in effect.

What happens to the treble curve when these discounts are applied?

Rents For Various Land Shares with VIP\$ at Different Percent of Peg						
Land Share	99% peg	96% peg	93% peg	88% peg	80% peg	72.4% peg
1%						9.80%
5%						9.80%
10%					0.42%	9.80%
15%					3.36%	9.80%
20%				0.99%	4.83%	9.80%
25%		0.13%	0.97%	2.56%	5.71%	9.80%
27%	0.03%	0.75%	1.54%	3.03%	5.98%	9.80%
29%	0.61%	1.28%	2.03%	3.43%	6.20%	9.80%
30%	0.86%	1.52%	2.25%	3.61%	6.30%	9.80%
40%	2.74%	3.26%	3.84%	4.93%	7.04%	9.80%
48%	3.66%	4.13%	4.64%	5.57%	7.41%	9.80%
50%	3.86%	4.31%	4.79%	5.71%	7.48%	9.80%
60%	4.61%	5.00%	5.43%	6.23%	7.78%	9.80%
70%	5.15%	5.50%	5.89%	6.60%	7.99%	9.80%
80%	5.55%	5.87%	6.23%	6.88%	8.14%	9.80%
90%	5.86%	6.16%	6.49%	7.10%	8.27%	9.80%
100%	6.11%	6.40%	6.71%	7.28%	8.36%	9.80%



The effect of a discount is to shift the treble curve up and to the left and to increase its convexity, reaching a perfect horizontal line at 72.4% of peg. All parameters are [default](#), except property tax, which is 0.5%.

Notice the steep slopes at low land share and the flatter slopes at higher land shares. With a median residence land share of 33% in the U.S., a small discount in the VIP\$ will have a highly leveraged effect on ground rent.

Since paid rent is unlikely to change, the result will be an immediate increase in trebling. The impact of a VIP\$ discount will be concentrated on low-land share properties.

To see this clearly, we convert these curves to average rent lines by multiplying each entry by 2 x land share:

Average Rent as a Percent of Purchase Price For Various Land Shares with VIP\$ at Different Percent of Peg						
Land Share	99% peg	96% peg	93% peg	88% peg	80% peg	72.4% peg
1%						0.20%
5%						0.98%
10%					0.08%	1.96%
15%					1.01%	2.94%
20%				0.40%	1.93%	3.92%
25%		0.07%	0.49%	1.28%	2.86%	4.90%
27%	0.02%	0.41%	0.83%	1.64%	3.23%	5.29%
29%	0.35%	0.74%	1.18%	1.99%	3.60%	5.68%
30%	0.52%	0.91%	1.35%	2.17%	3.78%	5.88%
40%	2.19%	2.61%	3.07%	3.94%	5.63%	7.84%
48%	3.51%	3.96%	4.45%	5.35%	7.11%	9.41%
50%	3.86%	4.31%	4.79%	5.71%	7.48%	9.80%
60%	5.53%	6.00%	6.52%	7.48%	9.34%	11.76%
70%	7.21%	7.70%	8.25%	9.24%	11.19%	13.72%
80%	8.88%	9.39%	9.97%	11.01%	13.02%	15.68%
90%	10.55%	11.09%	11.68%	12.78%	14.89%	17.64%
100%	12.22%	12.80%	13.42%	14.56%	16.72%	19.60%



While the 100% peg line is not shown, it would be a hair below the 99% line. It might appear that if the VIP\$ traded at a premium, people would pay less rent. However, rent can be paid in either VIP\$ or U.S. dollars, and if the VIP\$ traded at a premium, people would pay rent in U.S. dollars, so there would be no difference in rent paid whether there was a 0% VIP\$ premium (= 0% VIP\$ discount = 100% line) or a high premium.

The upward shift in the average rent as a percentage of purchase price line, at increasing discounts of the VIP\$ to peg, is used to get a rough measure of treble arbitrage opportunities that put a floor on the VIP\$ discount. A simple treble arbitrage example follows.

Consider a \$1 million McMansion sold into the commons trust with a 27% land share. The rent is a very low .02% (\$200/year) at 99% of peg, if the property owner even bothers paying rent.

What would happen if the VIP\$ dropped to 93% peg? The McMansion rent should rise to 0.83% (\$8,300/year), a 4,050% increase. The rent is unlikely to be raised, and treblers will feast on cheap properties such as this.

Expensive homes on cheaper land are extremely sensitive to any discount in the VIP\$. As the VIP\$ drops below peg, they are the first to fall into the zone where it is cheaper to treble than to purchase an identical house on private land.

However, trebling these McMansions requires a large supply of VIP\$ to take full advantage of the discount. These houses are under normal circumstances rent-free, and under all circumstances property-tax free.

For those who have the liquidity to match the trebler, rents will be allowed to fall freely until trebled. On average, when rents fall to the [treble danger point](#), they will be trebled and then in one year's time fall back to the treble danger point, where they will be trebled again.

This leads to a uniform distribution of rents between the treble danger and treble points with the average rent halfway between. Those without liquidity will likely cluster closer to the bottom of the range.

Assuming a uniform distribution at any land share of rents between the treble danger point and the treble point, it is possible to determine likely trebles based on the VIP\$ discount.

However, this number is conservative because people may [freeze their rents](#) just above the treble danger line because they don't have the liquidity to match the trebler.

First consider properties that must pay a ground rent. If the discount at least triples the treble danger rent, then 100% of the properties at their current rent are now in the treble danger zone (regardless of distribution).

If the discount doubles the treble danger rent, then 50% of the properties will be in the treble danger zone (and likely many more due to a realistic clustered distribution). Graphing these points as a line gives a slope of 0.5 and a Y-intercept of -0.5. The formula is:

Percent of properties trebled = MIN (100%, (treble danger rent at VIP\$ discount/treble danger rent with no VIP\$ discount) \* 0.5 - 0.5).

For properties with a land share too low for rent, trebling will be done because the discount is a discount on the structure and premium. Once the discount is large enough that the cost of the structure is below market value, 100% of properties will be trebled.

However, because there is no property tax, trebles will increase with the size of the discount, even if an effective premium is present. The amount paid for the structure is 133% depreciated replacement value multiplied by the discount.

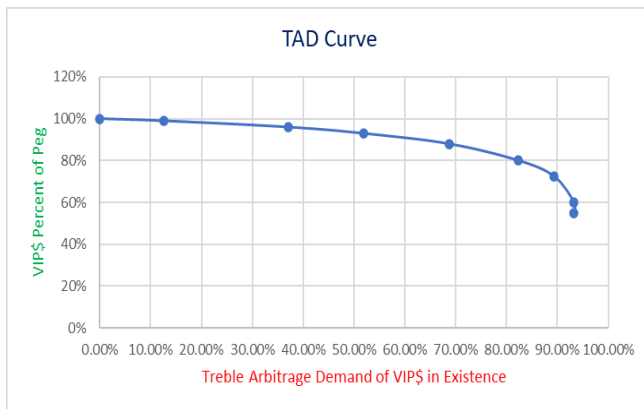
If this is greater than 33%, then 100% of properties will be trebled. Otherwise, it is a function of the property taxes. Because a 0.5% property tax is 1/10 of a 5% rent, people will pay a 10% premium.

However, those with a 1% property tax will pay a 20% premium and those with a 1.5% property tax a 30% premium based on a 5% interest rate. Because the properties in question are low-land share, non-ABC selected properties, property taxes will vary.

The method used is to compare the premium to 33% and subtract that from 100% to arrive at the percentage of properties trebled. The formula is  $\text{MIN}(100\%, 1 - (33\% - (1.33 \times \text{discount}))/33\%)$ .

Using the [land share histogram](#) from AEI, it is possible to calculate the percentage of treble arbitrage VIP\$ demand for any discount.

Treble Arbitrage Demand Data																		
Rent Free:	Percent trebled = $1 - (33\% - (1.33 * \text{discount}))/33\%$																	
Rent:	Percent trebled = $(\text{rent at discount}/\text{rent at no discount}) * 0.5 - 0.5$																	
Land-Share Histogram	1.00%	5.00%	10.00%	15.00%	20.00%	25.00%	27.00%	29.00%	30.00%	40.00%	48.00%	50.00%	60.00%	70.00%	80.00%	90.00%	100.00%	SUM
VIP\$ needed +6% advance rent	137.67%	132.35%	125.70%	119.05%	112.40%	105.75%	103.09%	100.43%	99.10%	85.80%	75.16%	72.50%	59.20%	45.90%	32.60%	19.30%		
Percent trebled at 99%	4.03%	4.03%	4.03%	4.03%	4.03%	4.03%	100%	28.21%	15.15%	3.31%	1.84%	1.88%	1.34%	1.19%	1.01%	0.87%	0.75%	
Weighted VIP\$	0.01%	0.02%	0.15%	0.24%	0.58%	0.21%	6.19%	0.54%	3.88%	0.48%	0.04%	0.14%	0.06%	0.01%	0.00%	0.00%	0.00%	12.54%
Percent trebled at 96%	16.12%	16.12%	16.12%	16.12%	16.12%	100%	100%	100.00%	65.15%	13.42%	8.50%	7.93%	5.68%	4.67%	3.95%	3.47%	3.16%	
Weighted VIP\$	0.02%	0.06%	0.61%	0.95%	2.33%	5.29%	6.19%	1.91%	16.68%	1.94%	0.20%	0.57%	0.27%	0.04%	0.00%	0.00%	0.00%	37.06%
Percent trebled at 93%	28.21%	28.21%	28.21%	28.21%	28.21%	100%	100%	100.00%	100.00%	24.71%	15.72%	14.38%	10.47%	8.55%	7.26%	6%	5.73%	
Weighted VIP\$	0.03%	0.08%	0.85%	1.40%	3.62%	5.00%	6.00%	1.90%	25.84%	4.17%	0.49%	1.43%	0.83%	0.17%	0.01%	0.00%	0.00%	51.82%
Percent trebled at 88%	48.36%	48.36%	48.36%	48.36%	100%	100%	100%	100.00%	100.00%	45.91%	28.90%	26.75%	19.38%	15.61%	13.24%	11.63%	10.47%	
Weighted VIP\$	0.07%	0.19%	1.82%	2.85%	14.43%	5.29%	6.19%	1.91%	25.61%	6.65%	0.67%	1.93%	0.91%	0.14%	0.01%	0.00%	0.00%	68.67%
Percent trebled at 80%	80.61%	80.61%	80.61%	100%	100%	100%	100%	100.00%	100.00%	86.96%	54.96%	50.54%	36.64%	29.42%	24.82%	21.79%	19.44%	
Weighted VIP\$	0.11%	0.32%	3.04%	5.89%	14.43%	5.29%	6.19%	1.91%	25.61%	12.60%	1.28%	3.64%	1.72%	0.27%	0.02%	0.00%	0.00%	82.31%
Percent trebled at 72%	100%	100%	100%	100%	100%	100%	100%	100.00%	100.00%	100.00%	88.81%	81.72%	59.13%	47.42%	40.07%	0.350694	0.313953	
Weighted VIP\$	0.14%	0.40%	3.77%	5.89%	14.43%	5.29%	6.19%	1.91%	25.61%	14.48%	2.06%	5.89%	2.78%	0.43%	0.03%	0.00%	0.00%	89.30%
Percent trebled at 60%	100%	100%	100%	100%	100%	100%	100%	100.00%	100.00%	100%	100%	100%	100%	88%	74%	64%	54%	
Weighted VIP\$	0.14%	0.40%	3.77%	5.89%	14.43%	5.29%	6.19%	1.91%	25.61%	14.48%	2.32%	7.21%	4.71%	0.81%	0.05%	0.00%	0.00%	93.19%
Percent trebled at 55%	100%	100%	100%	100%	100%	100%	100%	100.00%	100.00%	100%	100%	100%	100%	100%	100%	95%	70%	
Weighted VIP\$	0.10%	0.40%	3.77%	5.89%	14.43%	5.29%	6.19%	1.91%	25.61%	14.48%	2.32%	7.21%	4.71%	0.91%	0.07%	0.00%	0.00%	93.28%



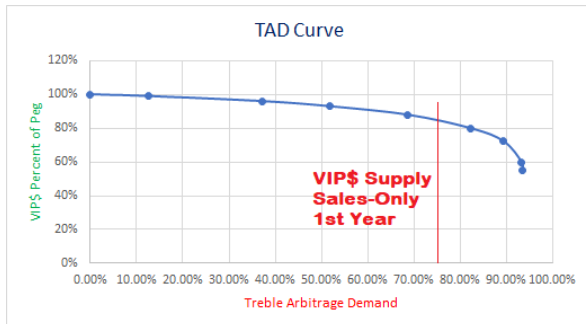
From this, we can draw the actual Treble Arbitrage Demand (TAD) curve.

The actual TAD curve is a hyperbola. However, the hyperbolic shape, with a treble arbitrage demand asymptote at 93.3% and a VIP\$ percentage of peg asymptote of 100%, reveals the increasing benefits of reducing VIP\$ supply.

If the supply of VIP\$ is greater than 93.3% of the total VIP\$ in existence, TAD offers no floor for the VIP\$. The VIP\$ could theoretically fall to zero, even if all properties were trebled. This is conservatively based on the unrealistic proposition that the only people accumulating VIP\$ are those who will use them for the winning treble.

An advance rent account holding only 2% of all VIP\$ leads to a VIP\$ supply line at 98%, still too high to create a floor for the VIP\$. But this is not the case during the

first few years when the ABC prioritizes the [sales-only](#) mode of purchase. This leads to an [advance rent](#) account holding at least 24% of all VIP\$ created during the critical first year.



With supply of the VIP\$ intersecting treble arbitrage demand for the VIP\$ at 85% of peg, the lowest possible discount ceiling is 15%. Or, in other words, the lowest possible floor for the VIP\$ from TAD alone is 85% of peg.

A 15% discount is wholly unacceptable.

No merchant would ever accept the VIP\$ if they could only receive 85 cents on the dollar, and the ABC would certainly fail at such a discount.

The importance of the TAD curve in monetary policy is not so much the role it plays in providing a floor for the VIP\$. Instead, it is the effect of new construction on VIP\$ demand when the discount is held steady at 1% (99% of peg).

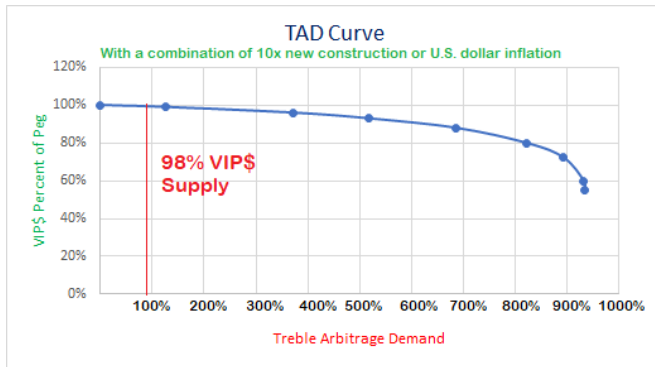
New construction is rewarded with a 33% premium that lowers one's personal rent, so there is a great incentive for development. What is the relationship between new construction and the TAD curve? Because property tax is abolished on commons trust land, it will be very common for developers to treble a run-down property or vacant land and build larger, more efficient structures. The replacement cost of these structures far exceeds the VIP\$ created when the original property was moved into the commons trust.

New construction not only increases treble arbitrage demand for the VIP\$, but as discussed in the [Is Land Value a Fluid](#) module, it also increases total rents worldwide.

Increased rents increase the dividend on the VIP\$, increasing the demand for the VIP\$ as a financial instrument, as they reduce the supply of VIP\$ by sequestering more of them in an advance rent account. Additionally, more VIP\$ are demanded for a treble.

The effect of new construction is to change the multiplier on the horizontal axis. If the average value of new construction is 10x the original VIP\$ for vacant land and dilapidated structures, then the effect is to multiply the percentages of VIP\$ demanded on the treble arbitrage demand line by 10.





In this graph, the value of new construction is worth 10x more than the original structures purchased into the commons trust, due to a combination of actual new development and U.S. dollar inflation.

In the TAD diagram to the left, sales-only mode has ended and the advance rent account holds only 2% of the total VIP\$. However, even this high 98% VIP\$ supply line is to the left of the blue dot, representing the TAD curve at 99% of peg.

That means it is no longer possible to maintain the 1% discount without [appreciating the VIP\\$ peg](#). If this occurs, the [conditions for Phase II](#) will be met in short order.

The TAD curve is one of the most amazing economic miracles of AFFEERCE. Currency discounting is eliminated through the creation of real economic wealth. The same effect is achieved through U.S. dollar inflation, or any combination of inflation and wealth creation.

This deflationary force on the VIP\$ will usually be contained by an acceleration of [ram and jam](#), if possible, or the purchase of [covenanted](#) government lands and other properties not likely to be improved. In [Phase II](#), it leads toward the [hyperdeflation event horizon](#), but is probably of less consequence than [sequestration](#).

The TAD curve is literally a double-edged sword. In the early years, it provides a discount floor of 85% peg when sales-only mode is used, assuming, extremely conservatively, that there are no supply constraints on the VIP\$ beyond the advance-rent accounts.

More realistically, it signals VIP\$ [deflation](#) danger beginning as early as year 3, and leads to wise use of monetary tools, including ABC purchasing policies, to control deflation before it becomes chaotic.