

L.V. slow, Cap. Recovery

L.V. and Macro.

Overpriced L.V.:

1. Lowers inv. opp.

(But there is an upswing of L.V. when Δ L.V. offsets)

2. Slows cap. recovery

(Corps. that wrongly internalize profits help offset this for a while.)

PIPO models may lead in wrong direction. They have hi i.v. and hi rent speed cap. recov. But w. bldgs etc., int & rent bite into cap. recov. — of extent K.

~~In corps. hi~~

Higher l.v. reduce % of c.f. from extant bldgs. that goes for cap. recovery.

The bldg. is devalued, as by local obs., there is less K in it.

[Conversely, urban sprawl etc., downvaluing central land, ΔK . (But sprawl also reduces c.f.)]

✓ In corps., hi l.v. cd. result in higher ratio
div./earnings, or higher Earnings/cash flow.

✓ Rising divds. cd. spark boom in stock mkt.

$$G + K = a \frac{1 - I^{-n}}{i} + G I^{-n}$$

$$K = a \frac{1 - I^{-n}}{i}$$

$$\frac{Ki}{a} - 1 = -I^{-n}$$

$$I^{-n} = 1 - \frac{Ki}{a}$$

$$-n \ln I = \ln \left[1 - \frac{Ki}{a} \right]$$

$$n = \frac{-\ln \left[1 - \frac{Ki}{a} \right]}{\ln I}$$

$$G_0 + K - \frac{a}{i} = -I^{-n} \left(\frac{a}{i} - G_n \right)$$

$$-I^{-n} = \frac{\cancel{\frac{a}{i} - G_n} G_0 + K - \frac{a}{i}}{\frac{a}{i} - G_n}$$

$$n \ln I = \frac{\ln \left(G_0 + K - \frac{a}{i} \right) - \ln \left(\frac{a}{i} - G_n \right)}{\ln I}$$

$$I^{-1} = \frac{\frac{a}{i} - G_0 - K}{\frac{a}{i} - G_n} = \frac{a - i(G_0 + K)}{a - G_n i}$$

$$\text{If } G = 0: \quad = \frac{\frac{a}{i} - K}{\frac{a}{i}} = 1 - \frac{Ki}{a}$$

$$\text{If } G_0 = G_n$$

$$= \frac{\frac{a}{i} - G - K}{\frac{a}{i} - G} = 1 - \frac{Ki}{a - Gi}$$

$$\text{If } G_n \neq G_0$$

$$= \frac{a - G_0 i}{a - G_n i} - \frac{Ki}{a - G_n i}$$

E.g.

$$K = 100$$

$$a = 15$$

$$i = .08$$

$$G = 0$$

$$\text{Then } n = 9.90$$

$$\text{Now let } G = 50, \text{ and } n = 16.88$$

$$\text{Now let } G_0 = 50$$

$$G_n = 100$$

$$\text{and } n = \cancel{16.88} 11.01$$

$$\text{Now let } G_0 = 0$$

$$G_n = 100$$

<u>K</u>	<u>a</u>	<u>i</u>	<u>G_s</u>	<u>G_n</u>	<u>n</u>
100	15	.08	0	0	9.90
			50	50	16.88
150			0	0	20.91
100		.09	0	0	10.63
			50	50	22.58
150			0	0	26.72
100		.07			9.29
			50	50	13.81
150			0	0	17.79