

Still Building to Maximum Allowable Plot Ratio?

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The author has been involved in the real estate development and investment industry **in North America** and typically, when a prospective real estate project opportunity presents itself, one of the first things to consider will be to assess the demand for the particular project at hand. This demand may exceed the allowable (or possible if no clearly stated ratio applies) plot ratio (in North America, this is usually referred to as the 'floor area ratio' = total building floor area to be built divided by the site area) or it may not. In the former circumstance, one would consider presenting a case for more floor area to the relevant municipal council / town planning authority, or in the latter case, one would consider the likely plot ratio practically required and work the numbers from thereon i.e. **if say the allowable plot ratio was 10, yet if the demand was only likely to take up 6, the price to be paid and the development plan would be geared on 6, not 10.** This in turn meant the seller of the site / land would get a market rate for the 6 (or a lower than market rate for all 10, depending on how one wishes to view it).

In this aspect, Hong Kong was and is still unique. Theoretically few and practically no one has ever seemed to need to ask whether a site is to be built to its full plot ratio. The hypothetical person who asks probably will cause eyebrows to raise 12 inches high. The fact that real estate projects were all (granted there would be a few that were not, but these probably were due to technical issues rather than a market issue) built to maximum plot ratios without causing any major negative effects (at least prior to mid 1997) suggested somehow, whether by design or coincidence, the overall supply had not been able to meet demand, whether in terms of floor area or unit supply, to the point that there was almost no need to consider what our North American counterparts had to consider. The following highly simplified **hypothetical example** illustrates the above:

- a) **Say originally, each year would see 100 home buyers** acquiring 100 residences each of 1,000 ft² in floor area, with each buyer paying \$2M for one residence. Thus, the total floor area supplied would be $100 \times 1,000 = 100,000$ ft² and the market size in terms of value / price was $100 \times \$2M = \$200M$. Assuming building cost to be \$1,000 / ft², **then \$1M would go to the 'bricks and mortar'** while the remaining \$1M would be split between the land price and the developer's profit for each residence supplied.
- b) **Say the demand grew and there were 200 buyers**, yet the floor area supplied remained at **100,000ft²**. Well, the developers had basically a spectrum of **2 choices = (1)** continue to build 1,000 ft² residences and sell to only 100 of the 200 potential buyers, **OR (2)** reduce the residences' size by half i.e. to 500ft² each (assuming the buyers would accept albeit reluctantly)

and sell to all 200 buyers. In the former, as there were 200 buyers competing for 100 residences, prices might be driven up to arbitrarily say 50% more i.e. \$3M, assuming all other factors remaining the same (to go up further would require improvements in the other factors too). This \$3M is likely to be split = \$1M to bricks and mortar and the remaining \$2M between land price and developer's profit. In the latter, **only \$500,000 went to the bricks and mortar** and the remaining \$1.5M would be split between land price and the developer's profit. [Note = Each residence could still be sold for \$2M* given all other factors remaining equal, because the size of a home is not a function of what the home buyer can afford to / is willing to pay or vice versa]. While the split between the land price and the developer's profit vary according to circumstances, let's say for our purpose it is done 50/50, then this would mean collectively the developers will get $100 \times \$1M = \$100M$ as profit by developing 100 units of 1,000 ft² each, OR $200 \times \$750,000 = \$150M$ as profit by developing 200 units of 500 ft² each. Assume the developers opted for the latter.

- c) **Say now the floor area supply increased to 200,000ft² and the number of home buyers remained at 200.** The developers again would have a spectrum of **2 choices** = **(1)** revert the residence size from 500ft² back to 1,000ft² and sell to all 200 home buyers [as the 200 buyers now did not need to compete for a lesser number of units, prices will go back to \$2M each], **OR (2)**, continue to develop 500ft² residences and sell to all 200 home buyers i.e. the 200,000ft² floor area supply would NOT be fully paid for or utilized. [The theoretical third option of building 400 residences each of 500ft² in floor area would cause an oversupply of units and thus is assumed to be impractical]. In the former, the economics to the developers would look like 2 x (a), while the latter would perhaps appeal more to them as it would be like (b2). Naturally, the eventual outcome may be somewhere between these 2 choices and that involves a lot of interaction between various market factors and players (developers and buyers included). For instance, while the developers would like to keep on building 500ft² residences, the home buyers would feel more 'deprived' now and hesitant to put up \$2M knowing a 200,000ft² supply (and the risk of oversupply etc is higher = whether it will or not is another issue). Eventually, either the developers would need to bring down the prices of the 500ft² residences and / or to increase the average residence size to entice the home buyers to buy at or near \$2M. Assuming if the average residence size did go up from 500ft² but short of the original 1,000ft², say 750 ft² only, then this would imply 50,000ft² of the floor area supply would not be realized, and this in turn implies that not all the sites would need to be built to maximum plot ratios.

Please note the above raises more questions than answers, and comments from seasoned professionals are welcomed. Nonetheless, given the seemingly changed real estate market structures and policies, **it may be time that market participants should consider contemplating the question suggested here.**

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