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The Economics of Vacant Land and Its Valuation

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Land is a commodity whose value lies in its contribution to a finished product. In real estate, that finished product may be a shopping center, office building, a subdivision or any other type of development. For a component part of any product to have value, there must be demand for the *finished* product. For example, if the office market is under-supplied, vacancies are low and rents are rising office prices may rise. It follows too that the value of land for office development may also rise. Conversely, if the office market is depressed, as it is at this writing, there is no rational and economic reason to construct additional office space. Prices paid for vacant land will fall as the land cannot reasonably be expected to be put into immediate or short-term development and the owner is faced with a wide variety of costs until such time as the land can be put into production.

In today's state and local real estate markets, most product types are seriously impaired and the root can be traced directly to housing. Statewide in Florida, for example, median existing home prices peaked at $257,800 in June 2006 and fell steadily to a trough of $121,900 in February 2011. That's an approximate 53% fall. Several of the state's major metropolitan areas experienced even steeper declines. Metro Orlando, Miami-Dade, and Broward all experienced a peak to trough decline of about 56% to nearly 65%. Commercial real estate was not immune. Prices have fallen about 50% since the beginning of 2009 and the decline may not be over. Another 5% to 10% decline is possible this year and next as foreclosures mount and properties — both residential and commercial — come back to market at reduced prices.


Florida Subdivision Idle Since 2007

Land values have fallen dramatically as well. Predictably, the decline has been even steeper than that of the finished product. Why steeper? Because land is a non-earning asset until it is developed to its highest and best use. In other words, there is no cash return or return on equity with vacant land. Instead, it is expensive to hold and pay taxes, other expenses and most of all the cost of mortgage and/or equity capital. There is also risk and uncertainty around when the market will recover, whether other future events might occur that would lengthen the holding period and even entitlement risk or the possibility government approvals cannot be obtained in the future when demand returns and the then land owner seeks to develop the land. Even if the land is not encumbered by a mortgage, there is still an opportunity cost associated with holding land, having money tied up in a non-earning asset and not being able to invest in potentially more profitable alternatives.

Today, land owners have few options and are facing enormously difficult decisions. Development today is rarely economically feasible in the face of huge inventories of finished space and declining prices. For most owners, simply holding land acquired during the mid-2000 bubble era for development is not a financially feasible option.

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What is happening is not unique to real estate. The principle is the same in any type of manufacturing. For example, steel and rubber are essential in the manufacture of automobiles. If the market for automobiles slows or becomes depressed, it follows that there will be less demand for steel and rubber. As a result, steel and rubber prices will decline.

The value of land or any component part of something being manufactured is not an inherent quality. Its value is linked directly to the supply and demand relationship for *finished product* in the marketplace. As a result, land prices and value do not change on a straight line or other orderly basis independent of the value of the finished product. Just like other commodities, they can be subject to wild swings. Indeed, since late 2007, we have witnessed land prices decline by 50% to 90% as finished product values have fallen by 40% to 65%.

Land values have declined for reasons cited herein. In addition, there is often a wild card that is being played in many transactions today. This downturn has also brought out another type of potential purchaser sometimes referred to pejoratively as a *vulture fund*. While not new, these buyers are rarely true real estate investors but rather private equity funds that seek to purchase at prices so low that it virtually removes most risk from their side of the equation. They usually purchase from banks at a small percentage of the outstanding loan balance rather than the asset's contributory value to future development.

What Is Land Worth In a Depressed Market? If there is no short-term need for finished homes or commercial space, it follows that there will be no need for a developer to acquire land for current or short term development. Clearly, however, excess finished space or lots will be absorbed over time. What we are witnessing today is part of the real estate cycle — albeit a fiscally painful and unusually severe part of the cycle. At some future date, there will again be a need for new development and the land to support that development.

So who will purchase land today and what will they pay for it? Today's land purchaser will most likely be an investor or speculator who will buy now and hold it until they can profitably put it into production or sell it to someone who will at some future time when the market recovers. Today's purchaser will not pay a price equivalent to what a developer might pay to put the land into immediate or short term production. Why? Because they will incur holding costs until they can do so. A knowledgeable investor knows land is expensive to hold. They will clearly pay less — usually much less — than if the land could be used today.

A knowledgeable investor will only pay a price that will allow them to acquire the property, pay all expenses they expect to incur and to earn a profit for holding the property until it can be put to use. For example, if market evidence suggests that supply and demand will return to equilibrium in five years, and at that time the land can be put into production at a certain price, an investor will likely deduct expected profit, expenses and the cost of mortgage and/or equity capital over that five year period. An investor would likely make that analysis using a discounted cash flow technique where the first cash inflow occurs in five years and expenses (cash out flows) occur incrementally before that in the time periods they are reasonably expected to occur.

"The market is always the final arbiter of value and the methods use to analyze and estimate value. Listen, observe and do what the market is dictating."

Today's real estate landscape is littered with thousands of physically developed but unsold vacant residential building lots — the remains of the mid 2000s housing bubble. While some of those lots are currently being acquired by large builders and others with the capacity to hold them until the market returns, by far the majority will remain dormant for many years. Entitlements will expire, consumer preferences will change over time and municipal growth management laws and regulations are likely to change as well to help ensure that the extraordinary level of over-development and virtually uncontrolled growth does not happen again. The value of those horizontally developed lots will revert to the general equivalent of vacant un-entitled land.

The contribution of entitlements. The entitlement process for real estate development includes, but is not necessarily limited to, obtaining zoning, access to water, sewer and other utilities as well as a wide range of other government approvals. The entitlement process can be lengthy, expensive and often politically charged with developers and communities sometimes at odds over needs, local lifestyle issues and growth management. Actually obtaining the necessary entitlements to develop land is fraught with uncertainty and risk. When the process is started, there is no guarantee that all the necessary entitlements can actually be obtained.

In a balanced or rising market, entitlements usually add substantial value to the raw land even if construction has not begun. This is largely because substantial risk has been eliminated, the usually lengthy time period to obtain entitlements has already passed and the dollars to obtain them have been spent. A developer who can put a fully entitled parcel of land into immediate development will usually pay significantly more for the land than they would if the parcel were not entitled.

In the bubble inflation days of the mid 2000s, many non-real estate developers discovered they could purchase or merely option a parcel of vacant land and navigate it through the entitlement process. Their intended result was often to create a shovel ready parcel of land that could immediately be sold to a developer or builder to put into production for the entitled use.

When the music stopped in 2007 and there was no longer demand for virtually any sort of development, entitlements became virtually worthless. Today, it is difficult to find any quantifiable evidence of land purchasers paying a premium for entitlements over and above an already deeply discounted land value.

The valuation challenge. As the housing bubble was inflating last decade, data for valuation purposes were abundant. One could quantify lot prices, absorption, expenses and discount rates. That information could be rolled into a discounted cash flow analysis to form an estimate of the value of a subdivision or group of lots as is to a single purchaser as of the date of valuation. The point of the technique was to arrive at an indication of the price a single third party purchaser would pay for all of the lots in "bulk" and then put them into production incrementally over time. That value to a single purchaser is often referred to informally as "bulk value" or "bulk sale value."

Today, even in this extraordinarily impaired market, the objective is the same. The question to be answered in most appraisals is "what is the value of the subdivision or group of lots today, as is and as if they are being sold to a single purchaser." That is, by definition, the value to a single purchaser or so-called bulk value. Today, however, the valuation challenge is huge as there is little meaningful or quantifiable evidence of individual lot values, absorption rates for lots or many of the other factors critical to a reliable discounted cash flow (DCF) analysis. Instead, there are arms length sales of subdivisions or groups of lots. They are, indeed, true "bulk sales" without all of the moving parts of a DCF and without the inherent uncertainty and forecasting risk. Nevertheless, too many lenders — even today — require a DCF with all its moving parts and assumptions where absorption and future lot prices are often little more than speculation.

A word of caution. The market is always the final arbiter of both value and the process used to estimate value. If convincing market evidence suggests that individual lots or groups of lots can realistically be sold to builders or end users over a reasonably identifiable time period, then cash flow analysis may again be the method of choice. Let the market decide.