PROPERTY MARKETS AND IMPEREFCT INFORMATION

Introduction

When appraisers write an appraisal report, they define market value for their client as being "the most probable price which a property should bring in a competitive and open market, as of the specified date, under all conditions requisite to a fair sale, the buyer and seller each acting prudently and *knowledgeably*, and assuming the price is not affected by undue stimulus." [1] [emphasis added]

Competitive Markets

The above are some of the conditions that economists include as part of a competitive market. In the model case, a *perfectly* competitive market is one where there are a very large number of buyers and sellers such that none, acting alone, can influence price. Each market participant is too small to affect any change on price and it assumes that there is no price fixing or collusion on the part of sellers. It also assumes that the product is identical from one seller to another such that a buyer can find a perfect substitute from any one of a number of alternative sellers. Finally, it also assumes there is complete information which is the main subject of this article.

The main result of a perfectly competitive market is that there is allocative efficiency. This is the situation that occurs when no resources are wasted – when no one can be made better off without someone else being made worse off. What perfect markets do for us is to adjust production and consumption between different products until no further gains could accrue to either producers or consumers from any other combination of goods. This is the essence of allocactive efficiency and is a major characteristic of perfectly competitive markets. All of the adjustments necessary to achieve allocative efficiency occur automatically through changes in market prices and company profits. In such a system, there is no need for government intervention of any kind. This is the strength of the market economy that led Adam Smith to advocate the doctrine of laissez faire. [2]

Efficient Markets

The market that is briefly described above, in which the actual price embodies all currently available relevant information, is called an efficient market. In an efficient market, it is impossible to forecast changes in price. This is so because if your forecast is that price is going to rise in the next period, you will buy now (since the price is low today compared to what you predict it is going to be in the future). Your action of

buying today acts like an increase in demand today and increases today's price. As other market participants do the same, then today's price will rise too until it reaches the expected future price. Only at that price do traders (think of the stock market) see no profit in buying more of the item (stock) today. There is an apparent paradox about efficient markets. Markets are efficient because participants try to make a profit by buying at a low price and selling at a high price. However, the very act of buying and selling to make a profit means that the market price moves to its expected future value.

Having done that, no one, not even those who are seeking to make a profit can predictably make a profit. Every profit opportunity seen by a market participant leads to an action that produces a price change that eliminates the profit opportunity for other participants. [3]

As we shall see, property markets are not efficient for a variety of reasons.

Imperfect Markets

There are five situations when the market does not, on its own, reach alloactive efficiency. These scenarios are described by economists as *market failures.* They include markets that produce externalities, the monopolization of certain markets, markets that under supply public goods, markets that are sometimes unstable and markets with imperfect information. In such circumstances, if the market is left alone either too much or too little is produced. We can see virtually all of these failures in property markets.

Markets sometimes produce negative externalities. These are external costs borne by third parties rather than by market participants. The smoke pollution from a nearby factory that causes additional cleaning costs on homes in close proximity and results in lower property values is a clear example of a negative externality**.** [4]

In these instances if the market is left alone, "too much" of the smoke (the negative externality) is produced by the market and there is therefore a justification for some form of government intervention.

Markets sometimes become monopolized and in these instances "too little" is produced by the market (and of course at too high a price). There is an inherent element of monopoly in land ownership due to the scarcity of land. In an interesting account of "scarcity" of location, Tim Harford in his book "The Undercover Economist" has an interesting discussion concerning the high price ($2.55) of a Starbuck's tall cappuccino (with an ingredient cost of perhaps 5 cents) at London's Waterloo Station where 74 million people pass through each year. Harford explains that the price is high because

of Starbuck's enviable (scarce) location and by the fact that other coffee vendors are excluded by the landlord. [5]

Markets, if left alone, sometimes don't produce public goods or at least not enough of them. Public goods in economic terminology are peculiar goods that have three unusual characteristics: they are non-excludable, non-divisible and non-depletable. Consider a large urban park like Stanley Park in Vancouver. The park is open to all city residents and it would be difficult to exclude some residents and not others. For users of the park, it matters little whether one or a hundred picnickers or joggers (non-divisible) use the park on a sunny afternoon. Finally, the park does not get used up after a weekend of events is over (non-depletable). [6] If participants can't be excluded, the private market can't make a profit supplying such a good and it will therefore under-produce the service and "too little" is provided by the private market place. It is a failure of supply and it is the reason why local governments will usually require that a certain amount of open space be set aside for public use as a condition for residential development to proceed.

Markets are also sometimes unstable. Agricultural commodity markets have often exhibited this problem. Bad weather may reduce a crop of corn resulting in a higher price. Reacting to the higher price, farmers rush to grow more corn next season, however, the extra supply then drives down the price and so it goes from "too much" to "too little" being produced. [7] Farmland prices can then fluctuate as a result of this instability. This is sometimes described as the failure of co-ordination. However, it is not only agricultural markets that exhibit this tendency. The business cycle with its boom and then recession reflects this problem, as can the housing market.

Imperfect Information

Missing information is the fifth market imperfection or market failure. Participants in markets may not be as perfectly informed as the competitive model assumes.

For example, in property markets at the periphery of urban growth developers in deciding how to develop sites must guess at the growth rate of the area in the foreseeable future and then attempt to estimate what is the best use of land within that set of expectations. If they develop at low density, and if the city expands more rapidly due to population growth, then they may very well waste land in the sense that had their expectations and those of their buyers been correct, they could have gained a higher return over time from a higher density development. Alternatively, if developers build at a high density and the city spreads out due to transportation improvements,

with land values tending to be steady (or even fall), they may find that they wasted resources in the other direction.

Asymmetric Information

Many markets are characterized by asymmetric information. Asymmetric information is a particular form of imperfect information. Participants on one side of the market have much better information than those on the other side and this is sometimes referred to as "insider information". For example, borrowers usually know more than lenders about their repayment prospects, sharecroppers (tenants) know more about their work effort and harvest conditions than the landowner and home sellers generally know more about the nature of their properties than do buyers. In some instances, buyers don't' get what they expect and in other situations, almost identical properties don't sell for the same amount. In these situations, market outcomes can be at odds with what we might expect.

Some economists have argued that this problem is much bigger than previously recognized and have therefore called for much more government intervention in the marketplace. An American economist, George Akerlof, published a paper in 1970 that described the problem of asymmetric information in the used car market. He showed that even if the market was very competitive, it simply cannot work if sellers know a lot about the quality of their cars and buyers do not. [8] Using the example of "peaches" and "lemons" for used cars, Akerlof showed that if sellers can't recoup a fair price for their "peaches", they will only offer "lemons" and buyers won't offer to purchase "peaches" knowing that they may only get a "lemon". In the end, in such a market only worthless lemons get traded. Generalizing from this example, if some people know more than others about the quality of the product, then some high quality products may not get traded at all or at least not very much and thus the market failure.

Market Reactions

On the other hand, there have been counter arguments that the private market place can, and will, react to overcome these information imperfections. [9] Residential housing markets (like other property markets) are markets with asymmetric information and the market has reacted to this problem of asymmetric information in several ways. Real estate appraisers and home building inspectors have often been employed to ascertain additional information about a property for the potential buyer or the seller. In the case of the appraiser, it's been about the market value of the home and in the case of the building inspector it's been about the physical condition of the residence. Sellers will also disclose the physical nature of their homes through the use of a "Seller Property Information Statement". [10] Similarly, participants on one side of the market think they can gain information by utilizing the skills of a real estate agent. In the

mind of the home owner, the agent knows the market in order to not be too high with an asking price or too low, the agent is familiar with competitive listings, and might even have a prospective buyer at hand. In each of these ways, the market is reacting to the problem of asymmetric information.

As an aside, while the real estate agent would normally use this asymmetric information on behalf of the client, this is not always the case. In his recent and popular book, "Freakonomics", Steven Levitt describes a study that was conducted in the Chicago housing market. The study involved the sale of 100,000 homes with 3,000 homes being owned by real estate agents. The study showed that agents kept their own house on the market for ten more days than they did with their clients' and sold their own homes for three plus percent more than they got for their clients' homes. On a $300,000 home that premium was $10,000. The economic incentive on the part of the agent to not increase the listing period lies in the structure and incentive of the commission. Suppose there is a 6 percent commission split equally between the seller and buyer agents and one half of their commission goes to the brokerage house, with a 1.5 percent commission on the sale of the house, the extra $150 to be earned on the extra $10,000 is too small an incentive for the agent to put in the extra time and effort required for the higher sale price**.** [11]

Conclusions

While there are certainly market imperfections, none are peculiar to just property markets.

If there was perfect market information, market participants would have all of the required information to make informed decisions and there would be no need for real estate appraisers, real estate agents or building inspectors. Market participants would already know all of a property's attributes (good and bad), they would know what other properties had sold for, how long they took to sell and they would know all of those properties' attributes as well.

Of course not all of this is known by participants and hence there is an important role for professionals, such as real estate appraisers, who can provide their clients with an informed opinion of a property's market value (not only current but also retrospective opinions).

Contrary to some thinking, the real estate market, as with other markets, has clearly reacted in order to deal with the problem of imperfect information (including asymmetric information) in a number of ways. By using professional real estate appraisers, potential buyers and sellers can overcome some of the imperfect and also

some of the asymmetric nature ("insider information") of property information. Appraisers assist their clients by uncovering as much information about a property as is reasonably possible during the appraisal process. This activity starts with a proper site and building inspection, it continues with the investigation about restrictions on title (such as easements), and to the property's past usage including its recent sales history. It continues with a proper analysis of the property's highest and best use, an analysis of relevant comparable sales data and it concludes with a well reasoned estimate of a property's market value.

Notwithstanding the above, professional real estate appraisers still need to recognize and comment in their appraisal reports on the fact that property markets have imperfections. Each step of the appraisal process may have its own limitation. Perhaps there is no survey for the property or its boundaries may not be very clear. Perhaps not all of a building can be fully inspected. Sometimes there are very few comparable sales to chose from and sometimes there is a lack of paired sales or other data to support adjustments (in a proper mathematical sense the appraiser needs one more comparable sale than the number of adjustments being made). [12]

Pointing out such limitations in an appraisal report should make the report more credible. While property markets aren't perfect, appraisers can adjust to this reality with due diligence and at the same time they can assist their clients in making better informed decisions.

Endnotes:

1. See Section 12.16.1, *CUSPAP 2007, effective January 1, 2007,* The Appraisal Institute of Canada.
2. Smith saw other benefits that include the costless nature of such a system that does not require government regulation and also individual economic freedom.
3. For a more complete discussion of efficient market theory, see Norman E. Cameron, *Money, Financial markets and Economic Activity*, Addison-Wesley, 1984. P 321.
4. Burning fossil fuels that add carbon dioxide and other gases to the atmosphere, which prevent infrared radiation from escaping, resulting in what has been called the "greenhouse effect" is probably the biggest negative externality of them all. On the other side, a positive externality results when an unintended external benefit is created by an activity. A homeowner, for example, creates an attractive front yard filled with spring flowers that are admired by joggers and walkers alike. As an aside, much planning activity stems from the nature of these externalities.
5. T. Harford, *The Undercover Economist*, Anchor Canada, 2005. Chapter 1. Harford also discusses two other market failures in his book.
6. Parks are not absolutely pure public goods because people can be excluded with fencing and a park can get crowded (depleted) if it is too small. Since this paper is about property markets, I have included it as an example of a public good. More traditional examples include lighthouses, national defence and our justice system. Published information is also a public good.
7. The resulting unstable farm income is a key reason for the introduction of supply management in certain agricultural sectors in Canada such as the dairy and chicken industries.
8. Three economists (George Akerlof, Michael Spence and Joseph Stiglitz) won the Nobel Prize for economics in 2001 for their analysis of markets with asymmetric information.
9. See T. Cowen and E. Crampton, *Market Failure or Success,* The Independent Institute, 2007 for a discussion of market reactions to some of these failures.
10. This not mandatory in all provinces in Canada but probably should be.
11. S. D. Levitt and S. J. Dubner, *Freakonomics,* Harper Collins Publishers Inc., 2005. P 8 and pp 71-76. Levitt also points out that the Internet is eroding the real estate agent's information advantage.
12. R. H. Zerbst, *A Caution on the Adjustment of Comparable Sales*, The Real Estate Appraiser, November, December 1977.

The Author

David Enns, B. Sc. Agr., M. B. A., AACI is the founder and president of Enns, MacEachern, Pace, Maloney & Associates Inc. a full service real estate appraisal firm servicing Eastern Ontario. Mr. Enns is a retired professor of economics who taught land resource economics in the appraisal program at St. Lawrence College. He specializes in the appraisal of all types of agricultural properties and special use properties and has been recognized in court as an expert witness. He can be reached on the web at www.empm.ca.