

## A “Global” Look at Obsolescence

The valuation and assessment of real and personal property should consider all forms of depreciation. While most assessors appear to have a handle on the physical deterioration aspect of depreciation, loss in value due to obsolescence is often deemphasized or overlooked altogether.

Obsolescence comes in all shapes and sizes. Functional obsolescence is an impairment of desirability and/or usefulness resulting from functional inutility (deficiencies and/or super-adequacies). External obsolescence can result from a myriad of causes such as locational inadequacies, adverse market conditions, economic distress, increased competition, new legislation, changes to regulations, etc. In many situations, the root cause of external obsolescence is *global* in nature and unless brought to the attention of assessment personnel by the taxpayer or his/her representative, external obsolescence of this type is rarely considered in the assessment process.

Global external obsolescence is particularly evident in manufacturing and process industries. It doesn't take a designated appraiser to understand the basic economic principle that manufacturers will locate their plants where the lowest overall cost of production can be achieved. Key considerations include the cost and availability of power, labor, transportation and raw materials. Governmental regulation, including pollution control constraints is also a major consideration. These are some of the reasons why many of our domestic manufacturing facilities and process plants have migrated to lower cost off shore sites. This industrial reorientation places an added burden on domestic capacity because they must compete with the newer lower cost plants around the world. As the domestic cost disadvantage escalates, margins are squeezed and investment returns fall below acceptable levels. Global external obsolescence due to the production cost disadvantage suffered by domestic producers when compared to preferred sites for new capacity, can be calculated by capitalizing the locational cost disadvantage. Care must be taken to make certain that the analysis of locational excess operating cost does not include the contribution of technology differences, which would be accounted for in the functional obsolescence analysis.

Compounding the problem for domestic producers is the fact that in a global economy, decisions made by foreign producers concerning product-pricing, as well as capacity additions, could result in further value degradation to domestic plants and equipment. This form of industry-wide obsolescence is experienced when product prices fall below economic levels or when global overcapacity exists.

Global obsolescence, as described above, has affected domestic asset values in a variety of industries including primary metals (both steel and aluminum), pulp and paper, the chemical industry and the automotive industry to name a few. For example, in the early 2000s, the steel industry was ravaged by declining product prices resulting from a global economic slowdown, including a deep economic

**recession in Asia, excess manufacturing capacity world-wide, and the continued inflow of foreign metal at very low prices. Due to the combined effects of low product prices and high manufacturing costs, the domestic steel mills were the first to idle capacity during these times of economic uncertainty. In fact, from 1998 through 2001 nineteen steel companies had declared bankruptcy. By the first quarter of 2003, seven additional companies filed for bankruptcy protection. Product prices became so depressed that the U.S. steel industry had claimed that foreign companies were using unfair business practices called “dumping” (selling a product below its cost of production) in order to gain U.S. market share and to keep their steel mills producing during the economic downturn. Whether the low steel prices were caused by excess capacity, illegally priced imports, world-wide economic slowdown, foreign exchange imbalances or a combination of these factors, the results were the same –reduced profits for domestic steel manufacturers and declining values for their production facilities. This type of global obsolescence can be measured capitalizing the income loss due to reduced product pricing.**

**Similar issues have plagued the primary aluminum industry over the years. New facilities in this industry are either located near the source of the raw material if the plant is an alumina refinery (the first step in the production of aluminum) or near a source of abundant low cost power (such as hydro power) if the plant is a smelter where the alumina is converted into aluminum by an electrolytic process. Since the U.S. has a limited supply of the raw material used to make aluminum and virtually no abundant source of low cost power when compared to off shore locations, plants of this type are no longer built domestically. The primary aluminum producing facilities that are located in the US suffer the same fate as their steel making cousins-excess production costs due to plant location resulting in external obsolescence of a global nature-in other words-impaired plant values.**

**The automotive industry also provides stark examples of depressed real estate and personal property values caused by global considerations. As noted in a recent publication, “International trade and globalization continues to impact the U.S. automotive industry, as production grows in low-cost countries and foreign competition increases.”<sup>1</sup> Many of the nation’s automotive manufacturing facilities have been either closed or plagued with idle capacity because they can no longer compete in the global market. The components that were made at these facilities are now manufactured in countries that provide a lower cost structure. Additionally, only the most modern domestic auto assembly plants can hope to compete in today’s global market.**

**It is often argued by the assessment community that manufacturing facilities such as an automobile assembly plant, a steel mill, aluminum smelter, etc. are special purpose properties and can only be valued for assessment purposes by use of a cost approach. Even if one were to accept this premise, an equitable value for assessment or any other purpose could only result if proper consideration is given to all forms**

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<sup>1</sup> *The Road Ahead for the U.S. Auto Market*, Office of Aerospace and Automotive Industries-U.S. Department of Commerce, March 2007, p. 38

of obsolescence, including the diminution in value caused by competitive forces in the global economy. Inevitably these negative external forces will eat away at the plant's economic viability until a change in highest and best use results. For example, after many years of appeals dating back to 1983, the General Motors case in Linden, New Jersey was recently settled. The plant, which was closed about three years ago, has been sold to a real estate developer, who plans to demolish the main plant and develop a mixed-use retail and industrial project. The obsolescence, both functional and external, which impacted the value of this facility as an automobile assembly plant, existed long before the plant closed. Unfortunately for the taxpayer, it often takes a catastrophic event, like plant closure, before the assessor recognizes the extent of the obsolescence.

Global external obsolescence is a very real force that must be accounted for in the assessment process and since it can impair the value of both real estate and personal property, its importance takes on an added significance. This article referenced a few industries to illustrate the concept but many other industries and property types are also subject to this form of depreciation. Any taxpayer, who works in an industry that participates in the global economy, should research and consider the global issues, which have an adverse impact on your properties' values for assessment purposes. Interviews with plant and corporate personnel as well as a study of published materials will help isolate specific issues.

International Appraisal Company (IAC) has assisted many clients in reducing their assessments by substantiating obsolescence claims through preparation of formal obsolescence studies. The information contained in our reports can be used as a negotiating tool or for presentation to local appeal boards. Our appraisal and property tax consulting experts have valuation experience in many industries and for a wide variety of property types. Our reports consist of a detailed narrative analysis of the specific obsolescence issues, which affect the value of a given facility and a market supported estimate of the appropriate obsolescence allowance. IAC's team of experts will present their findings, whether it be informally to an assessor or to a formal appeal board, in accordance with the highest level of professionalism.

In most cases, we are able to achieve the desired result at the local level. However, should litigation become necessary, our appraisal experts would be available to provide the necessary litigation support by completing fully documented appraisals and providing expert testimony. IAC consultants would also be available to participate in trial strategy decisions, exhibit preparation and consultation with legal counsel.