

The Impact of Real Estate Investors on Housing Markets

A study and analysis of the growth of the Imperial Valley housing market.

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ABSTRACT

In Southern California, Imperial Valley has recently witnessed massive growth in its housing market. This growth has been widely compared to the “bedroom community” of Temecula, in that the growth is merely spillover from San Diego housing markets where people seek affordable housing alternatives. However, investors recognize these communities as investment opportunities and have drastically changed the dynamic of the respective housing markets. The presence of these investors directly lead to inflated housing prices, which ultimately undermine the very principle of bedroom communities that are supposed to provide relief from the very same inflated housing prices. Utilizing data obtained from recent homebuyers in Imperial Valley, this study determines the role of, and impact of investors in the Imperial Valley housing market through comparative economic analysis of the housing market with and without investors. This study will add to a growing literature on economics of housing and the growth of bedroom communities. By understanding the phenomenon of the housing market in the Imperial Valley, public policy makers and private homebuilders may more effectively and efficiently develop strategies to anticipate and serve future housing needs.

Keywords: housing market growth, bedroom communities, sprawl, real estate investment, Imperial Valley growth

GOODBYE DOW JONES, HELLO FANNIE MAE

"It's becoming almost impossible to move here and own a home unless you have some equity built up, and our economy has been one of the greatest in the United States, but it hasn't been going gangbusters."

-Ed Shaffer, San Diego Association of Governments
2005

During the late 1990s, investors in securities and exchanges experienced sharp average declines of 15%-20% across multiple indexes, primarily due to overvalued technology stocks. With markets showing no immediate sign of recovery, investors looked towards real estate for future equity growth opportunities. Coincidentally, during this period the United States saw average population growth rates of 13.2% for the decade, along with record-low mortgage rates (Mann 2005). As real estate markets are positively correlated with population growth, real estate became the new investment fad.

Unfortunately for homebuyers, average home prices skyrocketed causing a housing crisis in Southern California where supply of "affordable housing" falls significantly short of the demand. An "affordable home" is defined in terms of home ownership where the owner is required to "contribute no more than 30% of a household's income towards the mortgage payment" (CCBRES-SDSU 2004). Of particular interest, is the San Diego County housing market where current homeowners are required to contribute more than 60% of their incomes towards mortgage payments (CCBRES-SDSU 2004). In effect, the high-income contribution of San Diego County residents towards mortgage payments has had profound impacts on its neighboring housing markets.

In the 1990s, the City of Temecula in California experienced housing stock growth of 8,440 units, which represented 79.2% growth for the decade (City of Temecula 2003). With San Diego's average housing prices soaring, perspective homebuyers looked at Temecula as an affordable housing alternative. The phenomenon of homebuyers purchasing homes in cities near job centers because of the lack of affordable housing in the job center describes a "bedroom community". The bedroom community moniker has overshadowed Temecula's own economic viability because of the growing prominence of bedroom communities in housing markets. The very same bedroom community phenomenon that has molded Temecula's landscape is quickly spreading to San Diego's other neighbor to the east, Imperial County.

However, before Imperial County is dubbed the next bedroom community, another interesting phenomenon is taking place. The very same real estate investors who were active in the San Diego housing market now seem to be emerging in Imperial County. The presence of these investors, I argue, negatively alters the dynamic of housing markets by abnormally inflating housing prices, which directly undermine the very principle of bedroom communities. Additionally, these investors take single-family detached homes intended to be occupied by the owner, and shift the use into a rental unit, causing housing demand to become distorted and falsely misrepresented. This misrepresentation directly leads to ineffective and inefficient public and private housing policies, which eventually result in a housing crisis where markets for home sales now face a further decrease in the available supply, while demand is consistently

increasing due to population and job growth. Conversely, the supply of rental units experience a positive shift in its supply curve from the injection of new rental units created by investors. According to basic economic theory, as supply increases with demand being held constant, prices are expected to decrease. However, because residents in San Diego are unable to afford to own a home, any expected decreases in rental prices are negated by increases in the demand of rental units.

Ultimately, the presence of investors in real estate markets increase housing prices. In San Diego, these housing price increases have played a large role in the region's housing crisis. The housing market growth in the bedroom community of the Imperial County, purportedly credited to alleviating San Diego's housing crisis, has recently seen its affordability index rate pass the desired mark of 30% required mortgage contribution of income (CCBRES-SDSU 2004). When communities specifically designed to be affordable are no longer affordable, society faces a problem deeper than housing prices. This problem deals directly with social survival and human wellbeing. I attribute the cause of this problem to real estate investors and their impact on housing markets.

HOW HOUSING MARKETS WORK

In order to understand the intricacy of the housing market, literature on the economics of housing markets must be explored. A housing market brings together buyers, sellers, and renters with the intention of the permanent or temporary transfer of a place of shelter. One theory assumes that shelter is indeed necessary for survival and that demand for housing is relatively inelastic,

or insensitive to price (Pozdena 1988, 23). Because housing is a necessity for life, no matter how much homes cost, people will buy them because they need it.

An opposite view on demand for housing is that it is elastic; based on research from estimates of the excess form of the flow-demand function from time series data (Muth 1960, 72). Other researchers find that “despite numerous cross-sectional studies of the income elasticity of housing demand, no consensus has been reached (Polinsky 1977, 1). Interestingly, the difference in the dates of the respective studies must be noted. Because the housing market is subject to cycles of growth and decline, the 1988 market Pozdena studied may have been dramatically different than the 1960 market Muth studied, and the 1977 market Polinsky studied.

The cycles of the different housing markets across time are very much dependent upon the general economic cycle of a country. The housing market is composed of service, manufacturing, and industrial sectors, playing a prominent role in a country’s economy. Economic cycles may be looked at from the two perspectives: the Monetarist, and the Real Business Cycle theories (Pozdena 1988, 156).

The Monetarist view stresses the use of supply-side economics (in terms of money supply), emphasizing that change to an economy’s money supply will create a shock resulting in a change in consumption patterns (Pozdena 1988, 157). In the housing market case, this shock is expressed in a change in the demand for housing, where money supply shortfalls cause upward pressure on interest rates. Because housing markets are inversely tied to interest (mortgage)

rates, any increase in the rate will result in a decline of housing markets. Basically, the Monetarist view states that supply of money will dictate the health of housing markets.

The Real Business Cycle theory similarly focuses on the supply side of housing markets. However, the Real Business Cycle Theorists believe that adverse real shocks have adverse real effects. This argument states that “real wages will rise and fall procyclically with output instead of countercyclically” (Pozdena 1988, 158). The Real Business Cycle view states that housing markets will fluctuate accordingly to the general output of the economy. For example, if the output of the economy were below the previous year’s level, wages will decline to justify the output, in effect propagating declines across all sectors of the economy. The two perspectives of Monetarist and Real Business Cycle theories spark a need to delve further into housing market dynamics through the study of literature on the concepts of supply and demand (Oxley 2004, 16).

Although much of the blame for the current housing crisis has been placed on the supply-side of housing markets due to strict public policy constraints on land development and an inability of public and private decision makers to correctly recognize housing demand (Oxley 2004, 8), this study focuses on the demand side of housing markets. The demand-side of a housing market is associated directly with income (Pozdena 1988, 24). The theory, similar to the Monetarist view, is that as incomes decline, so do housing prices and vice versa. Unfortunately, this theory does not hold true in the San Diego market, where income levels have remained stagnant, while home prices have nearly tripled

(San Diego Housing Commission 2004). Housing demand is also directly affected by the costs of capital, including interest rates, and mortgage terms (Howenstine 1983, 36). However, housing and rental markets do not move in tandem (Pozdena 1988, 80). Based on time-series data, periods of strong housing markets coincided with a weak rental market. These periods suggest that the need for shelter does not play a significant role in the determination of housing prices as previously assumed. In addition, these periods also dismiss the theory of the demand-side driving housing market prices, unless we assume that more important to a person is the utility of owning a home rather than the need for shelter. In order to proceed, a distinction between ownership and tenancy must be developed.

Approaching the distinction between ownership and tenancy from an economic utility perspective, two opposing arguments are of use to this study. The first argument states that there is no distinction between ownership and tenancy aside from the favorable federal income tax treatment accorded to homeowners and the existence of favorable mortgage insurance programs (Muth 1969, 19). The other argument claims that “owning and renting involved differences in responsibilities and risks, so that the consumer purchases packages of housing services that are different depending upon the decision to own or rent” (McDonald 1979, 24). Both arguments are indeed true, because the favorable income tax treatment received by homeowners influences the demand curve for housing (McDonald 1979, 29).

In order to prove this point, a simplified model of Muth's housing utility function $U(X,h)$ is used subject to a budget constraint (of the owner or tenant) of $Y=X-p(u)h-t(u)$ where X is the composite commodity, h is the amount of housing services, $p(u)$ is the price of housing services, and $t(u)$ is the money and time cost of commuting (Muth and Goodman 1989, 9). This model assumes that all consumers (owners and renters) are renters, in that the mortgage payments owners pay for their home is considered a rent. The idea behind this model is that a person's utility function is determined by a budget constraint where the price of housing may be $p_o(u)$, the price of owner-occupied housing, and $p_r(u)$, the price of renter occupied housing. Of course, the expected price of housing for an owner ($E[p_o(u)]$) should be greater than the expected price of renting ($E[p_r(u)]$) $E[p_o(u)] > E[p_r(u)]$. The price of homeownership is comprised of "interest rate on mortgage, the transaction cost of making the housing purchase, the expected length of occupancy, the expected change in the value of the house, and the income tax treatment of the owner" (McDonald 1979, 24). However, assuming a case in which the expected price of homeownership and renting are set equal $E[p_o(u)] = E[p_r(u)]$, along with income, and adding the tax subsidy given to homeowners, the $p_o(u)$ declines while the $p_r(u)$ increases (McDonald 1979, 28). Because this proves that there is indeed a distinction between homeownership and tenancy, this paper will operate under this distinction.

With a homeownership and tenancy market distinction in place, we may now explore the activity and interplay between the markets. Homebuyers in the Imperial Valley currently expect monthly appreciation on home prices. This

appreciation expectation in a market results in “upward pressure on housing prices, but lower equilibrium user costs and, hence, lower rental rates” (Pozdena 1988, 92). Additionally, investors who purchase homes to be rented often realize market level gains to their investment, allowing for the acceptance of decreasing rent rates across markets.

In November of 2004, San Diego State’s California Center for Border and Regional Economic Studies (CCBRES) released a preliminary analysis on the Imperial Valley housing market. In this study, the CCBRES concluded that the current growth in Imperial County is not a response to the increase in the demand for housing. Instead, the CCBRES study explains the housing market “is simply catching up to the growth that had taken place during the 1990s” (CCBRES 2004, 15). CCBRES bases their study on a comparison of cities in San Diego and Imperial Counties. This comparison shows similar housing demand growth in both counties. However, the reaction of housing supply to the demand growth was different. In San Diego, the housing supply growth grew relative to demand. In Imperial, demand remained almost stagnant. CCBRES attributes the recent housing supply growth in Imperial County to previous demand growth in the 1990s. The report continues, “Of course, it is possible that the Imperial County will become the next Temecula, California, but without a detailed survey of homebuyers, it is mostly conjecture to equate the current phenomenon to a “housing boom”. This study hopes to expound the current housing phenomenon through the analysis of homebuyer profiles.

Utilizing recent homebuyer profiles in the Imperial Valley, this study will focus on both the supply and demand impacts of investors on housing markets, and contend that real estate investment artificially shifts both the homebuyer demand curve and rental supply curve outwards, resulting in inaccurate (relative to actual market conditions) housing prices. Additionally this study will support the theory of housing market inelasticity, in that the utility of home ownership is directly correlated with the movement of housing markets.

HOMES ON THE RANGE

“Martin Escoto and his wife rise long before dawn each weekday to make the 120-mile commute from their home in the Imperial Valley to their jobs in northern San Diego. Nearly 12 hours later they are back on the road, stopping only to gas up their Ford Escort.”

-Lori Weisberg, San Diego Union Tribune
2004

The recent emergence of the Imperial Valley as a player in the San Diego housing market is quite interesting considering its heritage as an agricultural community. The Imperial Valley lies roughly 100 miles east of downtown San Diego, along the United States and Mexico border. The area consists of 7 incorporated cities of Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland. The economies of these respective cities have relied solely on farming and basic manufacturing, allowed for by the County’s intricate irrigation system which is fueled by the Colorado River. The growth of the Imperial Valley housing market started with the diversification of its economy. In 1995, the Imperial Valley saw the growth of the California State prison system into its region, immediately adding new jobs not affiliated with the agriculture sector.

Additionally, the passing of the North American Free Trade Agreement (NAFTA) brought with it a demand for a gamut of skill-sets to support the new economy created along the national border. This sudden explosion of job opportunities first brought attention to the Imperial Valley as a potential alternative community to San Diego. However, due to declining economic conditions in Mexico through the late 1990s, the growing Imperial Valley economy hit a lull. It was not until early 2000 that the Imperial Valley reemerged as a significant housing market.

As average housing prices crept to a then all time high of \$301,000 in 2000, San Diego region residents began looking elsewhere for alternative areas for housing (San Diego Regional Chamber of Commerce 2000). The alternative areas emerged in the form of Temecula and the Imperial Valley, with the former gaining the majority of the attention because of its proximity to the San Diego job market. However, as the Temecula housing market saw consistently rising property values, the need for a new alternative emerged. Lori Weisberg of the San Diego Union Tribune writes, "Some industry experts are going so far as to dub the Imperial Valley the next Temecula, where reasonably priced new-home developments in southwest Riverside County have long drawn thousands of San Diego households who felt shut out of the county's rapidly escalating real estate market" (Weisberg 2004). As a result, the Imperial Valley has experienced the sale of roughly 1000 new homes within the past year (Imperial Valley Economic Development Corporation 2004).

The growing demand for housing in the Imperial Valley will undoubtedly result in increasing housing costs. However, the manifestation of real estate

investors has directly influenced the demand curve, creating a misrepresentation of actual demand in the Valley. This artificial demand for housing in the Imperial Valley has pushed average housing prices past \$275,000 in 2004 (Imperial Valley Economic Development Corporation 2004). Although this figure is still a relatively far cry from the average housing prices of San Diego (\$525,000) and Temecula (\$375,000), the trend is not encouraging for those earning low wages and seeking to maintain employment and residence in San Diego (San Diego Housing Commission 2004). In the past year, Imperial County's average required income contribution towards mortgage payments crept past the 30% threshold (considered to be affordable) to an all time high of 32% (CCBRES-SDSU 2004). This figure is especially important for residents in the Imperial Valley, where unemployment rates are the highest in California at 24.5%, nearly 4 times the state average (Imperial Valley Economic Development Corporations 2005).

It is widely accepted that job creation and availability is the primary factor in housing market growth (Hahn University Center-USD 2004). People will move to where they have a chance to work. However, the case in the Imperial Valley seems to be quite the opposite, where unemployment rates are consistently rising, while the housing market continues to see strong growth (CCBRES-SDSU 2005). This begs the question, who is responsible for the growth?

RESEARCH DESIGN/METHODS

Research for this study is designed to answer two principle questions: 1.) Are investors responsible for the growth in Imperial County? and 2.) If so, what are the impacts of these investors on housing markets? To answer the first

question, my research focuses on the analysis of homebuyer profiles in the Imperial Valley and San Diego.

Homebuyer profile data was obtained through several homebuilders in San Diego and Imperial Valley Counties. However, this data was granted on the condition that all employees and company identity of the sources remain anonymous. As a result, this study will not directly mention any homebuilders or their respective personnel. The aggregate buyer profile data obtained is comprised of 312 homebuyers, with 84 of those homebuyers from Imperial County and the remainder from San Diego. Because only roughly 2,700 (CCBRES-SDSU 2004) building permits for residential units were issued in Imperial County between 2002 and 2004, I felt that sample data of 3.1% of the new homebuyer population was sufficient to carry out this study.

The homebuyer surveys, which only captured purchases made in the 2004 calendar year, were generally offered to homebuyers after a sales agreement had been made. These surveys were voluntary and not required to be completed by the homebuilder in the home-buying process. As expected, the homebuyer surveys differed from homebuilder to homebuilder. Fortunately, there were several common questions on the surveys, as they all served the same purpose for homebuilders. Homebuilders value homebuyer surveys because they provide a direct source for feedback from actual consumers. Homebuilders use these surveys to gauge the demographic of the consumers they are attracting, as well as the qualities they desire in a home. The survey questions I was

particularly interested in were ones concerning buyer demographics, home/area type, and reason for purchase.

Initially, I utilized the homebuyer profile data in conjunction with the San Diego Association of Governments' (SANDAG) data on average daily traffic volumes on Interstate 8 (the major access point between San Diego and Imperial County) to determine the source of population and housing demand growth in Imperial. This determination answers the first principle question of the study.

In order to quantitatively measure the impact of investors in the Imperial Valley housing market, 2000 census data (used for county and state-level calculations), SANDAG and DataQuick data (used for calculations at the city-level), and information from buyer profiles were utilized in the calculation of expected housing prices in the presence of investors $[E(p)_i]$ and housing prices without investment $[E(p)]$. The differential of these two figures $[E(p)_i - E(p)]$ represent the impact of investors on the Imperial Valley housing market.

Additionally, several field interviews were done in Imperial Valley with 6 residents, 4 salespersons, and 2 city officials. The purpose of these interviews was to obtain some first hand knowledge of how the housing markets function in the Imperial Valley. These interviews proved useful, as several policies that homebuilders and public agencies use to deter investors were uncovered.

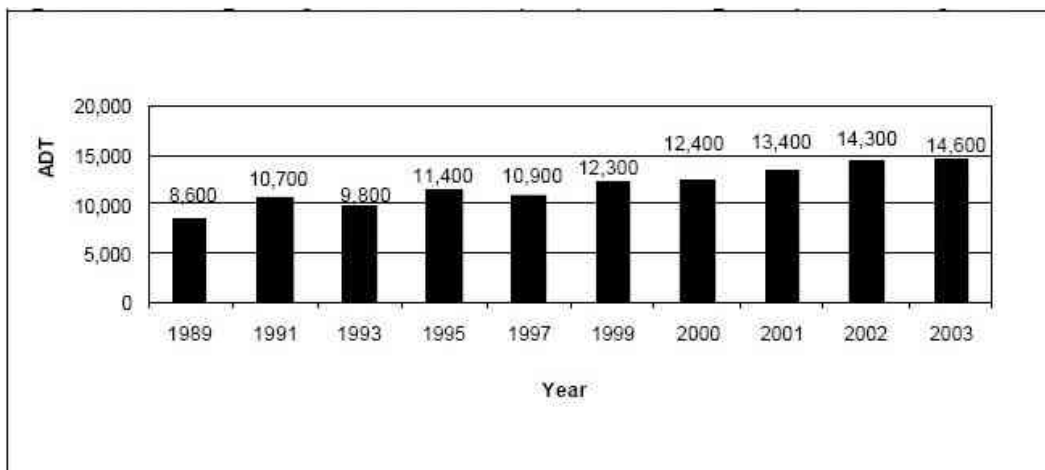
Possible bias from this study may arise simply from statistical measurement error because the sample population of voluntary homebuyers who completed the survey may not correctly represent the entire new homebuyer population in Imperial County. It should be noted the surveys obtained only

represent buyers in the City of Imperial and the City of El Centro. Fortunately, the majority of the housing developments are taking place in these cities. Another source of possible bias may also be from the type of person returning the survey. I am assuming that those who purchase homes with the intention of occupying it will be more likely to complete a survey than those who intend on renting the space because the former cares and values the home buying experience and will take the steps necessary to ensure a positive experience. However, this assumption cannot be proved without individual testimonies, which is beyond the scope of this study.

THE PERSON BEHIND THE CONTRACT

Representatives from San Diego-based homebuilders in the City of El Centro stated that their sales expectation was that the majority of their homebuyers would be commuting to San Diego for work. In order to measure the accuracy of this statement, I examine daily traffic studies provided by SANDAG. Figure 1 shows the average daily traffic (denoted ADT on figure) volumes on the

Figure 1: Average Daily Traffic Volumes (ADT) at San Diego/Imperial County Line



Source: Compiled by SANDAG, June 2004

I-8 from 1989 to 2003. As can be seen, the increase in average daily traffic increased by a negligible amount. Between 1999 and 2003, when housing in Imperial County featured the most significant growth, the average daily traffic volume only increased 16.26% on Interstate 8. In contrast, the increase of new housing units authorized by building permits during the same period was 218.91% (Figure 2). This difference suggests that the majority of new homebuyers in the Imperial County are not commuting to San Diego. Additionally, of the 14,600 people who crossed the San Diego/Imperial County

Figure 2: Total New Housing Units Authorized by Building Permits

	Imperial	San Diego	Los Angeles	Riverside
1992	1,001	6,059	11,907	8,206
1993	626	5,602	7,259	7,299
1994	854	6,935	7,621	8,286
1995	497	6,608	8,405	6,946
1996	331	6,868	8,607	7,499
1997	327	11,402	10,424	9,784
1998	394	12,173	11,692	12,493
1999	333	16,427	14,383	14,597
2000	677	15,927	17,071	15,410
2001	756	15,638	18,253	19,014
2002	1,062	15,738	19,364	22,664

Source: Construction Industry Research Board, California Department of Finance

line in 2003, only “slightly more than 400 people commuted from the Imperial County to San Diego County for work, while nearly 800 commuted in the opposite direction, from San Diego to Imperial County (for work)” (SANDAG 2004). These numbers dramatically contrast the expectation of the homebuilders that new homebuyers in Imperial County would be commuting to work in San Diego. To gain a better idea of the composition of homebuyers in Imperial County I refer to information provided in homebuyer surveys.

Including both San Diego and Imperial County, 58% of homebuyers cited that the desire to own their own home as their primary motivation for purchasing a new home in 2004. 22% of homebuyers moved because of a growing family. Another 12% purchased homes to improve lengthy commute times. The remaining 8% of homebuyers cited: change of environment, retirement, better schools, and upgrading home as reasons for their purchase. Confusingly, although 58% of the homebuyers cited that the desire to own their own home as the primary motivation for purchasing, 70% of respondents stated that had previously owned before. My follow up questions revealed that oftentimes the people who have stated a desire to own, also refer to it as a building of equity. This confusion suggests a flaw in the structure of the survey that should be noted. Communities that featured attached condos or town homes were the most prominently purchased as a “second home” or investment, with 37% of respondents citing this.

When the profiles of the two counties are separated (homebuyer profile summaries may be found in appendix), the statistics remained surprisingly similar in terms of motivations for purchasing a home. However, what drastically differed between the two populations were their respective demographics. In San Diego, 84% of homebuyers had a college degree or higher. In the Imperial County, only 36% of the homebuyers had a college degree or higher. As income is traditionally a function of education, San Diego median income levels (\$146,500) were nearly twice as high than those of the Imperial County (\$87,000). Interestingly, 48% of buyers in San Diego were in households that benefited from more than a single

income source. In contrast, the Imperial County featured 72% of buyers who benefited from more than one income source. These income numbers describe the discrepancy of wages in the two areas. They also provide important insight into the population buying homes out in the Imperial Valley.

If buyers from San Diego were indeed purchasing homes in the Imperial Valley, one would expect income levels to remain somewhat similar in the surveys. The same expectation also should have held for education. Because these expectations do not hold, the survey analysis hints that the population purchasing homes in the Imperial Valley are not from San Diego.

While this conclusion does debunk my hypothesis that investors from San Diego are purchasing homes in the Imperial County to rent out, further examination of public and private housing policies will clarify the surprising developments.

FOR SALE RENT

On January 20th, 2005 15 homes in a new residential development in the City of El Centro were completed for buyer move-in. A mere 15 days later, 9 of these 15 homes had “For Rent” signs taped to the garage doors. Figure 3 depicts a house not yet complete, but already with a “For Rent” sign up. Neighbors in an adjacent development were not the least bit surprised when told of the status of their future neighbors. “That’s the same stuff that happened to us”, said Emelia Cardaso regarding the purchase of homes by investors for renting. Cardaso continued, “We had to sign up on a wait list of 150 people to have a chance to buy this house. I thought this place (the subdivision) was gonna fill up fast. But

when everyone was supposed to move in, I saw more “For Rent” signs than U-Haul trucks.” Contrary to the data derived from buyer surveys which indicate the absence of investors in the Imperial County housing market, a trip to subdivisions

Figure 3: Uncompleted Home for Rent



in El Centro and Imperial depict vastly different conclusions.

At the subdivision adjacent to Mrs. Cardoso’s, waiting lists for a 238-single-family development were well over 400 homebuyers long with sales traffic “more than anything I have ever seen in San Marcos (San Diego County)” exclaimed a saleswoman. When asked of the prominence of investors in El Centro housing sales, the saleswoman stated that at that particular subdivision, the homebuilder requires new homebuyers to sign an addendum to their sales contract stipulating that the buyer may not rent or market for the purpose of sale, the home and property being sold. Homebuilders desire complete control over the pricing, marketing, and use of property in their subdivision as the image of the community is reflected of the company as a whole. When homebuilders release new subdivisions for sale, they release them in sales phases. Sales phases serve to restrict the amount of homes on the open market at a pre-specified level. The purpose of releasing in sales phases, in terms of economic marketing, is twofold. First, phases allow homebuilders to test demand of a new product. Depending on the results, the homebuilder may increase or decrease prices accordingly.

Secondly, homebuilders artificially create a sense of urgency with the limited current availability, forcing potential homebuyers into a quick decision. The presence of an investor directly disrupts the entire regional housing market by individually disrupting housing markets at a community level. An investor disrupts community housing markets by simply reselling their home when the community has not yet been fully developed.

Economically, allowing a recently sold house to be immediately placed back on the market at a higher price confuses buyers and disrupts the buyer-seller equilibrium. Although homebuilders may benefit in terms of future pricing from the reselling of a home at a higher price by an investor, it does not serve well for long-term market price and demand. Unlike an investor who may have a few homes, homebuilders carry an inventory of a few hundred lots that are usually sold over a period of a couple years. This duration lends itself to high carrying cost of capital, and a strict sales and construction schedule set out to meet monthly and annual goals. Random price fluctuations away from originally forecasted home prices cause unnecessary risk for a company; whereas an investor may adjust prices without a long-term market concern.

Additionally, when communities are marketed, a specific type of buyer with strict pricing constraints is targeted. Take for example a complex designed to cater to first-time single-family homebuyers. This complex will usually feature a price difference of not more than \$125,000 between the smallest and largest floor plans. If investors decide to participate in the market for these units, homebuilders may feel that the demand is stronger than it really is, raising prices

on future phases. Also, consider two different scenarios. If an investor were to purchase a unit in the complex, and immediately resell at a higher price, the consumer group homebuilders set out to target for a specific community may suddenly change as housing prices play a large role in determining buyer types. In a second case, if an investor were to purchase a unit in the above complex and rent out the space to college students, the expected community dynamic would obviously change.

Interestingly, in the above-mentioned subdivision in El Centro, 172 homes were initially sold without the investor addendum. Subsequent sales have been subject to the addendum, causing a change in the demographic of the interested buyers. Of the 172 homes sold without the addendum, roughly 43% (103 of those homes) were expected to be investment sales according to the sales office. In one particular street of 10 homes, 3 adjacent homes were purchased in cash by a couple. The remaining 66 homes are not expected to be investment sales, however, it remains to be seen if investors are willing to sit on the homes for the duration of the addendum before selling them.

Imperial County features the 2nd lowest home ownership rates in the Southern California with a mere 56% of residents who can afford to own a home according to a study conducted by the University of California, Los Angeles (UCLA 2001, 20). The increasing presence of real estate investors will only contribute to the low ownership rates. As Figure 4 shows, the affordable housing market of Imperial County is becoming increasingly unaffordable. Because residents of the Imperial Valley themselves do not have the income to justify

demand at increasing housing prices, investors are responsible for the price

Figure 4: Housing Affordability in Select California Counties

County	2000 Median Household Income	2004 Median Home Sale Price	20% Down Payment	Monthly Mortgage Payment	30% of Monthly Income
Imperial	31,870	170,000	34,000	998.86	796.75
San Diego	47,067	580,670	116,134	2,637.58	1,176.68
Los Angeles	42,189	445,140	89,028	2,021.96	1,054.73
Riverside	42,887	282,500	56,500	1,283.20	1,072.18

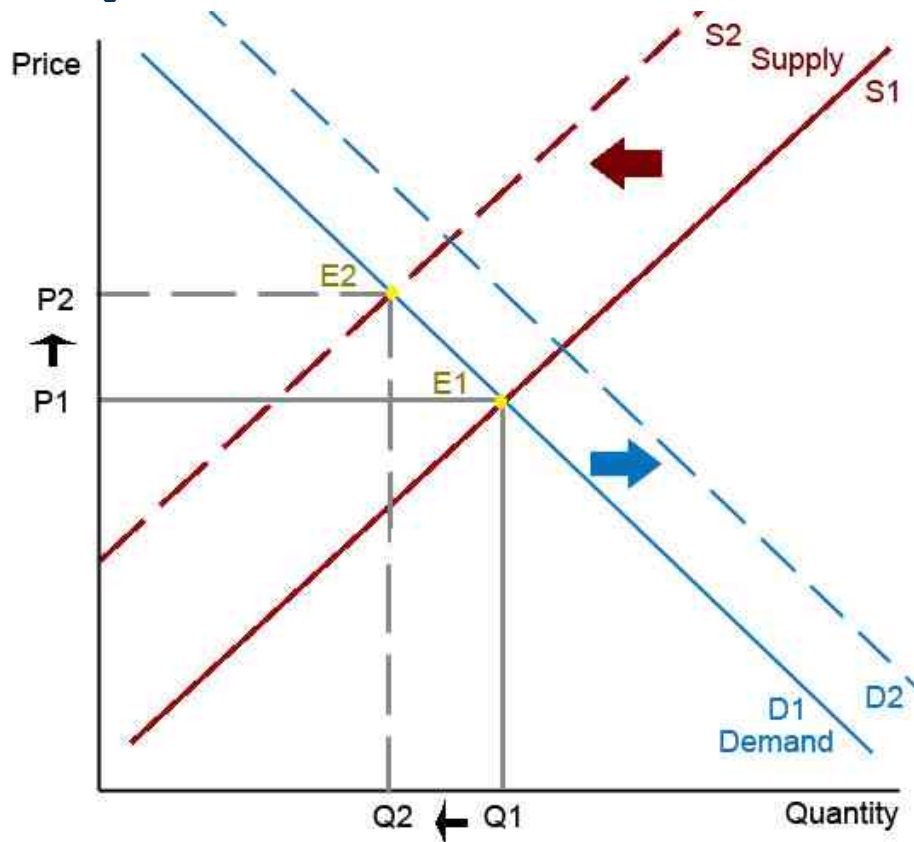
Source: Census 2000, Dataquick, and Mortgage 101.com.

increase. Take for example, a 30-year mortgage of a \$170,000 home in the Imperial Valley. A local family with an expected average income of \$31,870, the willingness (due to affordability) for the local family to pay for a home in the Imperial Valley is \$286,830 (including all mortgage rates, and transaction fees) [$\$796.75 * 12 \text{ months} * 30 \text{ years}$]. The actual amount they would have to pay is \$359,589 [$\$998.86 * 12 \text{ months} * 30 \text{ years}$] (Figure 4). The difference between the two amounts $\$359,589 - \$286,830 = \$71,759$ or 25% ($\$71,759/\$286,830$) of the housing price increase may be attributed to real estate investors, assuming a family will not be willing to pay for a home it cannot afford. This example tells us that investors do indeed have an impact on housing markets because they place upward pressure on housing prices by falsely misrepresenting demand in a market. In the case of the housing market in the Imperial Valley in 2000, I find that real estate investors were responsible for a 25% increase in housing prices.

To generalize the impact of the investors in the example above, consider the graph in Figure 5. This graph features a basic supply and demand model of housing market. Initial supply in the market is represented by $S1$. Initial demand in the market is represented by $D1$. The initial equilibrium (the point at which

buyers and sellers are willing to do business) is at $E1$ (Quantity $Q1$ and Price $P1$). As investors enter the market, the demand shifts from the $D1$ curve to $D2$. Additionally, because investors shift the use of an owner occupied home into a rental unit, the supply of housing units on the housing market shifts from $S1$ to $S2$. The corresponding shifts of the supply and demand curves of housing result in a new equilibrium of $E2$ where prices are higher and the quantity is lower. The movement of the market equilibrium from $E1$ to $E2$ represents the impact of real estate investors on housing markets.

Figure 5: Housing Market Model with the Presence of Investors



CONCLUSION

As hypothesized, the quantitative impact of real estate investors on housing prices is monetarily positive with an estimated impact of 25% on the Imperial Valley housing market. As shown above, investors create a false sense of demand for homes resulting in higher prices across local housing markets. These higher prices make home ownership more difficult. In places like Imperial Valley, where homeownership rates are severely low, higher prices only serve to negatively impact ownership rates. Additionally, the transferal of intended owner-occupied housing into the rental market results in a decline in the supply of home prices, causing a shift in the supply curve. The impact of real estate investors on housing markets amount to characteristics that describe housing crisis.

Public policy makers and private homebuilders must understand the significance of the impact real estate investors have on housing markets as shown in this study. With this understanding, more effective and efficient policies and strategies, such as the implementation of sales addendums preventing investment, may be formulated to address the increasingly prominent issue of affordable housing.

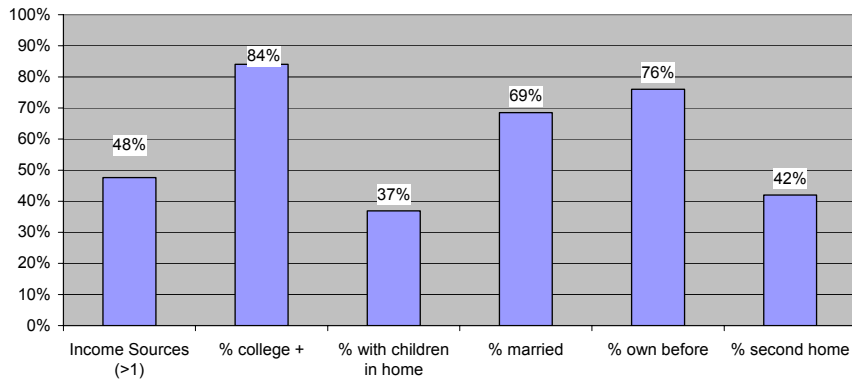
II. San Diego Homebuyer Survey Summary

COMMUNITY: Aggregate

MARKET: San Diego

Report for Surveys Entered Through: December 9, 2004 *SEVERAL CELLS BLOCK FOR COPYR.

Demographics	How important*	Which was most important?	Top zip codes	Product Configuration
TOTAL RESPONDENTS 228	Entrance 53.4%	Your Community 27.7%	92009 18.2%	
Median Age Buyer 1 41	Gate 49.4%	Your Homesite 10.7%	95125 9.1%	
Median Age Buyer 2 40	Street layout 62.3%	Your Home 48.2%	92154 9.1%	
Median Income \$146,500	Golf course 21.2%	Your Lifestyle 6.3%	92127 9.1%	
Income Sources (>1) 48%	Amenities 64.0%	No Answer 7.1%	92122 9.1%	
% college + 84%	Open spaces 77.1%		92081 9.1%	
% with children in home 37%	Age restriction 13.0%		92075 9.1%	
% married 69%	Maintenance free 50.5%		92014 9.1%	
% own before 76%	Location in community 81.1%		92007 9.1%	Use Realtor?
% second home 42%	Size of homesite 82.1%		91342 9.1%	Yes 24%
% retired 0%	View from home 80.4%			No 76%
Average sales price 222,492	Direction of home 66.4%			What Prompted Move ?
	Floorplan layout 90.7%			Desire To Own / Buy 58%
	Energy efficiency 69.4%			Improve Your Comr 21%
	# Bedrooms 86.1%			Growing Family 13%
	Size of rooms 80.4%			Better Schools 4%
	Master location 73.8%			Shrinking Family 0%
	Size of house 79.6%			Extended Family Mc 0%
	# Garages 73.4%			Job Transfer 2%
	Social clubs 26.0%			Tired Of Apartment : 2%
	Planned activities 26.8%			
	Clubhouse activites 23.7%			
	Meet new people 46.5%			
	Living w/ people my age 43.4%			



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