

Japanese Purchases, Exchange Rates and Speculation in Residential Real Estate Markets

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Abstract. Several luxury single-family home markets in Hawaii have experienced significant price movements in 1987 and 1988, along with a tremendous influx of Japanese buyers. Most noteworthy is the Waialae-Kahala neighborhood in Honolulu, where average price increases of over 60% in the past two years have occurred. This surge in prices has stimulated a great deal of speculative interest. The purpose of this article is to examine the effect of exchange rates (yen/dollar) and Japanese buyers on selected residential market prices and turnover. Using the most exhaustive and complete data set available in Hawaii covering 1986 through early 1988, hedonic pricing models as well as descriptive statistics are used to examine the effects of strong foreign interest in local housing submarkets.

Introduction

Several luxury single-family home markets in Hawaii have experienced significant price movements in 1987 and 1988. Most noteworthy is the Waialae-Kahala neighborhood in Honolulu. Average price of non-waterfront homes in this area sold during the first half of 1987 was \$641,000, up 51% over the same period a year earlier. Waterfront homes sold during the first half of 1987 averaged \$4.5 million dollars which is up more than 100% compared with the same period in 1986. This surge in prices has stimulated a great deal of speculative interest. The purpose of this article is to examine the effect of exchange rates (yen/dollar) and Japanese buyers on selected residential market prices and turnover. In order to provide greater insight for the reader, an extensive background follows on the setting within which data was collected.

Background

The Japanese have not put a very large percentage of their available United States-based capital into real estate, about \$4 billion in 1986.¹ Although this was a substantial increase in

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terms of total real estate holdings, this was still less than 10% of the amount they put into U.S. Treasury bonds and other U.S. assets. In 1986, Japanese investors began a U.S. real estate buying spree which eventually included 14 Hawaiian hotels with a total of more than 7000 rooms. Although their involvement in the hotel market dates back to 1963, the recent buying surge dwarfs anything previously experienced. As of 1987, the Japanese owned a total of more than 17,000 hotel and condominium-hotel units, which represents approximately 25% of all such units in Hawaii, and the trend indicates this market share will continue to increase. In 1987, the Japanese real estate purchases totaled at least \$12.7 billion, an increase of over 300% from the previous year.²

Prior to 1987, most Japanese real estate investment in Hawaii (and elsewhere) had taken the form of major high visibility commercial properties such as hotels, shopping centers, major office buildings and a few Waikiki condominiums. One reason they seem to be buying more than they are is because, until more recently, they have concentrated their purchases in Los Angeles, New York and Hawaii. Today they have a significant presence in several California cities, such as San Diego and San Francisco, as well as Chicago and Atlanta. The recent surge in residential property sales, which may be unique to Hawaii, represents a basic shift in that, for the first time, Japanese investors began purchasing a significant number of individual homes and condominiums.

A compelling motive for the Japanese to buy residential homes in the U.S. is the comparative value they receive. Typical residential land prices in Tokyo range from \$1,500 to \$4,000 U.S. dollars (1987 exchange rates) per square foot of lot area. In Waialae-Kahala (Honolulu), a relatively expensive area for most U.S. buyers, the typical non-waterfront house and lot can be purchased for approximately \$50 to \$75 dollars per square foot of lot area. In addition the home would be very spacious (2,000 to 5,000 square feet), on a lot of 10,000 to 15,000 square feet, compared to typical "expensive" house lots in Tokyo, which are often only 1,000 to 2,000 square feet, not unlike the total square footage measurement of the typical two-story house.³

The greatest single-family residential market activity by Japanese buyers, anywhere in the United States, are in two adjacent neighborhood areas referred to as Waialae and Kahala. The Waialae-Kahala market is located in east Honolulu, and situated between Waikiki and Diamond Head, near the well-known Waialae Country Club. It is comprised of homes that vary from expansive golf course frontage and oceanfront residences to older average-sized (2200-2500 square feet) dwellings. It is one of Hawaii's most prestigious neighborhoods and is home to prominent executives, movie stars, and wealthy mainland U.S. and foreign second-home owners and retirees.

Sales prices in the Waialae-Kahala area moved up sharply in the late 1970s along with the high inflation and Hawaii real estate boom of that period. Thereafter, prices remained essentially flat, with very little appreciation between 1981 and 1986.

In discussions with area sales agents and investors, the following scenario is described since late 1986. At first wealthy Japanese buyers were discretely purchasing homes that were listed for sale. Even with the rising strength of the yen relative to the dollar, sellers had yet to catch on to what was coming, and were delighted to sell at asking prices that were, at a minimum, premiums compared to past price trends. (The most famous of these buyers, Genshiro Kawamoto, has purchased nearly 170 properties, all over Oahu, as of May 1, 1988, spending many millions in the process including one 5.5-acre "home" for more than 40 million dollars.) Once the initial inventory was absorbed, the second wave of Japanese buyers was confronted with somewhat higher asking prices and fewer available listings. This resulted

in a strong effort by sales agents and Japanese buyers to seek out more homes for sale, in other markets. In some instances, Japanese buyers literally knocked on the doors of houses they liked, making on-the-spot cash offers to owners. It is hard to imagine a housing market so hot, that owners need to put out "Not For Sale" signs in front of their houses, in order to keep from being harassed.

Seeing the interest in their neighborhood for premium homes, a number of owners began renovating their homes with the hope of realizing much higher prices. In some instances, entire houses were torn down and replaced by much larger and more luxurious ones, both by existing owners as well as speculative investor/builders who purchased these older and smaller homes.

By early 1987, the word was out that the Japanese were in Waialae-Kahala in force. Sellers responded by pushing asking prices to heretofore unheard of levels. Brokers fueled the frenzy by calling virtually every owner and imploring them to sell, claiming they had cash buyers ready to act immediately. Some sellers, who only six months ago would have been delighted to get \$400,000 for their homes, were now turning down offers of \$600,000, hoping for even larger offers in the future. Other sellers, some long-term residents, who had no intention of selling originally, were suddenly giving it serious thought in light of the extraordinary offers coming forth.⁴ Other housing markets in Hawaii with premium-quality homes were available, but for some reason were not seeing the buying frenzy of Waialae-Kahala. These represented unique opportunities to local residents who could sell and then repurchase in another area, pocketing large windfalls along the way.

By mid-1987, many pure speculators were appearing on the scene, trying to reach new, even higher price levels. A number of brokers and individuals from Japan entered into purchase contracts with the express intent of immediately remarketing the properties back in Japan. In some instances, the asking price in Japan was immediately raised 50% to 100% while the property was still waiting to close in Honolulu. In the event that a new buyer could not be found, it was not unusual for the Japanese speculator to merely walk away from the transaction, forfeiting the original deposit.

During the third quarter through the end of 1987, it was clear that the Kahala market had peaked. More and more homes were coming on the market, however, the stream of Japanese buyers had subsided. Price reductions were becoming common. The attitude of some sellers and pure speculators had swung from greed to fear; many realizing they had missed the rapid market climb and peak. Many Japanese buyers had begun to consider alternative markets in Hawaii, where they seemed to have less market impact on price, and where they may have been bidding against ex-Waialae-Kahala residents looking to spend their new found wealth. Other nearby neighborhoods, like Hawaii Kai and Hawaii Loa Ridge, began to see a significant increase in Japanese buying in the last third of 1987, as Kahala properties seemed unavailable or out of line with alternatives in the market. In Waikiki, some 41.5% of the condominiums were bought by Japanese during 1987.

It was not until stories of the Japanese paying "outrageous" prices for real estate had been in the Hawaiian newspapers for over a year that foreign buyers became a political issue. On March 21, 1988, Mayor Frank Fasi declared the need for a ban against all foreign buyers who were "greedy-get-rich-sharks".⁵ Fasi proposed limiting the number of properties foreign buyers could own, unless they lived in their purchased properties at least 180 days a year. He stated that foreign buyers were driving up the assessed values and property taxes which the locals had to bear. The state legislature will likely adjourn before taking up this hot issue in the 1988 session. However, his proposal, which has made national headlines across the country,

has stirred up some new questions for public debate. It is for this reason that research into the real estate market impact of increased foreign buying and speculation is that much more important.

Hypotheses

There are a number of reasons for the above described scenario, including: a soaring Japanese yen relative to the dollar, an excess of Japanese-controlled U.S. capital due to Japan's enormous trade surplus with the U.S., a lack of real estate investment opportunities in Japan, and aggressive Japanese lenders who encouraged borrowing against inflated real estate equities back in Japan. In addition, interest rates are much lower in Japan, allowing Japanese buyers to pay more and/or expect less in the way of real estate returns than U.S. buyers. Another possibility is market informational inefficiency, where some buyers and some sellers possess different levels of market information. A final explanation is based on option price premiums to Japanese buyers.

Option values could be created because of market segmentation, high transactions costs, and the presence of information asymmetry between the local Hawaiian real estate market and the Japanese-based Hawaiian real estate market. As previously mentioned, some Japanese-purchased real estate parcels were resold to "investors" in Japan, often before closing in the U.S. Unfortunately there is no data available with the Japanese market prices of resold property. However, it is clear that these are sufficiently high to be able to induce some Japanese buyers to tie up a property, via a purchase contract and a deposit, with an extended closing date, and then walk away from the contract if they are not able to resell the property for a profit in Japan. The Oahu seller is attracted to these contracts because of the premium paid over other offers, but is running the risk of holding an unenforceable contract. The option price to the Japanese speculator is the total of the deposit and the premium price paid for the property, with the option value also a function of the Japanese market resale prices and the terms of the contract.

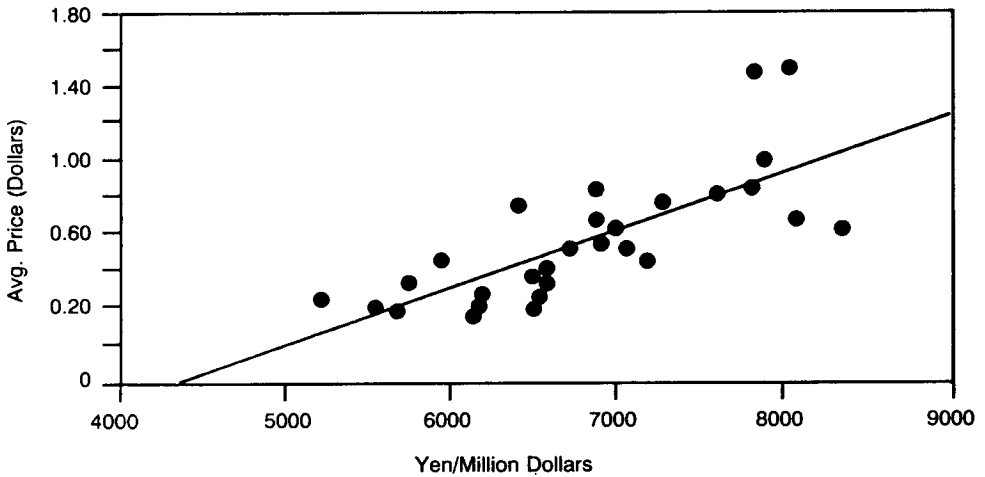
Of the above mentioned factors, only the strong Japanese yen is easy to quantify. Different degrees of market knowledge may also be tested based on homes purchased during this period—with the buyer identified as Japanese or local—using a simple hedonic pricing model. The following specific hypothesis will be examined: 1) With sufficient numbers of Japanese buyers, the exchange rates of yen and dollars significantly affect the market prices, 2) Japanese buyers tend to pay more for similar property than their American counterparts.

Data

A sample of homes sold from January of 1986 through February of 1988 was used in the regression runs below. This sample included only those homes in the geographic markets of interest, and included the identifications of the buyer as Japanese, American or other. All MLS (Multiple Listing Service) sales were collected, as well as a number of other arms-length sales via an Hawaiian data source known as TMK. Approximately 70% of the total of the arm's-length sales are believed to be included in this final sample of 421 properties, with 30% purchased by Japanese buyers. Aside from the characteristics of the property sold, and the significant efforts made to track the origin of the buyer, the exchange rate (yen/dollar) was also tracked for use in the regressions. Kawamoto's record price sale was not included in any of the samples.

Other charts included are based on the complete set of MLS sales over the period shown.

Exhibit 1
Kahala Avg. Sale Price vs. Yen
 (Based upon MLS Data)



For most markets in Hawaii, this represents at least 80% of the total sales, and several hundred transactions.

Exchange Rate Results

Exhibit 1 shows the relationship between the exchange rate of dollars per million yen and the average sale price of Waialae-Kahala property over twenty-nine months, ending in May of 1988. Each month's exchange rate is charted against the average sale price, with the trend (best linear fit) shown through the middle of the data set. One can see the general positive relationship. The correlation between the two variables is .753.

The least squares regression coefficient between price as the dependent variable and the exchange rate is .27152 with a *t*-value of 5.938 (significant at the 99% level). Interpreted literally, an increase in the value of the yen to the dollar by 10% will increase Waialae-Kahala real estate prices by approximately 27%. Certainly other factors in the market also affected selling prices, but exchange rates were clearly one of the driving forces.

The prices of Kahala property have been rising rapidly, in dollars since 1985, but even with the rapid appreciation, because of the dramatic exchange rate movements during this same time period, the price in yen to the Japanese was declining. This drop in yen prices peaked out near the end of 1987, and is shown in Exhibit 2. During the same time, the number of Japanese buyers as a proportion of Waialae-Kahala sales was increasing from indiscernible levels before 1986, to very significant levels with approximately 10% of all buyers being Japanese in 1986, and 33% in 1987.

Exhibit 3 shows the average Waikiki Condominium Prices in both dollars and yen, on a semiannual basis, since January of 1977 through July of 1988. While the typical U.S. purchaser has seen an increase in the average price over this time period from \$80,000 to \$165,000 dollars, an increase in price by over 100%, the Japanese purchaser has seen prices go from

Exhibit 2
Kahala Avg. Single-Family Sales Price
 (In U.S. Dollars and Japanese Yen)

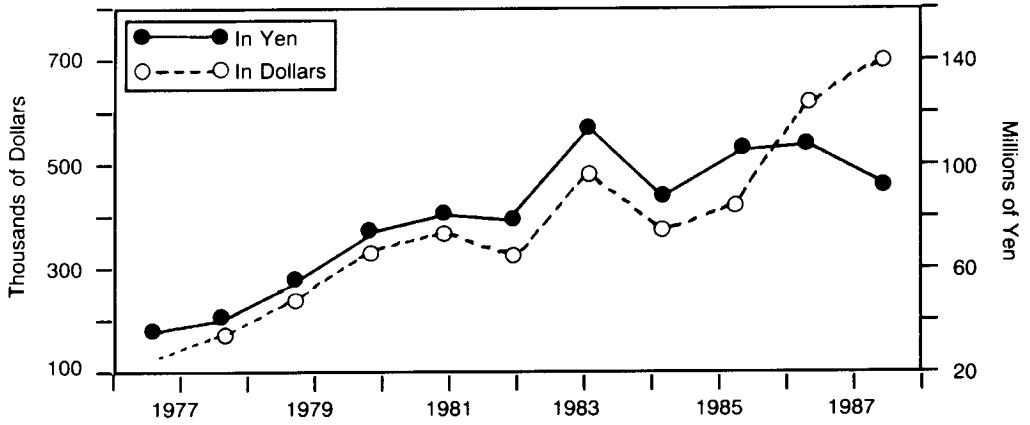
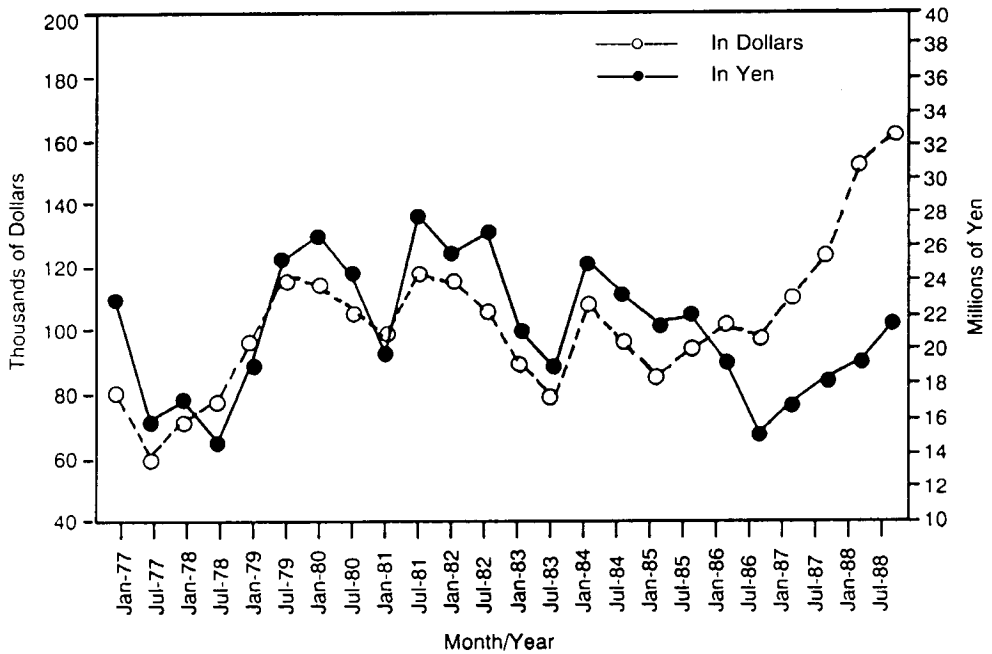
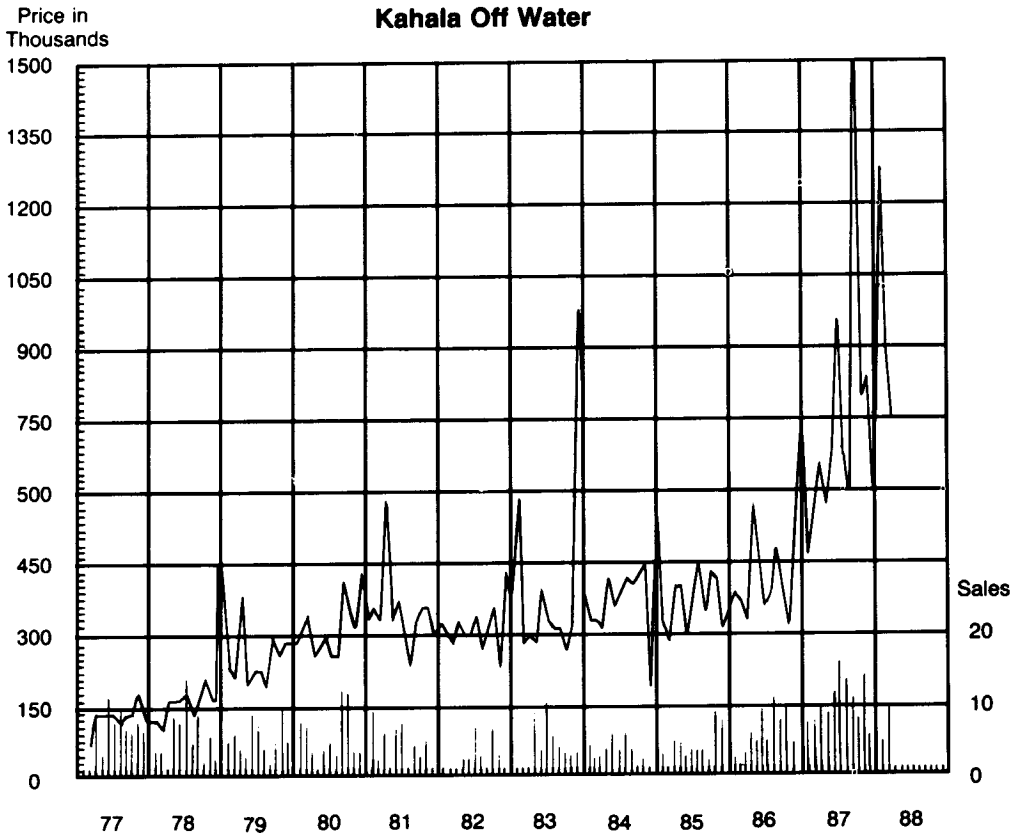


Exhibit 3
Waikiki Average Condominium Prices



**Exhibit 4
Kahala Off Water**



an average of 23 million yen to 22 million yen. Thus, the Japanese are viewing the average Waikiki condominium prices in 1988 as similar to those in 1977, even in nominal terms. As a percentage of all Waikiki condominium buyers, the Japanese represented a similar proportion as for the high-priced Kahala homes. Yet, among the up-scale condominiums (\$250 dollars per square foot and up), the Japanese have represented nearly half of all buyers in 1987, and over half of all buyers through June of 1988.

Monthly sales volumes in the east Honolulu area (extending from Diamond Head to Hawaii Kai) increased dramatically over the 1986 through 1988 time period, reflecting the number of new buyers in the market. The relationship between sales volume and average selling price is shown for off-water single-family homes in Kahala from 1977 through March of 1988, in Exhibit 4.

Although much media attention was given to the Japanese "invasion" of American real estate markets over the middle and late part of 1988, Exhibits 5 and 6 show that the number of Japanese buyers for both single-family and condominiums in Oahu had peaked in late 1987 and early 1988. The condominium purchases were concentrated almost entirely in Waikiki, while the single-family purchases have been concentrated in the above mentioned markets.

Exhibit 5
Oahu Single-Family Japanese Purchases
 (Based upon Conveyance Data)

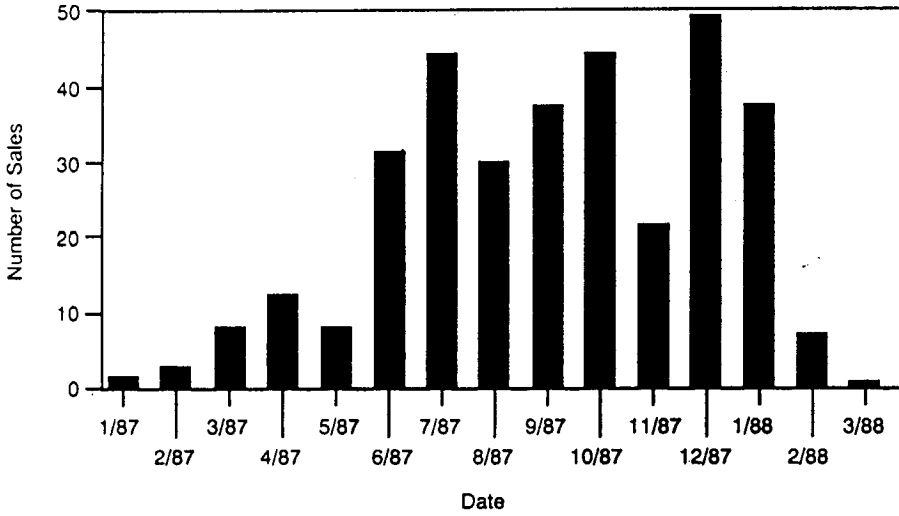
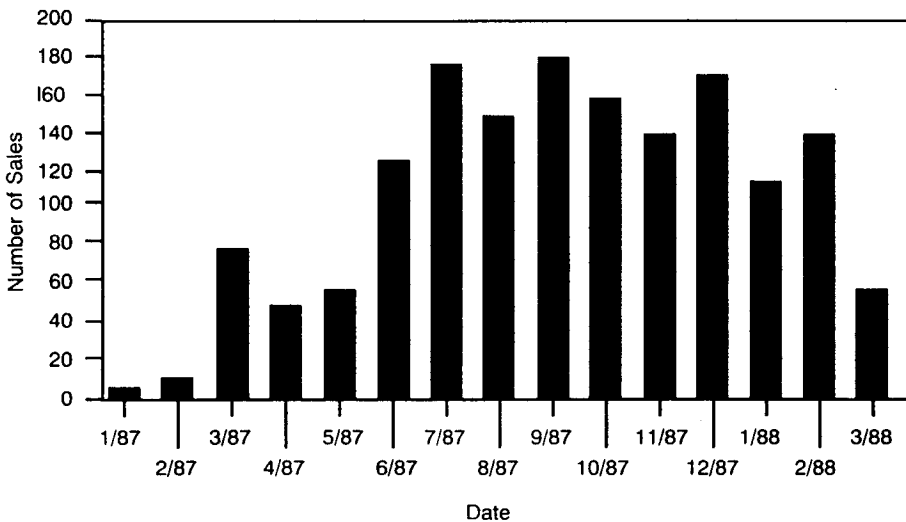


Exhibit 6
Oahu Condominium Japanese Purchases
 (Based upon Conveyance Data)



Japanese Buyer Results

In examining the relationship between the price paid and the "Japanese" buyer variable, the exchange rate variable had to be dropped because of multicollinearity with the time period sold. Sold date is based on the month of the sale measured from December, 1985. Fee simple is a property without any land leasehold, which is similar financially to an exemption from a portion of property taxes, and creates a positive price premium. The area variable separates out a distinct neighborhood area, other than waterfront.

Regression results of the best fit model with the entire 421-sample is shown below, with the Japanese buyer identified via a dummy variable:

Estimated	Coefficient	Variable	T-statistic
Adjusted $R^2 = .873$			
F-value = 189.46			
Selling Price	= + 26.09	Fee simple/sq. ft. lot	11.026
	+ 152.75	Living area/sq. ft.	7.683
	+ 37.48	Waterfront/sq. ft. lot	15.260
	+ 1.38	Sold date/sq. ft. lot	8.285
	+ 11.11	Japan buyer/sq. ft. lot	4.255
	+ 52.04	Other Roofed Area var./ sq. ft.	2.240
Intercept = -279,780			

All variables are significant at the 95% level or above. The variables of interest are highly significant and show the expected signs. In addition to a premium resulting from exchange rates paid by all buyers, we also find a premium paid by Japanese buyers. The regression coefficient, if interpreted literally, would suggest that the Japanese, on average, pay \$11.11 per square foot of lot area *more* than do their local buyer counterparts. This represents approximately a 21% premium for the average-priced home.

Regression Results with Sales Deletion

In order to check for any extreme bias caused by the very high-priced homes, where the wealthy Japanese buyers paying "outrageous" prices have created a field day for the media, another regression analysis was run with the top end of the sales removed. Three sales were removed that had sold for over \$4 million dollars, all purchased by very wealthy Japanese buyers. The remaining 418 sales were used in the following analysis:

Estimated	Coefficient	Variable	T-statistic
Adjusted $R^2 = .839$			
F-value = 165.79			
Selling Price	= + 10.03	Japanese buyer/sq. ft. lot	4.251
	+ 150.83	Living area/sq. ft.	8.789
	+ 1.30	Sold date/sq. ft. lot	8.451
	+ 33.18	Waterfront/sq. ft. lot	13.910
	+ 19.63	Fee simple/sq. ft. lot	8.313
	+ 47.725	Other Roofed Area var./ sq. ft.	2.225
Intercept = -206,590			

The results are quite similar to the other regression, except that the Japanese premium is slightly less in dollars, but almost identical to the percentage of selling price paid. Here, the Japanese premium is approximately 19 % for the average-priced home.

Conclusions

High home prices are nothing new in places like Hawaii, but an influx of foreign buyers is new. Dramatic appreciation rates have occurred in isolated home markets. In Waialae-Kahala, the average annual appreciation rates were over 20% in 1986, and over 40% in 1987. In Hawaii Kai, an area ignored by the Japanese in 1986, the annual appreciation rate ran about 2%, but rose to nearly 50% along with increased Japanese buyer activity in 1987. These dramatic price increases have paralleled some significant moves in the value of the yen relative to the dollar. In 1988 the exchange rate stabilized (at least as of the time of this writing) and the speculative buying behavior died down as well. A significant increase in the dollar could easily negate most Japanese interest in Hawaiian home markets, but it is doubtful that we would see any panic selling on the part of Japanese owners.

At least three factors have caused the isolated real estate market price increases: (1) the exchange rates, (2) speculative buying behavior on the part of some Japanese, along with the possibility of information asymmetry and the options sought by these buyers, and (3) an increase in the number of buyers active in the market, increasing effective demand.

It is impossible to accurately separate out these effects. Political hysteria over rising home prices in Hawaii could easily result in setting some very unfortunate precedents in land use controls in the United States. The latest episode in foreign investment in Hawaiian homes and its impact on prices is more a symptom of Hawaii's long-evolving housing shortfall and not the cause of it. Rapidly growing populations and severely restrictive land use controls were driving up the average home prices long before the Japanese took an interest in the highest-priced home markets, and making housing affordability a severe problem. In fact, the lowest-priced home markets in Hawaii, where most of the average and lower-income residents live, have been totally ignored by the Japanese buyers.

While some of the Japanese buyers are speculators, many are not. A speculator tends to be a short-term holder of investments. The majority of the Japanese buyers appear to be true investors. Japan's incredibly impressive economic success is derived, in good part, from a strong philosophical base of patience, saving a significant part of earnings and investing for the longer term. To date, there is little evidence that Japanese participation in U.S. real estate will be any different.

Notes

¹Kenneth Leventhal & Co. reports.

²Leventhal & Co. reports.

³See Norman G. Miller and Judith A. Kautz, "Automated Homebuilding in Japan," *Urban Land* (June 1987), 11-15.

⁴See "Hawaii: Some Want a Ban on the Japanese Buy-Up," *San Diego Union*, April 24, 1988, p. 1-10. A local anonymous architect cited by the above newspaper claims to have built his home in Kahala for under 1 million in 1970. While he was not planning on selling, he found 6 million dollars too good to resist. Another factor raised by one of the local Kahala residents, also a real estate broker, with no plans to sell, is that with several neighbors' homes now vacant (owned by Japanese as investments and only occasionally occupied), his children have no one to play with any more. The neighbors are all gone,

which detracts from the attractiveness for his family to remain, even though they love their house and lot.

⁵See "Hawaii: Some Want a Ban on the Japanese Buy-Up," *San Diego Union*, April 24, 1988, p. 1-10.

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