

BUYING IN

*AN ANALYSIS OF INTERNATIONAL
HOMEBUYERS IN FLORIDA*

JUNE 2014



Florida
TaxWatch



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DEAR FELLOW TAXPAYER,

The state's housing market is an important part of Florida's economic activity; however, the housing market is not exclusively linked to Floridians' buying and selling patterns. Professionals handling these market transactions have long understood the value of international home purchasers, but until now, there has been no attempt to quantify their impact on the economy or determine future projections to gauge demand. This independent analysis determines the impact of Florida home sales to international purchasers, in order to better understand their role in Florida's housing market.

Better understanding international housing purchasers in Florida will help businesses, communities, and state policymakers craft decisions accordingly. Often overlooked benefits of international housing purchases includes its role in expanding Florida tourism, providing increases in taxable transactions, and helping diversify the economy by exposing Florida's economy to more international markets. The purpose of this analysis is to predict the future of demand from this segment of homebuyers to provide a better grasp on how foreign investment factors into Florida's economic outlook.

Sincerely,



Dominic M. Calabro
President & CEO
Florida TaxWatch

EXECUTIVE SUMMARY

In this report, Florida TaxWatch analyzes data on the most recent 5 years of sales of Florida homes to non-resident international buyers. This part of the Florida housing market accounted for almost \$30 billion in purchases over the past three years and is an important component of the housing markets in some of Florida's metropolitan areas.

In addition to detailing where these purchasers come from by Florida market, the report details concentrations of purchases by region and by country of purchaser. The report analyzes the currency risk for major Florida markets, and the components of demand for non-resident international buyers, such as income, relative home prices, exchange rates, political uncertainty, concentration of international purchasers, and tourism correlations. The results from these analyses are used to construct a three-year forecast of purchases by non-resident internationals in the state of Florida.

INTRODUCTION

Florida has long been dependent on its real estate market for growth and stability, as shown in a recent Florida TaxWatch report detailing the impact of housing starts on the Florida economy.¹ International purchasers look at the U.S. market as a place where their property rights are secure, and often times invest in a property for both personal enjoyment as well as for investment income. Nationwide, Florida is consistently the state with the largest share of real estate sales to international citizens.

International purchasers of Florida homes have also provided substantial amounts of liquidity to the housing market, especially during times of uncertainty. The amount of purchases by internationals has been substantial in recent years, peaking at 36,152 during the period from 2008-2009. A majority of these purchases were cash transactions at a time when credit was difficult to come by for many Floridians, and others around the globe.

By better understanding purchases by internationals in Florida, businesses and policymakers can make decisions that will help to diversify and stabilize Florida's economy even further.

This report analyzes the past 5 years of sales of Florida homes to non-resident international purchasers, using the yearly "Profile of International Home Buyers in Florida," produced by the research division of the National Association of Realtors.² Although there are also purchases by resident international purchasers when they are transferred to Florida for jobs or to create or expand businesses, this report concentrates on those who purchase Florida homes and remain residents of other countries.

¹ Florida's Home Construction Recovery. <http://floridatxwatch.org/resources/pdf/Apr14ECFINAL.pdf>

² Research Division National Association of Realtors. Annual profile of international home buyers in Florida (2009-2013).

SECTION 1

FLORIDA'S SHARE OF NON-RESIDENT HOME PURCHASES

The Florida housing market is enticing to international purchasers, who spent almost \$30 billion on Florida homes in the past three years.³ With Florida homes making up an estimated 22 to 31 percent of U.S. homes purchased by internationals nationwide, Florida is the top state for international home purchases, consistently followed by California, and then by Texas and Arizona, with nearly equal shares.⁴ Notably, the number of purchases of Florida homes by international nationals fluctuates with the U.S. economy and the value of the dollar, as decreasing dollar values allow the costs to purchase with international currency to go down as well.

2009	23%
2010	22%
2011	31%
2012	26%
2013	23%

INTERNATIONAL HOMEBUYERS' IMPACT ON FLORIDA'S ECONOMY

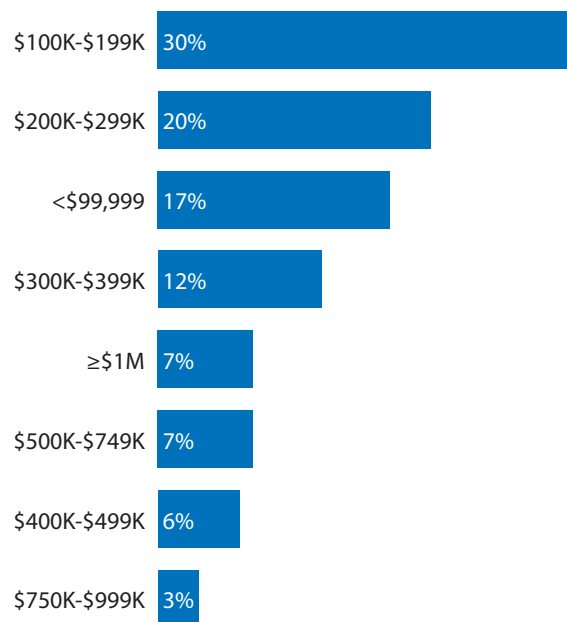
One of the top benefits of having international homebuyers in the housing market is the liquidity they have provided, in part because most international home purchases are cash transactions. Since 2010, home purchases by internationals in Florida have been 80 percent or more all-cash transactions.

This is especially valuable to sellers of Florida real estate, not only for individuals, but also for banks with substantial portfolios of foreclosed housing units, looking to reduce their loan portfolio exposure.

The liquidity provided by international buyers is beneficial to Florida homeowners, banks, and state tax collections, thanks to increased real estate sales, the documentary stamp tax revenues that come with those sales, and the economic impact of the new owners coming into the state.

Additionally, the vast majority of international home buyers do not use Florida's schools or social services (such as Medicaid and Medicare), and they do not

Price Range of Florida Homes - Foreign Purchasers



³ Profile of International Home Buyers in Florida - 2011. National Association of Realtors.

⁴ International Buyers of Florida Homes. June 2012. Florida TaxWatch.

qualify for homestead exemptions, which means that their homes are taxed at full ad valorem rates.

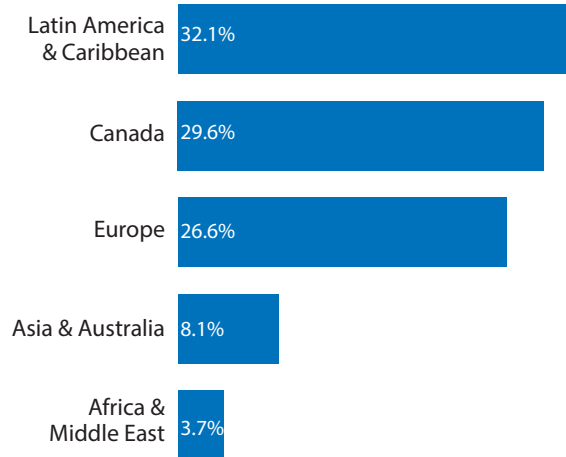
WHERE DO MOST INTERNATIONAL BUYERS ORIGINATE?

The country that provides the most purchasers of Florida homes has historically been Canada. In 2013, however, buyers from Latin America and the Caribbean countries as a group were the largest, coming in at slightly more than 32 percent. Canadian buyers were responsible for 29.6 percent, and buyers from European countries accounted for 26.6 percent. These three groups account for 88.3 percent of the purchases of Florida homes by international buyers.

The top international purchasers of Florida homes come from Canada, the U.K., Venezuela, Brazil, Argentina, Germany, China, Colombia, France, Peru, and Italy. Purchasers from Venezuela, Brazil, Argentina, China, Colombia, and Peru have generally been increasing since 2008. Substantial decreases are reported for the U.K, and moderate decreases from Germany have occurred in that span.

The individual countries that these purchasers come from is important, because of the variables that may affect purchases such as currency controls and devaluations, political stability, and other country-specific variables. For example, there are often concerns about oil pricing, a great international currency earner of the past for Canada. Given the volatility in oil markets, the \$CAD is heavily affected as worldwide oil prices change.

Overall Regional Origin - Foreign Purchasers



SECTION 2

WHERE ARE INTERNATIONALS BUYING HOMES IN FLORIDA?

Although it varies substantially from year to year, averages over the 2012 and the 2013 purchasing year show that the Miami-Miami Beach Metropolitan Statistical Area (MSA) has the most purchases of homes by international buyers. Orlando is the next-most popular, followed closely by Fort Lauderdale. These three MSAs alone account for more than 47 percent of the homes sold to internationals.

Regional Distribution of Florida Home Sales to International Purchasers

	2012-13 Average
Miami-Miami Beach	26.20%
Orlando-Kissimmee	11.20%
Fort Lauderdale	10.05%
Bradenton-Sarasota-Venice	6.95%
Cape Coral-Ft. Myers	6.15%
Palm Beach	5.85%
Tampa-St. Petersburg-Clearwater	5.70%
Naples-Marco Island	5.55%
Other areas (see page 15)	23.5%

The distribution of these sales shows that the overwhelming majority of the sales occur from Orlando through South Florida. Surprisingly few of these sales (less than 3 percent) are in the Florida panhandle region. This could be a function of the lack of a substantial number of international flights directly to this region of Florida when compared to the numbers of those flights to the large Central and Southern Florida international airports.

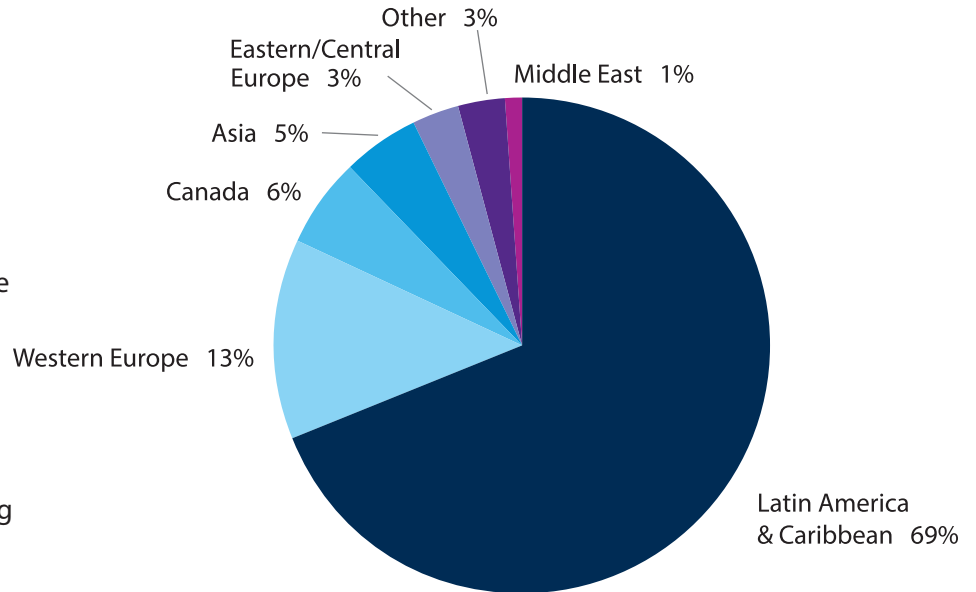
The following pages detail countries and regions of origin for the top eight Florida MSAs, in terms of international home buyers.

MIAMI-MIAMI BEACH MSA

REGION OF ORIGIN

The largest Florida MSA for purchases by international buyers, the Miami-Miami Beach MSA has a substantial number of reported sales. The areas of the world that purchasers come from are largely Latin America and the Caribbean, with 69 percent of the purchasers in 2013.

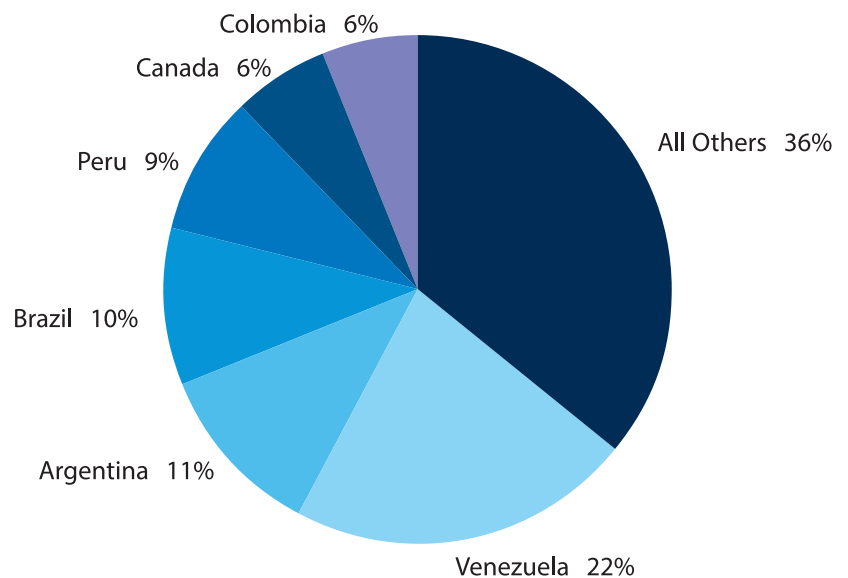
Region of Origin - Foreign Purchasers



COUNTRY OF ORIGIN

For the most recent reporting years, 2012 and 2013, the highest percentages of purchasers have been from Venezuela, followed by Argentina, Brazil, Peru and Colombia. Purchasers from France and Canada each made the list – France in 2012 and Canada in 2013, but neither made the top list for both 2012 and 2013. The chart below shows the individual countries with the highest market share of purchases for 2013.

Country of Origin - Foreign Purchasers



ORLANDO-KISSIMMEE MSA

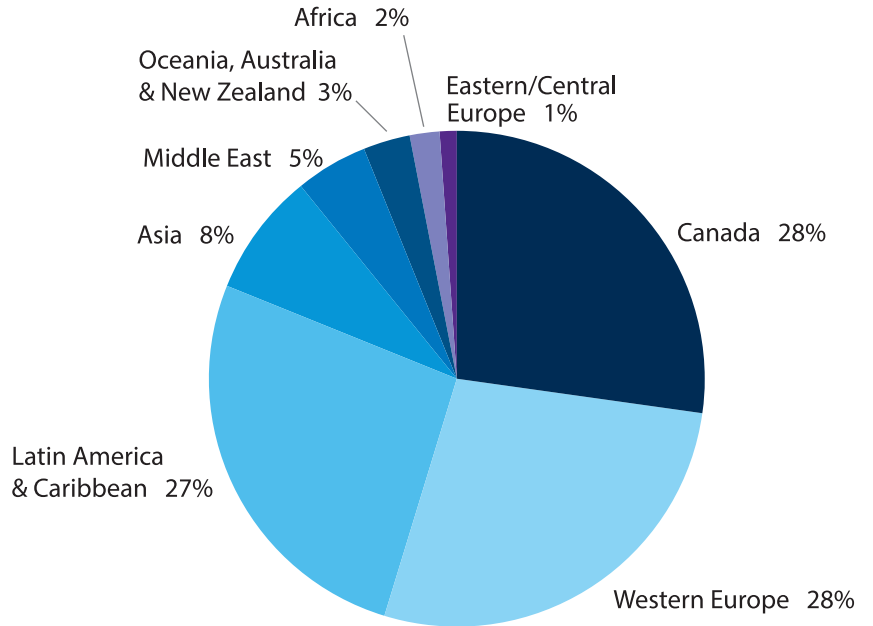
REGION OF ORIGIN

The majority of international purchasers in the Orlando-Kissimmee MSA are divided nearly equally between Canadian, Western European, and Latin American/Caribbean purchasers. These three groups make up 83 percent of these purchases in the two most-recent reporting years.

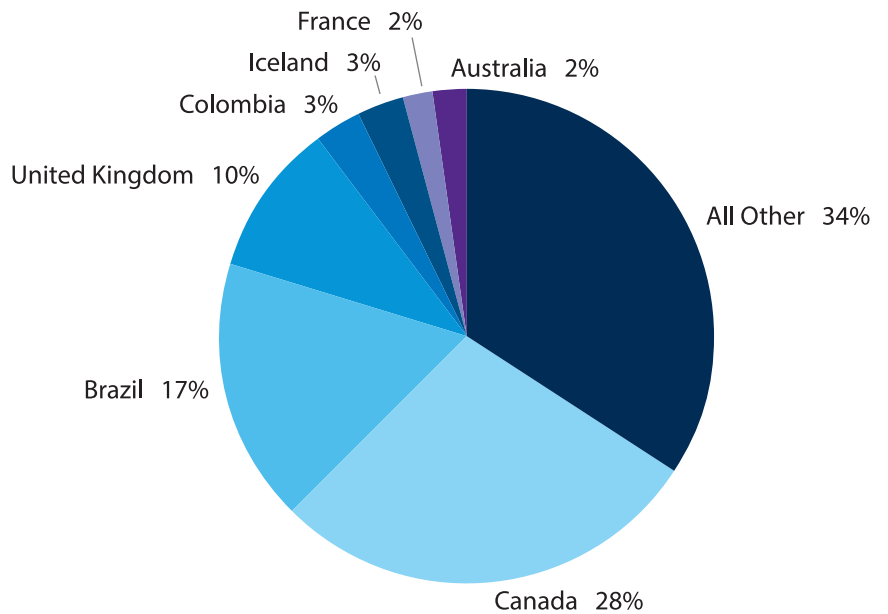
COUNTRY OF ORIGIN

For the 2012-13 report, Canada was responsible for the most sales to a single country in the Orlando-Kissimmee area, followed by Brazil at 17 percent. Next-highest was the U.K. at 10 percent, then there was a significant drop-off in percentages, down to 3 percent for Colombia and Iceland. However, there are a substantial number of countries whose citizens purchase homes in this region, including France and Australia. Overall, 8 percent of the purchasers are from Asia – one of the highest percentages of any MSA in Florida, a tie with the percentage in Fort Lauderdale over this period.

Region of Origin - Foreign Purchasers



Country of Origin - Foreign Purchasers

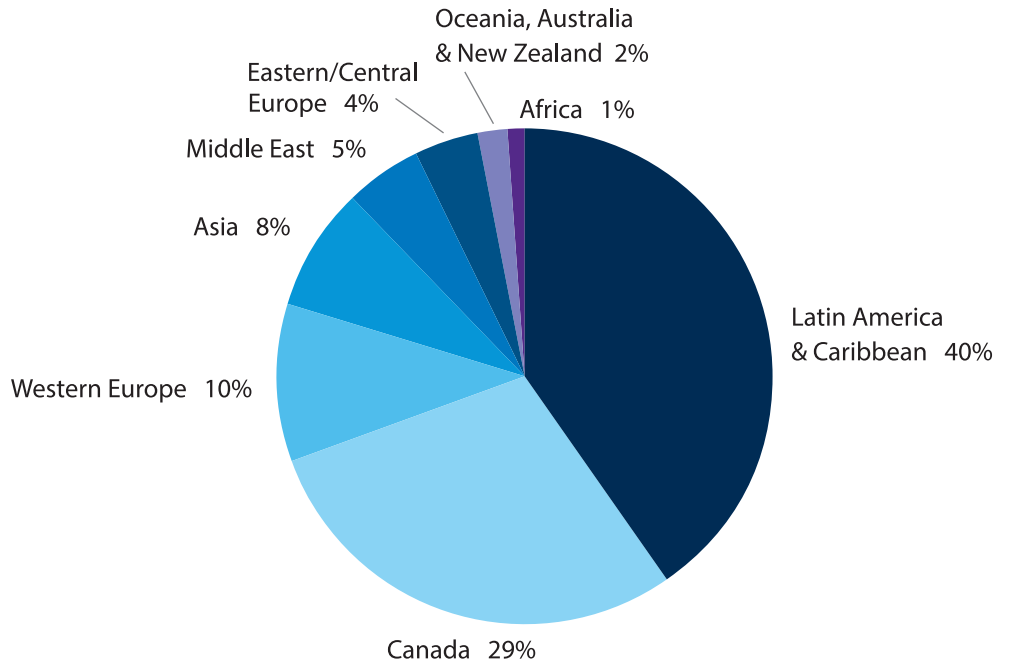


FORT LAUDERDALE MSA

REGION OF ORIGIN

Sales to international purchasers in the Fort Lauderdale MSA are dominated by Latin American/Caribbean at a 40 percent share of the market, followed by Canada at 29 percent. Western Europe claims 10 percent of the market share, and Asia comes in fourth at 8 percent.

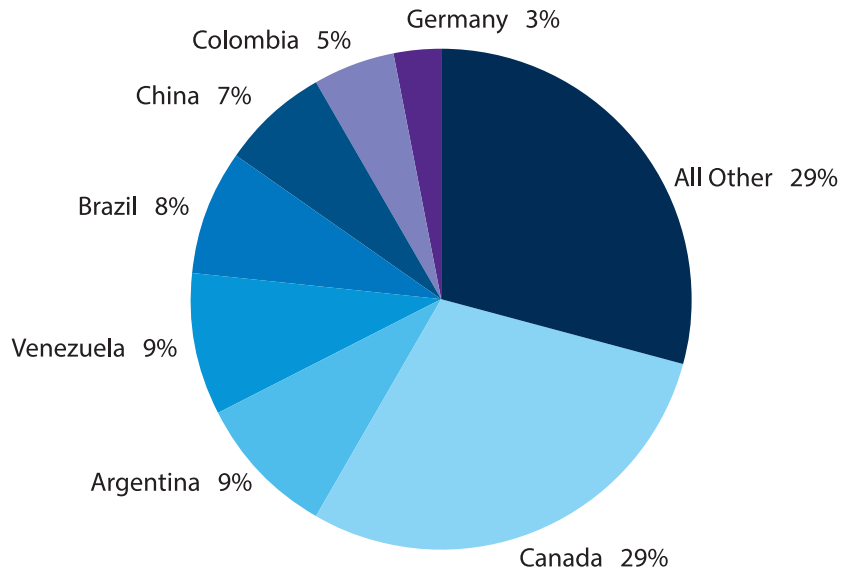
Region of Origin - Foreign Purchasers



COUNTRY OF ORIGIN

Analyzing international purchasers in the Fort Lauderdale market shows that after Canada, Argentina and Venezuela makeup 9 percent of the market each, followed closely by Brazil at 8 percent. Colombia and Germany are next, with 5 percent and 3 percent respectively. Other countries make up a substantial part of the market, with 29 percent of sales.

Country of Origin - Foreign Purchasers



CAPE CORAL-FT. MYERS MSA

REGION OF ORIGIN

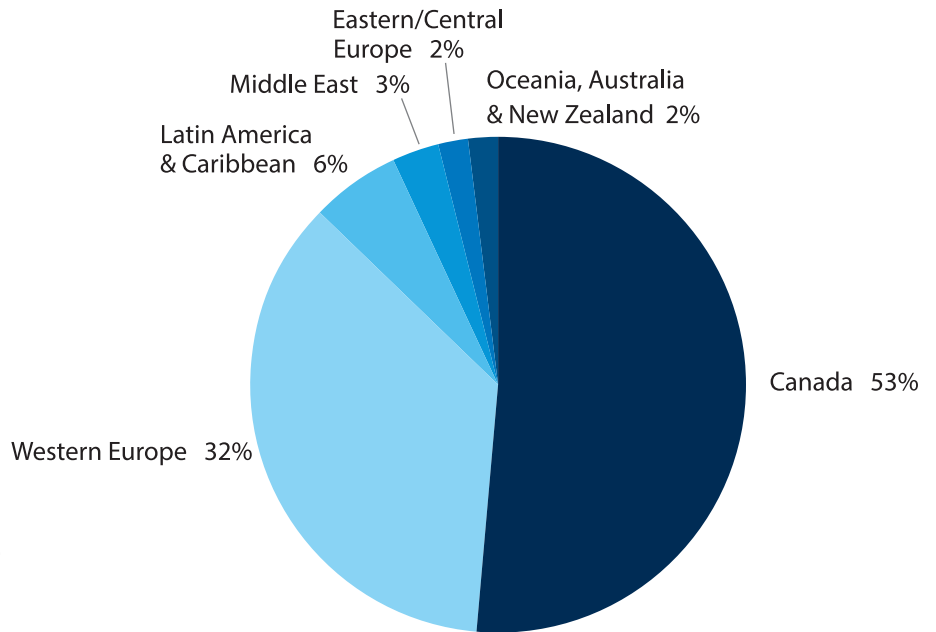
The sales to international purchasers in the Cape Coral-Ft. Myers market are dominated by Canada and Western Europe, together making up 85 percent of these sales.

Although this is not the highest market share of Western Europe in the Florida market, it is easily the second-highest.

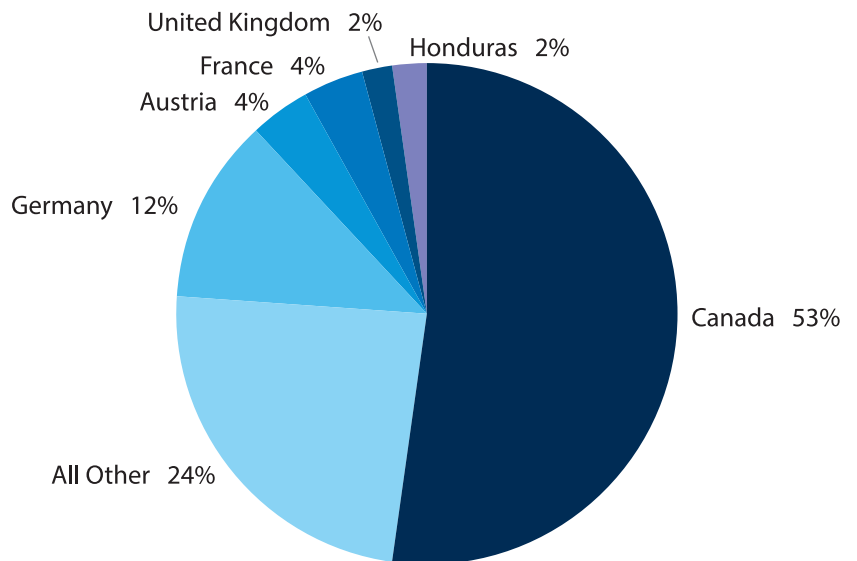
COUNTRY OF ORIGIN

Checking which countries make up the purchasers from Western Europe shows that the top country is Germany, followed by Austria and France. Together, these countries make up 20 percent of the international purchasers. Therefore, between Canada and these Eurozone countries, 73 percent of the international sales are represented by only two currencies, the \$CAD and the Euro.

Region of Origin - Foreign Purchasers



Country of Origin - Foreign Purchasers

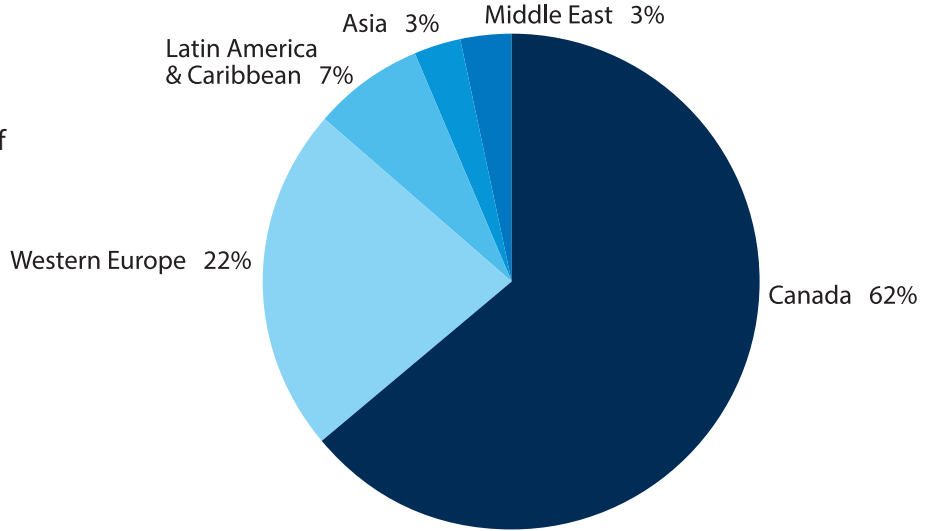


NAPLES-MARCO ISLAND MSA

REGION OF ORIGIN

Showing an even-higher concentration of market share by purchasers from Canada, the Naples-Marco Island area has 62 percent of its market subject to changes in one currency, the \$CAD. Adding Western Europe, 84 percent of the market is made up from these two regions.

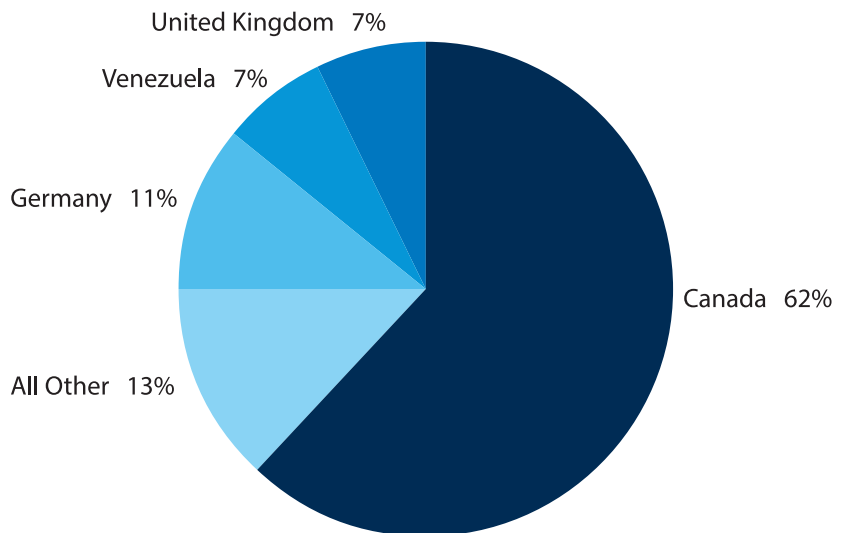
Region of Origin - Foreign Purchasers



COUNTRY OF ORIGIN

German purchasers make up 11 percent of the Naples-Marco Island market, with U.K. and Venezuela each taking 7 percent of the market. Currency exposure is high in the Naples-Marco Island MSA, with 73 percent of the housing market subject to changes in the \$CAD and Euro, and an additional 7 percent subject to changes in the British Pound.

Country of Origin - Foreign Purchasers



BRADENTON-SARASOTA-VENICE MSA

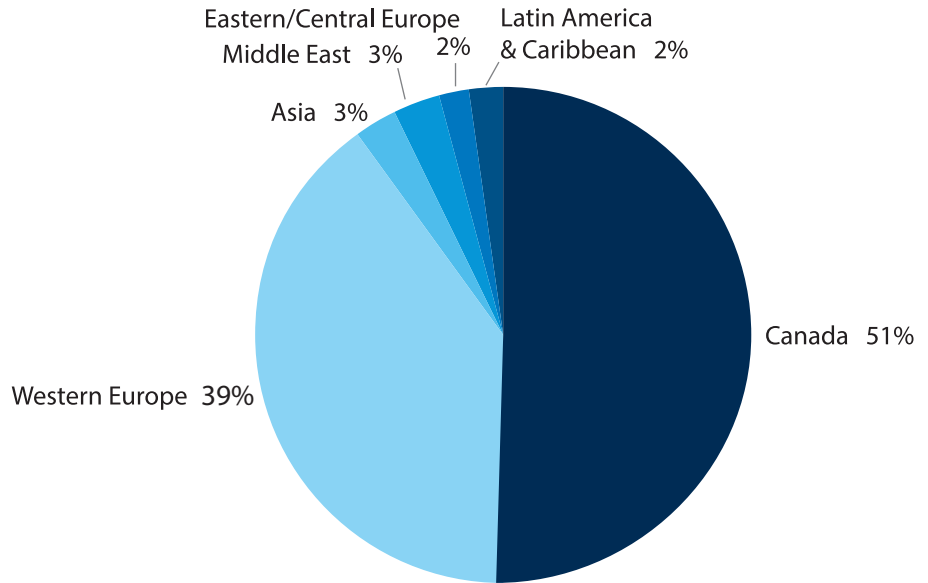
REGION OF ORIGIN

Sales to international purchasers in the Bradenton-Sarasota-Venice MSA are dominated by Canada at 51 percent, followed by Western Europe at 39 percent.

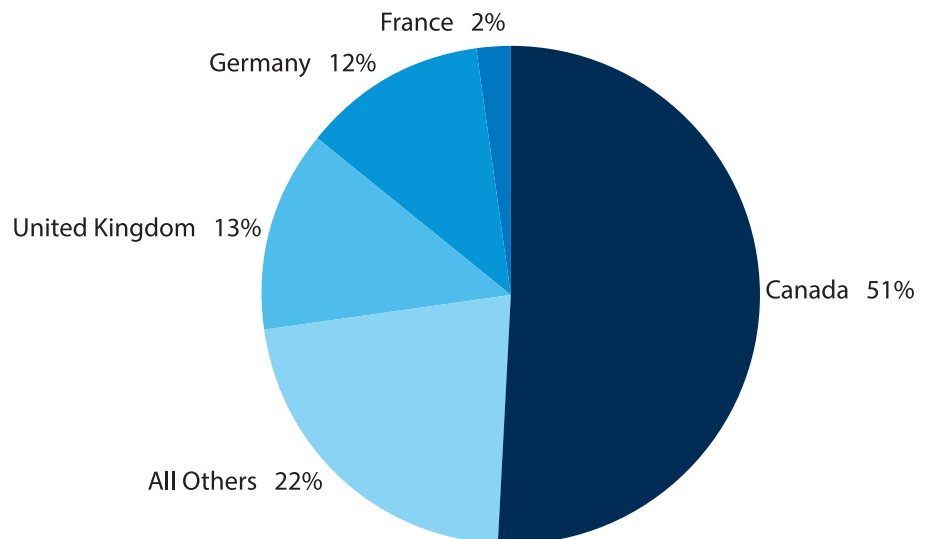
COUNTRY OF ORIGIN

To check for exposure to currencies, this area sees from the top individual countries, Germany at 12 percent and France at 2 percent. Thus, exposure to the \$CAD and the Euro has at least a 65 percent probability in this market. Helping the diversification to currencies is the high percentage of U.K purchasers, at 13 percent in this market – their highest market share in Florida.

Region of Origin - Foreign Purchasers



Country of Origin - Foreign Purchasers



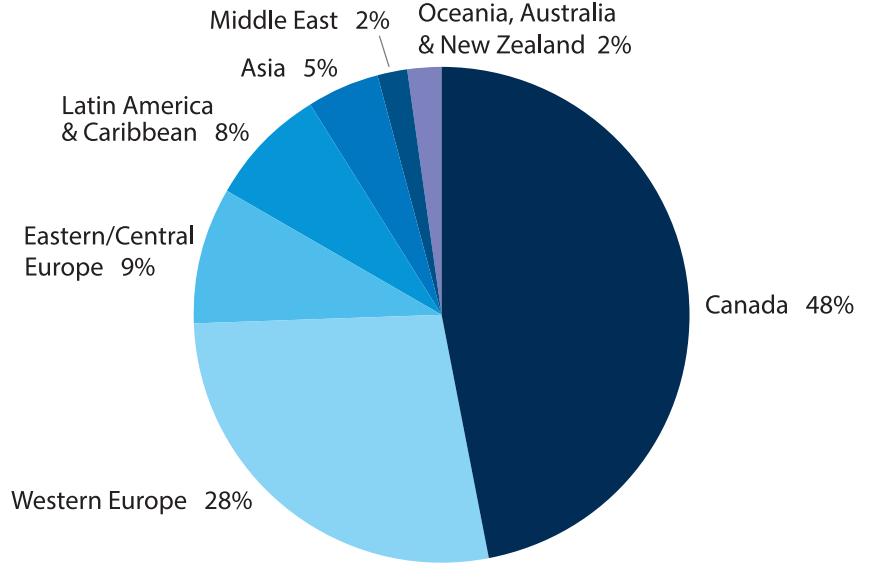
TAMPA-ST. PETERSBURG-CLEARWATER MSA

REGION OF ORIGIN

Canadian purchasers dominate the Tampa-St.Petersburg-Clearwater market, making up an estimated 48 percent of the international purchases in the most recent two years.

Western Europe is a substantial part of this market, with 28 percent market share. The rest is divided between Eastern and Central Europe at 9 percent, their second-highest market share in Florida.

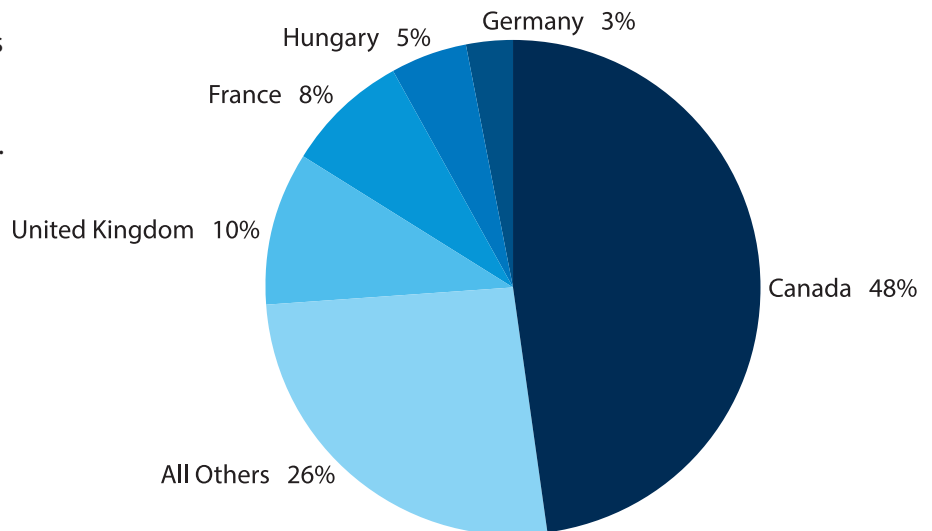
Region of Origin - Foreign Purchasers



COUNTRY OF ORIGIN

For currency risk evaluation, the individual countries that make up the major purchasers of homes in Tampa-St. Petersburg-Clearwater besides Canada, include the U.K., France, Hungary and Germany. Between France and Germany, at least 11 percent of this market is subject to movements in the Euro.

Country of Origin - Foreign Purchasers



PALM BEACH MSA

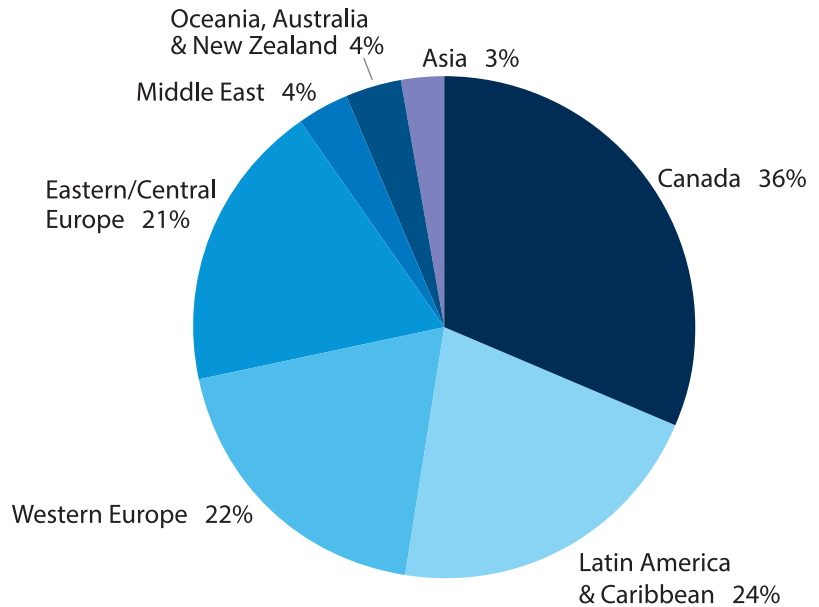
REGION OF ORIGIN

The Palm Beach market for international homebuyers is more diversified than most. Canada is 38 percent of the market, followed by Latin American/Caribbean at 24 percent, Western Europe at 22 percent, and Eastern/Central Europe at 21 percent – their highest market share in Florida.

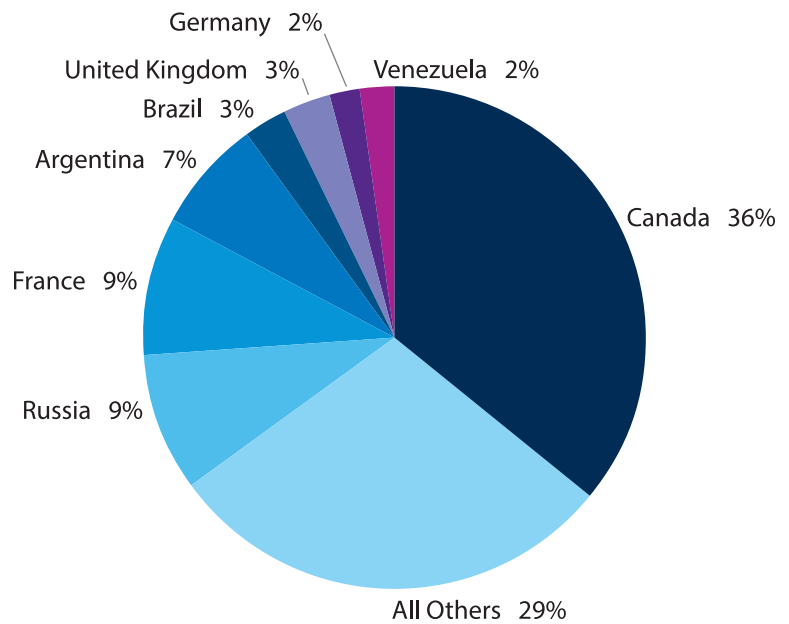
COUNTRY OF ORIGIN

Canada is the largest single country from where international purchasers purchase in the Palm Beach MSA, followed by France and Russia, each with 9 percent market share. They are followed by Argentina at 7 percent of the market, and the U.K. and Brazil at 3 percent each.

Region of Origin - Foreign Purchasers



Country of Origin - Foreign Purchasers



THE REST OF FLORIDA

The other MSAs not included in the list of top markets cover a substantial part of Florida, and make up just over 10 percent of the sales to international homebuyers in the most recent two years of the study.

The areas included in the rest of Florida include these markets:

- Port St. Lucie
- Jacksonville-St. Augustine
- Deltona-Daytona Beach-Ormond Beach
- Ocala
- Fort Walton Beach-Crestview-Destin
- Sebastian-Vero Beach
- Lakeland-Winter Haven
- Gainesville
- Tallahassee
- Pensacola-Ferry Pass-Brent
- Panama City-Lynn Haven
- Palm Bay-Melbourne-Titusville
- Palm Coast
- Punta Gorda
- Other Areas

These markets each make up less than 3 percent of the Florida home sales to international purchasers and will not be analyzed here individually.

SECTION 3

ANALYZING THE CURRENCY RISK BY MARKET

There is a risk of having too much concentration of the sales market to one country or to countries that share a currency, given the importance of the exchange rate and its role in the relative purchase price of Florida homes. Certainly, exposure to the Canadian dollar has been good for many Florida markets, with Canadians being persistently the top international purchaser of Florida homes. However, that creates a risk for Florida markets outside the Miami-Miami Beach area, if the Canadian economy experienced serious problems.

To analyze the risk to Florida housing markets, each of the major markets was analyzed as to the amount of currencies that were important for a majority of the market's sales to international buyers. The market with the highest exposure to the top three countries was in the Naples-Marco Island market, with 80 percent of the international purchaser market dependent upon the Canadian Dollar, the Euro, and the British Pound.

In Percentages	Concentration Top 3 Purchasers (%)	Canadian Dollar (%)	Canadian Dollar Plus Euro (%)
Miami-Miami Beach	43	6	8
Orlando-Kissimmee	55	28	30
Ft. Lauderdale	47	29	32
Cape Coral-Ft Myers	75	53	73
Naples-Marco Island	80	62	73
Bradenton-Sarasota-Venice	78	51	65
Tampa-St. Petersburg-Clearwater	69	48	59
Palm Beach	54	36	47

Miami-Miami Beach is the least exposed to risks from the Canadian dollar and the Euro, receiving around two-thirds of its buyers from Latin America and the Caribbean.

Other currencies that are substantial in the markets include the Venezuelan bolívar, the Argentine peso, the Brazilian *real* and the British Pound. Others of increasing importance are the Peruvian *nuevo sol*, and the Colombian peso. Although there have been purchasers from Australia, Iceland, China, Honduras, and many other countries, the above list covers the bulk of the currency risk.

METHODOLOGY

A simulation model was constructed, using the results from analyzing the relationships between international home sales and the variables that are predictors in the housing market demand function. Data for the top 10 countries, which comprise more than 70 percent of international home sales of Florida homes, were used to develop the simulation model.

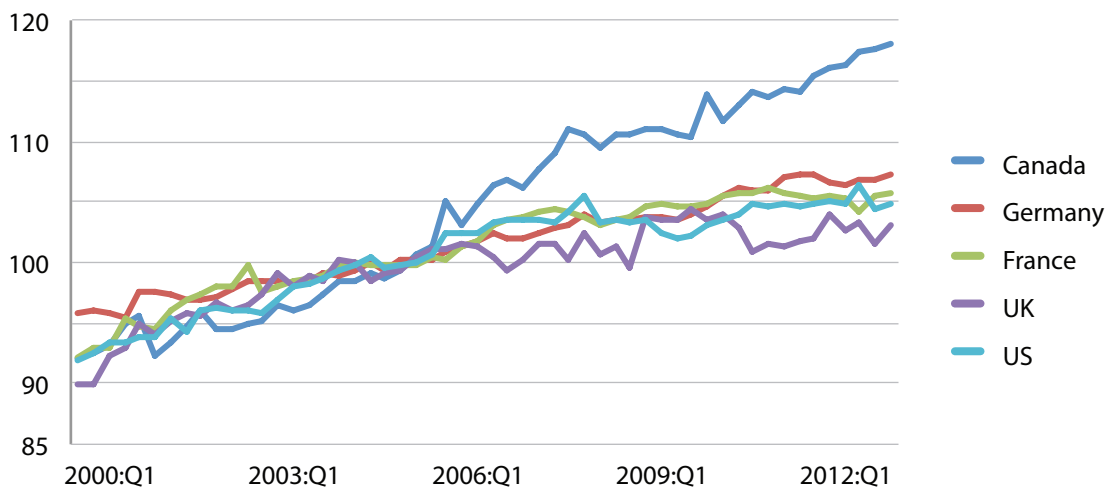
For the top MSAs, the calculations were based upon a weighted average of the recent sales. Where available, multiple years were used. Purchase percentages were weighted toward the most recent year to account for those countries who were either new to the top rankings or which had fallen off the top rankings list.

Given the availability of data, the simulation model is the model most likely to give the best result for forecasting international home sales by MSA. For example, comparable data on real exchange rates, information likely very important to a international purchaser, is unobtainable for some countries, such as Venezuela and Colombia. For these two and other countries where data was unobtainable, a general U.S. Dollar Trade-Weighted Index was substituted.

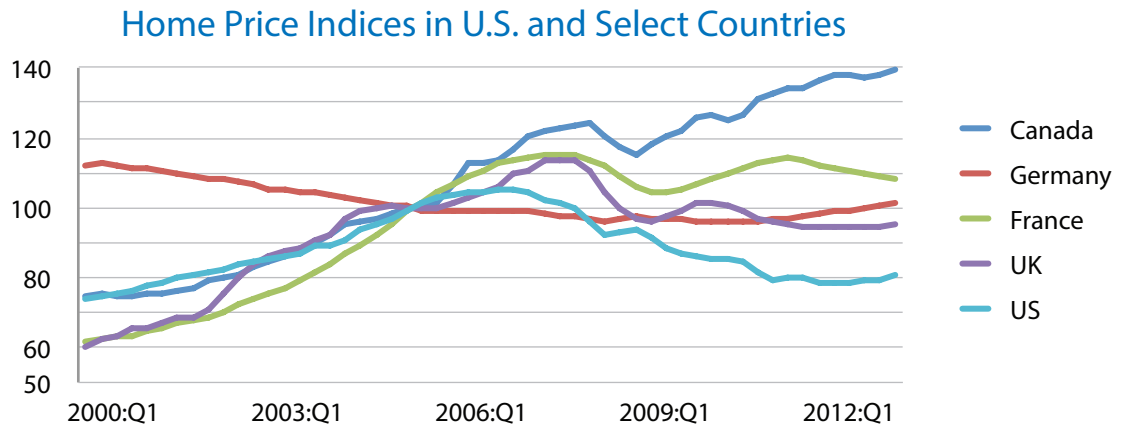
VARIABLES TESTED TO CALCULATE INPUTS

Income: a variable used in most demand models.

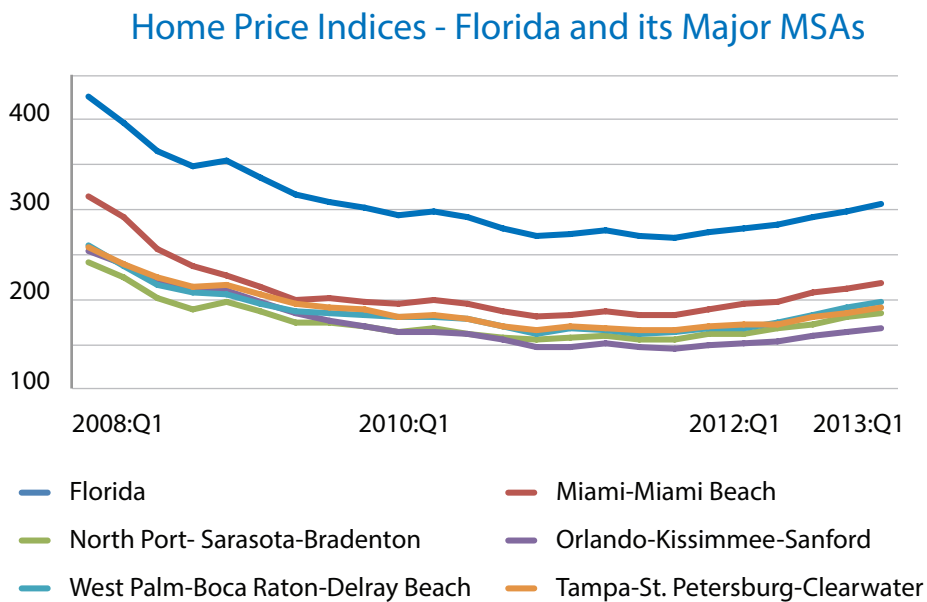
Disposable Personal Income Index
for Select Countries



Relative Home Price: where available, the relative price of housing in the home country versus the Florida MSA where purchased was used.



Home Prices in Florida’s Major markets: as well as an index for the entire state.⁵



A chart of the House Price Indices for Florida and for the major MSAs where the majority of international home purchases are transacted shows that the indices have follow similar patterns during the period of this study. What is interesting is the timing of the “bottom” of the market during the period of this study, indicated by the low point of the index. Shown in the table are the bottom quarter for home prices for each MSA listed above, and for the state of Florida using this measure.

⁵ From St. Louis FRED database. “All Transaction House Price Indices”. Series: FLSTHPI, ATNHPIUS33124Q, ATNHPIUS35840Q, ATNHPIUS36740Q, ATNHPIUS48424Q, ATNHPIUS45300Q.

Market Price Bottom	Quarter/Yr.
Florida	Q2: 2012
Miami-Miami Beach	Q2: 2011
North Port- Sarasota-Bradenton	Q2: 2011
Orlando-Kissimmee-Sanford	Q2: 2012
West Palm-Boca Raton-Delray Beach	Q1: 2012
Tampa-St. Petersburg-Clearwater	Q2: 2012

Interestingly, the Miami-Miami Beach MSA along with the North Port-Sarasota-Bradenton MSA bottomed in regards to price a full year before most other MSAs, as well as the State of Florida taken as a whole. This, along with other evidence shows that it is important to analyze not just the state of Florida, but individual MSAs when housing markets are being analyzed and forecasted.

MYFRIENDS – This variable is a calculation of the number of persons of the same country who have purchased in this MSA. It is assumed that people are more likely to buy a home in the area where their friends or family members or others like them have, leading to a positive relationship between this variable and the probability of purchasing a home in that MSA.

Visitors – the correlation between international visitors and international home purchases appears to be high, on a country-by-country basis. Using the most-recent⁶ ordinal ranking of Florida international visitors, along with the most recent ordinal ranking of home purchases, one can see that with only a few exceptions, the rankings are highly correlated.

Each of the top 5 in the visitor ranking appear in the top 5 homebuyer ranking, and the majority of the countries' rankings are similar to each other, although in a slightly different order. Countries such as Mexico, Australia, Spain, and Japan are high in visitor numbers but lower in homebuyer rankings.

Country	2012 Visitor Ranking	2013 Homebuyer Ranking
Canada	1	1
Brazil	2	3
United Kingdom	3	4
Argentina	4	5
Venezuela	5	2
Mexico	6	
Germany	7	6
Colombia	8	8
France	9	9
Australia	10	
Spain	11	
Japan	12	
Peru	13	10
China	14	7

⁶ 2012 is the most recent – from the Visit Florida 2012 Visitors Study

DEVELOPMENT OF THE FORECAST MODEL

The forecast model was developed from the standpoint of individual's decision model, shown below in a general form:

$$p_{ij} = f(\text{Income, Exchange Rate, Relative Housing Price, Political Uncertainty, MYFRIENDS, Visitors})$$

Where: p_{ij} is the probability that a person from country i purchases in market j

The variables:

Income is the real GDP of country i

Exchange Rate is the real exchange rate compared to the U.S. dollar

Relative Price is the housing price for country i relative to the housing price index for Florida market j

Political Uncertainty is a measure of country i 's political instability

MYFRIENDS is a constructed variable that indicates the concentration of residents (not limited to friends) of country i in market j

Visitors is the number of tourists visiting Florida from country i

Specified in the above way, increases in all of the variables would be expected to positively impact sales to international purchasers.

FORECAST INPUTS

The forecast consists of a statewide forecast of international home purchasing activity in Florida for the next three calendar years. The statewide forecast was done by a proprietary simulation model developed by Florida TaxWatch, using historical data and data from economic series known to be correlated with international home purchasing activity. These included exchange rates, political uncertainty, income, relative price, numbers of fellow countrymen purchasing in previous periods, and Florida housing price trends, and international visitation to Florida.

The following variables were used to develop the forecast:

Income

For the income variable, the forecast Real GDP growth rate from the International Monetary Fund was used as an indication of future economic activity. The top 10 historical international purchasers of Florida homes are shown, with their expected annual percentage changes in real GDP.

Real GDP Annual Percent Change ¹			
Country	2014	2015	2019
Argentina	0.5	1.0	2.0
Brazil	1.8	2.7	3.5
Canada	2.3	2.4	2.0
China	7.5	7.3	6.5
Colombia	4.5	4.5	4.5
France	1.0	1.5	1.9
Germany	1.7	1.6	1.3
Peru	5.5	5.8	5.8
U.K.	2.9	2.5	2.4
Venezuela	-0.5	-1.0	1.0

It should be noted that of the top 10 countries whose citizens purchase Florida homes, only the Venezuelan economy is predicted to have negative growth, and that economy has an

expected two-year decrease in GDP. The countries that show the most promise for increasing purchases in Florida are Peru and Colombia – both with growing shares of the market. As Brazil returns to higher growth rates in the future, one would expect further increases in market share from Brazilians purchasing south Florida homes.

Exchange Rates

The level of the exchange rate versus the U.S. dollar is an important part of the relative price that international purchasers pay for homes in Florida. Importantly, two of the top 10 purchasers faced substantial currency devaluations earlier this calendar year. Both Venezuela and Argentina faced devaluations, therefore purchasers who were not already holding U.S. dollars before the devaluations may be forced out

Currency Units, per \$USD ²			
Country	May 14	Previous Year	Percent Change
Argentina	8.03	5.23	-53.5%
Brazil	2.22	2.02	-9.9%
Canada	1.09	1.01	-7.9%
China	6.23	6.14	-1.5%
Colombia	1926	1835	-5.0%
France	0.73	0.77	5.2%
Germany	0.73	0.77	5.2%
Peru	2.79	2.61	-6.9%
U.K.	0.6	0.65	7.7%
Venezuela	10	6.29	-59.0%

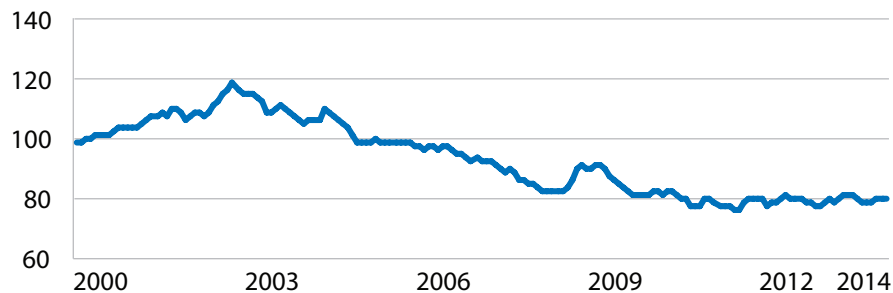
of the market, given the high relative price increases indicated by the change in the past year.

The positive news for sellers of Florida homes is that both French and German purchasers will benefit from strength in the Euro versus last year. Also, purchasers from the U.K. will benefit from strength in the British Pound versus the U.S. dollar. Canada, the country with the historic largest amount of purchasers has lost nearly 8 percent of their purchasing power due to losses in the Canadian dollar versus the U.S. dollar.

On a purchase-weighted basis⁷ using the past two years' sales, the U.S. dollar has increased by 13.7 percent versus the currencies of the top 10 purchasers in the past year. The positive exchange rate increases favor the British Pound and the Euro. The largest losers of purchasing power would be Argentines and Venezuelans that were holding their home currencies and who had not already converted to U.S. dollars.

For the forecasted future of the value of the U.S. dollar used in the forecast equation, the Florida Trade-Weighted Dollar Index was used during the period of January 2000 through March 2014 as the basis for the forecast. All exchange-rate forecasts are difficult computations, and mis-forecasting an exchange rate pair such as the Canadian dollar – U.S. Dollar, given its importance in Florida real estate, could cause errors in forecasted values of home sales to internationals. By using the Dallas Federal Reserve's Trade-Weighted forecast as a basis, the top countries on a dollar basis that trade with Florida are represented. Those countries such as Brazil (#1), Colombia (#2), Veneuela (#7) and Peru (#8) are highly represented. Countries such as China will be over-represented compared to current Florida home sales because of the volume of Chinese imports into Florida.

Florida Trade-Weighted Dollar Index
Dallas Federal Reserve (Jan. 1988 =100)



⁷ Percent change over the past year was weighted by the average percentage market share for the top 10 countries, which made up 73.4 percent of international purchases. This was factored to equal 100 percent of the market instead of weighting every purchasing country's exchange rate. Any over- or under-estimation of the exchange rate change is expected to be minimal.

Political and Economic Uncertainty

Political and economic uncertainties are both difficult to predict, however either could play a part in the potential purchase of a Florida home by a international citizen. The effects could be positive or negative on Florida home sales. Perceived instability in a home country could cause international nationals to purchase a Florida home as a portfolio diversification, as a hedge against potential home currency devaluation, or as a place to have secure property rights as a homeowner in the face of rising uncertainty in their home country. Given the unpredictability of these types of uncertainties, rather than being included in the forecast model, the risks to Florida housing markets from these type of events were modeled with impulse response functions in the proprietary Vector Autoregression Model (VAR) to show risks by country of purchaser and by MSA and their potential effects.

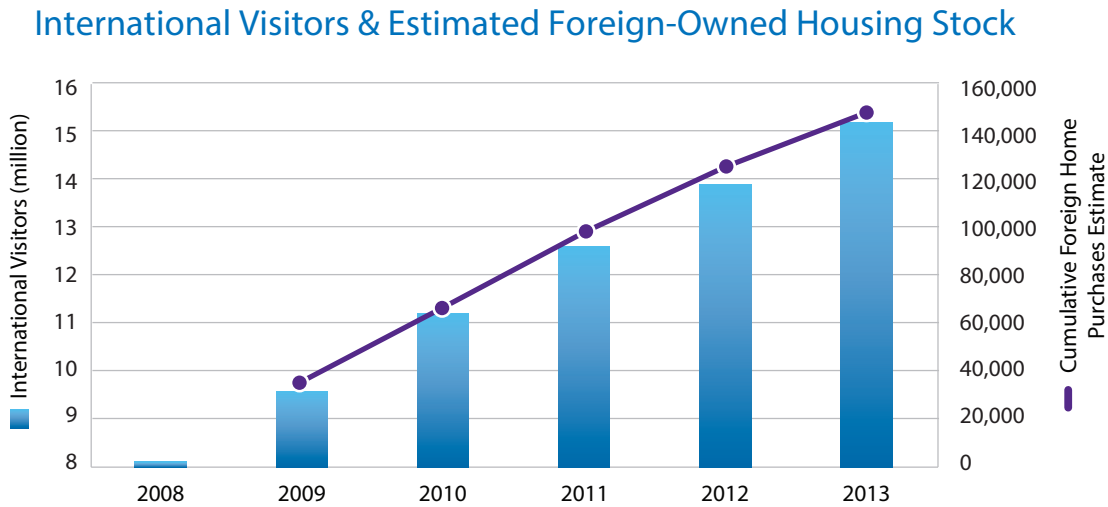
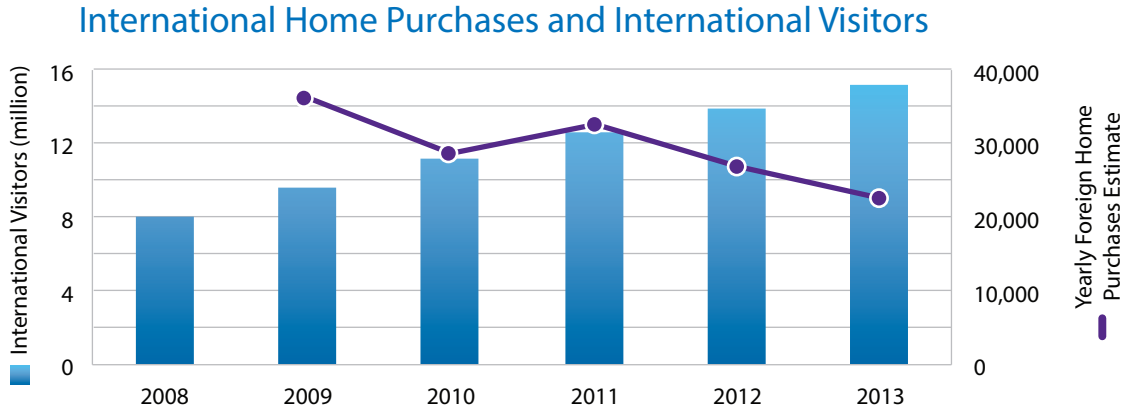
International Visitor Numbers

The number of visitors from a country can be an indication of ease of travel to Florida, something very likely important to potential home purchasers. What is unknown is the relationship and any causality between international visitation and international home purchases in Florida.

Data is not available on the stock of Florida housing currently or historically owned by international purchasers. The data on purchases does not indicate whether any of that housing stock has been sold either to U.S. citizens, or perhaps to other international buyers. Analyzing the relationship between the two variables does not lead to any solid conclusion about the relationship or the causality. However, if the stock of international-owned housing in Florida has grown as is likely, then further studies may lead to the determination of causality - that increased international-owned Florida housing causing increases in international tourists to our state.

Graphing an estimate of the stock of international-owned Florida homes against international visitors shows that the relationship is correlated in a positive manner. In this simple example, the stock of international homes starts in 2009 as the number of estimated home sales. Each additional year's estimated sales are then added, and graphed on a separate axis. The relationship appears to be a highly correlated one, however in this simple example the assumption is that international owners either do not sell their property, or they sell it to another international purchaser. This may or may not reflect reality; however the relationship appears positive and robust.

The relationship between these two estimated variables makes sense in that the homeowner, family, and friends have a "paid-for" place to stay in Florida and they are more likely to return each year for their holiday. Although tourists don't "automatically" come back to Florida each year, those international



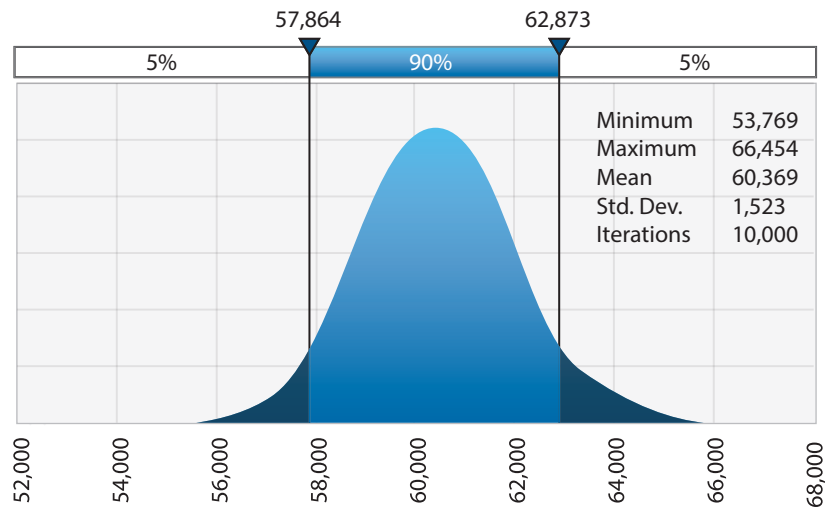
citizens who own homes in our state may be the most likely to return often.

FORECAST RESULTS

Using a proprietary Florida TaxWatch forecasting model for international home purchases, the forecast inputs described in the previous section were used to simulate international home purchases in Florida over the calendar years of 2014-2016. Given the uncertainty in the input variables, the model was constructed as to allow for stochastic processes and the uncertainty inherent in forecast modeling.

The forecast simulation model was run 10,000 iterations and the results are shown in the chart below. The results show that for the calendar years of 2014-2016, the state of Florida will see an estimated 60,369 international home sales, with a 90 percent probability of seeing between 57,864 and 62,873 of

Three-Year Forecast of Purchases by Foreign Buyers



these type of sales. This forecast indicates an average over the next three calendar years of 20,123 sales to non-resident international purchasers per year.

All forecasts are by their nature uncertain. There exists substantial risk over the three year period of this forecast of unexpected economic circumstances that could alter the expected results by many thousands of home sales per year. Global events that lead to economic uncertainty can have substantial effects on the worldwide economy, and either increase or reduce the probabilities of a non-resident international purchaser of buying a home in Florida.

In the case of Florida, having a substantial portion of each year's international home purchases by one country can be a risk, especially for those MSAs who receive substantial amounts of purchasers from Canada. A substantial shock to the economy, and therefore the Canadian dollar, could not only slow the pace of sales, it could also lead to sales by Canadian owners of real property in several Florida MSAs. Other MSAs who see substantial sales to South American countries such as Venezuela and Argentina could have sales affected in the same way with recent currency devaluations.

The dollar volume of these sales to non-resident international purchasers was also estimated during the forecasting process, using the Florida TaxWatch proprietary model. The results of the simulation model indicate that an estimated \$20.37 billion in Florida housing transactions will be conducted with non-resident international purchasers during the 2014-16 calendar years.

CONCLUSION

International purchasers have provided the Florida housing market with liquidity during the financial crisis, allowing banks and Floridians to de-leverage their holdings of Florida real estate. They continue to be a presence in the markets of many Florida MSAs, often as cash buyers who can help strengthen local housing markets. They provide several advantages for their local areas, and the state as a whole, in terms of the taxes they pay. International homebuyers pay full ad valorem tax rates, as they are not qualified for homestead and other exemptions given to Florida residents, and they do not typically use a substantial amount of social services.

There are multiple reasons that non-resident internationals purchase houses in Florida. Many are diversifying their holdings in both category and currency. Many are drawn to invest here because of the secure property rights provided to owners of real estate in the U.S. Some who are mainly purchasing as an investment will engage local property managers, while others will travel regularly to Florida, bringing the state more tourism dollars, and by bringing their friends and families, they will expose even more international residents to the Sunshine State.

Florida TaxWatch, using a proprietary stochastic forecasting model, has forecast a continuation of international home purchasing activity in our state. An estimated additional 60,369 purchases by non-resident internationals are expected to be transacted during the 2014 through 2016 calendar years. These purchases, along with the associated purchases of furniture and other household goods, entertainment spending, and travel will create jobs that employ Floridians.

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He regularly publishes articles on the Florida economy, Florida's competitiveness, Florida's property and casualty insurance system, and other economic topics of interest to Floridians. Dr. Parrish previously served as the Associate Director of the Center for Economic Forecasting & Analysis (CEFA) at Florida State University. Prior to joining TaxWatch, he spent several years in management roles with international companies.

ABOUT FLORIDA TAXWATCH

As an independent, nonpartisan, nonprofit taxpayer research institute and government watchdog, it is the mission of Florida TaxWatch to provide the citizens of Florida and public officials with high quality, independent research and analysis of issues related to state and local government taxation, expenditures, policies, and programs. Florida TaxWatch works to improve the productivity and accountability of Florida government. Its research recommends productivity enhancements and explains the statewide impact of fiscal and economic policies and practices on citizens and businesses.

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