

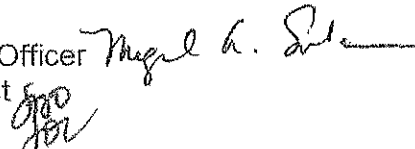
CITY OF LOS ANGELES  
INTER-DEPARTMENTAL CORRESPONDENCE

0590-00098-4232

Date: October 17, 2012

To: Antonio R. Villaraigosa, Mayor  
Herb J. Wesson, Council President and Chair, Rules, Elections and  
Intergovernmental Relations Committee

From: Miguel A. Santana, City Administrative Officer  
Gerry F. Miller, Chief Legislative Analyst



Subject: DOCUMENTARY TRANSFER TAX BALLOT MEASURE (C.F. No. 11-1357-S1)

### Summary

On August 21, 2012, Council held its annual Revenue Day meeting to consider opportunities to maximize existing revenue and to identify new revenue sources (C.F. No. 11-1357-S1). Separate reports from the City Administrative Officer and the Chief Legislative Analyst considered at that meeting proposed increasing the Parking Occupancy Tax and the Documentary Transfer Tax to augment General Fund revenue. Pursuant to Proposition 218, these tax increases require the City to submit ballot measures for voter approval. Council directed the Offices of the City Administrative Officer and Chief Legislative Analyst, with the assistance of the City Attorney, to report on both proposals prior to moving forward. Additionally, Council approved a motion requesting an analysis of a documentary transfer tax structure similar to that of the City and County of San Francisco, which incorporates a progressive rate structure based on the sales price and provides discounts for solar and seismic improvements. This report covers the documentary transfer tax analysis; the parking occupancy tax analysis is submitted under a separate report.

It is recommended that the City implement a tiered documentary transfer tax structure because of its minimal impact to sales. The City hired Beacon Economics to evaluate the impact from a flat increase of the transfer tax (from \$4.50 to \$9.00 per \$1,000 of the sale price) and the implementation of a progressive tax structure based on sales price (rates ranging from \$2.25 to \$9.00 per \$1,000 of the sale price). According to the analysis, the flat tax increase would generate between \$95 million and \$103 million in additional revenue, with sales falling by approximately 3.8 percent. The consultant also estimates the implementation of a tiered tax structure would generate between \$76.1 million and \$82.4 million per year in additional revenues, while reducing sales by a mere 1 percent of sales. The complete analysis from the consultant is attached to this report and is summarized below.

Documentary transfer tax revenue would be deposited directly within the General Fund to address the City's greatest needs, such as police and fire services or public infrastructure improvements such as street or sidewalk repairs. A general tax measure requires approval of 50 percent of the voters plus 1.

## Findings

### San Francisco Documentary Transfer Tax

In 1994, the City and County of San Francisco implemented a progressive scale for the documentary transfer tax, with rates based on the price at the time of the sale. Recently, voters have approved measures to establish higher sales value brackets with higher rates and to close loopholes for acquisitions or transfers of ownership interests to ensure collection of the tax (Measures N, 2008 and 2010).

Table 1. San Francisco Documentary Transfer Tax Structure per \$1,000 of sales value

Value at time of Sale	Transfer Tax
\$100 to \$250,000	\$5.00 (0.5%)
Over \$250,000 to under \$1,000,000	\$6.80
\$1,000,000 to under \$5,000,000	\$7.50
\$5,000,000 to under \$10,000,000	\$20.00
\$10,000,000 or more	\$25.00 (2.5%)

Additionally, the 2008 Measure N reduced the transfer tax rate by up to one-third for sales of residential property with recent solar energy or seismic improvements. The reduction is available to the party that made the improvement, and it cannot exceed the cost of the improvement. Furthermore, the Assessor-Recorder excludes the improvement from reassessment. In order to receive the reduction, the seller must submit a transfer tax exemption form to the San Francisco Assessor-Recorder with supporting documentation. San Francisco's unique City-County governmental structure allows it to implement this policy. With regards to providing a similar incentive in the City, this type of structure is not recommended at this time due to the logistics of the collection of the transfer tax which would require coordination with Los Angeles County.

### Proposals for Documentary Transfer Tax

The Documentary Transfer Tax, as it is currently structured, has been collected by the City since fiscal year 1991-92. The City currently receives \$4.50 for each \$1,000 of the home's value at the time of the sale, typically paid by the seller from the sales amount. The current projection for revenue for the current fiscal year is \$108 million. This is 50 percent below the peak of \$217 million received in fiscal year 2005-06. The proposal to modify the tax rate would increase General Fund revenues. The first option is to double the documentary tax from \$4.50 to \$9.00. The second option seeks to limit this increase to sales in the highest price brackets while concurrently reducing the rate for those in the lowest. The price brackets would be based on the quartiles of single family home sales. The quartiles would be recalculated annually to prevent "bracket creep" wherein home value appreciation pushes more sales into the higher transfer tax brackets.

Based on the annual median home price of \$365,000 in the City for fiscal year 2011-12 as calculated by the consultant using County data, the City's documentary transfer tax would increase from \$1,643 to \$3,285 for a home sale under the proposed flat rate increase. Under the proposed scaled rate, only homes sold above the 75th percentile of sales price would see the full increase; homes between the 50th and 75th percentile would have a 50 percent

increase; the rate for homes just below the 50<sup>th</sup> percentile (median) would remain unchanged; while homes in the bottom 25th percentile would see a 50 percent reduction in the rate.

Table 2. Proposed Scaled Documentary Transfer Tax Structures per \$1,000 of Sales Value

Quartile	Price Bracket*	Current Rate	Proposed Flat Rate/\$1,000	Proposed Tiered Rate/\$1,000
25% or less	\$255,000 or less	\$4.50 (0.45%)	\$9.00 (0.9%)	\$2.25 (0.225%)
25% to 50%	Over \$255,000 to \$365,000	"	"	\$4.50
50% to 75%	Over \$365,000 to \$585,000	"	"	\$6.75
75% or more	Over \$585,000	"	"	\$9.00 (0.9%)

\*Price brackets determined using current City sales data from the Los Angeles County Assessor. Median price of \$365,000 is equivalent to the 50<sup>th</sup> percentile.

To analyze the resulting impact to home sales and resulting revenue from both proposals, the consultant, Beacon Economics, conducted a literature review of previous research on transfer tax increases and constructed its own empirical model to approximate how the tax is assessed within the City. The consultant reported that empirical work on the subject was scant and that the circumstances of the studied transfer tax increases were not analogous to those of the City. Specifically, research identified a negative impact (declining sales volume) in markets where buyers pay half or all of the transfer tax, whereas the tax in California is typically paid by the seller. Additionally, the declining volume might be attributed to the "shock" of a new tax when previously there had been none, the acceleration of sales within a short period immediately preceding and following a rate increase, or the larger impact of the real estate market collapse.

To analyze the potential impact of a transfer tax increase in the City where the seller typically pays, the consultant identified seven other California cities that increased their rates. Data from these cities was studied to infer the likely effect of an increase in Los Angeles. When controlling for economic (e.g. employment growth/unemployment rate) or real estate market conditions, no significant impacts on either volume of sales or prices after the change in tax rates were found. Only when there was no attempt to control for these variables were declining sales observed.

#### Projected Revenue

Although the consultant concluded that the likely effects of the proposed transfer tax system in the City would not result in a reduction in home sales, in consideration of the literature review findings, the analysis of both proposed transfer tax increases include the possible impact to sales. The consultant projects that the implementation of a tiered transfer tax system would generate between \$76.1 million and \$82.4 million per year in additional revenues, while reducing property sales by an estimated 283 transactions per year (1 percent), while a flat increase would generate between \$95.3 million and \$103.2 million per year in additional revenues, with sales declining by an estimated 1,070 transactions (3.8 percent). The projected revenue with and without the sales effect and the impact to revenue and sales in the proposed price brackets are summarized below.

Table 3. Total Revenue for Flat and Tiered Rates with and without Sales Effects

	FY12 Actuals	Tiered Rate		Flat Rate	
		With Sales Effects	No Sales Effects	With Sales Effects	No Sales Effects
Total Revenues	\$103.2M	\$182.6M	\$185.7M	\$206.0M	\$206.5M
Transactions	28,013	27,730		26,943	
Additional Revenues		\$76.1M	\$82.4M	\$95.3M	\$103.2M
Change in Transactions		-283		-1,070	

\*Estimated revenue based on FY2011-12 actual revenue

Table 4. Breakdown of Revenue for Flat and Tiered Rates with Additive or Subtractive Sales Effects

	Sales Price				
	<=\$255K	>\$255K to \$365K	>\$365K to \$585K	>\$585K	All Sales
FY11-12 Revenues	\$5.4M	\$7.8M	\$9.8M	\$80.2M	\$103.2M
FY11-12 Transactions	7,957	6,711	5,608	7,737	28,013
<i>Flat Transfer Tax Rate</i>					
Change in Revenues	\$5.0M	\$7.2M	\$9.0M	\$74.1M	\$95.3M
Change in Transactions	-304	-256	-214	-296	-1,070
<i>Tiered Transfer Tax System</i>					
Change in Revenues	-\$2.7M	\$0	\$4.6M	\$74.1M	\$76.1M
Change in Transactions	107	0	-95	-296	-283

\*Estimated revenue based on FY2011-12 actual revenue

#### Documentary Transfer Tax Criticism and Recommendations

Prior City actions to address the structural deficit have allowed the City to reduce the projected budget gap from \$1.1 billion (as projected in January 2010) to \$216 million for fiscal year 2013-14. The City has largely exhausted its workable solutions to address the structural deficit, and a permanent solution is required to maintain City services for those who live in, do business in, or visit our City. Restoring lost revenue will allow the City to fund basic City services, including providing a mechanism for funding public infrastructure projects.

The proposed tax has been criticized by the real estate industry for its volatility and its burden on a small fraction of City residents, specifically those completing home sales. The Office of the CAO has met with industry representatives to discuss the proposed changes and to solicit input. With regards to specific criticisms, the revenue source's volatility is addressed in the proposed recommendations to use revenues above base for one-time expenditures, as discussed below. While the documentary transfer tax may not place an equal burden on every City taxpayer, a tiered tax structure would better distribute the burden according to ability to pay. Additionally, the transfer tax is part of balanced approach to City revenue which includes property, sales, business, utility, hotel and parking tax.

In order to maximize revenue with minimal impact to sales, it is recommended that the City implement a tiered documentary transfer tax structure with price brackets based on the quartiles of single family home sales. This resulting rate structure reduces the transfer tax rate on the lowest priced homes sales and relegates the full proposed rate increase to homes in the upper

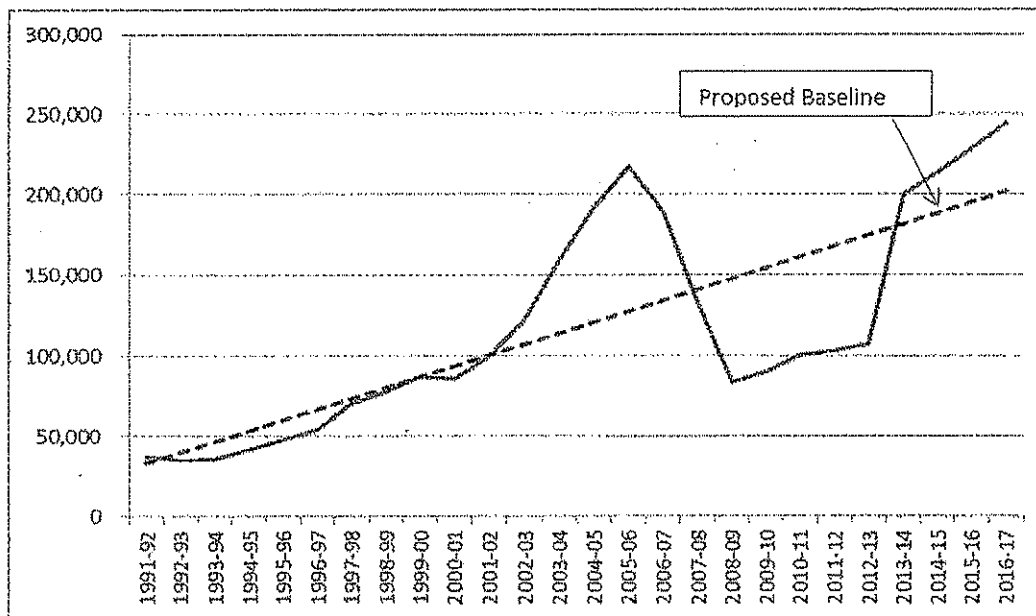
75 percent of home prices. To address bracket creep, the ballot measure should include language for the quartile brackets to be recalculated annually. The calculation may be based on Los Angeles County sales data or an established index, such as the S&P/Case-Shiller Los Angeles Home Price Index which measures the average change in value of residential real estate in the Los Angeles–Long Beach–Santa Ana Metropolitan Statistical Area.

A general tax measure, such as this, requires 50 percent plus one vote of the electorate to pass, and the resulting revenue would be deposited directly within the General Fund to address the City's greatest needs. Tax measures which are designated for specific purposes would require a two-thirds approval rate for passage. Council should review its available options for revenue opportunities to identify those that align best with the City's priorities and those that significantly reduce the General Fund structural deficit.

#### Revenue and Budget Stabilization Fund Recommendations

Because transfer tax revenue—a product of the number of sales and the home sale value—is collected only at the time of the sales transactions, it is more vulnerable to a volatile real estate market than property tax. For this reason, revenue from the tax increased sharply with the real estate boom and plummeted with property tax with the collapse of the market. Revenue has been gradually increasing as home values have stabilized and the number of sales has increased; however, it is 50 percent below the peak of \$217 million received in fiscal year 2005-06.

Chart 1. Documentary Transfer Tax Annual Receipts (\$ thousands)



It is recommended that any revenue above the proposed documentary transfer tax base—\$180 million estimated for 2013-14 based on the linear trend of receipts since 1992 and projected receipts after the tax increase—be deposited in the City's Budget Stabilization Fund to be used to fund one-time expenditures, such as capital improvement projects or large court settlements. This proposed practice should be part of the larger budget stabilization fund policy,

wherein past receipts and current revenue trends are analyzed to determine a baseline revenue growth rate for all General Fund revenues. Any receipts that exceed this baseline growth may then be deposited in the Budget Stabilization Fund to address one-time expenditures or to provide a source of funds in times of declining revenue.

### **Recommendations**

1. Request that the City Attorney, with the assistance of the Chief Legislative Analyst and the City Administrative Officer, to prepare the necessary Ordinance and Resolution to place a tiered-rate Documentary Transfer Tax measure on the March 5, 2013 Primary Nominating City Election ballot; said documents to be transmitted no later than November 6, 2012;
2. Instruct the City Clerk, upon submission of the ordinance and resolution, to place them on the next available Council Agenda for consideration on or before November 13, 2012, and,
3. Instruct the Offices of the Chief Legislative Analyst and City Administrative Officer to finalize a Budget Stabilization Fund policy and report to Council with funding recommendations.

### **Fiscal Impact Statement**

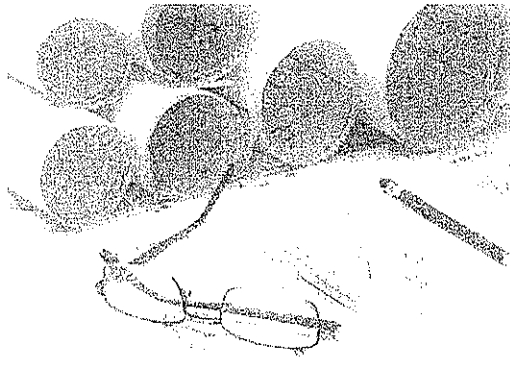
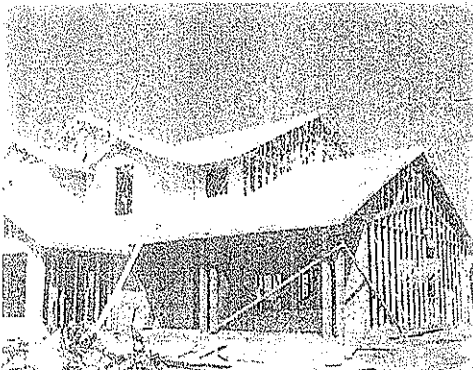
Approval of proposed tiered rate documentary transfer tax structure by Los Angeles City voters will generate approximately \$76 million to \$82 million in General Fund revenues and would reduce the structural deficit in outgoing years. The cost for putting a measure on the City Primary Nominating election ballot is included in the budgeted funds of the City Clerk.

*MAS:RPC:BC/MCK: 01130041*

Attachment

# Transfer Taxes in the City of Los Angeles

An Empirical Economic Analysis, October 2012



BEACON ECONOMICS

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## Executive Summary

Beacon Economics has conducted an analysis of the potential impacts to both local government revenues and the local real estate market as a result of increasing the documentary transfer tax in the City of Los Angeles. Additionally, the analysis estimates the impact of a proposed documentary transfer tax structure that would double the tax only for those sales where the sales price is at or above the 75th percentile of home sales, with a 50% reduction in the rate for the lower priced homes (bottom 25% of home sales), no change for other sales below the median, and a 50% increase for sales between the 50th and 75th percentile.

Based upon a review of the existing literature, a case study of the past experience of California cities that have raised the transfer tax rate, and some basic calculations on the revenue impacts that result, Beacon Economics concludes the following:

- To date, the empirical work done on this specific subject is scant.
- Most research finds a negative impact associated with enacting or raising a transfer tax rate at the local level, but these studies are not analogous to the Los Angeles case as sellers in Los Angeles are responsible for the transfer tax as opposed to cases in Toronto and elsewhere where buyers are responsible for transfer taxes.
- Beacon Economic constructed its own empirical model based upon standard econometric techniques that shows no statistically significant impact on either home sales or home prices as a result of changes in transfer tax rates.
- In one special case, which relies on an overly simplified model specification, we can uncover some negative effects on sales, however these effects disappear when controlling for broader economic conditions.

Using data from the Los Angeles County Assessor's Office, which was scaled to equal the 2011-12 documentary transfer tax revenues reported by the City Controller, Beacon Economics concludes that if implemented, the proposed tiered transfer tax system would have lowered transfer taxes on more than 50% of the market in 2011-12, saving Angelinos selling the most inexpensive properties almost \$2.7 million. In addition, roughly 6,700 Angelinos would be completely unaffected by the proposed system, which leaves transfer tax rates unchanged up to the median price. Only properties selling for more than the median price (less than 50% of transactions in 2011-12) would see transfer taxes increase due to the tiered system.

If the proposed changes to the transfer tax rate are implemented on a tiered basis, this would help the City of Los Angeles generate between \$76.1 million and \$82.4 million per year in additional revenues, while reducing property sales by 283 transactions per year. If implemented on a flat-rate basis, where transfer taxes increase to \$9.00 per \$1,000 in value for all transactions, the City of Los Angeles can expect to generate between \$95.3 million and \$103.2 million per year in additional revenues, though sales could fall by as much as 1,070 per year.

**Revenue Impacts of Changes to Transfer Taxes****City of Los Angeles, FY 2011-12**

Indicator	Sales Price				All Property Sales
	25% or Less	25% to 50%	50% to 75%	75% or More	
Tiered Transfer Tax System					
Actual Revenues (FY11-12)	5,395,303	7,814,983	9,786,358	80,240,253	103,236,896
FY11-12 Transactions	7,957	6,711	5,608	7,737	28,013
Tiered System - No Sales Effects					
Change in Revenues	-2,697,652	0	4,893,179	80,240,256	<u>82,435,784</u>
Tiered System - w/Sales Effects					
Change in Revenues	-2,661,233	0	4,645,094	74,109,896	<u>76,093,760</u>
Change in Transactions	107	0	-95	-296	<u>-283</u>
Flat Transfer Tax Rate					
Flat System - No Sales Effects					
Change in Revenues	5,395,303	7,814,984	9,786,358	80,240,256	<u>103,236,904</u>
Flat System - w/Sales Effects					
Change in Revenues	4,983,102	7,217,919	9,038,680	74,109,896	<u>95,349,600</u>
Change in Transactions	-304	-256	-214	-296	<u>-1,070</u>

Source: Los Angeles County Assessor's Office, Calculations by Beacon Economics

## Overview

Beacon Economics has been contracted by the City of Los Angeles' City Administrator's Office to estimate the market impact of an increase in the City's document transfer tax. The following study includes a review of the existing literature on the impacts of transfer taxes on asset values, with particular attention paid to how they affect real estate markets. This analysis lays out the major conclusions of the empirical work done to date by other economists as well as the various costs associated with purchasing a home so that the transfer tax can be viewed in the broader context of overall costs.

Beacon Economics also lays out the theoretical effect of transfer taxes on an economy, including a discussion of the implications of who pays the tax (buyers or sellers). Since the literature is somewhat mixed on the true implications of transfer taxes, this study examines both the positive and negative conclusions asserted in the empirical works and presents an analysis of the veracity of each methodology and conclusion.

In addition to reviewing relevant literature on transfer tax studies, Beacon Economics has conducted its own case studies to determine the likely impact of the proposed increase to transfer taxes in the City of Los Angeles. Using data on home prices and sales in a variety of cities in California, a model was constructed to estimate the effect of an increase in transfer taxes on both transactions (home sales) as well as asset prices (home prices). To do this, Beacon Economics utilized a difference-in-difference model where changes in home prices and sales in a city that has recently increased their transfer tax rate are modeled as a function of market-related changes in prices and sales, as measured by broader trends in neighboring communities. Then, this model is confronted with a change in the local transfer tax rate to determine the effect of the tax rate on prices and sales above and beyond what could have been expected as a result of market conditions.

Finally, this study includes an estimate of the revenue impacts of the proposed increase to the City's transfer tax rate. This analysis includes two scenarios including one with and one without an impact on sales as a result of the change. This study also includes an analysis of two separate types of transfer tax rate systems: one where the transfer tax rate is increased uniformly from \$4.50 per \$1,000 in value to \$9.00 per \$1,000 in value for all property transactions, and another where the transfer tax rate is implemented on a tiered basis in relation to the overall transaction value. Specifically, a tiered transfer tax system in the City of Los Angeles would change the existing transfer tax to a graduated system similar to the one recently enacted in the City of San Francisco.

The graduated approach to transfer taxes would not raise transfer taxes on all residents in the City of Los Angeles. In fact, in the tax structure under consideration, the bottom 25% of home sales (as measured by price) would see their transfer tax rates fall by half (to \$2.25 per \$1,000), while homes in the 25th to 50th percentiles would see transfer tax rates remain unchanged at \$4.50 per \$1,000. Homes selling in the 50th to 75th percentile would see transfer tax rates increase by 50% (to \$6.75 per \$1,000 in value), and transfer taxes for homes in the 75th percentile or above would double to \$9.00 per \$1,000 in home value. Using transaction data for the City of Los Angeles for fiscal years 2010-11 and 2011-12, Beacon Economics compares the current transfer tax system revenues with those of the proposed flat and tiered tax rate increases to derive the expected revenue effects of each system.

In the report that follows, Beacon Economics presents the conclusions of its review of the existing empirical work, the results of our case study of the effects of transfer taxes on home prices and sales, and the potential revenue impacts of a change in the transfer tax rate in the City of Los Angeles.

## Literature Review

Some studies on the economic impact of transfer taxes suggest that an increase in, or the implementation of, these taxes negatively impact the real estate market. However, Beacon Economics feels that these studies do not suitably apply to the Los Angeles real estate market in their specifics. By adjusting the assumptions in these studies to fit the Los Angeles market, we find that the authors' results ultimately prove inconclusive. It is also worth noting that transfer taxes apply to commercial as well as residential real estate transactions. However, the existing literature has focused almost exclusively on the implications of transfer tax rates on the local property market. Still, given that commercial transactions are far less frequent (of the 28,013 transactions that were reviewed in the City of Los Angeles for fiscal year 2011-12, 24,695 or 88.2% were residential transactions), these papers do address the bulk of the transfer tax base in their analysis.

Dachis et al. (2012) examine the Toronto real estate market after the enactment of a 1.1% real estate transfer tax. Although the authors find evidence that the tax reduces real estate transaction volume, two facts are crucial. First, the City of Toronto did not levy a property transfer tax prior to the ordinance, which means it was a shock to the system rather than an adjustment of an established policy. Second, and more importantly, homebuyers are required by law to pay the tax. In contrast, in the City of Los Angeles, a documentary transfer tax has been in existence for some time, and the tax is paid by home sellers.

These distinctions have important implications for the effects of the tax. Because sellers pay the tax, they have the ability to pass the full cost of the tax onto the buyer by raising home prices. In the event that the seller raises the price of a home to account for the cost of the tax, the buyer will pay that premium over the life of a mortgage. On the other hand, if the buyer is required to pay the tax, the buyer may be forced to pay the entire tax upfront. Thus, a transfer tax paid by home sellers would amount to a few more dollars per month on homebuyers' mortgage payments, while a transfer tax paid by homebuyers would amount to a few thousand dollars in additional costs at signing. The former scenario will likely have little or no impact on a homebuyer's decision-making, while the latter scenario may have a substantial impact.

Hilber et al. (2012) examine the relationship between a real estate stamp duty and household mobility in the United Kingdom, finding evidence of a significant decline in household mobility following the enactment of the duty, which then translates into lower transaction volume. Again, the findings come into question if we slightly adjust the variables and assumptions in the study to present a realistic scenario for the City of Los Angeles. Similar to the transfer tax in Toronto, in the United Kingdom the buyer is responsible for paying this duty. As mentioned above, the buyer might be responsible to pay the tax upfront, which could potentially alter purchasing decisions. Furthermore, the authors limit their analysis to a very specific upper boundary on real estate prices (250,000 GBP). If the price crosses this level, stamp duty triples. It is understandable that the buyer would opt for a house that is just below 250,000 GBP or not move. Therefore, if the tax in the City of Los Angeles increased for the entire market, the effect could be different. However, in Los Angeles, sellers are responsible for the transfer tax rate. Thus, strategic issues are of less concern as the tax will not impact buyers in the same way. Sellers may pass on the cost of the tax increase to buyers, but buyers will not have the same motivation to offer a price just under the next bracket that they would face if they were responsible for the transfer tax payment directly.

In one of the first studies on the economic impact of a citywide transfer tax, Benjamin et al. 1993 find that following the enactment of the tax, housing prices in Philadelphia fell by slightly more than the cost of the transfer. This study

assumes that the seller and the buyer split the tax burden and the seller absorbs the additional cost of the tax by lowering the sale price. Once more, changing the assumptions in the study could substantially change its results.

It appears that the empirical work reviewed in the summary and the existing literature all point to the same direction: there could potentially be a negative effect on real estate markets with higher documentary transfer taxes. However, Beacon Economics does not feel the studies are necessarily applicable to the City of Los Angeles real estate market. Mainly, in the highly competitive City of Los Angeles real estate market the seller is responsible for the transfer tax, which is a different assumption from the empirical work reviewed.

Much of the existing literature on the impact of transfer taxes suggests that an increase in, or implementation of, these taxes has a negative impact on consumer demand. While the methodologies of these studies are generally sound, there are reasons to doubt the applicability of their findings to the City of Los Angeles' economy. First, and most importantly, the processes by which these taxes are paid in the given regions of study vary from the process by which the City of Los Angeles levies its transfer tax. For instance, some of the transfer taxes in the regions of study were new, and many were paid by homebuyers, rather than home sellers—a fact that has real impacts on the strategic behavior of buyers and sellers, and ultimately on the decision whether to buy or sell or not.

***David Nowlan - Economic Implications of the Proposed City of Toronto Land Transfer Tax - 2007***

In this study, Nowlan speculates on the likely outcomes of the transfer tax in the City of Toronto. Since this was an impact study, instead of an empirical paper, the author examined various scenarios for elasticities of demand and of supply. He claims that transfer taxes could potentially pressure the real estate sector to reduce their transaction commissions to absorb the increased cost for the buyers and sellers. Alternatively, though, he claims that the transfer tax potentially could lead to lower property taxes and, in Toronto's case, improved municipal services. In these ways, a transfer tax serves as a benefit to all residents.

Nowlan also estimates the impact of the tax on volume. He claims that the effect would be small because the cost of the tax itself is small, relative to the total cost of buying and selling a home (assuming the buyer and the seller share the burden of the tax). Nowlan estimates that if homebuyers and home sellers share the tax, the total volume of home sales would decrease by 8%-19% of the tax increase. For example, since the new tax is 1.25% of sales price, the transaction volume would decrease by between 0.11% and 0.24%, which appears very negligible.

***Ben Dachis, Gilles Duranton, and Matthew A. Turner - The Effects of Land Transfer Taxes on Real Estate Markets: Evidence from a Natural Experiment in Toronto - 2012***

In 2008, Toronto levied a 1.1% citywide real estate transfer tax on homebuyers. Prior to 2008, Toronto homebuyers paid no transfer tax. Dachis et al. use MLS data from nearly 140,000 transactions in Toronto and its suburbs to determine the impact of the tax on real estate transactions. They limit their study to single-family homes, controlling for variables such as heating in the home; garages; basements; numbers of stories, bedrooms, bathrooms, kitchens, and fireplaces; square feet and lot size.

The authors use a difference-in-differences estimation to compare the change in transaction volume in Toronto and the suburbs before and after the new tax, and they find that Toronto's tax decreased the volume of real estate transactions by approximately 14%. They also find that the tax was fully passed on to the price of homes on the market. Importantly, this study only looked at a 1-year period: 6-months prior to implementation and the subsequent 6-month period after implementation, meaning that the authors were not concerned with long-run effects.

***Christian Hilber and Teemu Lyytiakainen - Stamp Duty and Household Mobility: Regression Discontinuity Evidence from the UK - 2012***

Hilber et al. examine the impact of a stamp duty on real estate transactions in the United Kingdom. Stamp duty on real estate transactions is what we refer to as a documentary transfer tax. The main difference is that stamp duty is levied by the Federal government, while in the United States, state and local governments enact the documentary transfer tax and collect the revenues. In addition, in the United Kingdom the buyer is required by law to pay the tax.

Because the United Kingdom has a five-tiered transaction tax bracket, and because the stamp duty liability for buyers triples for the purchase of homes of 250,000 GBP or higher, the authors limit their analysis to the sale of U.K. homes of 250,000 GBP or less. Narrowing their focus to the impact of the U.K. stamp duty on household mobility, the authors find evidence that a 5,000 GBP increase in transfer taxes reduces mobility by approximately 30%. They also suggest that a reduction in mobility could potentially be interpreted as a reduction in transaction volume.

***Jos Van Ommeren and Michiel Van Leuvensteijn - New Evidence on the Effects of Transaction Costs on Residential Mobility - 2005***

Like the study by Hilber et al., in this study, the authors examine the impact of transaction costs on a homeowner's residential mobility. These transaction costs include capital gain taxes, sales taxes, documentary transfer tax, broker fees, as well as mortgage fees. Data for this study come from Income Panel Research, a sample of 75,000 Dutch households analyzed annually by the tax authority from 1990 to 1997. For the authors, "mobility" is defined as an address change—approximately 16,000 observations fit this criterion. The authors then follow this subsample from their first move until their next move. The authors use the time difference between moves as a proxy for household mobility.

The authors measure the effect of transaction costs using the estimated effect of the current property value on the moving rate to ownership, as well as the relationship between the current and next property value. They ultimately conclude that a 1% increase in transaction costs decreases household mobility by 8%.

These studies suggest that an increase in, or implementation of, a transfer tax reduces the overall volume of home sales.

***Donald Jud - Economic Analysis of the Real Estate Transfer Tax in North Carolina - 2009***

In his study, Donald Jud tests the impact of a 1% transfer tax in six North Carolina counties on home sales in those areas. He employs a simple cross-sectional regression model, examining the increases and decreases in the total value of transactions following implementation of the transfer taxes. He concludes that a 0.4% transfer tax reduces transaction volume by 14.1%.

Yet, because Jud looks into transaction volumes from 2002 to 2007, the real estate market collapse, rather than the transfer tax, may have been the underlying reason why he observes these transaction volumes decreasing by so much. He also fails to specify his control groups, seriously calling his findings into question.

A more valuable study for assessing the impact of an increase in the transfer tax rate in the City of Los Angeles would examine the effects of a transfer tax on a U.S. major metropolitan area comparable to the City of Los Angeles. Indeed, a study by Benjamin et al. on the economic effects of the Philadelphia real estate transfer tax provides very useful insights.

*John Benjamin, Edward Coulson, and Shiawee Yang - Real Estate Transfer Taxes and Property Values: The Philadelphia Story - 1993*

In this study, Benjamin et al. examine the economic impact of the 1988 increase in Philadelphia's real estate transfer tax rate from 3.5% (including a 1% Pennsylvania state tax) to 5.07%. The authors assume that the housing supply is inelastic and that the tax is equally split between the buyer and the seller. Under this scenario, the seller will not only absorb his own cost of taxation, but will also lower the sale price of a home to absorb the buyer's cost of taxation. The authors are in fact testing whether the change in the tax rate caused a proportional decrease in home prices using regression that included dummy variables for location and time. For example, dummy variable for location equals 1 if the home is located in Philadelphia, zero otherwise. On a similar note, time dummy variable equals zero if the transaction occurred after the higher tax, zero otherwise. They ultimately conclude that following the enactment of the tax, housing prices in Philadelphia fell by slightly more than the cost of the transfer tax, in the short run. Although somewhat counter-intuitive, the author surmises that a disproportional decrease in home prices is the result of market imperfections.

Homebuyers and home sellers face a number of upfront costs in the completion of a sale. Although most contracts are negotiable, in the City of Los Angeles the buyer is responsible for a portion of escrow fees, title insurance, loan fees (which are usually 1%-2% of purchase price), messenger fees, notary fees, appraisal fees, credit report fees, and inspection costs, which together can add up to a few percent of the purchase price. On the other hand, the seller is usually responsible for a portion of escrow fees, transfer taxes, commissions, termite report, various compliance fees (water conservation, glass, smoke detectors, water heater), title insurance, and negotiated repairs. The seller's closing costs are usually higher than buyer's, and generally range between 7% and 8%. In that light, the proposed transfer tax rate increase of 0.45 percentage points seems negligible, considering the total closing costs for a seller in the City of Los Angeles real estate market.

The empirical evidence from the studies above regarding the effect of the transfer tax on the real estate market points to the same conclusion: the transfer tax could potentially have a negative effect on the real estate market. However, Beacon Economics feels that this conclusion is not applicable to the City of Los Angeles market. First, the findings of these studies could change substantially if the responsibility for the tax is placed on the seller, as in the City of Los Angeles, rather than the buyer. Second, the magnitude of the tax increase plays a significant role in buying decisions and asset prices. Finally, the state of the local real estate market is too crucial a factor in the overall volume of home sales to be ignored in a cross-regional comparison.

Beacon Economics feels that from a seller's perspective, the increase in the transfer tax is likely negligible relative to the total closing cost of a real estate transaction. Therefore, Beacon Economics does not expect the increase in the documentary transfer tax to have a significant effect on transaction volume or home prices.

## Case Studies - Effects on Prices and Sales

In order to understand the effects of potential increases to the transfer tax rate in the City of Los Angeles, Beacon Economics undertook an empirical case study to quantify the implications of the proposed tiered transfer tax system on home prices and sales in the City of Los Angeles. Fortunately, several cities within California have instituted changes in their transfer tax rates, which can be used as test cases to determine the effects these policies had on real estate in



those cities. This analysis allows Beacon Economics to infer the likely impact on sales and prices that can be expected in the City of Los Angeles based upon the past experience of cities that have increased their transfer tax rates, as well as the magnitude of the proposed increase in the City of Los Angeles.

Theoretically, the effect on prices will be small or even positive. Given that sellers are responsible for paying the transfer tax, if there was an effect on sales prices, it would likely be to increase them. This is due to the fact that a seller typically has a price that they'd like receive, and if their transaction costs increase, they are likely to build the higher costs into their selling price to offset the tax payment. From a theoretical standpoint, there is no reason why an increase in seller costs would reduce the asking prices of homes in response to a cost increase.

There is a theoretical rationale why there might be fewer sales as a result of increased transfer taxes. To the extent that sellers cannot increase their sales prices by a corresponding amount, some may decide to stay put rather than accept a reduction to their net proceeds. However, this becomes an empirical question that requires investigation. Just because something is theoretically possible does not mean that it is likely or that it is observed in actual experience. And, as noted, relative to the overall 8% in seller costs associated with selling property, an increase in the transfer tax rate by 0.45 percentage points is relatively small on the whole.

**Table 1: Cities with Changes in Transfer Taxes**  
**\$ Dollars per \$1,000 in Value**

City	Initial Rate	New Rate	Effective Date
Palo Alto	\$0.00	\$3.30	Feb-92
San Leandro	\$2.00	\$6.00	May-93
Oakland	\$12.50	\$15.00	Aug-93
Albany	\$8.50	\$11.50	Jan-03
Lake Forest	\$0.00	\$4.00	Jul-06
Alameda	\$5.40	\$12.00	Dec-08
San Francisco	*	*	Dec-10

Source: Beacon Economics

Note: San Francisco switched to a tiered system in 2010

In fact, Beacon Economics' review of data from 7 cities in California that have made changes to their transfer tax rates over the past few decades, shows no significant impact on either sales or prices after a change in transfer tax rates. Several cities in California have increased transfer tax rates in recent history. These include Palo Alto, San Leandro, Oakland, Albany, Lake Forest, Alameda, and most recently, San Francisco.

Importantly, most of these cities enacted across-the-board increases in transfer tax rates, meaning that the increase in transfer taxes applied equally to homes and commercial property regardless of the value of that property. Of the cases considered here, only San Francisco implemented a tiered transfer tax system such as the one being contemplated in the City of Los Angeles. This is an important point because these transfer tax rate changes likely had a larger effect that can be expected in the City of Los Angeles where some sellers will see transfer tax rates increase while others will see transfer tax rates remain unchanged or decrease.

Using a difference-in-differences model, where changes in home prices and sales are compared against changes in prices and sales in a comparable city that has not altered its transfer tax rate, Beacon Economics has parsed out the impact on prices and sales resulting from the transfer tax rate change above and beyond broader market and economic conditions. In addition to controlling for broader real estate market conditions as proxied by other nearby cities, Beacon Economics also controlled for economic factors such as employment growth/unemployment rates.

Using this methodology in a cross-section, time-series (panel) econometric context, Beacon Economics estimated the effect of increases in transfer tax rates on both home prices and sales. In the price model, there were no discernible effects of increases in transfer tax rates. Specifically, coefficients on transfer tax rates (which measure the likely impact), were not statistically significant at any conventional level of confidence. In fact, in some of the specifications, the impacts of transfer tax rates on median selling prices was marginally positive, though statistically insignificant. This corroborates the theoretical view that transfer tax rates paid by sellers will not ultimately reduce home prices and may even put upward pressure on prices as sellers attempt to build-in the cost of the higher transfer taxes.

Beacon Economics also ran a variety of regression models to predict the effects of transfer tax rates on home sales in these cities. In virtually all the model specifications, there was no discernible, statistically significant impact on home sales in response to changes in transfer tax rates. This is true in either direction: increasing sales or decreasing sales—transfer tax rates had no statistical effect on quarterly home sales after a change in tax rates. In fact, Beacon Economics was able to find a small, significant, and negative effect on home sales in only one specification, where there was no attempt to control for broader economic conditions or changes in the real estate market. In other words, all market movements were attributed to changes in tax rates rather than on a variety of factors including labor market and real estate trends in the region in addition to the transfer tax rate.

Specifically, when modeling sales as a function of sales in a nearby comparison city and the transfer tax rate, Beacon Economics finds a statistically significant coefficient on transfer tax rates of -0.06716 on the transfer tax rate. Thus, in the context of the proposed changes to the transfer tax system, this would result in a roughly 3.82% reduction in sales for homes in the upper price brackets, and a 1.69% reduction in sales for homes in the 50th to 75th percentile, as measured by price.

Again, it is critical to stress that this result is based upon an overly simplified model specification that does not account for changes in broader economic conditions. However, given that some of the empirical work in this area has revealed negative effects of transfer taxes on property sales (primarily in cases where buyers were responsible for the transfer tax), Beacon Economic has included this result as a potential outcome for illustrative purposes.

It is still Beacon Economics' conclusion that the likely effects of the proposed transfer tax system in the City of Los Angeles would not result in a reduction in home sales.

In addition, it is important to point out that under the proposed system, the implications of this model are that sales would actually increase for lower priced homes in the City of Los Angeles. Given that the transfer tax structure for properties that are up to the 25th percentile in terms of value would actually see their transfer tax rates fall by half and another 25% of homes would see transfer tax rates remain unchanged.

**Table 2: City of Los Angeles Transfer Tax Rates**

**% per \$1,000 in Value**

Price Bracket	Current Rate	Proposed Rate	Difference	Sales Change (%)
255,000 or Less	0.450	0.225	-0.225	1.353
255,000 to 365,000	0.450	0.450	0.000	0.000
365,000 to 585,000	0.450	0.675	0.225	-1.695
Over 585,000	0.450	0.900	0.450	-3.817

Source: Beacon Economics

Based upon these empirical findings, the existing literature review, and the fact that transfer taxes represent a relatively small share of the overall costs of selling a home, Beacon Economics is confident that the effect of the proposed system of transfer taxes will have no significant impact on home prices, and the analysis of the outcomes in seven cities across California that have augmented their transfer tax system shows that the likely effect of the proposed system on sales would be minimal.

### Revenue Impacts - Tiered System

Using individual transaction data for all property transfers in the City of Los Angeles for the fiscal years 2010-11 and 2011-12, Beacon Economics has calculated the potential revenue effects of both a flat and a tiered system of transfer tax revenues. This data comes from the Los Angeles County Assessor's Office, and was scaled to equal the 2011-12 documentary transfer tax revenues reported by the City Controller. Based upon the empirical analysis described herein, Beacon Economics' baseline scenario calculates the effect on revenues of the proposed transfer tax systems assuming no impact on property sales. However, the analysis also presents the expected revenues under the assumption that there is some impact to sales along the lines described in the Case Study.

**Table 3: FY2011-12 Property Sales by Price Bracket  
Based on FY2010-11 Percentiles**

Bracket	Property Sales
255,000 or Less	7,957
255,000 to 365,000	6,711
365,000 to 585,000	5,608
Over 585,000	7,737
Total	28,013

Source: Calculations by Beacon Economics

Firstly, the City of Los Angeles is evaluating a move from the flat \$4.50 per \$1,000 in property value to either a flat \$9.00 per \$1,000 in value for all transactions or a graduated system similar to the one recently enacted in San Francisco. Specifically, under the graduated approach to transfer taxes, the bottom 25% of home sales (as measured by price) would see their transfer tax rates fall by half (to \$2.25 per \$1,000), while homes in the 25th to 50th percentiles would see transfer tax rates remain unchanged at \$4.50 per \$1,000. Homes selling in the 50th to 75th percentile would see transfer tax rates increase by 50% (to \$6.75 per \$1,000 in value), while transfer taxes for homes in the 75th percentile or above would double to \$9.00 per \$1,000 in home value.

In order to implement this system, Beacon Economics used the previous fiscal year to establish the various percentiles of prices in the City of Los Angeles to determine the cut-off points for each group. In this case, fiscal year 2010-11 was used to establish the 25th, 50th, and 75th percentiles of home prices. These thresholds were based upon single-family residential homes and then applied to all property transactions in the City of Los Angeles. Using data from the County of Los Angeles on property sales in the City of Los Angeles, it was determined that 25% of homes sold for \$255,000 or less; 50% of homes sold for a price of \$365,000 or less; and 75% of homes sold for \$585,000 or less.

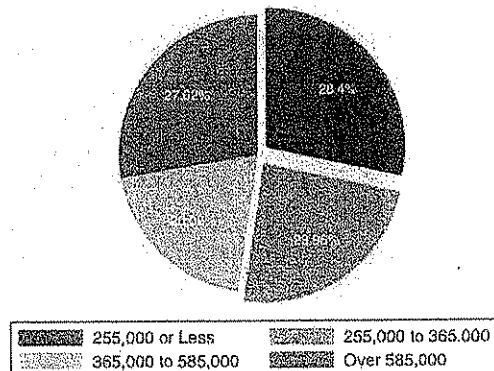
According to this database, there were approximately 28,000 property transactions during fiscal year 2011-12. Of those, roughly 7,960 were for properties selling for \$255,000 or less. Another 6,700 were properties that sold for less than \$365,000. A total of 5,600 properties sold for between \$365,000 and \$585,000, while roughly 7,700 sold for a price that was higher than \$585,000. Thus, under the proposed tiered system, the transfer tax rate would either fall

(0-25th percentile) or remain unchanged (25th-50th percentile). Only properties that sold for more than the median home price would see transfer tax rates increase. In other words, based upon the 2010-11 single-family residential sales prices, just over 28% of property sellers in 2011-12 would have seen a reduction in transfer taxes as a result of the system under evaluation by the City of Los Angeles. Another 24% would have remained unaffected by the proposed system. Overall, more than 52% (14,600) would have felt no effect from the change or would have been better off under the tiered system. Under the flat-tax system, all 28,000 transactions would see an increase in transfer tax rates.

As noted, although the model specification was overly simple, Beacon Economics has considered the impact of transfer taxes on the volume of transactions. If property sales are negatively affected by increasing transfer taxes, home sales for the top price brackets would decrease, while sales of lower-priced properties would increase under the tiered system of transfer taxes. Under this scenario, the share of sellers that are better off or unaffected increases to over 53% as the proposed system incentivizes more sales at the lower end of the price spectrum, while reducing them at the upper end. Under the flat \$9.00 rate, transactions would fall in each price bracket by roughly 3.8%.

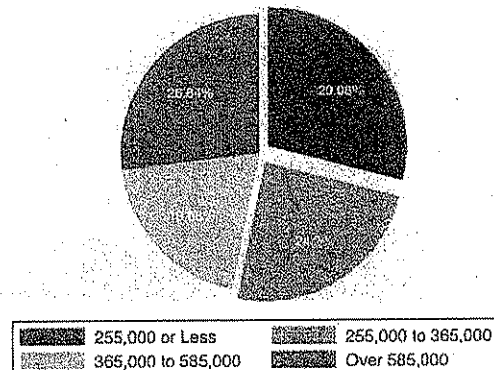
Table 4 presents the number of property sales that were actually observed in fiscal year 2011-12 in the City of Los Angeles, as well as the home sales that could be expected under the proposed, tiered- and flat \$9.00-transfer tax systems. Again, most of the empirical models yielded no effect on sales as a result of increased transfer tax rates, so this is presented as one possible outcome under each system. However, if sales are affected by changes in transfer tax rates as specified by the overly simplified model, property transactions would increase in some price brackets and decrease in others under the tiered system while falling across the board under the flat \$9.00 system. Specifically, under the tiered system in 2011-12, the City of Los Angeles would have enjoyed an additional 107 sales of properties selling for under \$255,000. This would have been offset by 95 fewer property sales in the \$365,000 to \$585,000 price bracket, and 296 fewer sales of properties selling for more than \$585,000. Under the flat \$9.00 tax rate, the City of Los Angeles would have seen 1,070 fewer transactions during 2011-12.

Property Transactions by Price Bracket  
Tiered System and No Sales Effects, FY2011-12



Source: Los Angeles County Assessor's Office

Property Transactions by Price Bracket  
Tiered System with Sales Effects, FY2011-12



Source: Los Angeles County Assessor's Office

**Table 4: Transfer Tax Implications for Sales**  
**Actual vs. Proposed, Fiscal Year 2011-12**

Bracket	Actual	Tiered System		Flat Tax Rate	
	Sales	Sales	Difference	Sales	Difference
255,000 or Less	7,957	8,064	107	7,653	-304
255,000 to 365,000	6,711	6,711	0	6,455	-256
365,000 to 585,000	5,608	5,513	-95	5,394	-214
Over 585,000	7,737	7,441	-296	7,441	-296
All Properties	28,013	27,730	-283	26,943	-1,070

Source: Calculations by Beacon Economics

For the most part, these sales are predominantly residential transactions. Of the 28,013 transactions recorded during fiscal year 2011-12, nearly 24,700 (88.2%) were residential transactions. Commercial transactions accounted for 2,200 transactions last fiscal year, while industrial and agricultural property sales represented another 800 transactions. Thus, to the extent that there are sales effects, which none but the most simplistic of models can identify, residential properties would bear the brunt of the increase in transfer tax rates. Specifically, of the 283 lost transactions under the tiered tax rate system, 228 of those would result from fewer residential sales, versus 55 nonresidential transactions. Similarly, under the flat tax system, where 943 of the potential 1,070 lost transactions would be residential, with 127 fewer nonresidential sales.

**Table 5: Transfer Tax Implications for Sales by Property Type**  
**Actual vs. Proposed, Fiscal Year 2011-12**

Type	Actual	Tiered System		Flat Tax Rate	
	Sales	Sales	Difference	Sales	Difference
Residential	24,696	24,468	-228	23,753	-943
Commercial	2,186	2,146	-40	2,102	-84
Industrial	728	715	-13	700	-28
Agriculture	79	78	-1	76	-3
Other Nonresidential	324	323	-1	312	-12
Total	28,013	27,730	-283	26,943	-1,070

Source: Calculations by Beacon Economics

Using these two scenarios, no sales effect and a modest sales effect as dictated by the overly simplified empirical model, Beacon Economic has calculated the potential revenue impacts to the City of Los Angeles of implementing the tiered transfer tax system as well as the flat \$9.00 per \$1,000 in value tax rate. Under either system, the City of Los Angeles will generate significant additional revenues.

**Table 6: Revenue Impacts of Changes to Transfer Taxes**  
**City of Los Angeles, FY 2011-12**

Indicator	Sales Price				All
	\$255,000 or Less	\$255,000 to \$365,000	\$365,000 to \$585,000	Over \$585,000	Property Sales
Tiered Transfer Tax System					
Actual Revenues (FY11-12)	5,395,303	7,814,983	9,786,358	80,240,253	103,236,896
FY11-12 Transactions	7,957	6,711	5,608	7,737	28,013
Revenues (Tiered System - No Sales Effects)	2,697,652	7,814,983	14,679,536	160,480,505	185,672,672
Change in Revenues	-2,697,652	0	4,893,179	80,240,256	82,435,784
Transactions (Tiered System - No Sales Effects)	7,957	6,711	5,608	7,737	28,013
Change in Transactions	0	0	0	0	0
Revenues (Tiered System - w/Sales Effects)	2,734,070	7,814,983	14,431,452	154,350,149	179,330,656
Change in Revenues	-2,661,233	0	4,645,094	74,109,896	76,093,760
Transactions (Tiered System - w/Sales Effects)	8,064	6,711	5,513	7,441	27,730
Change in Transactions	107	0	-95	-296	-283
Flat Transfer Tax Rate					
Actual Revenues (FY11-12)	5,395,303	7,814,983	9,786,358	80,240,253	103,236,896
FY11-12 Transactions	7,957	6,711	5,608	7,737	28,013
Revenues (Flat System - No Sales Effects)	10,790,606	15,629,967	19,572,715	160,480,505	206,473,792
Change in Revenues	5,395,303	7,814,984	9,786,358	80,240,256	103,236,904
Transactions (Flat System - No Sales Effects)	7,957	6,711	5,608	7,737	28,013
Change in Transactions	0	0	0	0	0
Revenues (Flat System - w/Sales Effects)	10,378,405	15,032,902	18,825,037	154,350,149	198,586,496
Change in Revenues	4,983,102	7,217,919	9,038,680	74,109,896	95,349,600
Transactions (Flat System - w/Sales Effects)	7,653	6,455	5,394	7,441	26,943
Change in Transactions	-304	-256	-214	-296	-1,070

Source: Los Angeles County Assessor's Office. Calculations by Beacon Economics

Assuming no sales effects, the proposed tiered system would have generated an additional \$82.4 million in revenues during FY 2011-12. Properties selling up to the 25th percentile price would see a \$2.7 million reduction in transfer taxes, while properties selling at a price between the 25th and 50th percentile would see no change. Of the \$82.4 million in additional revenues, \$4.9 million would be raised from properties selling between the 50th and 75th percentiles while the remaining \$80.2 million would be raised from the higher-value properties (selling at a price greater than the 75th percentile).

Under the flat-tax system under consideration with no sales effects resulting from the tax increase, the City of Los Angeles can expect an even larger increase in revenues. Specifically, Beacon Economics estimates that the flat \$9.00 per \$1,000 would generate an additional \$103.2 million in revenues per year: \$5.4 million for the lowest 25% of transac-

tions as measured by sales price, \$7.8 million from the 25th to 50th percentile, \$9.8 from the 50th to 75th percentiles, and \$80.2 million from the largest quartile.

Assuming that there is some marginal response in sales to changes in transfer tax rates as defined by the overly simplified model, the City of Los Angeles would have still enjoyed an additional \$76.1 million in transfer tax revenues during 2011-12 under the tiered system. The bottom bracket of property prices would still enjoy a \$2.7 million reduction in transfer tax liability, though there would be slightly less savings than under a no-sales-impact scenario as more property sales would occur in this bracket due to lower transfer tax rates. The increase in transfer taxes under this tiered system would be slightly smaller in the upper price brackets as some sellers would choose not to sell as a result of higher transfer tax rates. Specifically, properties selling between the 50th and 75th percentile would see an increase in transfer taxes of \$4.6 million with the remaining \$74.1 million generated from the most expensive properties.

Similarly, under a flat-tax system with sales effects, the revenues that the City of Los Angeles can expect to generate are substantial. Although smaller than the \$103.2 million under the assumption of no sales effects, the flat tax rate would still create more than \$95.3 million in additional transfer tax revenues per year.

Overall, either the proposed tiered or flat transfer tax rate system will generate a significant amount of additional revenues for the City of Los Angeles. What's more, the empirical research and case studies conducted in connection with this analysis show that there will be little to no impact on sales. Even under an overly simplified model specification, overall home sales in the City of Los Angeles would only fall by 283 transactions per year, or less than 1% of all sales. Under a flat-tax system, the potential sales effects are larger since tax rates would increase for all properties. Although Beacon Economics is of the opinion that the sales effects are minimal, when the sales effects from the overly simplified case-study model are applied, the City of Los Angeles could see as many as 1,070 fewer transactions as a result of moving to a flat-tax system.

## Conclusions

Transfer taxes represent a vital source of revenues for the City of Los Angeles. In fiscal year 2011-12, transfer tax revenue generated more than \$100 million for the City's budget. The analysis provided here shows that there are only marginal effects on the property market from increases in the transfer tax rate. Specifically, the empirical case studies presented indicate that there is no statistically significant impact of transfer tax rates on either home price or sales at the local level. This actually makes sense in more rudimentary frameworks as well. Given that commissions, fees, closing costs, inspections, and other fees can run as much as 8% of the sales price of a property, the 0.45% increase in transfer tax rates on the most expensive homes is a proverbial drop in the bucket.

Also, given that the tiered transfer tax system of transfer tax rates would lower tax rates or leave them unchanged for more than half of all transactions, and that sales and prices are not responsive to changes between transfer tax rates, the proposed system could generate significant revenues without a large cost in terms of reduced sales or prices. In fact, Beacon Economics' analysis shows that even with a sales response to changes in transfer tax rates (which is unlikely given this research), home sales would drop by less than 1% from 28,013 in fiscal 2011-12 to 27,730.

**Table 7: Total Revenue Impacts Transfer Tax Revenues, FY 2011-12**

System	Tiered System		Flat Tax Rate	
	No Sales Effects	w/Sales Effects	No Sales Effects	w/Sales Effects
Current Law	103,236,897	103,236,897	103,236,897	103,236,897
Proposed System	185,672,677	179,330,654	206,473,794	198,586,494
Difference	82,435,776	76,093,760	103,236,896	95,349,600
Source: Calculations by Beacon Economics				

To implement this system, the thresholds for each group will need to be adjusted to reflect changes in market conditions over time. Beacon Economics recommends applying the changes in the Case-Shiller home price index for Los Angeles in order to adjust the bands for each year. This is a freely available, verifiable data source that measures changes in home prices over time. According to S&P, the Case-Shiller Index is the "leading measures for the US residential housing market, tracking changes in the value of residential real estate both nationally as well as in 20 metropolitan regions." This will enable the City of Los Angeles to peg its adjustments of the tiered thresholds by changes in prices as measured by this index.

In terms of revenues, the flat \$9.00 per \$1,000 transfer tax system would generate even larger increases, though there is the potential for a greater reduction in transactions as tax rates would increase for all sellers under a flat tax increase. Again, a major contraction in home sales is not supported by our empirical analysis, but the overly simplified results of one case study model shows that there could be as many as 1,070 fewer transactions per year as a result of the increase in the tax rate to \$9.00 despite the large uptick in revenues.

A review of existing literature shows that the empirical work on the effects of transfer tax rate increases is scant. Some studies presented here show that there are indeed negative implications of raising transfer tax rates. However, these studies focus almost solely on cities where buyers are responsible for paying the transfer tax. This has real implications for their results as whomever pays the tax has strategic implications for buyers and sellers. For example, if paid by sellers, buyers simply compensate the seller with an increased sales price that is financed over the life of a loan. On the other hand, if paid upfront by buyers, offered prices are likely going to be reduced by some portion of the increased taxes in order to offset some of the tax hike.

On the whole, Beacon Economics expects that prices will remain unaffected if the proposed transfer tax system is enacted. And, although there is the potential for sales impacts, the empirical analysis contained in this report shows that there is not likely to be an impact on the number of sales in the City of Los Angeles. As a result, the proposed tiered transfer tax system will generate between \$76.1 million and \$82.4 million depending on whether property sales are affected by the increase to tax rates on the most expensive properties in the City of Los Angeles. The flat tax system could generate as much as \$103.2 million, though it has a larger potential to negatively impact sales volumes in the City.



## References

- Benjamin, John, Edward Coulson, and Shiawee Yang. "Real estate transfer taxes and property values: The Philadelphia story." *Journal of Real Estate Finance and Economics*, (1993) 7: 151–157.
- Dachis, Ben, Gilles Duranton, and Matthew A. Turner "The effects of land transfer taxes on real estate markets: evidence from a natural experiment in Toronto." *Journal of Economic Geography*, (2012) 12(2): 327-354
- Hilber, Christian and Teemu Lyytiakainen "Stamp duty and household mobility: Regression discontinuity evidence from the UK." London School of Economics and Spatial Economics Research Centre, (2012).
- Jud, Donald. "Economic Analysis of the real estate transfer tax in North Carolina." Jud and Associates, (2009).
- Nowlan, David. "Economic Implications of the Proposed City of Toronto Land Transfer Tax." Attachment 1 to "New Taxation Measures Supplemental Report – City of Toronto Act 2006," Toronto City Council agenda, July 16th, 2007.
- Ommeren, Jos Van and Michiel Van Leuvensteijn, "New Evidence on the Effects of Transaction Costs on Residential Mobility." *Journal of Regional Science*, 45:4 (2005): 681-702.

## About Beacon Economics

Beacon Economics is a leading provider of economic research, forecasting, industry analysis, and data services. The firm's internationally recognized forecasters were among the first and most accurate predictors of the U.S. mortgage market meltdown that began in 2007—and among a relatively small handful of researchers who correctly calculated the depth and breadth of the financial and economic crisis that followed. By delivering independent, rigorous analysis, Beacon Economics gives its clients the knowledge they need to make the right strategic decisions about investment, growth, revenue, and policy. The firm's clients span both the public and private sector, ranging from the California State Controller's Office to major universities to one of Wall Street's most successful hedge funds. Core service areas include economic and revenue forecasting, economic impact analysis, economic policy analysis, regional economic analysis, real estate market and industry analysis, and EB-5 Visa analysis. Visit Beacon Economics' website at [www.BeaconEcon.com](http://www.BeaconEcon.com) to learn more.

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