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November 14, 2023

Via email: Jne.Byckovski@tdi.texas.gov

Ms. J'ne Byckovski
Chief Actuary
Texas Department of Insurance
1601 Congress Avenue
Austin, TX 78701

Re: Texas Land Title Association Comments and Supplemental Information Regarding TDI
2023 Title Rate Report

Dear Ms. Byckovski:

We appreciate the opportunity to participate in the collaborative title rate review process that the Texas Department of Insurance ("TDI") has initiated. Our firm represents the Texas Land Title Association ("TLTA"). Please accept this letter and attached information as TLTA's initial written comments and supplemental information regarding the Texas Department of Insurance 2023 Title Rate Report and Cost of Capital Assessment that TDI previously published on its website.

Although TDI has initiated the current process, TLTA has assembled a team of ratemaking experts to assist in providing analysis to determine a recommended cost of capital, profit provision, and ultimately a reasonable rate.

Our economists are Dr. Greg Hallman and Kevin Jewell. Dr. Hallman is a member of the faculty in the finance department of the University of Texas' McCombs School of Business where he teaches graduate-level courses in valuation, corporate finance, real estate finance, and investment theory, and serves as Director of the Texas Real Estate Center and Faculty Director of the McCombs Real Estate Investment Fund.

Mr. Jewell is a freelance consultant and specializes in applying financial and quantitative analysis to questions in business, policy, and litigation. He has extensive subject-matter experience in housing markets, financial services, and securities litigation. He has also analyzed housing and energy policy for Consumers Union (the publisher of *Consumer Reports*).

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TLTA's actuaries are Charles "Chuck" Faerber and Khiem Ngo of the Austin, Texas actuarial consulting firm of Rudd & Wisdom. Mr. Faerber has been consulting with the firm since 1978. He specializes in property and casualty insurance. Mr. Ngo joined the firm in 2007. He consults large group insurance programs including the Texas Medicaid Program, Texas Children's Program, the State of Texas Group Benefit Program, and the University of Texas Employee Group Insurance Program. Both are Fellows of the Society of Actuaries, Associates of the Casualty Actuarial Society, and Members of the American Academy of Actuaries.

Cost of Capital

We have reviewed and analyzed the October 2023 Texas Title Insurance Industry Cost of Capital Assessment that the Madison Consulting Group, Inc. from Madison, Georgia produced for TDI. John Andrew Seymour and Mark Crawshaw of that firm prepared the report. In the report they estimate the cost of capital of 18.2% for the independent and affiliated agents and 14.7% for underwriters (including their direct operations) in the Texas title insurance industry. On a combined basis, the cost of capital estimates produce an indicated underwriting profit provision of 10.9% for the Texas title insurance industry.

We appreciate the time and work that Messrs. Seymour and Crawshaw dedicated to produce the Cost of Capital Assessment for TDI. After review, we believe, based on Dr. Hallman and Mr. Jewell's work, that some additional factors and accepted techniques should be included. These additional factors and techniques are set out in the TLTA Cost of Capital Report, indicating the cost of capital to be 15.8%. We recommend that TDI use the TLTA Cost of Capital report for several reasons, including:

- The TLTA report uses three widely accepted methodologies (Capital Asset Pricing Model (CAPM), Discounted Cash Flow "(DCF)", and Fama-French) to calculate cost of capital. Messrs. Seymour and Crawshaw employed only the CAPM methodology to calculate the cost of capital. By using only a single approach and not also confirming the results by comparing the calculations from other methods such as the DCF or Fama-French methods, a cost of capital calculation lacks robust feedback.
- The TLTA Cost of Capital Report uses the most current data that includes all market participants (multiple industry types are compared, independent sources, and most recent information). The report prepared for TDI relies on sources including Value Line, Inc. that calculates their data in a proprietary manner which can lead to results inconsistent with the calculation of other leading sources.
- The report prepared for TDI only considers the five (5) largest publicly traded insurance companies as a benchmark. This approach fails to consider the significant differences between the business of title insurance underwriters and the business of title agents. For instance, the approach does not recognize the agents' greater exposure to transactions and lower exposure to investment returns as compared to underwriters.

In summary, we recommend that the cost of capital calculation be based on methodology that is the most robust, data that is consistently reliable, and an approach that aligns with past rate making processes. The TLTA report that Dr. Hallman and Mr. Jewell produced meets all of these criteria and utilizes a more appropriate approach to determining a cost of capital. We have attached the TLTA Cost of Capital Report to this letter as **Attachment 1** and recommend that TDI use it in TDI's rate review.

Profit Provision

Mr. Charles "Chuck" Faerber and Mr. Khiem Ngo performed the actuarial analysis and calculated the profit provision for TLTA. In doing so, they used the cost of capital estimate in Dr. Hallman's and Mr. Jewell's report. We have marked as **Attachment 2** and attached the Profit Provision Summary Analysis that Mr. Faerber and Mr. Ngo produced for TLTA. It calculates a profit provision of 11.30% and reflects the following summary calculation steps:

- The after-tax return of capital is assumed to be 15.8% and comes directly from Dr. Hallman's and Mr. Jewell's cost of capital analysis. It represents the total return from both investments and underwriting (i.e. profit load through rating).
- The historical pre-tax return on invested assets is assumed to be 6.2% and is 1.0% higher than the current 20-year Treasury bill. The historical pre-tax return is then converted into after-tax, and the return on invested assets converted into return on capital by applying a historical leverage ratio which results in an after-tax return on capital of 7.66%.
- The after-tax return on capital from underwriting is 8.14% which equals the total return on capital (15.8%) minus the return on capital that the companies are assumed to achieve through investments (7.66%).
- The after tax return on capital from underwriting is then converted into after tax return on premiums from underwriting by applying historical leverage ratio.
- The after tax return on premiums from underwriting is then converted into pre-tax return on premiums from underwriting resulting in our profit load assumption of 11.30%.

The cost of capital that the Madison Consulting Group developed is 18.2% for agents and 14.7% for underwriters. The difference between agents and underwriters is 3.5% points and results in a weighted average cost of capital of 17.4%, which is higher than the 15.8% cost of capital that Dr. Hallman and Mr. Jewell developed. The underwriting profit load that Madison Consulting Group developed is 11.1% for agents and 10.3% for underwriters. The difference between the agents and underwriters is only 0.8% points and results in a weighted average underwriting profit load of 10.9%, which is lower than the 11.3% underwriting profit load that Mr. Faerber and Mr. Ngo developed.

Although, the agents' cost of capital that Madison Consulting Group developed is 18.2%, they did not use it to determine the underwriting profit load for agents. The Madison Consulting Group developed the underwriting profit load for agents by using the median historical net profit percent for agents in Texas from the period 1998-2019. This methodology results in understating the risk premium for agents' underwriting profit load. For example, the underwriting profit load difference between agents and underwriters is only 0.8% points but the cost of capital difference between agents and underwriters is 3.5% points. Accordingly, the underwriting profit load should reflect a greater difference between agents and underwriters and we recommend using the 11.3% underwriting profit load that Mr. Faerber and Mr. Ngo developed.

Downturn in Title Market

The rating analysis relies on historical data for the Texas title industry since historical experience is the best indicator of future experience. However, actuarial judgement should be relied on more when recent experience is significantly different than current market conditions. The rating analysis should be based on what the cost is expected to be during the rating period.

Although the 2021 data reflects a period of profitability for the title industry, we want to bring attention to more current information and data that reflects a significant downward market trend that raises concerns and uncertainty and will require substantial consideration during this process to ensure that we reach an adequate and reasonable rate.

Ultimately, to recommend a reasonable range for a possible title rate change, we must recognize that the 2021 data is not indicative of the title industry performance that we may reasonably expect in 2024 and over the next five years. In addition to using a more robust cost of capital analysis and profit provision calculation, we must look to more current data and use methodologies that will appropriately address the outlier years, 2020 – 2021, that emerged as a result of the historically low interest rate climate created by the Federal Reserve Board during the COVID pandemic.

Although the economics of the pandemic spurred a steep drop in interest rates, inflation in general, a continued rise in home prices, shortages in supply, and an increased demand in the refinancing of homes, the market – both residential and commercial - has since experienced a significant downturn in the second half of 2022 to present. Texas written premiums from January through June of 2023 are 40.1% less than same time period in 2022 based on the American Land Title Association ("ALTA") Industry Annual Statement Compilation data derived from NAIC data.

We have attached and marked as **Attachment 3** a document that presents written premium data by state and year that ALTA published using the NAIC annual statement data from all underwriting companies. The first page presents TLTA's derivation of the estimated Texas written premiums in CY2023, which we have determined to be 42.5% less than CY2021 written premiums. Pages 2 – 6 reflect the raw data with written premiums by year and by state published by ALTA.

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Another data source confirming that the Texas title market is experiencing a significant downturn is the current Quarterly Guaranty Fee Report that the Texas Title Insurance Guaranty Association produced. In accordance with Texas Insurance Code § 2602.151, a guaranty fee is collected on each owner or mortgagee title insurance policy issued in Texas. We have attached and marked as **Attachment 4** the Quarter Guaranty/GARC Fees and Polies Quarter 2023 Report. It reports that the number of policies reported where a guaranty fee is collected from the Texas Title Insurance Guaranty Association for Q1 and Q2 of 2023 is 30% less than the same time period in 2022 and 40% less than the same time period in 2021.

We appreciate TDI recognizing and including in its 2023 Title Rate Report a 20-year period of experience to better address the outlier years. We recommend it as the most appropriate and reasonable methodology to employ in this situation.

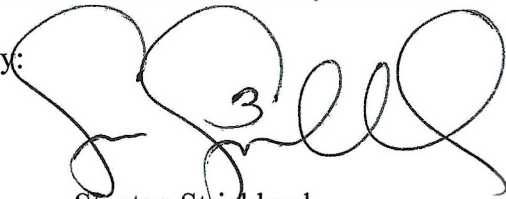
We believe that through additional discussions and this collaborative process, we can reach a fair, reasonable, and adequate rate for the title industry and consumers that meets the statutory requirement under the Texas Insurance Code. We anticipate updating this initial TLTA submission with a complete actuarial analysis and other relevant information including current market conditions and expense levels for agents, prior to the next stakeholders meeting.

We sincerely appreciate the opportunity to participate in this process and are looking forward to continuing this discussion on December 12th. Meanwhile, please let us know if you have any questions or would like to discuss anything.

Sincerely yours,

MITCHELL, WILLIAMS, SELIG,
GATES & WOODYARD, P.L.L.C.

By:



Stanton Strickland

Enclosures
cf: SS

cc: Rodney Anderson, President, TLTA Board of Directors
Leslie Midgley, Executive Vice President & CEO, TLTA
Aaron Day, Director of Governmental Affairs and Counsel, TLTA

Attachment 1 - Cost of Capital Assessment Report

COST OF CAPITAL ASSESSMENT

Texas Title Insurance Industry

Prepared by:

Professor Greg Hallman

October 2023

Summary

To calculate the cost of capital for the Texas Title Industry, I used three widely-accepted methods – the Capital Asset Pricing Model (CAPM), the Fama-French 3-factor model, and the Discounted Cash Flow (DCF) approach. I used these three cost of capital methods on a set of publicly traded firms from industries with business risk comparable to the business risk of the Texas title insurance industry. Before adjusting for size, all three methods provide estimates of the unlevered cost of equity for publicly traded comparable firms that are at or above 11.2%. After adding a size premium to account for the small size and lack of liquidity of the typical firm in the Texas title insurance industry compared to the size and liquidity of the publicly traded comparable firms used in my calculations, my calculated value of the cost of capital for the typical firm in the Texas title industry is 15.8%.

Summary: Texas Title Insurance Cost of Capital		
[1]	Cost of Capital	15.8%

Qualifications

I am a Professor of Instruction in Finance and Real Estate in the Department of Finance at the McCombs Graduate School of Business at the University of Texas at Austin. I have been on the finance faculty at McCombs since 2002, and in my 20+ years at McCombs I have taught graduate and undergraduate courses in business valuation, corporate finance, investment theory, and real estate finance. I have taught the subject of cost of capital in all my classes. My current teaching focuses on real estate finance and investment, and I am the teaching professor and faculty director for the John Goff Student Real Estate Investment Fund at McCombs, which includes a \$1.3 million AUM publicly traded REIT fund and a \$10 million AUM real estate private equity fund managed by MBA and undergraduate students working under my supervision. I have won numerous teaching awards for my MBA and undergraduate classes at McCombs, including the Joe D. Beasley Award for MBA Teaching, the award for Best MBA Core Professor (twice), and numerous selections to the MBA and undergraduate Teaching Honor Roll. In addition to my teaching, I also serve as Director of the Texas Real Estate Center. Prior to joining the faculty at the University of Texas in 2002, I was a Managing Director in the Silicon Valley office of Intecap, Inc., an economic consulting firm purchased by Charles River Associates in 2004, and I was a Senior Consultant with Charles River from 2007 – 2012. I have an undergraduate degree in chemistry from the University of Virginia (1985), an MBA with a concentration in finance from Tulane University (1988), and a Ph.D. in finance from the University of Texas at Austin (1996).

Cost of Capital Assessment – Texas Title Insurance Industry

Dr. Greg Hallman (October 2023)

Background on Cost of Capital

I estimated the cost of capital for a typical firm in the Texas Title Industry, including both agents and underwriters. Outside of regulatory proceedings, such costs of capital are widely used in practice – most commonly as either a “discount rate” to calculate the net present value (NPV) of a project, or as a “hurdle rate,” which is a minimum required rate of return on a project in order to ensure that accepted projects are expected to add to firm value.

The economic intuition behind a cost of capital is that of opportunity cost. Capital providers, or investors, demand or require a rate of return as compensation for the risk they bear in their investment and for the opportunity cost of not being able to invest their money elsewhere. The providers of capital need to be compensated with a (percentage) return that captures two components – the risk-free rate (compensation for not investing in a safe alternative, such as U.S. Treasury securities) and a risk premium (compensation for the additional risk borne by investing in a firm that is riskier than the U.S. government’s debt securities). We know from finance theory and numerous empirical studies in finance that returns are commensurate with risk (on average), so capital providers will both demand and tend to earn higher returns when they invest in riskier companies. We also know, based on numerous studies and empirical research, that capital providers demand a premium, i.e., extra percentage return, for investing in small firms.

The question I address in this report is how to measure the risk and implied required return for the Texas Title Industry. If the bulk of the firms in the Texas title industry were publicly traded, this would be a more straightforward process, because with publicly traded firms I could use the firms’ historical returns and fundamental (financial) data to estimate their investors’ required rates of return. However, given that the vast majority of the title insurance agencies and some of the title insurance underwriters operating in the state of Texas are not publicly traded, I rely on comparable companies that are publicly traded and have publicly available return series (historical returns) and publicly available financial data and financial statements. I identify publicly traded comparable companies by choosing a set of comparable industries, as sorted by SIC code, in order to calculate a cost of capital. I discuss the selection of comparable industries and companies in the next section.

Selection of Comparable Companies

Title insurance is typically purchased as part of a transaction in real estate assets, including residential homes and commercial properties. Lenders require title insurance to get assurance that the ownership of the collateral asset for the loan – either a residential home or a commercial building – is not in question and is clearly and cleanly owned by the seller and will be clearly and cleanly transferred to the buyer in the transaction. Title insurance agents perform careful due diligence on the ownership chain of the real estate involved in a transaction, investigate and deal with any questions or issues that may be present in the ownership chain, and then involve an underwriter to write an insurance policy standing behind the claim of clean title. If the due diligence on ownership is done correctly by the title agent and the title in the transaction is clean, then there will be no claim of loss ever presented to the title insurance underwriter.

Because sales (revenue) and profits (revenue minus expenses) of title insurance agents and underwriters are primarily driven by real estate transaction volume, the best comparable companies

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or industries to use for the purpose of calculating the cost of capital of the typical firm in the Texas title insurance industry are industries whose sales and profits are also driven by real estate transactions. My goal in the selection of comparable industries and companies is to identify firms with publicly available stock returns and publicly available financial data whose sales and profits are driven by real estate transaction volume. I chose the following four industries, identified by SIC (Standard Industry Classification) codes, as comparable industries for measuring the risk and the cost of capital of the title insurance business:

1. Title Insurance (SIC code 6361),
2. Operative Builders (SIC code 1531),
3. Loan Brokers (SIC code 6163),
4. Real Estate Agents and Managers (SIC code 6531).

Just like the title insurance industry, these industries are all involved in the real estate industry, and just like the title insurance industry, these publicly traded comparable industries do better, i.e., experience higher sales and profits, when the real estate industry performs better, and do worse, i.e., experience lower sales and profits, when the real estate industry performs worse. The Title Insurance industry (SIC code 6361) is not used solely by itself because the five firms in the Title Insurance SIC code are all large underwriters, and the typical title insurance company in the state of Texas is a much smaller title insurance agency.

I have reviewed previous reports on calculating the cost of capital for the title insurance industry that include health insurance and property and casualty insurance companies in the set of publicly available comparable companies. In my view, property and casualty insurance and health insurance companies are not good comparable companies for the title insurance industry because the performance of property and casualty insurance companies and health insurance companies is not driven by, or highly correlated with, the real estate industry, and the title insurance industry is clearly driven by the performance and transaction volume of the real estate industry. The financial performance and results of the companies in the operative builders industry, which includes primarily residential home builders, the loan brokers industry, which consists of Lending Tree, a residential mortgage broker, and real estate agents and managers are all driven by the performance and transaction volume in the real estate industry, and as such are good comparable companies for measuring the business risk and the cost of capital of the title insurance industry.

I identified 39 publicly traded companies in these four SIC codes with available financial data.¹ I use measures of central tendency, averages and medians, within and across these industries for all three of my cost of capital methodologies, thus incorporating information and data from all four industries rather than imposing additional assumptions about the relative informativeness of one industry over another.

¹ These firms are listed in the attached in Appendix A. These companies were listed by the SEC as operating in a selected SIC code and reported data to the SEC captured in the SimFin US dataset. One company reporting a Title Industry SIC code, Argo Group International Holdings Ltd, was independently excluded as it specialized in non-real estate title insurance (such as museum art) and had exited even that business.

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Dr. Greg Hallman (October 2023)

CAPM Approach

The Capital Asset Pricing Model, or CAPM, asserts that a firm's cost of equity (COE) can be calculated as the sum of the risk-free rate (r_f) plus a risk premium. The risk premium is calculated as the product of the firm's beta (a measure of the quantity of systematic risk in the firm's business and the firm's equity) times the price of systematic risk per unit (aka the market risk premium, or MRP).

The CAPM formula: $COE = r_f + (\text{beta} * MRP)$

For all firms, the current risk-free rate used in the calculations is the September 28, 2023, yield on 10-year Treasuries of 4.59%,² and the market risk premium is assumed to be 6%.³ Thus, the one input that differs from firm to firm is the equity beta. The equity beta is calculated for each firm by regressing all available monthly returns (up to five years) of the firm on the total excess returns on the US stock market.⁴

Equity betas reflect two conceptually separate effects. One is the asset (or unlevered) beta, which captures the systematic risk inherent in the firm's underlying business, while ignoring any effects of leverage. The second is the risk due to each firm's leverage, or the amount of debt the firm is carrying. Debt is a senior claim to firm cash flows, so equity is riskier when a firm has more debt. The typical (median) amount of debt in each comparable industry, measured as the amount of debt as a percentage of the total capitalization of the firm, debt plus equity, or $D/(D+E)$, over the last five years is as follows: Title Insurance debt % = 5%, Operative Builders debt % = 32%, Loan Brokers (Lending Tree) debt % = 27%, Real Estate Agents and Managers (for others) debt % = 20%.

My first goal in calculating the cost of capital for the Texas title insurance industry is to measure the business risk of the comparable industries, which I take as a good measurement of the business risk of the Texas title insurance industry. Thus, it is important to adjust for each comparable firm's degree of leverage before arriving at an industry-level estimate of the cost of capital. To do this, I first calculate each firm's average debt to equity ratio, D/E , for the last five years. I calculate this D/E ratio for each firm for each of the last five years as the total long-term and short-term debt (D) divided by the firm's end-of-year market capitalization (E), and then average these results to obtain the five-year average debt-to-equity ratio, D/E .⁵

² Board of Governors of the Federal Reserve System (US), Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/DGS10>, October 1, 2023.

³ Kroll reports the historical long run average risk premium calculated over the time frame 1926 – 2022 is 7.17%. Based on my academic and professional experience, I conservatively use 6%.

⁴ The monthly total market excess return is obtained from the website of Ken French. https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html (accessed 10/1/2023). I require that a firm have at least 12 months of return data available and a statistically significant beta estimate for it to be included in this analysis.

⁵ These inputs are calculated from SEC filings and stock price data compiled by SimFin.

Cost of Capital Assessment – Texas Title Insurance Industry

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Using each firm's five-year average debt-to-equity ratio, D/E, I calculate the asset (or unlevered) beta for each firm using the standard formula:⁶

$$\text{unlevered_beta} = \text{levered_beta} / (1 + ((\text{average_DE_ratio}) \times (1 - \text{tax rate}))); \text{tax rate} = 21\%$$

Note that the levered beta includes both the business risk and the leverage risk of each firm. The standard 'unlevering' formula allows us to calculate the firm's unlevered beta, which is the beta of the firm's business only, without any risk from the firm's capital structure or amount of debt. It is this business risk, reflected in each firm's unlevered beta, that we are primarily interested in, because we are ultimately trying to measure the business risk of the Texas title insurance industry by measuring the business risk of the comparable companies. As previously argued, the chosen comparable companies all have business risk that is primarily driven by the ups and downs of the real estate industry, just as the business risk of the Texas title insurance industry is driven by the ups and downs of the real estate industry.

This unlevered "asset" beta is then used in conjunction with the risk-free rate of 4.59% and market risk premium of 6% described above to arrive at a CAPM-based unlevered cost of equity for each comparable company.

Next, for each of the four industries, I calculate the industry unlevered cost of equity as the median unlevered cost of equity across all firms in that industry. As noted before, using the median rather than the mean mitigates the effects of extreme observations or outliers. Using these industry-level unlevered cost of equity measures, I then calculate an overall CAPM unlevered cost of equity for the Texas Title Industry by taking the average across the four industries.

SIC Industry	CAPM count	Median Levered Beta	Median Unlevered Beta	CAPM Median Levered COE	CAPM Median Unlevered COE
Title Insurance	4	1.11	1.01	11.3%	10.7%
Operative Builders	18	1.57	1.01	14.0%	10.6%
Loan Brokers	1	1.93	1.21	16.2%	11.9%
Real Estate Agents & Managers (For Others)	11	2.00	1.16	16.6%	11.5%
				Average:	11.2%

My CAPM results by company are in the attached Appendix B.

⁶ I am assuming the debt betas for the comparable firms are equal to zero, which is a reasonable and common assumption when the debt is not at real risk of default. The corporate tax rate has been 21% since 2018.

Cost of Capital Assessment – Texas Title Insurance Industry

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Fama-French Approach

The Fama-French 3-factor model adds two additional risk factors to the traditional CAPM, one for size and another for book-to-market ratio. These factors incorporate the empirical evidence that the CAPM underestimates the cost of equity for small firms, and underestimates the cost of equity for value firms, which are identified as firms with a higher book value of equity -to- market value of equity ratio. The beta for each risk factor, which captures the amount of, (1) market risk, (2) size risk, and (3) ‘value’ risk, is calculated for each firm using all available monthly returns (up to five years).⁷

As with the CAPM analysis, the current risk-free rate (r_f) in the Fama-French analysis is the September 28, 2023, yield on 10-year Treasuries of 4.59%,⁸ and the market risk premium (MRP) is assumed to be 6%. The size (known in the Fama-French framework as the SMB, Small-Minus-Big) and value (known in the Fama-French framework as the HML, High-Minus-Low) risk premiums are assumed to be the historical size and value premiums measured since July 1963, equal to 0.182% (size) and 0.288%, (value), respectively.⁹

The estimated factor betas for the market, size, and value risk premiums are then used in conjunction with the risk-free rate and factor risk premiums described above in the formula below to arrive at a Fama-French-based levered cost of equity for each company.

The Fama-French Formula:

$$COE = r_f + \beta_{\text{market}} * MRP + \beta_{\text{SMB}} * SMB + \beta_{\text{HML}} * HML$$

The final step for the Fama-French method is to adjust for leverage. There is not a textbook formula for ‘unlevering’ the Fama-French calculated cost of equity, so I use a ratio of the levered and unlevered costs of equity calculated using the CAPM. I calculate the ratio of the levered to unlevered CAPM cost of capital for each company and apply that ratio to the Fama-French results.¹⁰ For example, if the CAPM levered cost of equity for one of the SIC code industries I am using is 12%, and the CAPM unlevered cost of equity is 10%, then the ratio of levered to unlevered cost of equity for that industry is $12/10 = 1.2$. To adjust the calculated levered cost of equity from the Fama-French model to an unlevered cost of equity, I divide the calculated Fama-French levered cost of equity by 1.2.

⁷ The input factors are obtained from the website of Professor Ken French.

https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html (accessed 10/1/2023). I require that a firm have at least 12 months of return data available and a statistically significant factor model for it to be included.

⁸ Board of Governors of the Federal Reserve System (US), Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/DGS10>, October 1, 2023.

⁹ The paper laying out the model used July 1963 as the start of the factor estimation period. See: Fama, Eugene F. and Kenneth R. French. “Industry costs of equity.” *Journal of Financial Economics* 43 (1997): 153-193.

¹⁰ This unlevering step requires that the company have a statistically significant estimated levered and unlevered CAPM beta from the analysis discussed above.

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Next, for each of the four industries, I calculate the unlevered cost of equity as the median unlevered cost of equity across all firms in that industry. As noted before, using the median rather than the mean mitigates the effects of extreme observations or outliers. Using these industry-level unlevered measures of the cost of equity, I then calculate an overall Fama French unlevered cost of equity for the Texas Title Industry by taking the average across industries.

SIC Industry	FF count	FF Median Levered COE	Median Leverage Factor	FF Median Unlevered COE
Title Insurance	4	12.0%	1.05	11.5%
Operative Builders	18	14.6%	1.22	11.6%
Loan Brokers	1	17.1%	1.36	12.6%
Real Estate Agents & Managers (For Others)	11	17.8%	1.18	14.4%
Average:				<u>12.5%</u>

My Fama-French results by company are in the attached Appendix B.

DCF Approach

The Discounted Cash Flow, or DCF approach – also known as the Dividend Discount Model or Gordon Growth Model – inverts a standard equity valuation formula to arrive at an estimate of the cost of equity. This valuation formula states that the value of a firm's equity can be calculated as next year's dividend, divided by the difference between the firm's cost of (levered) equity and the expected growth in dividends. In notation, this can be written as $P_0 = D_1 / (r_e - g)$, where P_0 is the price today, D_1 is the expected dividend over the next year, r_e is the cost of equity, and g is the expected growth rate for dividends. Solving for the discount rate yields $r_e = D_1 / P_0 + g$. Thus, this approach requires two inputs: the dividend yield (D_1 / P_0) and the expected growth in dividends, g .

For each comparable company in each industry, I collect or calculate these two inputs.¹¹

Each firm's expected growth in dividends is calculated in up to three ways (depending on data availability) – (1) a fundamentals-based calculation, (2) the firm's historical growth in earnings over the previous five years, and (3) a forward-looking estimated growth in earnings over the next five years. For the fundamentals-based calculation, the sustainable growth in dividends is calculated as the firm's return on equity (ROE) times its retention ratio. I calculate this implied growth rate for 2019, 2020, 2021, and 2022 using the last five annual financial statements, and then calculate the average across these four years for each firm. The forward-looking (expected) growth in earnings over the next five years is based on analysts' estimates. The historical earnings

¹¹ These data, along with the other individual-stock data relied upon are reported by a variety of sources, such as www.simfin.com and <http://finance.yahoo.com/>, which in turn compile data from SEC filings, Capital IQ, Thomson Financial, and other third-party data providers.

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growth over the past five years is based on actual historical earnings. My final growth rate estimate for each firm is the average growth rate measured across these three methods.

I require that the dividend yield be positive in order for a firm to be included in the DCF approach. LendingTree, the only firm in the Loan Broker industry, does not pay a dividend and is therefore unavailable for this analysis.

In order to use any of these three estimates of earnings (or dividend) growth – based on fundamentals, historical growth, or analysts' estimates of future growth – I require that a particular estimated growth rate be greater than zero and less than 20 percent. The growth rate in the DCF formula is assumed to be the perpetual (forever) annual growth rate for the firm, so values in excess of 20% do not make economic sense, and negative values for the growth rate (i.e., values less than zero) also do not make economic sense. This requirement, along with the use of medians, mitigates the potential effects of outliers. However, this requirement, combined with the high level of recent growth and current less-positive future prospects in the operative builder industry, excluded every historical growth rate and many prospective growth rates in the operative builders industry. As such, I did not calculate the DCF estimate for that industry.

The final step for the DCF method is to adjust for leverage. This is done using the same adjustment method I used with the Fama-French calculations, which is by calculating the ratio of the levered to unlevered CAPM cost of capital for each company and applying that ratio to the DCF results.

Then, for each of the two remaining industries, Title Insurance and Real Estate Agents and Managers (for others), I calculate the median DCF-based cost of equity. By using the median, the effects of extreme observations or outliers are mitigated. Using these industry-level unlevered cost of equity measures, I then calculate an overall DCF unlevered cost of equity for the Texas Title Industry by taking the average across industries.

SIC Industry	DCF count	DCF Median Levered COE	Median Leverage Factor	DCF Median Unlevered COE
Title Insurance	4	12.5%	1.05	12.0%
Operative Builders	0			
Loan Brokers	0			
Real Estate Agents & Managers (For Others)	4	11.0%	1.18	10.3%
Average:				11.2%

My DCF inputs and results by company are in the attached Appendix B.

Cost of Capital Assessment – Texas Title Insurance Industry

Dr. Greg Hallman (October 2023)

Evaluating the Estimates and Accounting for Size

The three “publicly traded comparable” estimates of the Texas Title Industry’s cost of unlevered equity are as follows:

<u>CAPM</u>	<u>Fama French</u>	<u>DCF</u>
11.2%	12.5%	11.2%

These cost of equity estimates are based solely on publicly traded comparable companies, all of which are significantly larger than a typical Texas title company. In order to use these costs of equity calculated from large publicly traded comparable companies to calculate the cost of equity for a typical firm in the Texas title industry, I need to add a size premium. Empirical evidence from financial research dating back to the 1980s (Rolf Banz, *Journal of Financial Economics*, 1981) shows that small company stock returns are in general greater than large company stock returns. Financial economists have interpreted this size premium as evidence that investors demand a higher return for providing capital to small firms relative to the required returns for supplying capital to large firms. Subsequent research on the size effect measured using returns from publicly traded stocks suggests that the size effect is concentrated in the smallest publicly traded firms, and is non-linear, suggesting that the size premium increases more than linearly as the cost of capital is measured for smaller and smaller firms.

Rather than average the cost of capital measures across all three methods, i.e., (1) 11.17% CAPM, (2) 12.52% Fama-French, and (3) 11.18% DCF, I have chosen to use the 11.17% cost of equity measured from the CAPM, which is the smallest of my cost of capital measures, as the starting point of my final estimate of the cost of capital for the Texas Title Industry. One motivation for this choice is that the size effect impact on the cost of capital measured using the CAPM has been studied extensively in the literature, and size premiums for CAPM cost of capital estimates are available from the Kroll Cost of Capital Navigator.¹² Research by Kroll finds that the CAPM underestimates the cost of capital for firms in the bottom (smallest) decile, or those with a market value of less than \$218 million, by 4.83%.

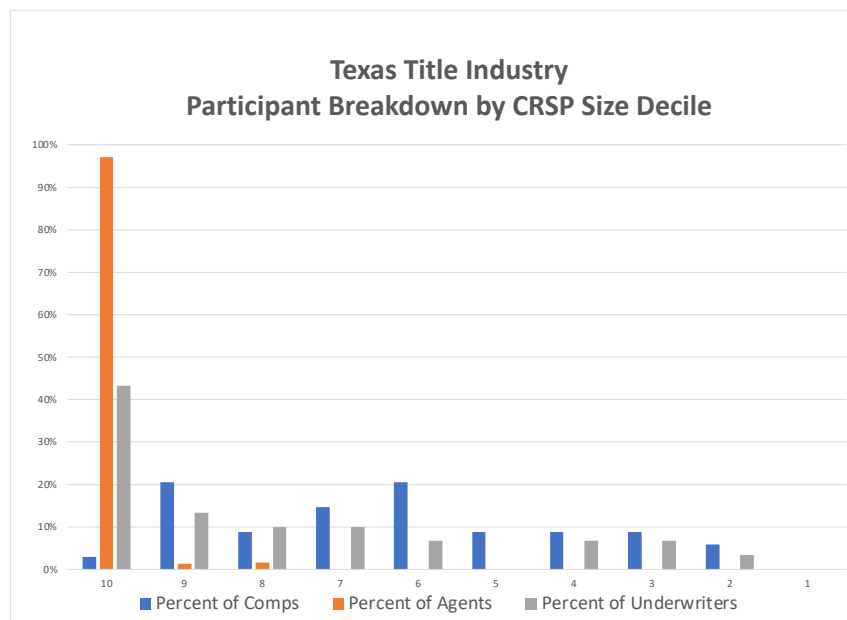
The next question is where the typical Texas Title Industry firm falls on this size spectrum. To answer this, I calculate imputed market capitalizations for all Texas Title firms using their disclosed income from the Texas Department of Insurance and a multiple of net income.¹³

¹² See <https://www.kroll.com/costofcapitalnavigator>

¹³ I utilized a benchmark Net Income multiple of 13.35. This is the insurance industry multiple as published by Prof. Damodaran at https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/pedata.html (Accessed Oct 2, 2023). The 2021 Underwriter Experience Reports and Agent Statistical Reports were downloaded from <https://www.tdi.texas.gov/reports/report8.html>

Cost of Capital Assessment – Texas Title Insurance Industry

Dr. Greg Hallman (October 2023)



The above figure shows the distribution of the size of the Texas Title Industry firms and the publicly traded comparable companies using the size deciles published by Kroll.¹⁴ As the figure shows, the publicly traded comparable companies (in blue) are significantly larger than the Texas Title Industry firms (in orange) and most of the comparable companies I used in my calculations are well above the 10th decile of firm size. In contrast, aside from a small number of large underwriters, the Texas Title Industry firms are notably smaller, with essentially all of the agents well below the threshold for the smallest (10th) decile in terms of firm size.

Thus, from the data, it appears that a size adjustment is needed to reflect the fact that the Texas Title Industry firms tend to be very small in comparison with the publicly traded firms I used to calculate the cost of capital. To determine a size premium to add to the CAPM cost of equity as estimated by the publicly traded comparable companies I used, I first sorted all of the firms in the Texas title industry into their corresponding Kroll size decile, and then I calculated a weighted average size for the firms in the Texas title industry. For example, if there were 10 firms in the Texas title industry, and 3 of those firms were in the 8th Kroll size decile, 2 of those firms were in the 9th Kroll size decile, and 5 of the firms were in the Kroll 10th size decile, I would calculate a weighted average size premium as $[(3/10) \times 8^{\text{th}} \text{ decile size premium} + (2/10) \times 9^{\text{th}} \text{ decile size premium} + (5/10) \times 10^{\text{th}} \text{ decile size premium}]$. Performing this size decile premium weighting to the firms in the Texas title industry produces a weighted average size premium of 4.66%. This premium is only slightly smaller than the Kroll 10th decile size premium, reflecting the fact that the vast majority of firms in the Texas title industry are smaller than the \$218 million size (market value of equity) cut-off for the Kroll 10th decile.

I believe that this 4.66% size premium is conservative due to the fact that (a) the vast majority of Texas Title Industry firms (except for a few underwriters) are well below the \$218 million size cutoff for the 10th decile of firm size, and (b) the estimated size premium is larger for the bottom

¹⁴ Kroll compiles and publishes a decile analysis using CRSP data that is the continuation of a legacy product that was previously compiled by Duff and Phelps and Ibbotson's.

Cost of Capital Assessment – Texas Title Insurance Industry

Dr. Greg Hallman (October 2023)

of the 10th decile than for the top. For example, additional estimates in the Kroll data for firms smaller than the 10th decile of publicly traded firms shows that firms smaller than \$79 million in market cap have a size premium of 10.99%. And as previously mentioned, research on the size premium suggests that the size premium is non-linear, with larger-than-linear increases as firm size is smaller and smaller.

To incorporate this size premium, I add the weighted average 4.66% size premium to the 11.17% CAPM estimated cost of equity to arrive at my final estimate of the cost of unlevered equity for the Texas Title Industry of 15.83, rounded to **15.8%**.

Another difference between the publicly traded comparable companies and the typical Texas Title Industry firm is the liquidity of the investors' positions, due to the fact that the typical Texas Title Industry company is not publicly traded. This lack of liquidity is another source of added risk for capital providers to the Texas Title Industry (relative to the cost of capital measured using publicly traded benchmarks), implying that it would not be unreasonable to add an additional liquidity premium to the cost of capital calculation as compensation for the risk of holding illiquid equity. I have not included a separate liquidity premium in my calculations.

Debt in the Capital Structure.

Texas Title Industry firms do not have much debt in their capital structure. In their 2021 experience reports to TDI, Texas Underwriters reported book value of debt less than 1% of implied market value of equity.¹⁵ Agents reported Interest Expense and Net Incomes implying reported book value of debt less than 1% of implied market value of equity.¹⁶ The typical (median) title industry entity reports no interest expense, and therefore no debt, at all.¹⁷

As a result, the assumptions made regarding the cost of debt and/or precise weight of debt would not have material impacts on the estimated cost of capital and are set aside and not included in my estimate of the cost of capital.¹⁸

Evaluation of Results in Historical Context

I understand Dr. Hartzell estimated a 13.1% cost of capital for the Texas Title Industry in the fall of 2018. The 15.8% cost of capital estimated in this report is 2.7% higher than Dr. Hartzell's previous estimate, but interest rates in general are considerably higher today than they were in

¹⁵ I utilized a benchmark Net Income multiple of 13.35. This is the insurance industry multiple as published by Prof. Damodaran at https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/pedata.html (Accessed Oct 2, 2023). The 2021 Underwriter Experience Reports and Agent Statistical Reports were downloaded from <https://www.tdi.texas.gov/reports/report8.html>

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¹⁷ Less than 25% of title entities reporting to TDI reported any interest expense on their 2021 experience or activity reports.

¹⁸ This is also consistent with Dr. Hartzell's 2018 report in the previous iteration of these proceedings, which found the impact of debt between zero and .02% of the calculated cost of capital, depending on tax assumptions.

Cost of Capital Assessment – Texas Title Insurance Industry

Dr. Greg Hallman (October 2023)

2018. For example, the prime rate, a well-known interest rate charged by banks for short-term loans to their best corporate customers, was 5% in September 2018, and is 8.5% today, an increase of 3.5%.¹⁹ (See Appendix C)

It's also very important to note that the financial health and performance of the Texas title insurance industry is in large part driven by residential real estate transactions, and residential real estate transactions are in large part driven by mortgage rates; lower mortgage rates are associated with more residential real estate transactions and more revenues and profits for Texas title insurance firms, and higher mortgage rates depress residential real estate transactions and lead to lower revenue and profit for Texas title insurance firms. Mortgage rates for 30-year fixed rate mortgages in September 2018 were roughly 4.5%, mortgage rates from 2020-2022 were closer to 3%, and mortgage rates today are roughly 7%.²⁰ Higher mortgage rates reduce home transactions on both the seller side and the buyer side. Potential home sellers with low mortgage rates from mortgages taken out in the past are reluctant to sell their house and buy another house because their mortgage rate on the new house will be much higher than the current mortgage rate they are paying, a seller-side effect sometimes referred to as 'golden handcuffs'. Buyers facing higher mortgage rates find it harder to buy houses because today's high mortgage rates make houses less affordable. For example, the payment on a \$400,000 30-year mortgage at 3% is \$1,686, and the payment on the same \$400,000 mortgage at 7% is \$2,661, representing an increase of \$975/month on the same amount borrowed. The effect of higher mortgage rates on home sales is noted in the most recent Texas Housing Insight note from the Texas A&M Real Estate Research Center. The latest research note published on September 7, 2023, commenting on data from July 2023, states, "The persistent rise in mortgage rates continued to exert a cooling effect on the housing market", and "The inflated mortgage rate is expected to further raise the cost of home ownership and decrease mortgage applications."²¹ (See Appendix D)

Capital markets and investors asked to supply capital to firms in the Texas title industry are well aware of these market factors that reduce mortgage applications and home sales transactions, and would certainly require higher returns to compensate for the additional risk in today's housing market as compared to the housing market in 2018.

Submitted this fourteenth day of November 2023.



¹⁹ Board of Governors of the Federal Reserve System (US), Bank Prime Loan Rate [DPRIME], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/DPRIME>, October 1, 2023.

²⁰ Freddie Mac, 30-Year Fixed Rate Mortgage Average in the United States [MORTGAGE30US], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/MORTGAGE30US>, October 2, 2023.

²¹ "Texas Housing Insight", Joshua Roberson, Weiling Yan, and Koby McMeans (Sep 7, 2023), July 2023 Summary, Texas A&M University, Texas Real Estate Research Center, pp 3-4.

Appendix A

Schedule A**Comparable Companies**

Company Name	Ticker	SIC Code	SIC Industry	Result Status
Doma Holdings Inc.	DOMA	6361	Title Insurance	No Sig. Results
Fidelity National Financial, Inc.	FNF	6361	Title Insurance	
First American Financial Corp	FAF	6361	Title Insurance	
Investors Title Company	ITIC	6361	Title Insurance	
Stewart Information Services Corporation	STC	6361	Title Insurance	
BEAZER HOMES USA INC	BZH	1531	Operative Builders	No Sig. Results
Century Communities, Inc.	CCS	1531	Operative Builders	
Comstock Holding Companies, Inc.	CHCI	1531	Operative Builders	
Dream Finders Homes, Inc.	DFH	1531	Operative Builders	
Green Brick Partners, Inc.	GRBK	1531	Operative Builders	
Harbor Custom Development, Inc.	HCDI	1531	Operative Builders	
D. R. Horton	DHI	1531	Operative Builders	
Hovnanian Enterprises, Inc.	HOV	1531	Operative Builders	
KB HOME	KBH	1531	Operative Builders	
Landsea Homes Corporation	LSEA	1531	Operative Builders	
LGI Homes, Inc.	LGIH	1531	Operative Builders	
M/I HOMES, INC.	MHO	1531	Operative Builders	
M.D.C. Holdings, Inc.	MDC	1531	Operative Builders	
Meritage Homes Corporation	MTH	1531	Operative Builders	
NVR INC	NVR	1531	Operative Builders	
PULTEGROUP INC/MI/	PHM	1531	Operative Builders	
Taylor Morrison Home Corp	TMHC	1531	Operative Builders	
TOLL BROTHERS INC	TOL	1531	Operative Builders	
Tri Pointe Homes, Inc.	TPH	1531	Operative Builders	
Vanja Corporation	VNJA	1531	Operative Builders	
LendingTree, Inc.	TREE	6163	Loan Brokers	No Sig. Results
Anywhere Real Estate Inc.	HOUS	6531	Real Estate Agents & Managers (For Others)	
Douglas Elliman Inc.	DOUG	6531	Real Estate Agents & Managers (For Others)	
EXP World Holdings, Inc.	EXPI	6531	Real Estate Agents & Managers (For Others)	
JONES LANG LASALLE INC	JLL	6531	Real Estate Agents & Managers (For Others)	
Legacy Ventures International, Inc.	LGYV	6531	Real Estate Agents & Managers (For Others)	
Marcus & Millichap, Inc.	MMI	6531	Real Estate Agents & Managers (For Others)	
MARRIOTT VACATIONS WW Corp	VAC	6531	Real Estate Agents & Managers (For Others)	
Newmark Group, Inc.	NMRK	6531	Real Estate Agents & Managers (For Others)	
Ohmyhome Limited	OMH	6531	Real Estate Agents & Managers (For Others)	
Opendoor Technologies Inc.	OPEN	6531	Real Estate Agents & Managers (For Others)	
RE/MAX Holdings, Inc.	RMAX	6531	Real Estate Agents & Managers (For Others)	
Redfin Corp	RDFN	6531	Real Estate Agents & Managers (For Others)	No Sig. Results
Offerpad Solutions Inc.	OPAD	6531	Real Estate Agents & Managers (For Others)	

Appendix B

Schedule B**Unlevered Cost of Capital Results by Company**

Company Name	Ticker	SIC Code	CAPM Cost of Unlevered Equity	Fama- French Cost of Unlevered Equity	DCF Cost of Unlevered Equity
Doma Holdings Inc.	DOMA	6361			
Fidelity National Financial, Inc.	FNF	6361	11.4%	12.5%	16.2%
First American Financial Corp	FAF	6361	11.5%	11.7%	9.2%
Investors Title Company	ITIC	6361	9.3%	11.3%	11.5%
Stewart Information Services Corporation	STC	6361	10.0%	10.2%	12.6%
BEAZER HOMES USA INC	BZH	1531	8.7%	9.9%	
Century Communities, Inc.	CCS	1531	10.4%	11.6%	
Comstock Holding Companies, Inc.	CHCI	1531	9.7%	13.8%	
Dream Finders Homes, Inc.	DFH	1531	14.3%	18.3%	
Green Brick Partners, Inc.	GRBK	1531	12.0%	11.7%	
Harbor Custom Development, Inc.	HCDI	1531			
D. R. Horton	DHI	1531	12.9%	12.9%	
Hovnanian Enterprises, Inc.	HOV	1531	6.6%	8.9%	
KB HOME	KBH	1531	10.9%	11.8%	
Landsea Homes Corporation	LSEA	1531	6.9%	6.0%	
LGI Homes, Inc.	LGIH	1531	12.9%	13.2%	
M/I HOMES, INC.	MHO	1531	11.8%	12.7%	
M.D.C. Holdings, Inc.	MDC	1531	10.2%	11.3%	
Meritage Homes Corporation	MTH	1531	11.6%	11.2%	
NVR INC	NVR	1531	10.2%	10.3%	
PULTEGROUP INC/MI/	PHM	1531	11.7%	12.1%	
Taylor Morrison Home Corp	TMHC	1531	10.5%	11.0%	
TOLL BROTHERS INC	TOL	1531	10.7%	11.7%	
Tri Pointe Homes, Inc.	TPH	1531	10.4%	11.0%	
Vanja Corporation	VNJA	1531			
LendingTree, Inc.	TREE	6163	11.9%	12.6%	
Anywhere Real Estate Inc.	HOUS	6531	9.4%	11.5%	
Douglas Elliman Inc.	DOUG	6531	12.4%	15.4%	
EXP World Holdings, Inc.	EXPI	6531	21.7%	22.3%	14.5%
JONES LANG LASALLE INC	JLL	6531	11.5%	14.5%	
Legacy Ventures International, Inc.	LGYV	6531			
Marcus & Millichap, Inc.	MMI	6531	10.9%	12.4%	7.3%
MARRIOTT VACATIONS WW Corp	VAC	6531	11.5%	14.4%	4.9%
Newmark Group, Inc.	NMRK	6531	12.8%	17.3%	13.3%
Ohmyhome Limited	OMH	6531			
Opendoor Technologies Inc.	OPEN	6531	9.1%	7.5%	
RE/MAX Holdings, Inc.	RMAX	6531	10.4%	11.7%	
Redfin Corp	RDFN	6531	14.1%	13.0%	
Offerpad Solutions Inc.	OPAD	6531	16.0%	18.7%	

Appendix C



Source:

Board of Governors of the Federal Reserve System (US), Bank Prime Loan Rate [DPRIME],
retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/DPRIME>, October 1, 2023.

Appendix D



TEXAS A&M UNIVERSITY

Texas Real Estate Research Center



TEXAS HOUSING INSIGHT

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JULY 2023 DATA

TECHNICAL REPORT

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ABOUT THIS REPORT

Texas Real Estate Research Center economists continuously monitor many facets of the global, national, and Texas economies. *Texas Housing Insight* is a summary of important economic indicators that help discern trends in the Texas housing markets. All measurements are calculated using seasonally adjusted data, and percentage changes are calculated month-over-month, unless stated otherwise.

This monthly publication provides data and insights on the Texas housing markets. We hope you find them useful. Your feedback is always appreciated. Send comments and suggestions to info@recenter.tamu.edu.

Joshua Roberson, Weiling Yan, and Koby McMeans

Data current as of Aug 15, 2023

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TEXAS A&M UNIVERSITY

Texas Real Estate Research Center



JULY 2023 SUMMARY

HOME SALES
▼ 8.4% MOM

DAYS ON MARKET
= 56 days

CONSTRUCTION PERMITS
▼ 3.0% MOM

PRICE INDEX
▲ 0.7% YOY

The persistent rise in mortgage rates continued to exert a cooling effect on the housing market. Texas' home sales experienced an 8.4 percent year-over-year decline in July. Despite this diminished home demand, the scarcity of existing home sales contributed to a 2.1 percent increase in the state's median price in 2023, leaving the index for shelter the greatest driver behind the escalating living costs. While existing home sales declined, residential construction starts continued to climb. At the same time, permits have fallen for several consecutive months, signaling a possible decline in starts in the near future.

Housing Market for New Construction in High Demand

More prospective buyers are dissuaded from making a home purchase in today's high-interest environment, leading to a drop in sales. Compared with last month's reading at 28,000 and July 2020's record high at 38,400 transactions, Texas' **total home sales** fell below 26,000 transactions this month. Monthly sales volume contracted 8.4 percent month over month (MOM) and 32 percent in three years (Table 1).

Despite the reduced housing demand, the market share of new construction sales ballooned. Within a year, the share of new construction sales rose from 15.2 percent to more than 20 percent, indicating every five closed listings is now a new home. Both demand and supply factors contributed to the increasing trend for new homes. The shortage of existing homes is due to current owners' reluctance to give up their current homes. For more information on Austin's new construction, read "Austin Home Price Illusion" at <https://www.recenter.tamu.edu/articles/tierra-grande/Austin-Home-Price-Illusion-2378>.

Texas' **average days on market (DOM)** stayed at 56 days for the second straight month, deviating from the steep rebounding trend that lasted for over a year. The current reading is merely three days short of the five-year average before 2020, which stood at 59 days. The consistent reading suggests that the housing market may have reached a state of equilibrium. Among the major metros, Austin and San Antonio reported a longer-than-average DOM of 69 days, while Dallas and Houston had DOM figures of 46 days and 49 days, respectively.

The number of **active listings** rose to 2.3 percent, reaching just above 85,000 listings. All four of the major metros posted positive monthly gains with Dallas accounting for the largest gain at 5.7 percent MOM while Houston remained at last month's level with a 0.4 percent MOM game. Conversely, the state's **new listings** dipped by 12.7 percent to 36,880 units, with Dallas contributing significantly to this double-digit decline by registering a decrease of 1,800 units in July. Amid the rise in active listings, **months of inventory (MOI)** had a marginal gain to 3.3 months.



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Since the Fed hiked interest rates by another quarter point, both treasury rates and mortgage rates increased in July. The **ten-year U.S. Treasury Bond** yield grew 15 basis points, reaching 3.9 percent. Likewise, **the Federal Home Loan Mortgage Corporation's 30-year fixed-rate** increased to 6.8 percent, up 13 basis points. The inflated mortgage rate is expected to further raise the cost of home ownership and decrease mortgage applications.

Single-Family Permit Levels Continue to Drop

Texas' **single-family construction permits** shrank to 12,240 applications in July after seasonal adjustment, marking a 3 percent MOM decrease. Houston's (4,070 permits) contribution to the monthly shrinkage was prominent, as permits plummeted 17.8 percent MOM. Although Austin (1,380 permits) reported the largest rebound of 34.3 percent MOM, the gain was not enough to cover half of Houston's loss. Dallas (3,540 permits) and San Antonio (760 permits) maintained their activity levels like June.

Construction starts had not yet reflected the decline in construction permits. After three consecutive growths, **single-family construction starts** in Texas balanced at 11,450 units. Both Dallas and Houston led with over 3,200 houses breaking ground, surpassing the combined total of other metros outside the "Big Four." The ratio between home projects in Austin (1,580 starts) and San Antonio (810 starts) remained at approximately 2:1.

The state's total **single-family starts value** reached \$18.8 billion, up from \$15.9 billion in June. While the current starts value fell short of the peak during the pandemic frenzy in 2020-22, it aligned with construction activity levels observed in 2019. Notably, Houston and Dallas remain pivotal players, contributing to more than half of the state's construction activity values. Dallas' market share rose to 27.6 percent, closely trailing Houston's 27.7 percent share.

Steady and Modest Price Gains Amid Sales Decline

The low supply of homes had supported price gains, and the steady uptick in **Texas' median home prices**, including both new and existing homes, moderated from 0.4 percent in the first five months to 0.2 percent in June and July. Three of the Big Four metros reported monthly changes of less than 1 percent, indicating price stability for the state's housing market. Austin's median price remained more elevated than all other metros at \$454,000 (Table 2). Dallas followed with \$398,300.

Amid Austin's recent price volatility, this metro was still approximately 10 percent below last year's \$507,400 median price. Meanwhile, the state along with the other major metros narrowed the gap to 1 percent, down from 5 percent in June. These changes indicate the real estate industry has nearly reached a full recovery from the price correction observed in the second half of 2022.

Since the dip from July to December 2022, the **Texas Repeat Sales Home Price Index** (Dec 2004=100) had reverted to the trend. Though the acceleration slowed to 0.7 percent YOY, the index balanced at 229.4, beating June 2022's record-high reading when the annual increase was at an astonishing rate of 16.5 percent YOY. The elevated index corroborates a rebound in home price appreciation in 2023.

Table 1. Home Sales Volume

	Jun	Jul	Monthly Changes
Texas	28,235	25,870	↓ -8.4%
Austin-Round Rock	2,450	2,312	↓ -5.6%
Dallas-Fort Worth-Arlington	7,565	6,989	↓ -7.6%
Houston-The Woodlands-Sugar Land	7,313	6,691	↓ -8.5%
San Antonio-New Braunfels	2,885	2,679	↓ -7.1%

Note: Seasonally adjusted data used for the reported metrics.

Source: Texas Real Estate Research Center at Texas A&M University

Table 2. Median Housing Prices

	Jun	Jul	Monthly Changes
Texas	\$ 337,200	\$ 337,700	↑ 0.2%
Austin-Round Rock	\$ 456,500	\$ 454,000	↓ -0.5%
Dallas-Fort Worth-Arlington	\$ 396,100	\$ 398,300	↑ 0.6%
Houston-The Woodlands-Sugar Land	\$ 328,500	\$ 332,100	↑ 1.1%
San Antonio-New Braunfels	\$ 312,200	\$ 313,100	↑ 0.3%

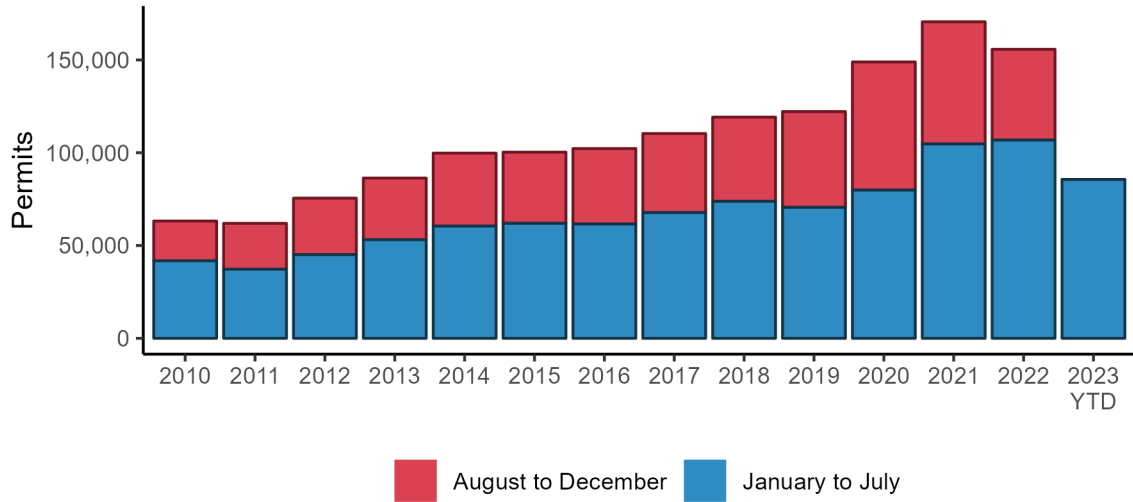
Note: Seasonally adjusted data used for the reported metrics.

Source: Texas Real Estate Research Center at Texas A&M University



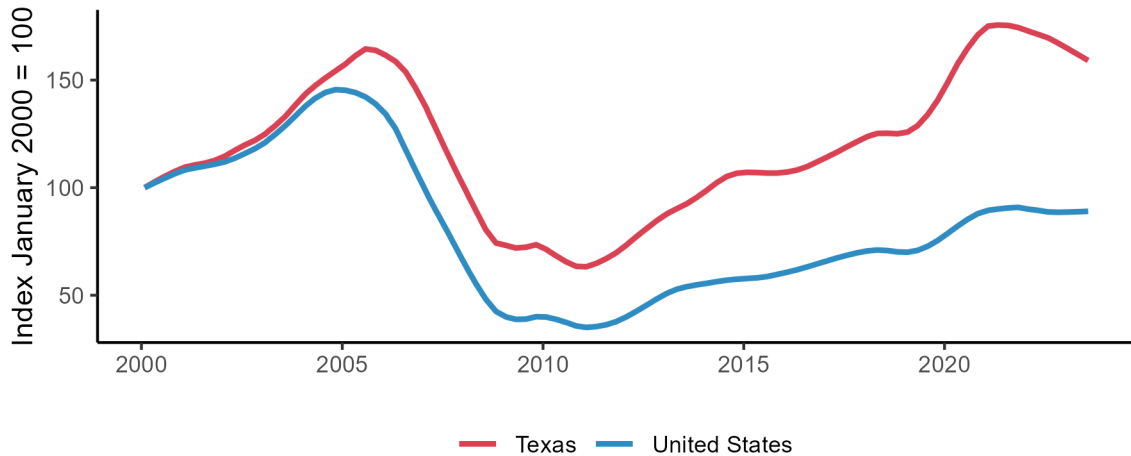
SUPPLY

Texas Single-Family Permits



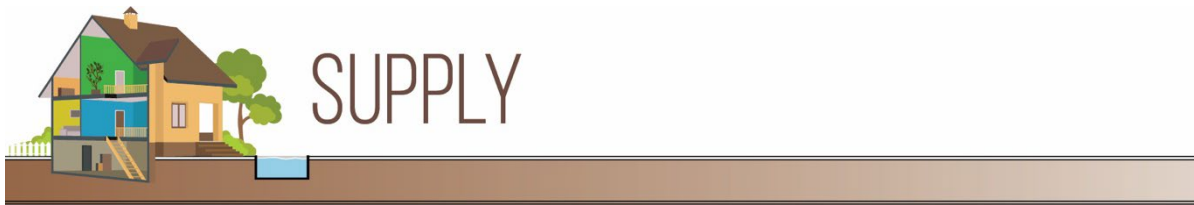
Source: Texas Real Estate Research Center at Texas A&M University

Single-Family Housing Construction Permits Seasonally Adjusted Trend



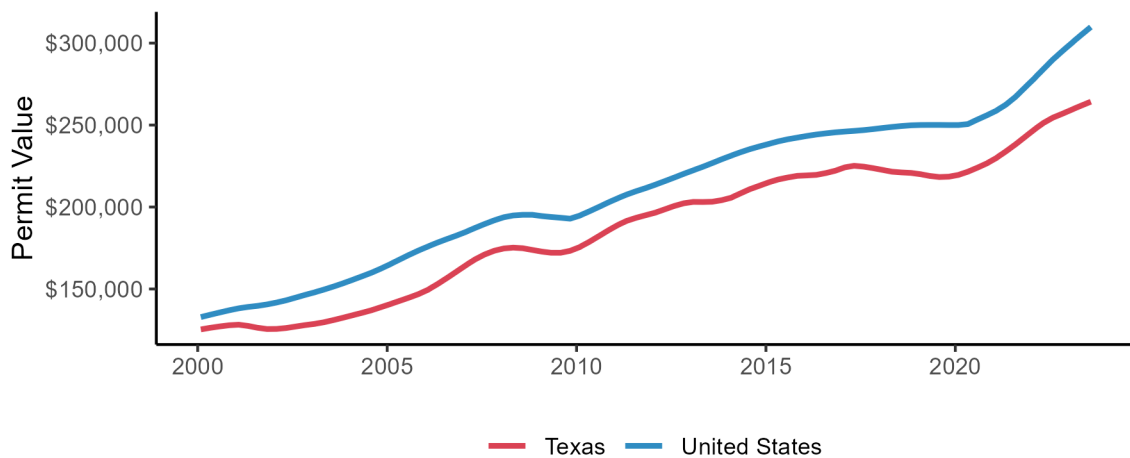
Source: U.S. Census Bureau - Texas Real Estate Research Center at Texas A&M University





Single-Family Housing Construction Permit Values

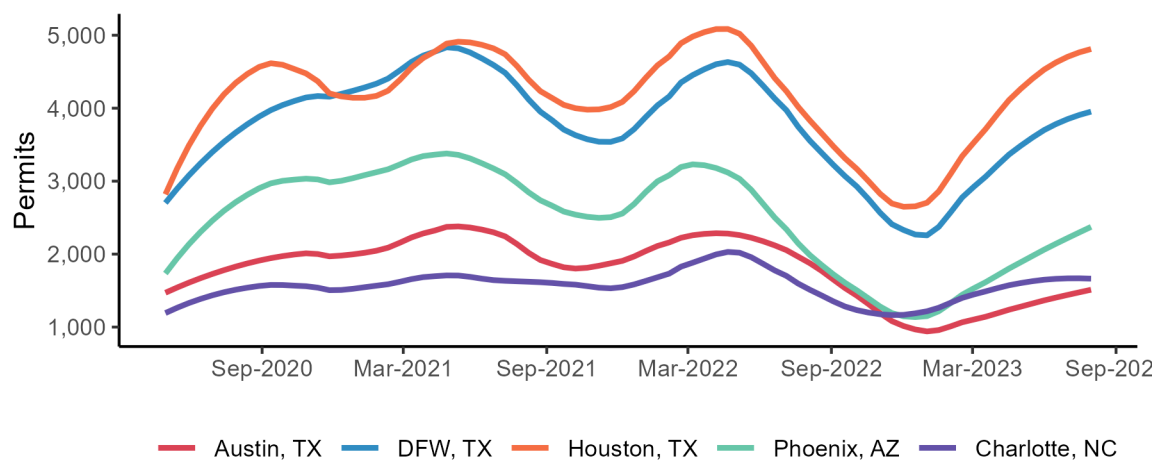
Seasonally Adjusted Trend



Source: U.S. Census Bureau - Texas Real Estate Research Center at Texas A&M University

Top New Home Metros Since COVID

Single-Family Detached Homes



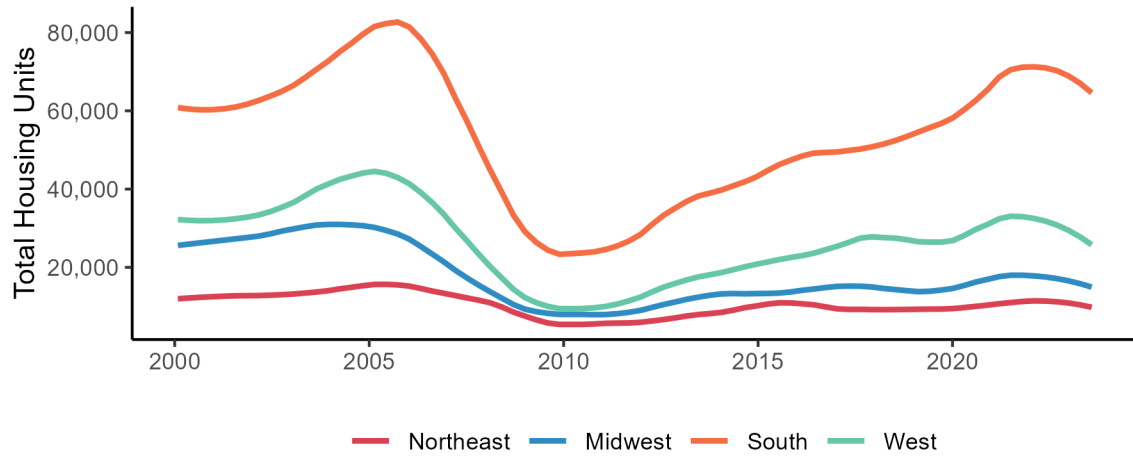
Source: U.S. Census Bureau - Texas Real Estate Research Center at Texas A&M University



SUPPLY

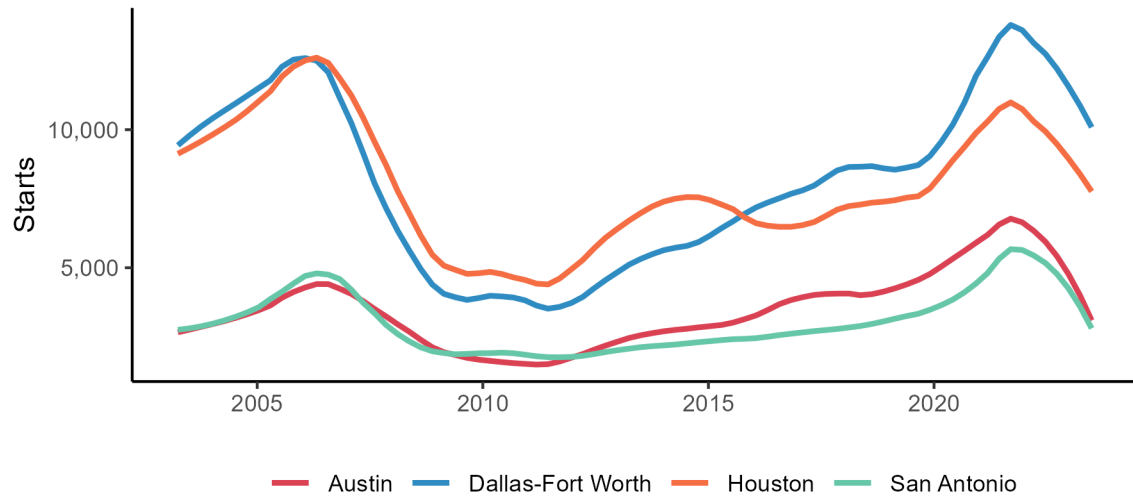
Regional Housing Starts

Total Housing Units



Source: U.S. Census Bureau - Texas Real Estate Research Center at Texas A&M University

Metro Housing Starts



Source: Zonda - Texas Real Estate Research Center at Texas A&M University



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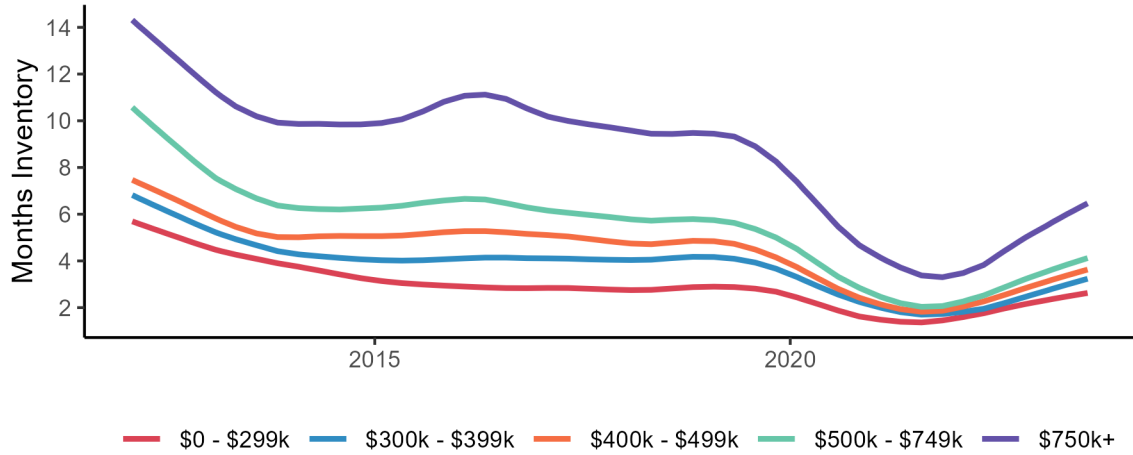
Texas Real Estate Research Center



SUPPLY

Inventory by Price Cohort

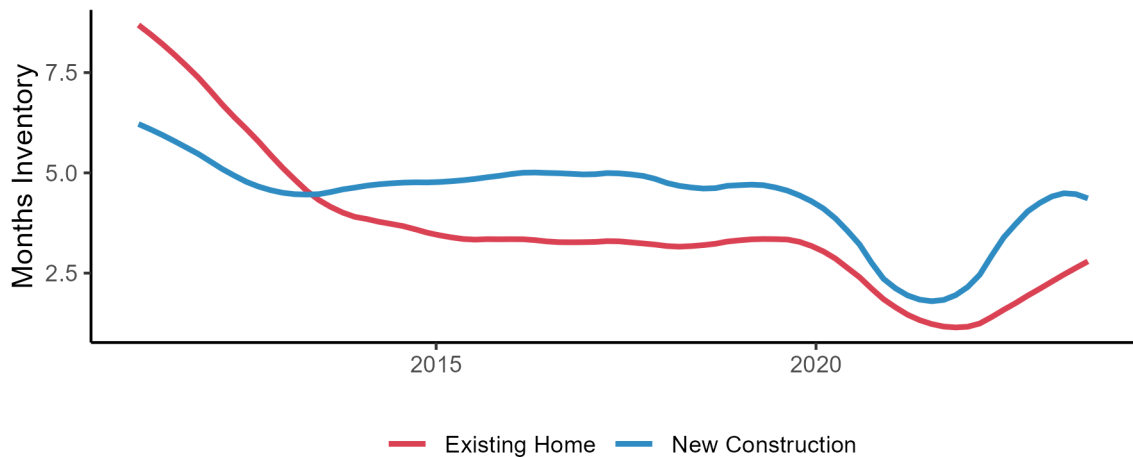
Seasonally Adjusted Trend



Source: Texas Real Estate Research Center at Texas A&M University

Texas New and Existing Inventory

Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University



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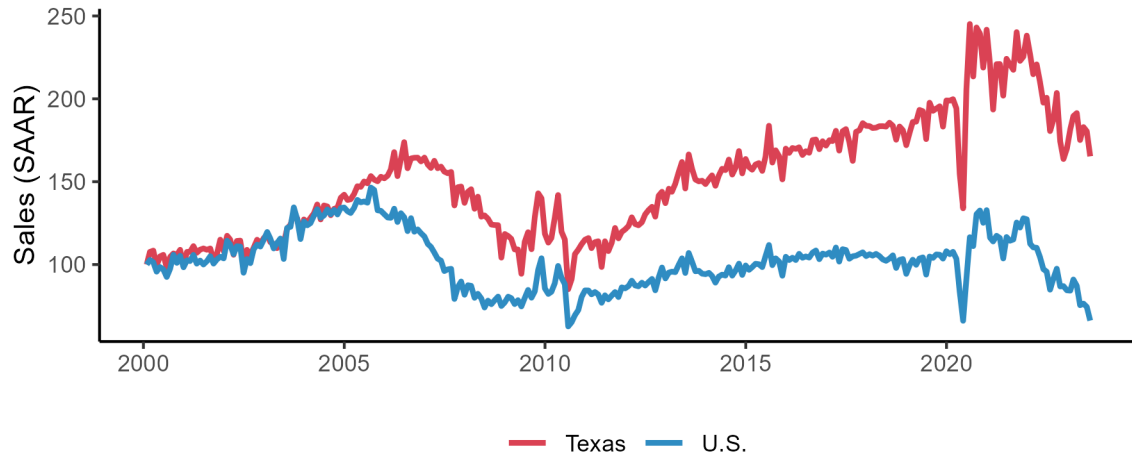
Texas Real Estate Research Center



DEMAND

Residential Home Sales

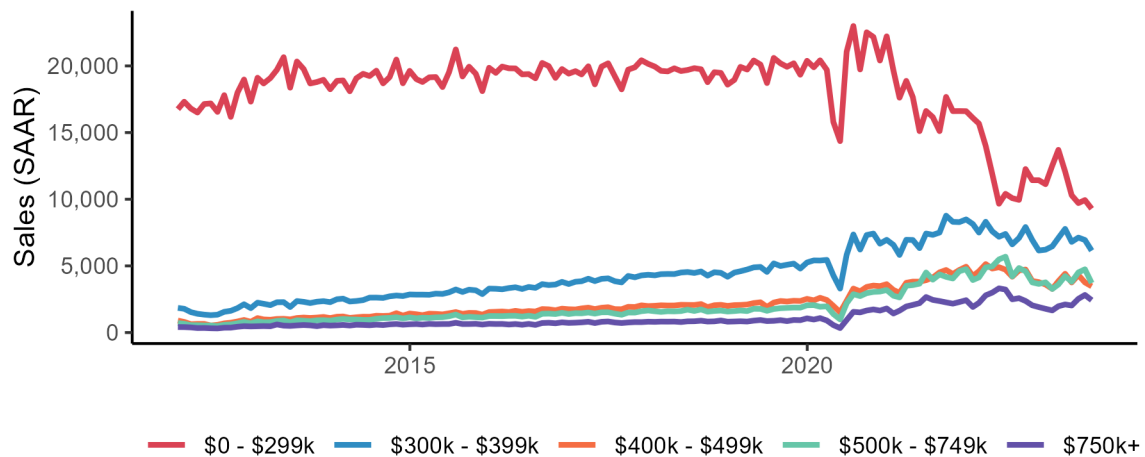
Seasonally Adjusted Annualized Rate



Source: National Association of Realtors - Texas Real Estate Research Center at Texas A&M University

Texas Sales by Price Cohort

Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University



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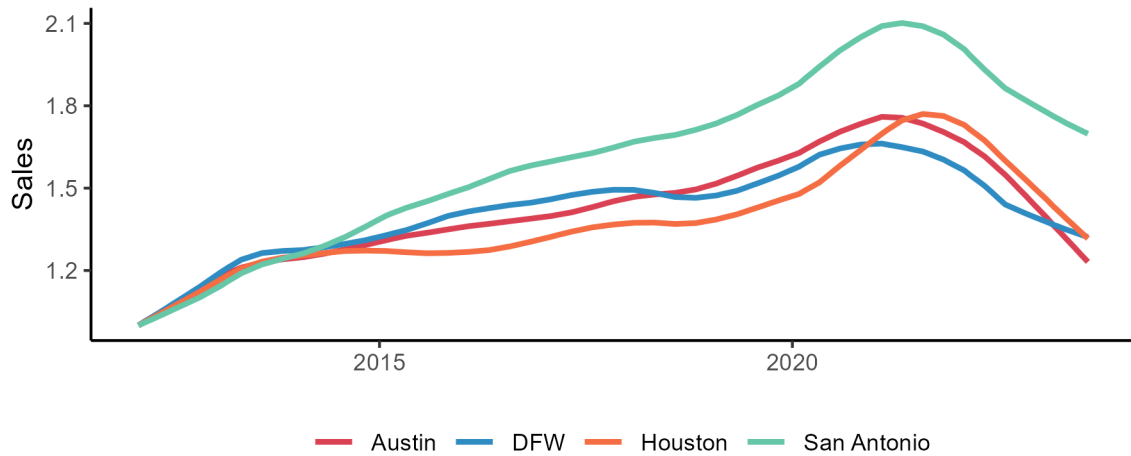
Texas Real Estate Research Center



DEMAND

Metro Home Sales

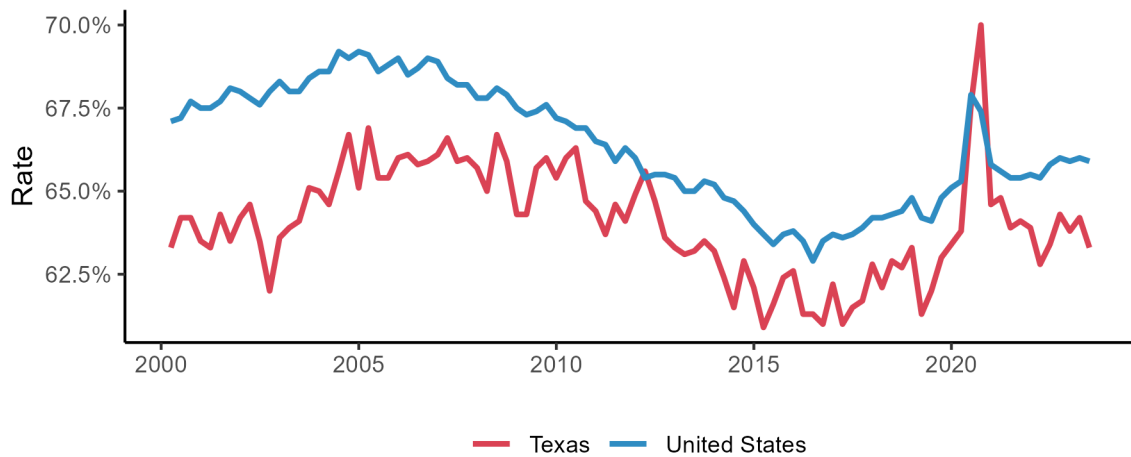
Seasonally Adjusted Trend



Source: Texas Real Estate Research Center at Texas A&M University

Homeownership Rate

Seasonally Adjusted Trend



Source: U.S. Census Bureau and Texas Real Estate Research Center at Texas A&M University



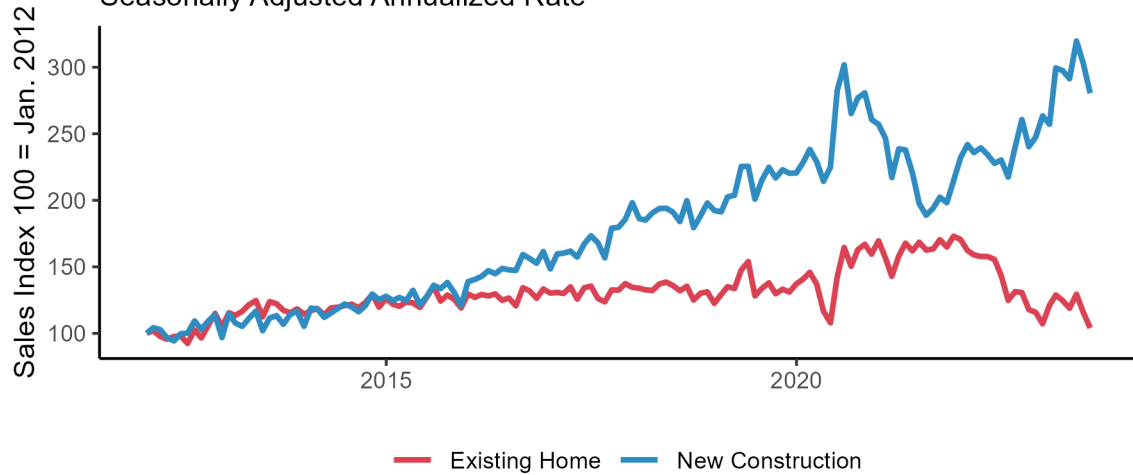
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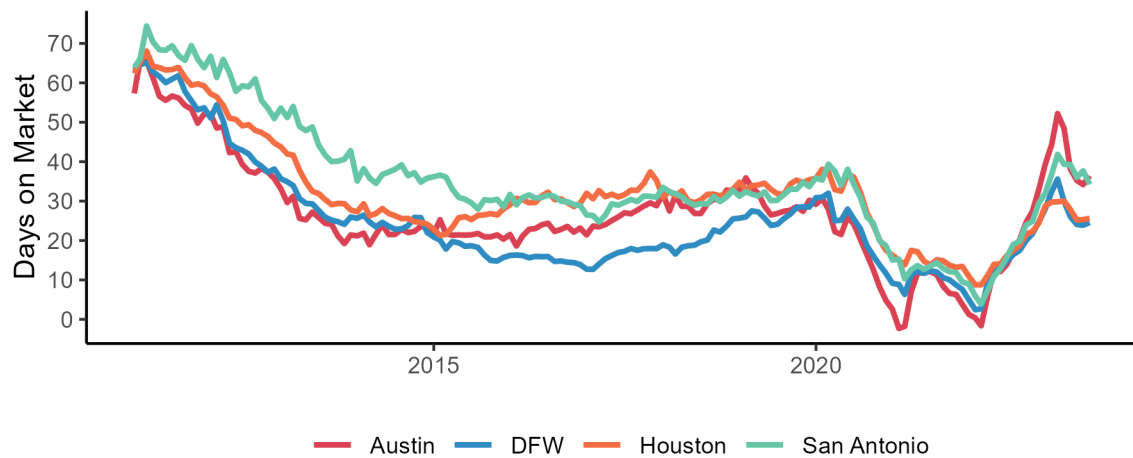
DEMAND

New and Existing Home Sales Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University

Metro Median Days on Market Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University



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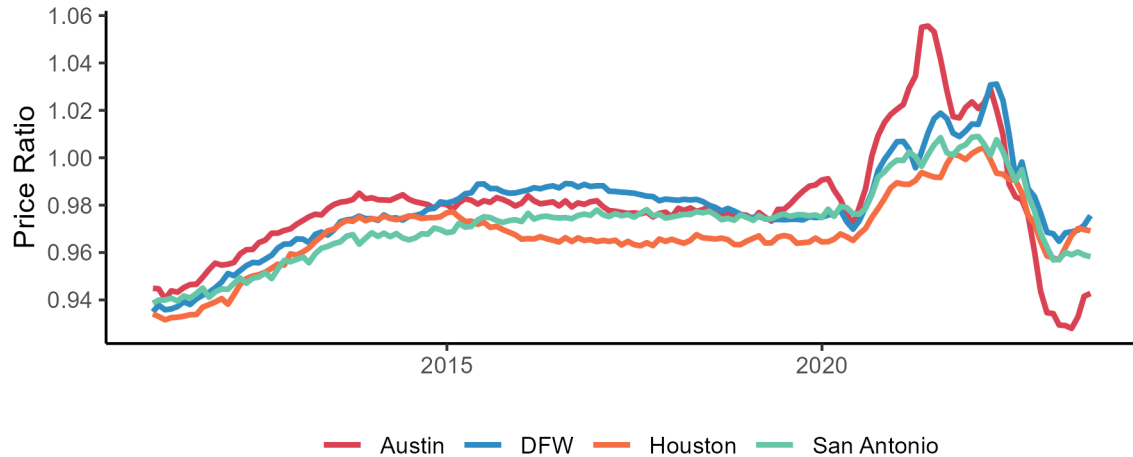
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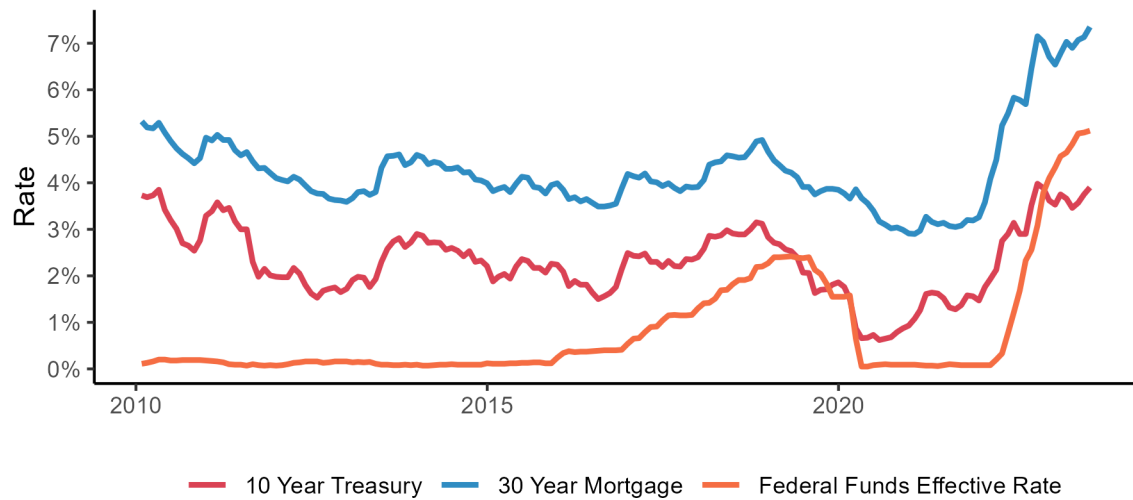
Metro Median Sale to List Price Ratio

Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University

Interest Rates



Source: Federal Reserve - Wall Street Journal - Texas Real Estate Research Center at Texas A&M University



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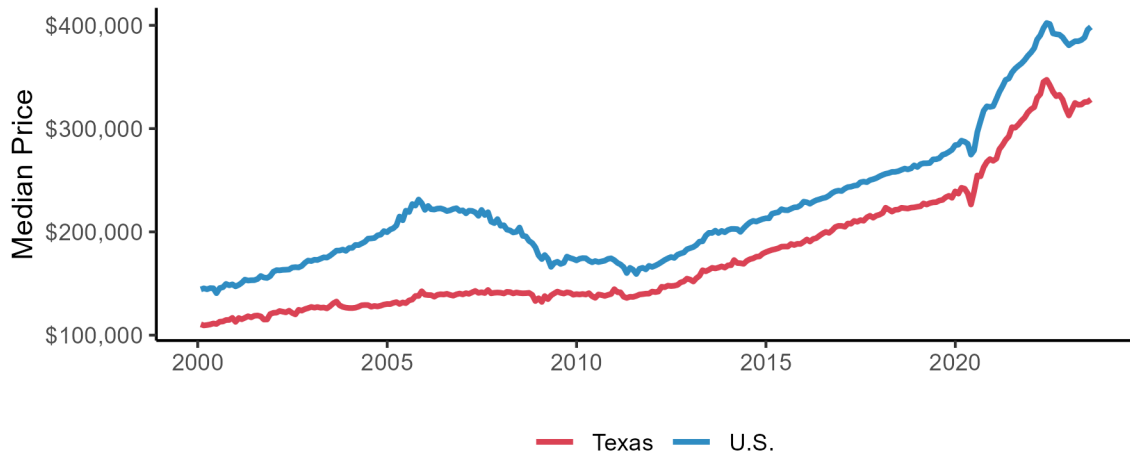
Texas Real Estate Research Center



PRICES

Median Existing Single-Family Home Prices

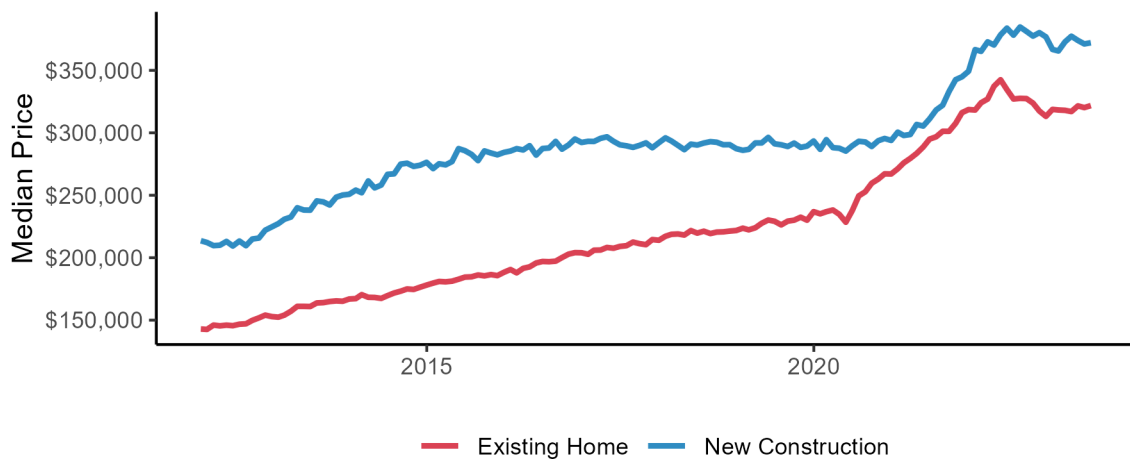
Seasonally Adjusted Annualized Rate



Source: National Association of Realtors - Texas Real Estate Research Center at Texas A&M University

Texas New and Existing Median Home Price

Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University



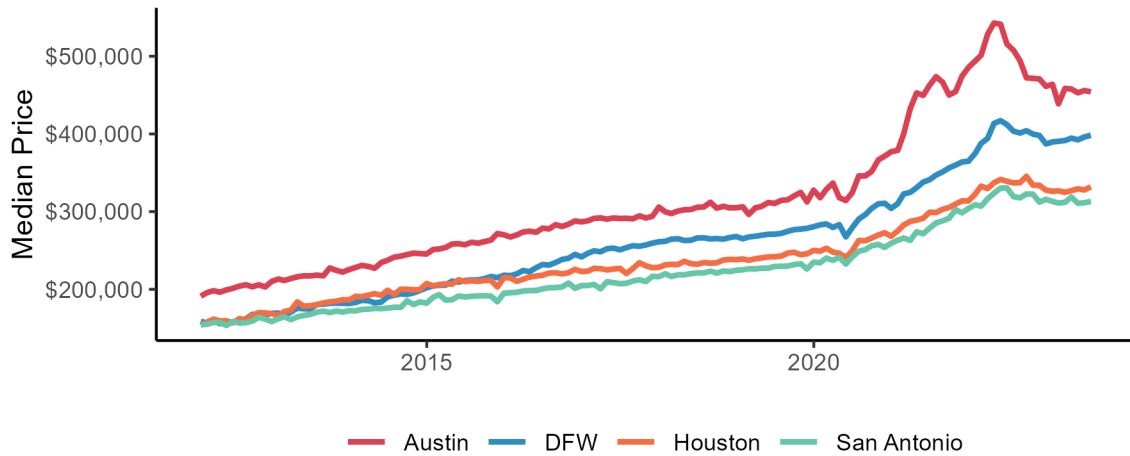
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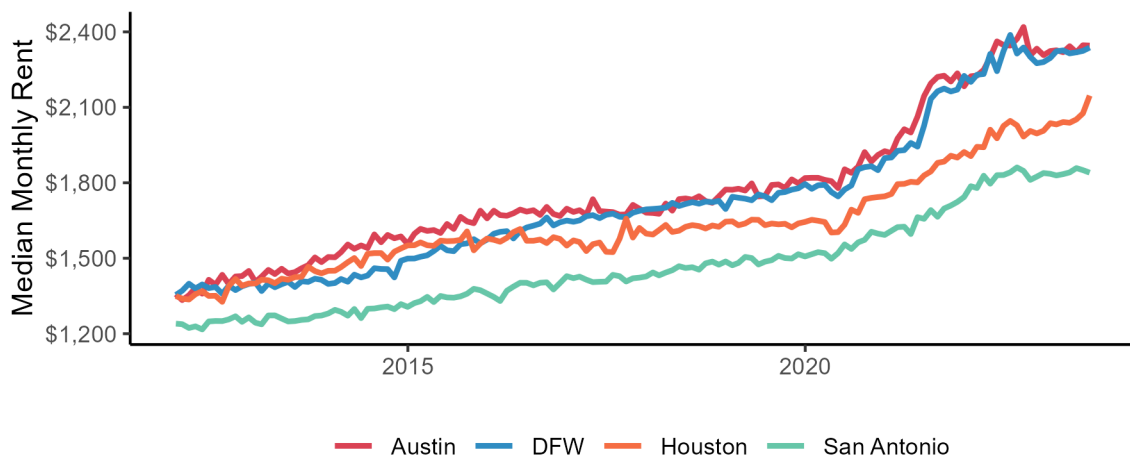
PRICES

Texas Major Metro Median Home Prices Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University

Texas Major Metro Median Single-Family Monthly Rent Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University



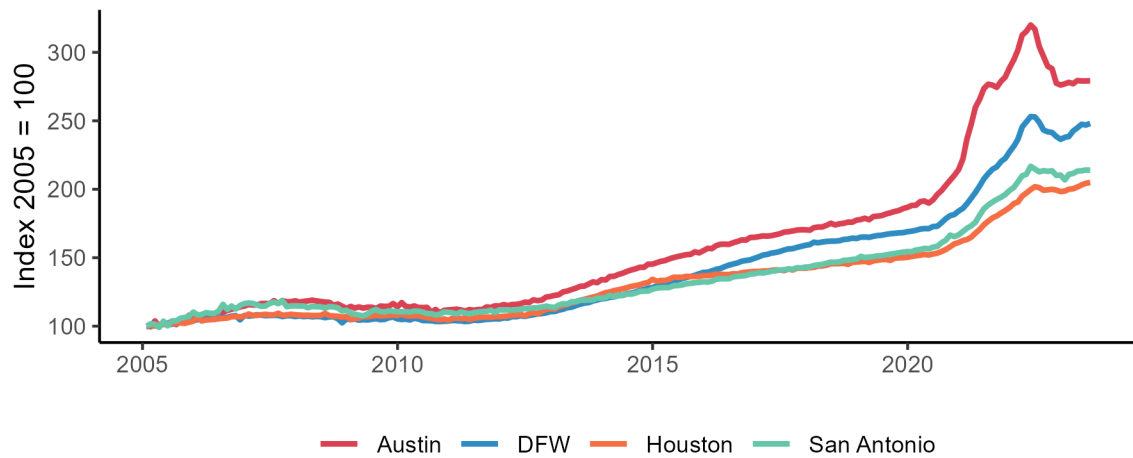
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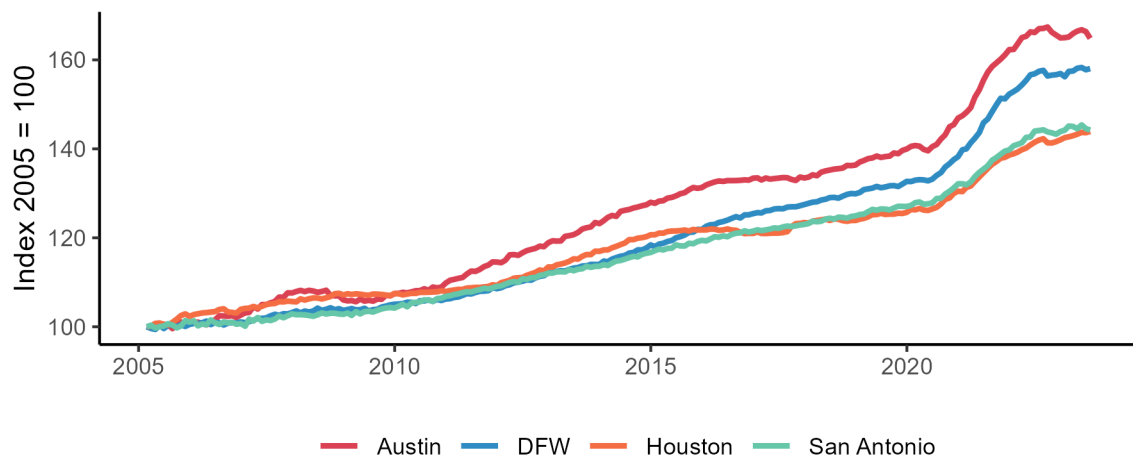
PRICES

Major Metro Home Price Index Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University

Major Metro Single-Family Rent Index Seasonally Adjusted Annualized Rate



Source: Texas Real Estate Research Center at Texas A&M University



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DIVISION OF ACADEMIC AND STRATEGIC COLLABORATIONS

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Attachment 2 – Profit Provision Summary Analysis

Attachment 2 - Exhibit A

Texas Land Title Association

Development of Target Underwriting Profit

1. Basis For Financial Leverage Factors	<i>ALTA</i> ¹	
2. Target Return on Capital (After-Tax)	15.80%	From Dr. Greg Hallman
3. Current 20 Year T-Bill Yield (as of 10/18/2023)	5.20%	
4. Pre-Tax Risk Premium	1.00%	Att. 3 - Exh. B
5. Pre-Tax Return on Invested Assets ²	6.20%	=(3)+(4)
6. Tax on Investment Return	20.08%	Att. 3 - Exh. C
7. After-Tax Return on Invested Assets	4.96%	=(5) x [1 - (6)]
8. Invested Assets / Capital Leverage Factor	1.55	Att. 3 - Exh. B
9. After-Tax Return on Capital	7.66%	=(7)*(8)
10. Required After-Tax Return From Underwriting/Capital	8.14%	=(2)-(9)
11. Premium / Capital Leverage Factor	0.91	Att. 3 - Exh. B
12. Indicated After-Tax Return From Underwriting / Premium [(8) / (9)]	8.96%	=(10)/(11)
13. Indicated Pre-Tax Return From Underwriting / Premium [(10) / 0.79]³	11.3%	=(12)/0.79

Notes:

(1) Average from ALTA Industry Annual Statement Compilation data.

(2) Current 20 Year T-Bill Yield (5.20% as of 10/18/2023) plus risk premium from Att. 3 - Exh. B

(3) Assumed corporate tax rate of 21%

Attachment 3 - Exhibit B

Texas Land Title Association

Development of Investment Returns and Financial Leverage Ratios

		2011	2012	2013	2014	2015
<i>Investment Gain:</i>						
1. Invested Assets	AS Page 2, Line 10	7,272,246,195	7,817,727,401	7,786,435,944	7,836,300,065	8,042,154,514
2. Average Invested Assets	Average of (1)	7,272,246,195	7,544,986,798	7,802,081,673	7,811,368,005	7,939,227,290
3. Investment Gain (Annualized)	AS Page 4, Line 11	367,414,255	330,366,550	268,729,325	200,401,838	248,826,858
4. Capital Gains Tax Adjustment	AS Exh. of Cap. Gain	5,936,046	13,833,751	6,342,449	7,541,253	4,000,158
5. Pre-Tax Investment Gain	(3) + (4)	373,350,301	344,200,301	275,071,774	207,943,091	252,827,016
6. Pre-Tax Inv Gain / Avg Invested Assets	(5) / (2)	5.1%	4.6%	3.5%	2.7%	3.2%
7. U.S. Gov't Bond Yield (20 Year)		3.6%	2.5%	3.1%	3.1%	2.5%
8. Pre-Tax Inv Gain Risk Premium	(6) - (7)	1.5%	2.0%	0.4%	-0.4%	0.6%
<i>Calculation of GAAP Adjusted Capital:</i>						
9. Statutory Reserve on Known Claims	AS Page 3, Line 1	992,770,278	610,749,986	555,440,581	542,370,344	433,994,217
10. Statutory Premium Reserve	AS Page 3, Line 2	3,778,988,633	3,788,444,738	3,871,703,806	3,641,290,531	3,817,887,743
11. Statutory Premium and Loss Reserves	(9) + (10)	4,771,758,911	4,399,194,724	4,427,144,387	4,183,660,875	4,251,881,960
12. Schedule P Reserves	AS Part 2B, Col 4, Line 7	3,856,184,819	3,735,143,470	3,745,237,513	3,769,577,996	3,740,761,535
13. Equity in Reserves (Gross of Tax)	(11) - (12)	915,574,092	664,051,254	681,906,874	414,082,879	511,120,425
14. Equity in Reserves (Net of Tax)	79% of (13)	723,303,533	524,600,491	538,706,430	327,125,474	403,785,136
15. Non-Admitted Assets	AS Page 2, Col 2, Line 28	1,371,592,287	1,152,552,271	776,685,138	638,383,972	741,541,052
16. Surplus as Regards Policyholders	AS Page 3, Line 30	2,628,489,504	3,493,003,371	3,675,733,525	3,821,028,785	3,921,347,115
17. GAAP Adjusted Capital (Year End)	(14) + (15) + (16)	4,723,385,324	5,170,156,133	4,991,125,093	4,786,538,231	5,066,673,303
18. GAAP Adjusted Capital Yearly Avg	Average of (17)	4,723,385,324	4,946,770,728	5,080,640,613	4,888,831,662	4,926,605,767
<i>Operating Income:</i>						
19. Total Operating Income	AS Page 4, Line 3	10,408,559,061	12,225,350,968	13,431,912,783	12,204,486,972	13,649,313,575
20. Amount Paid to or Retained by Title Agents	AS O&I Ex Part 3, Line 2, Col 8	6,441,039,137	8,145,769,295	9,211,448,963	8,072,952,447	9,357,212,320
21. Underwriting Retained Operating Income	(19) - (20)	3,967,519,924	4,079,581,673	4,220,463,820	4,131,534,525	4,292,101,255
<i>Financial Leverage Ratios To (GAAP Adjusted) Capital:</i>						
22. Invested Assets / Capital	(2) / (18)	1.54	1.53	1.54	1.60	1.61
23. Operating Income / Capital	(21) / (18)	0.84	0.82	0.83	0.85	0.87

Attachment 3 - Exhibit B

Texas Land Title Association

Development of Investment Returns and Financial Leverage Ratios

		2016	2017	2018	2019	2020
Investment Gain:						
1. Invested Assets	AS Page 2, Line 10	8,635,174,727	8,687,410,814	8,865,235,535	9,803,677,034	10,537,087,524
2. Average Invested Assets	Average of (1)	8,338,664,621	8,661,292,771	8,776,323,175	9,334,456,285	10,170,382,279
3. Investment Gain (Annualized)	AS Page 4, Line 11	385,619,379	380,909,600	212,394,181	415,560,125	243,077,030
4. Capital Gains Tax Adjustment	AS Exh. of Cap. Gain	16,678,487	15,178,767	14,670,621	20,857,424	(4,651,693)
5. Pre-Tax Investment Gain	(3) + (4)	402,297,866	396,088,367	227,064,802	436,417,549	238,425,337
6. Pre-Tax Inv Gain / Avg Invested Assets	(5) / (2)	4.8%	4.6%	2.6%	4.7%	2.3%
7. U.S. Gov't Bond Yield (20 Year)		2.2%	2.7%	3.0%	2.4%	1.4%
8. Pre-Tax Inv Gain Risk Premium	(6) - (7)	2.6%	1.9%	-0.4%	2.3%	1.0%
Calculation of GAAP Adjusted Capital:						
9. Statutory Reserve on Known Claims	AS Page 3, Line 1	622,724,306	621,480,501	647,723,456	627,355,983	636,469,739
10. Statutory Premium Reserve	AS Page 3, Line 2	3,976,023,364	3,900,296,825	3,948,553,585	4,096,948,255	4,384,451,437
11. Statutory Premium and Loss Reserves	(9) + (10)	4,598,747,670	4,521,777,326	4,596,277,041	4,724,304,238	5,020,921,176
12. Schedule P Reserves	AS Part 2B, Col 4, Line 7	3,703,918,462	3,695,937,670	3,713,695,182	3,725,786,788	4,019,505,415
13. Equity in Reserves (Gross of Tax)	(11) - (12)	894,829,208	825,839,656	882,581,859	998,517,450	1,001,415,761
14. Equity in Reserves (Net of Tax)	79% of (13)	706,915,074	652,413,328	697,239,669	788,828,786	791,118,451
15. Non-Admitted Assets	AS Page 2, Col 2, Line 28	635,506,200	569,260,608	670,535,853	658,268,205	775,363,893
16. Surplus as Regards Policyholders	AS Page 3, Line 30	4,205,954,904	4,198,713,692	4,275,714,525	4,970,259,112	5,479,416,412
17. GAAP Adjusted Capital (Year End)	(14) + (15) + (16)	5,548,376,178	5,420,387,628	5,643,490,047	6,417,356,103	7,045,898,756
18. GAAP Adjusted Capital Yearly Avg	Average of (17)	5,307,524,741	5,484,381,903	5,531,938,837	6,030,423,075	6,731,627,429
Operating Income:						
19. Total Operating Income	AS Page 4, Line 3	14,880,808,953	15,547,959,110	15,787,420,773	16,770,259,259	20,354,684,578
20. Amount Paid to or Retained by Title Agents	AS O&I Ex Part 3, Line 2, Col 8	10,273,216,199	10,491,209,538	10,423,882,902	11,143,057,749	13,909,876,253
21. Underwriting Retained Operating Income	(19) - (20)	4,607,592,754	5,056,749,572	5,363,537,871	5,627,201,510	6,444,808,325
Financial Leverage Ratios To (GAAP Adjusted) Capital:						
22. Invested Assets / Capital	(2) / (18)	1.57	1.58	1.59	1.55	1.51
23. Operating Income / Capital	(21) / (18)	0.87	0.92	0.97	0.93	0.96

Attachment 3 - Exhibit B

Texas Land Title Association

Development of Investment Returns and Financial Leverage Ratios

		2021	2022	Total	
<i>Investment Gain:</i>					
1. Invested Assets	AS Page 2, Line 10	12,204,441,144	10,996,954,500	108,484,845,397	
2. Average Invested Assets	Average of (1)	11,370,764,334	11,600,697,822	106,622,491,245	
3. Investment Gain (Annualized)	AS Page 4, Line 11	341,257,836	311,261,596	3,705,818,573	
4. Capital Gains Tax Adjustment	AS Exh. of Cap. Gain	31,162,167	(19,459,714)	112,089,716	
5. Pre-Tax Investment Gain	(3) + (4)	372,420,003	291,801,882	3,817,908,289	
6. Pre-Tax Inv Gain / Avg Invested Assets	(5) / (2)	3.3%	2.5%	3.6%	
7. U.S. Gov't Bond Yield (20 Year)		2.0%	3.3%		
8. Pre-Tax Inv Gain Risk Premium	(6) - (7)	1.3%	-0.8%		1.00%
<i>Calculation of GAAP Adjusted Capital:</i>					
9. Statutory Reserve on Known Claims	AS Page 3, Line 1	647,897,808	643,657,507	7,582,634,706	
10. Statutory Premium Reserve	AS Page 3, Line 2	5,074,434,429	5,317,022,327	49,596,045,673	
11. Statutory Premium and Loss Reserves	(9) + (10)	5,722,332,237	5,960,679,834	57,178,680,379	
12. Schedule P Reserves	AS Part 2B, Col 4, Line 7	4,469,951,130	4,717,684,821	46,893,384,801	
13. Equity in Reserves (Gross of Tax)	(11) - (12)	1,252,381,107	1,242,995,013	10,285,295,578	
14. Equity in Reserves (Net of Tax)	79% of (13)	989,381,075	981,966,060	8,125,383,507	
15. Non-Admitted Assets	AS Page 2, Col 2, Line 28	897,456,599	991,401,725	9,878,547,803	
16. Surplus as Regards Policyholders	AS Page 3, Line 30	6,311,257,364	5,253,970,635	52,234,888,944	
17. GAAP Adjusted Capital (Year End)	(14) + (15) + (16)	8,198,095,038	7,227,338,420	70,238,820,254	
18. GAAP Adjusted Capital Yearly Avg	Average of (17)	7,621,996,897	7,712,716,729	68,986,843,705	
<i>Operating Income:</i>					
19. Total Operating Income	AS Page 4, Line 3	27,157,161,661	22,975,383,576	195,393,301,269	
20. Amount Paid to or Retained by Title Agents	AS O&I Ex Part 3, Line 2, Col 8	18,862,728,211	15,720,368,811	132,052,761,825	
21. Underwriting Retained Operating Income	(19) - (20)	8,294,433,450	7,255,014,765	63,340,539,444	
<i>Financial Leverage Ratios To (GAAP Adjusted) Capital:</i>					
22. Invested Assets / Capital	(2) / (18)	1.49	1.50	1.55	1.55
23. Operating Income / Capital	(21) / (18)	1.09	0.94	0.92	0.91

Attachment 2 - Exhibit C

ALTA Industry Annual Statement Compilation

Income from Investments

	Description	2013	2014	2015	2016	2017	2018
(1)	U.S. Gov't Bonds - Taxable	6,222,063	6,260,085	6,029,138	5,850,777	6,287,963	8,989,085
(2)	Bonds - Tax Exempt	39,242,420	34,606,078	30,378,272	28,318,613	26,811,121	14,299,932
(3)	Corporate Bonds - Taxable	113,214,189	111,826,379	122,187,916	128,456,011	124,552,748	133,480,408
(4)	Preferred Stock	13,834,782	12,099,220	16,000,637	18,488,055	18,190,189	23,876,503
(5)	Common Stock	66,322,740	41,310,813	51,100,560	30,152,114	32,240,194	37,459,073
(6)	Mortgage Loans	1,849,696	1,524,152	1,068,887	1,807,553	3,250,957	2,814,466
(7)	Real Estate	20,876,313	21,043,255	17,805,853	24,203,854	29,001,271	26,878,234
(8)	Cash/Short-Term Investment	1,291,101	1,282,862	711,661	2,458,913	6,424,232	16,845,535
	TOTAL INCOME FROM INVESTMENTS						
(9)		262,853,304	229,952,844	245,282,924	239,735,890	246,758,675	264,643,236
	Wtd Tax Rate	18.1%	18.1%	18.3%	18.3%	18.5%	19.2%

Attachment 2 - Exhibit C

ALTA Industry Annual Statement Compilation

Income from Investments

	Description	2019	2020	2021	2022	Totals	Tax Rate
(1)	U.S. Gov't Bonds - Taxable	10,074,784	8,435,513	7,649,174	8,451,706	74,250,288	21.00%
(2)	Bonds - Tax Exempt	7,766,098	9,602,182	5,419,506	4,765,352	201,209,574	5.25%
(3)	Corporate Bonds - Taxable	156,563,813	145,194,182	137,536,132	158,114,533	1,331,126,311	21.00%
(4)	Preferred Stock	23,932,122	23,680,016	15,999,614	17,400,928	183,502,066	10.00%
(5)	Common Stock	40,630,480	52,232,221	67,588,093	83,370,361	502,406,649	21.00%
(6)	Mortgage Loans	2,050,380	2,009,071	1,636,975	600,721	18,612,858	21.00%
(7)	Real Estate	26,923,305	26,573,764	27,043,577	22,838,331	243,187,757	21.00%
(8)	Cash/Short-Term Investment	24,613,359	7,431,810	1,590,576	13,767,360	76,417,409	21.00%
	TOTAL INCOME FROM INVESTMENTS						
(9)		292,554,341	275,158,759	264,463,647	309,309,292	2,630,712,912	19.03%
	Wtd Tax Rate	19.7%	19.5%	20.0%	20.1%	19.0%	

Selected

20.1%

Attachment 3 – ALTA Underwriters' Data

ALTA Industry Annual Statement Compilation
Written Premiums - State Summary
Texas

	<u>Premium Written</u>	<u>YOY % Change</u>	
CY2018	2,140,910,335		(a)
CY2019	2,214,499,994	3.4%	(b)
CY2020	2,524,757,054	14.0%	(c)
CY2021	3,521,963,070	39.5%	(d)
CY2022	3,385,048,825	-3.9%	(e)
1/22-6/22	1,865,906,269		(f)
1/23-6/23	1,117,132,483	-40.1%	(g)
CY2023 Estimated	2,026,654,855		(h) = (e) * (g) / (f)
CY23 % Diff From CY21	-42.5%		(i) = (h) / (d) - 1

State Summary
Market Share Analysis
Based on 2019 Total Premium
as of 12/31/19

State	Premium Written		% Increase/ Decrease
	12/31/2019	12/31/2018	
1 Texas	2,214,499,994	2,140,910,335	3.4%
2 California	1,780,948,965	1,626,577,188	9.5%
3 Florida	1,617,781,194	1,510,763,693	7.1%
4 New York	1,141,453,670	1,096,711,695	4.1%
5 Pennsylvania	641,260,019	593,297,428	8.1%
6 Arizona	516,426,496	472,097,637	9.4%
7 New Jersey	485,438,997	442,554,083	9.7%
8 Illinois	482,663,470	482,695,178	0.0%
9 Ohio	443,443,438	413,971,815	7.1%
10 Georgia	438,590,975	396,016,535	10.8%
11 Colorado	410,959,902	373,751,971	10.0%
12 Washington	407,586,569	375,131,832	8.7%
13 Michigan	383,913,931	387,911,580	-1.0%
14 Virginia	361,827,493	333,952,339	8.3%
15 Massachusetts	321,423,367	298,509,392	7.7%
16 Utah	295,838,900	269,408,585	9.8%
17 Maryland	286,241,171	271,648,410	5.4%
18 Oregon	252,029,960	219,231,208	15.0%
19 Canada	244,179,287	236,255,302	3.4%
20 Tennessee	236,830,826	218,193,358	8.5%
21 North Carolina	223,812,517	199,566,909	12.1%
22 Nevada	217,938,362	208,408,079	4.6%
23 Wisconsin	188,814,457	188,550,814	0.1%
24 South Carolina	167,848,861	158,973,158	5.6%
25 Louisiana	161,127,466	153,845,424	4.7%
26 Minnesota	160,674,635	152,038,957	5.7%
27 Indiana	145,258,000	132,485,570	9.6%
28 Idaho	143,436,424	123,080,038	16.5%
29 Connecticut	118,775,972	112,153,846	5.9%
30 Alabama	111,607,153	108,978,745	2.4%
31 New Mexico	102,489,945	95,634,713	7.2%
32 Kentucky	96,883,011	86,623,856	11.8%
33 Hawaii	90,598,725	84,130,522	7.7%
34 Oklahoma	79,215,422	77,200,889	2.6%
35 Dist. Of Columbia	76,499,313	71,504,701	7.0%
36 Delaware	68,285,372	62,374,034	9.5%
37 Arkansas	67,206,546	62,391,200	7.7%
38 Aggregate Other Alien	64,182,892	73,442,302	-12.6%
39 Nebraska	60,672,950	59,753,416	1.5%
40 Montana	54,494,736	53,389,094	2.1%
41 Missouri	54,217,674	55,272,370	-1.9%
42 Mississippi	51,531,061	48,304,199	6.7%
43 Kansas	50,796,964	48,306,228	5.2%
44 New Hampshire	41,450,446	40,414,888	2.6%
45 Maine	40,245,090	37,258,176	8.0%
46 Rhode Island	36,601,134	35,286,563	3.7%
47 Wyoming	30,863,874	27,772,478	11.1%
48 Alaska	30,548,729	28,279,554	8.0%
49 West Virginia	23,461,778	21,252,478	10.4%
50 South Dakota	23,350,842	22,097,750	5.7%
51 Vermont	14,643,528	15,591,207	-6.1%
52 North Dakota	12,594,272	11,718,698	7.5%
53 Puerto Rico	12,198,178	8,921,467	36.7%
54 Iowa	11,020,011	10,969,226	0.5%
55 Guam	5,287,562	5,454,451	-3.1%
56 Mexico	3,119,239	1,606,807	94.1%
57 US Virgin Islands	1,510,082	867,105	74.2%
58 Northern Mariana Islands	348,423	902,241	-61.4%
59 Totals	15,806,950,270	14,844,391,717	6.5%

State Summary
Market Share Analysis
Based on 2020 Total Premium
as of 12/31/20

State	Premium Written		% Increase/ Decrease
	12/31/2020	12/31/2019	
1 Texas	2,524,757,054	2,214,499,994	14.0%
2 California	2,263,892,709	1,780,948,965	27.1%
3 Florida	1,901,109,939	1,617,781,194	17.5%
4 New York	1,015,420,771	1,141,453,670	-11.0%
5 Pennsylvania	826,185,031	641,260,019	28.8%
6 Arizona	648,999,205	516,426,496	25.7%
7 Colorado	589,080,758	410,959,902	43.3%
8 New Jersey	585,322,275	485,438,997	20.6%
9 Illinois	547,463,496	482,663,470	13.4%
10 Georgia	545,509,871	438,590,975	24.4%
11 Ohio	533,179,414	443,443,438	20.2%
12 Michigan	519,766,854	383,913,931	35.4%
13 Virginia	516,143,884	361,827,493	42.6%
14 Washington	516,036,968	407,586,569	26.6%
15 Massachusetts	402,608,151	321,423,367	25.3%
16 Utah	398,836,651	295,838,900	34.8%
17 Maryland	379,620,661	286,241,171	32.6%
18 Oregon	376,272,515	252,029,960	49.3%
19 North Carolina	299,955,340	223,812,517	34.0%
20 Tennessee	294,842,826	236,830,826	24.5%
21 Canada	274,507,703	244,179,287	12.4%
22 Nevada	240,514,228	217,938,362	10.4%
23 Wisconsin	234,531,637	188,814,457	24.2%
24 Minnesota	219,831,457	160,674,635	36.8%
25 South Carolina	212,098,322	167,848,861	26.4%
26 Louisiana	198,760,122	161,127,466	23.4%
27 Idaho	197,091,363	143,436,424	37.4%
28 Indiana	180,944,827	145,258,000	24.6%
29 Connecticut	154,920,902	118,775,972	30.4%
30 Alabama	145,609,639	111,607,153	30.5%
31 New Mexico	130,250,103	102,489,945	27.1%
32 Kentucky	124,693,891	96,883,011	28.7%
33 Hawaii	120,231,947	90,598,725	32.7%
34 Oklahoma	100,985,486	79,215,422	27.5%
35 Dist. Of Columbia	81,741,868	76,499,313	6.9%
36 Arkansas	81,371,948	67,206,546	21.1%
37 Montana	79,536,491	54,494,736	46.0%
38 Nebraska	76,194,668	60,672,950	25.6%
39 Delaware	73,217,620	68,285,372	7.2%
40 Missouri	69,839,208	54,217,674	28.8%
41 Kansas	67,491,227	50,796,964	32.9%
42 Mississippi	63,848,274	51,531,061	23.9%
43 New Hampshire	58,744,014	41,450,446	41.7%
44 Aggregate Other Alien	54,502,483	64,182,892	-15.1%
45 Maine	53,116,596	40,245,090	32.0%
46 Alaska	45,468,661	30,548,729	48.8%
47 Rhode Island	44,802,401	36,601,134	22.4%
48 Wyoming	38,917,181	30,863,874	26.1%
49 South Dakota	30,899,719	23,350,842	32.3%
50 West Virginia	30,661,769	23,461,778	30.7%
51 Vermont	19,175,098	14,643,528	30.9%
52 Iowa	16,724,926	11,020,011	51.8%
53 North Dakota	16,393,335	12,594,272	30.2%
54 Puerto Rico	9,968,998	12,198,178	-18.3%
55 Guam	5,521,799	5,287,562	4.4%
56 US Virgin Islands	1,570,184	1,510,082	4.0%
57 Mexico	1,322,543	3,119,239	-57.6%
58 Northern Mariana Islands	304,101	348,423	-12.7%
59 Totals	19,241,311,112	15,806,950,270	21.7%

State Summary
Market Share Analysis
Based on 2021 Total Premium
as of 12/31/21

State	Premium Written		% Increase/ Decrease
	12/31/2021	12/31/2020	
1 Texas	3,521,963,070	2,524,757,054	39.5%
2 Florida	2,891,199,893	1,901,109,939	52.1%
3 California	2,820,894,780	2,263,892,709	24.6%
4 New York	1,450,109,819	1,015,420,771	42.8%
5 Pennsylvania	1,176,892,907	826,185,031	42.4%
6 Arizona	873,878,463	648,999,205	34.7%
7 New Jersey	823,346,306	585,322,275	40.7%
8 Georgia	750,177,601	545,509,871	37.5%
9 Illinois	737,621,626	547,463,496	34.7%
10 Virginia	708,890,429	516,143,884	37.3%
11 Ohio	699,199,917	533,179,414	31.1%
12 Colorado	690,581,869	589,080,758	17.2%
13 Michigan	689,983,481	519,766,854	32.7%
14 Washington	640,498,007	516,036,968	24.1%
15 Maryland	529,527,266	379,620,661	39.5%
16 Massachusetts	524,040,444	402,608,151	30.2%
17 Utah	520,613,909	398,836,651	30.5%
18 Canada	425,773,668	274,507,703	55.1%
19 Oregon	425,763,064	376,272,515	13.2%
20 North Carolina	420,393,104	299,955,340	40.2%
21 Tennessee	419,818,819	294,842,826	42.4%
22 Nevada	302,982,280	240,514,228	26.0%
23 South Carolina	297,572,740	212,098,322	40.3%
24 Wisconsin	291,471,389	234,531,637	24.3%
25 Minnesota	284,868,024	219,831,457	29.6%
26 Idaho	270,772,053	197,091,363	37.4%
27 Louisiana	247,891,549	198,760,122	24.7%
28 Indiana	231,906,060	180,944,827	28.2%
29 Connecticut	227,967,123	154,920,902	47.2%
30 Alabama	203,980,919	145,609,639	40.1%
31 New Mexico	167,266,141	130,250,103	28.4%
32 Kentucky	163,624,763	124,693,891	31.2%
33 Hawaii	153,423,831	120,231,947	27.6%
34 Oklahoma	145,029,210	100,985,486	43.6%
35 Delaware	121,951,650	73,217,620	66.6%
36 Arkansas	118,140,279	81,371,948	45.2%
37 Montana	109,051,765	79,536,491	37.1%
38 Dist. Of Columbia	105,141,397	81,741,868	28.6%
39 Nebraska	102,321,621	76,194,668	34.3%
40 Missouri	90,692,416	69,839,208	29.9%
41 Mississippi	88,263,598	63,848,274	38.2%
42 Aggregate Other Alien	85,237,676	54,502,483	56.4%
43 Kansas	83,594,848	67,491,227	23.9%
44 New Hampshire	75,460,271	58,744,014	28.5%
45 Maine	75,388,619	53,116,596	41.9%
46 Rhode Island	68,786,085	44,802,401	53.5%
47 Wyoming	59,112,742	38,917,181	51.9%
48 Alaska	53,760,274	45,468,661	18.2%
49 South Dakota	41,916,275	30,899,719	35.7%
50 West Virginia	41,138,896	30,661,769	34.2%
51 Vermont	27,150,167	19,175,098	41.6%
52 Iowa	27,113,691	16,724,926	62.1%
53 Puerto Rico	20,853,617	9,968,998	109.2%
54 North Dakota	20,589,900	16,393,335	25.6%
55 Guam	6,769,726	5,521,799	22.6%
56 Mexico	3,146,849	1,322,543	137.9%
57 US Virgin Islands	2,129,610	1,570,184	35.6%
58 Northern Mariana Islands	204,876	304,101	-32.6%
59 Totals	26,157,841,372	19,241,311,112	35.9%

State Summary
Market Share Analysis
Based on 2022 Total Premium
as of 12/31/22

State	Premium Written		% Increase/ Decrease
	12/31/2022	12/31/2021	
1 Texas	3,385,048,825	3,521,963,070	-3.9%
2 Florida	2,691,856,932	2,891,199,893	-6.9%
3 California	1,887,795,924	2,820,894,780	-33.1%
4 New York	1,363,369,537	1,450,109,819	-6.0%
5 Pennsylvania	898,461,610	1,176,892,907	-23.7%
6 Arizona	701,210,448	873,878,463	-19.8%
7 Georgia	684,050,035	750,177,601	-8.8%
8 New Jersey	666,674,151	823,346,306	-19.0%
9 Ohio	645,349,612	699,199,917	-7.7%
10 Illinois	626,743,259	737,621,626	-15.0%
11 Michigan	557,516,633	689,983,481	-19.2%
12 Virginia	535,647,696	708,890,429	-24.4%
13 Colorado	478,634,363	690,581,869	-30.7%
14 Washington	444,294,473	640,498,007	-30.6%
15 Tennessee	427,569,126	419,818,819	1.8%
16 Maryland	412,034,323	529,527,266	-22.2%
17 Massachusetts	409,128,827	524,040,444	-21.9%
18 Canada	387,349,347	425,773,668	-9.0%
19 Utah	385,406,730	520,613,909	-26.0%
20 North Carolina	363,350,156	420,393,104	-13.6%
21 South Carolina	275,706,989	297,572,740	-7.3%
22 Wisconsin	274,301,886	291,471,389	-5.9%
23 Oregon	266,647,632	425,763,064	-37.4%
24 Nevada	241,888,697	302,982,280	-20.2%
25 Louisiana	213,355,372	247,891,549	-13.9%
26 Minnesota	206,526,858	284,868,024	-27.5%
27 Alabama	202,223,886	203,980,919	-0.9%
28 Connecticut	197,393,805	227,967,123	-13.4%
29 Idaho	194,184,515	270,772,053	-28.3%
30 Indiana	186,234,150	231,906,060	-19.7%
31 Kentucky	147,710,202	163,624,763	-9.7%
32 New Mexico	140,466,739	167,266,141	-16.0%
33 Oklahoma	138,792,532	145,029,210	-4.3%
34 Arkansas	110,572,395	118,140,279	-6.4%
35 Hawaii	107,639,110	153,423,831	-29.8%
36 Delaware	107,410,838	121,951,650	-11.9%
37 Montana	91,975,287	109,051,765	-15.7%
38 Aggregate Other Alien	86,579,742	85,237,676	1.6%
39 Mississippi	84,719,311	88,263,598	-4.0%
40 Nebraska	84,050,837	102,321,621	-17.9%
41 Dist. Of Columbia	83,883,223	105,141,397	-20.2%
42 Missouri	79,428,353	90,692,416	-12.4%
43 Kansas	68,926,980	83,594,848	-17.5%
44 Maine	65,679,899	75,388,619	-12.9%
45 New Hampshire	61,407,872	75,460,271	-18.6%
46 Rhode Island	52,945,594	68,786,085	-23.0%
47 Wyoming	45,957,572	59,112,742	-22.3%
48 Alaska	38,434,173	53,760,274	-28.5%
49 West Virginia	38,130,364	41,138,896	-7.3%
50 South Dakota	37,588,563	41,916,275	-10.3%
51 Vermont	24,297,879	27,150,167	-10.5%
52 Iowa	20,916,973	27,113,691	-22.9%
53 Puerto Rico	20,735,503	20,853,617	-0.6%
54 North Dakota	17,047,736	20,589,900	-17.2%
55 Guam	9,208,012	6,769,726	36.0%
56 US Virgin Islands	2,966,489	2,129,610	39.3%
57 Mexico	2,736,094	3,146,849	-13.1%
58 Northern Mariana Islands	335,863	204,876	63.9%
59 Totals	21,980,499,932	26,157,841,372	-16.0%

State Summary
Market Share Analysis
Based on 2023 Total Premium
as of 6/30/23

State	Premium Written		% Increase/ Decrease
	6/30/2023	6/30/2022	
1 Texas	1,117,132,483	1,865,906,269	-40.1%
2 Florida	932,925,672	1,466,766,154	-36.4%
3 California	642,536,057	1,141,236,800	-43.7%
4 New York	429,559,356	748,046,810	-42.6%
5 Pennsylvania	278,726,341	488,646,834	-43.0%
6 Georgia	242,214,757	374,432,542	-35.3%
7 Arizona	238,413,661	422,802,387	-43.6%
8 Illinois	227,558,162	339,713,396	-33.0%
9 New Jersey	207,647,682	374,159,868	-44.5%
10 Ohio	199,762,076	325,461,861	-38.6%
11 Michigan	190,707,397	284,259,632	-32.9%
12 Virginia	172,696,252	304,036,183	-43.2%
13 Colorado	148,278,818	271,884,878	-45.5%
14 Tennessee	140,835,835	225,114,779	-37.4%
15 Canada	140,458,612	220,024,393	-36.2%
16 Washington	135,539,019	252,406,400	-46.3%
17 Massachusetts	128,813,115	213,451,630	-39.7%
18 Maryland	128,542,113	230,337,642	-44.2%
19 North Carolina	117,727,985	199,926,044	-41.1%
20 Utah	113,503,658	224,579,256	-49.5%
21 South Carolina	98,472,596	148,683,406	-33.8%
22 Wisconsin	95,025,753	138,129,248	-31.2%
23 Oregon	79,783,061	155,043,485	-48.5%
24 Nevada	74,263,999	141,641,934	-47.6%
25 Indiana	71,958,900	97,365,922	-26.1%
26 Louisiana	68,717,466	120,366,771	-42.9%
27 Minnesota	63,932,472	112,570,040	-43.2%
28 Alabama	63,136,891	107,911,117	-41.5%
29 Connecticut	62,927,154	101,395,611	-37.9%
30 Idaho	57,936,910	114,783,295	-49.5%
31 Kentucky	52,935,665	74,452,186	-28.9%
32 Oklahoma	49,643,799	72,917,381	-31.9%
33 New Mexico	47,944,895	82,324,799	-41.8%
34 Arkansas	41,739,937	57,631,458	-27.6%
35 Hawaii	38,950,490	65,055,597	-40.1%
36 Aggregate Other Alien	37,766,863	43,933,560	-14.0%
37 Delaware	32,373,215	59,946,052	-46.0%
38 Mississippi	31,061,698	44,748,875	-30.6%
39 Nebraska	30,003,327	44,103,191	-32.0%
40 Missouri	28,084,547	40,984,185	-31.5%
41 Montana	28,009,598	47,944,934	-41.6%
42 Dist. Of Columbia	27,238,094	47,384,243	-42.5%
43 Kansas	26,051,808	36,908,791	-29.4%
44 Maine	20,475,300	33,799,265	-39.4%
45 Rhode Island	18,236,392	28,048,360	-35.0%
46 New Hampshire	18,109,607	31,409,124	-42.3%
47 Wyoming	15,359,503	25,232,295	-39.1%
48 West Virginia	13,858,327	19,418,241	-28.6%
49 Alaska	12,221,193	20,961,912	-41.7%
50 South Dakota	12,025,806	20,040,267	-40.0%
51 Vermont	10,802,693	13,689,856	-21.1%
52 Puerto Rico	7,085,711	10,244,098	-30.8%
53 Iowa	6,684,038	11,670,023	-42.7%
54 North Dakota	5,738,717	8,524,138	-32.7%
55 Guam	2,068,290	3,691,727	-44.0%
56 US Virgin Islands	1,392,823	1,526,014	-8.7%
57 Mexico	660,005	1,054,137	-37.4%
58 Northern Mariana Islands	521,840	142,444	266.3%
59 Totals	7,286,778,434	12,158,871,740	-40.1%

Attachment 4 – TTIGA Guaranty Fees Current Report

Texas Title Insurance Guaranty Association
Title Guaranty/GARC Fees and Policies Quarter 2023 Report

Policies Reported

Year	1 st Q	2 nd Q	3 rd Q	4 th Q	Totals
2004	288,644	388,908	368,946	339,339	1,385,837
2005	312,800	393,331	407,882	358,790	1,472,803
2006	346,287	415,750	404,321	355,302	1,521,660
2007	325,214	366,145	340,542	283,709	1,315,610
2008	280,705	279,453	255,025	200,505	1,015,688
2009	212,453	266,830	254,483	233,221	966,987
2010	189,898	259,685	229,007	236,180	914,770
2011	191,988	230,458	242,042	230,523	895,011
2012	252,572	277,150	298,627	289,157	1,117,506
2013	274,085	339,953	321,053	264,311	1,199,402
2014 (GARC)	210,631	297,366	296,444	276,227	1,080,668
2015 (No Fee)					
2016	N/A	315,545	345,339	303,802	964,686
2017	271,656	338,974	322,629	301,431	1,234,690
2018 (GARC)	250,964	344,116	317,757	292,358	1,205,195
2019	N/A	217,584	360,361	346,985	924,930
2020	324,342	409,986	507,231	481,515	1,723,074
2021	445,557	524,519	511,210	477,847	1,959,133
2022	394,047	435,916	381,096	266,472	1,477,531
2023	258,721	325,417			

Number of Agents Who **Remitted Timely** GF's During the 2nd Q: **705 (77%)**

(1Q-23 651 (71%))

Number of Agents Who **Remitted Late** During the 2nd Q: **16**

(1Q-23 21)

Number of Agents **Non-Filers** who during Submit During 2nd Q: **.72**¹

(1Q-23 102)

Number of Agents Who remitted other quarters in 2nd Q: **61**

(1Q-74)

Number of Agents who received rejection notices: 2nd **41**

(1Q-23 38)

Fees Collected for 2023

2023 1st Quarter Guaranty Fees collected - **517,442.00**

2023 2nd Quarter Guaranty Fees collected - **\$650,728.00**

2023 3rd Quarter Guaranty Fees collected - \$ _____

2023 4th Quarter Guaranty Fees collected - \$ _____

Total Guaranty Fees Collected: **\$1,168,170.00**

¹ On or about August 23, 2023, Non-filer report emailed to TDI. A blast email from TDI was sent to Non-filer which generated an additional \$23,828.00 recorded in the 3Q-23 spreadsheet.