REZITRADE®

Home Price Index Methodology

Index construction objectives, guiding principles and methodology for the REZITRADE Home Price Indexes

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INTRODUCTION

Introducing the REZITRADE Home Price Indexes, a sophisticated suite of tools designed to capture and express the dynamic nature of home prices across diverse geographical markets. These Indexes, collectively referred to as the "REZITRADE Indexes," consist of composite indexes and tracking indexes, forming the backbone of a variety of proprietary, index-linked financial products.

The principal function of the REZITRADE Composite Indexes is to serve as the underlying metric for residential prices. By doing so, they allow consumers to gain pure-play exposure to residential real estate markets.

The aim of this paper is to provide a comprehensive overview of the methodology behind the REZITRADE Indexes. We delve into the structure and composition of the indexes, the guiding principles of our methodology, and the process of index construction. We also discuss the frequency of reporting, the calculations involved, and the governance policy surrounding the Indexes. Our hope is that this transparency will contribute to a better grasp and wider acceptance of the REZITRADE Home Price Indexes as a vital tool in the world of residential real estate.

INDEX OBJECTIVE

The REZITRADE Home Price Indexes measure home price inflation or deflation as experienced by real estate purchasers in specific geographical markets. REZITRADE Indexes are comprised of composite indexes and tracking indexes. REZITRADE Composite Indexes are utilized in proprietary, index-linked products, as the underlying measure of the overall residential prices within specific geographical markets. REZITRADE Tracking Indexes are an additional set of reference indexes calculated for geographical markets that provide more granular insights into pricing movements by property category and transaction price tiers. REZITRADE Indexes are calculated monthly.

REZITRADE Indexes serve as benchmarks for measuring, evaluating, and comparing residential real estate prices across major landmark locations. As a benchmark, REZITRADE Indexes primary purpose is to function as a measure of an overall market's characteristics and performance, effectively representing how the market has behaved over time. Our rules-based index methodology is designed to be applied uniformly across geographical markets and provide a standardized measure of home price changes – therefore, offering consumers a transparent and consistent benchmark measure of comparability across different markets. That contrasts with other existing home price indexes where comparability across different geographical markets is limited (if available at all) as a result of different data sources, index methodologies applied, reporting timeliness, revision policies, and/or varying composition of market segments being measured.

INDEX COMPOSITION AND STRUCTURE

The REZITRADE Home Price Indexes are broadly categorized into two types: REZITRADE Composite Indexes and REZITRADE Tracking Indexes.

REZITRADE COMPOSITE INDEXES: These indexes are designed to provide a comprehensive measure of overall changes in median sales price within a specific geographical market. They control for changes in real estate categories, property age, and price tiers to arrive at an overall weighted median price. These indexes are the foundation for all our proprietary, index-linked products and serve as the underlying measure of residential prices.

REZITRADE TRACKING INDEXES: These indexes are more detailed and provide insights into pricing movements by property category and transaction price tiers. They are divided into three subcategories:

- Property Category Indexes: These track monthly changes in median sales prices for specific real estate categories.
- Transaction Price Tier Indexes: These categorize monthly transactions into three price tiers: Low, Middle, and High.
- Property Category by Transaction Price Tier Indexes: These indexes measure each property category by transaction price tier, providing detailed insights into the real estate market's different segments.

Together, the REZITRADE Composite Indexes and REZITRADE Tracking Indexes aim to provide consumers with a comprehensive understanding of residential real estate pricing trends in a market.

GUIDING PRINCIPLES OF REZITRADE INDEX METHODOLOGY

The five principles outlined below – objectivity, transparency, modular design, reliability, and lack of revisions – are essential to an index's ability to effectively represent residential real estate pricing trends in a market. REZITRADE Indexes adhere to the following principles:

PRINCIPLE 1: OBJECTIVE AND UNBIASED RULES-BASED METHODOLOGY

Our view is that an effective benchmark index should be unbiased, objective and rules-based. REZITRADE Indexes construction methodology includes all transactions available in the market that meet rules-based criteria, rather than a hand-selected sample. Unlike other methodologies, we do not use subjective variables, sampling, weights, or committees to determine which transactions should be included in our indexes. Instead, our methodology relies on an objective approach designed to provide an unbiased and comprehensive view of residential real estate markets.

PRINCIPLE 2: COMPLETE TRANSPARENCY

REZITRADE Indexes are designed and constructed in a completely transparent manner allowing users full access to all the data required to calculate monthly index points. We purposely avoid a "black box" approach in our methodology that is widely employed by other existing home price indexes. Instead of obfuscating the index engine behind complex statistical prediction models, our methodology employs straightforward, time-proven and intuitive index construction that users can recreate utilizing our methodology manual in combination with data available on our platform (www.rezitrade.com). All

transactions used to calculate the respective REZITRADE Indexes are available on a monthly basis, free of charge.

PRINCIPLE 3: MODULAR DESIGN

REZITRADE Indexes employ modularity to provide index users with the method of segmenting the broad residential real estate market into distinct subgroups / segments (e.g., new construction, single family dwelling, high transaction price tier) to provide insight into the current state of the market and inform asset allocation decisions. Our segments measure distinct parts of the market and are the basis for the REZITRADE Tracking Indexes. The REZITRADE Composite Indexes (each, a composite index comprised of the segments) provide a measurement of the broad residential real estate market for a specified geographical market – and serve as the underlying index for all our products.

PRINCIPLE 4: RELIABLE MAINTENANCE, GOVERNANCE, AND INDEPENDENT VERIFICATION

We have implemented a disciplined, reliable maintenance process backed by a well-defined, balanced governance system. Our codified REZITRADE Home Price Indexes Methodology (including, the supporting Index Operations Manual) governs all elements of index construction and maintenance. Any changes require the approval of the REZITRADE Index Committee. The REZITRADE Index Committee is comprised of Boris Ginovker (CEO of REZITRADE), Ryan Smith (President and COO of REZITRADE) and Mark Shilshtut (CTO of REZITRADE). All REZITRADE Composite Indexes are independently calculated by Solactive AG, a world leader in index calculation and maintenance, to ensure complete objectively and accuracy.

PRINCIPLE 5: NO REVISIONS CREATES SUITABILITY FOR USE AS BASIS FOR PRODUCTS

Given accuracy and stability are essential features for the functioning of our products, REZITRADE Indexes methodology does not require ongoing revisions (as data for future periods becomes available) to historical published index values. This contrasts with other existing 'reference' home price indexes (utilizing repeat sales or hedonic techniques) that have an inherent feature of revisions to historical values as data for future periods becomes available[1]. Any necessitated monthly index revision can be problematic. REZITRADE Indexes were designed to be used for unique risk solutions – and are the only suitable benchmark basis for financial products (offered through the REZITRADE and third-party platforms).

INDEX CONSTRUCTION

HIGHLIGHTS

REZITRADE Indexes use objective, rules-based procedures – eliminating any subjective human input from the process of index compilation – to produce the most accurate measure of residential real estate prices. We use a median sales price-based approach, as it is widely recognized as the most accurate objective methodology for indexing housing prices, capturing both existing and new housing transactions. Our approach consequently delivers the true measure of the overall price change in a geographical market, as experienced by purchasers of homes. The methodology of utilizing median prices (vs. repeat sales or hedonic techniques) to measure overall price movements is the same technique employed by National Association of Realtors (NAR Index) and the United States Census Bureau (Median Sales Price for New Houses Sold in the Unites States Index).

[1] Eric Clapham, Peter Englund, John M. Quigley and Christian L. Redfearn, "Revisiting the Past: Revision in Repeat Sales and Hedonic Indexes of House Prices," paper presented at the Homer Hoyt Institute, West Palm Beach, FL, May 2003.

Our data ingestion and processing methodology was designed using the most advanced data collection, machine learning, and data science techniques to clean, validate and structure all transaction data utilized as inputs into the index compilation process. The primary design principles (and use case) of REZITRADE Indexes is that of a benchmark for financial products – which necessitates uniform and impartial index calculation. Said uniformity and objectivity are currently lacking in other existing home price indexes (primarily developed for academic and/or government reporting purposes).

APPROACH

REZITRADE Indexes are based on observed transactions in the respective geographical markets and are designed to measure monthly change in the median sales price of residential real estate as experienced by purchasers of homes.

We utilize median sales price as it is widely recognized by housing research as the most accurate objective methodology for indexing housing prices. Numerous studies have proven median price as superior to alternatives like hedonic and repeat sales models. As Abelson and Chung (2009) concluded in their comparison of techniques, "the median price is generally the best measure of house price movements across a range of market conditions. It clearly outperforms the stratified mean. It also appears significantly more robust than hedonic regression indexes."[2]

REZITRADE employs a stratification technique to quality adjust median sales prices. Stratification, often referred to as mix-adjustment, in its simplest form divides a data set of transactions into various subgroups / segments (individually, stratum; plural, strata) grouped by certain attributes (e.g., property type, property age, transaction price) and then computes a separate sales price median for each stratum. The changes in the median sales prices for each group are then aggregated to obtain the overall composite median price index for that period.

Categorization of transactions by property type, property age and transaction price also allow us to control for point in time sample mix bias. The factors that determine the demand, supply, and value of housing are not the same across different property types and price tiers. Consequently, the price dynamics of different property types and price tiers within the same market often vary, especially during periods of increased market volatility. In addition, the relative sales volumes of different property types and price tiers fluctuate, so indexes that are segmented by property type and transaction price tiers will more accurately track housing values.

For example, given the importance of property age (new construction) in determining prices, we are able to group new construction by transaction price tier (high, middle, low) accordingly in distinct strata, rather than simply clustering all new construction into one price tier category. Therefore, the method of stratification directly controls for an important form of compositional change: changes in the proportion of new construction transactions in higher-, middle- and lower-priced tiers in any period. Stratifying sales in this manner produces a mix-adjusted measure of price change that substantially improves upon standard unstratified median measures. In particular, the mix-adjusted measure of price change is considerably less volatile.

As a result, stratified indexes developed by REZITRADE produce the most accurate reflection of underlying changes in median prices for covered geographical markets.

[2] Peter Abelson and Demi Chung, "Median House Price Indexes for Australia: Explaining the Distortions," Centre for Applied Economic Research, Macquarie University, 2009

Figure 1. Comparison of Housing Price Index Methodologies

A comparison of the key benefits and limitations of median sales price, repeat sales, and hedonic methodologies for developing housing price indexes.

Methodology	Pros	Cons
Stratified Median Sales Price	• Conceptually simple • Easy to understand • Controls for compositional changes • Uses all available sales data • No revisions needed	• Sensitive to outlier transactions • Susceptible to a mix shift bias
Repeat Sales	• Controls for property quality • Follows same properties over time	• Sample selection bias • Excludes single-sale homes • Excludes all new construction • Vulnerable to small sample size • Revisions required
Hedonic	• Accounts for property attributes • Full use of sales data • Can value quality changes	• Computationally intensive • Black box – complex modeling • Omitted variable bias • Revisions required

Key points:

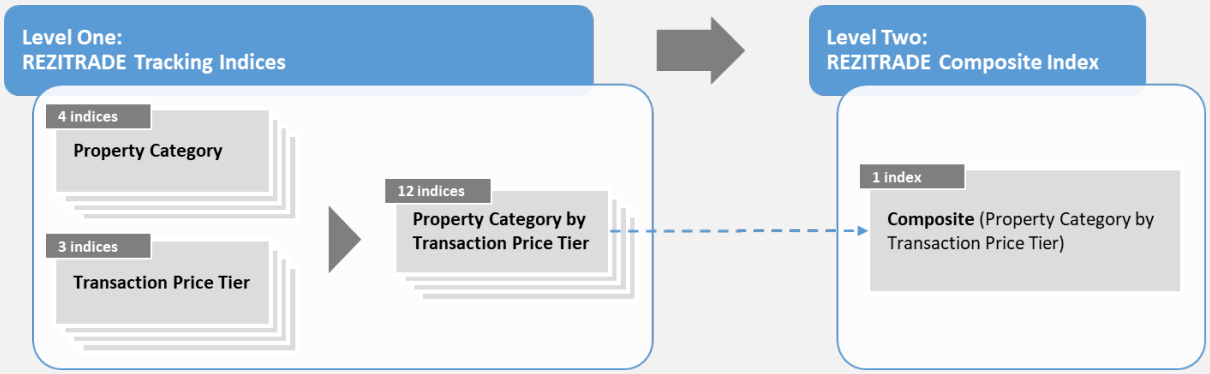
- Stratified Median Sales Price is transparent and intuitive
- Repeat sales control for property quality but have sample limitations and need revisions
- Hedonic modeling is powerful but complex with risk of biases

COVERAGE

REZITRADE produces indexes for each covered geographical market utilizing a two (2) level approach. REZITRADE Tracking Indexes are the first level indexes and provide segment (strata) specific measurement (insights into pricing movements by property category and transaction price tiers). REZITRADE Composite Indexes are a composite of the segment (strata) specific measurements and form the valuation basis for any financial product.

Figure 2. REZITRADE Indexes Hierarchy

Up to twenty (20) separate indexes may be compiled for each geographical market



Note: Number of REZITRADE Tracking Indexes produced is specific to each geographical market; Cooperatives (property category) included, where and as applicable.

Level One: REZITRADE Tracking Indexes (up to 19 indexes)

- REZITRADE Tracking Indexes – Property Category. These indexes measure monthly changes in median sales prices of four (4) real estate categories: Condominiums (Condos), Cooperatives (Coops)[3], One Family Dwellings (which includes 2-4 Unit Multi-Family Properties), and New Construction;
- REZITRADE Tracking Indexes – Transaction Price Tier. These indexes split monthly transactions, irrespective of property category, into three (3) transaction tiers (based on property sales price): Low Price Tier, Middle Price Tier, and High Price Tier; and
- REZITRADE Tracking Indexes – Property Category by Transaction Price Tier. These indexes measure each property category by transaction price tier, separately.

Level Two: REZITRADE Composite Indexes (1 index)

REZITRADE Composite Indexes are intended to provide the best measure of overall changes in median sales price by controlling for composition changes in real estate categories, property age and price tiers to arrive at the overall weighted median price.

REPORTING FREQUENCY

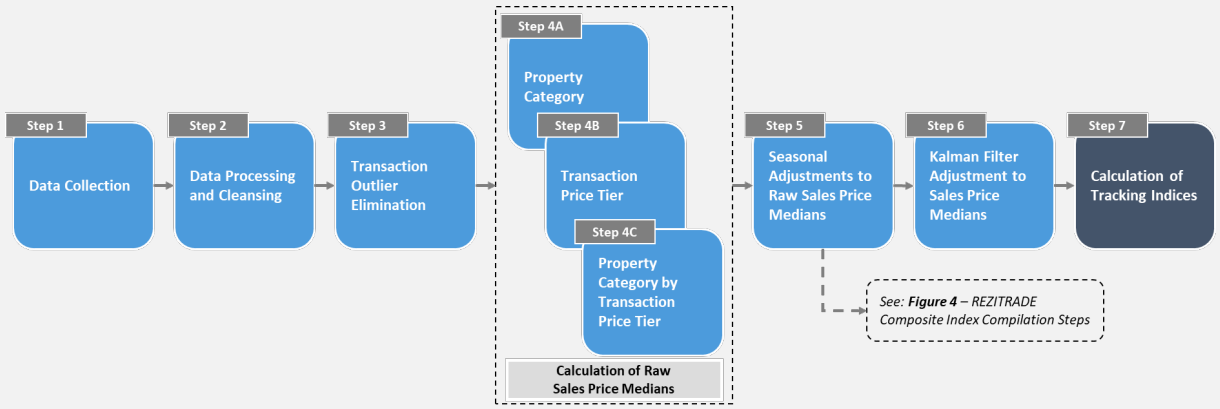
The REZITRADE Indexes are calculated and published within 50 days of the end of each month. For example, the index value for May 2025, which is based on transactions compiled for the month of May 2025, would be reported by July 20, 2025.

[3] Cooperatives are largely specific only to New York, NY geographical market(s); majority of geographical markets will have three (3) real estate categories Condominiums, One Family Dwellings (which includes 2-4 Unit Multi-Family Properties), and New Construction.

INDEX CALCULATIONS

REZITRADE Indexes are designed to measure changes in the median sales price of all monthly transactions in defined landmark locations. All valid residential real estate transactions, including Condominiums (Condos), Cooperatives (Coops), One Family Dwellings (which includes 2-4 Unit Multi-Family Properties), and New Construction are eligible for inclusion in the index. Calculations of REZITRADE Indexes for covered geographical markets all follow the identical steps.

Figure 3. REZITRADE Indexes Compilation Steps
Compilation process for each geographical market



STEP 1: DATA COLLECTION

To calculate the indexes, data is collected on all residential property transactions during each relevant measurement period (i.e., monthly). The main input variables used for index calculation are the property address, transaction date, sales price of the property, the age of the property, and property type. Transaction data is gathered as that data becomes publicly available in the geographical markets – data directly sourced from the local government serves as primary source.

STEP 2: DATA PROCESSING AND CLEANING

Transactions with missing critical data which cannot be verified are excluded. Transactions with suspected data errors are initially flagged using algorithmic, rules-based approaches. The range of flagged transactions may include, entire building sales erroneously recorded as individual residential home sales, price input errors (where the order of magnitude in values appears unrealistic given a particular geography, property type or address), etc. If flagged transactions cannot be confirmed as correct they are eliminated from the data set.

STEP 3: ELIMINATION OF OUTLIER TRANSACTIONS

To meet the goal of estimating the long-term trend of residential real estate prices, we use established statistical techniques to eliminate outlier transactions at both the low- and high-ends of the market. We utilize Interquartile Range (IQR), a statistical method, to identify and eliminate outliers. IQR is defined as the difference between the upper and lower quartile values in a data set. It serves as a measure of spread and variability in a data set. We employ a rule that a transaction is an outlier if its sale price exceeds the upper or lower boundary. The upper boundary is calculated as a 12-month moving average applied to the 1.5 x IQR above the third quartile. The lower boundary is calculated as a 12-month moving average to the

1.5 x IQR below the first quartile. Additionally, we apply filters to remove distortions: i) a static $10,000 sale price filter, eliminating all transactions at or below this price point; and ii) elimination of the bottom 3% of monthly transactions for each property category (One Family Dwellings, Condos, Coops and New Construction), sorted by sale price above the $10,000 filter. These eliminated transactions are overwhelmingly non-arm's length sales or recording errors unlikely to represent overall market trends. The resulting filtered data set serves as the universe of transactions used to calculate all REZITRADE Indexes.

STEP 4: MARKET SEGMENTATION AND CALCULATION OF RAW MEDIANS

Within each geographical market, we calculate raw sales price medians for various subsets of transactions (e.g., property type, property age, transaction price) with the goal of gaining insight into price development for a particular stratum. These strata form the basis for the REZITRADE Tracking Indexes.

The REZITRADE methodology stratifies the market based on extensive research showing property type, age, and transaction price tier are key determinants of pricing behavior. The specific categorization into condos, single-family homes, new construction, existing homes, and price tiers allows the indexes to accurately reflect the heterogeneous sub-markets within residential real estate. This segmentation creates more consistent strata supporting the stability of the overall composite indexes. Index users can have full confidence the market stratification is rooted in robust housing market research and principles.

STEP 4A: PROPERTY CATEGORY IDENTIFICATION. Property age is an important determinant of home prices. Newly constructed homes generally sell at a premium compared to older properties, which is why we categorize them into the New Construction category. For each transaction, a proprietary algorithmic search is conducted to find the year built to determine if the property should be categorized as New Construction. Each geographical market has a predefined number of years for which a transaction will be considered a New Construction sale, should the property's first sale occur within that time period. If more than one home sale transaction occurs within that period (for that specific property), only the first transaction is considered the new construction sale. If not categorized as New Construction, all other home sale transactions are categorized by their respective property type as either Condominiums (Condos), Cooperatives (Coops), or One Family Dwellings (which includes 2-4 Unit Multi-Family Properties).

For each geographical market, we calculate raw sales price medians that track price changes for Condominiums (Condos), Cooperatives (Coops), One Family Dwellings (which includes 2-4 Unit Multi-Family Properties), and New Construction, as and where applicable.

STEP 4B: TRANSACTION PRICE TIER IDENTIFICATION. We segment all transactions based on sales price and assign them into one of three tiers: Low Price Tier, Middle Price Tier, and High Price Tier. Price breakpoints between low and middle price tier properties and between middle and high price tier properties are computed using sale transactions for each monthly period so that there are the same number of sales in each of the three tiers. Low Price Tier contains all property type transactions with sale price below 33rd percentile of the price distribution at a given month. Middle Price Tier contains all property type transactions with sale price above 33rd percentile but below 66th percentile of the price distribution at a given month. High Price Tier contains all property type transactions with sale price above 66th percentile of the price distribution at a given month. Price breakpoints for the price tiers vary by geographical market and are determined by the distribution of transactions within each geographical market. Each transaction is then allocated to one of the three tiers depending on sale price, resulting in a data set divided into thirds.

For each geographical market, we calculate raw sales price medians that track price changes for the Low Price Tier, Middle Price Tier, and High Price Tier, separately.

STEP 4C: PROPERTY CATEGORY BY TRANSACTION PRICE TIER IDENTIFICATION. We segment all transactions for each property category – as either Condominiums (Condos), Cooperatives (Coops), One Family Dwellings (which includes 2-4 Unit Multi-Family Properties) or New Construction – based on price and assign them into one of three tiers: Low Price Tier, Middle Price Tier, and High Price Tier. Price breakpoints between low and middle price tier properties and between middle and high price tier properties are computed using sale transactions for each monthly period so that there are the same number of sales in each of the three price tiers. Low Price Tier contains all property type transactions with sale price below 33rd percentile of the price distribution at a given month. Middle Price Tier contains all property type transactions with sale price above 33rd percentile but below 66th percentile of the price distribution at a given month. High Price Tier contains all property type transactions with sale price above 66th percentile of the price distribution at a given month. Price breakpoints for the price tiers vary by geographical market and are determined by the distribution of transactions within each geographical market. Each transaction is then allocated to one of the three tiers depending on sale price, resulting in a data set divided into third.

For each geographical market, we calculate raw sales price medians that separately track price changes for the Low Price Tier, Middle Price Tier and High Price Tier of Condominiums (Condos), Cooperatives (Coops), One Family Dwellings (which includes 2-4 Unit Multi-Family Properties), and New Construction categories, as and where applicable.

STEP 5: SEASONAL ADJUSTMENTS TO RAW SALES PRICE MEDIANS

Home sale prices are affected by seasons within the same year. In general, sale prices are somewhat higher during the spring and summer months and somewhat lower during the fall and winter months. We seasonally adjust all raw sales price medians by employing the X-13ARIMA-SEATS Seasonal Adjustment Model. The X-13ARIMA-SEATS model, developed and maintained by the United States Census Bureau, is a widely used technique for adjusting time series data for seasonal variations. It is based on the ARIMA (AutoRegressive Integrated Moving Average) model, a type of statistical analysis that captures trends, cycles, and seasonal effects in the data. This model is used around the globe by organizations such as Statistics Canada, US Bureau of Labor Statistics, and Federal Housing Finance Agency among others, making it a widely accepted method for seasonal adjustment. Raw sales price medians are seasonally adjusted according to the following formula:

$$\boldsymbol{Median\ Strata\ C_{(sa)\,t} = Median\ Strata\ C_{(na)\,t} \div SAF_t}$$

where

$Median\ Strata\ C_{(sa)\,t}$ is the sales price median of strata C (seasonally adjusted) in period t, and

$Median\ Strata\ C_{(na)\,t}$ is the raw sales price median of strata C (non-adjusted) in period t, and

SAF_t is the seasonally adjusted factor produced by X-13 ARIMA Model applied at time t.

STEP 6: KALMAN FILTER ADJUSTMENT TO SALES PRICE MEDIANS (SEASONALLY ADJUSTED)

We employ a Kalman filter adjustment to reduce the noise in the data according to the formula below. The Kalman filter is a mathematical method that uses a series of measurements observed over time, containing statistical noise and other inaccuracies, and produces estimates that tend to be more accurate than those based on a single measurement alone. In the context of our index calculations, the Kalman filter helps us to smooth out the seasonally adjusted medians and reduce the impact of short-term fluctuations. We use the PyKalman package, a well-regarded Python library for Kalman filtering, to calculate the Kalman filter adjustment factors.

$$\boldsymbol{Median\ Strata\ C_{(kalman)\,t} = Median\ Strata\ C_{(sa)\,t} * \ KLM_{t}}$$

where

$Median\ Strata\ C_{(kalman)\,t}$ is the sales price median of strata C (Kalman adjusted) in period t, and

$Median\ Strata\ C_{(sa)\,t}$ is the sales price median of strata C (seasonally adjusted) in period t, and

KLM_{t} is the Kalman filter adjustment factor for the period t

STEP 7: CALCULATION OF REZITRADE TRACKING INDEXES

REZITRADE Tracking Indexes utilize monthly sales price medians (Kalman adjusted) to calculate monthly changes in respective strata according to the following formula:

$$\boldsymbol{Tracking\ Index\ C_{t} = Tracking\ Index\ C_{t-1} \times \left(\frac{Median\ Strata\ C_{(kalman)\,t}}{Median\ Strata\ C_{(kalman)\,t-1}} \right)}$$

where

$Tracking\ Index\ C_{t}$ is the level of the index strata C in period t, and

$Tracking\ Index\ C_{t-1}$ is the level of the index strata C in period t-1, and

$Median\ Strata\ C_{(kalman)t}$ is the sales price median of strata C (Kalman adjusted) in period t, and

$Median\ Strata\ C_{(kalman)\,t-1}$ is the sales price median of strata C (Kalman adjusted) in period t-1.

The output of Step 7, for each geographical market, are a series of, up to, nineteen (19) REZITRADE Tracking Indexes. Index base value begins at 100 (start date is specific to each geographical market) and are comprised of the following (for complete list, see: Schedule A):

- Four (4) REZITRADE Property Category Indexes tracking sales price changes for Condos, Coops, One Family Dwellings (which includes 2-4 Unit Multi-Family Properties), and New Construction;
- Three (3) REZITRADE Transaction Price Tier Indexes tracking price changes for the Low Price Tier, Middle Price Tier and High Price Tier; and
- Twelve (12) REZITRADE Property Category by Transaction Price Tier Indexes tracking sales price changes for the Low Price Tier, Middle Price Tier and High Price Tier of Condos, Coops, One Family Dwellings (which includes 2-4 Unit Multi-Family Properties), and New Construction categories, as and where applicable.

STEP 8: COMPILATION OF REZITRADE COMPOSITE INDEXES

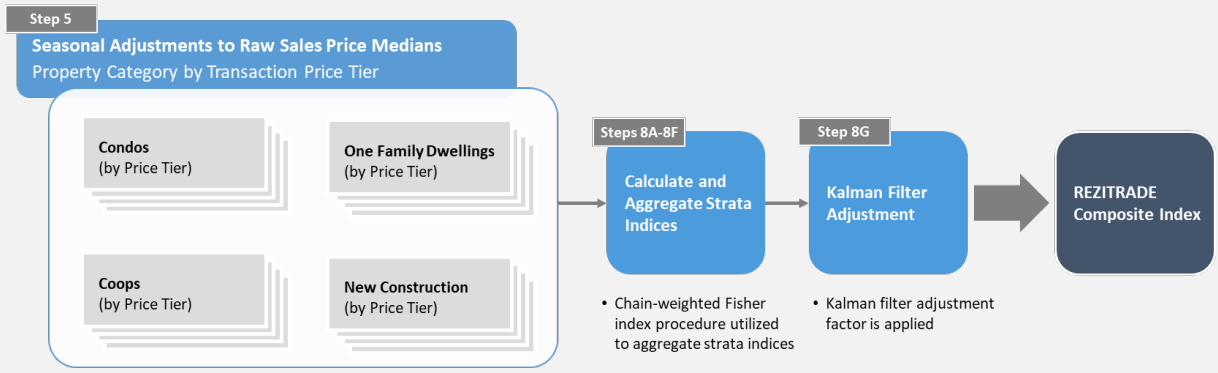
To calculate a REZITRADE Composite Index, we utilize stratification, an established statistical index approach. The main benefit of stratification is that it adjusts for compositional change in monthly sample through increasing homogeneity and thus reducing monthly sample mix changes. Our stratification approach involves a two-stage procedure:

(1) We first take the twelve (12) sales price medians (seasonally adjusted) of the Property Category by Transaction Price Tier strata (from Step 5); and

(2) We then aggregate across the various strata and calculate a REZITRADE Composite Index as a weighted average of each strata.

Figure 4. REZITRADE Composite Index Compilation Steps

Compilation process for each geographical market



Note: Number of seasonally adjusted raw median sales prices (Step 5) is specific to each geographical market; Cooperatives included, where and as applicable.

A REZITRADE Composite Index is constructed to track the total change in value of residential housing within a particular geographical market by incorporating all property categories and transaction price tiers into a single measure. The base point of the REZITRADE Composite Index begins at 100 (start date is specific to each geographical market). All index points thereafter are estimated using a chain-weighted Fisher index procedure, which is used to aggregate strata median sales prices and their respective weights into an overall composite index. Fisher index is an established statistical procedure employed by the Statistics Canada for GDP calculations and by the US Department of Commerce's Bureau of Economic Analysis (BEA) as its featured measures of real output and prices for GDP calculations. The procedure provides for optimal comparability when weights applied to segment indexes differ from period to period.

The chain method utilizes data from last two periods to calculate a period-to-period chain linked index, which is subsequently used to update the index level from the previous period. The Fisher index is the geometric mean of the Laspeyres and Paasche indexes calculated in the following order:

STEP 8A: LASPEYRES LINK INDEX CALCULATION. We use the following formula, employing the sales price medians (seasonally adjusted) of the property category by transaction price tier strata (from step 5):

$$L_t^{(l)} = \frac{\sum \textbf{Median Strata } C_{(sa)\,t} \times \textbf{Weight } C_{(pt)\,t-1} \times \textbf{Weight } C_{(pc)\,t-1}}{\sum \textbf{Median Strata } C_{(sa)\,t-1} \times \textbf{Weight } C_{(pt)\,t-1} \times \textbf{Weight } C_{(pc)\,t-1}}$$

where

$L_t^{(l)}$ is the level of Laspeyres Link Index in period t, and

$Median\ Strata\ C_{(sa)\,t}$ is the sales price median of strata C (seasonally adjusted) in period t, and

$Median\ Strata\ C_{(sa)\,t-1}$ is the sales price median of strata C (seasonally adjusted) in period t-1, and

$Weight\ C_{(pt)\,t-1}\ is\ the$ weight of the applicable price tier for strata C in period t-1 fixed at 1/3, and

$Weight\ C_{(pc)\,t-1}\ is\ the$ weight of the applicable property category for strata C in period t-1 that is based on the rolling last twelve months of transactions in that property category as a percentage of overall last twelve months transactions for that geographical market.

STEP 8B: LASPEYRES CHAIN INDEX CALCULATION

$$L_t^{(c)} = L_t^{(l)} \times L_{t-1}^{(l)}$$

where

$L_t^{(c)}$ is the level of Laspeyres Chain Index in period t, and

$L_t^{(l)}$ is the level of Laspeyres Link Index in period t, and

$L_{t-1}^{(l)}$ is the level of Laspeyres Link Index in period t-1.

Note: Laspeyres Chain Index base value begins at 100 (start date is specific to each geographical market). Laspeyres Chain Indexes are not published.

STEP 8C: PAASCHE LINK INDEX CALCULATION

$$P_t^{(l)} = \frac{\sum \textbf{Median Strata } C_{(sa)\,t} \times \textbf{Weight } C_{(pt)\,t} \times \textbf{Weight } C_{(pc)\,t}}{\sum \textbf{Median Strata } C_{(sa)\,t-1} \times \textbf{Weight } C_{(pt)\,t} \times \textbf{Weight } C_{(pc)\,t}}$$

where

$P_t^{(l)}$ is the level of Paasche Link Index in period t, and

$Median\ Strata\ C_{(sa)\,t}$ is the sales price median of strata C (seasonally adjusted) in period t, and

$Median\ Strata\ C_{(sa)\,t-1}$ is the sales price median of strata C (seasonally adjusted) in period t-1, and

$Weight_{(pt)\,t}\ is\ the$ weight of the applicable price tier for strata C in period t fixed at 1/3, and

$Weight\ C_{(pc)\,t}\ is\ the$ weight of the applicable property category for strata C in period t that is based on the rolling last twelve months of transactions in that property category as a percentage of overall last twelve months transactions for that geographical market.

STEP 8D: PAASCHE CHAIN INDEX CALCULATION

$$\boldsymbol{P_t^{(c)} = P_t^{(l)} \times P_{t-1}^{(c)}}$$

where

$P_t^{(c)}$ is the level of Paasche Chain Index in period t, and

$P_t^{(l)}$ is the level of Paasche Link Index in period t, and

$P_{t-1}^{(c)}$ is the level of Paasche Chain Index in period t-1.

Note: The Paasche Chain Index base value begins at 100 (start date is specific to each geographical market). Paasche Chain Indexes are not published.

STEP 8E: FISHER LINK INDEX CALCULATION

$$\boldsymbol{F_t^{(l)} = \left(L_t^{(l)} \times P_t^{(l)}\right)^{1/2}}$$

where

$F_t^{(l)}$ is the level of Fisher Link Index in period t, and

$L_t^{(l)}$ is the level of Laspeyres Link Index in period t, and

$P_t^{(l)}$ is the level of Paasche Link Index in period t.

STEP 8F: FISHER CHAIN INDEX CALCULATION

$$\boldsymbol{F_t^{(c)} = F_t^{(l)} \times F_{t-1}^{(l)}}$$

where

$F_t^{(c)}$ is the level of Fisher Chain Index in period t, and

$F_t^{(l)}$ is the level of Fisher Link Index in period t, and

$F_{t-1}^{(l)}$ is the level of Fisher Link Index in period t-1.

Note: Fisher Chain Index base value begins at 100 (start date is specific to each geographical market). Fisher Chain Indexes are not published.

STEP 8G: KALMAN FILTER ADJUSTMENT. Upon obtaining Fisher Chain Index, we apply a Kalman filter adjustment factor to derive the REZITRADE Composite Index. As with the REZITRADE Tracking Indexes, the PyKalman python package is utilized to produce Kalman filter adjustment factors.

$$\boldsymbol{Composite_t = F_t^{(c)} * KLM_t}$$

where

$\boldsymbol{Composite_t}$ is the value of the composite index at a point t

$F_t^{(c)}$ is the level of Fisher Chain Index in period t

KLM_t is the Kalman filter adjustment factor for the period t

The output of Step 8G is a REZITRADE Composite Index. The base value begins at 100 (start date is specific to each geographical market). REZITRADE Composite Indexes are published and updated on a monthly basis.

INDEX GOVERNANCE

The governance of REZITRADE Indexes is overseen by the Index Committee, comprising both REZITRADE staff and external members.

COMMITTEE RESPONSIBILITIES AND DISCRETION: The Index Committee has broad discretion in determining how the indexes are calculated. The committee is tasked with revising the index policy as needed, considering rules for transaction selection and accommodating extraordinary events, such as natural disasters, that may necessitate special considerations in index calculation. The committee reserves the right to make exceptions in the methodology application when necessary to ensure accuracy and representativeness.

TRANSPARENCY AND COMMUNICATION: Any changes to the index methodology undergo committee approval and are communicated promptly to all stakeholders, reinforcing our commitment to transparency.

QUALITY ASSURANCE: REZITRADE upholds stringent quality assurance processes for index calculation and maintenance. This includes weekly meetings to review any incidents or errors, identify recurring issues, and determine if there are necessary long-term procedural changes. Significant matters are escalated and may necessitate additional meetings.

ANNUAL INTERNAL REVIEWS OF METHODOLOGY: The Index Committee conducts a comprehensive review of the index methodology at least once per year. This review ensures the ongoing effectiveness of the methodology and data in achieving the stated index objectives. It includes an evaluation of the methodology's appropriateness, representativeness, and effectiveness.

DISPUTE RESOLUTION: In any disputes regarding index calculations, the decision of the Index Committee is final. A standardized dispute resolution procedure ensures fair and prompt resolution of all concerns.

CURRENT COMMITTEE MEMBERS: As of July 2023, the members of the Index Committee are as follows:

- Boris Ginovker - CEO of REZITRADE
- Ryan Smith - President and COO of REZITRADE
- Mark Shilshtut - CTO of REZITRADE

Please note that the Index Committee's composition may change over time. You can find the most current information about the committee's composition on our website at www.rezitrade.com.

INDEX POLICY

SELECTION CRITERIA AND DATA SOURCES: The REZITRADE Indexes are based on transactions of residential properties within specific geographical markets. Our data, sourced from local municipal governmental offices, Multiple Listing Service (MLS) data providers, trusted real estate databases, and proprietary data collected by REZITRADE, is meticulously curated to ensure it includes only arm's-length sales.

DATA VERIFICATION AND CLEANING: We are committed to providing accurate and reliable indexes, which begins with the quality of our data. Our rigorous data verification and cleaning process encompasses the removal of duplicates, handling of missing values, and correction of any identified errors.

ANNOUNCEMENTS AND PUBLICATION SCHEDULE: The REZITRADE Indexes are calculated and published within 50 days of the end of each month. For example, the index value for May 2025, which is based on transactions compiled for the month of May 2025, would be reported by July 20, 2025. The publication date and time consistently follow this schedule, providing reliable and timely index values to all stakeholders. The index values can be accessed on our website, www.rezitrade.com, on Solactive AG's website, or through data feeds.

HOLIDAY SCHEDULE: In cases where the scheduled publication date falls on a public holiday, the index values will be calculated and published on the next business day.

DATA DISRUPTIONS: In the event that a data source required for the index calculation is unavailable, we may choose to delay publication or, in exceptional cases, refrain from publishing an index for that month. Stakeholders will be informed promptly about the disruption and the steps being taken to address it.

ERROR AND OMISSION POLICY: Procedures are in place to identify and correct errors or omissions in the index data or the application of the index methodology. Should an error or omission be identified, REZITRADE will take prompt corrective action.

REVISION POLICY: In the interest of accuracy and fairness, REZITRADE may revise published indexes under certain circumstances. This could occur when previously unknown errors that would materially affect the index calculation in the data or the calculation process are identified and corrected. Revisions are undertaken carefully to avoid unnecessary disruption, and are communicated promptly to all stakeholders.

CONTACT INFORMATION: For any inquiries about the REZITRADE Indexes, please contact our team at index@rezitrade.com.

SCHEDULE A: REZITRADE TRACKING INDEXES AVAILABLE PER GEOGRAPHICAL MARKET [4]

INDEX	DESCRIPTION
PROPERTY CATEGORY INDEXES	
• Condo Property Index	Representing condominium (Condo) property type transactions for a given month
• Coop Property Index	Representing cooperative (Coop) property type transactions for a given month
• One Family Dwelling Property Index	Representing One Family Dwellings (which includes 2-4 Unit Multi-Family Properties) property type transactions for a given month
• New Construction Property Index	Representing newly built home property type transactions for a given month; comprised of Condo, Coop and One-Family units
TRANSACTION PRICE TIER INDEXES	
• Low Tier Transaction Price Index	All property type transactions with sale price below 33rd percentile of the price distribution at a given month
• Middle Tier Transaction Price Index	All property type transactions with sale price above 33rd percentile but below 66th percentile of the price distribution at a given month
• High Tier Transaction Price Index	All property type transactions with sale price above 66th percentile of the price distribution at a given month
PROPERTY CATEGORY BY TRANSACTION PRICE TIER INDEXES	
• Condo // Low Tier Price Index	Condo property type transactions with sale price below 33rd percentile of the price distribution at a given month
• Condo // Middle Tier Price Index	Condo property type transactions with sale price above 33rd percentile but below 66th percentile of the price distribution at a given month
• Condo // High Tier Price Index	Condo property type transactions with sale price above 66th percentile of the price distribution at a given month
• Coop // Low Tier Price Index	Coop property type transactions with sale price below 33rd percentile of the price distribution at a given month
• Coop // Middle Tier Price Index	Coop property type transactions with sale price above 33rd percentile but below 66th percentile of the price distribution at a given month
• Coop // High Tier Price Index	Coop property type transactions with sale price above 66th percentile of the price distribution at a given month
• One Family Dwelling // Low Tier Price Index	One Family Dwellings (which includes 2-4 Unit Multi-Family Properties) property type transactions with sale price below 33rd percentile of the price distribution at a given month
• One Family Dwelling // Middle Tier Price Index	One Family Dwellings (which includes 2-4 Unit Multi-Family Properties) property type transactions with sale price above 33rd percentile but below 66th percentile of the price distribution at a given month
• One Family Dwelling // High Tier Price Index	One Family Dwellings (which includes 2-4 Unit Multi-Family Properties) property type transactions with sale price above 66th percentile of the price distribution at a given month
• New Construction // Low Tier Price Index	Newly built home property type transactions with sale price below 33rd percentile of the price distribution at a given month
• New Construction // Middle Tier Price Index	Newly built home property type transactions with sale price above 33rd percentile but below 66th percentile of the price distribution at a given month
• New Construction // High Tier Price Index	Newly built home property type transactions with sale price above 66th percentile of the price distribution at a given month

[4] Number of REZITRADE Tracking Indexes produced is specific to each geographical market; Cooperatives included, where and as applicable.

SCHEDULE B: CURRENT GEOGRAPHICAL MARKET COVERAGE

REZITRADE GEOGRAPHICAL MARKET	COVERAGE AREA
AREA: AUSTIN, TX	
• REZITRADE Home Price Index - Austin	Representing all transactions occurring within Bastrop, Caldwell, Hays, Travis, and Williamson counties, Texas
AREA: CHARLOTTE, NC	
• REZITRADE Home Price Index - Charlotte	Representing all transactions occurring within Mecklenburg County, North Carolina
AREA: COLUMBUS, OH	
• REZITRADE Home Price Index - Columbus	Representing all transactions occurring within Franklin County, Ohio
AREA: DALLAS, TX	
• REZITRADE Home Price Index - Dallas	Representing all transactions occurring within Collin, Dallas, Denton, Kaufman, and Tarrant counties, Texas
AREA: DENVER, CO	
• REZITRADE Home Price Index - Denver	Representing all transactions occurring within Adams, Arapahoe, Douglas, El Paso and Weld counties, Colorado
AREA: HOUSTON, TX	
• REZITRADE Home Price Index - Houston	Representing all transactions occurring within Brazoria, Fort Bend, Galveston, Harris, and Montgomery counties, Texas
AREA: LAS VEGAS, NV	
• REZITRADE Home Price Index - Las Vegas	Representing all transactions occurring within Clark County, Nevada
AREA: LOS ANGELES, CA	
• REZITRADE Home Price Index - Los Angeles	Representing all transactions occurring within Los Angeles, Orange, San Bernardino, Riverside, and Ventura counties, California
AREA: MIAMI, FL	
• REZITRADE Home Price Index - Miami	Representing all transactions occurring within Miami-Dade County, Florida

AREA: NEW YORK, NY	
• REZITRADE Home Price Index - Brooklyn	Representing all transactions occurring within Kings County, New York
• REZITRADE Home Price Index - Manhattan	Representing all transactions occurring within New York County, New York
• REZITRADE Home Price Index - Queens	Representing all transactions occurring within Queens County, New York
• REZITRADE Home Price Index - New York City	Representing all transactions occurring within Kings, New York, and Queens counties, New York
AREA: PHOENIX, AZ	
• REZITRADE Home Price Index - Phoenix	Representing all transactions occurring within Maricopa County, Arizona
AREA: RALEIGH, NC	
• REZITRADE Home Price Index - Raleigh	Representing all transactions occurring within Wake County, North Carolina
AREA: SAN ANTONIO, TX	
• REZITRADE Home Price Index - San Antonio	Representing all transactions occurring within Bexar, Comal, Guadalupe, Kendall, and Medina counties, Texas
AREA: SAN DIEGO, CA	
• REZITRADE Home Price Index - San Diego	Representing all transactions occurring within San Diego County, California
AREA: SAN FRANCISCO, CA	
• REZITRADE Home Price Index - San Francisco	Representing all transactions occurring within Alameda, Contra Costa, San Francisco, San Mateo, and Santa Clara counties in California
AREA: SEATTLE, WA	
• REZITRADE Home Price Index - Seattle	Representing all transactions occurring within King County, Washington
AREA: TAMPA-ST. PETERSBURG, FL	
• REZITRADE Home Price Index - Tampa–St. Petersburg	Representing all transactions occurring within Hillsborough, and Pinellas counties, Florida
AREA: WASHINGTON, DC	
• REZITRADE Home Price Index - Washington, DC	Representing all transactions occurring within the District of Columbia and Fairfax County, Virginia