

SYSTEM AND METHOD FOR CONDUCTING A PRICE-LEVEL ANALYSIS OF RESIDENTIAL REAL ESTATE PROPERTY



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Implications of the SCOTUS Ruling

The authorization of the amended version of non-provisional utility patent application #13/245,051 was rescinded due to the U.S. Supreme Court Ruling in Alice Corporation versus CLS Bank International in 2014. The SCOTUS ruling in “Alice” significantly limits the ability for inventors to obtain patent authorization for software application inventions that utilize the Internet cloud. The SCOTUS ruling has also nullified the intellectual property protection rights and monetary value of many software patents that have been granted by the United States Patent and Trademark office over the last 25 years. The recent SCOTUS ruling will likely be readdressed in the future, as the court is expected to expand its position in support of tangible hand held calculator devices to recognize the intangible value of using the Internet cloud in order to conduct ecommerce in an economical, efficient, and effective manner.

ABSTRACT

A method, system, and application for conducting a price-level analysis of residential real estate property, where the invention utilizes the prospective residential real estate property buyer's household income amount, the percent of pre-tax household income that he believes is the largest amount of money that should be spent in order to repay the costs of a mortgage loan, the cost of debt for a 30-year fully-amortized fixed-rate loan, and a benchmark proxy that represents the price-level of residential real estate property in a specified community, in order to determine the level of underpricing or overpricing of residential real estate property in a specified community, the largest amount of money that should be spent in order to purchase a home, and the amount of household income that would need to be earned on an annual basis in order to be able to afford to purchase a specific home.

BACKGROUND OF THE INVENTION

Field of the Invention

The invention relates in general to a method, system, and application for conducting a price-level analysis of residential real estate property.

Description of the Related Art

Homeownership has been touted as the "American Dream" by virtually everyone in the United States (U.S.) for many generations. Unfortunately, the first 12 years of the twenty-first century have illustrated that the U.S. residential housing market can be a very volatile and risky environment.

Between 2001 and 2006, the U.S. experienced a dramatic housing bubble. During this time, home equity peaked to approximately \$13.5 trillion dollars. However, between 2007 and 2009, the U.S. experienced a dramatic collapse in housing prices. During this time, home equity dropped in value to approximately \$6.3 trillion dollars. As a result of this boom-to-bust housing-market cycle, millions of families lost more than 50% of the equity that they had

accumulated through the appreciation in the value of their home. Moreover, approximately 11 million households found themselves underwater on the value of their mortgage loan, with the aggregate amount of negative equity estimated at \$700 billion dollars. To complicate matters even further, more than four million families lost their homes to foreclosure by the end of 2012.

As of 2013, most economists agree that the U.S. housing downturn has been deeper, and the recovery weaker, than in any cycle since the 1970s. Going forward, many leading economists believe that the price-level of residential real estate property will remain relatively flat for many years to come, and empirical residential housing research has uncovered a host of dramatic facts that support this bleak outlook. Here are three key points that portray a dismal housing outlook for the U.S.:

- From 1940 to 2004, inflation adjusted U.S. home prices only increased 0.7%. This fact contradicts the belief that home ownership is a good investment;
- In 2012, real median household income was only about \$49,000, the same level households earned in 1996. In comparison, at the market peak in 2006, the median home price soared to \$200,000, which was significantly more than the median home price of \$80,000 in 1996. This historical mismatch between the appreciation of home prices and household income is a significant issue, because most people obtain a mortgage loan in order to purchase a home, and they repay their mortgage loan with their household income. Therefore, home price levels and household income levels need to move in lock-step in order to mitigate the likelihood of a housing bubble forming in the marketplace; and
- As of 2012, almost one-out-of-four working families spent more than 50% of their household income for housing.

Many observers have attributed the problems associated with the U.S. housing market to three main parties. The first group is the political culprits. In this case, both the democrats and republication have been blamed as a primary cause for the housing problems, because both parties have allowed mortgage-related derivatives to remain unregulated, and they have given Fannie Mae and Freddie Mac unwavering support. Second are the industry culprits, including

the homebuilders, real estate agents, mortgage lenders, investment banking institutions, credit-rating agencies, and Wall Street. People working in these industries have been blamed for causing the problems in the housing market due to the fact that many people in these industries promoted themselves as residential housing experts with professional knowledge, skills, and experience. However, as a group, they allowed their self-interest, greed, and willingness to follow a herd-mentality to foster an environment of irrational exuberance. Third are the mortgage loan product culprits. In this case, low short-term “teaser” interest rates for mortgage loans, relaxed mortgage lending standards, and minimal collateral requirements exacerbated the housing problem.

In a little more than a decade, the events that have taken place in the U.S. residential housing market have shown us that the wisdom and ethics conveyed by the key policy executives in charge of the U.S. residential housing system, as well as the regulatory agencies that are responsible for monitoring its operations, as well as the banking and credit-lending authorities that are responsible for developing robust mortgage lending products and developing and applying prudent lending standards have not lived up to the scrutiny of the public’s expectations. Whether or not the root cause of the problem is greed, corruption, ineptness or a lack of common sense is open to conjecture. Nevertheless, a prudent residential housing system grounded in wisdom, integrity and accountability seems to be lacking in the current residential housing environment.

The role of the U.S. Federal Reserve has also come under scrutiny with regard to the monetary policies that it has implemented in order to address the housing problems in the U.S. To address the housing crisis and help bolster the economy, the Federal Reserve has lowered the federal funds rate to a target range between 0.00% and 0.25% in order to help keep mortgage-loan interest rates low. Since mortgage-loan interest rates are tied to the rate on the 10-year Treasury security, and the rate on the 10-year Treasury security is tied to the Federal Funds rate, this policy has been an effective tool in keeping the cost of debt down, while stabilizing home prices. In addition, the Federal Reserves has elected to implement monetary policy where it periodically purchases mortgage-backed securities in order to help bolster the U.S. residential housing market. This policy has also helped stabilize the U.S residential housing market.

However, while these policy actions have provided a short-term solution to the problem, the Federal Reserve's current actions are not likely to provide a long-term solution unless the role of the Federal Reserve and the size of its balance sheet are greatly expanded.

A lack of financial education is also a key problem exacerbating the problems with the state of the nation's housing. This issue has been largely overlooked by virtually everyone associated with residential housing in the U.S. With that said, it should be self-evident that most prospective residential real estate property buyers do not have the necessary financial education, knowledge, skills, or experience to make a prudent home purchase decision. While this statement may be somewhat controversial, a critical assessment of the educational level of people in the U.S. reveals that most people do not have a formal education in finance, and that they do not have a general understanding of fixed income analysis or the time value of money. To make matters worse, most people's family, friends, and colleagues, as well as their appointed and elected public policy officials lack these vital skills as well. Therefore, going forward, this educational deficiency must be addressed in order for people to be able to make a prudent home purchase decision. If this problem is not addressed, the U.S. will undoubtedly experience a future boom-to-bust cycle in the residential housing market.

In terms of education, there are also critical issues with the conventional methodologies that are used to analyze residential real estate property. For example, one conventional method for conducting a residential real estate analysis is the use of the cost-based method. While the cost-based method can be used to determine the price-level for a residential real estate property by adding the cumulative cost of the land in which the home is built upon, and the cost of the materials that were used to build the home, and the cost of the labor that was required to build the home, the cost-based method has a number of shortcomings. First, the cost-based method is difficult for prospective homebuyers to utilize because it is difficult for them to identify and compile a complete list of all of the materials that are used to build a home. Second, it is difficult for prospective homebuyers to compile a list of all of the costs for the materials that are used to build a home. Third, it is difficult to accurately determine the labor costs associated with building a home.

The cost-based method also has a significant shortcoming in that it does not take into account the cost of debt financing in the prevailing mortgage loan interest rate environment for a fixed-rate loan, or the maximum percentage of household income that should be spent in order to repay the principal and interest costs associated with a mortgage loan. As a result, the cost-based method can be a very inaccurate methodology for accessing the price-level of residential real estate property, particularly if mortgage loan interest rates increase or decrease in a dramatic manner, or if home prices appreciate or depreciate at a much faster rate than household income.

The second conventional method that is problematic in terms of conducting residential real estate property analysis is the use of the sales-based method. The sales-based method, also known as the comparable-based method is arguably the most utilized and simplistic methodology for determining the price-level of residential real estate property. In essence, the sales-based method simply relies on recent home sales activity in a specific geographic locale, such as the state, city, or zip code in which a residential real estate property is located in order to help establish the price-level of a home that is available for sale.

While the sales-based method is a very popular methodology to utilize, it has a host of material weaknesses. First, it is difficult for prospective homebuyers to determine the timeliness, accuracy, or completeness of sales-based data. As a result, prospective home buyers may be making an inaccurate home purchase decision if they are relying on sales-based information that has been provided by a third party provider. Second, the sales-based method is a very inaccurate valuation methodology to utilize when there are significant idiosyncratic differences between a residential real estate property benchmark proxy and the residential real estate property that is available for sale. Third, the sales-based method is very inaccurate to utilize when there are material differences in the reasons for which prospective home buyers are buying a home. For example, a home that recently sold in a specific neighborhood may have commanded a specific price because it is located in close proximity to where the home buyer works, or perhaps the home is located in a school district of choice, or perhaps the home is located in close proximity to a golf course or tennis center. However, if prospective home

buyers are not concerned about any of these secondary amenities, then the price in which a residential real estate benchmark proxy sold may be an inaccurate barometer for the price of homes that are available for sale. Fourth, like the cost method, the sales-based method can be a very inaccurate methodology for accessing the price-level of residential real estate property when mortgage loan interest rates increase or decrease in a dramatic manner, or when home prices appreciate or depreciate at a much faster rate than household income.

Collectively, there are a vast number of problems in the U.S. residential housing market that may or may not be resolved in the future. Therefore, since buying a home will likely be the largest single financial transaction that most people will ever make, and the bulk of their net worth will likely be held in the value of their home well into their retirement years, prospective residential real estate property buyers need access to an analytical tool that will provide them with the information that they can use in order to make a prudent home purchase decision.

BRIEF SUMMARY OF THE INVENTION

The present invention provides a system and method for evaluating the price-level of residential real estate property by utilizing financial methodology that calculates the relationship that should exist between household income and the price of residential real estate property, based on the prevailing mortgage loan interest rate for a fully-amortized fixed-rate loan in a specified community, and the percentage of pre-tax household income that is deemed by the prospective home buyer to be the largest amount of money that should be spent in order to repay the principal and interest costs associated with a mortgage loan. By utilizing this information, in conjunction with a benchmark proxy that represents the price-level of residential real estate property in a specified community, the price-level of residential real estate property can be analyzed in a comprehensive and accurate manner.

In one embodiment, the present invention pertains to a system, process, and application that is designed to assist prospective residential real estate property buyers in analyzing the price-level of residential real estate property, by utilizing a computer-based program that will allow prospective residential real estate property buyers to determine:

- 1) the largest amount of money that they should spend in order to purchase a specified residential real estate property;
- 2) how much money they would need to earn on an annual basis in order to be able to afford to purchase a specified residential real estate property;
- 3) the level in which residential real estate property is underpriced or overpriced in a specified community, by calculating the percentage of household income that must be spent by the people that live in a community in order to justify the price-level of homes in the community; and
- 4) the level in which residential real estate property is underpriced or overpriced in a specified community, by calculating the cost of debt that justifies the price-level of homes in the community.

BRIEF DESCRIPTION OF THE SEVERAL DRAWINGS OF THE INVENTION

FIG. 1 illustrates in flow chart format the operational use of the Adkins Residential Real Estate Analysis Software Application.

FIG. 2 illustrates the Adkins Residential Home Valuation Analyzer Financial Methodology that is used to facilitate a price-level analysis of residential real estate property through the use of the Adkins Residential Real Estate Analysis Software Application.

FIG. 3 illustrates one exemplary financial methodology that is used to facilitate a residential real estate property analysis using the Adkins Residential Real Estate Analysis Software Application and the Adkins Residential Home Valuation Analyzer Financial Methodology. FIG. 3 illustrates the process that is used in order to allow a prospective residential real estate property buyer to determine the largest amount of money that he should spend in order to purchase a specified residential real estate property.

FIG. 4 illustrates one exemplary financial methodology that is used to facilitate a residential real estate property analysis using the Adkins Residential Real Estate Analysis Software Application and the Adkins Residential Home Valuation Analyzer Financial Methodology.

FIG. 4 illustrates the process that is used in order to allow a prospective residential real estate property buyer to determine how much money he would need to earn on an annual basis in order to be able to afford to purchase a specified residential real estate property.

FIG. 5 illustrates one exemplary financial methodology that is used to facilitate a residential real estate property analysis using the Adkins Residential Real Estate Analysis Software Application and the Adkins Residential Home Valuation Analyzer Financial Methodology. FIG. 5 illustrates the process that is used in order to allow a prospective residential real estate property buyer to assess the level of underpricing or overpricing of residential real estate property in a specified community. This assessment is facilitated by the Adkins Residential Home Valuation Analyzer Financial Methodology comparing the percentage of household income that is deemed by the prospective residential real estate property buyer to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan, against the justified percentage of household income amount that is derived by the Adkins Residential Home Valuation Analyzer Financial Methodology.

FIG. 6 illustrates one exemplary financial methodology that is used to facilitate a residential real estate property analysis using the Adkins Residential Real Estate Analysis Software Application and the Adkins Residential Home Valuation Analyzer Financial Methodology. FIG. 6 illustrates the process that is used in order to allow a prospective residential real estate property buyer to assess the level of underpricing or overpricing of residential real estate property in a specified community. This assessment is facilitated by the Adkins Residential Home Valuation Analyzer Financial Methodology comparing the prevailing residential real estate property loan interest rate for a 30-year fully amortized fixed-rate loan in a specified community, against the justified residential real estate property loan interest that is calculated by the Adkins Residential Home Valuation Analyzer Financial Methodology.

DETAILED DESCRIPTION OF THE INVENTION

The preferred embodiment of the invention is fully illustrated in FIGS. 1-6 of the drawings.

The embodiment of FIG. 1 provides an overview in flow-chart format of how the Adkins Residential Home Valuation Analyzer is accessed and utilized by prospective residential real estate property buyers that subscribe to use the residential real estate analysis software application. The Adkins Residential Home Valuation Analyzer is housed in the Internet cloud. Prospective residential real estate property buyers use their personal computer to access the software application, which is found by visiting the Adkins Capital Management website, which is located at: <http://residentialrealestateanalysis.com>. The Adkins Residential Home Valuation Analyzer is available for use by the public, 24 hours per day, seven days per week. The software application utilizes unlimited bandwidth capacity and therefore can accommodate an unlimited number of simultaneous users that are generating multiple analyses and analytical reports.

The embodiment of FIG. 2 provides a detailed explanation of the Adkins Residential Home Valuation Analyzer Financial Methodology. FIG. 2 outlines the scope of the invention. The Adkins Residential Home Valuation Analyzer Financial Methodology is a financial tool that simplifies the process of analyzing the price-level of residential real estate property. The Adkins Residential Home Valuation Analyzer Financial Methodology allows prospective residential real estate property buyers to determine: 1) the largest amount of money that they should spend in order to purchase a residential real estate property; 2) the amount of household income that they would need to earn on an annual basis in order to be able to afford to purchase a specific residential real estate property; and 3) the level of the underpricing or overpricing of residential real estate property in their specified community.

The Adkins Residential Real Estate Analysis Software Application utilizes proprietary Adkins Residential Home Valuation Analyzer Financial Methodology. The Adkins Residential Home Valuation Analyzer Financial Methodology incorporates a host of variables into a computer-based valuation system in order to generate a host of Factor Multiples. The Factor Multiples represent the relationship that should exist between household income and the price-level of residential real estate property. The variables that are utilized by the Adkins Residential Home

Valuation Analyzer Financial Methodology include the mortgage loan interest rate for a 30-year fully amortized fixed-rate loan, and the largest percentage of pre-tax household income that the prospective residential real estate property buyer believes is the largest amount of money that should be spent in order to repay the principal and interests costs of a mortgage loan. With this information, residential real estate property can be analyzed in an economical, efficient, and effective manner.

The Adkins Residential Real Estate Analysis Software Application generates a comprehensive Adkins Residential Home Valuation Analyzer Factor Multiple for mortgage loan interest rate scenarios that range from 1% to 20%. A Factor Multiple is generated for each mortgage loan interest rate that corresponds with a five basis point (.0005) interval between 1% and 20%.

The Adkins Residential Real Estate Analysis Software Application will allow prospective residential real estate property buyers to analyze the price-level for residential real estate property by taking into account the percentage of pre-tax household income that would need to be spent in order to repay the principal and interest costs of a mortgage loan. A range of assumptions between 1% and 100% can be analyzed. An Adkins Residential Home Valuation Analyzer Factor Multiple is generated for each 100 basis point (0.01) interval between 1% and 100%.

A summary of the range of assumptions in which an Adkins Residential Home Valuation Analyzer Factor Multiple can be generated is included in the table below.

OVERVIEW OF THE COMPREHENSIVE ARHVA FINANCIAL METHODOLOGY FACTOR MULTIPLE TABLE											
Loan Interest Rate	Percentage of pre-tax household Income that the prospective residential real estate property buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of a loan										
	1%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
1.0%	<div style="text-align: center;"> ↑ ← Range of ARHVA Factor Multiples → ↓ </div>										
5.0%											
10.0%											
15.0%											
20.0%											

The Adkins Residential Home Valuation Analyzer Factor Multiple methodology utilizes a multi-step analytical system to determine the relationship that should exist between household income and the price- level of a residential real estate property. In order to calculate the Adkins

Residential Home Valuation Analyzer Factor Multiples, the following five steps are automatically executed by the Adkins Residential Real Estate Analysis Software Application.

First, FIG. 2, Steps 10, 15, 20, and 25 illustrate how the system calculates the monthly repayment amount for a fully amortized fixed-rate mortgage loan. In order to make this calculation, the repayment formula requires the dollar amount of the mortgage loan, the term of the mortgage loan, and the interest rate for the mortgage loan. With this information, the Adkins Residential Home Valuation Analyzer Financial Methodology will use the monthly mortgage loan repayment formula below in order to calculate a monthly mortgage repayment amount for a fully amortized fixed-rate loan (Fig. 2, step 30).

$$\text{Monthly Mortgage Loan Repayment Formula} = \left[\left[1 - \left[\frac{1}{(1+i)^t} \right] \right] / i \right] \times \text{Mortgage Loan Amount (MLA)}$$

Where:

MLA = Mortgage loan amount (i.e. home purchase price less the down payment amount)

i = interest rate expressed in monthly terms (e.g. 5.0% annual percentage rate (APR) / 12 = .004166667)

t = time horizon expressed in monthly terms (e.g. 30 years = 360 months)

Second, the Adkins Residential Real Estate Analysis Software Application, in accordance with the Adkins Residential Home Valuation Analyzer Financial Methodology, will multiply the monthly mortgage loan repayment amount times a factor of 12 in order to calculate the annual mortgage loan repayment amount (Fig 2, step 35).

Third, the Adkins Residential Real Estate Analysis Software Application, in accordance with the Adkins Residential Home Valuation Analyzer Financial Methodology, will divide the annual loan repayment amount by the percentage of pre-tax household income that the prospective residential real estate property buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan. This step is required in order to determine the required annual pre-tax household income amount that would need to be earned in order to be able to afford to repay the principal and interest costs of the mortgage loan (Fig 2, Steps 40 and 45).

Fourth, the Adkins Residential Real Estate Analysis Software Application, in accordance with the Adkins Residential Home Valuation Analyzer Financial Methodology, will divide the mortgage loan amount by the required annual pre-tax household income amount in order to determine the Adkins Residential Home Valuation Analyzer Factor Multiples (Fig 2, step 50).

A summary of these steps is included in the Adkins Residential Home Valuation Analyzer Factor Multiple Methodology formula listed below.

ARHVA Factor Multiple Methodology Formula	=	Mortgage Loan Amount
		(
		Monthly Mortgage Loan Repayment Amount * 12
		Percentage of Pre-Tax Household Income that is Deemed by the
		Prospective Residential Real Estate Property Buyer to be the Largest
		Amount of Money that should be Spent in order to Repay the Principal
		and Interest Costs of the Mortgage Loan
)

Fifth, the Adkins Residential Home Valuation Analyzer Factor Multiples are used in order to assess the price-level of residential real estate property (FIG. 2, Steps 55 and 60).

The Adkins Residential Home Valuation Analyzer Financial Methodology is based on a mathematical relationship that should exist between household income and the price-level of residential real estate property under a constant set of assumptions. The Adkins Residential Home Valuation Analyzer Financial Methodology is based on the premise that if the cost of debt for a residential mortgage loan is held constant, and the percent of pre-tax household income that the prospective residential real estate property buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan

is held constant, then the Factor Multiple that expresses the relationship that should exist between household income and the price of a residential real estate property will be constant.

To illustrate the use of the Adkins Residential Home Valuation Analyzer Financial Methodology, assume that the prospective residential real estate property buyer believes that 40% is the maximum amount of pre-tax household income that should be spent in order to repay the principal and interest costs of a mortgage loan. In addition, assume that he determines the prevailing mortgage loan interest rate for a fully amortized fixed-rate loan in a specified community is 5.0%. Based on this information, the Adkins Residential Home Valuation Analyzer Factor Multiple, as derived from the five-step Adkins Residential Home Valuation Analyzer Financial Methodology outlined above, will be 6.2.

By utilizing the Adkins Residential Home Valuation Analyzer Factor Multiple of 6.2, the prospective residential real estate property buyer can conclude that if he makes \$100,000 dollars per year, he should not spend more than \$620,000 dollars in order to purchase a home. In comparison, if he makes \$1 million dollars per year, he should not spend more than \$6.2 million dollars in order to purchase a home. Conversely, if he is considering the purchase of a residential real estate property with an asking price of \$350,000 dollars, he would need to make \$56,452 dollars per year. In comparison, if he is considering the purchase of a residential real estate property with an asking price of \$1.5 million dollars, he would need to make \$241,935 dollars per year.

The point of these examples is to illustrate that a factor multiple of 6.2 is the constant Adkins Residential Home Valuation Analyzer Factor Multiple that will be used in order to make each of these analytical assessments, provided the prospective residential real estate property buyer believes that 40% is the largest amount of pre-tax household income that should be spent in order to repay the principal and interest costs of a mortgage loan, and he determines that the prevailing mortgage loan interest rate for a fully-amortized fixed-rate loan in the community is 5.0%.

In order for the Adkins Residential Home Valuation Analyzer Financial Methodology to allow the prospective residential real estate property buyer to determine the level of underpricing or overpricing of residential real estate property in a specified community, he will need to establish

a benchmark proxy for residential household income in a specified community, as well as a benchmark proxy for the price-level of residential real estate property in a specified community.

In most cases, the median household income amount for a specified community and the median home price for a specified community should be utilized in order to conduct a relative valuation analysis. However different types of benchmark proxies can be utilized without affecting the Adkins Residential Home Valuation Analyzer Financial Methodology, process and application. With that said, it is important to note that the analytical conclusion that is derived from the Adkins Residential Home Valuation Analyzer Financial Methodology will likely be affected by the benchmark proxy that is utilized in order to facilitate a relative evaluation.

One example that would likely lead to a different analytical conclusion that is derived from the Adkins Residential Home Valuation Analyzer Financial Methodology would be the use of the average household income amount for a specified community and the average home price for a specified community. The reason for this potential problem stems from the fact that the use of average amounts for these variables will likely be skewed upward or downward by very large or very small outliers in the sample population. Therefore, prospective residential real estate property buyers need to utilize an appropriate benchmark proxy for the household income amount and the home price amount in order to be able to reach a prudent conclusion about the level of underpricing or overpricing of residential real estate property in a specified community.

Again, it is recommended that most prospective residential real estate property buyers use the median household income amount and the median home price amount to facilitate the evaluation. Therefore, for purposes of obtaining median household income and median home price information for a specified community, a link to a public Internet-based website is provided in the Adkins Residential Real Estate Analysis Software Application.

In order to conduct a price-level analysis of residential real estate property in a specified community, the Adkins Residential Real Estate Analysis Software Application, in accordance with the Adkins Residential Home Valuation Analyzer Financial Methodology, will generate a benchmark factor multiple for a specified community. The benchmark factor multiple is calculated by dividing the benchmark proxy that represents the price level of residential real estate property for the specified community by the benchmark proxy that represents the

household income amount for the specified community. In order to determine the level of overpricing or underpricing of residential real estate property in a specified community, the Adkins Residential Home Valuation Analyzer Financial Methodology will analyze the price-level of residential real estate property from two different perspectives:

From the first perspective, the Adkins Residential Home Valuation Analyzer Financial Methodology will utilize the benchmark factor multiple that was calculated for a specified community, in conjunction with the prevailing mortgage loan interest rate for a fully-amortized fixed-rate loan, in order to determine the percentage of pre-tax household income that would need to be spent by the residents that live in a specified community, in order to justify the benchmark factor multiple. This factor multiple is classified as the justified percentage of pre-tax household income amount for a specified community.

If the justified percentage of pre-tax household income amount for a specified community is lower (higher) than the percentage of pre-tax household income that the prospective home buyer believes is the largest amount of money that should be spent by the residents that live in a specified community in order to repay the principal and interest costs of their mortgage loan, then residential real estate property would be considered underpriced (overpriced) in the community. The difference in the underpricing or overpricing can be measured precisely in basis points and percentage points as the difference between these two amounts.

From the second perspective, the Adkins Residential Home Valuation Analyzer Financial Methodology will utilize the benchmark factor multiple that was calculated for a specified community, in conjunction with the percentage of pre-tax household income that the prospective residential real estate property buyer believes is the largest amount of money that should be spent in order to repay the costs of a mortgage loan, in order to determine what the prevailing mortgage loan interest rate for a fully amortized fixed-rate loan would need to be in a specified community, in order to justify the benchmark factor multiple. This factor multiple is classified as the justified mortgage loan interest rate for a specified community.

If the justified mortgage loan interest rate for a specified community is lower (higher) than the prevailing mortgage loan interest rate for a fully amortized fixed-rate loan in a specified community, then residential real estate property in a specified community would be considered overpriced (underpriced) in the community. The difference in the underpricing or overpricing can be measured precisely in basis points and percentage points as the difference between these two amounts.

The invention described herein has been implemented in a computer program executed on a programmable computer having a processor, a data storage system, volatile and non-volatile memory and/or storage elements, at least one input device and at least one output device.

However, the invention may be implemented in hardware, firmware, or software, or a combination of the three.

Each computer program is tangibly stored in a machine-readable storage media or device (e.g., program memory or magnetic disk) readable by a general or special purpose programmable computer, for configuring and controlling the operation of a computer when the storage media or device is read by the computer to perform the procedures described herein. The inventive system may also be considered to be embodied in a computer-readable storage medium, configured with a computer program, where the storage medium so configured causes a computer to operate in a specific and predefined manner to perform the functions described herein.

To assist with the interpretation of the claims set forth in the scope of this invention, the inventor wishes to note that one embodiment of the Adkins Residential Real Estate Analysis Software Application, which utilizes the proprietary Adkins residential Home Valuation Analyzer Financial Methodology, is available through the Internet at the Adkins Capital Management website, titled “Residential Real Estate Property Analysis Report.”

Empirical use of the Adkins Residential Real Estate Analysis Software Application is also possible by subscribing to use the Adkins Residential Home Valuation Analyzer in order to help solidify the mechanics of the Adkins Residential Home Valuation Analyzer Financial Methodology, process, and application. For more information about this invention, please visit

the Adkins Capital Management website, which is located on the Internet at: <http://residentialrealestateanalysis.com>.

The invention has been described herein in considerable detail in order to comply with the patent statutes and to provide those skilled in the art with the information needed to apply the novel principles, and to construct and use such specialized components as are required. However, it is to be understood that the invention can be carried out by specifically different equipment and devices, and that various modifications, both as to the equipment details and operating procedures, can be accomplished without departing from the scope of the invention itself.

EXAMPLE I.

FIG. 3 illustrates one exemplary Adkins Residential Home Valuation Analyzer Financial Methodology that is used in order to determine the largest amount of money that the prospective residential real estate property buyer should spend in order to purchase a home. This process is based on the prevailing interest rate for a 30-year fully-amortized fixed-rate mortgage loan, and the percentage of pre-tax household income that the prospective residential real estate property buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan.

FIG. 3, Step 65 illustrates the first use of the Adkins Residential Home Valuation Analyzer Financial Methodology. To begin the process, assume that the prevailing mortgage interest rate for a 30-year fully amortized fixed-rate loan in the prospective residential real estate property buyer's community is 5.0%, and assume that he believes that no more than 40% of pre-tax household income should be spent in order to repay the principal and interest costs of a mortgage loan. Based on this information, the Adkins Residential Home Valuation Analyzer Financial Methodology will determine the Adkins Residential Home Valuation Analyzer Factor Multiple that triangulates a 5.0% mortgage loan interest rate assumption, with the assumption that 40% of pre-tax household income is the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan. In this case, the Adkins Residential Home Valuation Analyzer Factor Multiple will be 6.2.

With this information, the Adkins Residential Home Valuation analyzer Financial Methodology will multiply the prospective residential real estate property buyer's pre-tax household income amount by the Adkins Residential Home Valuation Analyzer Factor Multiple. In this example, assume that the prospective residential real estate property buyer's pre-tax household income is \$50,000. Therefore, based on the Adkins Residential Home Valuation Analyzer Financial Methodology, \$310,000 is the largest amount of money that he should spend in order to purchase a home (FIG. 3, Step 70).

In order to apply the methodology, assume that the prospective residential real estate property buyer would like to purchase a home that is for sale for \$300,000. Given this information, the prospective residential real estate property buyer would conclude that he can afford to purchase the residential real estate property, because given the prevailing mortgage loan interest rate for a 30-year fully amortized fixed-rate loan in the prospective residential real estate property buyer's community, and the fact that he believes that it is acceptable to spend 40% of pre-tax household income in order to repay the principal and interest costs of a mortgage loan, he earns enough money on an annual basis in order to be able to afford to purchase the home (FIG 3, Step 75).

TRUNCATED VERSION OF THE COMPREHENSIVE ARHVA FACTOR MULTIPLE TABLE									
Loan Interest Rate	Percentage of pre-tax household Income that the prospective residential real estate buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of the loan								
	20%	30%	40%	45%	50%	55%	60%	70%	75%
1.0%	5.2x	7.8x	10.4x	11.7x	13.0x	14.3x	15.6x	18.1x	19.4x
5.0%	3.1x	4.7x	6.2x	7.0x	7.8x	8.5x	9.3x	10.9x	11.6x
10.0%	1.9x	2.9x	3.8x	4.3x	4.7x	5.2x	5.7x	6.7x	7.1x
15.0%	1.3x	2.0x	2.6x	3.0x	3.3x	3.6x	4.0x	4.6x	4.9x
20.0%	1.0x	1.5x	2.0x	2.2x	2.5x	2.7x	3.0x	3.5x	3.7x

EXAMPLE II.

FIG. 4 illustrates one exemplary Adkins Residential Home Valuation Analyzer Financial Methodology that is used in order to determine how much money the prospective residential

real estate property buyer would need to earn on an annual basis in order to be able to afford to purchase a specific home. This process is based on the prevailing interest rate for a fully-amortized fixed-rate mortgage loan, and the percentage of pre-tax household income that the prospective residential real estate property buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan.

FIG. 4, Step 80, illustrates the second use of the Adkins Residential Home Valuation Analyzer Financial Methodology. To begin this process, assume that the prevailing mortgage interest rate for a fully-amortized fixed-rate loan is 10.0%, and that the prospective residential real estate property buyer believes that no more than 55% of annual pre-tax household income should be spent in order to repay the principal and interest costs of a mortgage loan. Based on this information, the Adkins Residential Home Valuation Analyzer Financial Methodology will determine the Adkins Residential Home Valuation Analyzer Factor Multiple that triangulates a mortgage-loan interest rate of 10%, with the assumption that 55% of pre-tax household income is the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan. In this case, the Adkins Residential Home Valuation Analyzer Factor Multiple will be 5.2.

With this information, the Adkins Residential Home Valuation Analyzer Financial Methodology will divide the for-sale price of the home by the Adkins Residential Home Valuation Analyzer Factor Multiple. In this example, assume that the prospective residential real estate property buyer would like to purchase a home that is for sale for \$500,000 dollars. Based on the Adkins Residential Home Valuation Analyzer Financial Methodology, \$96,154 dollars is the amount of annual household income that the prospective residential real estate property buyer would need to earn on an annual basis in order to be able to afford to purchase the home (FIG. 4, step 85).

In order to apply the methodology, assume that the prospective residential real estate property buyer's pre-tax household income is \$80,000 dollars. Given this information, the prospective residential real estate property buyer would conclude that he should not purchase the residential real estate property, because he does not earn enough money on an annual basis in order to be able to afford to purchase the home (FIG. 4, step 90).

TRUNCATED VERSION OF THE COMPREHENSIVE ARHVA FACTOR MULTIPLE TABLE									
Loan Interest Rate	Percentage of pre-tax household Income that the prospective residential real estate buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of the loan								
	20%	30%	40%	45%	50%	55%	60%	70%	75%
1.0%	x/5.2	x/7.8	x/10.4	x/11.7	x/13.0	x/14.3	x/15.6	x/18.1	x/19.4
5.0%	x/3.1	x/4.7	x/6.2	x/7.0	x/7.8	x/8.5	x/9.3	x/10.9	x/11.6
10.0%	x/1.9	x/2.9	x/3.8	x/4.3	x/4.7	x/5.2	x/5.7	x/6.7	x/7.1
15.0%	x/1.3	x/2.0	x/2.6	x/3.0	x/3.3	x/3.6	x/4.0	x/4.6	x/4.9
20.0%	x/1.0	x/1.5	x/2.0	x/2.2	x/2.5	x/2.7	x/3.0	x/3.5	x/3.7

EXAMPLE III.

FIG 5 illustrates one exemplary example of the Adkins Residential Home Valuation Analyzer Financial Methodology that is used in order to determine the level of underpricing or overpricing of residential real estate property in a specified community. This example is based on the relative comparison of the percentage of pre-tax household income that the prospective residential real estate property buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan, versus the justified percentage of pre-tax household income that is derived by the use of the Adkins Residential Home Valuation Analyzer Financial Methodology.

In order to complete this stage of the Adkins Residential Home Valuation Analyzer analysis, the prospective residential real estate property buyer will need to establish a benchmark proxy for residential household income in a specified community, and a benchmark proxy for the price-

level of residential real estate property in a specified community. For purposes of this illustration, the median household income amount in the community and the median home price in the community will be utilized in order to conduct a relative valuation analysis.

In FIG. 5, Step 95, the Adkins Residential Home Valuation Analyzer Financial Methodology is illustrated. To begin the process, assume that the prospective residential real estate property buyer lives in the city of San Francisco, assume that the median household income amount in the city of San Francisco is \$50,000 dollars, and assume that the median home price amount in the city of San Francisco is \$550,000 dollars. Based on this information, the calculated benchmark proxy factor multiple for the city of San Francisco is derived by dividing the median home price amount by the median household income amount. In this case, a factor multiple of 11.0 will be used as the benchmark proxy.

In the next step of the process, the Adkins Residential Home Valuation Analyzer Financial Methodology will calculate the justified percentage of pre-tax household income that must be spent by the people that live in in the city of San Francisco, in order to justify the price-level of residential real estate property. To being this process, assume that the prevailing mortgage loan interest rate for a fully-amortized fixed-rate loan in the city of San Francisco is 4.5%. With this information, the Adkins Residential Home Valuation Analyzer Financial Methodology will determine that almost 67% of pre-tax household income would be required to be spent by the people that live in the city of San Francisco in order to repay the principal and interest costs of a mortgage loan. This information is illustrated in the table below (FIG. 5, Step 100).

By using the Adkins Residential Home Valuation Analyzer Financial Methodology, the prospective residential real estate property buyer can evaluate the level of overpricing or underpricing of residential real estate property in the city of San Francisco. In this example, assume that the prospective residential real estate property buyer believes that 60% of pre-tax household income is the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan. Since the Adkins Residential Home Valuation Analyzer Financial Methodology determined that approximately 67% of pre-tax household income would need to be spent by the people that live in the city of San Francisco, in order to justify the relationship between the median household income amount, the median home price

amount, and the prevailing mortgage loan interest rate for a fully-amortized fixed-rate loan, the prospective residential real estate property buyer would conclude that home prices in the city of San Francisco are overpriced by approximately seven percentage points or approximately 700 basis points (FIG. 5, Step 105).

With this information, the prospective residential real estate property buyer would likely reach the conclusion that it is not appropriate to purchase residential real estate property in the city of San Francisco, because given the prevailing cost of debt in the mortgage lending environment, in conjunction with the median household income amount for the city of San Francisco, an unacceptably high percentage of pre-tax household income would have to be spent by the people that live in the city of San Francisco, in order to justify the price-level of residential real estate property (FIG. 5, Step 110).

TRUNCATED VERSION OF THE COMPREHENSIVE ARHVA FACTOR MULTIPLE TABLE								
Loan Interest Rate	Percentage of pre-tax household Income that the prospective residential real estate buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of the loan							
	↑-Magnitude of Overpricing-↓							
	50%	60%	65%	66%	67%	68%	69%	70%
4.40%	8.32x	9.99x	10.82x	10.98x	11.15x	11.32x	11.48x	11.65x
4.45%	8.27x	9.93x	10.75x	10.92x	11.08x	11.25x	11.42x	11.58x
4.50%	8.22x	9.87x	10.69x	10.86x	11.02x	11.18x	11.35x	11.51x
4.55%	8.18x	9.81x	10.63x	10.79x	10.96x	11.12x	11.23x	11.45x

EXAMPLE IV.

FIG 6 illustrates a second exemplary example of the Adkins Residential Home Valuation Analyzer Financial Methodology that is used in order to determine the level of underpricing or overpricing of residential real estate property in a specified community. This example is based on the relative comparison of the prevailing mortgage-loan interest rate for a fully-amortized fixed-rate loan in a specified community, versus the justified mortgage loan

interest rate for a fully-amortized fixed-rate loan that is derived by the use of the Adkins Residential Home Valuation Analyzer Financial Methodology.

In order to complete this stage of the Adkins Residential Home Valuation Analyzer analysis, the prospective residential real estate property buyer will need to establish a benchmark proxy for residential household income in a specified community, and a benchmark proxy for the price-level of residential real estate property in a specified community. For purposes of this illustration, the median household income amount in the community and the median home price in the community will be utilized in order to conduct a relative valuation analysis.

In FIG. 6, Step 115, the Adkins Residential Home Valuation Analyzer Financial Methodology is illustrated. To begin this process, assume that the residential real estate property buyer lives in Oklahoma City, assume that the median household income amount in Oklahoma City is \$50,000 dollars, and assume that the median home price in Oklahoma City is \$235,000 dollars. Based on this information, the calculated benchmark proxy factor multiple for Oklahoma City is derived by dividing the median home price amount by the median household income amount. In this case, a factor multiple of 4.7 will be used as the benchmark proxy.

In the next step of the process, the Adkins Residential Home Valuation Analyzer Financial Methodology will calculate the justified mortgage loan interest rate for a fully-amortized fixed-rate loan in Oklahoma City. To begin this process, assume that the residential real estate property buyer believes that no more than 30% of pre-tax household income should be spent in order to repay the principal and interest costs of a mortgage loan. With this information, the Adkins Residential Home Valuation Analyzer Financial Methodology will determine that the

justified mortgage loan interest rate for a fully amortized fixed-rate loan in Oklahoma City is 5.0%. This information is illustrated in the table below (FIG. 6, Step 120).

By using the Adkins Residential Home Valuation Analyzer Financial Methodology, the prospective residential real estate property buyer can evaluate the level of overpricing or underpricing of residential real estate property in Oklahoma City. In this example, assume that the prevailing mortgage loan interest rate for a fully amortized fixed-rate loan in Oklahoma City is 4.0%. Since the Adkins Residential Home Valuation Analyzer Financial Methodology determined that a mortgage loan interest rate of 5.0% is required in order to justify the relationship between the median household income amount, the median home price amount, and the percentage of pre-tax household income that the prospective residential real estate property buyer believes is the largest amount of money that the people in Oklahoma City should spend in order to repay the principal and interest costs of their mortgage loan, the prospective residential real estate property buyer would conclude that home prices in Oklahoma City are underpriced by approximately one percentage point, based on the current mortgage lending interest-rate environment (FIG. 5, Step 125).

With this information, the prospective residential real estate property buyer would likely reach the conclusion that it is appropriate to purchase residential real estate property in Oklahoma City, because given the percentage of pre-tax household income that he believes is the largest amount of money that should be spent in order to repay the costs of a mortgage loan, in conjunction with the median household income amount for Oklahoma City, an acceptable increase in the prevailing cost of debt in the mortgage lending environment can take place before the price-level of residential real estate property would be classified as overpriced in the community. (FIG. 5, Step 130).

TRUNCATED VERSION OF THE COMPREHENSIVE ARHVA FACTOR MULTIPLE TABLE									
Home Price Level	Loan Interest Rate	Percentage of pre-tax household Income that the prospective residential real estate buyer believes is the largest amount of money that should be spent in order to repay the principal and interest costs of the loan							
		20%	30%	40%	45%	50%	55%	60%	70%
↓-Magnitude of Undepriced-↑	1.0%	5.2x	7.8x	10.4x	11.7x	13.0x	14.3x	15.6x	18.1x
	4.0%	3.5x	5.2x	7.0x	7.9x	8.7x	9.6x	10.5x	12.2x
	4.25%	3.4x	5.1x	6.8x	7.6x	8.5x	9.3x	10.2x	11.9x
	4.50%	3.3x	4.9x	6.6x	7.4x	8.2x	9.1x	9.9x	11.5x
	4.75%	3.2x	4.8x	6.4x	7.2x	8.0x	8.8x	9.6x	11.2x
	5.0%	3.1x	4.7x	6.2x	7.0x	7.8x	8.5x	9.3x	10.9x
	10.0%	1.9x	2.9x	3.8x	4.3x	4.7x	5.2x	5.7x	6.7x
	15.0%	1.3x	2.0x	2.6x	3.0x	3.3x	3.6x	4.0x	4.6x
	20.0%	1.0x	1.5x	2.0x	2.2x	2.5x	2.7x	3.0x	3.5x

PATENT CLAIMS

What I claim in this invention is:

1. A computer-implemented method for conducting a price-level analysis of residential real estate property, by determining the level of underpricing or overpricing of residential real estate property in a specified community, based upon a relative-valuation of the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of the residential real estate property loan, comprising the steps of:
 - a) providing access to an Internet-based computer application that provides data input capabilities, data calculation capabilities, and data output capabilities;
 - b) providing a means to input data by a computer into an Internet-based computer application;
 - c) reading the input data by an Internet-based computer, the information comprising: an annual household income amount, a percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan, a residential real estate property loan amount, the cost of debt defined as the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, the median household income amount for a specified community, and the median residential real estate property price amount for a specified community;
 - d) calculating, by the Internet-based computer application, the appropriate relationship that should exist between household income and the price of residential real estate property, comprising the steps of:
 - a) calculating the monthly loan repayment amount using the following equation:

$$\text{Monthly Loan Repayment Amount} = \left[\left[1 - \left[\frac{1}{(1+i)^t} \right] \right] / i \right] \times \text{Residential Real Estate Property Loan Amount}$$

where i is the monthly loan interest rate, defined as the annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, expressed as a percentage and divided by 12, and;

where t is the term of the loan in months, defined as 360 months;

- b) multiplying the monthly loan repayment amount times a factor of 12 in order to annualize the monthly loan repayment amount;
- c) calculating the required annual household income amount that should be earned in order to be able to afford to purchase a residential real estate property, by dividing the annualized monthly loan repayment amount by the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of the residential real estate property loan; and
- d) dividing the residential real estate property loan amount that is used to purchase the residential real estate property by the required annual household income amount in order to determine the factor multiple that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property;
- e) calculating, by the Internet-based computer application, based on the read information, a plurality of factor multiples that express the appropriate relationship that should exist between the household income amount and the price of the residential real estate property, wherein each factor multiple is calculated using the following equation:

$$\text{Factor Multiple} = \left(\frac{\text{Residential Real Estate Property Loan Amount}}{\text{Monthly Loan Repayment Amount} * 12} \right) \text{Percentage of Pre-Tax Household Income that is Deemed to be the Largest Amount of Money that should be Spent in order to Repay the Principal and Interest Costs of a Residential Real Estate Property Loan}$$

- where the Internet-based computer application utilizes the read information, and updates the percentage of household income amount that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan from 1% to 100%, until the Internet-based computer application has determined the factor multiple that expresses the relationship that should exist between the household income amount and the price of the residential real estate property for a plurality of scenarios;
- f) constructing, by the Internet-based computer application, a factor multiple table of data that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property for a plurality of scenarios, where the factor multiple table indicates the appropriate factor multiple based upon the percentage of household income amount that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan;
 - g) calculating, by the Internet-based computer application, the factor multiple for a specified community, where the factor multiple for a specified community is defined as the median residential real estate property price amount for a specified community, divided by the median household income amount for a specified community;
 - h) utilizing, by the Internet-based computer application, the factor multiple for a specified community, in order to determine the percentage of household income that would have to be spent by the people that live in a specified community, in order to justify the price-level of residential real estate property in a specified community, which is found in the factor multiple table of data, and once determined is classified as the justified percentage of household income amount;

- i) comparing, by the Internet-based computer application, the justified percentage of household income amount that would have to be spent by the people that live in a specified community in order to justify the price-level of residential real estate property in a specified community, against the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of the residential real estate property loan, in order to determine the level of underpricing or overpricing of residential real estate property in a specified community, where:
 - a) if the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan is higher than the justified percentage of household income amount, residential real estate property is classified as underpriced, as measured by the difference between these two amounts;
 - b) if the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan is equal to the justified percentage of household income amount, residential real estate property is classified as fairly priced, as measured by the difference between these two amounts;
 - c) if the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan is lower than the justified percentage of household income amount, residential real estate property is classified as overpriced, as measured by the difference between these two amounts;
- j) providing, by the Internet-based computer application, a means for outputting calculated data which specifies the level of underpricing or overpricing of residential real estate property in a specified community, wherein the Internet-based computer application comprises instructions stored in a machine-readable medium and a processor that executes the instructions.

2. The method of claim 1, further comprising the step for determining the level of underpricing or overpricing of residential real estate property in a specified community, based upon a relative-valuation of the cost of debt for a fully-amortized fixed-rate loan in a loan lending environment for a specified community.
3. The method of claim 2, further comprising the steps of:
 - a) calculating, by the Internet-based computer application, based on the read information, a plurality of factor multiples that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property, wherein each factor multiple is calculated using the following equation:

		Residential Real Estate Property Loan Amount			
Factor Multiple	=	(Monthly Loan Repayment Amount * 12)	
			Percentage of Pre-Tax Household Income that is Deemed to be the Largest Amount of Money that should be Spent in order to Repay the Principal and Interest Costs of a Residential Real Estate Property Loan		

- where the Internet-based computer application utilizes the read information, and updates the cost of debt defined as the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community from 1% to 20%, until the Internet-based computer application has determined the factor multiple that expresses the relationship that should exist between the household income amount and the price of the residential real estate property for a plurality of scenarios;
- b) constructing, by the Internet-based computer application, a factor multiple table of data that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property for a plurality of scenarios, where the factor multiple table indicates the appropriate factor multiple based upon the cost of debt defined as the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community;

- c) utilizing, by the Internet-based computer application, the factor multiple for a specified community, in order to determine what the interest rate for a 30-year fully amortized fixed-rate loan in a loan lending environment for a specified community would have to be in order to justify the price-level of residential real estate property in a specified community, which is found in the factor multiple table of data, and once determined is classified as the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community;
- d) comparing, by the Internet-based computer application, the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, against the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, in order to determine the level of underpricing or overpricing of residential real estate property in a specified community, where:
 - a. if the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community is higher than the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, residential real estate property is classified as underpriced, as measured by the difference between these two amounts;
 - b. if the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community is equal to the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, residential real estate property is classified as fairly priced, as measured by the difference between these two amounts;
 - c. if the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community is lower than the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, residential real estate property is classified as overpriced, as measured by the difference between these two amounts.

4. The method of claim 1, further comprising the step for determining the largest amount of money that should be spent in order to purchase a residential real estate property, comprising the step of multiplying the annualized household income amount times the factor multiple that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property.
5. The method of claim 1, further comprising the step for determining the amount of household income that would need to be earned on an annual basis in order to be able to afford to purchase a specific residential real estate property, comprising the step of dividing the residential real estate property loan amount by the factor multiple that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property.
6. The method of claim 1, further comprising the step of generating, by the computer, at least one report based on the constructed price-level analysis of residential real estate property.
7. A non-transitory computer-readable medium having computer-readable program code embodied therein that when executed by a computer causes the computer to perform a method for determining the level of underpricing or overpricing of residential real estate property in a specified community, based upon a relative-valuation of the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of the residential real estate property loan, comprising:
 - a) Providing access to a computer program product that provides data input capabilities, data calculation capabilities, and data output capabilities to a user;
 - b) Inputting data via a computer into the computer program product;

- c) Reading information regarding the input data by the computer program product, the information comprising of: an annual household income amount, a percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan, a residential real estate property loan amount, the cost of debt defined as the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, the median household income amount for a specified community, and the median residential real estate property price amount for a specified community;
- d) Calculating the appropriate relationship that should exist between household income and the price of residential real estate property, based on the read information, comprising the steps of:

- a. calculating the monthly loan repayment amount by using the following equation:

$$\text{Monthly Loan Repayment Amount} = \left[\left[\text{Residential Real Estate Property Loan Amount} \times \left(1 - \frac{1}{(1+i)^t} \right) \right] / i \right]$$

where i is the monthly loan interest rate, defined as the annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, expressed as a percentage and divided by 12, and;

where t is the term of the loan in months, defined as 360 months;

- b. multiplying the monthly loan repayment amount times a factor of 12 in order to annualize the monthly loan repayment amount;

- c. calculating the required annual household income amount that should be earned in order to be able to afford to purchase a residential real estate property, by dividing the annualized loan repayment amount by the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of the residential real estate property;
- d. dividing the mortgage loan amount that is used to purchase the residential real estate property by the required annual household income amount in order to determine the factor multiple that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property;
- e) Calculating a plurality of factor multiples that express the appropriate relationship that should exist between the household income amount and the price of the residential real estate property, wherein each factor multiple is calculated using the following equation:

Factor Multiple	=	(Residential Real Estate Property Loan Amount)
			Monthly Loan Repayment Amount * 12	
			Percentage of Pre-Tax Household Income that is Deemed to be the Largest Amount of Money that should be Spent in order to Repay the Principal and Interest Costs of a Residential Real Estate Property Loan	

where the computer-readable program code updates the percentage of household income amount that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan from 1% to 100%, until the computer-readable program code has determined the factor multiple that expresses the relationship that should exist between the household income amount and the price of the residential real estate property for a plurality of scenarios;

- f) Constructing a factor multiple table of data that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property for a plurality of scenarios, wherein the factor multiple table indicates the appropriate factor multiple based upon the percentage of household income amount that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan;
- g) Calculating the factor multiple for a specified community, wherein the factor multiple for a specified community is defined as the median residential real estate property price amount for a specified community, divided by the median household income amount for a specified community;
- h) Determining, using the factor multiple for a specified community, the percentage of household income that would have to be spent by the people that live in a specified community, in order to justify the price-level of residential real estate property in a specified community, which is found in the factor multiple table of data, and once determined is classified as the justified percentage of household income amount;
- i) Comparing the justified percentage of household income amount that would have to be spent by the people that live in a specified community in order to justify the price-level of residential real estate property in a specified community, against the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of the residential real estate property loan, in order to determine the level of underpricing or overpricing of residential real estate property in a specified community, wherein:
 - a) if the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan is higher than the justified percentage of household income amount, residential real estate property is classified as underpriced, as measured by the difference between these two amounts;

- b) if the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan is equal to the justified percentage of household income amount, residential real estate property is classified as fairly priced, as measured by the difference between these two amounts;
 - c) if the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of a residential real estate property loan is lower than the justified percentage of household income amount, residential real estate property is classified as overpriced, as measured by the difference between these two amounts;
 - j) Outputting calculated data which specifies the level of underpricing or overpricing of residential real estate property in a specified community, which is based upon a relative-valuation of the percentage of household income that is believed to be the largest amount of money that should be spent in order to repay the principal and interest costs of the residential real estate property loan;
8. The non-transitory computer-readable medium of claim 7, further comprising: determining the level of underpricing or overpricing of residential real estate property in a specified community, based upon a relative-valuation of the cost of debt for a fully-amortized fixed-rate loan in a loan lending environment for a specified community.
9. The non-transitory computer-readable medium of claim 8, further comprising the steps of:
- a) calculating, based on the read information, a plurality of factor multiples that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property, wherein each factor multiple is calculated using the following equation:

$$\text{Factor Multiple} = \left(\frac{\text{Residential Real Estate Property Loan Amount}}{\text{Monthly Loan Repayment Amount} * 12} \right) \text{Percentage of Pre-Tax Household Income that is Deemed to be the Largest Amount of Money that should be Spent in order to Repay the Principal and Interest Costs of a Residential Real Estate Property Loan}$$

- where the computer-readable program code utilizes the read information to update the cost of debt defined as the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community from 1% to 20%, until the computer-readable program code has determined the factor multiple that expresses the relationship that should exist between the household income amount and the price of the residential real estate property for a plurality of scenarios;
- b) constructing, a factor multiple table of data that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property for a plurality of scenarios, where the factor multiple table indicates the appropriate factor multiple based upon the cost of debt defined as the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community;
 - c) Determining, using the factor multiple for a specified community, what the interest rate for a 30-year fully amortized fixed-rate loan in a loan lending environment for a specified community would have to be in order to justify the price-level of residential real estate property in a specified community, which is found in the factor multiple table of data, and once determined is classified as the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community;
 - d) comparing, the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, against the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, in order to determine the level of underpricing or overpricing of residential real estate property in a specified community, where:

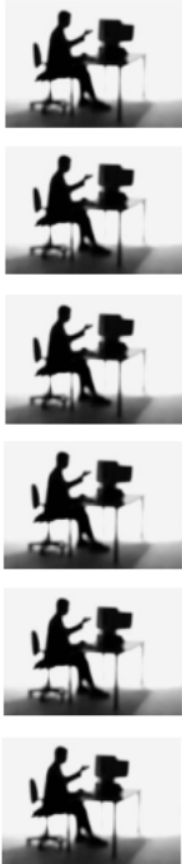
- a. if the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community is higher than the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, residential real estate property is classified as underpriced, as measured by the difference between these two amounts;
 - b. if the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community is equal to the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, residential real estate property is classified as fairly priced, as measured by the difference between these two amounts;
 - c. if the justified interest rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community is lower than the prevailing annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community, residential real estate property is classified as overpriced, as measured by the difference between these two amounts.
10. The non-transitory computer-readable medium of claim 7, further comprising: determining the largest amount of money that should be spent in order to purchase a residential real estate property, by multiplying the annualized household income amount times the factor multiple that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property.
11. The non-transitory computer-readable medium of claim 7, further comprising: determining the amount of household income that would need to be earned on an annual basis in order to be able to afford to purchase a specific residential real estate property, by dividing the residential real estate property loan amount by the factor multiple that expresses the appropriate relationship that should exist between the household income amount and the price of the residential real estate property.

12. The non-transitory computer-readable medium of claim 7, further comprising: generating a least one report based on the constructed price-level analysis of residential real estate property.

Fig. 1

Adkins Residential Home Valuation Analyzer (ARHVA) Residential Real Estate Analysis Software Application Operational Flow Chart

Clients

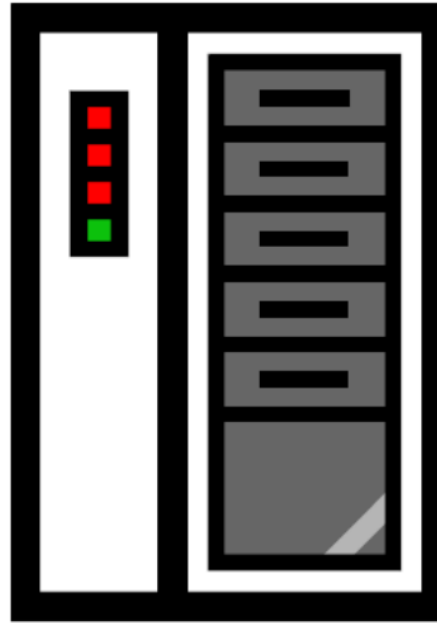


Steps to utilize ARHVA

- 1) Client uses personal computer with high speed internet capabilities to visit the Adkins Capital Management website located at: <http://residentialrealestateanalysis.com>.
- 2) Client completes new client questionnaire and submits customer data to the Adkins Capital Management client database.
- 3) Client is redirected to PayPal website and pays subscription fee to use ARHVA.
- 4) Client receives user id and password sent to the email address submitted to the Adkins Capital Management client database.
- 5) Client re visits the Adkins Capital Management website and logs into ARHVA by entering in the user ID and password in the log-in fields in the new client tab.
- 6) Client selects Control Panel tab of the ARHVA residential real estate analysis software application, and enters data representing:
 - a household income amount;
 - a percentage of household income that is deemed by the prospective home buyer to be the largest amount of money that should be spent in order to repay the principal and interest costs of a mortgage loan;
 - a mortgage loan amount;
 - a cost of debt defined as the annual percentage rate for a 30-year fully-amortized fixed-rate loan in a loan lending environment for a specified community;
 - the median household income level for a specified community;
 - the median home price of residential real estate property for a specified community;
- 7) Client selects button to run ARHVA Analyzer.

Cloud-Based Computer

ARHVA software application housed in a cloud-based computer system hosted by a small business e-commerce provider.



ARHVA software application is available to clients on a real time basis 24-hours per day, 7-days per week. Unlimited bandwidth capabilities allow an unlimited number of clients to utilize the ARHVA software application simultaneously and run comprehensive reports without any disruptions.

ARHVA Analytical Report

Comprehensive ARHVA Analytical Report automatically generated by the user on a real-time basis. Reports downloaded and saved on the client's personal computer as a PDF file for historical reference.

MACRO-LEVEL ARHVA ANALYSIS RESULTS	
SECTION II. HOMEOWNERSHIP ASSUMPTIONS AND FACTORS DERIVED FROM THE MACRO-LEVEL ARHVA ANALYSIS	
Your home loan amount (purchase price less down payment amount)	\$115,000
Your annual household income amount	\$75,000
The percentage of pre-tax household income that you believe is the largest amount that should be spent in order to cover the cost of the mortgage loan	20.00%
The prevailing mortgage loan interest rate in your area for a 30-year fixed rate loan	5.00%
Based on the Macro-Level ARHVA analysis, the following Factor Multiple corresponds with the relationship between pre-tax household income, home prices, and the cost of debt financing for a 30-year fully amortized mortgage loan	4.547
The median home price in your area from the City Data.com website	\$260,000
The median household income in your area from the City Data.com website	\$40,000
Based on the information that you obtained for the median home price in your area and the median household income in your area, the following Factor Multiple was automatically derived for your community. This factor multiple is used to determine if homes in your area are underpriced, fairly priced, or overpriced.	2.53

MACRO-LEVEL ARHVA ANALYSIS RESULTS	
Based on the Macro-Level ARHVA Analysis, the following amount of money is the most that you should consider borrowing in order to purchase a home	\$364,208
Based on the Macro-Level ARHVA Analysis, the following amount of money represents the annual pre-tax household income amount that you would need to make each year in order to be able to afford the mortgage loan	\$93,200
Based on the amount of money that you believe should be spent on a pre-tax basis in order to cover the cost of a mortgage loan, the prevailing mortgage loan interest rate that is available in your area for a 30-year fixed rate mortgage, and the median household income and median home price in your community, the following conclusion should be reached about the cost of housing in your community	Homes are Underpriced in Your Community
Based on the Macro-Level ARHVA analysis, the following percentage of pre-tax household income would have to be spent by the residents in your community in order to justify the median home price in your community. The percentage in the following cell, which was derived from the ARHVA patent-pending financial methodology, should be used in order to help you assess the magnitude of underpricing or overpricing of homes in your community	22%
Based on the Macro-Level ARHVA analysis, the following mortgage loan interest rate corresponds with the median household income in your community, the median home price in your community, and the percentage of pre-tax household income that you believe is the largest amount of money that should be spent in order to repay the costs of a mortgage loan. The difference between this interest rate amount, and the prevailing mortgage loan interest rate in your community, represents the level of underpricing or overpricing of homes in your community	7.3%

ADKINS CAPITAL MANAGEMENT 26 Residentialrealestateanalysis.com

ARHVA ANALYTICS

Fig. 2

**ADKINS RESIDENTIAL REAL ESTATE ANALYSIS SOFTWARE APPLICATION
ADKINS RESIDENTIAL HOME VALUATION ANALYZER (ARHVA)
ARHVA FINANCIAL METHODOLOGY**

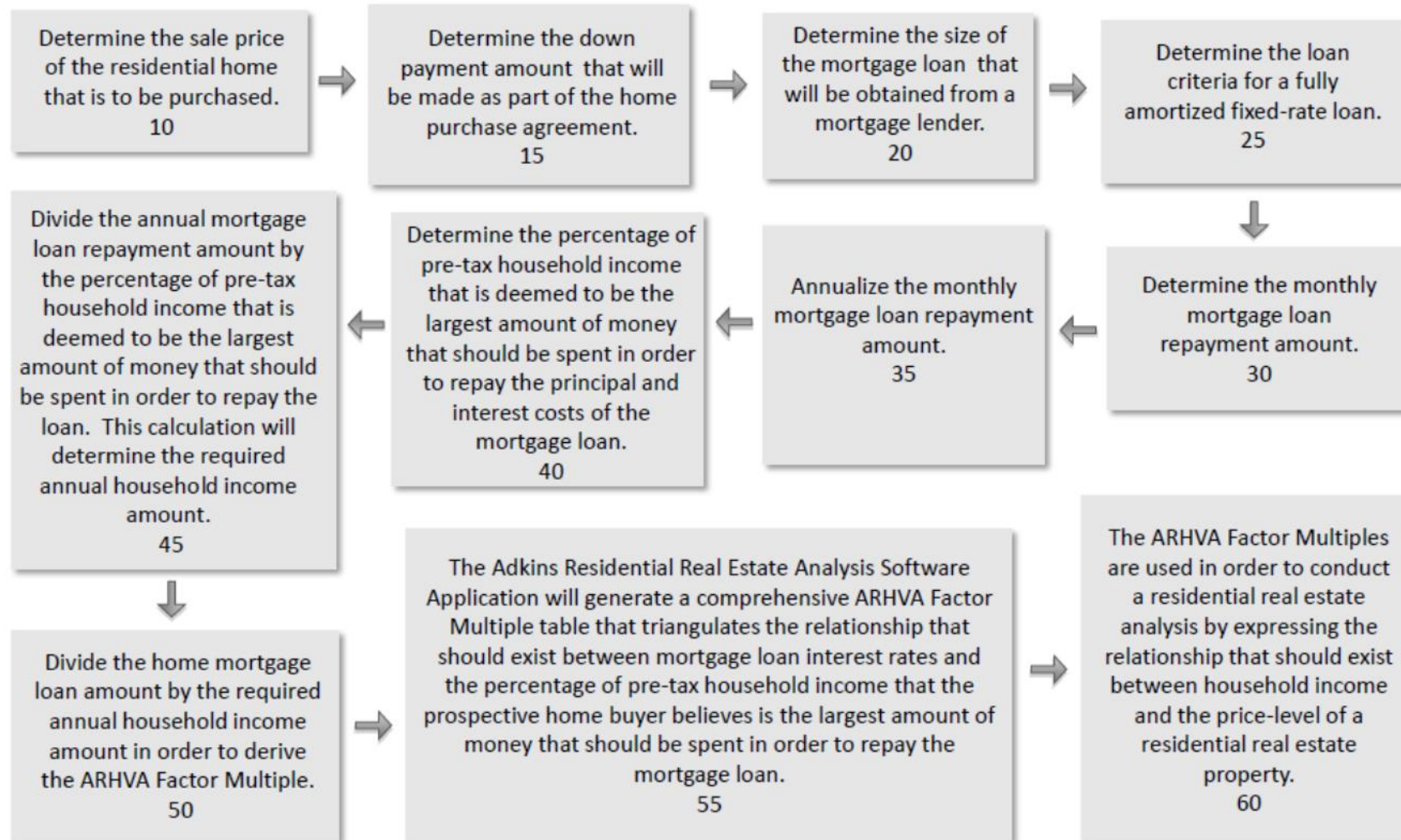


Fig. 3 ADKINS RESIDENTIAL REAL ESTATE ANALYSIS SOFTWARE APPLICATION - ARHVA FINANCIAL METHODOLOGY
Determination of the largest amount of money that should be spent in order to purchase a home

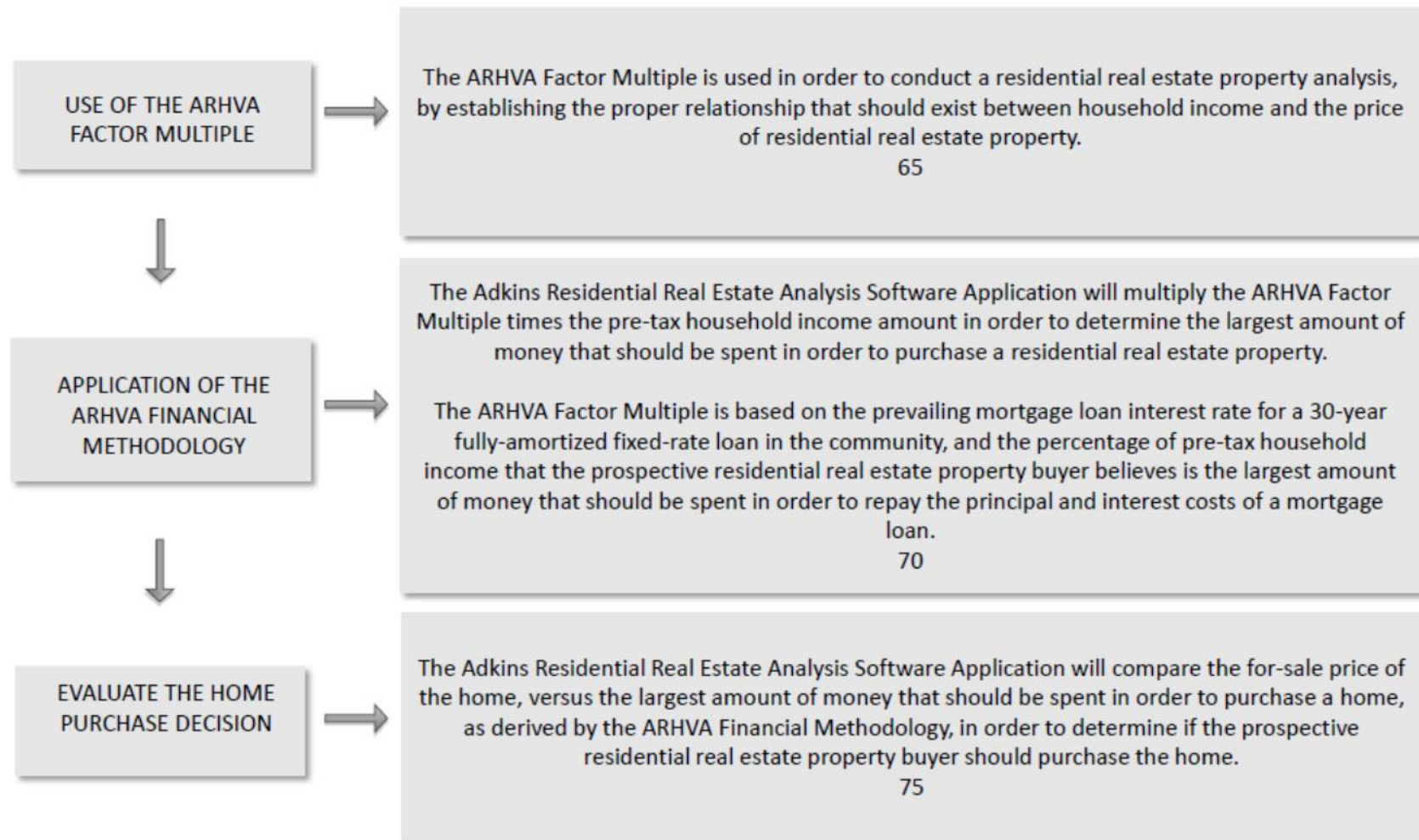


Fig. 4 ADKINS RESIDENTIAL REAL ESTATE ANALYSIS SOFTWARE APPLICATION - ARHVA FINANCIAL METHODOLOGY
Determination of the amount of money that would need to be earned each year in order to be able to afford a specific home

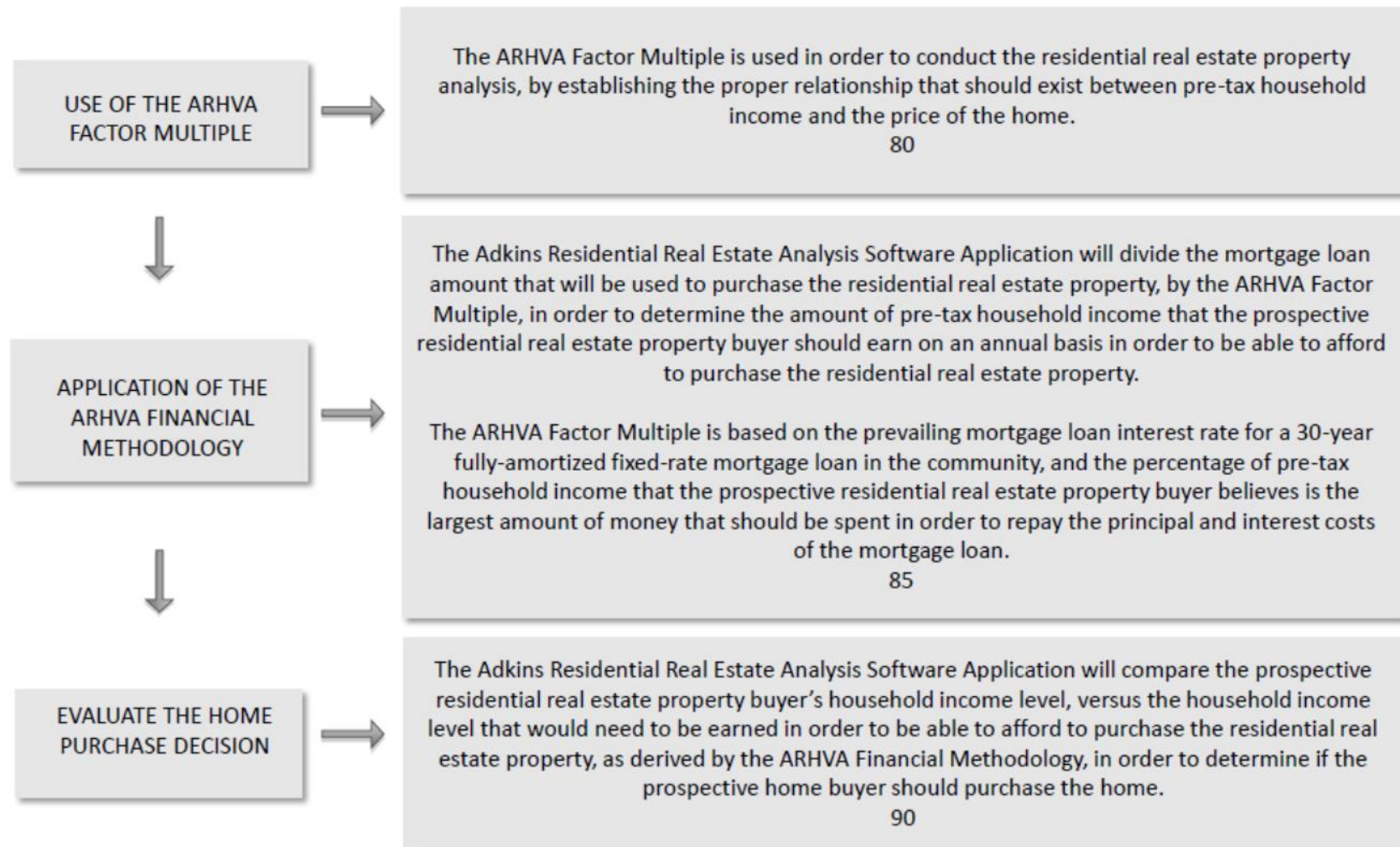


Fig. 5 **ADKINS RESIDENTIAL REAL ESTATE ANALYSIS SOFTWARE APPLICATION - ARHVA FINANCIAL METHODOLOGY**
Determination of the level of underpricing or overpricing of homes in a community
Analysis based on a relative comparison of the percentage of pre-tax household income that is spent for a mortgage loan

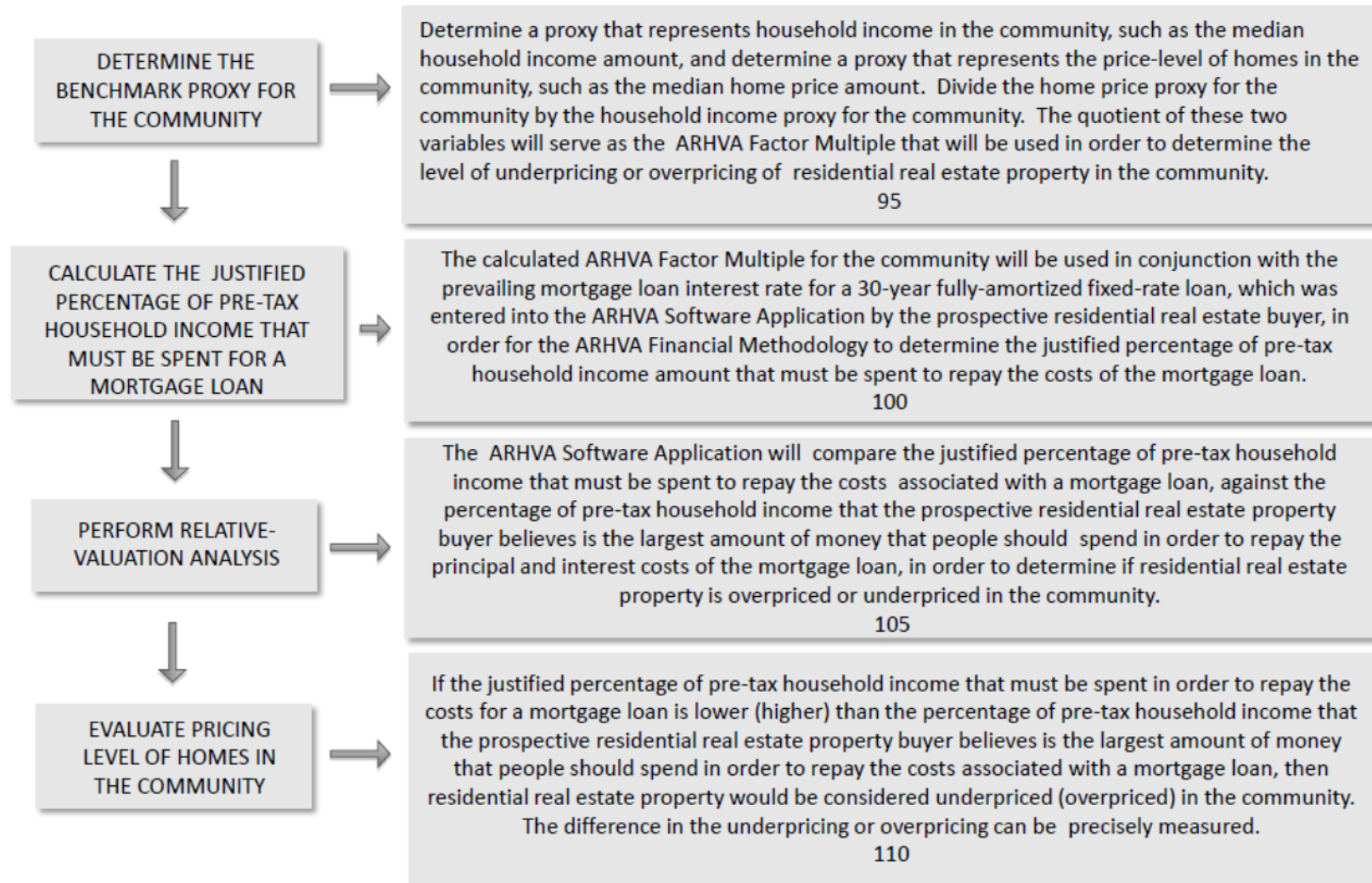


Fig. 6 **ADKINS RESIDENTIAL REAL ESTATE ANALYSIS SOFTWARE APPLICATION - ARHVA FINANCIAL METHODOLOGY**
Determination of the level of underpricing or overpricing of homes in a community
Analysis based on a relative comparison of the cost of debt for a mortgage loan

