



# LegalShield<sup>SM</sup>

## LAW INDEX





## NEWS RELEASE

### Consumer Financial Stress at Lowest Level in More Than a Year

#### Consumer Confidence to Remain Elevated and Risk of Recession Low for the Remainder of 2019 According to LegalShield Law Index

- *Financial Stress continues to improve, likely to maintain low levels through year-end – Consumer Financial Stress Index*
- *Housing Activity Index Hits its Highest Point Since 2005 with Potential Homebuilding Improvements Signaled for 4<sup>th</sup> Quarter - LegalShield Housing Activity Index*
- *Home Purchasing Activity Unlikely to Maintain 2019 Growth Trajectory - LegalShield Real Estate Index*
- *Bankruptcy and Foreclosure Activity to Remain Muted for 4th Quarter*

**ADA, Okla. – (October 15, 2019)** – Released today, the 3<sup>rd</sup> Quarter 2019 LegalShield Law Index, a suite of leading indicators of the economic and financial status of U.S. households and small businesses, indicates that consumer confidence will remain elevated and risk for recession is low for the remainder of 2019.

“Despite some indications of a slowing economy, the LegalShield Law Index suggests U.S. consumers remain on sound footing,” said Scott Grissom, Senior Vice President and Chief Product Officer, LegalShield. “Across all legal services measured, consumer stress is declining, and housing activity is increasing.”

“Overall, LegalShield data suggests the potential for further near-term improvements in housing activity, but a sustained resurgence appears less likely given current economic headwinds facing the industry,” added Grissom.

For the full LegalShield Law Index quarterly findings visit  
<https://www.legalshield.com/law-index>.

#### **Consumer Financial Stress Lowest Level in More Than a Year**

The LegalShield Consumer Financial Stress Index (CFSI) improved by 3.3 points in Q3 to 74.0, its strongest reading in more than a year. However, several economic headwinds could negatively affect consumers in the coming months, including a job

growth slowdown; wage growth declines as the rate recently fell below 3% for the first time in more than a year; trade tensions; and deteriorating global economic conditions affecting business confidence. For now, however, consumer financial stress remains low, meaning that consumers are well-positioned for the rest of the year.

Meanwhile, the Conference Board’s Consumer Confidence Index fell nine points in September but is above its reading from a quarter ago. According to the NY Fed, the share of delinquent outstanding consumer debt is at its lowest level since 2006. One factor to watch is the stock market, which is highly correlated with consumer confidence: if a significant market correction occurs, consumer confidence may well follow suit.

#### **LegalShield Housing Activity Index Suggests Potential Homebuilding Improvements Next Quarter**

The LegalShield Housing Activity Index, a leading indicator of housing starts, increased from 113.6 in Q2 to 119.3 in Q3, its highest point since 2005. Housing starts surged 13% to an annualized rate of 1.36 million in August, reaching the highest level of the current business cycle. However, some headwinds persist: residential investment contracted for the sixth consecutive quarter in Q2, and affordability is still a concern. Scarce building lots, trade tensions and a tight labor market have elevated the cost of materials and labor for homebuilders – all have contributed to a shortage of affordable homes.

Meanwhile, The NAHB Housing Market Index, a reliable measure of homebuilder optimism, reached a 13-month high in September as 30-year mortgage rates remain below 4%. Additionally, housing permits increased more than 12% in August, the strongest growth since early 2017 and a promising sign for additional housing start growth.

#### **LegalShield Real Estate Index Signals Existing Home Sales May Plateau in 4<sup>th</sup> Quarter**

Furthermore, the LegalShield Real Estate Index, a leading indicator of existing home sales, signals purchasing activity is unlikely to maintain its 2019 growth trajectory and may plateau in the fourth quarter. The index eased 0.7 points to 102.9 in Q3 after rising sharply last quarter. Meanwhile, existing home sales improved in August to a 5.49 million annualized rate, the best reading since March 2018, nearly 2.6% above year-ago levels.

#### **LegalShield Bankruptcy Index Indicates Bankruptcy Activity to Remain Muted for 4<sup>th</sup> Quarter**

The LegalShield Bankruptcy Index, a forward-looking indicator of bankruptcy filings, indicates bankruptcy activity should remain muted for the next 1-3 months. The index improved by 1.6 points to 47.8 in Q3, the lowest level in since late 2018. Likewise, bankruptcies fell 2.5% in Q3 and are down 4.5% compared to year-ago levels.

#### **LegalShield Foreclosure Index Indicates Continued Subdued Foreclosure Activity for 4<sup>th</sup> Quarter**

The LegalShield Foreclosure Index indicates continued subdued foreclosure activity over the coming quarter. The index improved 11.2 points to 49.3 in Q3 and is down nearly 14 points compared to a year ago. Despite headwinds depressing the supply of affordable housing, there is little evidence that suggests foreclosure starts will rise in 2019.

The quarterly LegalShield Law Index reflects the demand for legal services among the company's provider law firms in all 50 states. The Law Index is a suite of leading indicators of the economic and financial status of U.S. households and small businesses, including the LegalShield Foreclosure Index in addition to the Consumer Financial Stress Index, Housing Activity Index, Real Estate Index, and the Bankruptcy Index.

## **About LegalShield**

A trailblazer in the democratization of affordable access to legal protection, LegalShield is one of North America's largest providers of online legal subscription plans covering more than 4.375 million people. Its IDShield identity theft solution for individuals and families has more than one million members. LegalShield and IDShield serve more than 141,000 businesses. In addition, 34,000 companies offer LegalShield and IDShield plans to their employees as a voluntary benefit. Both legal and identity theft plans start for less than \$25 per month.

LegalShield's legal plans provide access to qualified law firms and their attorneys with an average of 22 years of experience in family matters, estate planning, financial and business issues, consumer protection, tax, real estate, benefits disputes and auto/driving issues. Unlike other legal plans or do-it-yourself online services, LegalShield has dedicated law firms in 50 states and all provinces and territories in Canada that members can access at a fraction of typical law firm hourly rates.

IDShield provides identity monitoring and restoration services and is the only identity theft protection company armed with a team of Licensed Private Investigators to restore a member's identity.

For more information visit <https://www.legalshield.com/law-index>.

# # #

# About LegalShield



**#1 Provider**  
of Subscription-based legal  
plans to households

1972–present

**46+ Year History**  
and counting



**6,900 Broker & Agency Clients**  
served by our dedicated  
B2B division



**More than 1.8 Million Memberships**  
paying monthly via credit card/  
debit card/payroll deduction



**47,000**  
small business accounts



**39 Law Firms**  
In 50 states and 4 Canadian provinces  
with a total of 900 lawyers focused on  
LegalShield matters, in addition to  
a referral network of 4,600 lawyers,  
with average of 22 years experience



# About the LegalShield Law Index

- The LegalShield Law Index is a suite of leading indicators of the economic and financial status of U.S. households and small businesses.
- The LegalShield Law Index is comprised of five sub-indices that are constructed from LegalShield's proprietary data, which reflect the demand for various legal services over the past 15+ years. Each time a LegalShield provider law firm receives a request from a LegalShield customer, the request is logged as an "intake" in one of roughly 70 unique areas of law (e.g., real estate) depending on the nature of the request.
- Each sub-index reflects the number of intakes in an area of law as a share of total intakes across all areas of law in a given quarter. In some instances, individual indices across multiple areas of law (e.g., bankruptcy, foreclosure, consumer/finance) are combined to produce a composite index (e.g., consumer financial stress).
- The sub-indices that comprise the LegalShield Law Index were selected because they tend to lead an existing economic indicator that sheds light on the health of the U.S. economy (i.e., the target economic indicator). In this way, the LegalShield Law Index provides actionable intelligence about the direction of the U.S. economy in the near term.

# Advantages of the LegalShield Law Index

## **UNIQUE**

The LegalShield Law Index is based on inquiries into specific legal services each quarter. To the best of our knowledge, there is no comparable data on the market.

## **PROPRIETARY**

The LegalShield Law Index is based on data collected through LegalShield's provider law firms in all 50 states, thereby offering information that is not accessible to the general public.

## **HIGH-FREQUENCY**

The LegalShield Law Index is based on data collected on a near real-time basis, and can be refreshed on a weekly, monthly, or quarterly basis depending on the user's needs.

## **ROBUST**

The LegalShield Law Index is based on intakes for more than 1.8 million memberships (including individuals and small businesses), providing a window into the experiences of families and businesses across the country at any given point in time.

# LegalShield Law Index + Target Economic Indicators

Each sub-index that comprises the LegalShield Law Index has undergone a battery of statistical tests to validate its relationship to an existing economic indicator that sheds light on the health and direction of the U.S. economy (i.e., the target economic indicator). Each index was selected because it tracks its target indicator, thereby providing advance insight into where the economy is heading in the near term.

| LegalShield Law Index                                  | LegalShield Area(s) of Law                     | Target Economic Indicator                                 |
|--|--|---|
| <b>Consumer Financial Stress<br/>(Composite Index)</b> | Bankruptcy, Foreclosure,<br>& Consumer/Finance | Consumer Confidence<br>(Conference Board)                 |
| <b>Housing Activity<br/>(Composite Index)</b>          | Foreclosure & Real Estate                      | Housing Starts<br>(U.S. Census Bureau)                    |
| <b>Bankruptcy</b>                                      | Bankruptcy                                     | Total Bankruptcies<br>(Compiled by Epiq Systems)          |
| <b>Foreclosure</b>                                     | Foreclosure                                    | Foreclosure Starts<br>(Mortgage Bankers Association)      |
| <b>Real Estate</b>                                     | Real Estate                                    | Existing Home Sales<br>(National Association of Realtors) |

# Interpreting Each Component of the LegalShield Law Index

## **Consumer Financial Stress Index**

Consumer spending accounts for more than two-thirds of U.S. economic activity. The flagship LegalShield Consumer Financial Stress Index tends to lead the Conference Board's Consumer Confidence Index by one to three months. The LegalShield Consumer Financial Stress Index also provides a useful "hard" data check on the Consumer Confidence Index and similar measures of consumer confidence that are based on "soft" survey data, as these measures are not always consistent with underlying economic conditions.

## **Housing Activity Index**

The housing market, broadly defined, accounts for up to one-seventh of U.S. economic activity, and the amount of new residential construction (as measured by housing starts) can provide insights into consumers' confidence about their jobs and future income. The LegalShield Housing Activity Index tends to lead U.S. Census data on housing starts (a key economic indicator) by 1–2 months — providing timely intelligence about near-term housing market health.

## **Bankruptcy Index**

Bankruptcy data provide an important insight into the overall financial health of consumers and businesses. As witnessed during the Great Recession of 2008-09, an uptick in bankruptcies can foreshadow significant turmoil within the economy. The LegalShield Bankruptcy Index tends to lead the trajectory of total bankruptcies by roughly one month, providing an early warning signal of an economic downturn.

## **Foreclosure Index**

A rise in foreclosures often signals a worsening of household finances, as households typically delay payments on other debt obligations in order to pay their mortgages on time. The LegalShield Foreclosures Index closely tracks foreclosures as reported each quarter by the Mortgage Bankers Association.

## **Real Estate Index**

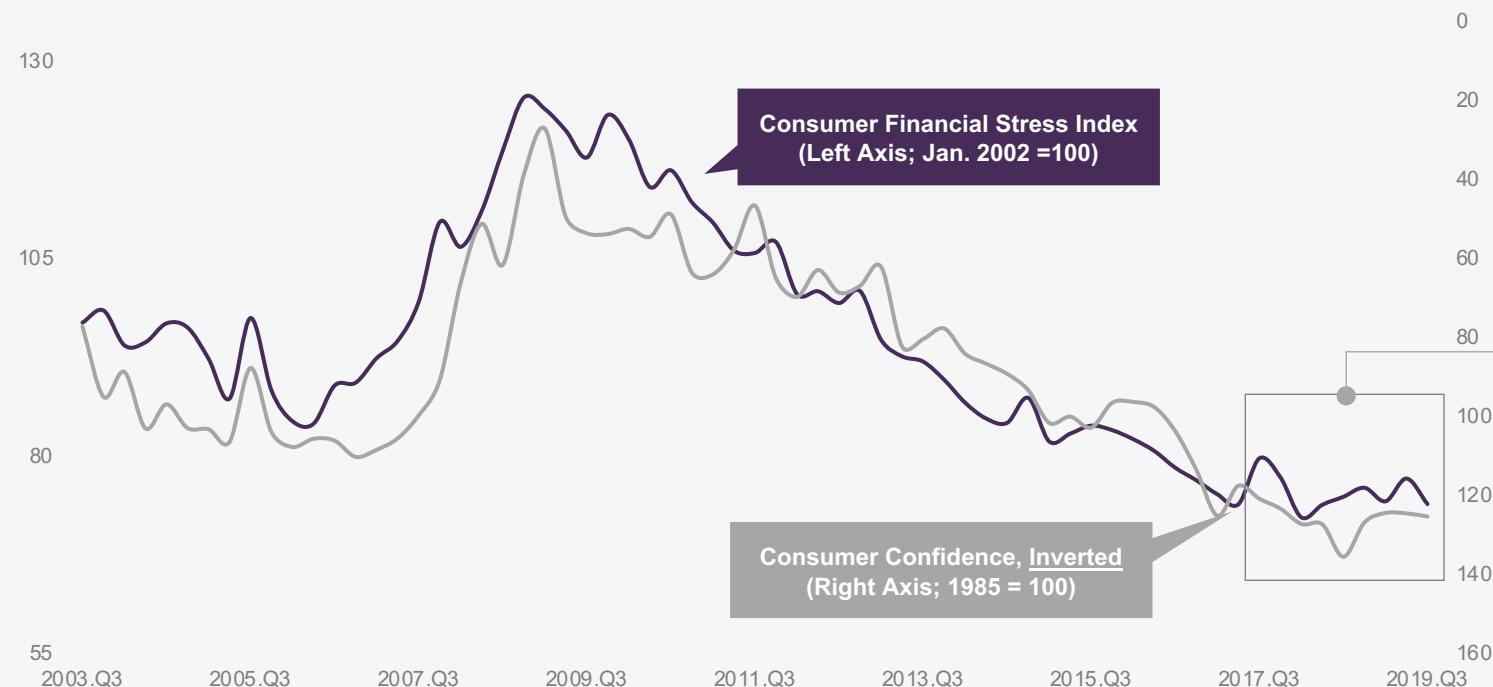
The housing market accounts for a significant share of U.S. economic activity, and the pace of existing home sales can provide insights into consumers' confidence about their jobs and future income. The LegalShield Real Estate Index tends to lead existing home sales as published by the National Association of Realtors and offers an early look at emerging trends in the housing market.

# LegalShield Consumer Financial Stress Index

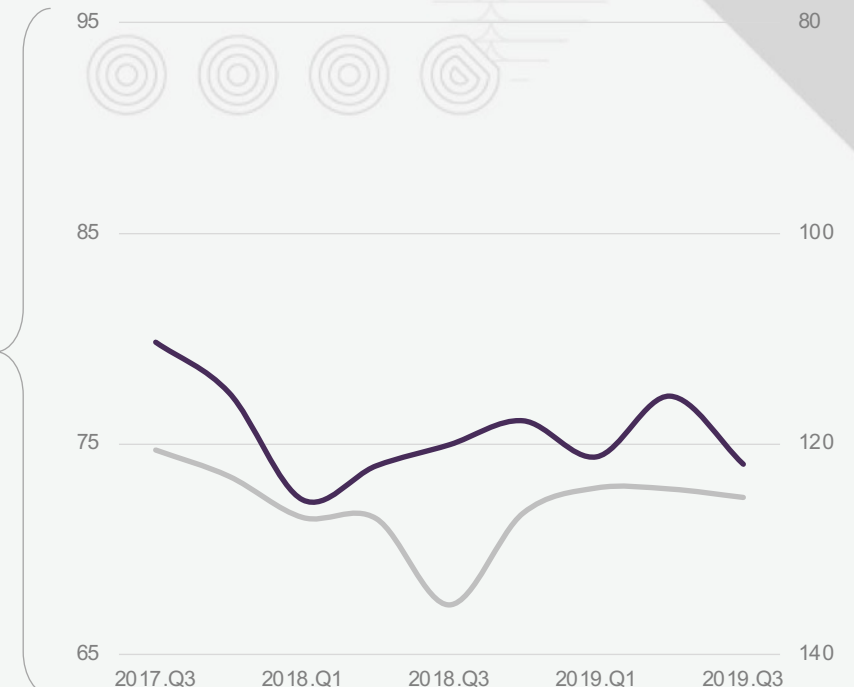
**Headline:** The LegalShield Consumer Financial Stress Index improved in Q3 and remains near historical lows, suggesting that consumer confidence will remain elevated for the remainder of the year.

**Trends in Context:** The LegalShield Consumer Financial Stress Index decreased (improved) 3.3 points in Q3 to 74.0, its strongest reading in more than a year. The Conference Board's Consumer Confidence Index fell nine points in September but is above its reading from a quarter ago, consistent with LegalShield data. Despite a slowing economy, U.S. consumers remain on sound footing. Consumer spending had one of its strongest six-month stretches in the last two decades from March–August, while consumer debt levels are rising but remain manageable: according to the NY Fed, the share of delinquent outstanding consumer debt is at its lowest level since 2006. However, several economic headwinds could negatively affect consumers in the months ahead. Job growth is slowing, wage growth fell below 3% for the first time in more than a year, and trade tensions and deteriorating global economic conditions is causing business confidence to decline. One factor to watch is the stock market, which is highly correlated with consumer confidence: if a significant market correction occurs, consumer confidence may well follow suit. For now, however, consumer financial stress remains low, meaning that consumers are well-positioned for the rest of the year — and the risk of a recession in 2019 remains low.

## HISTORICAL TREND OVER PAST 16 YEARS



## MOVEMENT OVER PAST 24 MONTHS



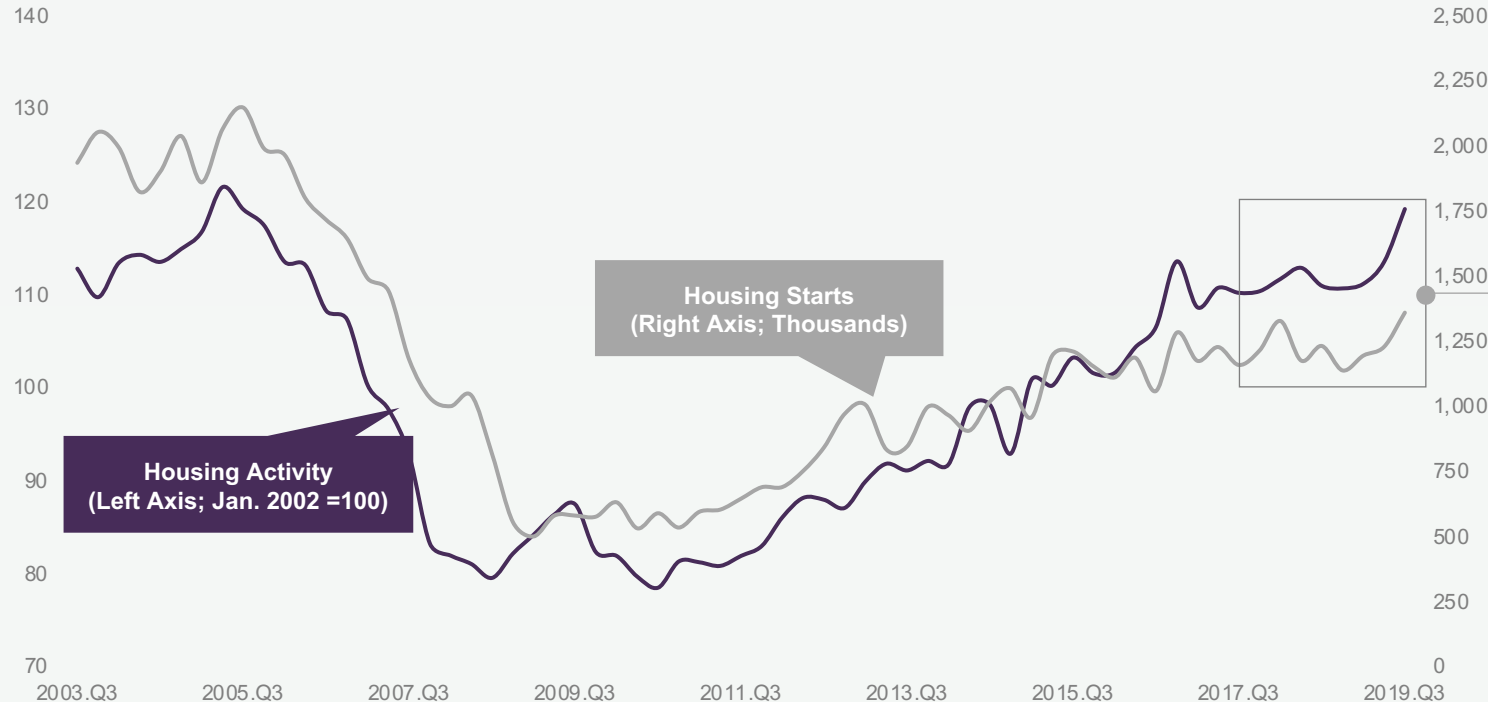
# LegalShield Housing Activity Index

**Headline:** The LegalShield Housing Activity Index improved in Q3, suggesting the potential for further homebuilding improvements over the next quarter.

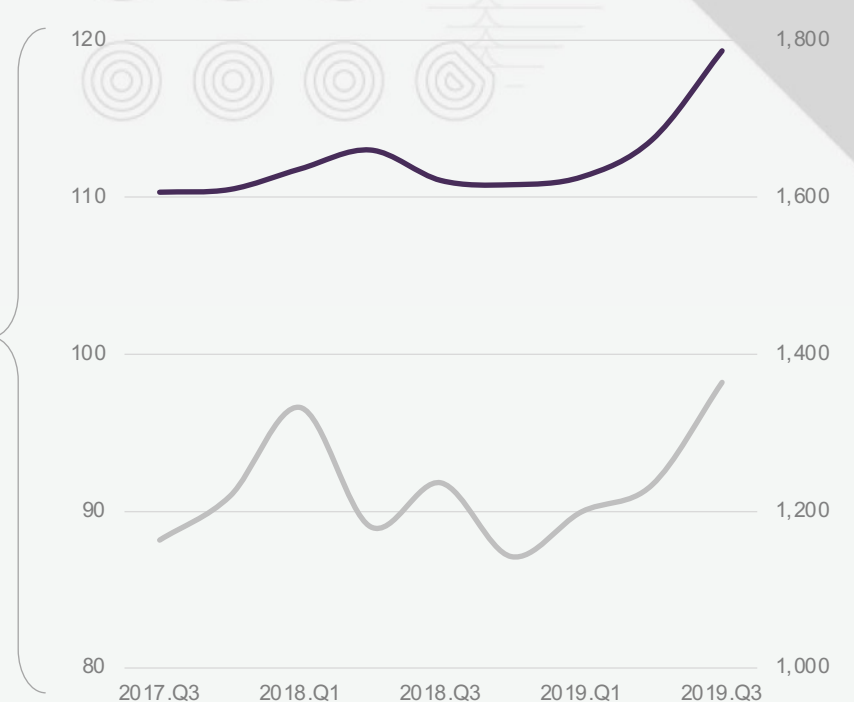
**Trends in Context:** The LegalShield Housing Activity Index increased from 113.6 in Q2 to 119.3 in Q3, its highest point since 2005. Housing starts surged 13% to an annualized rate of 1.36 million in August, reaching the highest level of the current business cycle. The NAHB Housing Market Index (a reliable measure of homebuilder optimism) reached a 13-month high in September as 30-year mortgage rates remain below 4%. Additionally, housing permits increased more than 12% in August, the strongest growth since early 2017 and a promising sign for additional housing start growth.

However, significant headwinds to a housing market recovery remain. Residential investment contracted for the sixth consecutive quarter in Q2, and affordability is still a significant concern: scarce building lots, trade tensions, and a tight labor market have elevated the cost of materials and labor for homebuilders, which has contributed to a shortage of affordable homes. The median home sales price is nearly 5% above its level a year ago, and the share of U.S. consumers who view current home-buying conditions positively remains near post-recession lows. Overall, LegalShield data suggest the potential for further near-term improvements in housing activity, but a sustained resurgence appears less likely given current economic headwinds facing the industry.

## HISTORICAL TREND OVER PAST 16 YEARS



## MOVEMENT OVER PAST 24 MONTHS



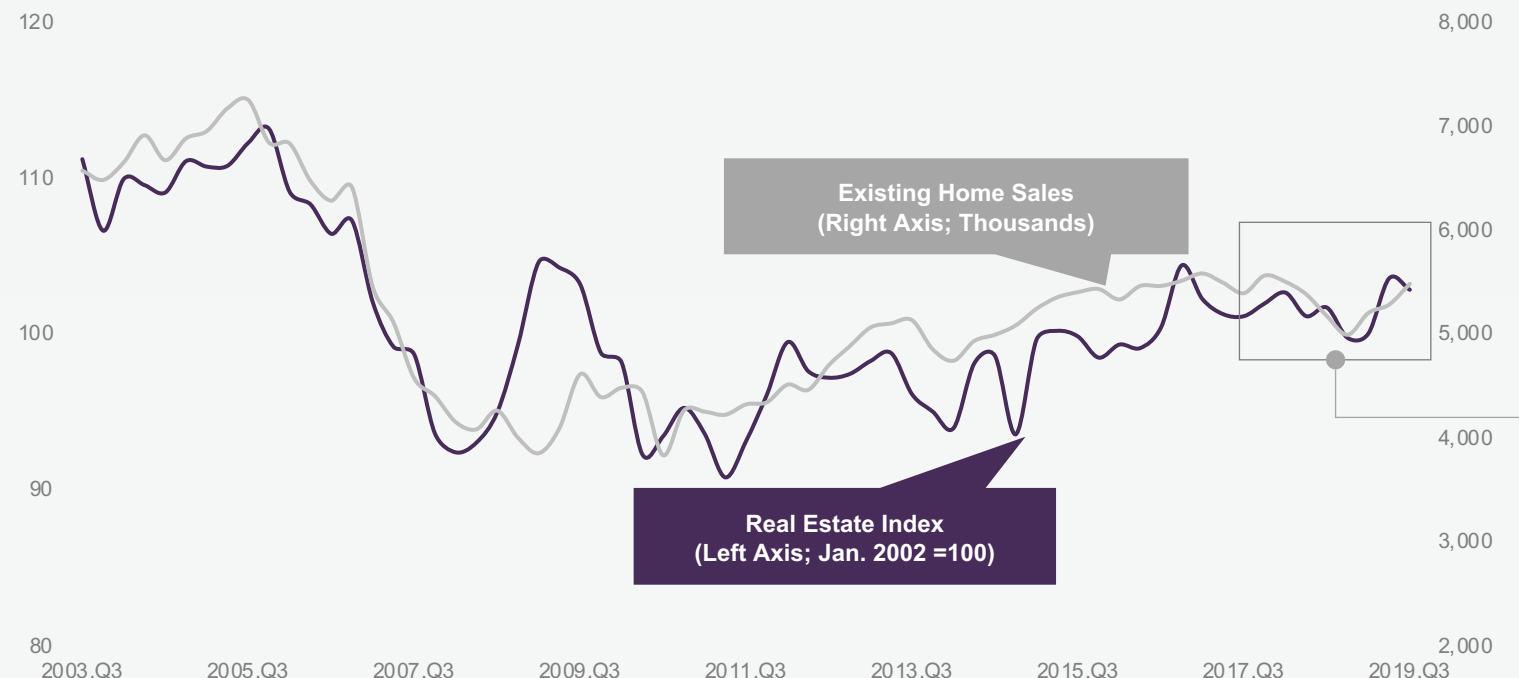


# LegalShield Real Estate Index

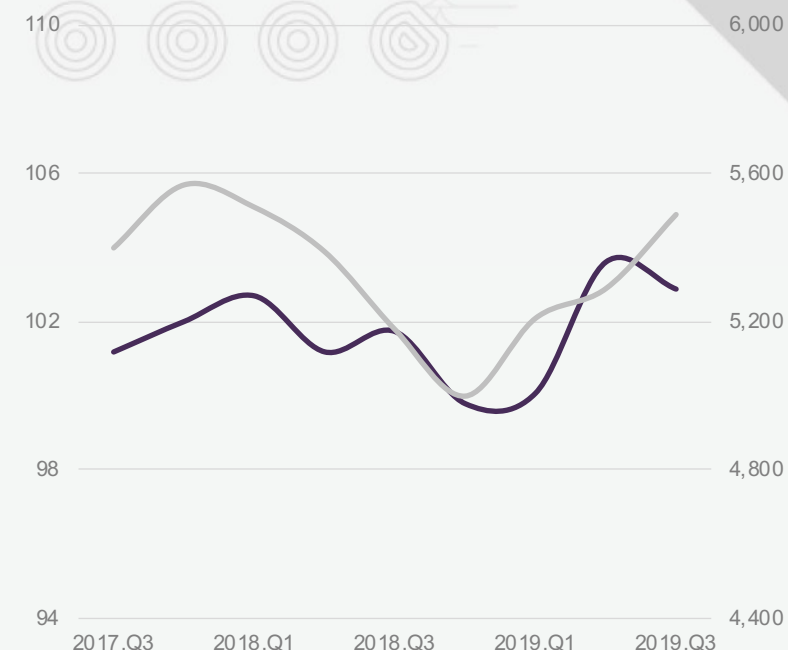
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**Trends in Context:** The LegalShield Real Estate Index eased 0.7 points to 102.9 in Q3 after rising sharply last quarter. Meanwhile, existing home sales improved in August to a 5.49 million annualized rate, the best reading since March 2018 nearly 2.6% above year-ago levels. The improvement in existing home sales seen in 2019 is consistent with LegalShield data and likely reflects sub-4% mortgage rates, which have coaxed some prospective homebuyers off from the sidelines. The potential for additional rate cuts from the Federal Reserve later this year could drive mortgage rates down further. Nonetheless, affordability concerns continue to weigh on the housing market, particularly among younger consumers. The National Association of Realtors' Housing Affordability Index has improved over the last year but remains 27% below its post-recession high, and younger prospective buyers rate current homebuying conditions at a nearly five-year low. Given this quarter's movement in the Real Estate Index, the improvement in existing home sales experienced throughout the year appears likely to plateau in the fourth quarter.

## HISTORICAL TREND OVER PAST 16 YEARS



## MOVEMENT OVER PAST 24 MONTHS

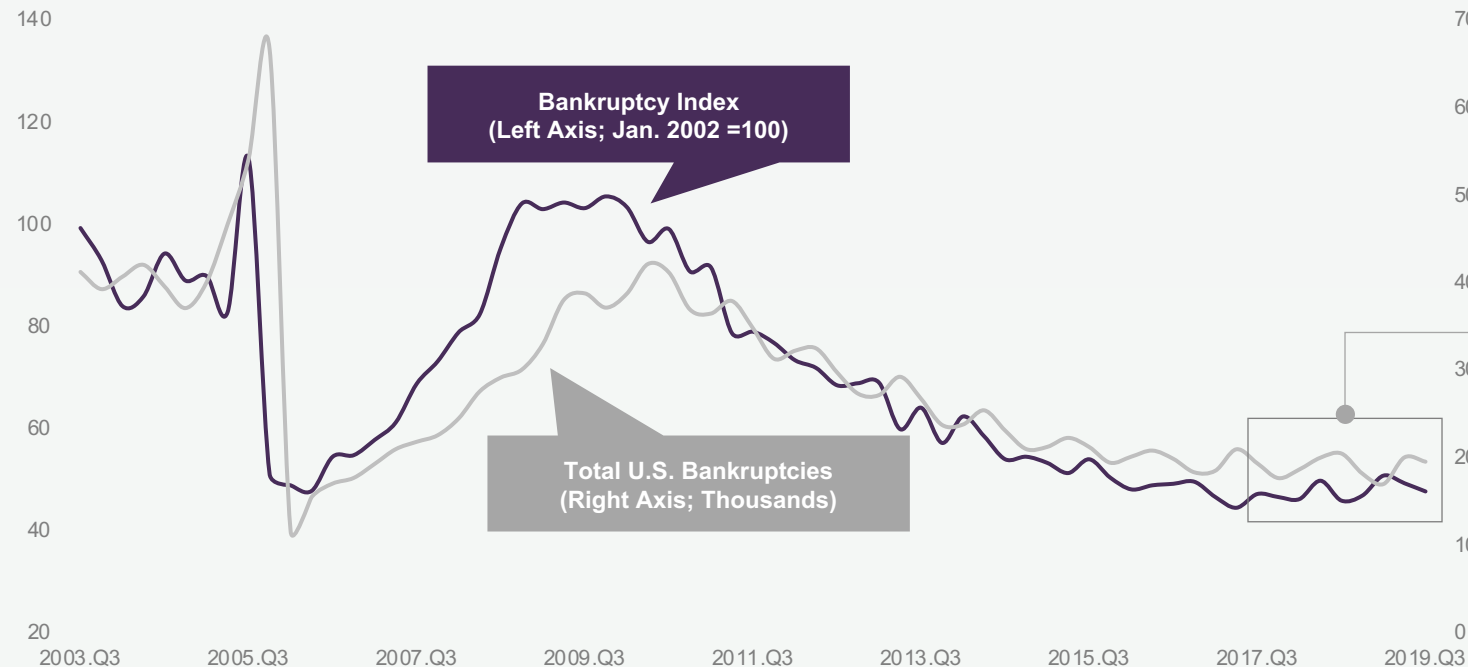


# LegalShield Bankruptcy Index

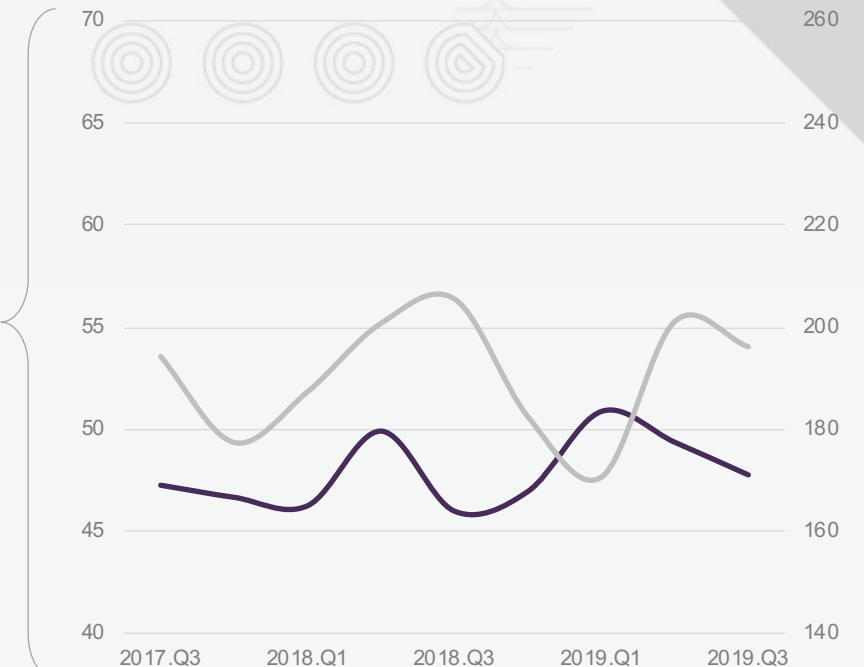
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**Trends in Context:** The LegalShield Bankruptcy Index decreased (improved) 1.6 points to 47.8 in Q3, the lowest level in since late 2018. Likewise, bankruptcies fell 2.5% in Q3 and are down 4.5% compared to year-ago levels. Consistent with LegalShield data, consumers remain poised to finish 2019 on a strong note. Consumer credit markets are healthy, as the share of outstanding consumer debt that is severely delinquent has hovered around 2% for over four years. Additionally, the share of credit card credit outstanding that is 90+ days delinquent remains well below recession-era levels (though it has increased somewhat in recent quarters). Banks are responding accordingly by moderately tightening standards on credit card loans according to the Fed Senior Loan Officer Survey. However, there are increasing signs in the credit market indicate bankruptcies could increase as early as next year. For example, the share of auto loans 90+ days delinquent has risen steadily since 2016 to 4.6% (up nearly 50 bps Y/Y), and the share of student loans delinquent 90+ days are near post-recession highs. In the near term, however, consumers appear to be on solid footing, and the LegalShield Bankruptcy Index suggests bankruptcy activity should remain subdued.

## HISTORICAL TREND OVER PAST 16 YEARS



## MOVEMENT OVER PAST 24 MONTHS

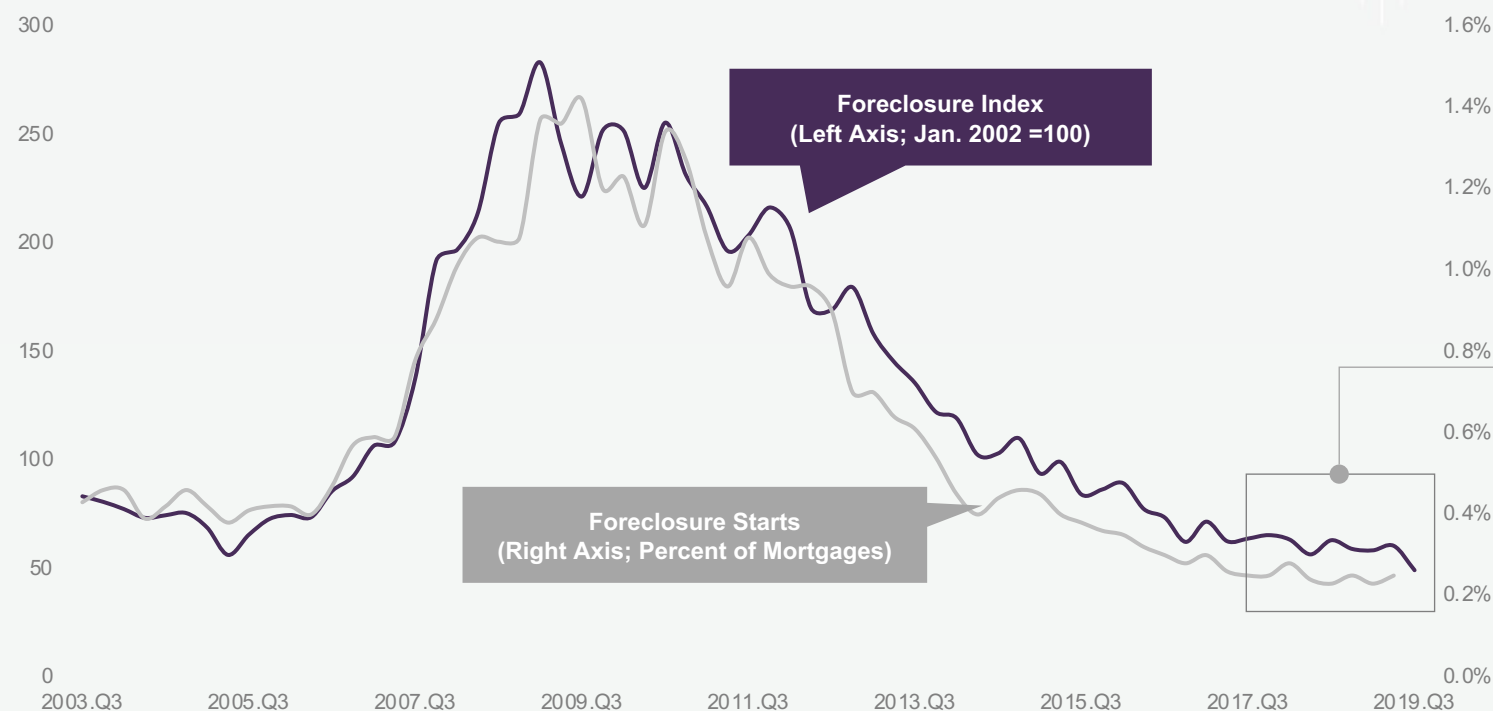


# LegalShield Foreclosure Index

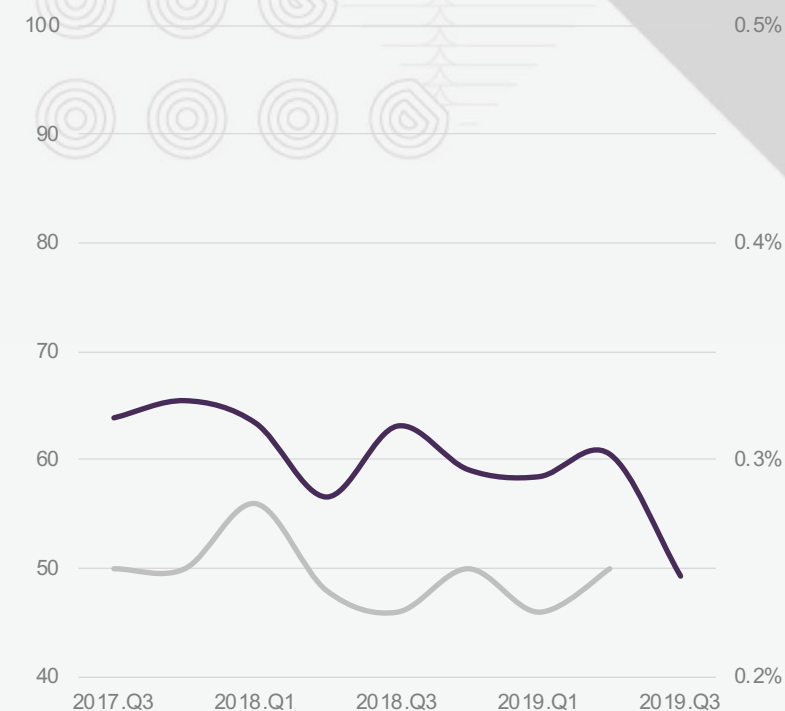
**Headline:** The LegalShield Foreclosure Index indicates continued subdued foreclosure activity over the coming quarter.

**Trends in Context:** The LegalShield Foreclosure Index declined (improved) 11.2 points to 49.3 in Q3 and is down nearly 14 points compared to a year ago. The index continues to lead foreclosure starts, which ticked up 2 basis points in Q2, but remain near historic lows. Despite headwinds depressing the supply of affordable housing, there is little evidence that suggests foreclosure starts will rise in 2019. Homebuyers continue to appear well-positioned to manage their mortgage payments, as the share of mortgages delinquent 90 days or more dipped under 1% in Q2 for the first time since before the Great Recession, despite the amount of outstanding mortgage debt surpassing the previous 2008 peak during the same period. Additionally, due in part to recent Federal Reserve rate cuts, home buyers are taking advantage of low interest rates by refinancing their mortgage in order to reduce their payments. Overall, the LegalShield Foreclosure Index points to continued muted activity in foreclosure starts over the coming 1-3 months.

## HISTORICAL TREND OVER PAST 16 YEARS



## MOVEMENT OVER PAST 24 MONTHS



The background features a complex geometric design. The upper half is white with faint, light gray patterns including concentric circles, vertical lines, and stylized tree-like shapes. The lower half is a solid-colored band composed of a repeating pattern of triangles in various shades of blue, purple, and red, creating a mosaic effect.

# LegalShield Law Index:

## Technical Appendix

# Key Findings

Three individual AOLs demonstrated strong correlation and leading properties against five target macroeconomic indicators.

## Summary Of Results

| LegalShield Area of Law | Target Macro Indicator(s) | Correlation (Level) | Correlation (Y/Y) | Correlation (Q/Q) | Tracks Historical Trend? | Estimated Lead | Robust Over Time? |
|-------------------------|---------------------------|---------------------|-------------------|-------------------|--------------------------|----------------|-------------------|
| Bankruptcy              | • Bankruptcies            | 0.75                | 0.74              | 0.22              | ✓                        | ≈ 1 mo.        | ✓+                |
| Foreclosure             | • Foreclosures            | 0.96                | 0.88              | 0.47              | ✓                        | Coincident*    | ✓+                |
| Real Estate             | • Existing Home Sales     | 0.87                | 0.65              | 0.46              | ✓                        | ≈ 0-1 mo.*     | ✓                 |

# Composite Indices

We developed two composite indexes that are strongly correlated with and tend to lead economic indicators of interest.



## LEGALSHIELD “CONSUMER STRESS” INDEX

- **Component AOLs:** (1) Bankruptcy; (2) Consumer/Finance; (3) Foreclosure
- **Target Indicator:** Consumer Confidence
- **Performance:** -0.85 Correlation; 1-3 Month Lead



## LEGALSHIELD “HOUSING ACTIVITY” INDEX

- **Component AOLs:** (1) Real Estate; (2) Foreclosure
- **Target Indicator:** Housing Starts
- **Performance:** 0.91 Correlation; 0-2 Month Lead\*





# Methodology: Individual Index Development

# Methodology

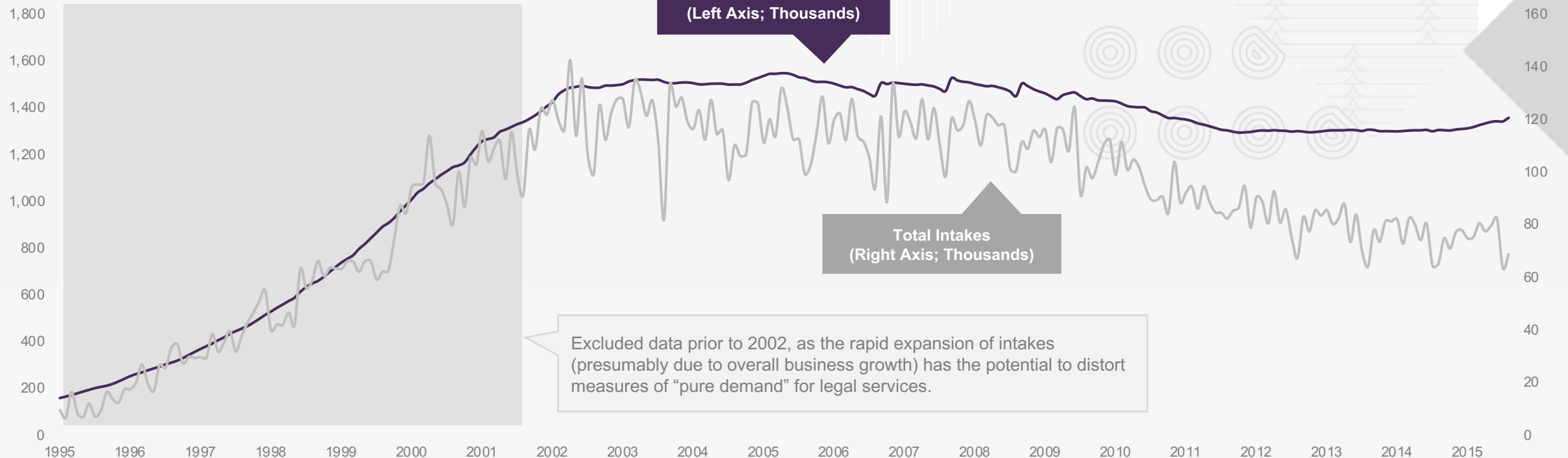
A six-step process was used to convert LegalShield intake data into potential indices.

- 1 Construct Dataset.** Conduct preliminary data cleaning, processing, and formatting.
- 2 Determine Scope of Analysis.** Examine differences across plan types and subscriber samples to determine the optimal “subscriber universe” for index development.
- 3 Define Intake Metric.** Test competing approaches for normalizing intake data.
- 4 Filter AOLs.** Evaluate and scope the original list of 65 areas of law (AOLs) to identify the best candidates for index development.
- 5 Test.** Run the scoped AOLs through a series of transformations and statistical tests to identify quantitative relationships with key macroeconomic indicators.
- 6 Develop Indexes.** Combine specific AOLs into composite indexes and test relationships with key macroeconomic indicators.

# Data Construction & Cleaning

Monthly subscriber and intake data was trimmed to improve the stability of the dataset over time.

## Active Subscribers Thousands



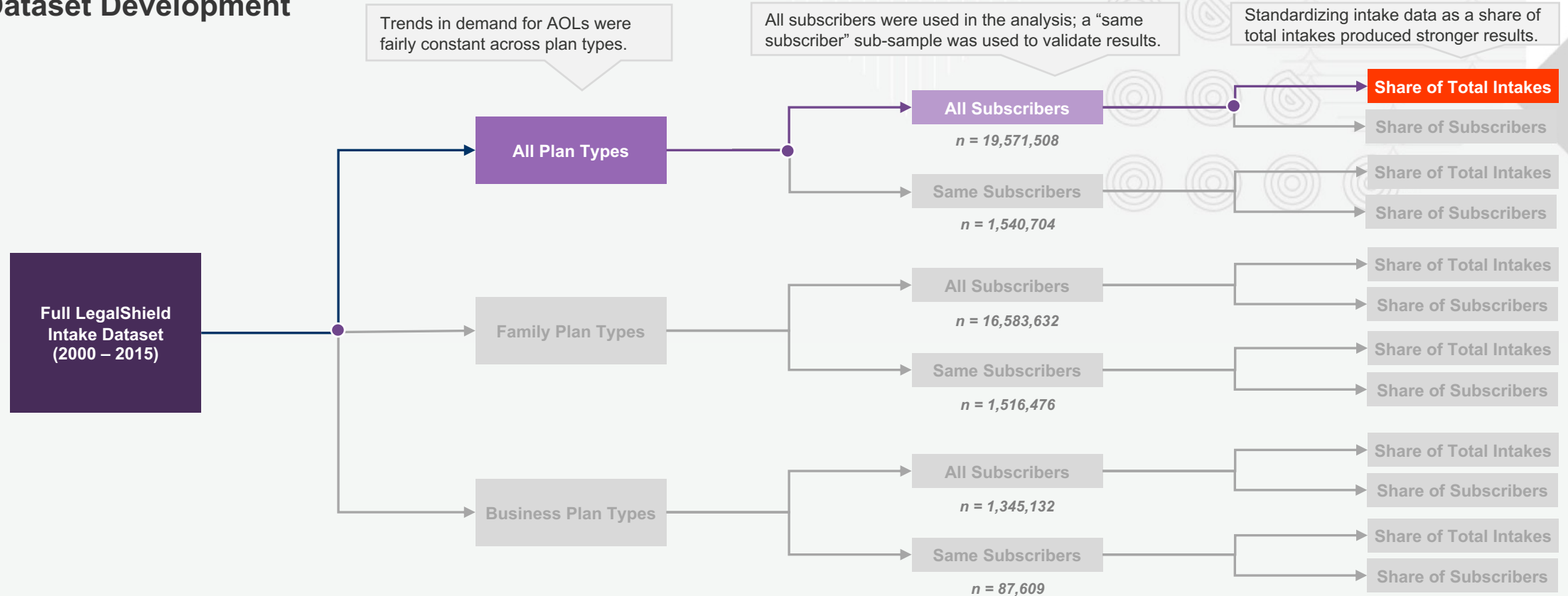
# Analytical Scope

Testing and index development used intake data from all subscribers across all plan types, standardized by total intakes.

*Determine Scope of Analysis*

## Dataset Development

*Define Intake Metric\**



# Filter AOLs

Out of 65 AOLs in the original intake data, a three-step filtering process identified 27 as suitable candidates for index development.

## Scoping Intake Data

1

### Original Dataset

*Historical intake data from LegalShield included 65 AOLs.*



2

### Consolidate AOLs

*Consolidating “like” AOLs reduced the number from 65 to 49.*



3

### Criteria 1: Historical Data

*18 AOLs lacked sufficient historical data.*



4

### Criteria 2: Narrow Scope

*4 AOLs were defined too broadly to support a specific index narrative, leaving 27 “qualifying” AOLs.*



# Filter AOLs

## Detailed Inclusion Filter Results (1/2)

| ID | LegalShield Area of Law      | Associated with +/- Life Event | Historical Data | Narrow Scope | Include in Dataset |
|----|------------------------------|--------------------------------|-----------------|--------------|--------------------|
| 1  | Administrative Law           | Ambiguous                      |                 | ✓            |                    |
| 2  | Automobile Accident          | -                              | ✓               | ✓            | ✓                  |
| 3  | Banking                      | Ambiguous                      | ✓               |              |                    |
| 4  | Bankruptcy                   | -                              | ✓               | ✓            | ✓                  |
| 5  | Business License, Fees, etc. | Ambiguous                      | ✓               | ✓            | ✓                  |
| 6  | Civil Litigation             | -                              | ✓               | ✓            | ✓                  |
| 7  | Collection                   | -                              | ✓               | ✓            | ✓                  |
| 8  | Consumer/Finance             | Ambiguous                      | ✓               | ✓            | ✓                  |
| 9  | Contract                     | Ambiguous                      | ✓               | ✓            | ✓                  |
| 10 | Corporate                    | +                              | ✓               | ✓            | ✓                  |
| 11 | Criminal                     | -                              | ✓               | ✓            | ✓                  |
| 12 | Divorce                      | -                              |                 | ✓            |                    |
| 13 | Divorce Uncontested          | -                              |                 | ✓            |                    |
| 14 | Education                    | -                              | ✓               | ✓            | ✓                  |
| 15 | Elder Law                    | -                              | ✓               | ✓            | ✓                  |
| 16 | Employment                   | Ambiguous                      | ✓               | ✓            | ✓                  |
| 17 | Entertainment                | Ambiguous                      |                 | ✓            |                    |
| 18 | Estate Planning              | Ambiguous                      | ✓               | ✓            | ✓                  |
| 19 | Family Law                   | Ambiguous                      | ✓               | ✓            | ✓                  |
| 20 | Firearm                      | Ambiguous                      |                 | ✓            |                    |
| 21 | Foreclosure                  | -                              | ✓               | ✓            | ✓                  |
| 22 | Franchise Law                | Ambiguous                      |                 | ✓            |                    |
| 23 | General Law                  | Ambiguous                      | ✓               |              |                    |
| 24 | Identity Theft               | -                              |                 | ✓            |                    |
| 25 | Immigration                  | Ambiguous                      | ✓               | ✓            | ✓                  |



# Filter AOLs

## Detailed Inclusion Filter Results (2/2)

| ID    | LegalShield Area of Law         | Associated with +/- Life Event | Historical Data | Narrow Scope | Include in Dataset |
|-------|---------------------------------|--------------------------------|-----------------|--------------|--------------------|
| 26    | Insurance                       | -                              | ✓               | ✓            | ✓                  |
| 27    | Labor Law                       | -                              |                 | ✓            |                    |
| 28    | Landlord Tenant                 | -                              | ✓               | ✓            | ✓                  |
| 29    | Legal Malpractice               | -                              |                 | ✓            |                    |
| 30    | Loan Modification               | Ambiguous                      |                 | ✓            |                    |
| 31    | Medical Malpractice             | -                              | ✓               | ✓            | ✓                  |
| 32    | Military Law/Security Clearance | Ambiguous                      |                 | ✓            |                    |
| 33    | Other                           | Ambiguous                      | ✓               |              |                    |
| 34    | Patents Combined                | +                              | ✓               | ✓            | ✓                  |
| 35    | Personal Injury                 | -                              | ✓               | ✓            | ✓                  |
| 36    | Probate                         | -                              | ✓               | ✓            | ✓                  |
| 37    | Product Liability               | -                              |                 | ✓            |                    |
| 38    | Public Service                  | Ambiguous                      |                 | ✓            |                    |
| 39    | Real Estate                     | +                              | ✓               | ✓            | ✓                  |
| 40    | Request for Service             | Ambiguous                      |                 |              |                    |
| 41    | Small Claims                    | -                              | ✓               | ✓            | ✓                  |
| 42    | Social Security                 | -                              | ✓               | ✓            | ✓                  |
| 43    | Tax                             | Ambiguous                      | ✓               |              |                    |
| 44    | Trademarks                      | +                              |                 | ✓            |                    |
| 45    | Traffic                         | -                              | ✓               | ✓            | ✓                  |
| 46    | Veteran's Affairs               | Ambiguous                      |                 | ✓            |                    |
| 47    | Will Workshop                   | Ambiguous                      |                 | ✓            |                    |
| 48    | Workman's Compensation          | -                              | ✓               | ✓            | ✓                  |
| 49    | Wrongful Death                  | -                              |                 | ✓            |                    |
| TOTAL |                                 |                                | 31              | 44           | 27                 |

# Testing

Intake data from the 27 “qualifying” AOLs was then tested against 15 economic indicators of interest to assess potential predictive value.

## Macroeconomic Indicators

- ① Gross Domestic Product
- ② Nonfarm Payrolls (Total; Professional and Business Services)
- ③ ISM Non-Manufacturing Purchasing Managers’ Index (PMI)

## Confidence Indicators

- ④ Consumer Confidence Index (Conference Board)
- ⑤ Small Business Optimism Index (NFIB)

## Housing Indicators

- ⑥ Housing Starts
- ⑦ Existing Home Sales (NAR)
- ⑧ Residential Construction Permits
- ⑨ Small Business Optimism Index (NFIB)

## Financial Health Indicators

- ⑩ Total Bankruptcies (Total Filings; Epiq)
- ⑪ Delinquencies (All Loans & Leases; St. Louis Fed)
- ⑫ Foreclosures (All Mortgage Foreclosures Started; Mortgage Bankers Association)
- ⑬ Consumer Credit (Total; Revolving; Non-Revolving)
- ⑭ S&P 500 Index
- ⑮ Wilshire 5000 Index

# Testing

Three out of the final 27 AOLs demonstrated a strong statistical relationship to a handful of economic indicators.

## SCOPING INTAKE DATA

1

### 27 Scoped AOLs

*27 AOLs were subjected to several rounds of statistical testing.*

2

### Statistical Relationship

*Test for correlation across various transformations.*

3

### Tracking Historical Trend

*Visually assess AOL to determine how closely it tracks its target indicator.*

4

### Leading Properties

*Test for leading / concurrent properties.*

5

### Robust Across Time

*Confirm that relationships hold across various out-of-sample time periods.*



# Testing

Testing included computing various correlations, assessing historical trends and leading properties, and evaluating stability over time.

1

## Basic Correlations

- Examined the correlation between AOL and target macro indicator using different transformations



2

## Historical Trend & Leading Properties

- Produced charts of transformed AOL and select economic indicators to confirm/reject if AOL tracks indicator's historical trend
- Examined AOLs on both a concurrent and leading basis

3

## Stability Tests

- Performed testing to confirm that relationship between AOL and macro indicator was not driven solely by a specific time period within the dataset and ensure that the relationship holds across time
- Test 1: Compared correlations between first half of data (2000 – 2007) and second half of data (2008 – 2015)
- Test 2: Compared correlations between random samples of the data
- Test 3: Compared earliest and latest data (2000 – 2005, 2010 – 2015) with middle of data (2006 – 2009)
- Test 4: Compared correlations between 20% of most recent data (Nov 2012 – Dec 2015) and remaining data

# Testing

Statistical Relationship Testing, Select Results

## CORRELATION RESULTS (2002 – 2017)

| LegalShield Area of Law | Target Indicator  | Correlation (Level) | Correlation (Y/Y) | Correlation (Q/Q) |
|-------------------------|---|---------------------|-------------------|-------------------|
| Bankruptcy              | <ul style="list-style-type: none"><li>• Bankruptcies</li></ul>        | 0.76                | 0.67              | 0.20              |
| Foreclosure             | <ul style="list-style-type: none"><li>• Foreclosures</li></ul>        | 0.96                | 0.87              | 0.49              |
| Real Estate             | <ul style="list-style-type: none"><li>• Existing Home Sales</li></ul> | 0.85                | 0.58              | 0.36              |

# Testing

Historical Trend & Leading Properties Testing, Select Results

## HISTORICAL TREND & LEADING PROPERTIES RESULTS (2002 – 2016)

| LegalShield Area of Law | Target Indicator  | Tracks Historical Trend? | Leading Properties? | Approximate Lead Time |
|-------------------------|---|--------------------------|---------------------|-----------------------|
| Bankruptcy              | <ul style="list-style-type: none"><li>• Bankruptcies</li></ul>        | ✓                        | ✓                   | ≈ 1 mo.               |
| Foreclosure             | <ul style="list-style-type: none"><li>• Foreclosures</li></ul>        | ✓                        | r                   | Coincident*           |
| Real Estate             | <ul style="list-style-type: none"><li>• Existing Home Sales</li></ul> | ✓                        | ✓                   | ≈ 0-1 mo.*            |

# Testing

Intertemporal Stability Testing, Select Results

## STABILITY TEST RESULTS (2000 – 2015)

| LegalShield Area of Law | Target Macro Indicator(s) | Test 1* | Test 2* | Test 3* | Test 4* | Overall Score | Key Takeaways                      |
|-------------------------|---------------------------|---------|---------|---------|---------|---------------|------------------------------------|
| Bankruptcy              | • Bankruptcies            | ✓       | ✓       | ✓       | ✓       | ✓+            | Performed well across all tests    |
| Foreclosure             | • Foreclosures            | ✓       | ✓       | ✓       | ✓       | ✓+            | Performed well across all tests    |
| Real Estate             | • Existing Home Sales     | r       | ✓       | ✓       | ✓       | ✓             | Performed well on all but one test |

Test 1: Compared correlations between first half of data (2000 – 2007) and second half of data (2008 – 2015)\*

Test 2: Compared correlations between random samples of the data

Test 3: Compared earliest and latest data (2000 – 2005, 2010 – 2015) with middle of data (2006 – 2009)

Test 4: Compared correlations between 20% of most recent data (Nov 2012 – Dec 2015) and remaining data





# Methodology: Composite Index Development

# Methodology

A five-step process was used to convert LegalShield data into composite indices.

## 1 Select AOLs

Select individual AOLs to be included in the composite index, based on results of statistical tests and desired index “narrative” (e.g., consumer stress).

## 2 Transform AOLs

Compute the month-on-month percent change for each AOL.

## 3 Standardize

Create a standardization factor for each AOL, based on its standard deviation. Multiply each transformed AOL by the standardization factor to produce an “adjusted monthly contribution” for each AOL.

## 4 Sum Components

Sum the adjusted monthly contribution across each AOL to produce a monthly index growth rate.

## 5 Rebase to 100

Rebase the monthly index growth rate to a given month (January 2000 = 100) and to produce a monthly composite index.

# Testing

## Historical Trend & Leading Properties Test Results

### Historical Trend & Leading Properties Results (2002 – 2016)

| Composite Index           | Target Indicator    | Tracks Historical Trend? | Leading Properties? | Approximate Lead Time |
|---------------------------|---------------------|--------------------------|---------------------|-----------------------|
| Consumer Financial Stress | Consumer Confidence | ✓                        | ✓                   | 1 – 3 mo.             |
| Housing Activity          | Housing Starts      | ✓                        | ✓                   | 0 – 2 mo.*            |

# Testing

## Statistical Relationship Test Results

### Correlation Results (2002 – 2017)

| Composite Index           | Target Indicator    | Correlation (Level) | Correlation (Y/Y) | Correlation (Q/Q) |
|---------------------------|---------------------|---------------------|-------------------|-------------------|
| Consumer Financial Stress | Consumer Confidence | -0.85               | -0.58             | -0.33             |
| Housing Activity          | Housing Starts      | 0.88                | 0.55              | 0.23              |

# Testing

## Intertemporal Stability Tests

### Stability Test Results (2000 – 2015)

| Composite Index           | Target Indicator    | Test 1* | Test 2* | Test 3* | Test 4* | Overall Score | Key Takeaways                      |
|---------------------------|---------------------|---------|---------|---------|---------|---------------|------------------------------------|
| Consumer Financial Stress | Consumer Confidence | r       | ✓       | ✓       | ✓       | ✓             | Performed well on all but one test |
| Housing Activity          | Housing Starts      | r       | ✓       | ✓       | ✓       | ✓             | Performed well on all but one test |

\* Test 1: Compared correlations between first half of data (2000 – 2007) and second half of data (2008 – 2015)

Test 2: Compared correlations between random samples of the data

Test 3: Compared earliest and latest data (2000 – 2005, 2010 – 2015) with middle of data (2006 – 2009)

Test 4: Compared correlations between 20% of most recent data (Nov 2012 – Dec 2015) and remaining data

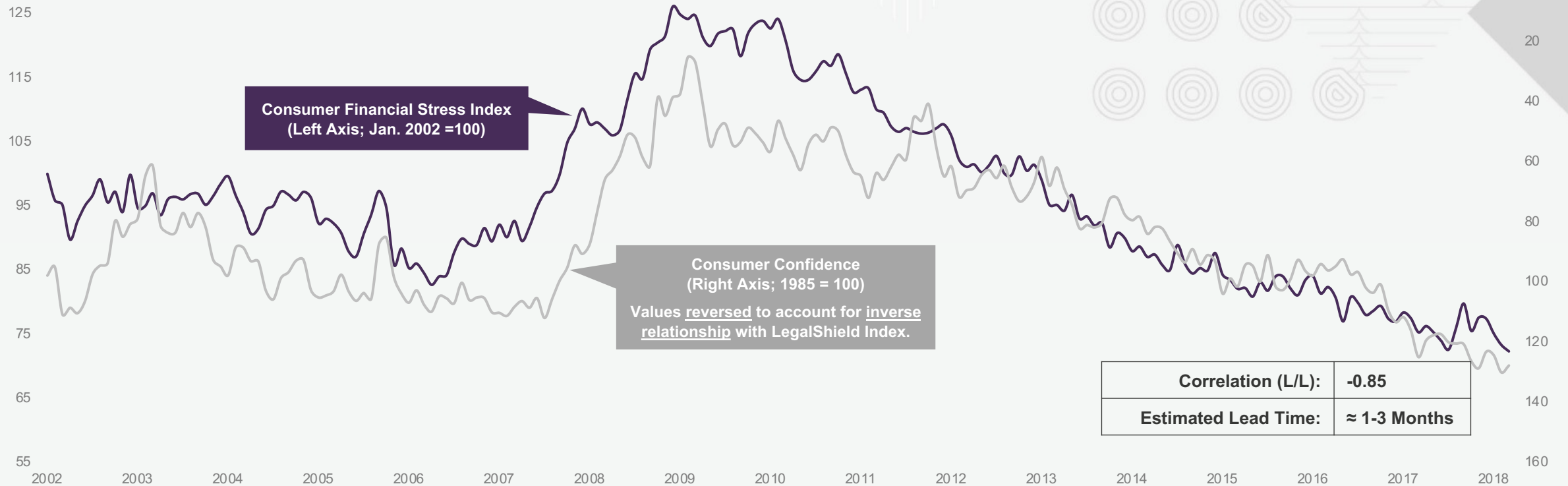


# Summary of Results

# Composite Index: Consumer Financial Stress

AOLs: Bankruptcy; Foreclosure; Consumer Finance

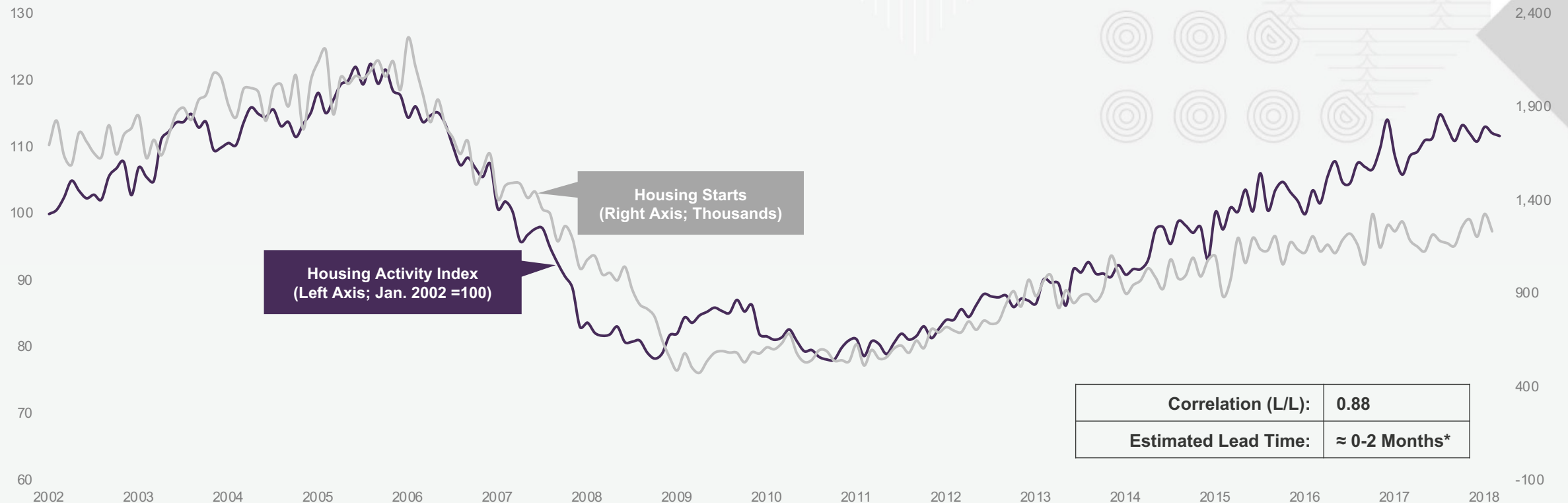
## LegalShield Consumer Financial Stress Index Index (January 2002 = 100)



# Composite Index: Housing Activity Index

AOLs: Foreclosure; Real Estate\*

## Legalshield Housing Activity Index Index (January 2002 = 100)

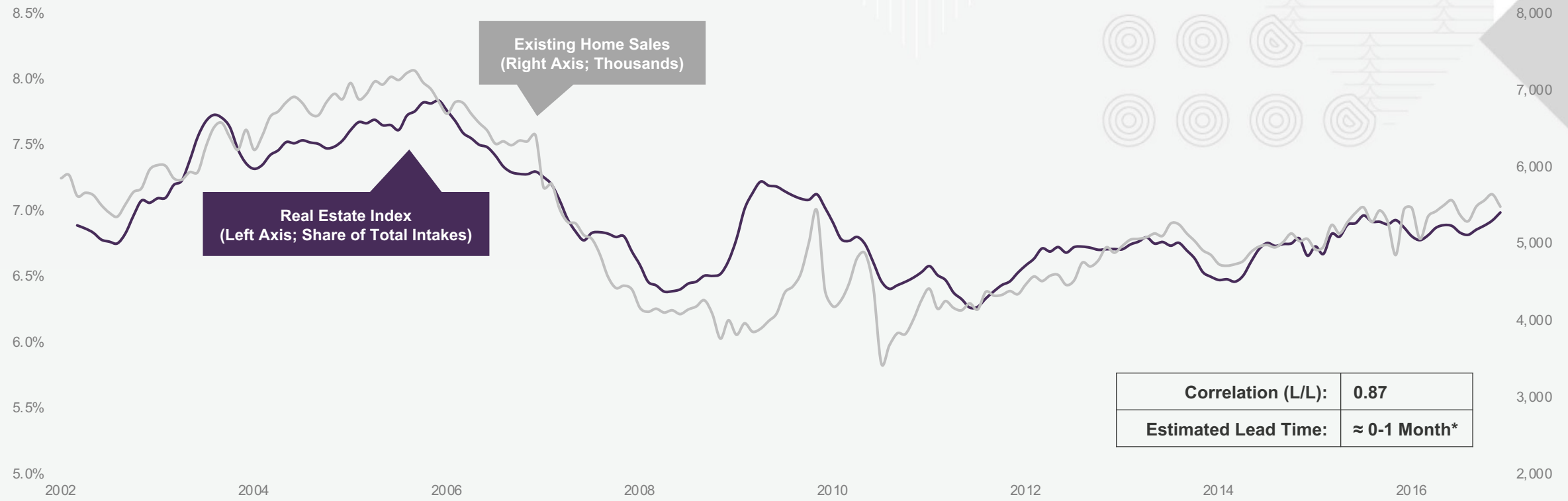




# AOL: Real Estate

Target Series: Existing Home Sales

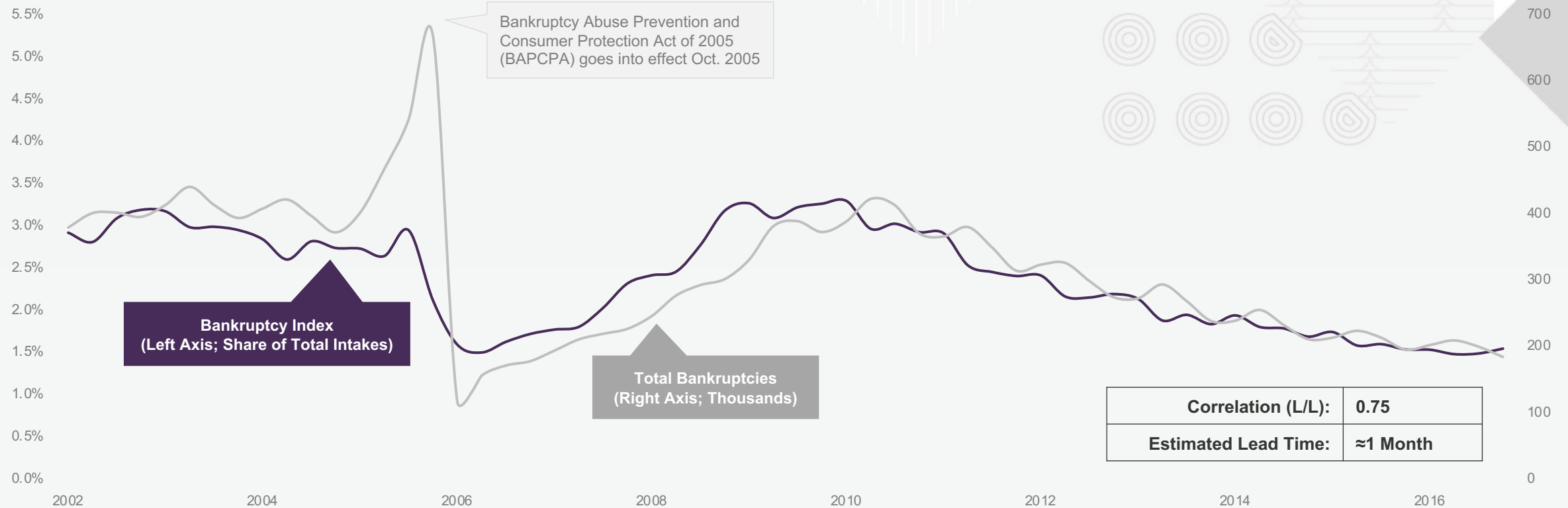
## Legalshield Real Estate Index Share Of Total Intakes (Seasonally Adjusted\*, 3mma)



# AOL: Bankruptcy

Target Series: Target Bankruptcies

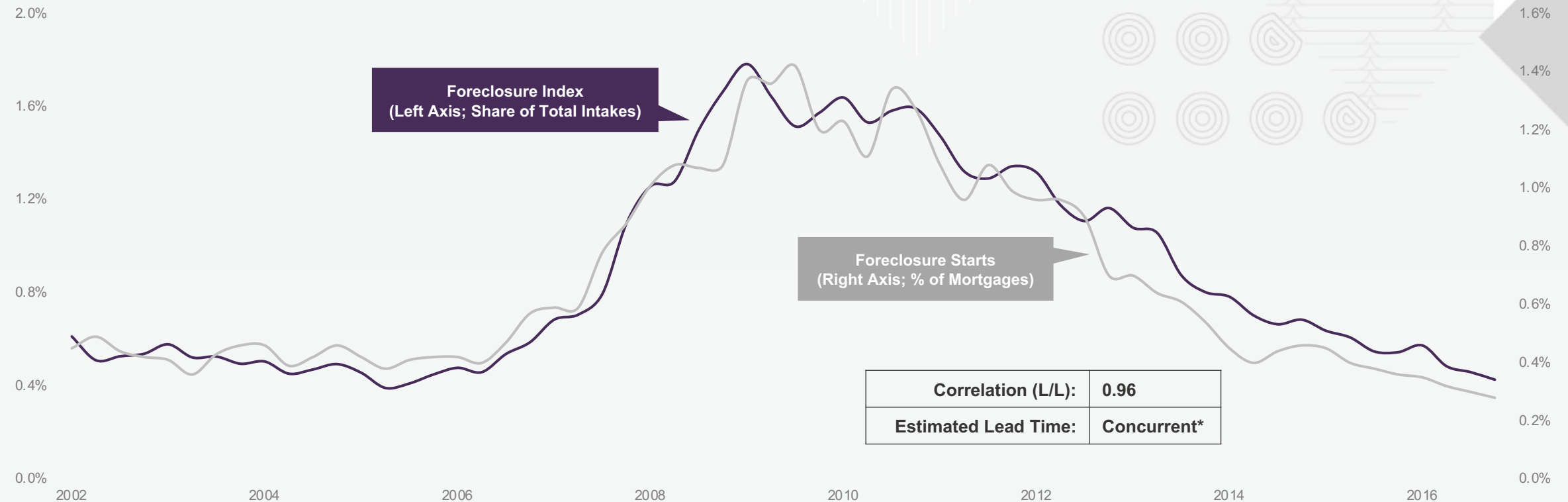
## Legalshield Bankruptcy Index Share Of Total Intakes



# AOL: Foreclosure

Target Series: Foreclosure Starts

## Legalshield Foreclosure Index Share Of Total Intakes

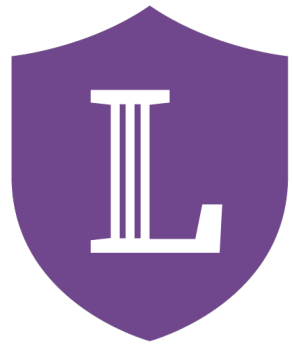


# Results

## Summary of Key Findings

### Summary Of Results

| LegalShield Law Index     | Target Series         | Correlation (Level) | Correlation (Y/Y) | Correlation (Q/Q) | Approximate Lead Time | Robust Across Time |
|---------------------------|-----------------------|---------------------|-------------------|-------------------|-----------------------|--------------------|
| Bankruptcy                | • Bankruptcies        | 0.76                | 0.67              | 0.20              | ≈ 1 mo.               | ✓+                 |
| Foreclosure               | • Foreclosures        | 0.96                | 0.87              | 0.49              | Coincident*           | ✓+                 |
| Real Estate               | • Existing Home Sales | 0.85                | 0.58              | 0.36              | ≈ 0-1 mo.*            | ✓                  |
| Consumer Financial Stress | • Consumer Confidence | -0.85               | -0.58             | -0.33             | ≈ 1-3 mo.             | ✓                  |
| Housing Activity          | • Housing Starts      | 0.88                | 0.55              | 0.23              | ≈ 0-2 mo.*            | ✓                  |



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**LAW INDEX**

