

# ✓ LegalShield<sup>™</sup> Economic Stress Index<sup>™</sup>





### **About LegalShield**



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



**1.8 million+ memberships** paying monthly via credit card/ debit card/payroll deduction



49 year history and counting



47,000 small business accounts



6,900 broker & agency clients served by our dedicated B2B division



**39 law firms in 50 states, Canada and the United Kingdom** with a total of 900 lawyers, and a referral network of 4,600 lawyers, with average of 22 years experience



### About the LegalShield Economic Stress Index

- The LegalShield Economic Stress Index is a suite of leading indicators of the economic and financial status of U.S. households and small businesses.
- The LegalShield Economic Stress 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 Economic Stress 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 Economic Stress Index provides actionable intelligence about the direction of the U.S. economy in the near term.

### Advantages of the LegalShield Economic Stress Index



#### UNIQUE

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



#### PROPRIETARY

The LegalShield Economic Stress 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

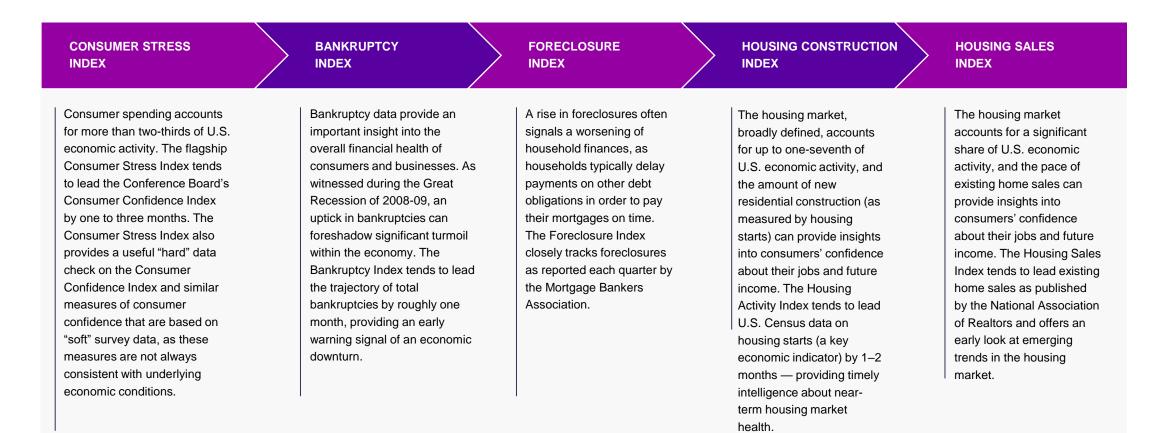
The LegalShield Economic Stress Index is based on data collected on a near real-time basis, and can be refreshed on a weekly, monthly, or quarterly basis depending on the user's needs.



#### ROBUST

The LegalShield Economic Stress 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.

# Interpreting Each Component of the LegalShield Economic Stress Index





### **Consumer Stress Index**

The LegalShield Consumer Stress Index increased modestly in April, though it remains near historic lows. Consumer financial health remains strong overall thanks to pandemic-era savings and a strong labor market. However, high inflation remains a primary headwind for household finances, and consumers are adjusting their spending under the pressure.

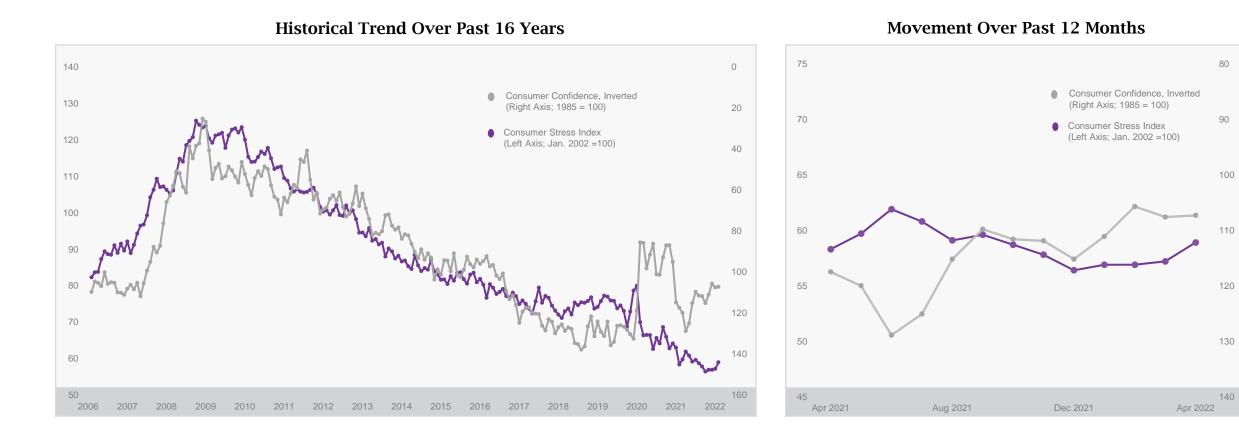
The LegalShield Consumer Stress Index increased (worsened) 1.7 points to 58.9 in April. The Conference Board's Consumer Confidence Index fell 0.3 point in April to 107.3.

Consumers continue to benefit from a strong labor market, as more than two million jobs have been created through the first four months of the year while unemployment is just shy of its pre-recession level. There appears to be more room for the labor market to run, as job openings rose to a series high of 11.5 million in March. Employer demand for workers has led to more job-switching: an all-time high of 4.5 million workers voluntarily quit their jobs in March, and workers saw strong nominal wage growth of 5.5% (Y/Y) in April. Unfortunately, CPI inflation was 8.3% during the same period, outpacing average wage growth in all industries except for the leisure and hospitality sector. As inflation-adjusted incomes continue to fall, consumers are starting to adjust: a recent Morning Consult survey found that consumers are cutting back on nonessential purchases like recreation and travel.

The good news is that while inflation is eating away at wage gains made during the pandemic, consumer spending remains healthy. Real personal consumption expenditures increased in March, and consumer sentiment, which has been trending down in recent months, rose in April. A worrying sign, however, is that an increasing share of this spending is taking place on credit cards: per Fed data, revolving consumer credit rose at a 35% annualized rate in March, the largest jump in percentage terms since 1998. Delinquency rates and charge-offs remain historically low, but with higher inflation eating into incomes and rising interest rates making credit card debt more expensive, it is likely that financial stress will edge up over the next few months.

#### LegalShield Economic Stress Index

#### **Consumer Stress Index**



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### **Bankruptcy Index**

The LegalShield Bankruptcy Index was roughly unchanged in April and remains well below historical levels. The combination of pandemic-era savings and a strong labor market will likely keep bankruptcies low for the foreseeable future.

The LegalShield Bankruptcy Index decreased (improved) 0.1 point to 19.3 in April, still near near an all-time low. Total seasonally adjusted bankruptcy filings fell 5.3% to 28,850 in March and were down 20% compared to a year ago.

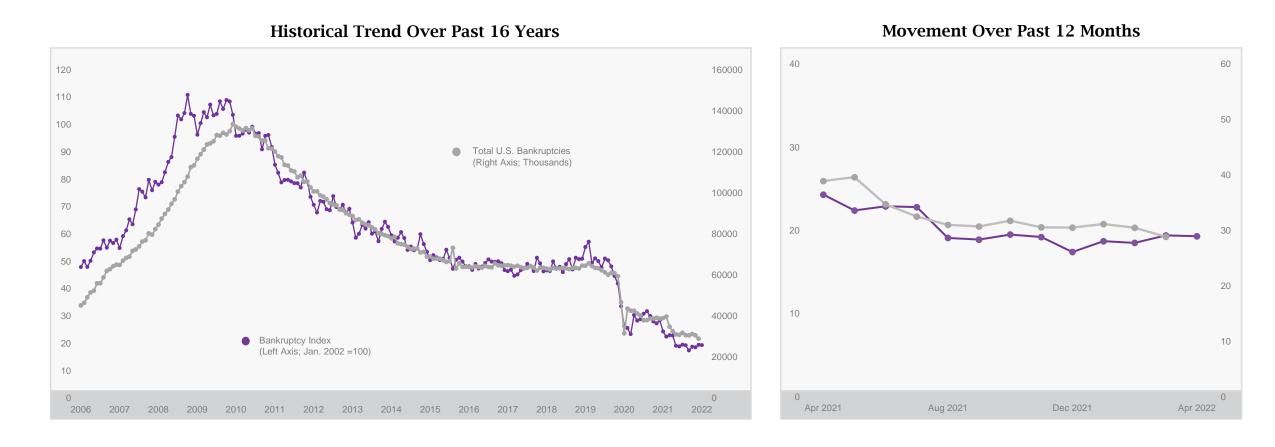
High savings rates during the past two years and a strong labor market have kept bankruptcies historically low. Following extraordinary stimulus and other pandemic-aid, households <u>reportedly</u> saved \$2.5 trillion between March 2020 and January 2022, cushioning households' financial situation. Total household debt as a share of disposable income ticked up but remained historically low in the fourth quarter 2021. Similarly, as reported by <u>American Bankers</u> <u>Association</u>, credit card debt as a share of disposable income also ticked up in the fourth quarter but remained 90 basis points below pre-pandemic levels. These measures are expected to continue edging up, but to a large extent these movements reflect a normalization of credit trends from the height of the pandemic.

Nevertheless, increased cost of living due to rapidly rising prices of necessities like gasoline, food, and rent are likely to increase financial stress over the next year, particularly among lower-income consumers. According to the <u>American Bankers Association</u>, real credit card monthly purchase volumes continue to rise alongside the share of those revolving their monthly credit card balance. Most credit cards have variable rates that are pegged to the prime rate, and as the Federal Reserve raises interest rates, the cost of credit card debt is set to become more expensive for revolvers. However, even with increased spending, consumers have <u>reportedly</u> kept up with their bills, as charge-offs were near historic lows in Q1.

Though there are mounting headwinds to consumers' financial health, bankruptcies are expected to remain low in the coming months, an outlook supported by LegalShield data.

#### LegalShield Economic Stress Index

#### **Bankruptcy Index**



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### **Foreclosure Index**

The LegalShield Foreclosure Index rose in April to its highest level since the onset of the pandemic. Foreclosure activity has been gradually normalizing to pre-pandemic trends after the expiration of government support, and it remains well-below historic levels.

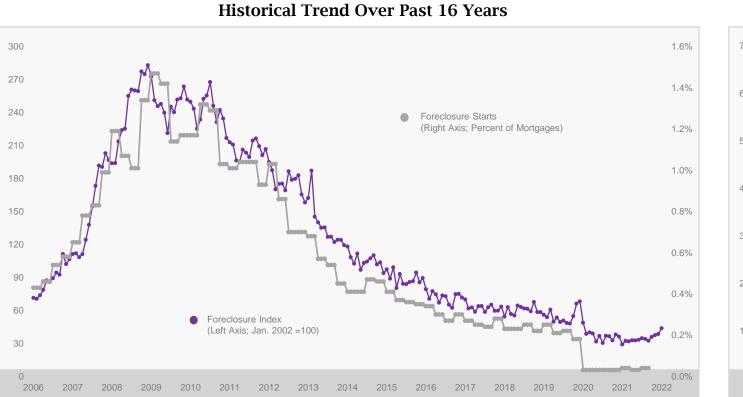
The LegalShield Foreclosure Index rose (worsened) 5.1 points to 43.6 in April, the fourth straight monthly increase. Meanwhile, ATTOM reports that 33,333 properties had foreclosure filings in March, up 29% M/M and 181% higher than a year ago.

Foreclosure and mortgage delinquency levels fell to historic lows during the pandemic due to the foreclosure moratorium, forbearance plans, and other mortgage repayment support offered by both the federal government and private lenders. According to the <u>Mortgage Bankers Association</u>, after peaking at 4.3 million in June 2020, mortgage forbearances fell to just 525,000 in March 2022. Most borrowers who entered forbearance during the pandemic have since caught up with their payments, and while foreclosure activity rose in Q1, it was likely due to a normalization of foreclosure activity rather than the start of a foreclosure wave. Mortgage delinquencies remain near a series low, and, despite recent increases, foreclosure activity remains well below pre-pandemic levels. And as home values continue to increase, even borrowers struggling with their mortgage payments are benefitting from rising equity.

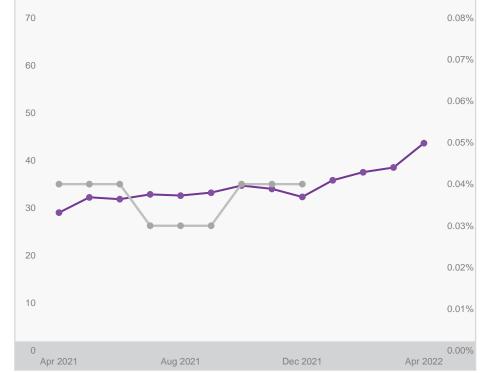
The combination of rising home prices and a strong labor market reduce the likelihood of a sharp increase in foreclosure activity in the near term. Instead, LegalShield data suggest that a slow and steady normalization in foreclosure starts is a more likely outcome.

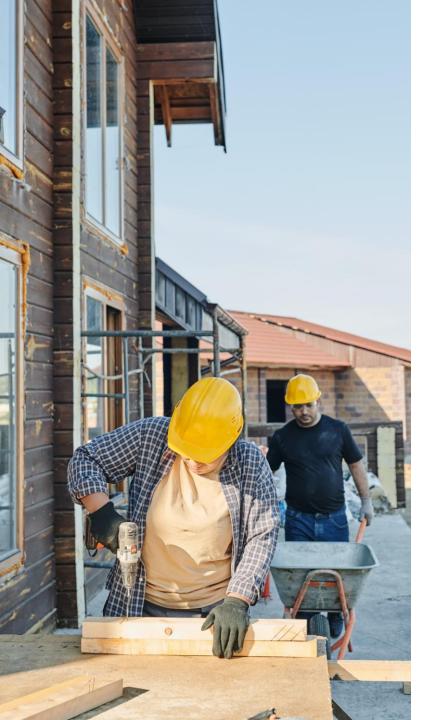
#### LegalShield Economic Stress Index

#### **Foreclosure Index**



#### **Movement Over Past 12 Months**





### **Housing Construction Index**

The LegalShield Housing Construction Index fell in April to its lowest level since June 2020. High demand and a significant backlog of homes waiting to be built have sustained construction activity during the pandemic, but high energy prices, a rapid increase in mortgage rates, and supply chain disruptions have tempered homebuilder optimism.

The LegalShield Housing Construction Index fell 5.8 points to 130.7 in April. Meanwhile, housing starts rose slightly in March to their highest level since the summer of 2006.

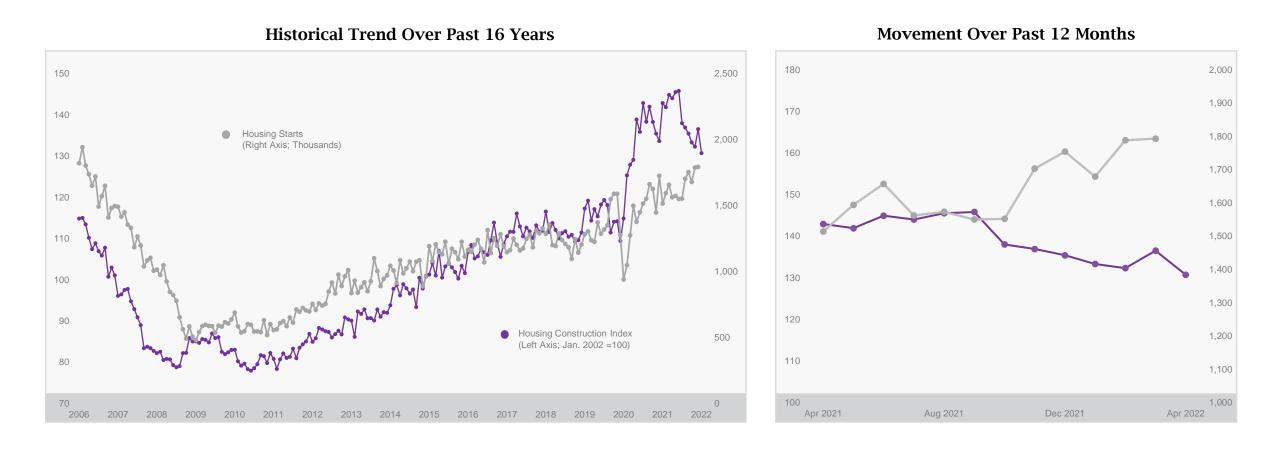
Housing construction has been elevated during the pandemic given strong housing demand and low housing inventory, but construction may slow due to high material costs, supply chain constraints, and skilled worker shortages. Supply chain constraints have been exacerbated by the war in Ukraine and COVID-related lockdowns in major Chinese cities, elevating already towering construction costs. The producer price index for construction materials has risen 24.5% on an annual basis and may continue to rise with energy prices and other inflationary pressure. Recently, members from the <u>National Association of Home Builders</u> reported concern that the high cost of building materials, among other things, have significantly decreased housing affordability conditions, particularly for entry-level buyers and renters. The <u>NAHB/Wells Fargo Housing Market Index</u> dipped for the fourth straight month in April to the lowest level since September.

Demand for homes remains high, but rising prices and higher interest rates on mortgages tempered home buying in March. According to the <u>National Association of Realtors</u>, the inventory of unsold existing homes has been historically low in recent months and has helped drive construction demand, though inventory ticked up in March as home sales slowed. Regardless, strong construction activity will likely continue in the short term, as the number of homes authorized for construction but not yet started is at its highest point in nearly 50 years.

Low supply and strong demand mean that construction activity should stay healthy in the coming months, but activity may slow as high construction material prices, supply chain disruptions, and skilled-worker shortages worsen, an outlook supported by Legal Shield data.



#### **Housing Construction Index**





### **Housing Sales Index**

The LegalShield Housing Sales Index dipped in April, though the measure remains historically elevated. A jump in mortgage rates slowed homebuying, though demand remains elevated among higher-income buyers and investors.

The LegalShield Housing Sales Index dipped 2.5 points to 113.3 in April. Meanwhile, existing home sales fell 2.7% in March, down 4.5% compared to year-ago levels.

Housing demand has remained strong due to financially well-positioned buyers, but home prices and high mortgage rates may be pricing out some potential buyers. According to the Census Bureau, the national median sale price of a home increased again in the first quarter by 12.4% (Y/Y) to \$413,000. In March, the <u>National Association of Realtors</u>' affordability index, which assesses consumers' ability to afford to purchase a home, dropped 29.2% (Y/Y). Further, according to the <u>New York Fed</u>, consumers expect home prices to continue rising in the year ahead. They report that households moving out of their current residence, particularly current renters, are less likely to buy a house now than they were a year prior, the first decline in this measure since 2014.

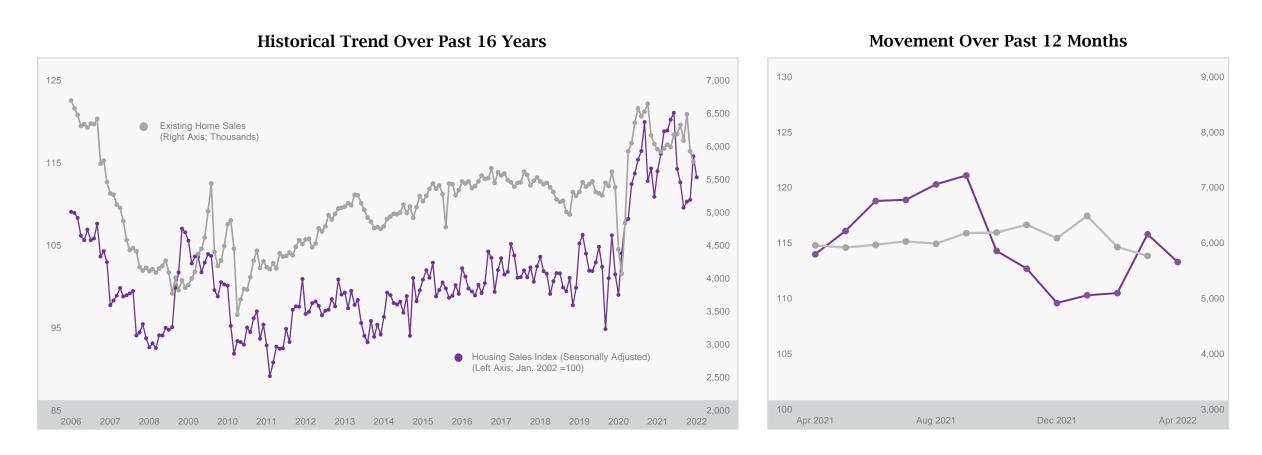
Rising prices may increase the likelihood of consumers moving to other regions to purchase a home in their price range. In the first quarter of 2022, consumers were <u>reportedly</u> more willing to look outside the metropolitan area they live in while homebuying, up 4.6% (Y/Y). This trend is increasing in all areas of the United States, with rising numbers of workers working-from-home permanently and home prices rising accordingly.

Meanwhile, thanks to the Federal Reserve's recent interest rate hikes, the average 30-year fixed-rate mortgage has risen dramatically in recent months, hitting 5.27% in early May according to <u>Freddie Mac</u>. This translates to a payment increase of \$325/month for a \$350,000 home with a 20% down payment. It is no surprise that mortgage applications have been declining in recent weeks according to the <u>Mortgage Bankers Association</u>.

Home sales remain elevated historically, and LegalShield data suggest that home sales should remain healthy in the near term, buoyed by wealthier homebuyers and investors. However, rising prices and less affordable mortgages will likely weigh on sales on the margins.



#### **Housing Sales 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	$\checkmark$	≈ 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.*	✓				

\*These indices have a timing advantage over their target indicators due to the release schedule of the target series.

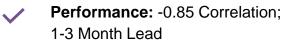
### **Composite Indices**

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











LegalShield "Housing Construction" Index





**Performance:** 0.91 Correlation; 0-2 Month Lead\*

\*In addition to its statistical lead time, the Index also has a timing advantage over housing starts of roughly one week due to release schedules.

# Methodology:

### Individual Index Development



### Methodology

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



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#### CONSTRUCT DATASET:

Conduct preliminary data cleaning, processing, and formatting.

**DETERMINE SCOPE OF ANALYSIS:** 

Examine differences across plan types and

subscriber samples to determine the optimal

"subscriber universe" for index development.



#### FILTER AOLS:

Evaluate and scope the original list of 65 areas of law (AOLs) to identify the best candidates for index development.

#### TEST:



#### Run the scoped AOLs through a series of transformations and statistical tests to identify quantitative relationships with key macroeconomic indicators.



#### **DEFINE INTAKE METRIC:**

Test competing approaches for normalizing intake data.

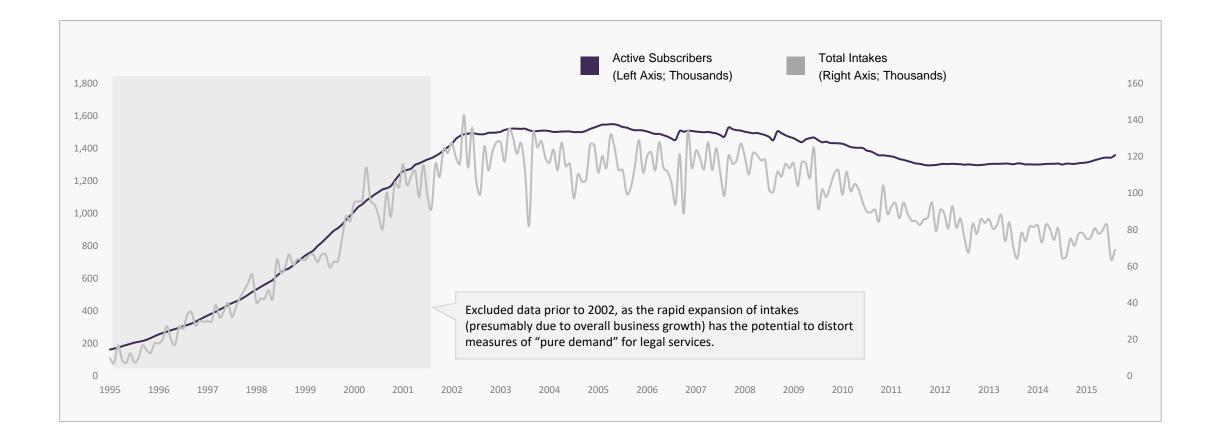


#### **DEVELOP INDEXES:**

Combine specific AOLs into composite indexes and test relationships with key macroeconomic indicators.

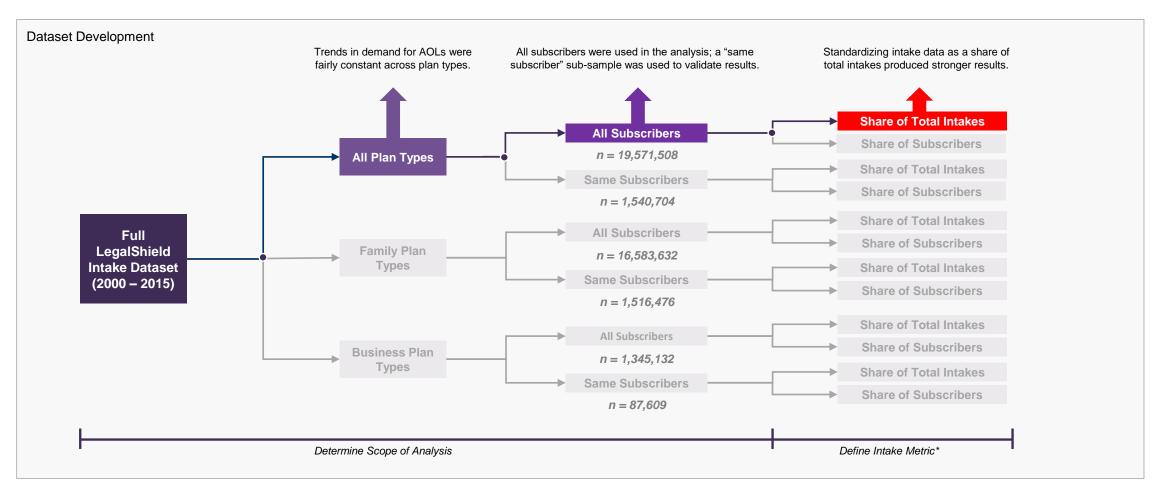
### **Data Construction & Cleaning**

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



### **Analytical Scope**

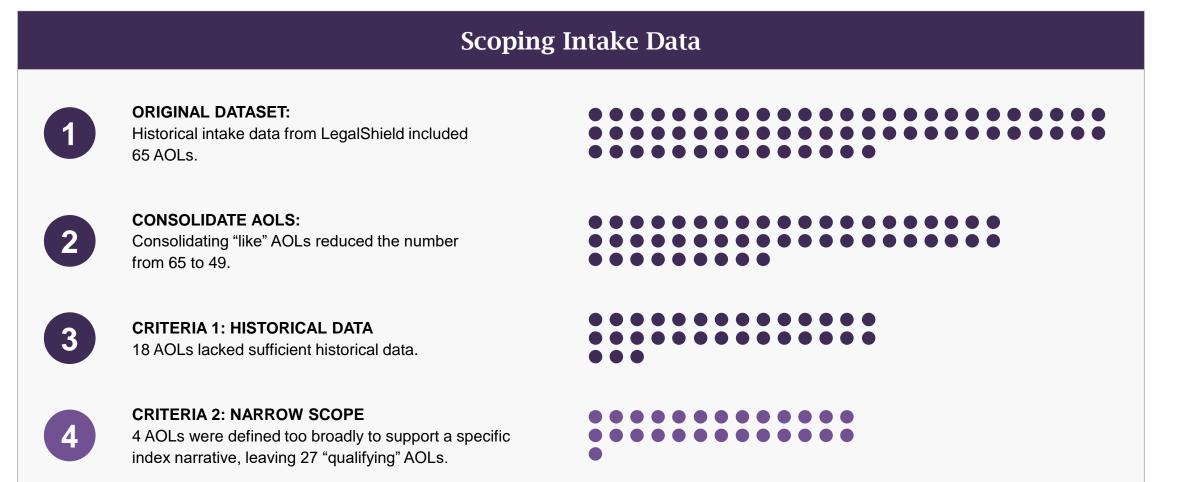
Testing and index development used intake data from all subscribers across all plan types, standardized by total intakes.



\*Standardizing intake data as a share of active subscribers controls for the change in the size of the subscriber base over time. Standardizing intake data as a share of total intakes controls for shifts in the relative demand for different AOLs over time.

### Filter AOLs

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



### Filter AOL

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		$\checkmark$	
2	Automobile Accident	-	$\checkmark$	$\checkmark$	$\checkmark$
3	Banking	Ambiguous	$\checkmark$		
4	Bankruptcy	-	$\checkmark$	$\checkmark$	$\checkmark$
5	Business License, Fees, etc.	Ambiguous	$\checkmark$	$\checkmark$	$\checkmark$
6	Civil Litigation	-	$\checkmark$	$\checkmark$	$\checkmark$
7	Collection	-	$\checkmark$	$\checkmark$	$\checkmark$
8	Consumer/Finance	Ambiguous	$\checkmark$	$\checkmark$	$\checkmark$
9	Contract	Ambiguous	$\checkmark$	$\checkmark$	$\checkmark$
10	Corporate	+	$\checkmark$	$\checkmark$	$\checkmark$
11	Criminal	-	$\checkmark$	$\checkmark$	$\checkmark$
12	Divorce	-		$\checkmark$	
13	Divorce Uncontested	-		$\checkmark$	
14	Education	-	$\checkmark$	$\checkmark$	$\checkmark$
15	Elder Law	-	$\checkmark$	$\checkmark$	$\checkmark$
16	Employment	Ambiguous	$\checkmark$	$\checkmark$	$\checkmark$
17	Entertainment	Ambiguous		$\checkmark$	
18	Estate Planning	Ambiguous	$\checkmark$	$\checkmark$	$\checkmark$
19	Family Law	Ambiguous	$\checkmark$	$\checkmark$	$\checkmark$
20	Firearm	Ambiguous		$\checkmark$	
21	Foreclosure	-	$\checkmark$	$\checkmark$	$\checkmark$
22	Franchise Law	Ambiguous		$\checkmark$	
23	General Law	Ambiguous	$\checkmark$		
24	Identity Theft	-		$\checkmark$	
25	Immigration	Ambiguous	$\checkmark$	$\checkmark$	$\checkmark$

### Filter AOL

Detailed Inclusion Filter Results (2/2)

ID	LEGALSHIELD AREA OF LAW	ASSOCIATED WITH +/- LIFE EVENT	HISTORICAL DATA	NARROW SCOPE	INCLUDE IN DATASET
26	Insurance	-	$\checkmark$	$\checkmark$	$\checkmark$
27	Labor Law	-		$\checkmark$	
28	Landlord Tenant	-	$\checkmark$	$\checkmark$	$\checkmark$
29	Legal Malpractice	-		$\checkmark$	
30	Loan Modification	Ambiguous		$\checkmark$	
31	Medical Malpractice	-	$\checkmark$	$\checkmark$	$\checkmark$
32	Military Law/Security Clearance	Ambiguous		$\checkmark$	
33	Other	Ambiguous	$\checkmark$		
34	Patents Combined	+	$\checkmark$	$\checkmark$	$\checkmark$
35	Personal Injury	-	$\checkmark$	$\checkmark$	$\checkmark$
36	Probate	-	$\checkmark$	$\checkmark$	$\checkmark$
37	Product Liability	-		$\checkmark$	
38	Public Service	Ambiguous		$\checkmark$	
39	Real Estate	+	$\checkmark$	$\checkmark$	$\checkmark$
40	Request for Service	Ambiguous			
41	Small Claims	-	$\checkmark$	$\checkmark$	$\checkmark$
42	Social Security	-	$\checkmark$	$\checkmark$	$\checkmark$
43	Тах	Ambiguous	$\checkmark$		
44	Trademarks	+		$\checkmark$	
45	Traffic	-	$\checkmark$	$\checkmark$	$\checkmark$
46	Veteran's Affairs	Ambiguous		$\checkmark$	
47	Will Workshop	Ambiguous		$\checkmark$	
48	Workman's Compensation	-	$\checkmark$	$\checkmark$	$\checkmark$
49	Wrongful Death	-		$\checkmark$	
	TOTAL		31	44	27

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

#### MACROECONOMIC INDICATORS:

- 1. Conduct preliminary data cleaning, processing, and formatting.
- 2. Examine differences across plan types and subscriber samples to determine the optimal "subscriber universe" for index development
- 3. Test competing approaches for normalizing intake data.

#### **HOUSING INDICATORS:**

- 4. Housing Starts
- 5. Existing Home Sales (NAR)
- 6. Residential Construction Permits
- 7. Small Business Optimism Index (NFIB)

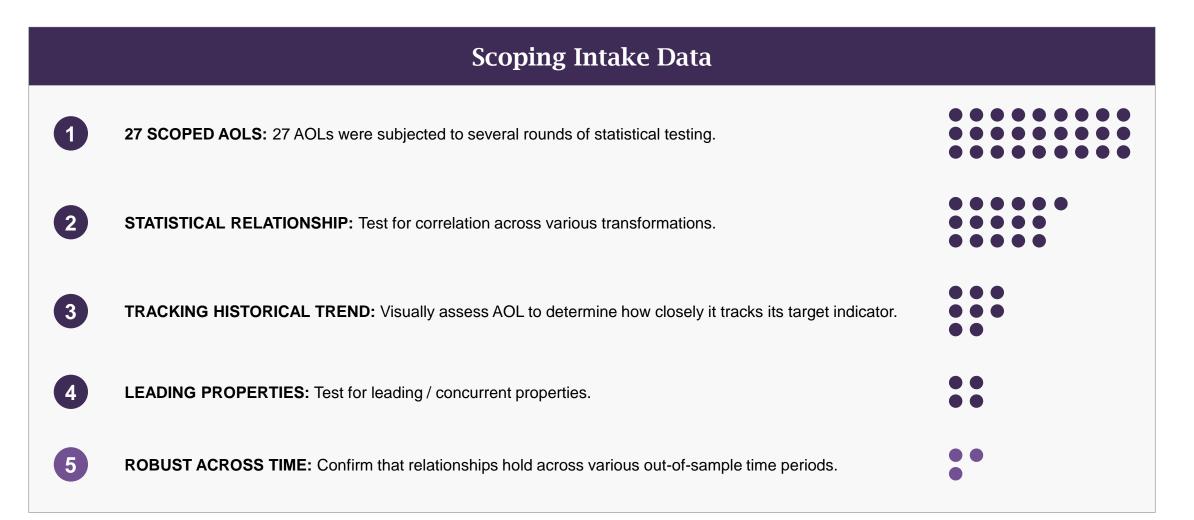
#### FINANCIAL HEALTH INDICATORS:

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

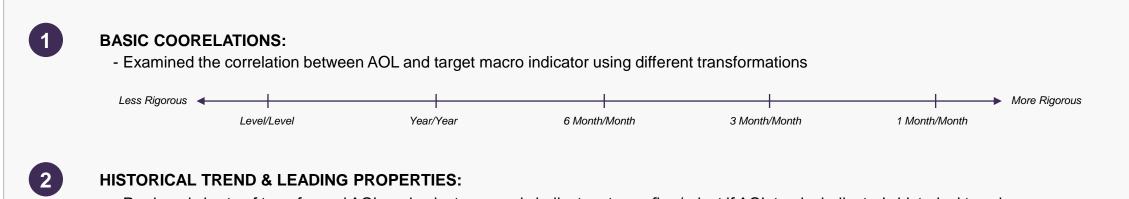
#### **CONFIDENCE INDICATORS:**

- 14. Consumer Confidence Index (Conference Board)
- 15. Small Business Optimism Index (NFIB)

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



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



- 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

#### STABILITY TESTS:

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- 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

Statistical Relationship Testing, Select Results

Correlation Results (2002 – 2017)								
LEGALSHIELD AREA OF LAW	TARGET INDICATOR	CORRELATION (LEVEL)	CORRELATION (Y/Y)	CORRELATION (Q/Q)				
Bankruptcy	Bankruptcies	0.76	0.67	0.20				
Foreclosure	Foreclosures	0.96	0.87	0.49				
Real Estate	Existing Home Sales	0.85	0.58	0.36				

Historical Trend & Leading Properties Testing, Select Results

H	Historical Trend & Leading Properties Results (2002 – 2016)									
LEGALSHIELD AREA OF LAW	TARGET INDICATOR	TRACKS HISTORICAL TREND?	LEADING PROPERTIES	APPROXIMATE LEAD TIME						
Bankruptcy	Bankruptcies	*	*	≈ 1 mo.						
Foreclosure	Foreclosures	✓	r	Coincident*						
Real Estate	Existing Home Sales	√	$\checkmark$	≈ 1 mo.*						

\* These indices have a practice lead time of varying length due to the release schedule of the target series.

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	$\checkmark$	✓	~	$\checkmark$	√+	Performed well across all tests
Foreclosure	Foreclosures	✓	✓	~	$\checkmark$	√+	Performed well across all tests
Real Estate	Existing Home Sales	r	✓	~	$\checkmark$	1	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.



**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).



TRANSFORM AOLS: Compute the month-on-month percent change for each AOL.



**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.



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



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

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 Stress	Consumer Confidence	$\checkmark$	$\checkmark$	1 - 3 mo.					
Housing Construction	Housing Starts	$\checkmark$	$\checkmark$	0 – 2 mo.*					

\*In addition to its statistical lead time, the Index also has a timing advantage over housing starts of roughly a week due to release schedules.

Statistical Relationship Test Results

Correlation Results (2002 – 2017)								
COMPOSITE INDEX	TARGET INDICATOR	CORRELATION (INDEX)	CORRELATION (Y/Y)	CORRELATION (Q/Q)				
Consumer Stress	Consumer Confidence	-0.85	-0.58	-0.33				
Housing Construction	Housing Starts	0.88	0.55	0.23				

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 Stress	Consumer Confidence	r	$\checkmark$	~	~	~	Performed well on all but one test		
Housing Construction	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)

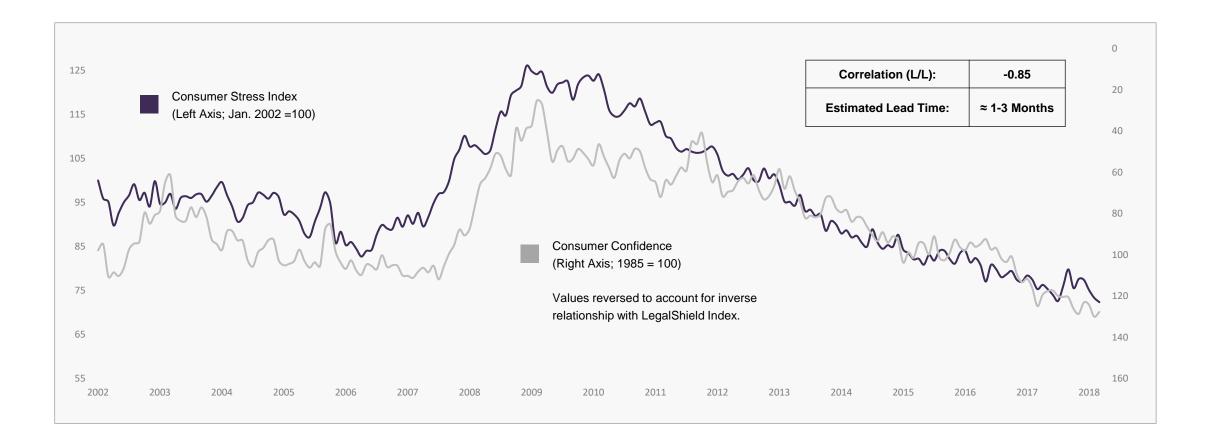
Test 2: Compared correlations between random samples of the data

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

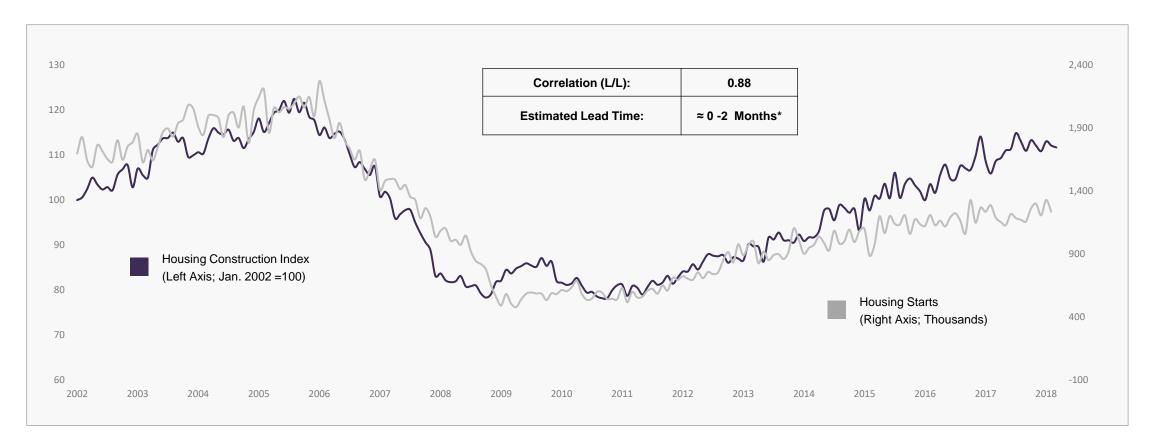
### **Composite Index: Consumer Stress**

AOLs: Bankruptcy; Foreclosure; Consumer Finance



### **Composite Index: Housing Construction Index**

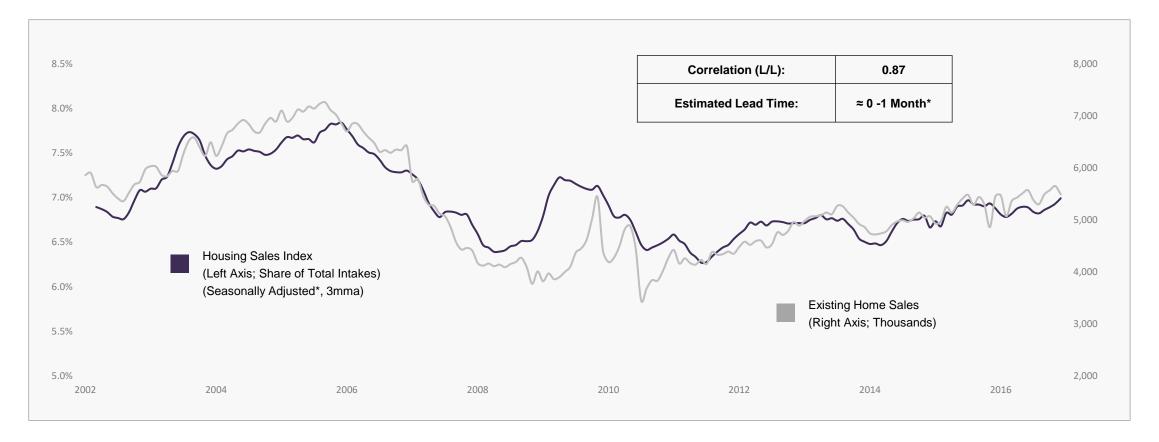
AOLs: Foreclosure; Real Estate\*



\*The Housing Construction Index component of the Housing Activity Index was seasonally adjusted using the Census Bureau's X-13 ARIMA-SEATS Seasonal Adjustment Program. In addition to its statistical lead time, the Index has a timing advantage over housing starts of roughly a week due to release schedules.

### **AOL: Real Estate**

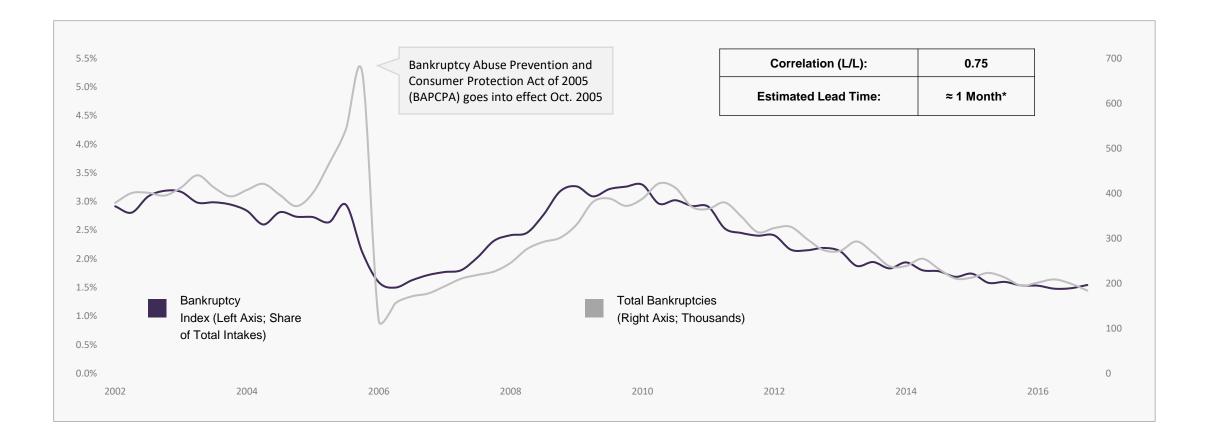
Target Series: Real Estate\*



\*The Housing Sales Index was seasonally adjusted using the Census Bureau's X-13 ARIMA-SEATS Seasonal Adjustment Program. In addition to its statistical lead time, the Index has a timing advantage of roughly two weeks over existing home sales due to release schedules.

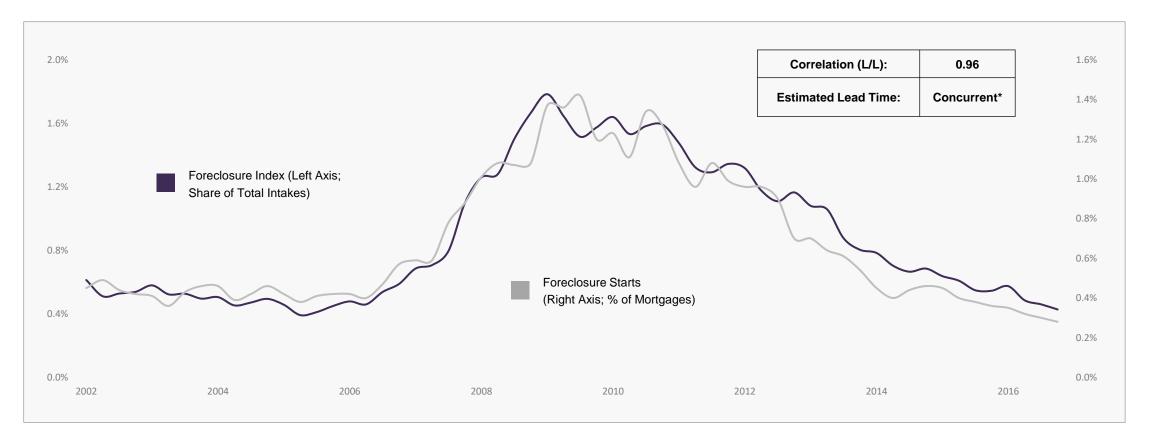
### **AOL: Bankruptcy**

Target Series: Consumer Bankruptcies



### **AOL: Foreclosure**

Target Series: Foreclosure Starts



\*Foreclosures starts are statistically coincident with the LegalShield Foreclosure Index, but the Index has a significant timing advantage time due to its monthly release (compared to the quarterly release of foreclosure starts).



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*	√+			
Housing Sales	Existing Home Sales	0.85	0.58	0.36	≈ 0-1 mo.*	✓			
Consumer Stress	Consumer Confidence	-0.85	-0.58	-0.33	≈ 1-3 mo.	✓			
Housing Construction	Housing Starts	0.88	0.55	0.23	≈ 0-2 mo.*	✓			

## Thank you!



