

# 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



46+ 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.

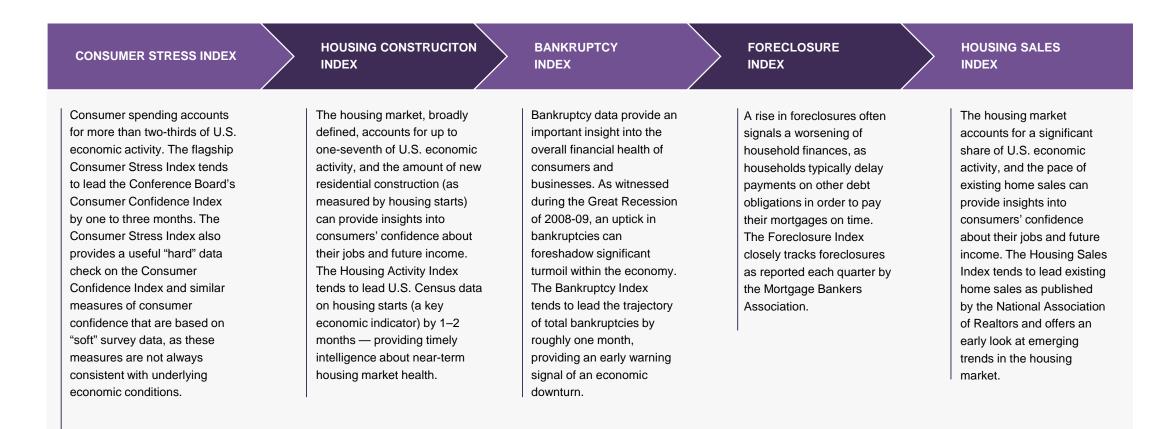
#### HIGH-FREQUENCY

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 remained exceptionally low in October as the economy continues to recover. However, consumers' outlook remains uncertain as the winter months approach.

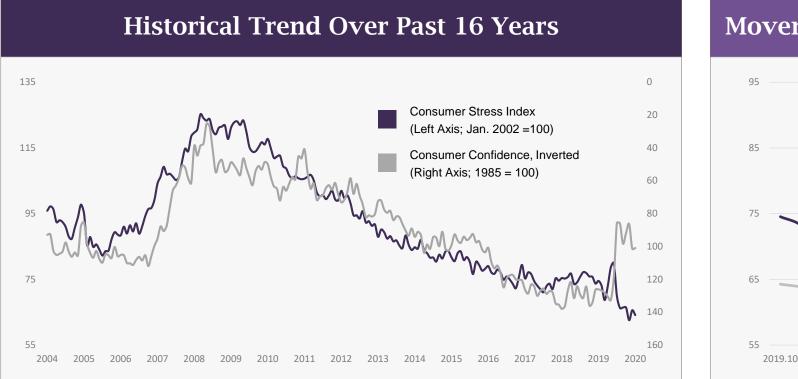
The LegalShield Consumer Stress Index ticked down (improved) 1.5 points in October to 64.1, marking the second lowest reading on record. Meanwhile, Conference Board's Consumer Confidence Index eased 0.4 point to 100.9 in October, much improved from August but still more than 30 points below pre-pandemic levels.

Elevated consumer optimism reflects an economy that is recovering from Q2 lows. For example:

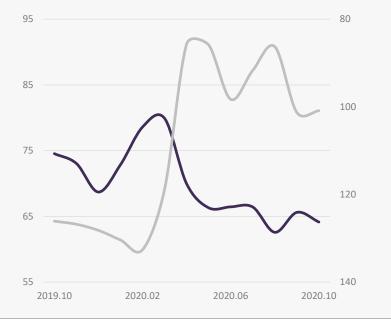
- Personal disposable income increased 0.9% in September and is up nearly 7% from a year ago, though this is largely due to trillions of dollars in federal stimulus.
- Consumption spending grew 1.4% in September and is up over 20% from April lows.
- While still elevated, the unemployment rate has fallen to 7.9% (in line with late 2012 levels), down from nearly 15% at its April peak.

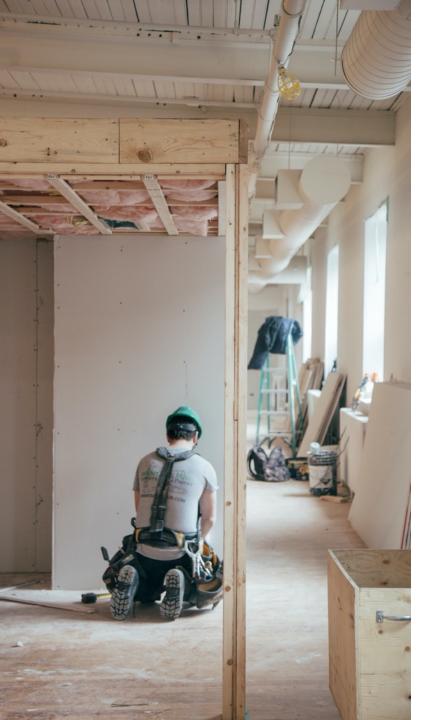
Although these are encouraging signs, consumers continue to face substantial uncertainty stemming from the public health crisis as the United States enters the colder winter months amid record-high daily COVID-19 cases. Some businesses, particularly in the leisure and hospitality industries, may have more difficulty operating during the cold winter months, particularly if case volumes remain at current levels as flu season begins. This could put leisure and hospitality jobs — which accounted for nearly 40% of the jobs regained since April — back in the crosshairs. If the labor market recovery plateaus or falters, consumer stress is likely to rise, adding more urgency to the need for additional targeted federal aid.

#### **Consumer Stress Index**



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





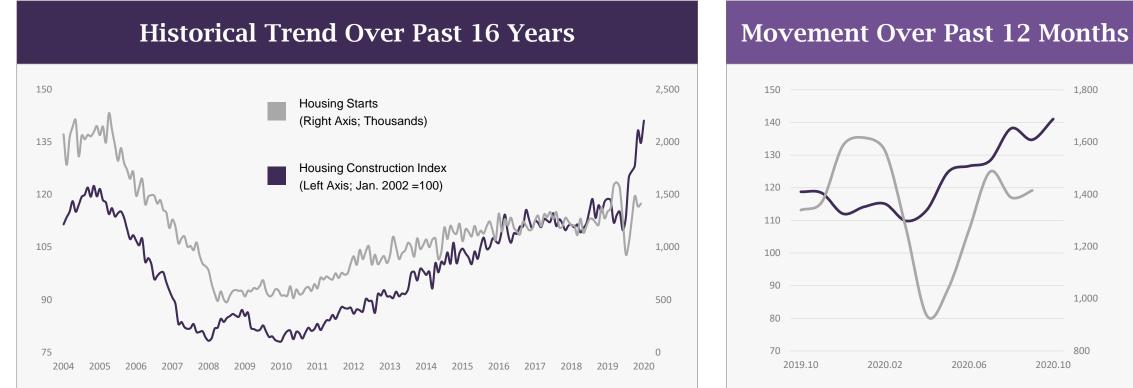
### **Housing Construction Index**

The LegalShield Construction Index improved again in October, providing more evidence of a sustained resurgence in homebuilding activity.

The LegalShield Housing Construction Index jumped 6.4 points from September to an all-time high of 141.1 in October, driven by a decline in the Foreclosure Index. Meanwhile, housing starts improved 1.9% in September and are up 11% from a year ago, marking the third month of double-digit growth this year. Although the homebuilding industry still faces headwinds such as a shortage of buildable lots and the high cost of input materials, historic demand for single-family homes has outweighed these factors, and LegalShield data (as well as other economic data) corroborate this development. For example, the Wells Fargo/NAHB Housing Market Index rose to another record high in October, while residential construction employment has recovered nearly 90% of the job losses experienced in March and April. Further, housing permits for single-family homes jumped to 1.2 million in September — up 7.8% from August's level and 24% from a year prior.

Current demand for single-family homes should continue to drive housing construction. Indeed, the Wells Fargo/NAHB Expected Single Family Home Sales Over the Next Six Months component is at its highest level in its 35-year history, suggesting that robust homebuilding activity is likely to continue through the spring.

#### **Housing Construction Index**





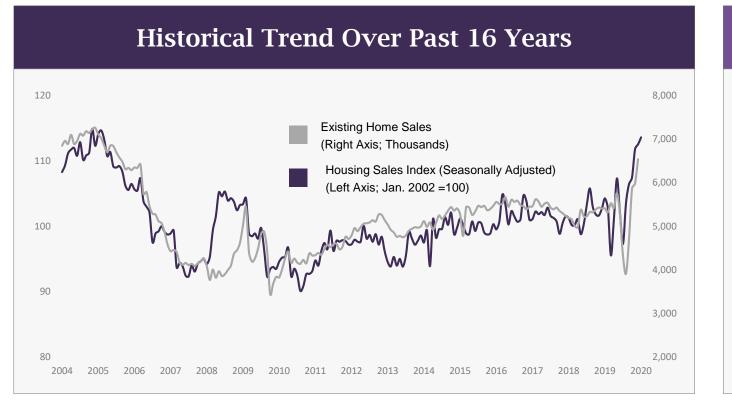
### **Housing Sales Index**

The LegalShield Housing Sales Index improved in October, signaling continued demand for homes driven by low interest rates, though rising prices have pushed some prospective buyers out of the market.

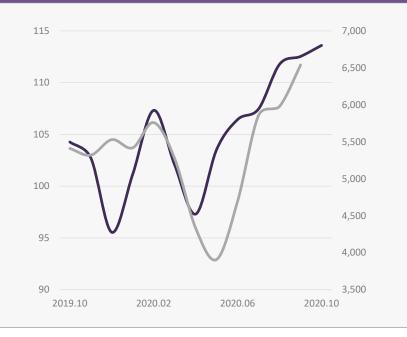
The LegalShield Housing Sales Index inched up 1.1 point in October to 113.6, the strongest reading since November 2005. Meanwhile, existing home sales surged 9.4% in September to the highest level since May 2006 and are up 21% year-over-year. Few industries have experienced a pandemic-era resurgence like real estate, in part because of rock-bottom mortgage rates, which have held well below 3% since early August. According to a recent Fannie Mae survey, a majority of respondents (54%) believe now is a good time to buy a house. Such conditions have added fuel to homebuying demand: despite easing in September, new home sales are still up nearly 70% from April.

However, the frenzied housing market has driven up the median sale price of existing homes to over \$300,000, which has weighed on potential homebuyers. The University of Michigan Consumer Sentiment Survey found that more than one-quarter of respondents believe that this is not the right time to buy a home due to affordability and price concerns. Nevertheless, LegalShield data suggest that housing demand, driven by low rates, is likely to remain strong despite rising prices.

#### **Housing Sales Index**



#### Movement Over Past 12 Months





### **Bankruptcy Index**

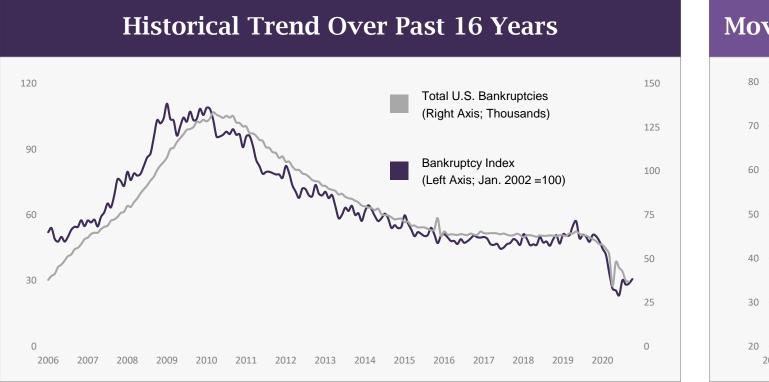
The LegalShield Bankruptcy Index increased slightly in October but remains near historical lows. While bankruptcy pressures are muted, there are potential warning signs beginning to emerge that should be closely monitored.

The LegalShield Bankruptcy Index rose (worsened) 2.0 points to 30.8 in October, though it remains 11 points below February levels. Meanwhile, total seasonally adjusted U.S. bankruptcies eased 1.4% in September to the second lowest level on record. Although the household debt service ratio (a measure of debt payments to disposable income) fell to a record low in Q2, there are signs that some US consumers are facing increasing financial difficulty on the margins.

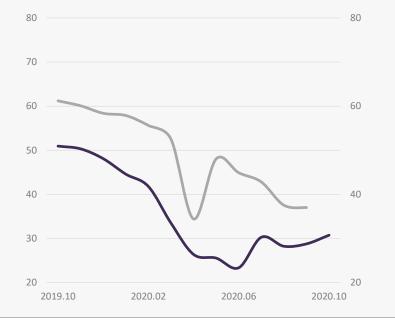
- 61% of Americans say they have already exhausted or will exhaust their emergency savings by the end of the year, according to a report by online-real estate broker Clever.
- According to the personal finance website Money, 11% of Americans reported being "very stressed" about credit card debt as of September.
- Nearly half (46%) of consumers reported using credit cards more than they would have liked, according to a Digitalhub survey.

Although two-thirds of Americans remain confident in their ability to repay debt balances, elevated credit card usage given the current labor market could lead to higher bankruptcy activity over the next year — though additional targeted federal stimulus could alleviate some of the strain. For now, however, most borrowers continue to hold their own.

#### **Bankruptcy Index**



#### Movement Over Past 12 Months





#### **Foreclosure Index**

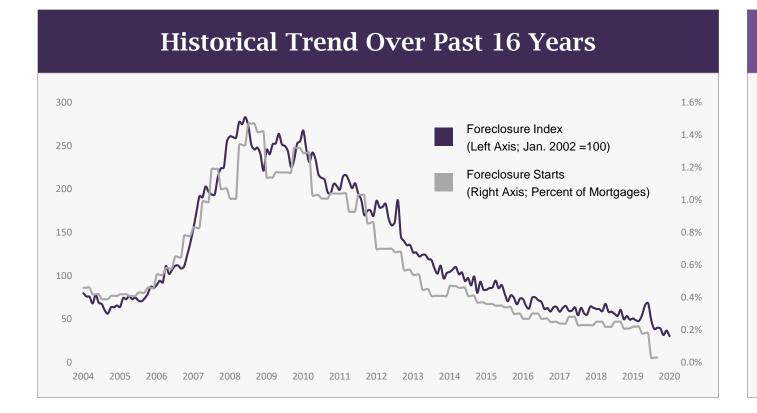
The LegalShield Foreclosure Index improved in October, reflecting muted foreclosure activity. However, a decaying rental market could have knock-on effects throughout the residential real estate industry.

The LegalShield Foreclosure Index declined (improved) 6.1 points to an all-time low of 30.4 in October. Second quarter foreclosure starts fell 16 basis points to an all-time low of 0.03%. The outlook for foreclosure activity has improved with a recovering labor market, which has recovered roughly half of the jobs lost in March and April. According to Black Knight, the number of seriously delinquent mortgages — a precursor to foreclosure — dropped by 43,000 in September, the first decline since the pandemic began in March.

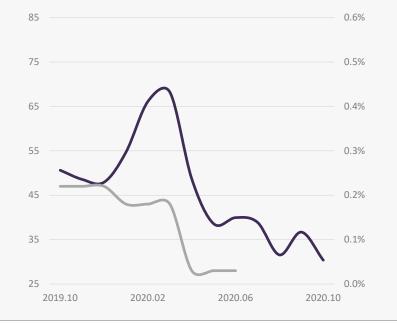
Although those who are financially healthy enough to own a home are exhibiting solid payment behavior, housing market stress appears to be more pronounced among renters. Renters are increasingly relying on credit cards to make rent payments: according to a Philadelphia Fed report, credit card payments to businesses connected to rental real estate surged by over 70% in the spring and have remained 50% above year-ago levels through the fall. Similarly, according to Moody's Analytics, rent debt could reach upwards of \$70 billion by the end of the year without further stimulus measures, with the average debtor owing \$5,400 in missed payments. On a more positive note, the National Multifamily Housing Council reported in late October that the share of renters making a full or partial payment reached a pandemic-era high of 94.6% — though this is still 1.3 percentage points below 2019 levels.

Looking ahead, without additional targeted federal assistance, foreclosure activity may rise during the first half of 2021 if renters are still unable to pay their bills. This, in turn, could create debt-servicing issues for owners of rental properties.

#### **Foreclosure Index**



#### Movement Over Past 12 Months



# **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.

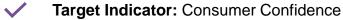
### **Composite Indices**

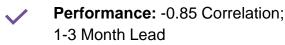
We developed two composite indexes that are strongly correlated with and tend to lead economic indicators of interest.



LegalShield "Consumer Stress" Index
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LegalShield "Housing Construction" Index

**Component AOLs:** (1) Real Estate; (2) Foreclosure



Target Indicator: Housing Starts

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.



2

#### 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.

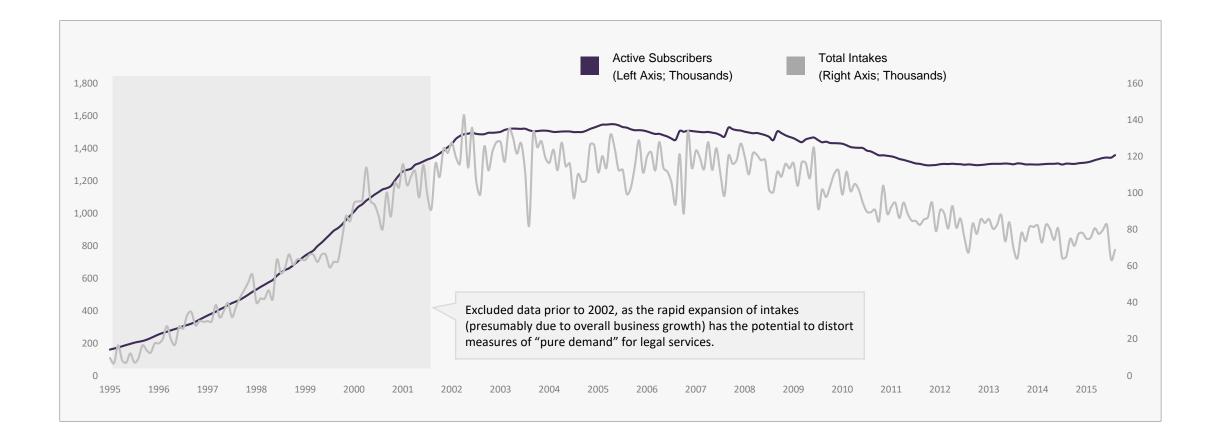


#### **DEVELOP INDEXES:**

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

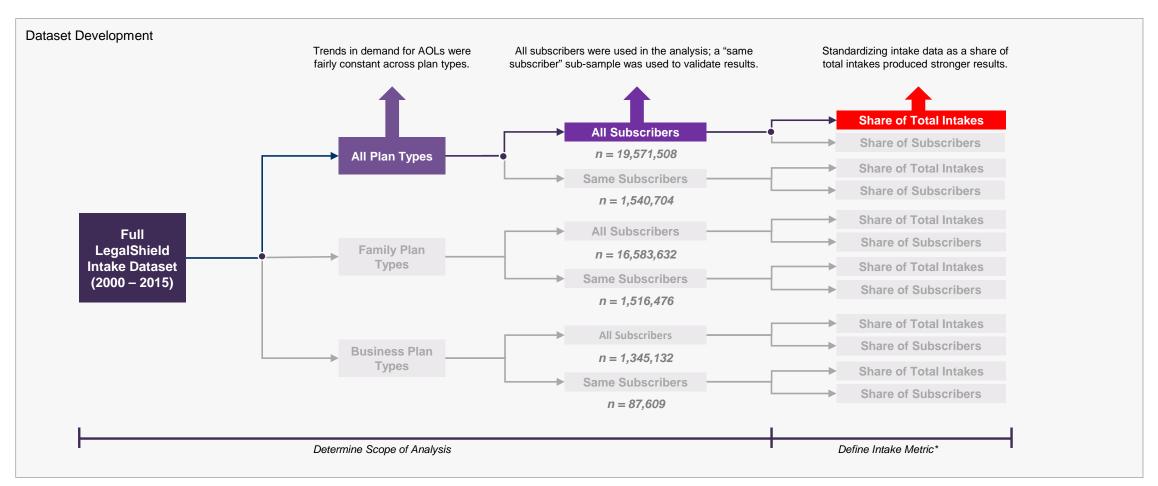
### **Data Construction & Cleaning**

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



### **Analytical Scope**

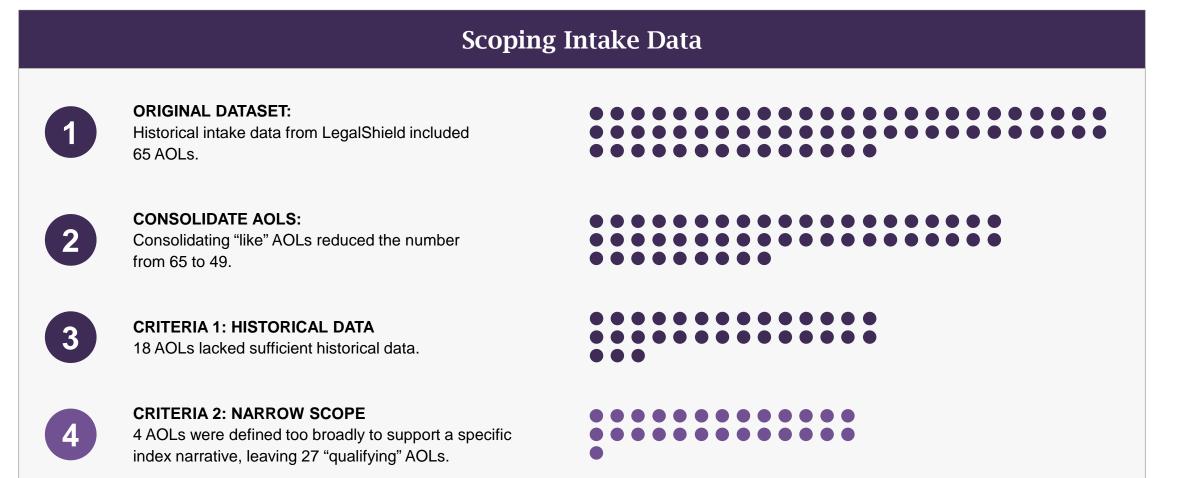
Testing and index development used intake data from all subscribers across all plan types, standardized by total intakes.



\*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)

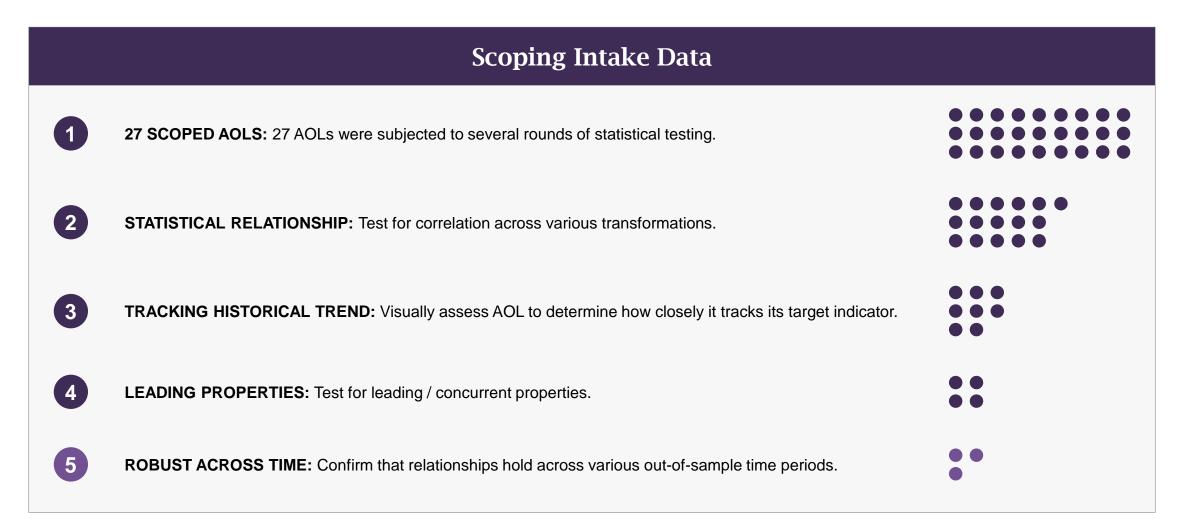
#### FINANCIAL HEALTH INDICATORS:

- 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

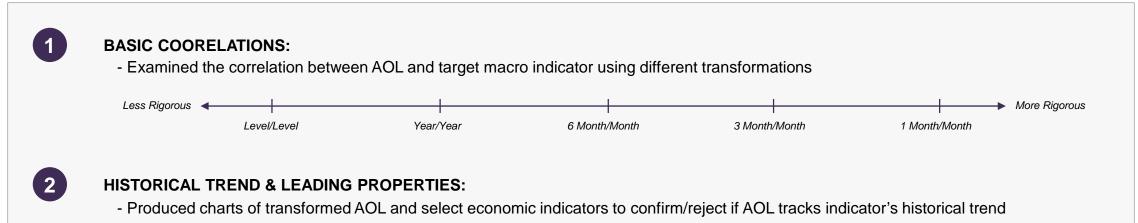
#### **CONFIDENCE INDICATORS:**

- 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.



- Examined AOLs on both a concurrent and leading basis

#### STABILITY TESTS:

3

- 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

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	$\checkmark$	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	✓	✓	~	$\checkmark$	√+	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.



**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	~	~	~	~	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)

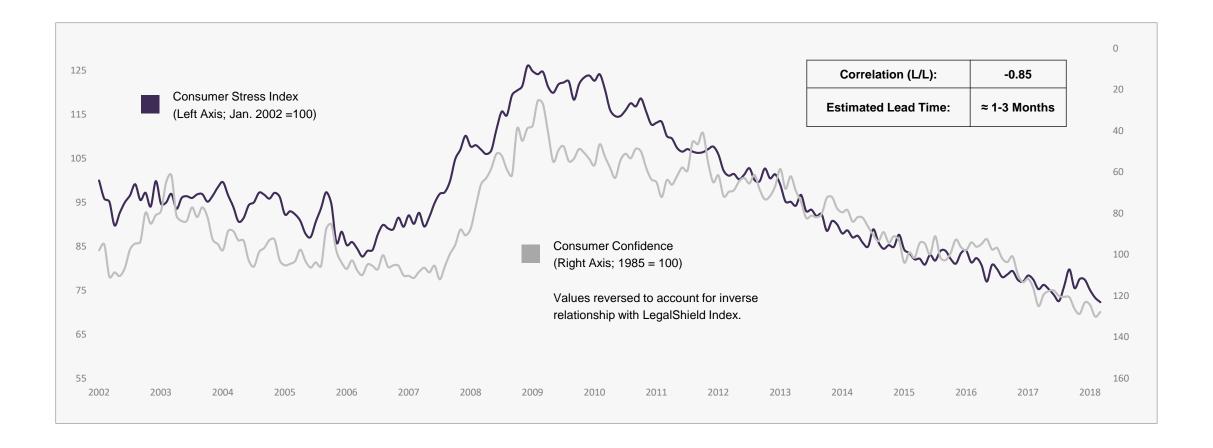
Test 2: Compared correlations between random samples of the data

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

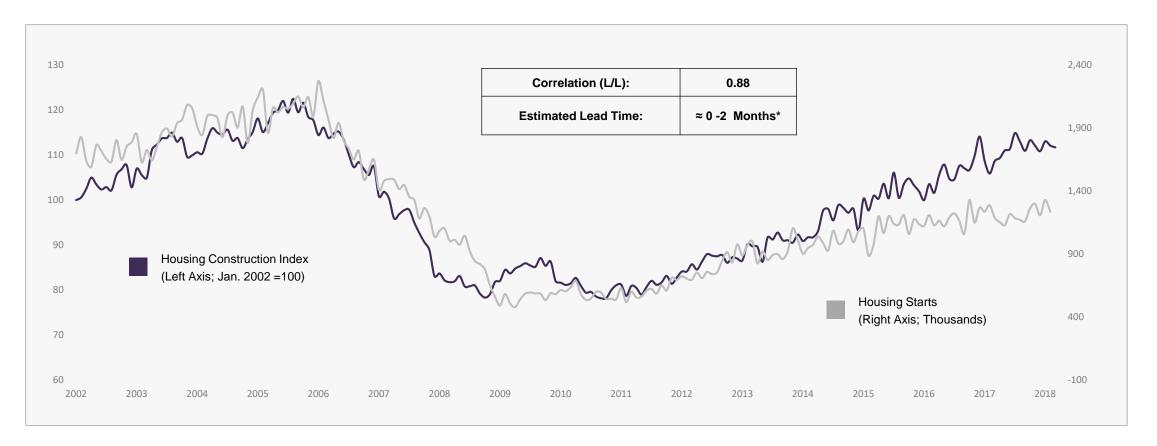
### **Composite Index: Consumer Stress**

AOLs: Bankruptcy; Foreclosure; Consumer Finance



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

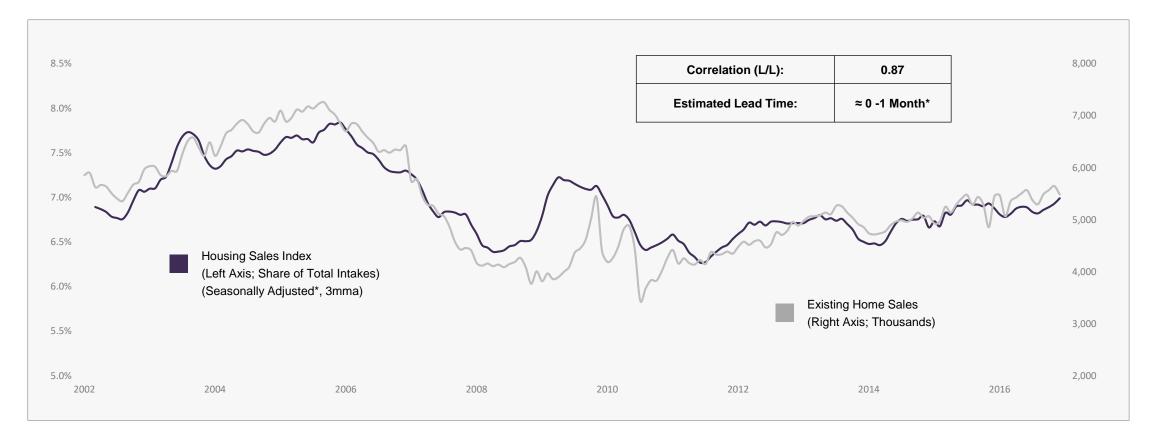
AOLs: Foreclosure; Real Estate\*



\*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**

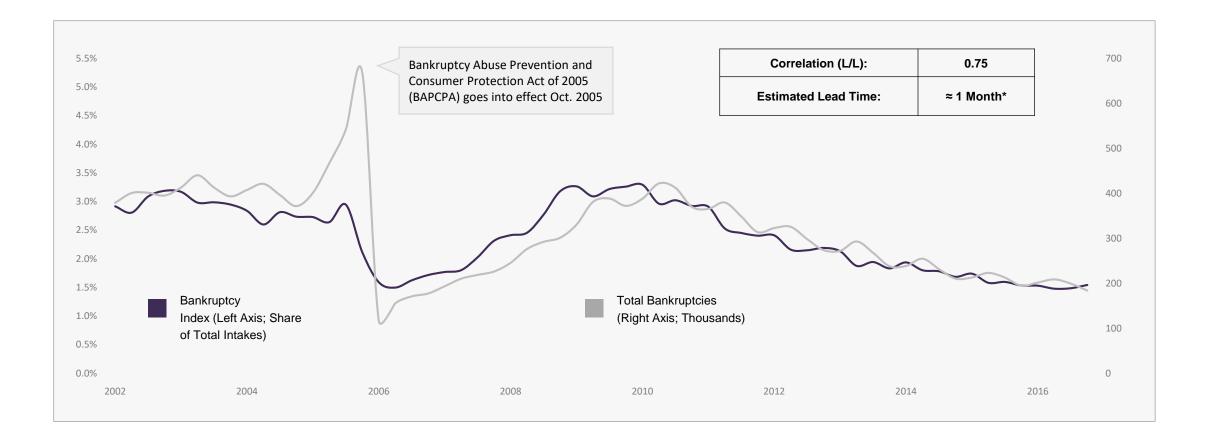
Target Series: Real Estate\*



\*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.

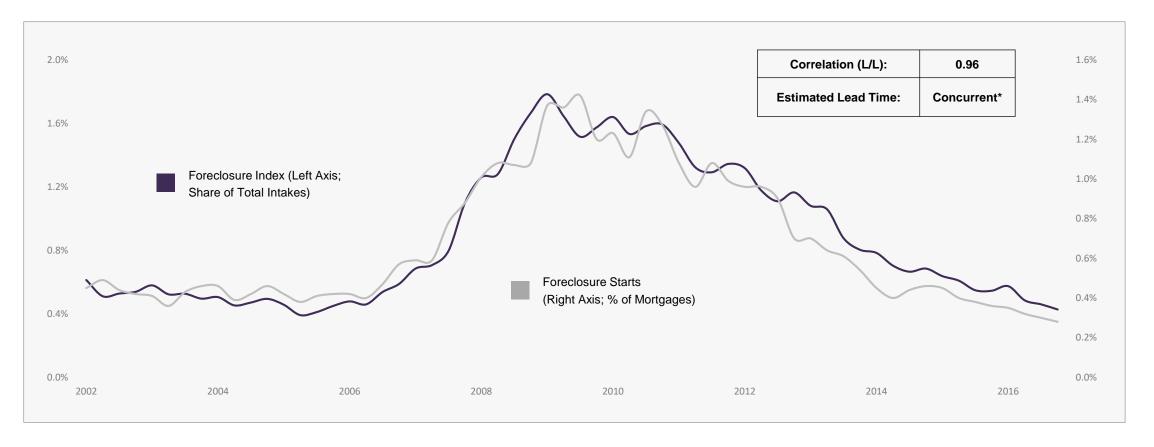
### **AOL: Bankruptcy**

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!



