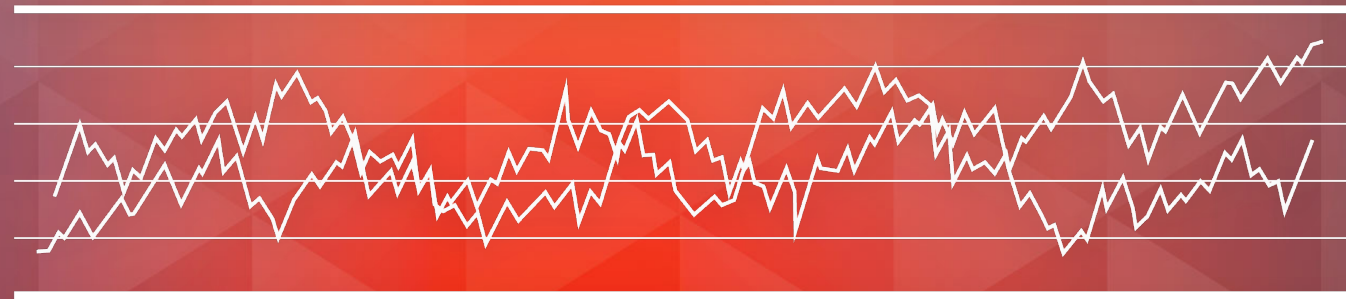# LegalShield℠

LAW INDEX

Consumer Financial Stress Spikes to Four-Year High

- *Q1 Consumer Confidence Falls Most in History of LegalShield Law Index*
- *Requests for Debt Collection Assistance at Highest Level Since 2012*

ADA, Okla. – April 13, 2020 -- Released today, the 1st Quarter 2020 LegalShield Law Index, a suite of leading indicators of the economic and financial status of U.S. households and small businesses, saw its largest ever increase in its Consumer Financial Stress Index in the first quarter, signaling that consumer confidence is likely to fall sharply in the coming months as the worsening coronavirus pandemic spreads throughout the country. LegalShield has been measuring the demand for various legal services for more than 15 years.

"Consumer confidence fell off a sheer cliff in the latter part of the quarter and our indices now indicate that consumer financial health will deteriorate rapidly in the coming months," said Scott Grissom, Senior Vice President and Chief Product Officer, LegalShield. "The turnabout from the 4th quarter is nothing short of remarkable, as we have never registered a larger and more abrupt increase in consumer financial stress in the 16-year history of the series. Americans are facing unprecedented difficulties in their lives today."

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

Consumer Financial Stress Rises to Four-Year High, Largest Quarterly Increase Ever
The LegalShield Consumer Financial Stress Index (CFSI) rose (worsened) 11.7 points in the quarter, from a record low of 68.9 (Q4 2019) to 80.6 (Q1 2020), the highest reading in nearly four years and the largest-ever increase in series history. The increase in financial stress was roughly in line with the Conference Board's Consumer Confidence Index, which recorded in March its weakest reading in nearly three years.

A leading index, LegalShield CFSI's dramatic jump this quarter strongly suggests that consumer confidence will suffer in the next 1-3 months as financial pressures stemming from widespread job loss mount. More than four in five U.S. counties are currently under lockdown, causing at least one quarter of the U.S. economy to be idled, according to Moody's Analytics. This sudden change of fortune has caused the U.S. labor market – previously a robust tailwind for growth – to collapse. Initial unemployment claims surged to nearly 16 million in a three-week period in late March/early April. Although the full force of the coronavirus crisis was not felt until mid-month in March, the financial stress consumers are now facing nonetheless manifested itself in their specific legal requests, including assistance with:

- **Billing Disputes**, at their highest level since December 2015;
- **Debt Collection**, at their highest level since April 2012;
- **Credit Reports/Repair**, at their highest level since September 2017 (the fallout from Hurricanes Maria and Harvey);
- **Employment Law**, at their highest level since August 2010 (when the national unemployment rate was 9.5%); and
- **Landlord/Tenant** issues, at their second-highest level since October 2009.

LegalShield Housing Activity Index Falls to its Lowest Point since 2017
The LegalShield Housing Activity Index, a leading indicator of housing starts, fell 1.9 points from 111.9 (Q4 2019) to 110.0 (Q1 2020), and is down nearly 8 points from its post-recession peak in Q3 2019.

Though housing starts eased 1.5% in February, at 1.6 million they remain well above post-recession trends. However, the pandemic threatens to significantly undercut near-term homebuilding activity. The effects of moratoria on construction activity imposed by state and local governments have already taken hold: the price of lumber was down 41% in late-March from February levels, pointing to plummeting demand for building materials despite the approaching spring building season. LegalShield expects new construction activity to fall sharply over the next few weeks.

LegalShield Real Estate Index improves slightly – but expected to weaken
The LegalShield Real Estate Index, a leading indicator of existing home sales, rose 6.5 points to 102.4 in Q1 2020, up from 95.9 in Q4 2019. Meanwhile, existing home sales increased 6.5% in February to a 5.77 million annualized rate, the highest level since 2007. Despite the rebound in the Real Estate Index this month, home sales – like much of the rest of the economy – are expected to grind to a near standstill in the coming weeks. Positive developments in the housing market during the second half of 2019 and early 2020 are likely to reverse as stay-at-home orders covering more than 90% of the US population will cause home viewings to plummet. As a result, although mortgage rates are near all-time lows, few prospective home buyers are likely to purchase a home until shelter-in-place-orders are lifted.

LegalShield Bankruptcy Index signals subdued bankruptcy activity will spike in months ahead
The LegalShield Bankruptcy Index, a forward-looking indicator of bankruptcy filings, decreased (improved) roughly 15 points from 48.1 in Q4 2019 to an all-time low of 33.5 in the first quarter. However, while the demand for bankruptcy-related legal services may not have risen yet, it is clear from broader economic trends that bankruptcies (a lagging indicator of financial stress) may rise later this year as the pandemic triggers a sharp increase in unemployment, causes some consumers to rely more heavily on credit, and impairs their ability to service existing debt. Indeed, there are already signs that this is occurring: monthly intakes for LegalShield's "Credit reports and repair" legal services are up 46% from a year ago after falling to an all-time low in December.

LegalShield Foreclosure Index indicates that foreclosure activity is likely to rise as the economic impacts of COVID-19 take hold
The LegalShield Foreclosure Index jumped (worsened) 20.3 points, rising from 47.9 in Q4 2019 to 68.2 in Q1 2020 as the coronavirus pandemic gripped the U.S. economy. Rapidly rising unemployment will undoubtedly make it more difficult for millions of Americans to service their mortgages. According to Bloomberg, as many as 30% (or 15 million) of Americans with home loans could halt their mortgage payments should stay-at-home measures continue beyond the summer.

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, over 40,000 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.

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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

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
Consumer Financial Stress (Composite Index)	Bankruptcy, Foreclosure, & Consumer/Finance	Consumer Confidence (Conference Board)
Housing Activity (Composite Index)	Foreclosure & Real Estate	Housing Starts (U.S. Census Bureau)
Bankruptcy	Bankruptcy	Total Bankruptcies (Compiled by Epiq Systems)
Foreclosure	Foreclosure	Foreclosure Starts (Mortgage Bankers Association)
Real Estate	Real Estate	Existing Home Sales (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 od 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 (CFSI) saw its largest-ever increase in the first quarter, reflecting a sharp increase the financial stress that likely will cause consumer confidence to plummet in the coming months as the coronavirus pandemic worsens.

Trends in Context: The LegalShield Consumer Financial Stress Index increased (worsened) 11.7 points in Q1 to 80.6, the highest reading in nearly four years and the largest quarterly increase in series history. Unsurprisingly, the Conference Board Consumer Confidence Index dropped 12.6 points in March to 120.0, the weakest reading since mid-2017. Prior to the coronavirus outbreak, U.S. consumers were driving economic growth while debt levels remained manageable by historical standards. However, consumer financial health is likely to rapidly deteriorate due to the pandemic. More than four in five U.S. counties are under lockdown, causing at least one-quarter of the U.S. economy to be idled according to Moody's Analytics. This sudden change of economic fortune has caused the U.S. labor market — previously a robust tailwind for growth — to collapse. Initial unemployment claims surged to nearly 10 million in a two-week period in March, more than seven times higher than the worst two-week period during the Great Recession. The LegalShield Consumer Financial Stress Index's dramatic jump this quarter strongly suggests that consumer confidence will plummet in the 1–3 months as financial pressures stemming from widespread job loss mount.

HISTORICAL TREND OVER PAST 16 YEARS

Consumer Financial Stress Index (Left Axis; Jan. 2002 =100)

Consumer Confidence, _Inverted_ (Right Axis; 1985 = 100)
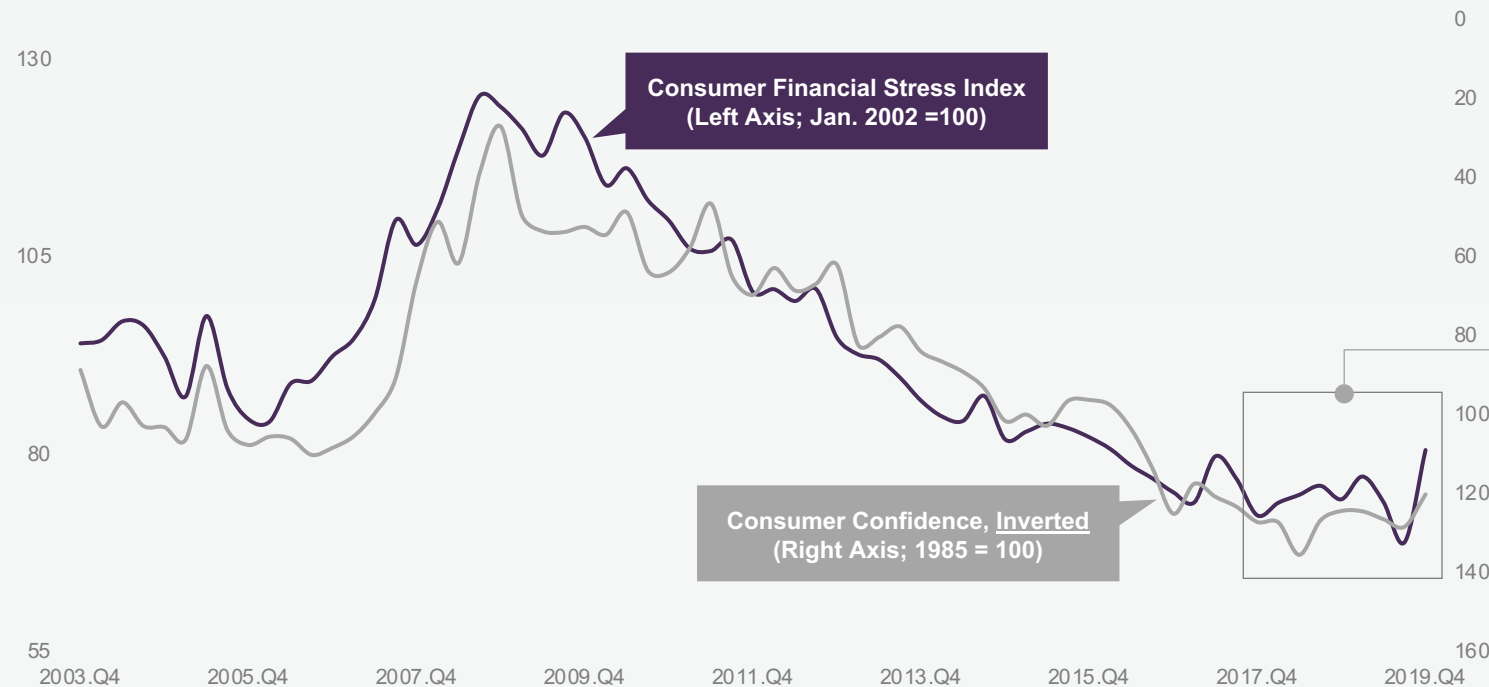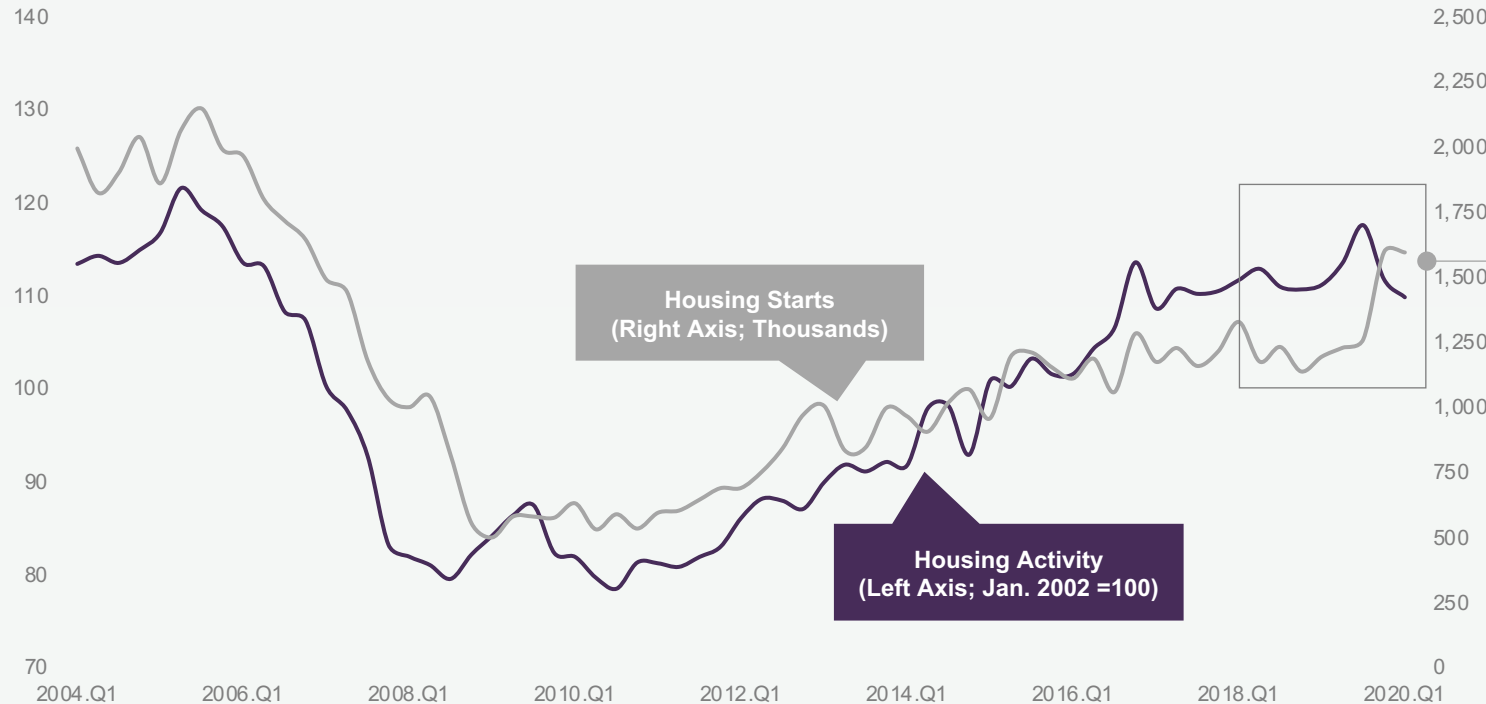
MOVEMENT OVER PAST 24 MONTHS
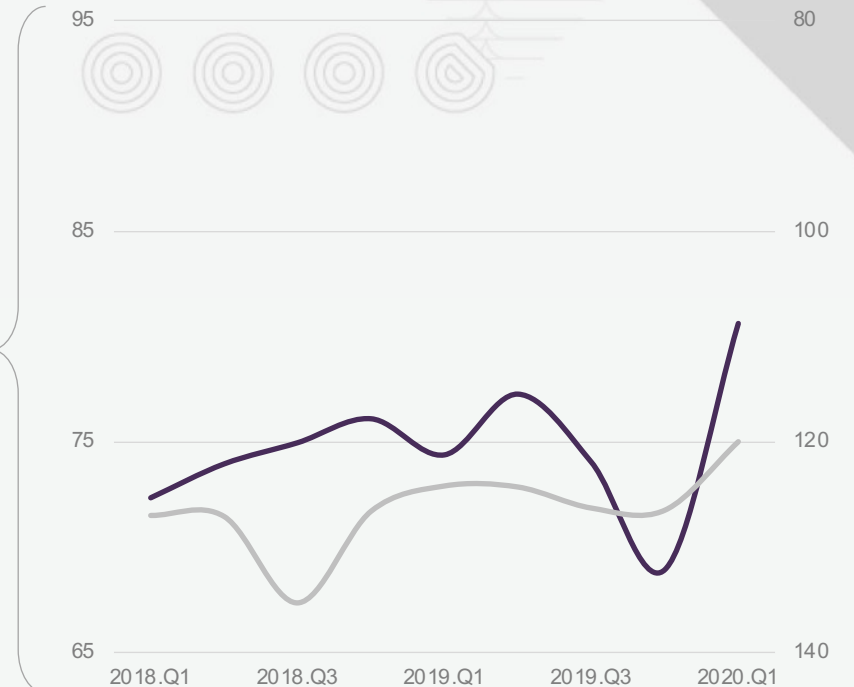
LegalShield Housing Activity Index

Headline: The LegalShield Housing Activity Index fell in Q1 to its lowest point since 2017, suggesting that the pandemic will reverse the recent surge in housing starts.

Trends in Context: The LegalShield Housing Activity Index fell 1.9 points to 110.0 in Q1 2020 and is down nearly 8 points from its post-recession peak in Q3 2019. Though housing starts eased 1.5% in February, at 1.6 million they remain well above post-recession trends. Prospects for the housing market were relatively bright in early 2020 amid heightened builder optimism and after two consecutive quarters of solid residential investment growth. However, the pandemic threatens to significantly undercut near-term homebuilding activity. According to the Wells-Fargo/NAHB Housing Market Index (released in early March, before most of the negative domestic economic effects of the pandemic had begun), over one-fifth of homebuilders noted supply chain disruptions for imported materials. Additionally, the effects of moratoria on construction activity imposed by state and local governments have already taken hold: the price of lumber was down 41% in late-March from February levels, pointing to plummeting demand for building materials as the spring building season approaches. Given recent movement in the Housing Activity Index and developments in the ongoing pandemic, LegalShield expects new construction activity to fall sharply over the next few weeks.

HISTORICAL TREND OVER PAST 16 YEARS

MOVEMENT OVER PAST 24 MONTHS

Housing Starts (Right Axis; Thousands)

Housing Activity (Left Axis; Jan. 2002 =100)

Source: LegalShield; Census Bureau; Census Bureau (X-13ARIMA-SEATS Seasonal Adjustment Program).
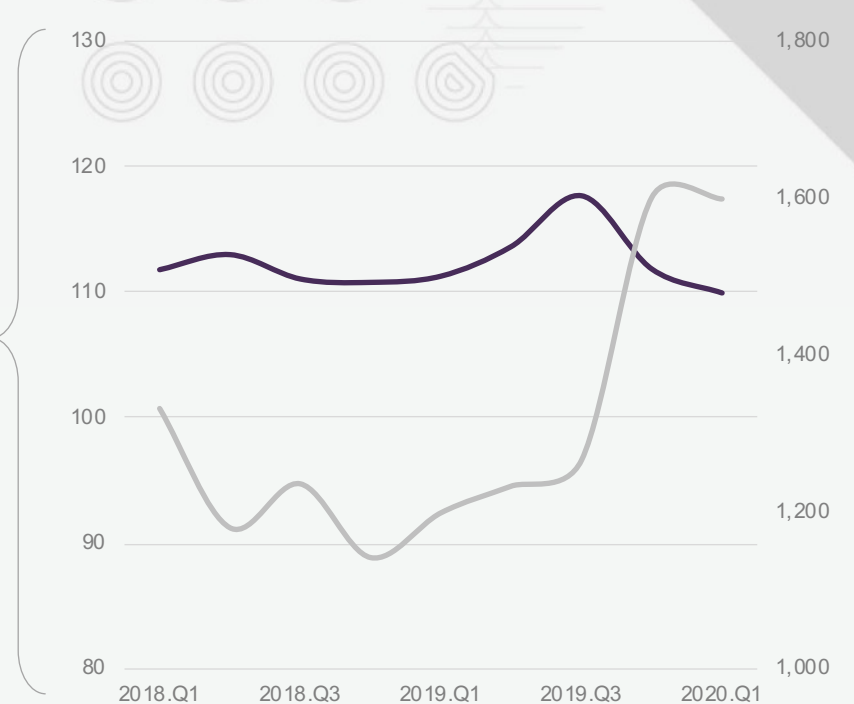
LegalShield Real Estate Index

Headline: Although the LegalShield Real Estate Index rebounded this month, the pandemic and ensuing lockdowns appear likely to slow home sales activity.

Trends in Context: The LegalShield Real Estate Index jumped 6.5 points in Q1 to 102.4. Meanwhile, existing home sales increased 6.5% in February to a 5.77 million annualized rate, the highest level since early 2007. Despite the rebound in the Real Estate Index this month, home sales — like much of the rest of the economy — are expected to grind to a near-standstill in the coming weeks. Positive developments in the housing market during the second half of 2019 and early 2020 are likely to reverse as stay-at-home orders covering more than 90% of the U.S. population will cause home viewings to plummet. Indeed, according to data from Compass, home showings plummeted 60% in late March, while Redfin reports home-buying demand dropped 27% from a year ago. As a result, although mortgage rates are near all-time lows, few prospective homebuyers are likely to purchase a home until shelter-in-place orders are lifted. Despite this quarter's relatively solid reading, the preponderance of data surrounding the housing market suggests real estate activity will pull back significantly in the weeks ahead.

HISTORICAL TREND OVER PAST 16 YEARS

MOVEMENT OVER PAST 24 MONTHS

Existing Home Sales
(Right Axis; Thousands)

Real Estate Index
(Left Axis; Jan. 2002 =100)
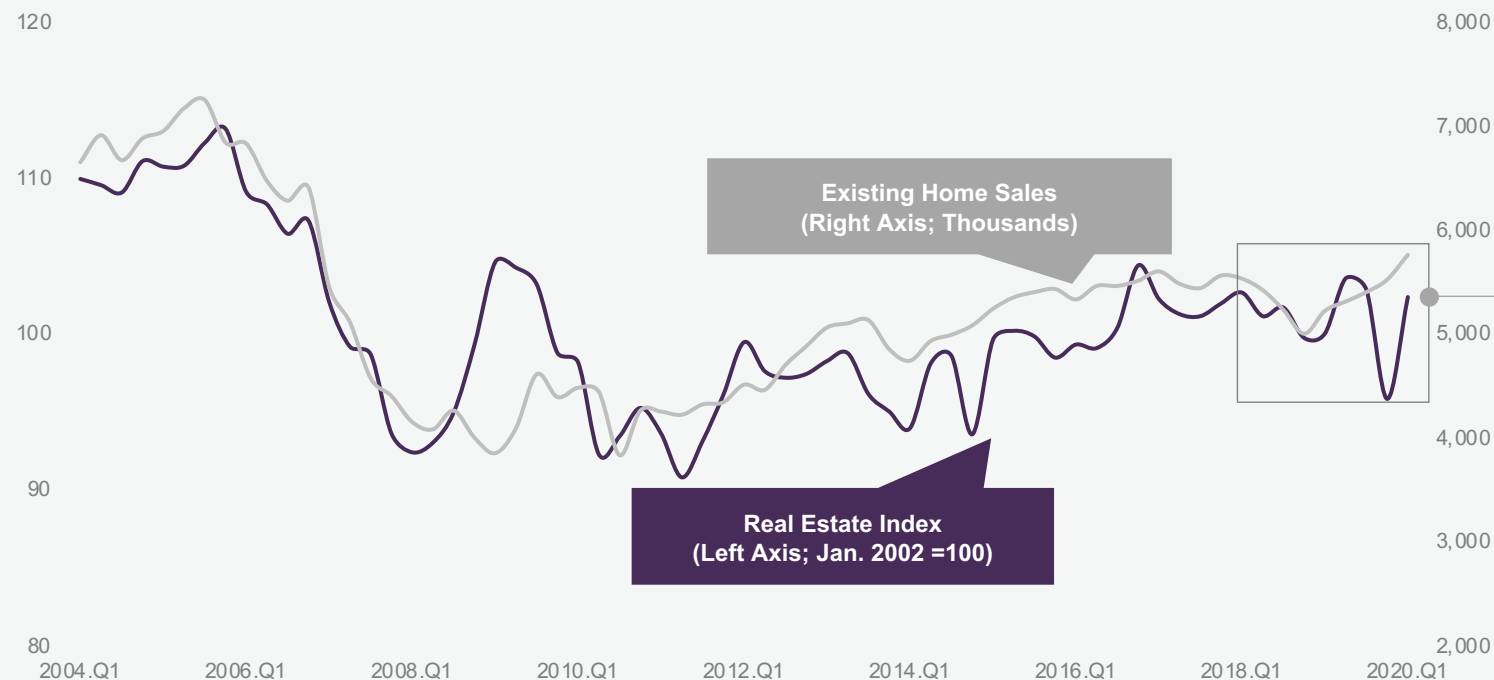
LegalShield
LAW INDEX
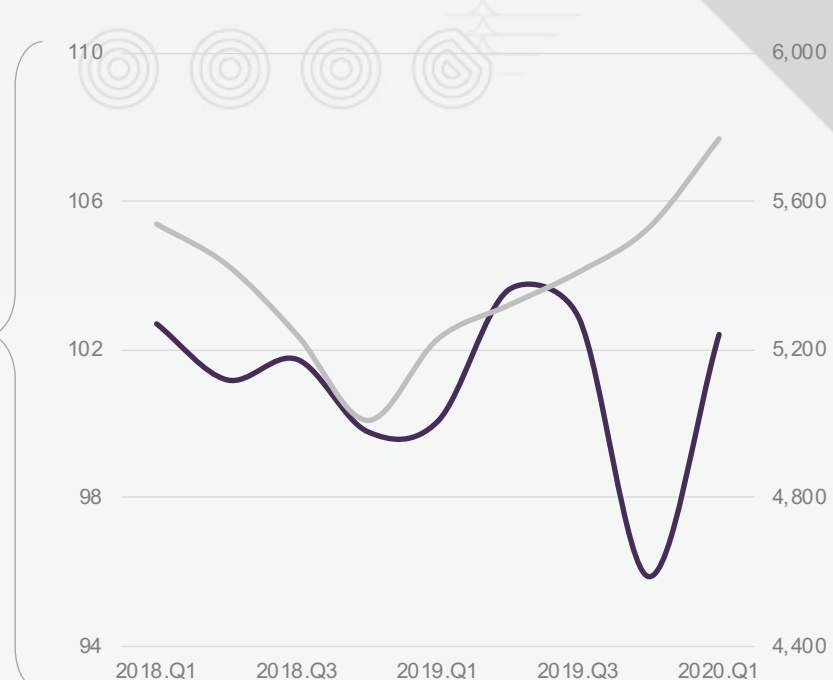
LegalShield Bankruptcy Index

Headline: The LegalShield Bankruptcy Index suggests that bankruptcy activity was historically low prior to the coronavirus pandemic — though the suddenness and severity of the economic shutdown has led to an increase in financial stress that may cause bankruptcies to climb later in the year.

Trends in Context: The LegalShield Bankruptcy Index decreased (improved) roughly 15 points to an all-time low of 33.5 in the first quarter. However, while the demand for bankruptcy-related legal services may not have risen yet, it is clear from broader economic trends that bankruptcies may rise later this year as the pandemic triggers a sharp increase in unemployment, causes some consumers to rely more heavily on credit, and impairs their ability to service existing debt. Indeed, there are already signs that this is occurring: monthly intakes for LegalShield's "credit reports and repair" legal services are up 46% from a year ago after falling to an all-time low in December, while "employment law" intakes are up 25% over the same period. A sharp increase in financial stress is likely to lead to more bankruptcies down the road, though the magnitude of this effect will depend largely on the efficacy of the CARES Act, which established a loan facility for struggling small businesses and will send $1,200 payments to many consumers (among other provisions). Bankruptcy is a lagging indicator of financial stress, so while it is not surprising that the LegalShield Bankruptcy index continued to fall in Q1, this trend is likely to reverse later this year if the unemployment rate continues to rise sharply, as expected.

HISTORICAL TREND OVER PAST 16 YEARS

Bankruptcy Index
(Left Axis; Jan. 2002 =100)

Total U.S. Bankruptcies
(Right Axis; Thousands)

MOVEMENT OVER PAST 24 MONTHS
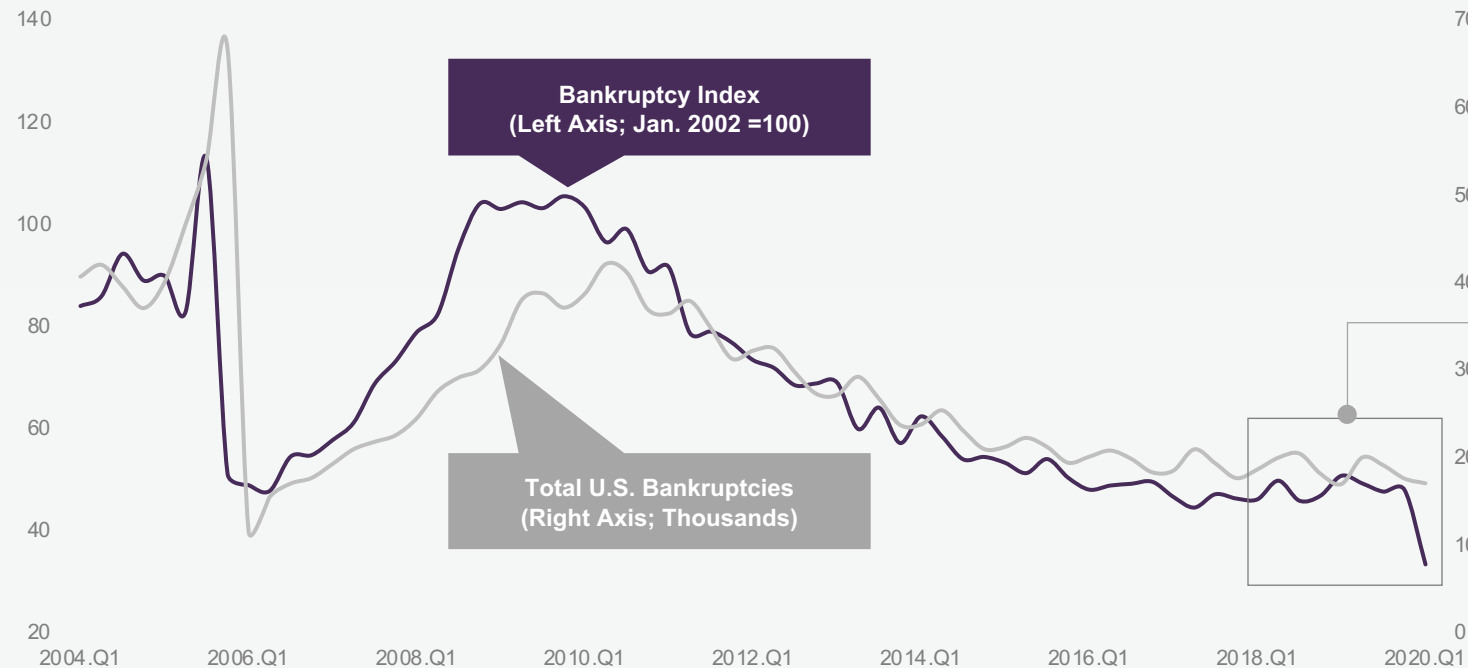
LegalShield
LAW INDEX
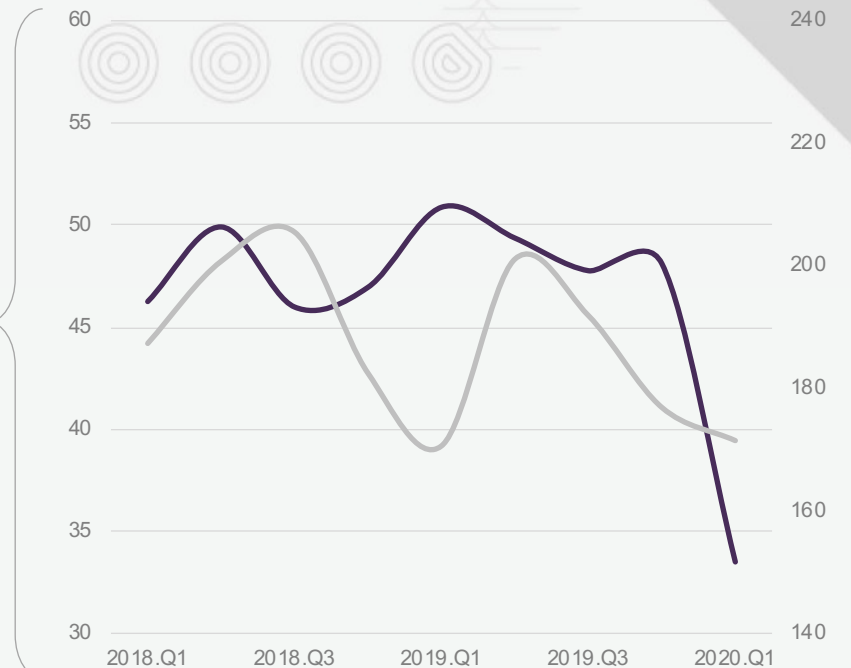
LegalShield Foreclosure Index

Headline: The LegalShield Foreclosure Index signals that foreclosure starts may rise in the coming months as the economic impacts of COVID-19 take hold.

Trends in Context: The LegalShield Foreclosure Index jumped (worsened) 20 points to 68.2 in Q1 as the coronavirus pandemic gripped the U.S. economy. Meanwhile, foreclosure starts edged up 1 basis point in Q4 to 0.22%. Although mortgage delinquencies were near all-time lows in early 2020, rapidly rising unemployment will undoubtably make it more difficult for millions of Americans to service their mortgages. U.S. consumers hold nearly $10 trillion in housing debt — near an all-time record — and the prospects for uninterrupted payments grow dimmer as new claims for unemployment benefits climb at an unprecedented pace. According to Bloomberg, as many as 30% (or 15 million) of Americans with home loans could halt their mortgage payments should stay-at-home measures continue beyond the summer. Although there have been measures taken by some banks and local jurisdictions to delay mortgage payments which may help reduce the immediate financial burden for those most affected, the LegalShield Foreclosure Index points to a spike in foreclosure starts in the coming months.

HISTORICAL TREND OVER PAST 16 YEARS
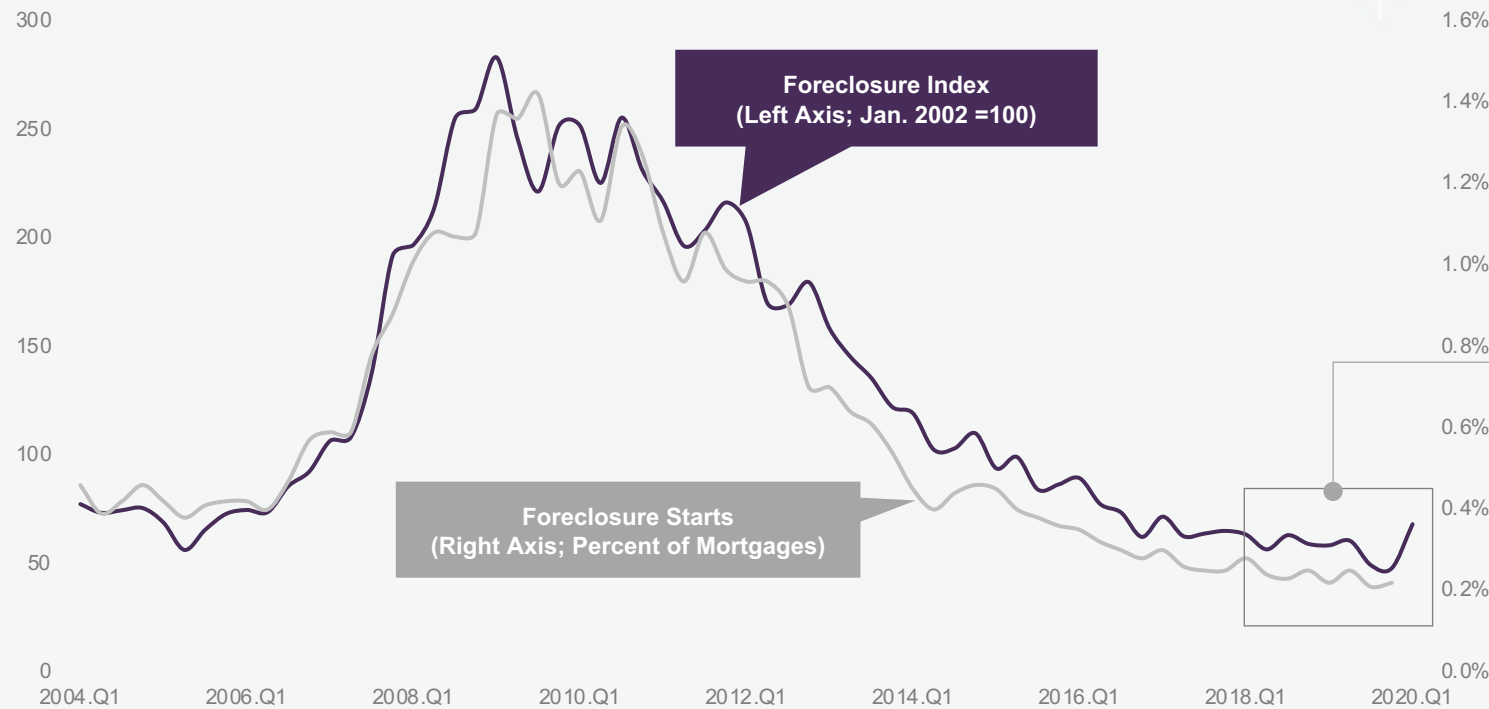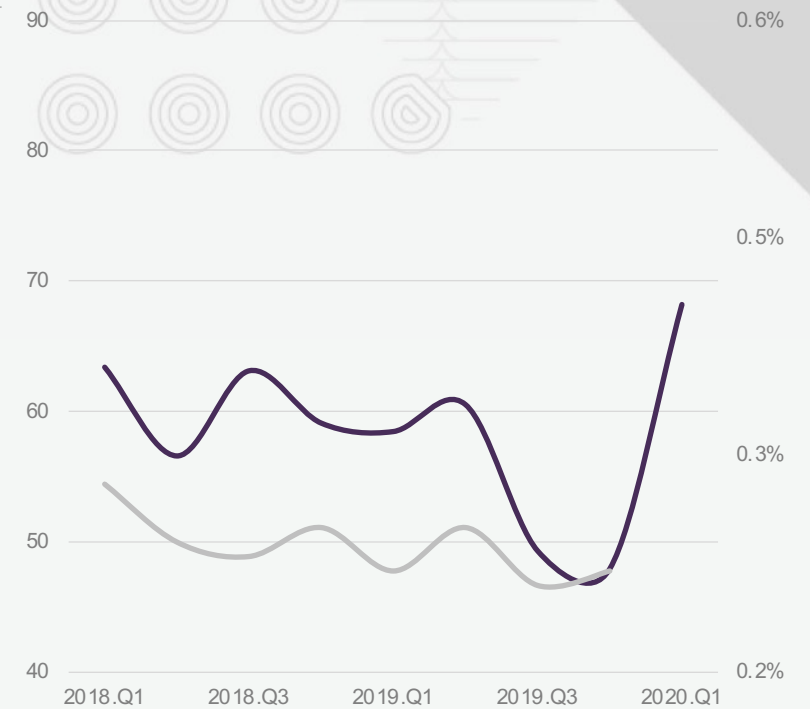
MOVEMENT OVER PAST 24 MONTHS

Foreclosure Index
(Left Axis; Jan. 2002 =100)

Foreclosure Starts
(Right Axis; Percent of Mortgages)

LegalShield
LAW INDEX

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.*	✓

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

LegalShield™ LAW INDEX

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*

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.

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.

LegalShield
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Data Construction & Cleaning

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

Active Subscribers
Thousands
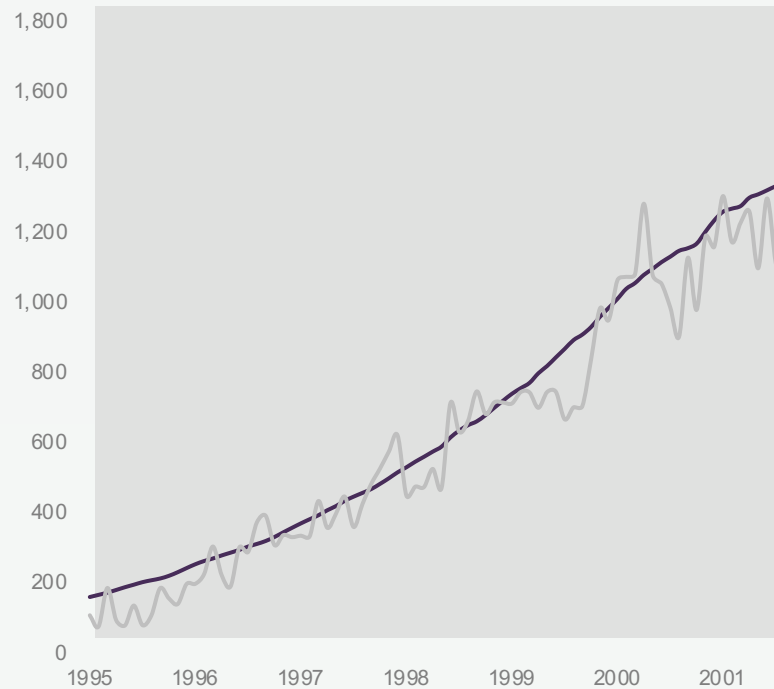
Total Intakes
Thousands

Active Subscribers
(Left Axis; Thousands)

Total Intakes
(Right Axis; Thousands)

Excluded data prior to 2002, as the rapid expansion of intakes (presumably due to overall business growth) has the potential to distort measures of "pure demand" for legal services.

LegalShield
LAW INDEX
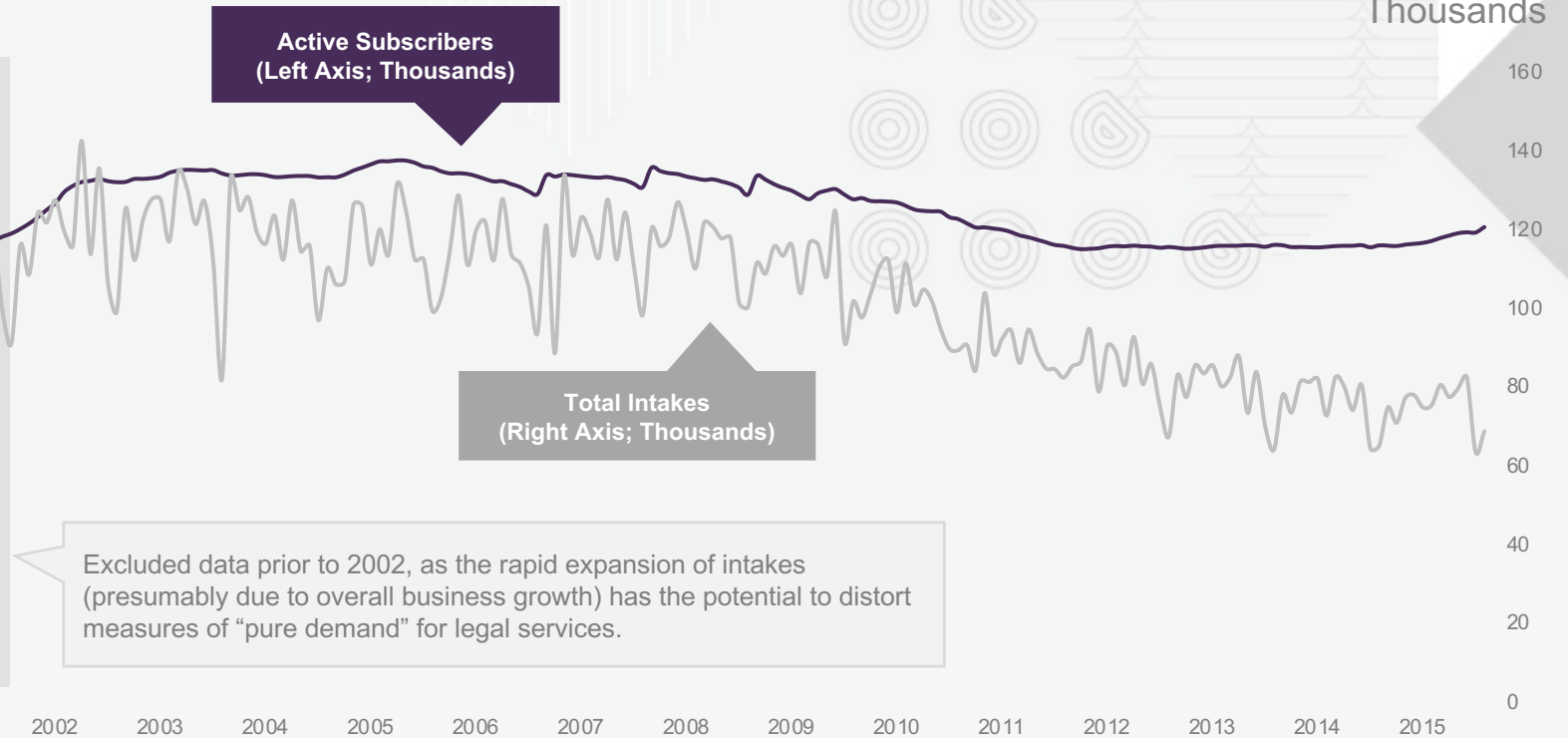
Analytical Scope

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

Determine Scope of Analysis   *Define Intake Metric*

Dataset Development

Trends in demand for AOLs were fairly constant across plan types.

All subscribers were used in the analysis; a "same subscriber" sub-sample was used to validate results.

Standardizing intake data as a share of total intakes produced stronger results.

Full LegalShield Intake Dataset (2000 – 2015)

All Plan Types

All Subscribers
n = 19,571,508

Same Subscribers
n = 1,540,704

Share of Total Intakes
Share of Subscribers

Share of Total Intakes
Share of Subscribers

Family Plan Types

All Subscribers
n = 16,583,632

Same Subscribers
n = 1,516,476

Share of Total Intakes
Share of Subscribers

Share of Total Intakes
Share of Subscribers

Business Plan Types

All Subscribers
n = 1,345,132

Same Subscribers
n = 87,609

Share of Total Intakes
Share of Subscribers

Share of Total Intakes
Share of Subscribers

*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.

LegalShield LAW INDEX

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.

LegalShield
LAW INDEX

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	✓	✓	✓

LegalShield
LAW INDEX

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

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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**

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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.

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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

Less Rigorous ←——————————————————————————→ More Rigorous

Level/Level   Year/Year   6 Month/Month   3 Month/Month   1 Month/Month

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

Note: Because intake data can be affected by seasonal factors and fluctuate significantly from month to month, "level" testing was conducted on the 3-month moving average.

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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	• 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

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	• Bankruptcies	✓	✓	≈ 1 mo.
Foreclosure	• Foreclosures	✓	r	Coincident*
Real Estate	• Existing Home Sales	✓	✓	≈ 0-1 mo.*

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

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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

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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.

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LAW 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.*

*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.

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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

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Summary of Results

Composite Index: Consumer Financial Stress

AOLs: Bankruptcy; Foreclosure; Consumer Finance

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

Consumer Confidence
Index (1985 = 100)

Consumer Financial Stress Index
(Left Axis; Jan. 2002 =100)

Consumer Confidence
(Right Axis; 1985 = 100)

Values reversed to account for inverse
relationship with LegalShield Index.

Correlation (L/L):	-0.85
Estimated Lead Time:	≈ 1-3 Months
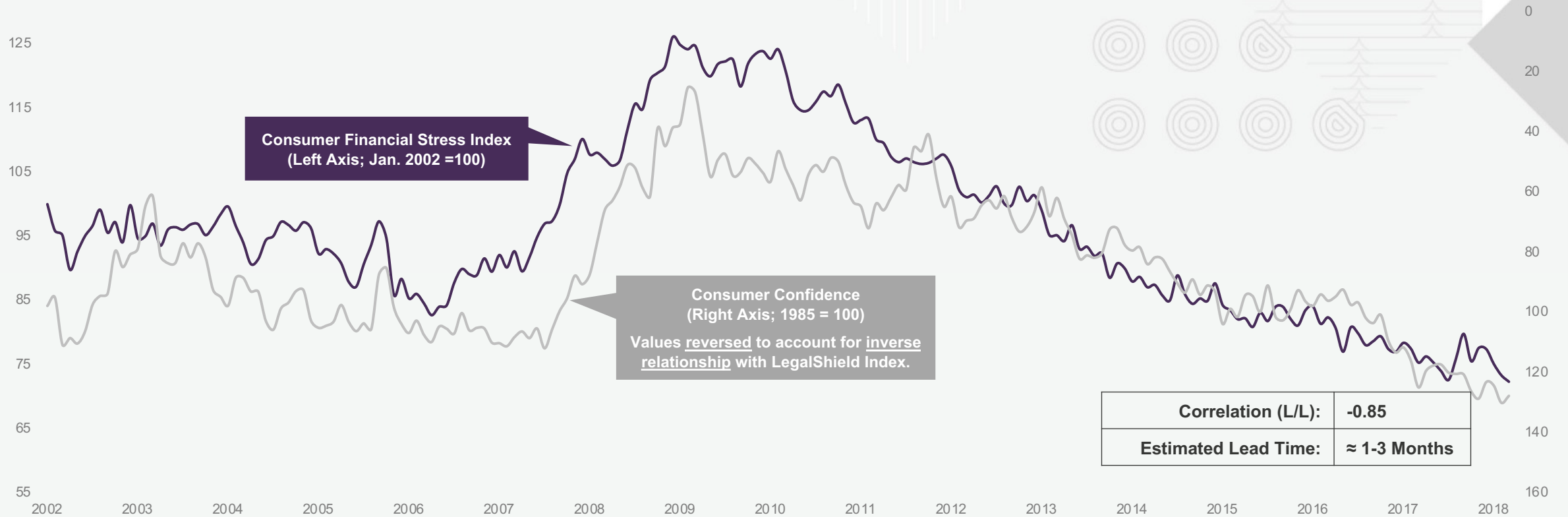
Composite Index: Housing Activity Index

AOLs: Foreclosure; Real Estate*

Legalshield Housing Activity Index
Index (January 2002 = 100)

Housing Starts
Thousands

Housing Starts
(Right Axis; Thousands)

Housing Activity Index
(Left Axis; Jan. 2002 =100)

Correlation (L/L):	**0.88**
Estimated Lead Time:	**≈ 0-2 Months***

*The Real Estate 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.

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AOL: Real Estate

Target Series: Existing Home Sales

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

Existing Home Sales
Thousands

Existing Home Sales
(Right Axis; Thousands)

Real Estate Index
(Left Axis; Share of Total Intakes)

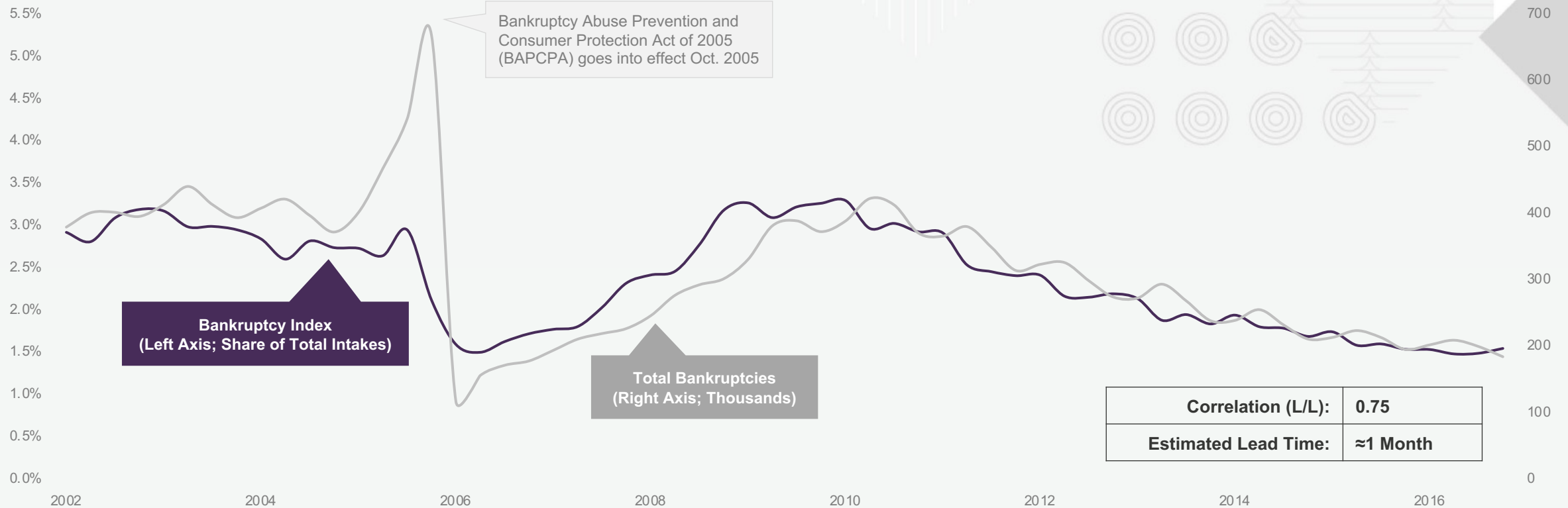| Correlation (L/L):	0.87
Estimated Lead Time:	**≈ 0-1 Month***
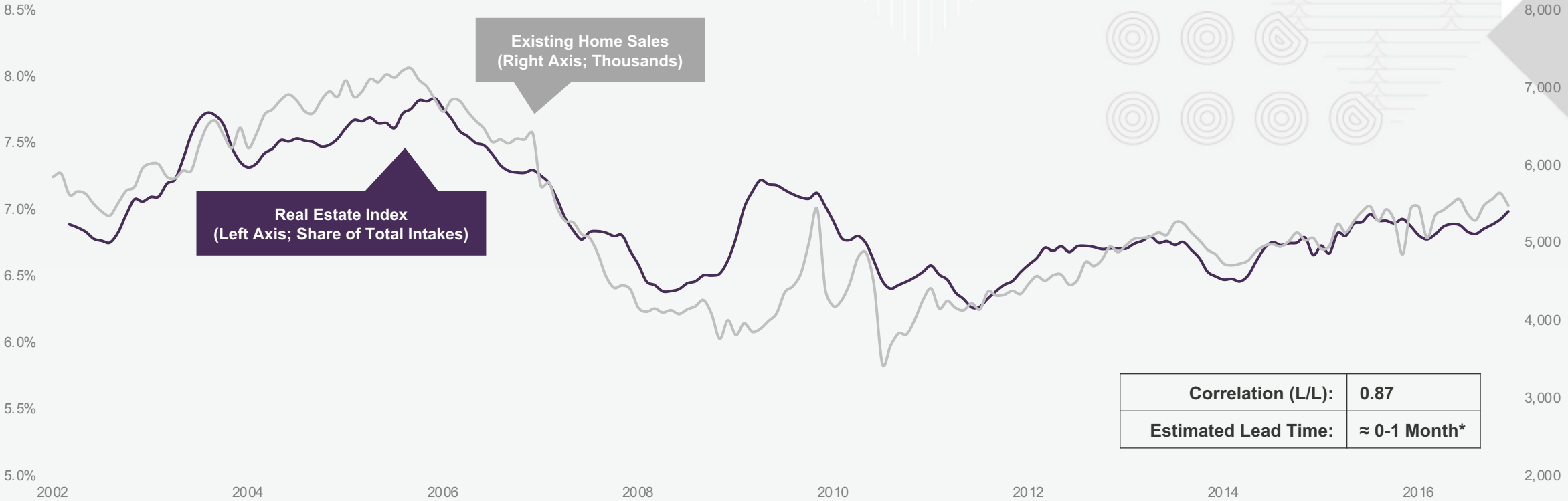
*The Real Estate Index was seasonally adjusted using the Census Bureau's X-13 ARIMA-SEATS Seasonal Adjustment Program.
In addition to its statistical lead time, the Index has a timing advantage of roughly two weeks over existing home sales due to release schedules.

LegalShield LAW INDEX

AOL: Bankruptcy

Target Series: Target Bankruptcies

Legalshield Bankruptcy Index
Share Of Total Intakes

Total Bankruptcies
Thousands

Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCPA) goes into effect Oct. 2005

Bankruptcy Index
(Left Axis; Share of Total Intakes)

Total Bankruptcies
(Right Axis; Thousands)

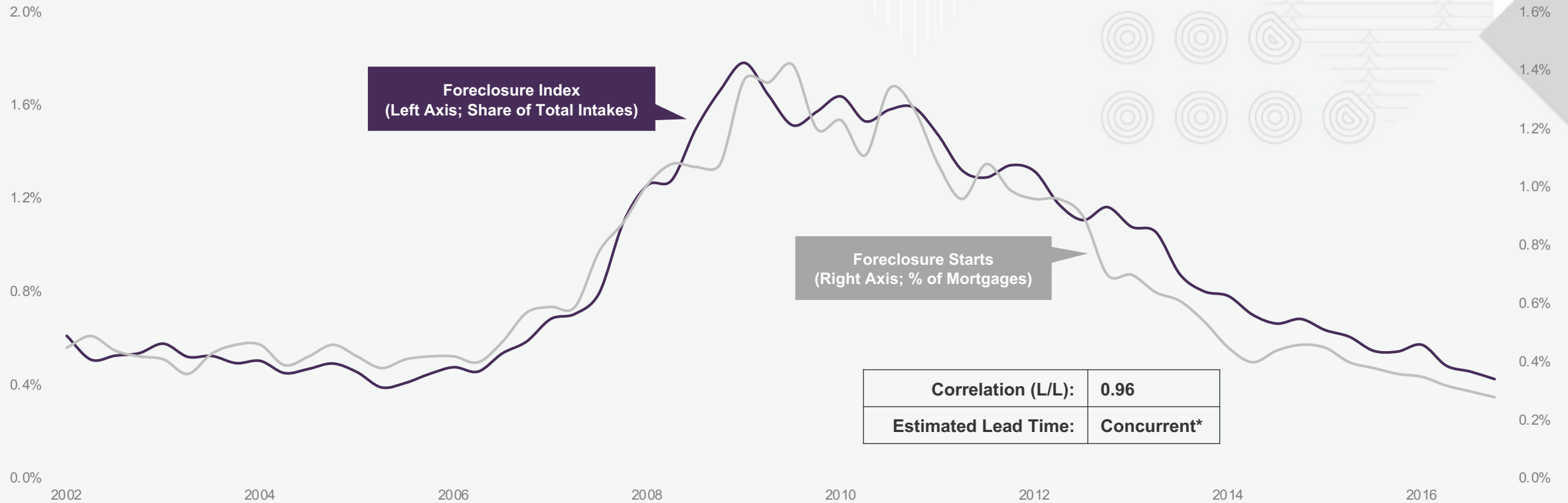|	
Correlation (L/L):	**0.75**
Estimated Lead Time:	**≈1 Month**

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LAW INDEX

AOL: Foreclosure

Target Series: Foreclosure Starts

Legalshield Foreclosure Index
Share Of Total Intakes

Foreclosure Starts
Percent of Mortgages

Foreclosure Index
(Left Axis; Share of Total Intakes)

Foreclosure Starts
(Right Axis; % of Mortgages)

Correlation (L/L):	0.96
Estimated Lead Time:	**Concurrent***

*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).

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LAW INDEX

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.*	✓

*These indices also potentially have a timing advantage over their target indicators due to the release frequency and/or schedule of the target series.

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