NEWS RELEASE

Housing Activity Index Reaches All-Time High in May, Indicating Homebuilding Will Soon Rebound from Recession

LegalShield's Housing Activity Index, in 16th Year, Tends to Lead U.S. Census Data on Housing Starts by 1-2 Months

ADA, Okla. – June 11, 2020 Released today, the May 2020 LegalShield Law Index, a suite of leading indicators of the economic and financial status of U.S. households and small businesses, saw its Housing Activity Index reach an all-time high, suggesting that homebuilding may recover more quickly than other sectors of the economy from the coronavirus-induced shutdown. A separate Real Estate Index tracking home sales likewise improved in May, suggesting that existing home sales may improve over the next three to six months. LegalShield has been measuring consumer demand for various legal services for nearly 16 years.

 "Our two main real estate sub-indices snapped back from April's lows, indicating that while the U.S. economy may take months or years to fully recover from the COVID-19 recession, a 'V-shaped' recovery in residential homebuilding is increasingly likely," said Scott Grissom, Senior Vice President and Chief Product Officer, LegalShield. "The data suggests residential real estate is likely to rebound faster than other sectors of the economy. If true, then the coronavirus-induced shutdown of 2020 will ultimately be viewed as merely a speed bump in real estate's strong and steady recovery from the lows of the Great Recession a decade ago. We expect homebuilders and brokers to be busy this summer."

Mr. Grissom noted that the five sub-indices that comprise the LegalShield Law Index tend to lead an existing economic indicator that sheds light on the health of the U.S. economy (i.e., the target economic indicator). The LegalShield Housing Activity Index, for example, tends to lead U.S. Census data on housing starts (a key economic indicator) by 1–2 months; the LegalShield Real Estate Index tends to lead monthly existing home sales as published by the National Association of Realtors, offering an early look at emerging trends in the housing market. Since LegalShield's consumer member intakes are logged in real-time as they occur, there is no lag in compiling the data, as common with other economic and housing surveys and, therefore, are predictive and actionable.

•In May, the LegalShield Housing Activity Index improved 11 points from 112.3 to an all-time high of 123.3, while housing starts plunged more than 30% in April, the lowest volume since 2015, according to the US Department of Commerce. LegalShield data and other leading indicators now point to a sharper housing recovery. For example, April spending on private residential construction was still 6.2% above year ago levels, while mortgage purchase applications have increased for six consecutive weeks, suggesting there is pent up demand in the housing sector.

•In May, the LegalShield Real Estate Index increased 5.9 points to 102.6, roughly in line with early-2020 levels before the pandemic. Meanwhile existing home sales nosedived in April, falling nearly 18% in the sharpest decline since mid-2010. April, however, now appears to have been the worst of the pandemic-related decline in home purchasing, as easing social distancing measures combined with record low mortgage rates have spurred housing demand in the past month.

Although homebuilding activity was historically weak in April and may not return to pre-COVID levels for several more months, LegalShield and broader economic data suggest that housing activity is better positioned to rebound than a typical recession.

The 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 findings visit https://www.legalshield.com/law-index.

About LegalShield and IDShield
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 4.4 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. For more information about LegalShield, visit: https://www.legalshield.com/ or for more information about IDShield, visit: https://www.idshield.com/.

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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 month. 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 month. To the best of our knowledge, there is no comparable data on the market.

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

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

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

LegalShield Law Index + Target Economic Indicators

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

LegalShield Law Index	LegalShield Area(s) of Law	Target Economic Indicator
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
LAW INDEX

LegalShield Consumer Financial Stress Index

Headline: The LegalShield Consumer Financial Stress Index fell in May as stimulus measures and debt forbearance policies continue to mitigate the economic impact of the recession on consumers' pocketbooks. However, should these policies lapse before the economy has recovered, consumer financial stress is likely to rise rapidly.

Trends in Context: The LegalShield Consumer Financial Stress Index decreased 3.7 points to 66.9 in May, as muted bankruptcy and foreclosure activity continues to keep consumer financial stress in check. Meanwhile, the Conference Board Consumer Confidence Index improved 0.9 point in May after hitting a multi-year low the previous month. Consumer financial health remains largely intact despite the severe economic downturn that began in March, due to a mix of temporary relief measures undertaken by state and federal governments as well as private lenders. Indeed, despite an unemployment rate unseen since the Great Depression, disposable income surged nearly 11% in April as households received an average of $3,000 in financial support. This relief, combined with voluntary forbearance offerings provided by lenders to delay credit card and auto payments, is keeping consumers afloat — for now.

However, the outlook for consumers over the next 6 – 18 months is murkier and ultimately depends on the depth and duration of the economic downturn and the response from policymakers and lenders. While states have begun to slowly reopen, the U.S. economy continues to shed millions of jobs each week, and a study from the University of Chicago maintains that more than 40% of these layoffs are likely to be permanent. If unemployment remains well in double-digits for the remainder of 2020 as many economists expect, consumer financial stress will almost certainly rise unless the extraordinary relief efforts are extended into next year.

HISTORICAL TREND OVER PAST 15 YEARS

MOVEMENT OVER PAST 12 MONTHS

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

Consumer Confidence, *Inverted* (Right Axis; 1985 = 100)
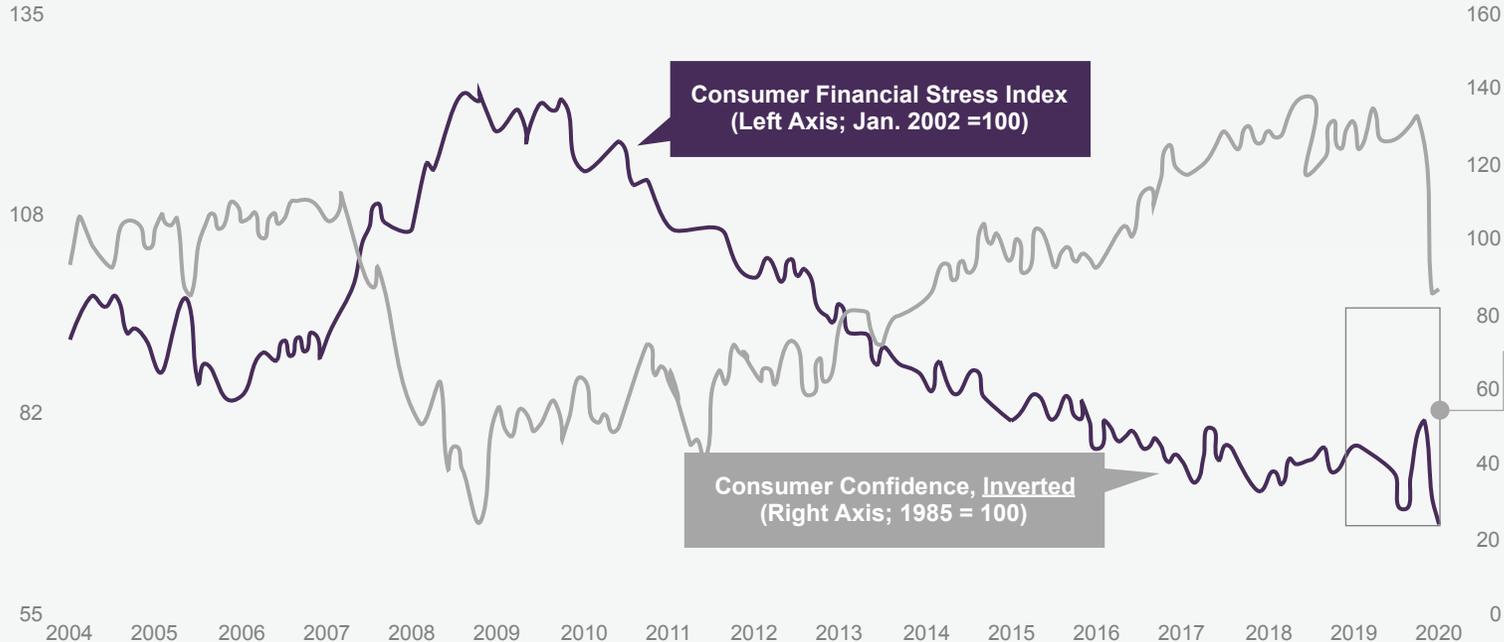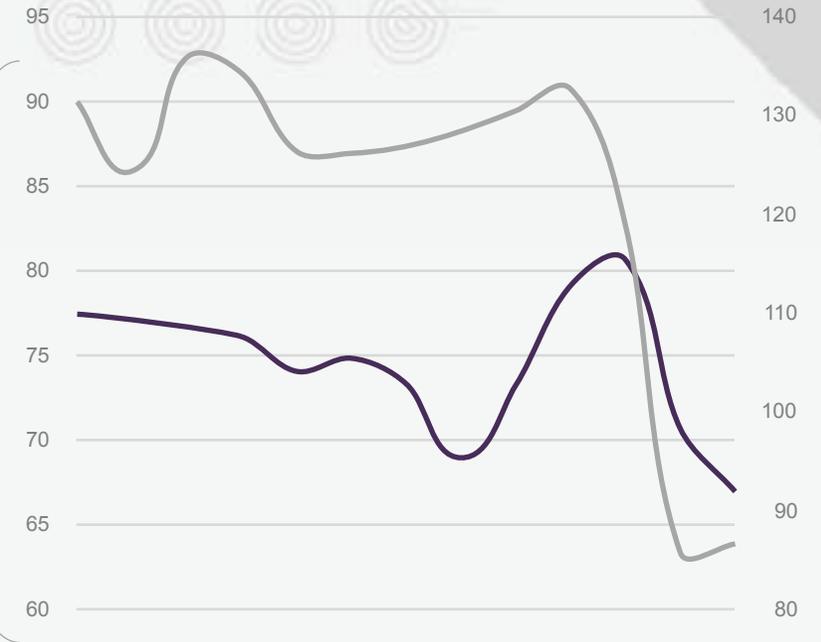
LegalShield Housing Activity Index

Headline: The LegalShield Housing Activity Index improved in May as foreclosures remain near all-time lows due to temporary forbearance programs. Despite weak housing starts in April, LegalShield and other economic data suggest homebuilding activity could rebound faster than other sectors of the economy and may not face a multi-year recover period as it did following the 2008–09 recession.

Trends in Context: The LegalShield Housing Activity Index improved 11 points to an all-time high of 123.3, while housing starts plunged more than 30% in April, the largest decline ever. Though the NAHB/Wells Fargo Housing Market Index remains 44% below year-ago levels, LegalShield data and other leading indicators suggest that the homebuilding industry may recover more quickly than other sectors of the economy from the coronavirus-induced shutdown. For example, April spending on private residential construction was still 6.2% above year-ago levels, while mortgage purchase applications have increased for six consecutive weeks, suggesting that there is pent-up demand in the housing sector. Furthermore, new home sales were virtually unchanged in April, significantly stronger than expectations of a 20+% decline. Likewise, interest rates are expected to remain exceptionally low for the foreseeable future, which should add fuel to the recovery and encourage homebuying. Although homebuilding activity was historically weak in April and may not return to pre-COVID levels for several more months, LegalShield and broader economic data suggest that housing activity is better positioned to rebound than in a typical recession.

HISTORICAL TREND OVER PAST 16 YEARS

Housing Starts (Right Axis; Thousands)

Housing Activity (Left Axis; Jan. 2002 =100)
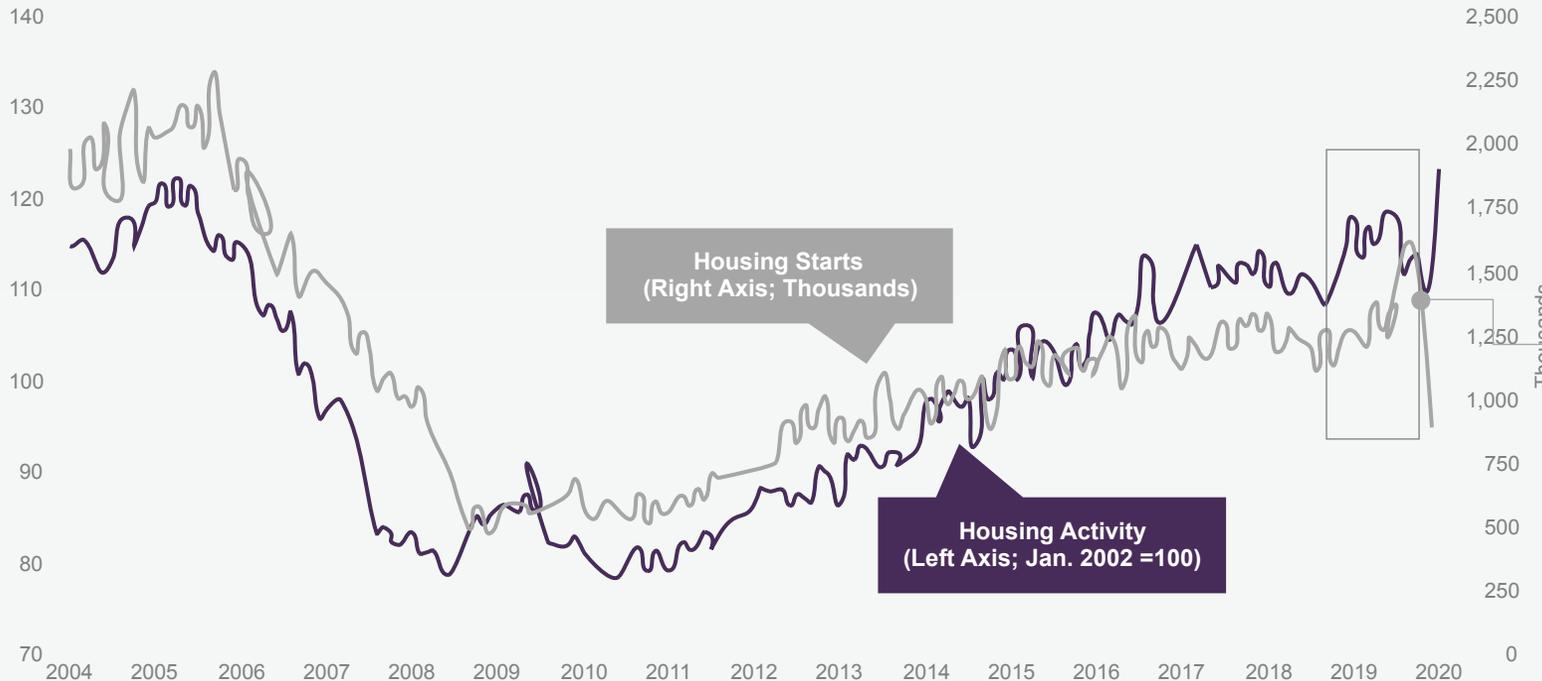
MOVEMENT OVER PAST 24 MONTHS

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

LegalShield Real Estate Index

Headline: The LegalShield Real Estate Index improved in May as low interest rates and easing stay-at-home restrictions helped bolster demand, suggesting that existing home sales may improve in the next three to six months.

Trends in Context: The LegalShield Real Estate Index increased 5.9 points to 102.6, roughly in line with early-2020 levels before the pandemic though demonstrating greater-than-usual volatility. Meanwhile, existing home sales nosedived in April, falling nearly 18% in the sharpest decline since mid-2010. April appears to have been the worst of the pandemic-related decline in home purchasing, as easing social distancing measures combined with record low mortgage rates have spurred housing demand in the past month. Indeed, although the Fed Senior Loan Officer Survey reported banks tightened standards on some mortgage loans in the first quarter, 30-year fixed mortgage rates have held below 4.0% for over a year and are currently at an all-time low of 3.15%. Likewise, data from Redfin suggests homebuying demand is currently 5.5% above pre-COVID levels, and the University of Michigan Survey of Consumers reported that 51% of respondents believed that homebuying conditions were favorable in April despite the historically bad economic conditions. Overall, recent housing demand data is encouraging, and taken together with LegalShield data suggest that real estate activity may improve in the near-term.

HISTORICAL TREND OVER PAST 16 YEARS

Existing Home Sales (Right Axis; Thousands)

Real Estate Index (Left Axis; Jan. 2002 =100)

MOVEMENT OVER PAST 12 MONTHS

Source: LegalShield; National Association of Realtors; Census Bureau (X-13ARIMA-SEATS Seasonal Adjustment Program).
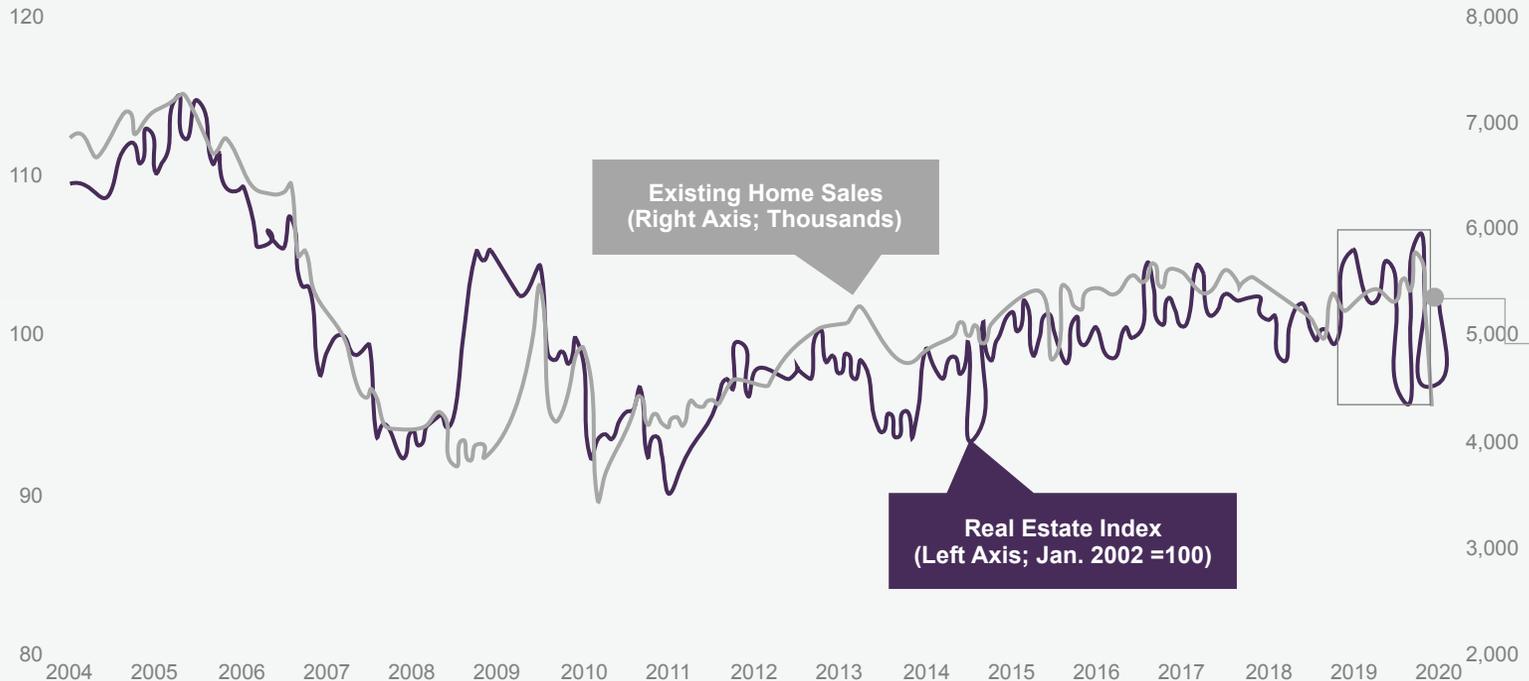
LegalShield LAW INDEX
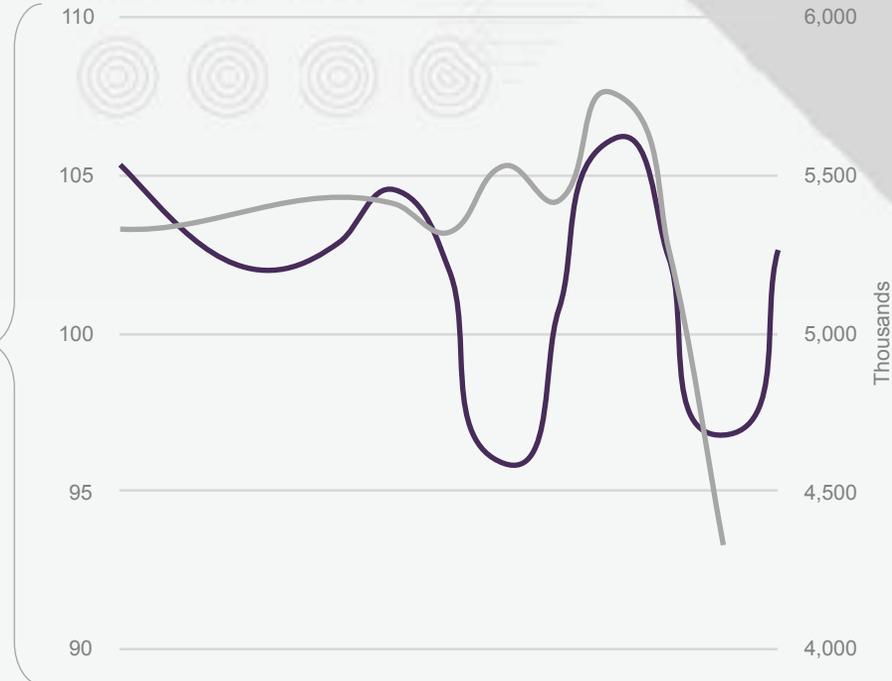
LegalShield Bankruptcy Index

Headline: The LegalShield Bankruptcy Index fell to a new all-time low as loan deferral programs and government stimulus measures buy time for borrowers. However, as job losses continue to mount, bankruptcies are likely to surge later this year as banks cease loan deferral programs and stimulus money dries up.

Trends in Context: The LegalShield Bankruptcy Index eased 0.8 point to 25.6, falling to an all-time low for the second consecutive month. Similarly, total U.S. bankruptcies fell in April to the lowest level since 2006. The low level of the Bankruptcy Index reflects temporary debt relief measures that are forestalling bankruptcy activity for the time being, as well as the underlying strength of U.S. consumers entering the downturn. According to Goldman Sachs and other sources, debt-to-disposable-income ratios were relatively low across income levels in early 2020 — significantly lower than during the run-up to the Great Recession — indicating that consumers were better positioned to weather the storm than they were a decade ago. Still, worrying signs are beginning to emerge. The sudden influx of requests for payment deferrals has overwhelmed lenders as they set aside tens of billions of dollars in reserves to insulate themselves from massive consumer loan losses. Similarly, a LendingTree survey shows that 56% of parents with young children have taken on debt to deal with circumstances related to the pandemic.

Consumer finances were in reasonably good shape before the crisis began and temporary relief measures have helped mitigate the immediate negative effects, but rising bankruptcies appear to be inevitable once these temporary relief measures expire, particularly given that the unemployment rate is projected to remain in double-digits well into next year.

HISTORICAL TREND OVER PAST 14 YEARS

MOVEMENT OVER PAST 12 MONTHS

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

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

Source: LegalShield; Epiq Systems (X-13 ARIMA-SEATS Seasonal Adjustment Program).
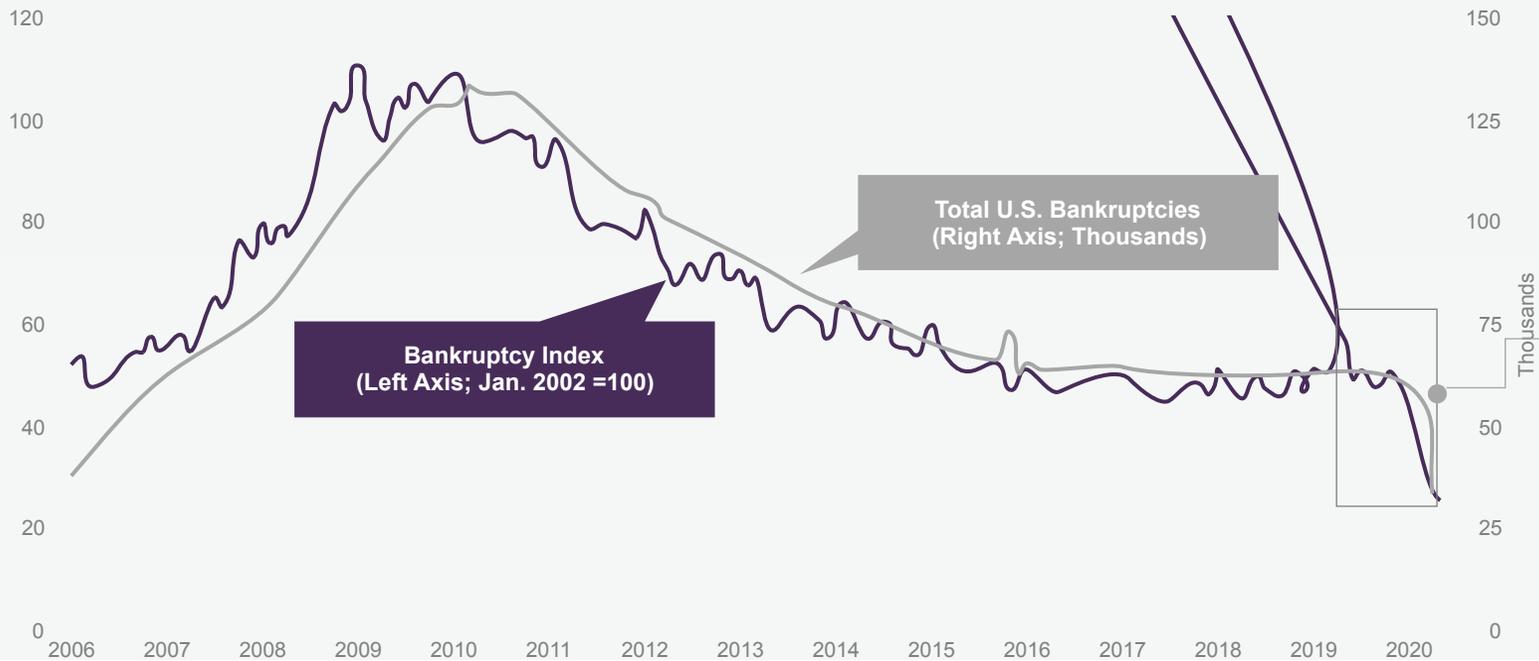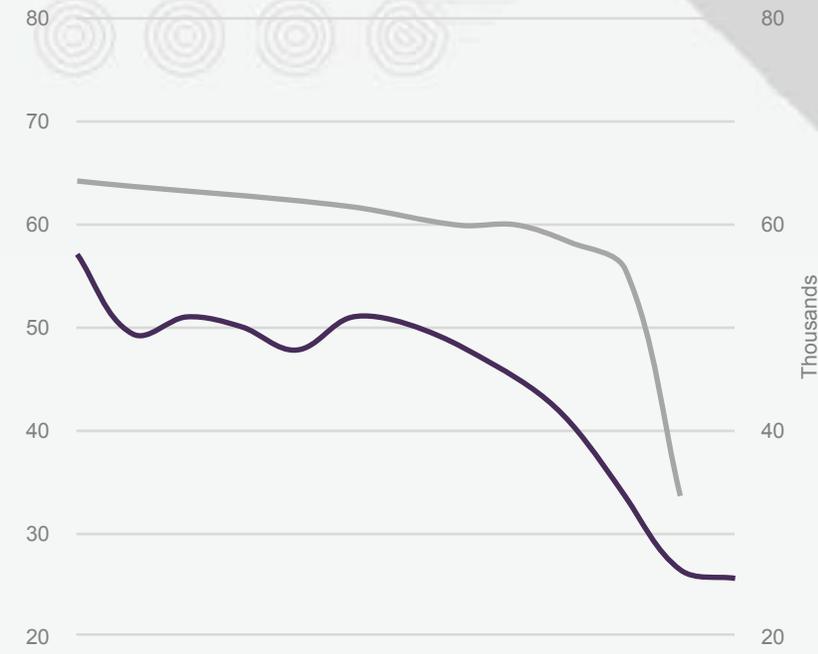
LegalShield Foreclosure Index

Headline: The LegalShield Foreclosure Index decreased in again May as foreclosure activity was put on hold by federal mortgage relief and a historic number of loans in forbearance. Though the Index is not yet signaling a surge in foreclosures, when relief programs expire an uptick in foreclosure activity is expected.

Trends in Context: The LegalShield Foreclosure Index fell over 10 points to 38.6, an all-time low. Meanwhile, foreclosure starts edged up 1 basis point in Q4 to 0.22%. This month's further decline in the Index comes as various federal mortgage-backing agencies — including Fannie Mae, Freddie Mac, and the Federal Housing Administration — announced 60-day suspensions of foreclosures and evictions on homeowners whose mortgages they insure, accounting for roughly 34 million loans. Likewise, the Mortgage Bankers Association reported that roughly 8.5% of mortgages were in forbearance by the end of May (up from 7.5% in April), despite more than 60% of mortgage-bearing homeowners being unaware such programs existed, according to a survey by Fannie Mae. The extent to which lenders can provide such relief is becoming increasingly uncertain, as mortgage servicers owe $4.5 billion in servicing advances on government loans in early May — 25 times greater than what they owed in late February, according to Black Knight. Although mortgage relief programs have kept foreclosure activity muted for the time being, the outlook for mortgage health becomes increasingly grim as the expiration dates for these programs are just weeks away.

HISTORICAL TREND OVER PAST 16 YEARS

MOVEMENT OVER PAST 12 MONTHS

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

Foreclosure Starts
(Right Axis; Percent of Mortgages)

Source: LegalShield; Mortgage Bankers Association.
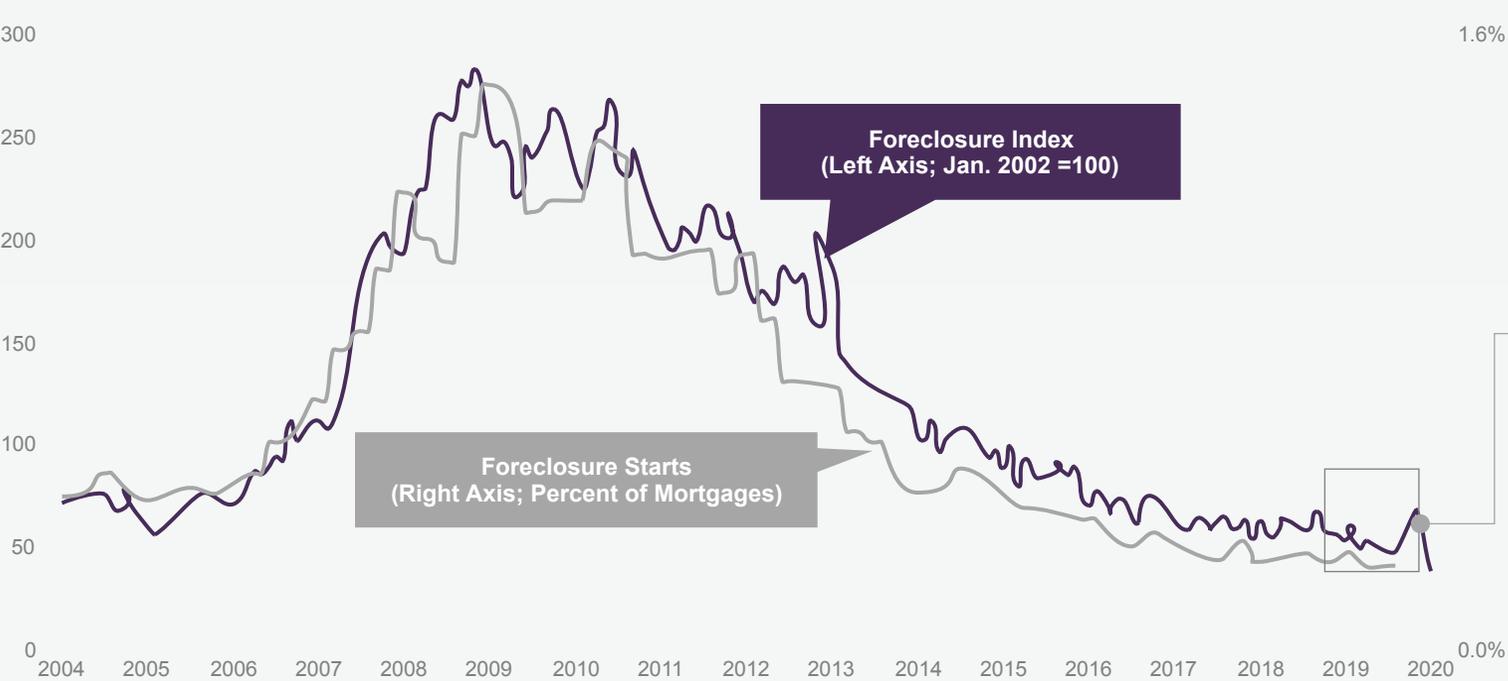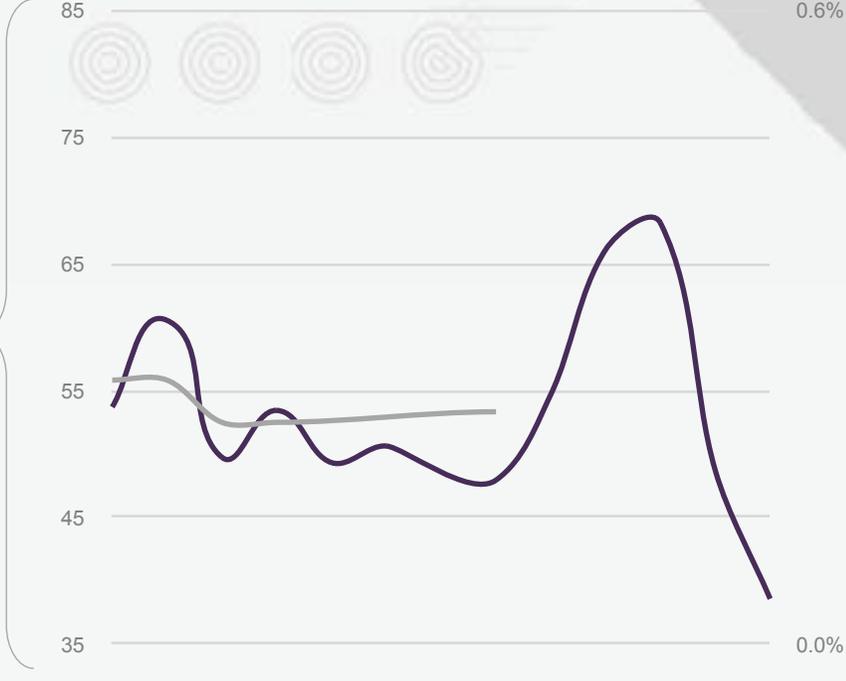
LegalShield Law Index:
Technical Appendix
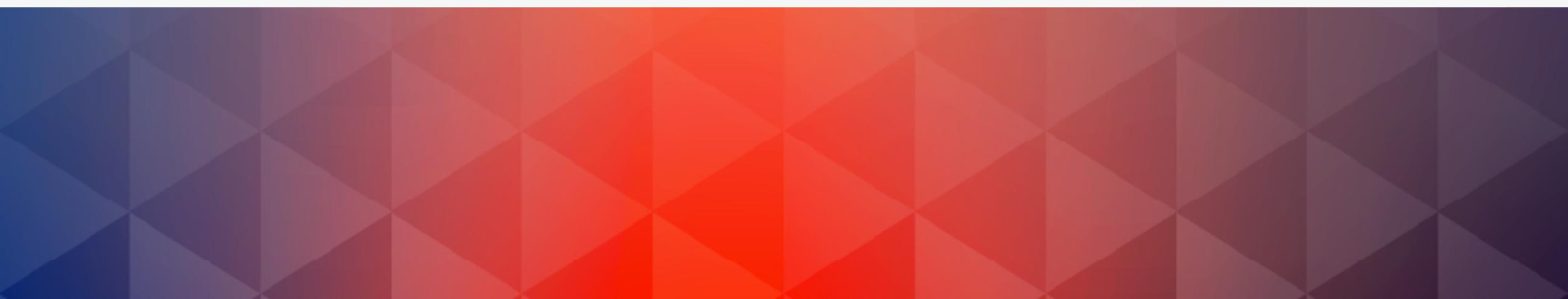
Key Findings

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.

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.

LegalShield
LAW INDEX

Methodology:
Individual Index Development

Methodology

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

1   **Construct Dataset.** Conduct preliminary data cleaning, processing, and formatting.

2   **Determine Scope of Analysis.** Examine differences across plan types and subscriber samples to determine the optimal "subscriber universe" for index development.

3   **Define Intake Metric.** Test competing approaches for normalizing intake data.

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

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

6   **Develop Indexes.** Combine specific AOLs into composite indexes and test relationships with key macroeconomic indicators.

Data Construction & Cleaning

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

Active Subscribers
Thousands
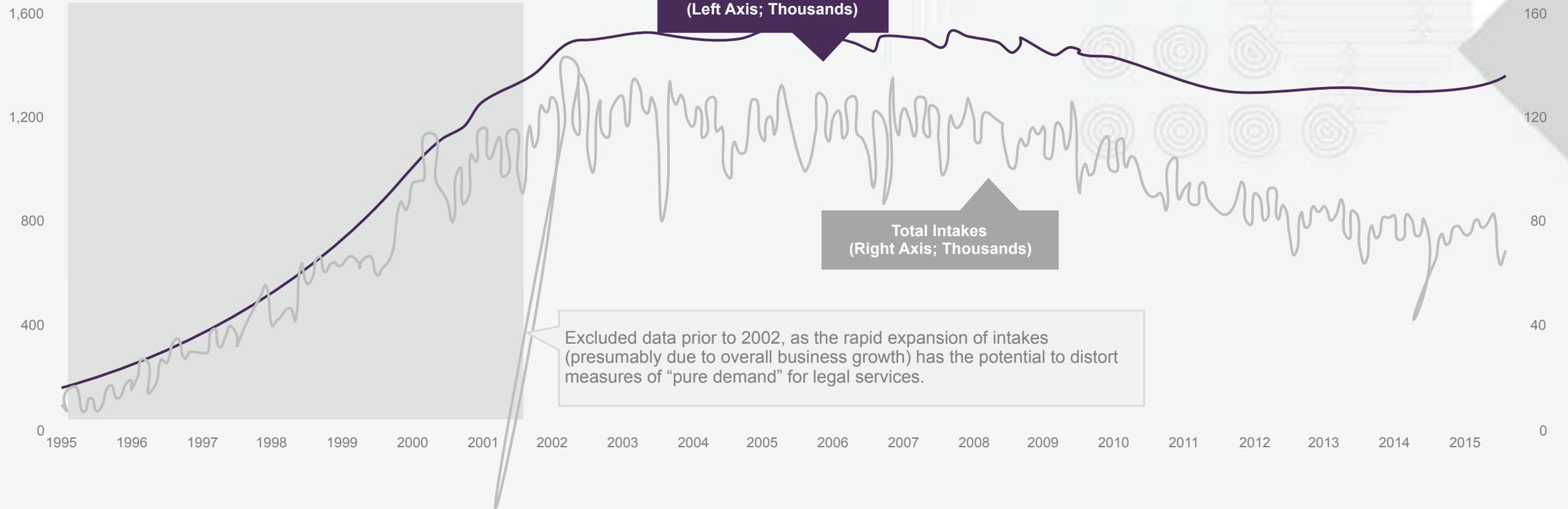
Total Intakes
Thousands

**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.

Analytical Scope

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

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

Share of Total Intakes

Share of Subscribers

Same Subscribers

n = 1,540,704

Share of Total Intakes

Share of Subscribers

Family Plan Types

All Subscribers

n = 16,583,632

Share of Total Intakes

Share of Subscribers

Same Subscribers

n = 1,516,476

Share of Total Intakes

Share of Subscribers

Business Plan Types

All Subscribers

n = 1,345,132

Share of Total Intakes

Share of Subscribers

Same Subscribers

n = 87,609

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.

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

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.

LegalShield™ LAW INDEX

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

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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	✓	⌐	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

Methodology:
Composite Index Development

Methodology

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

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

2 Transform AOLs — Compute the month-on-month percent change for each AOL.

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

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

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

Testing

Historical Trend & Leading Properties Test Results

Historical Trend & Leading Properties Results (2002 – 2016)

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

*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

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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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LAW INDEX
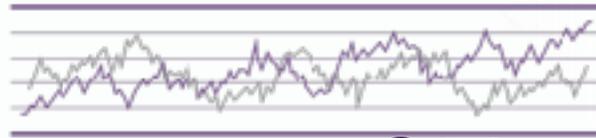
Summary of Results

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

LegalShield
LAW INDEX
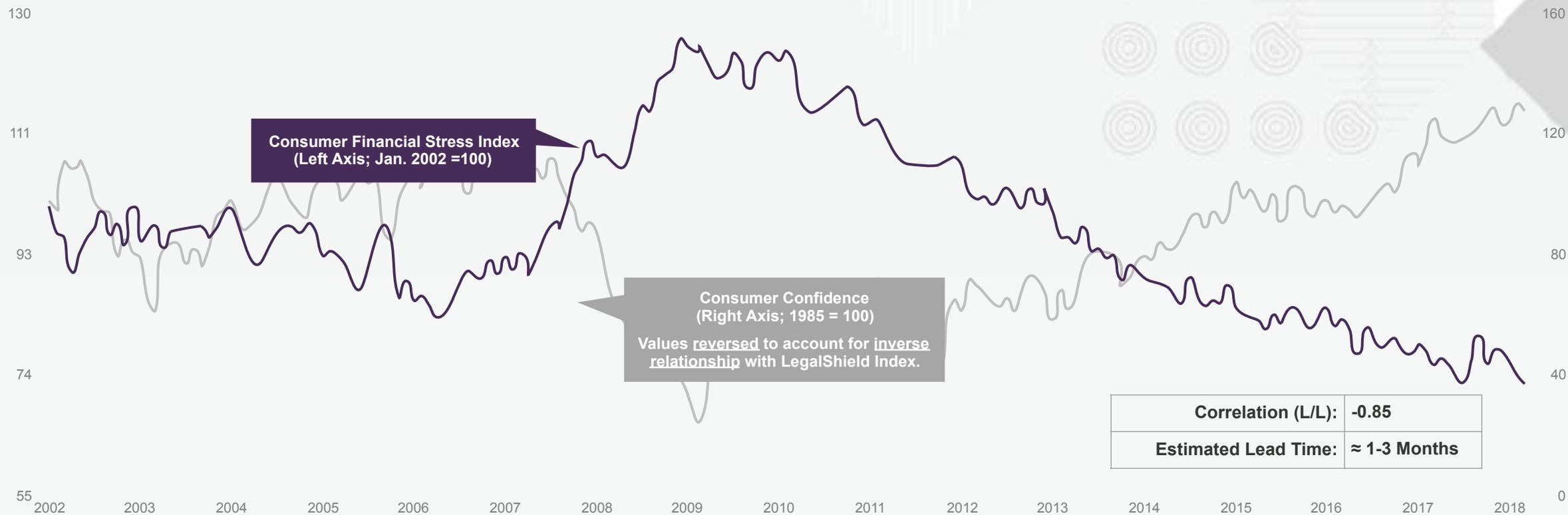
Composite Index: Housing Activity Index

AOLs: Foreclosure; Real Estate*

Legalshield Housing Activity Index
Index (January 2002 = 100)

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.

AOL: Real Estate

Target Series: Existing Home Sales

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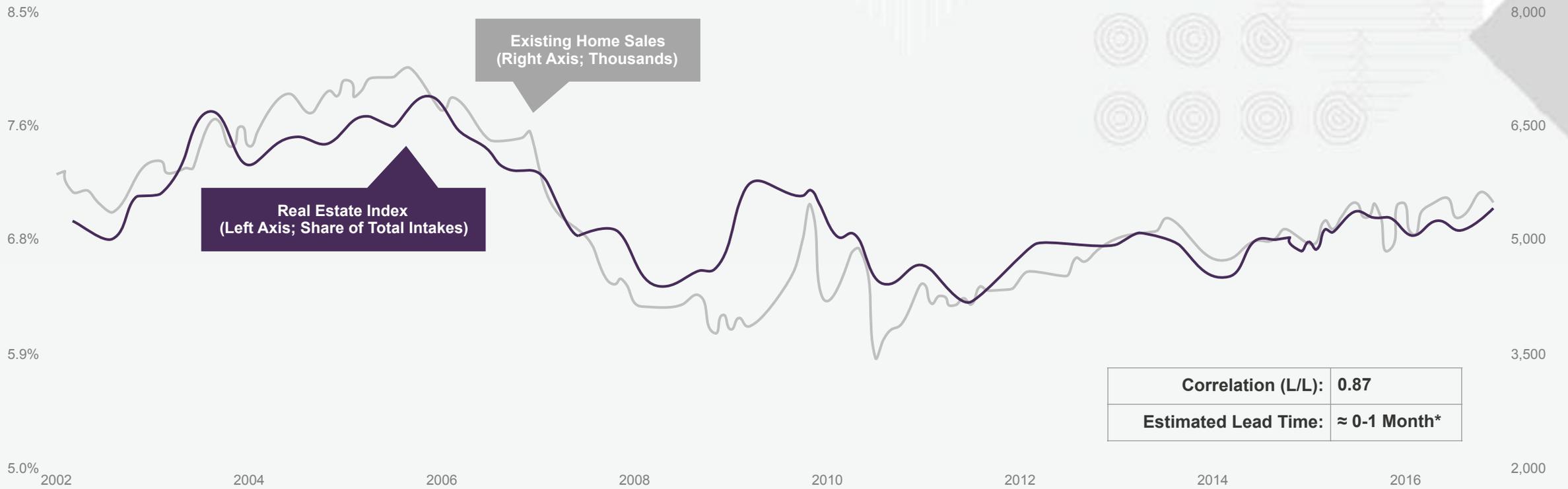
Existing Home Sales
Thousands

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.

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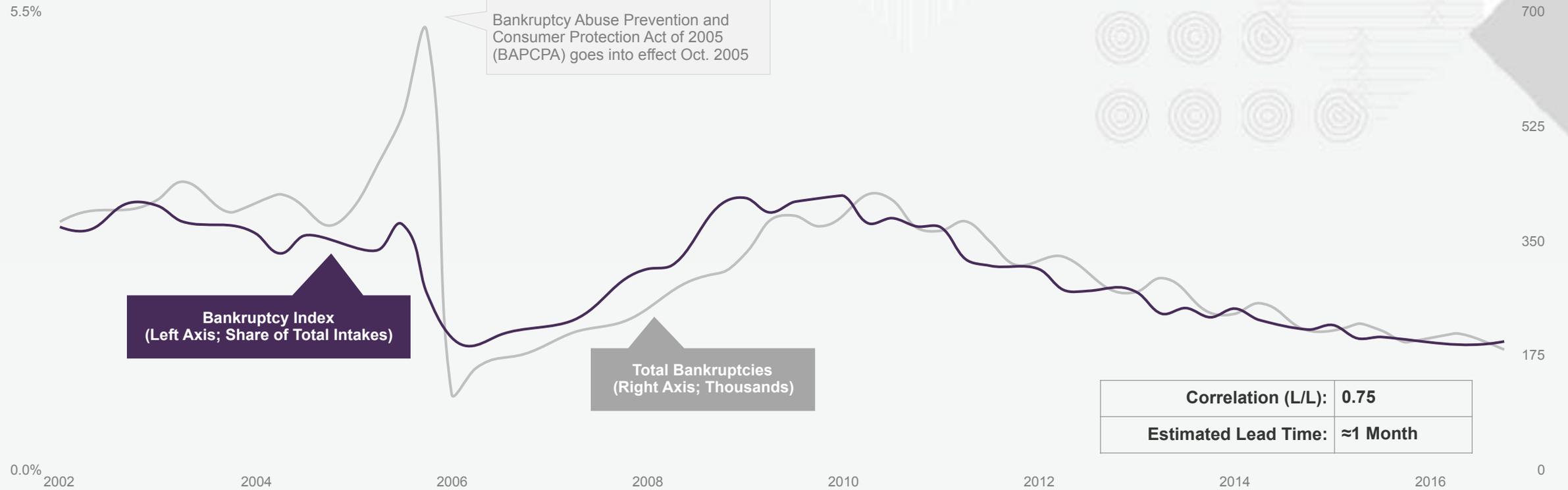
AOL: Foreclosure

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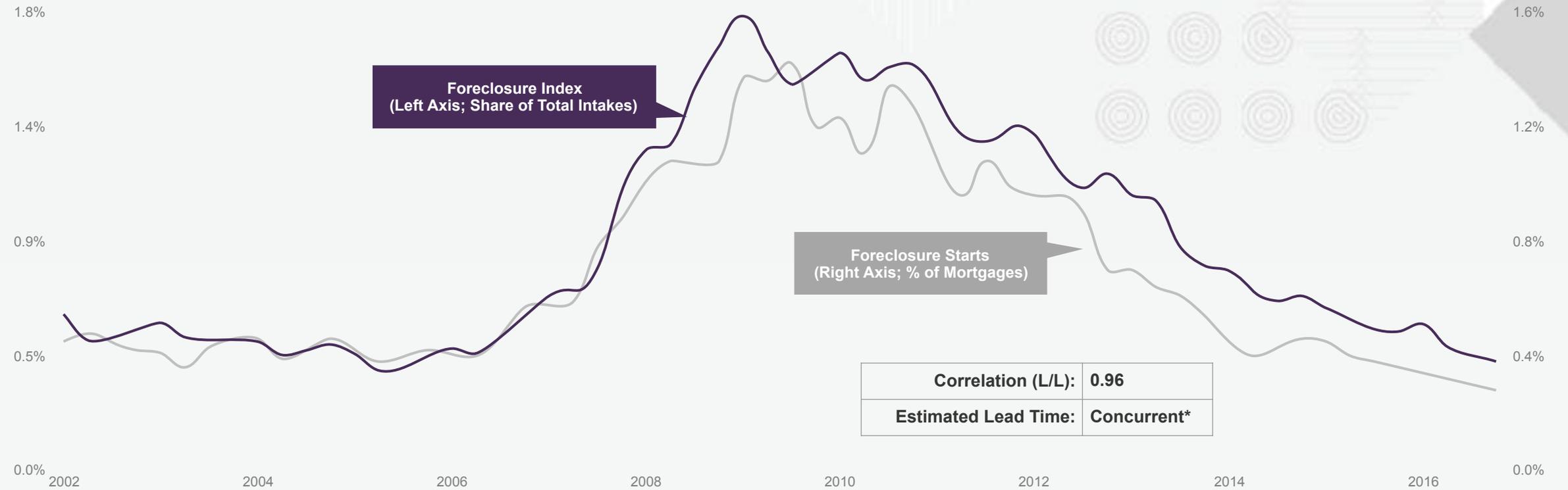
*Foreclosures starts are statistically coincident with the LegalShield Foreclosure Index, but the Index has a significant timing advantage time due to its monthly release (compared to the quarterly release of foreclosure starts).

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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