About LegalShield

#1 Provider of subscription-based legal plans to households

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

49 year history and counting

47,000 small business accounts

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

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

About the LegalShield Economic Stress Index

- ✓ The LegalShield Economic Stress Index is a suite of leading indicators of the economic and financial status of U.S. households and small businesses.

- ✓ The LegalShield Economic Stress Index is comprised of five sub-indices that are constructed from LegalShield's proprietary data, which reflect the demand for various legal services over the past 15+ years. Each time a LegalShield provider law firm receives a request from a LegalShield customer, the request is logged as an "intake" in one of roughly 70 unique areas of law (e.g., real estate) depending on the nature of the request.

- ✓ Each sub-index reflects the number of intakes in an area of law as a share of total intakes across all areas of law in a given quarter. In some instances, individual indices across multiple areas of law (e.g., bankruptcy, foreclosure, consumer/finance) are combined to produce a composite index (e.g., consumer financial stress).

- ✓ The sub-indices that comprise the LegalShield Economic Stress Index were selected because they tend to lead an existing economic indicator that sheds light on the health of the U.S. economy (i.e., the target economic indicator). In this way, the LegalShield Economic Stress Index provides actionable intelligence about the direction of the U.S. economy in the near term.

Advantages of the LegalShield Economic Stress Index

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

✓ **PROPRIETARY**
The LegalShield Economic Stress index is based on data collected through LegalShield's provider law firms in all 50 states, thereby offering information that is not accessible to the general public.
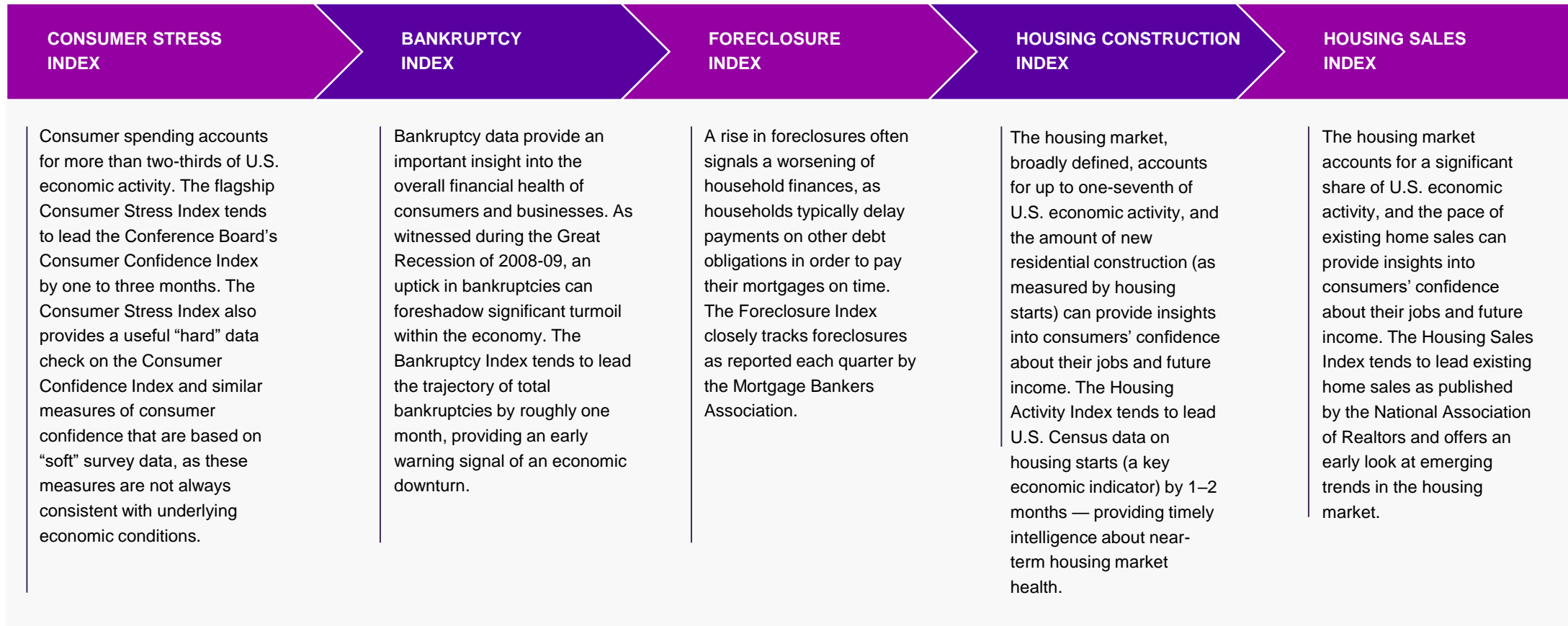
✓ **HIGH-FREQUENCY**
The LegalShield Economic Stress Index is based on data collected on a near real-time basis, and can be refreshed on a weekly, monthly, or quarterly basis depending on the user's needs.

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

Interpreting Each Component of the LegalShield Economic Stress Index

CONSUMER STRESS INDEX	BANKRUPTCY INDEX	FORECLOSURE INDEX	HOUSING CONSTRUCTION INDEX	HOUSING SALES INDEX
Consumer spending accounts for more than two-thirds of U.S. economic activity. The flagship Consumer Stress Index tends to lead the Conference Board's Consumer Confidence Index by one to three months. The Consumer 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.	Bankruptcy data provide an important insight into the overall financial health of consumers and businesses. As witnessed during the Great Recession of 2008-09, an uptick in bankruptcies can foreshadow significant turmoil within the economy. The Bankruptcy Index tends to lead the trajectory of total bankruptcies by roughly one month, providing an early warning signal of an economic downturn.	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 Foreclosure Index closely tracks foreclosures as reported each quarter by the Mortgage Bankers Association.	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 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.	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 Housing Sales 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.

Consumer Stress Index

Bottom Line: The LegalShield Consumer Stress Index improved in August after worsening in July. Though inflation and rising interest rates remain primary headwinds for consumers, consumer stress eased in August as gasoline prices fell.

Latest Reading: In August, the LegalShield Consumer Stress Index decreased (improved) 4.1 points to 60.9, while the Conference Board's Consumer Confidence Index improved 7.9 points to 103.2, recovering to its May 2022 value.

Economic Context: Consumer Confidence improved in August after worsening in June and July. Confidence was buoyed by easing gas prices, which have returned to their February level as of the first week of September. Further, while inflation continues to hamper consumers, the decline in gas prices has helped: the headline Consumer Price Index eased to +8.5% Y/Y growth, down from +9.1% Y/Y in June. The potential for further softening in CPI inflation has raised hopes that inflation has peaked, but high prices are likely to remain a headwind for consumers for the foreseeable future. One recent report found that three-quarters of consumers are adjusting their spending patterns to adapt, and the personal savings rate is at its lowest point in 13 years.

Fortunately, the labor market remains strong: the U.S. economy added 315,000 jobs in August, exceeding expectations, while the labor force participation rate jumped 0.3 percentage points. Most economists expect job growth to slow as the Fed continues to raise interest rates, but the labor market appears to be well-positioned to handle additional rate hikes. Nominal wage growth is also strong (average hourly earnings increased 5.2% Y/Y), but it continues to lag inflation, which is likely why wage satisfaction fell compared to a year ago as inflation eroded consumer purchasing power.

Despite high inflation, consumer stress eased in August largely due to easing gas prices and the continued strength of the labor market. LegalShield expects financial stress to continue to rise in the months ahead as high inflation and rising interest rates weigh on consumers but believes that consumers are generally well-positioned to handle increasing stress.

Consumer Stress Index

Historical Trend Over Past 16 Years

Consumer Confidence, Inverted
(Right Axis; 1985 = 100)

Consumer Stress Index
(Left Axis; Jan. 2002 =100)
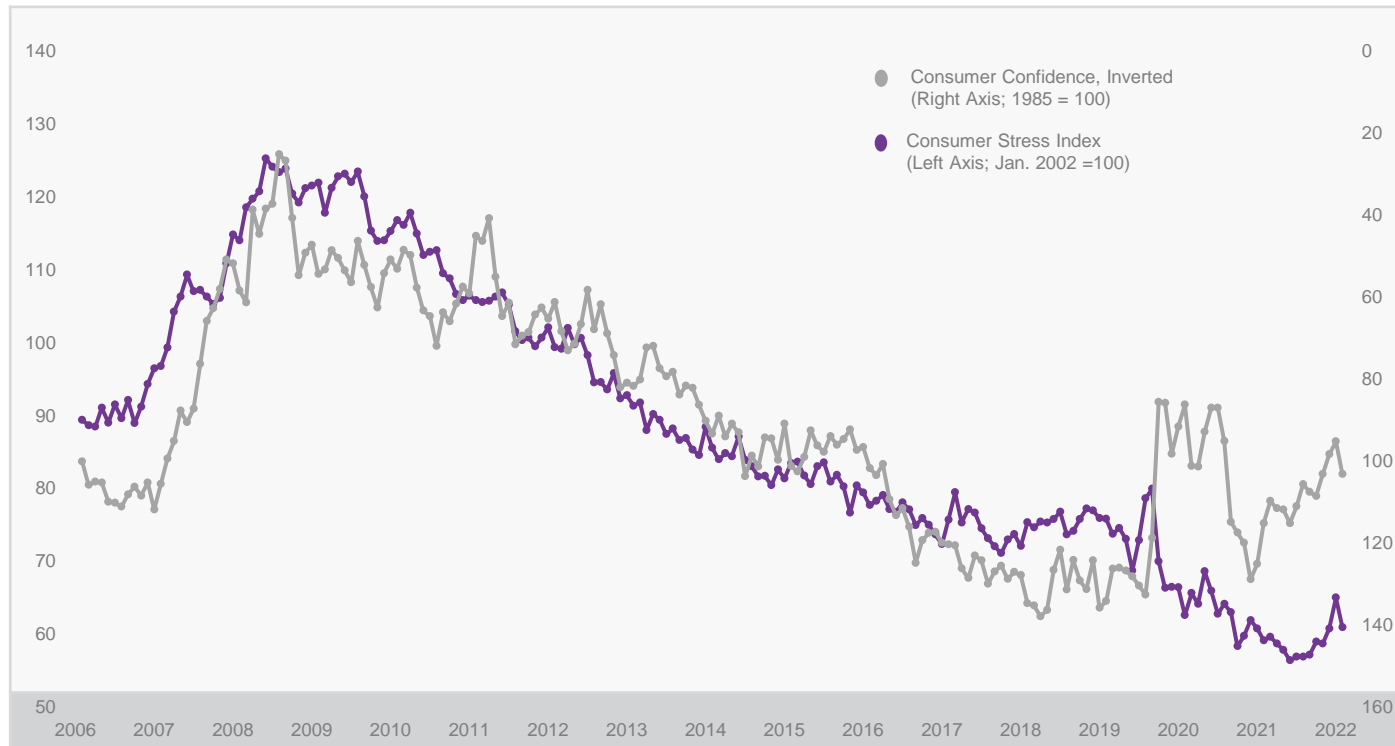
Movement Over Past 12 Months
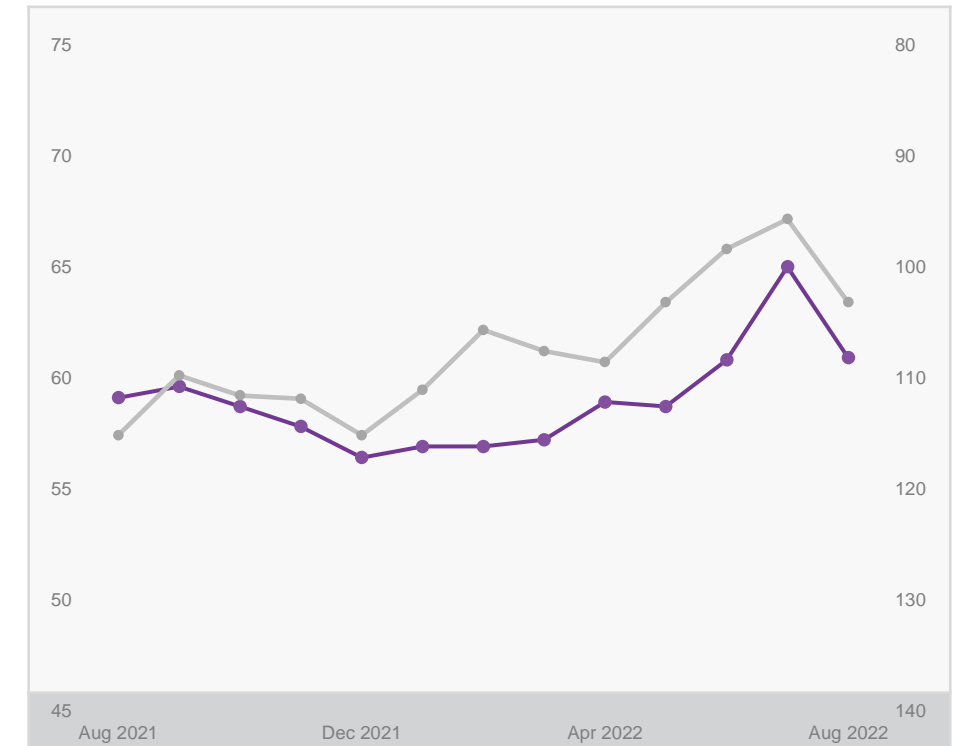
Bankruptcy Index

Bottom Line: In August, the LegalShield Bankruptcy Index eased after spiking in July. Given that the index remains well below pre-pandemic levels, bankruptcies may rise in the near term, but a sharp increase is unlikely.

Latest Reading: The LegalShield Bankruptcy Index decreased (improved) 1.6 points to 22.6 in August. In July, total seasonally adjusted bankruptcy filings rose 2.8% to 31,841, but were down 0.9% compared to a year ago.

Economic Context: Although the LegalShield Bankruptcy Index eased in August, there are signs that debt delinquencies could increase in the coming months, leading to an increase in bankruptcies. The Census Bureau's Household Pulse Survey reports that the share of consumers who are struggling to afford household expenses continues to rise: as of late August, 40% of respondents said they had either a "somewhat difficult" or "very difficult" time affording household expenses in the week prior, and more consumers are relying on credit cards to fill the gap. Revolving consumer credit outstanding has recovered to its pre-pandemic level and credit card delinquencies rose in Q2, but these developments could be explained by the credit card market normalizing after both revolving credit and delinquencies falling sharply during the pandemic. Similarly, late payments on auto loans have increased to their highest level since 2019, though auto loan defaults remain historically low.

Given the contraction in real GDP during the first half of the year, there are concerns that the U.S. economy could slip into recession later this year or early next year. If this were to occur, it would likely be coupled with rising unemployment and increased bankruptcies. For now, however, the labor market remains strong, and consumers appear to be well-positioned to handle their debt obligations.
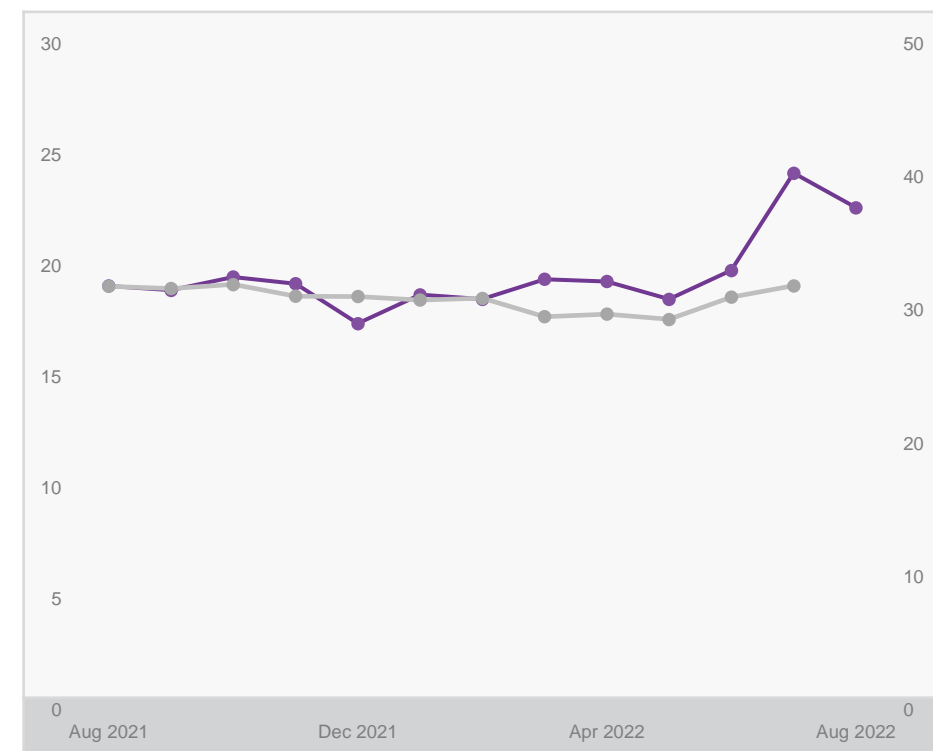
Overall, though there are some warning signs that bankruptcies could rise later this year, LegalShield data suggest that any increase is likely to be gradual.

Bankruptcy Index

Historical Trend Over Past 16 Years

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

Bankruptcy Index
(Left Axis; Jan. 2002 =100)
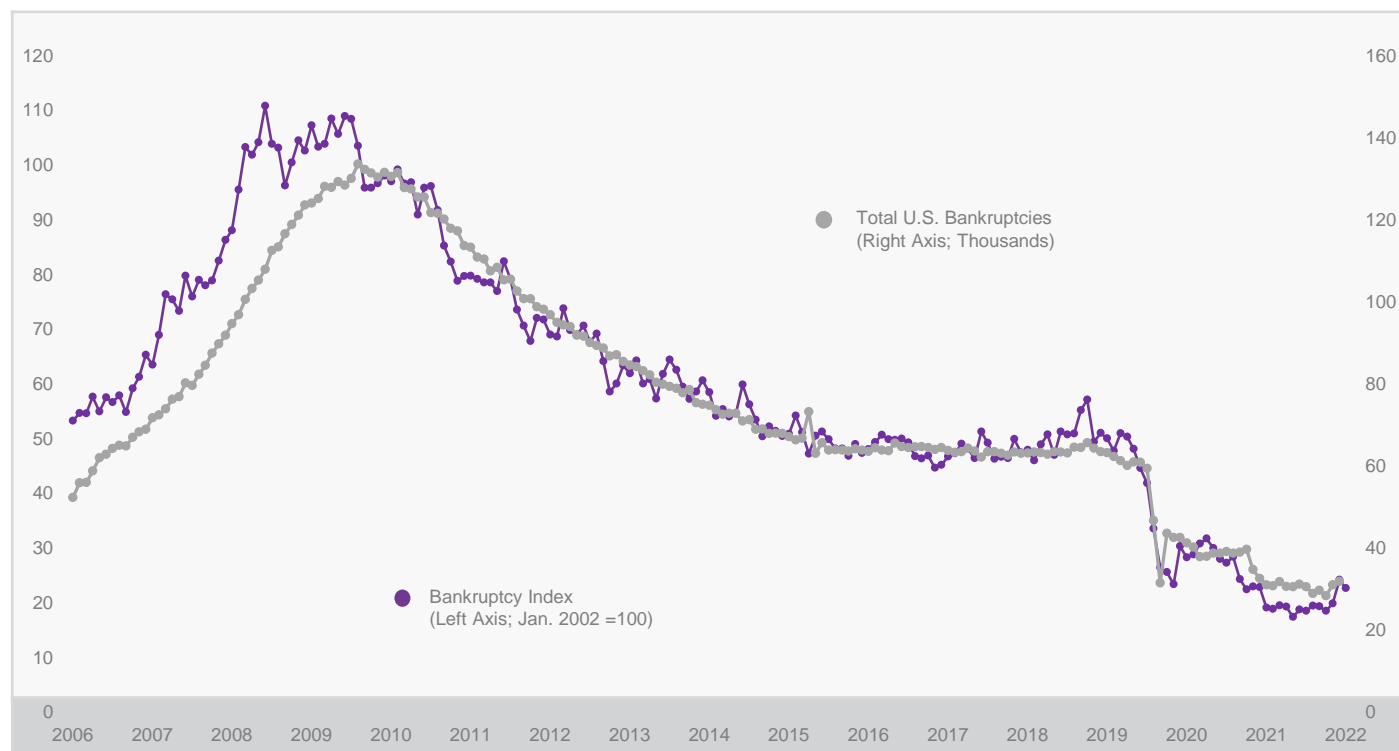
Movement Over Past 12 Months

Foreclosure Index

Bottom Line: The LegalShield Foreclosure Index improved in August to its lowest reading this year. Foreclosure activity has been gradually returning to its pre-pandemic trend after the expiration of government support but remains low by historical standards. A slow and steady normalization in foreclosure starts is expected in the months ahead.

Latest Reading: The LegalShield Foreclosure Index decreased (improved) 6.5 points to 34.7 in August after increasing in July. Meanwhile, foreclosure starts increased one basis point in Q2 to 0.18%.

Economic Context: Foreclosures remain historically low despite the expiration of the pandemic-era foreclosure moratorium. However, there are some trends that may put upward pressure on foreclosures in the coming months.

- **Pricey mortgage refinancing:** As the Federal Reserve raises interest rates, mortgage rates continue to rise making mortgage refinancing far more expensive. Indeed, according to Fannie Mae's Refinance Application-Level Index, mortgage refinance application activity was down 78% Y/Y at the beginning of September.

- **More secondary loans:** As refinancing becomes less affordable, more homeowners are reportedly turning to second loans like home equity lines of credit (HELOC's). In the first five months of 2022, HELOC's were up 50% from the prior year. These credit lines can be used to pay for big projects like home renovations or to buy more time to pay down existing debt.

- **Increase in pre-foreclosure activity:** Meanwhile, ATTOM reports that the number of "zombie properties" — properties that have been abandoned after the homeowner has defaulted on their mortgage — have increased in Q3 alongside foreclosures. The number of properties that are in pre-foreclosure has also increased in recent months, mirroring those trends.
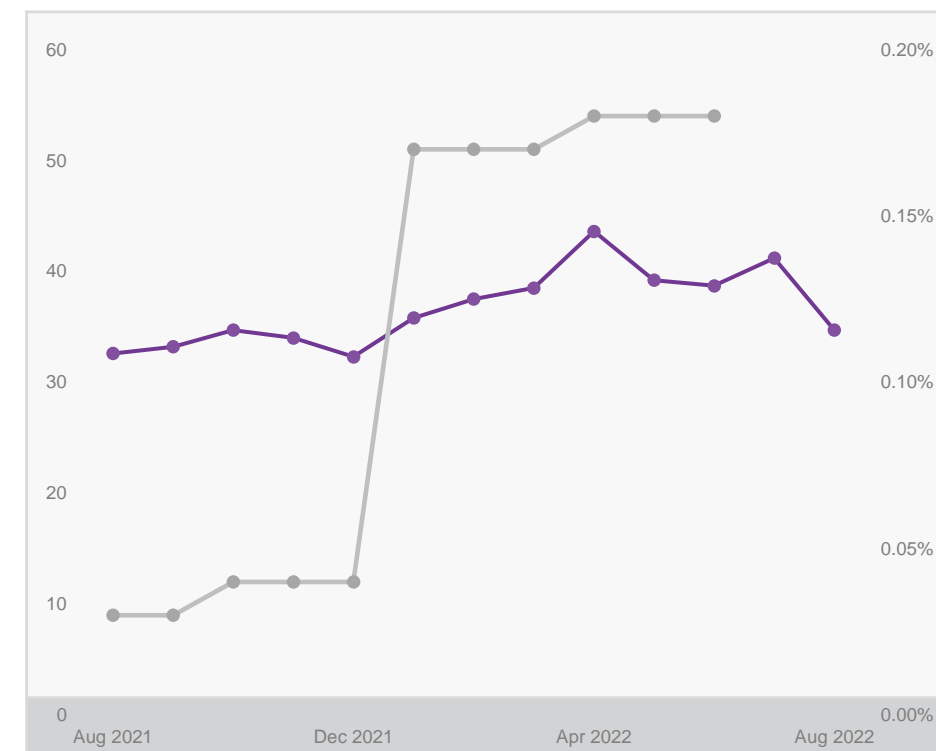
Overall, while the LegalShield foreclosure index decreased in August, LegalShield expects foreclosure activity to slowly rise in the coming months.

Foreclosure Index

Historical Trend Over Past 16 Years

- **Foreclosure Starts** (Right Axis; Percent of Mortgages)
- **Foreclosure Index** (Left Axis; Jan. 2002 =100)
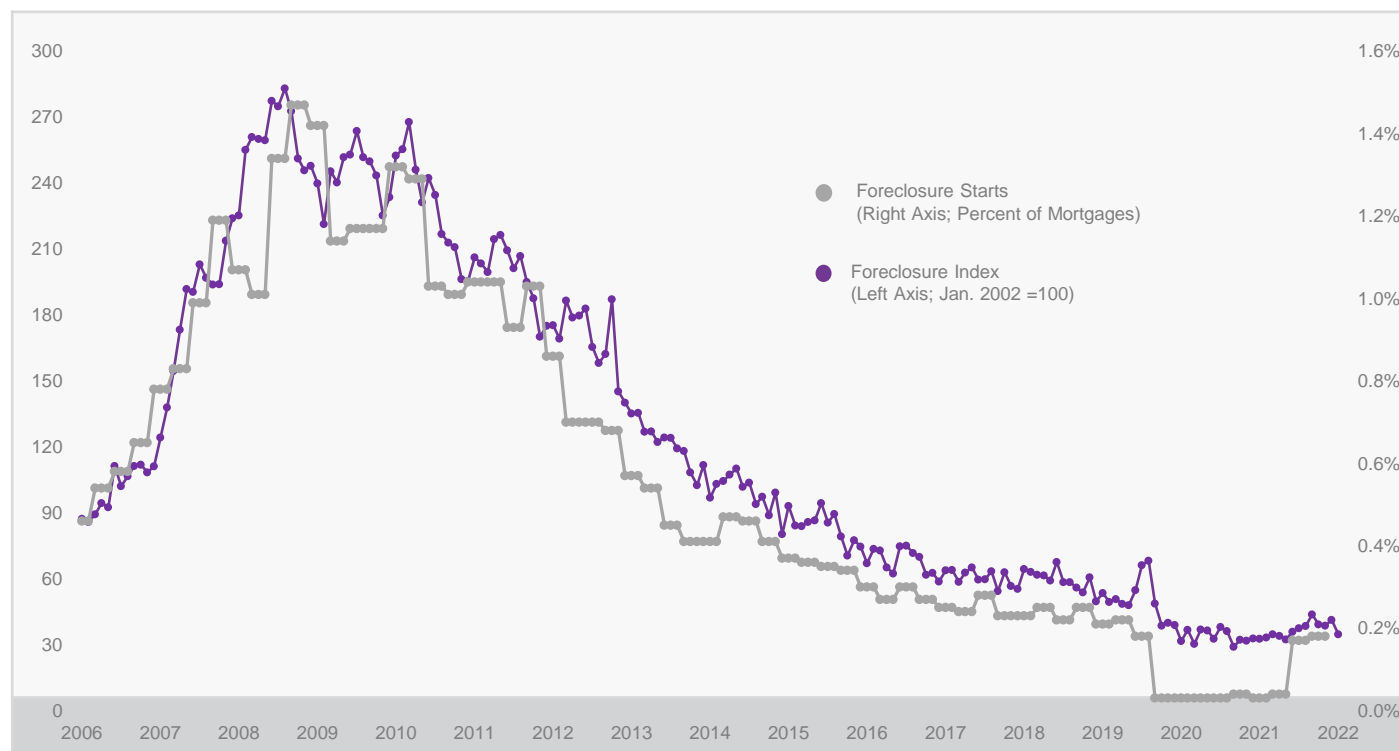
Movement Over Past 12 Months

Housing Construction Index

Bottom Line: The LegalShield Housing Construction Index improved marginally in August from its lowest level since June 2020, and it remains above pre-pandemic levels. Despite this improvement, rising interest rates and high costs of building materials are weighing on homebuilding activity.

Latest Reading: The LegalShield Housing Construction Index edged up 0.9 point to 129.2 in August. Meanwhile, housing starts decreased 7.2% M/M in July and were down 8.1% Y/Y.

Economic Context: Building activity has faced strong headwinds in recent months due to rising interest rates and ongoing supply chain problems, and high building costs. The producer price index for residential construction goods eased slightly in July, though costs remain elevated. Since July 2021, net inputs for residential construction have increased 16.0%. Further, supply chain constraints and labor shortages continue to impede construction, resulting in the backlog of homes under construction holding just shy of a record high in July. This backlog of homes awaiting completion is coupled with plunging housing permits and starts, suggesting that builders are taking on less new work as more buyers are walking away from purchasing new homes. Indeed, nearly one-in-five home builders are reducing prices to increase sales or limit cancellations in the past month.

Demand for new home construction has abruptly slowed as home sale prices and interest rates climb, and builders are growing increasingly discouraged. NAHB's Builder Confidence Index fell for the eighth consecutive month to 49 in August, the first time the index has fallen below the break-even point of 50 since May 2020. Builders reported that home-buyer traffic was the lowest since April 2014 (excluding the spring of 2020 during the partial economic shutdown).

Overall, LegalShield data suggest that construction activity will ease further in the coming months, though construction levels may not plummet thanks to the backlog of homes builders still have to work through.

Housing Construction Index

Historical Trend Over Past 16 Years

Housing Starts
(Right Axis; Thousands)

Housing Construction Index
(Left Axis; Jan. 2002 =100)
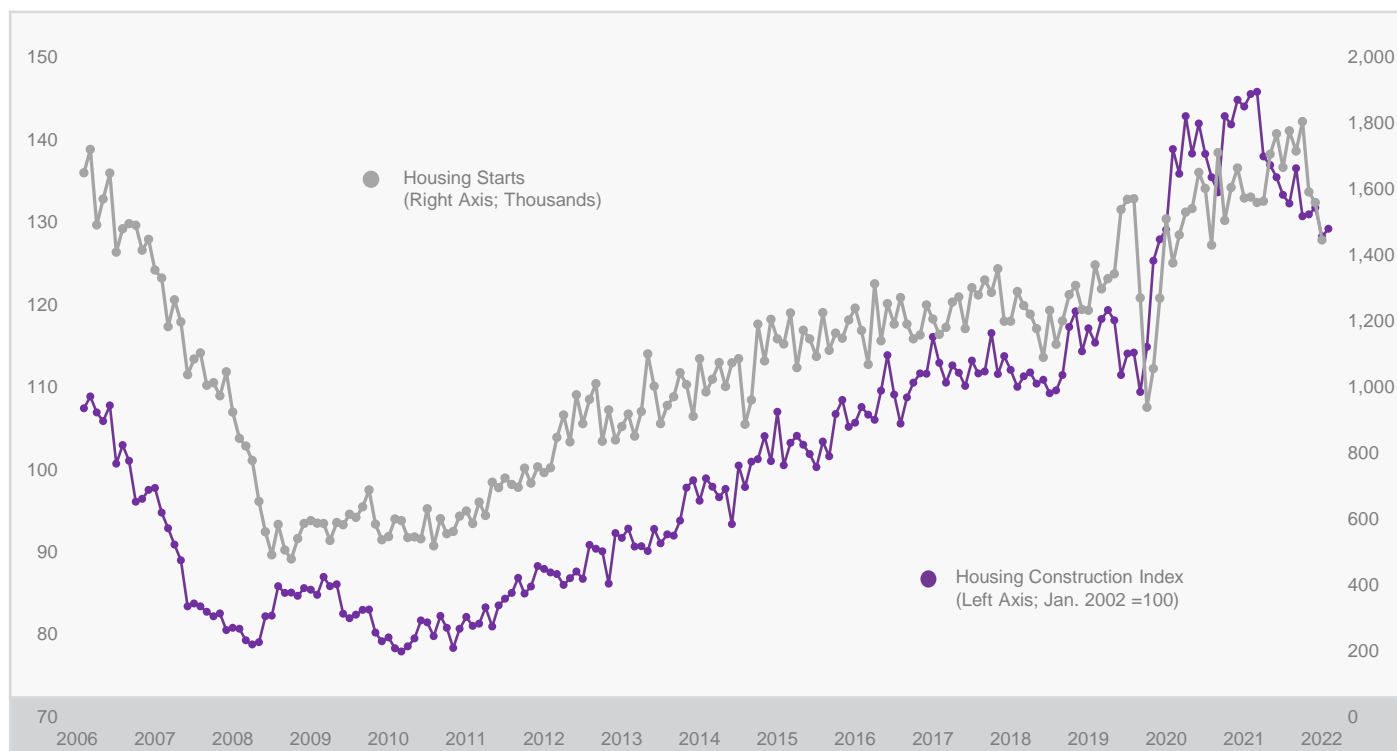
Movement Over Past 12 Months
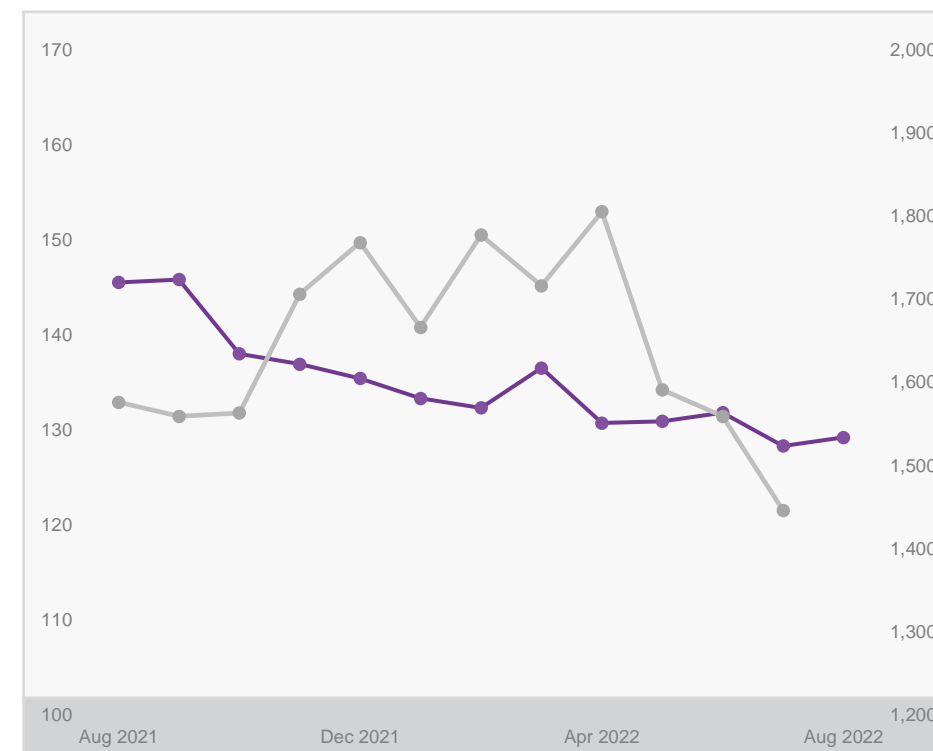
Housing Sales Index

Bottom Line: In August, the LegalShield Housing Sales Index fell to its lowest level since May 2020. As the Federal Reserve raises interest rates and home prices remain high, housing affordability is a growing concern. LegalShield data suggest that existing home sales will continue to weaken over the remainder of the year.

Latest Reading: The LegalShield Housing Sales Index decreased 3.8 points to 105.2 in August. Meanwhile, existing home sales fell 6.1% in July and are down 20.2% compared to year-ago levels.

Economic Context: Rising mortgage rates and high home prices continue to challenge to potential homebuyers.

- Home prices**:** Rising home prices decelerated in July with easing demand, though they remain a significant headwind for the market. The S&P/Case-Shiller National Home Price Index rose 18.0% Y/Y in June, decelerating to the slowest rate since May 2021, while the median existing-home sales price in July eased slightly from the prior month to $403,800, according to NAR.

- Mortgage rates**:** The Fed's efforts to combat inflation have pushed the average 30-year fixed-rate mortgage to nearly 6%. Mortgages will likely become even more expensive in the coming months given the high likelihood of further Fed rate hikes.

Affordability concerns have dampened buyer demand. Existing home sales decreased for the sixth straight month in July, while Fannie Mae's Home Purchase Sentiment Index (which considers buyer perceptions and market expectations) fell 13.7 points year-over-year due to worsening sentiment among both buyers and sellers. In response, many would-be buyers are opting to continue renting instead of purchasing a home: the median mortgage payment rose to 1.4 times the median asking rent in Q2, disincentivizing renters from buying. Notably, slowing home sales have boosted the inventory of unsold homes, which could ease some of the upward pressure on home prices.

Affordability concerns remain a major headwind facing the real estate market and are the primary reason LegalShield expects existing home sales to remain weak in the coming months.

Housing Sales Index

Historical Trend Over Past 16 Years

Existing Home Sales
(Right Axis; Thousands)

Housing Sales Index (Seasonally Adjusted)
(Left Axis; Jan. 2002 =100)
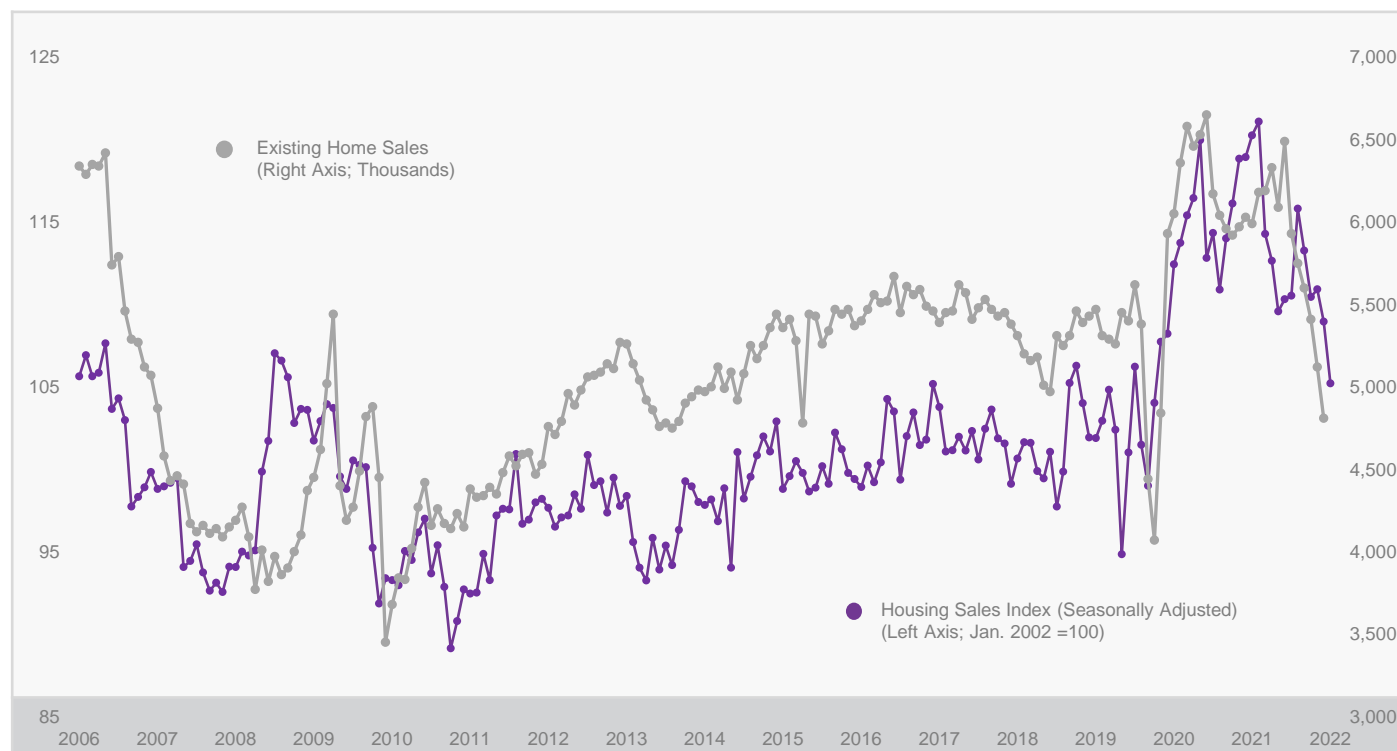
Movement Over Past 12 Months
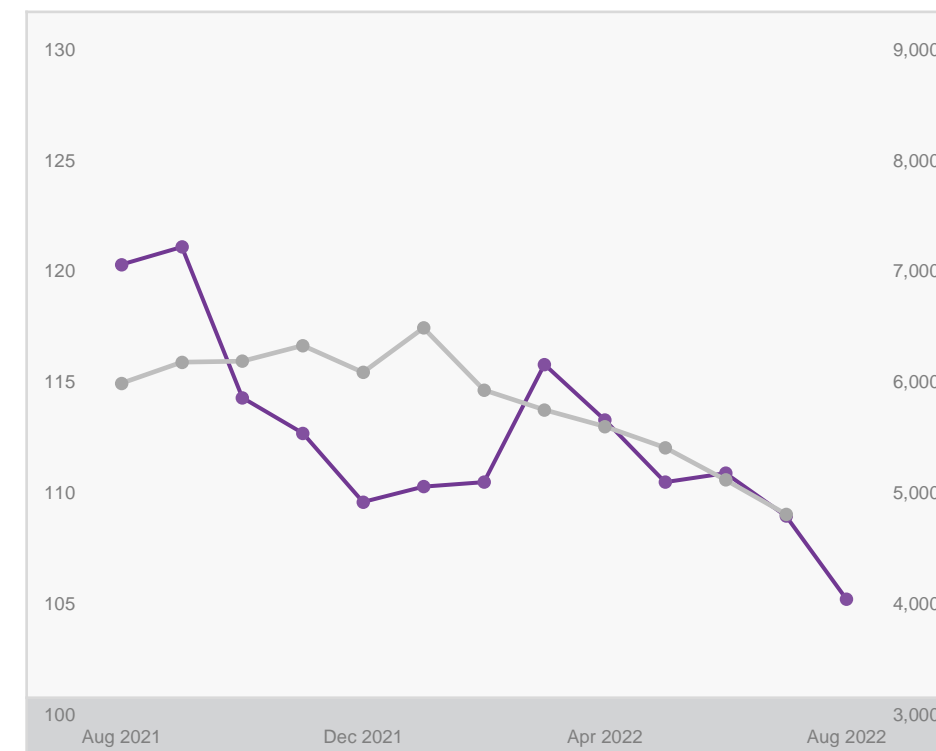
Technical Appendix

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	✓	≈ 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

LegalShield "Housing Construction" Index

✓ **Component AOLs:** (1) Bankruptcy; (2) Consumer/Finance; (3) Foreclosure

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

✓ **Target Indicator:** Consumer Confidence

✓ **Target Indicator:** Housing Starts

✓ **Performance:** -0.85 Correlation; 1-3 Month Lead

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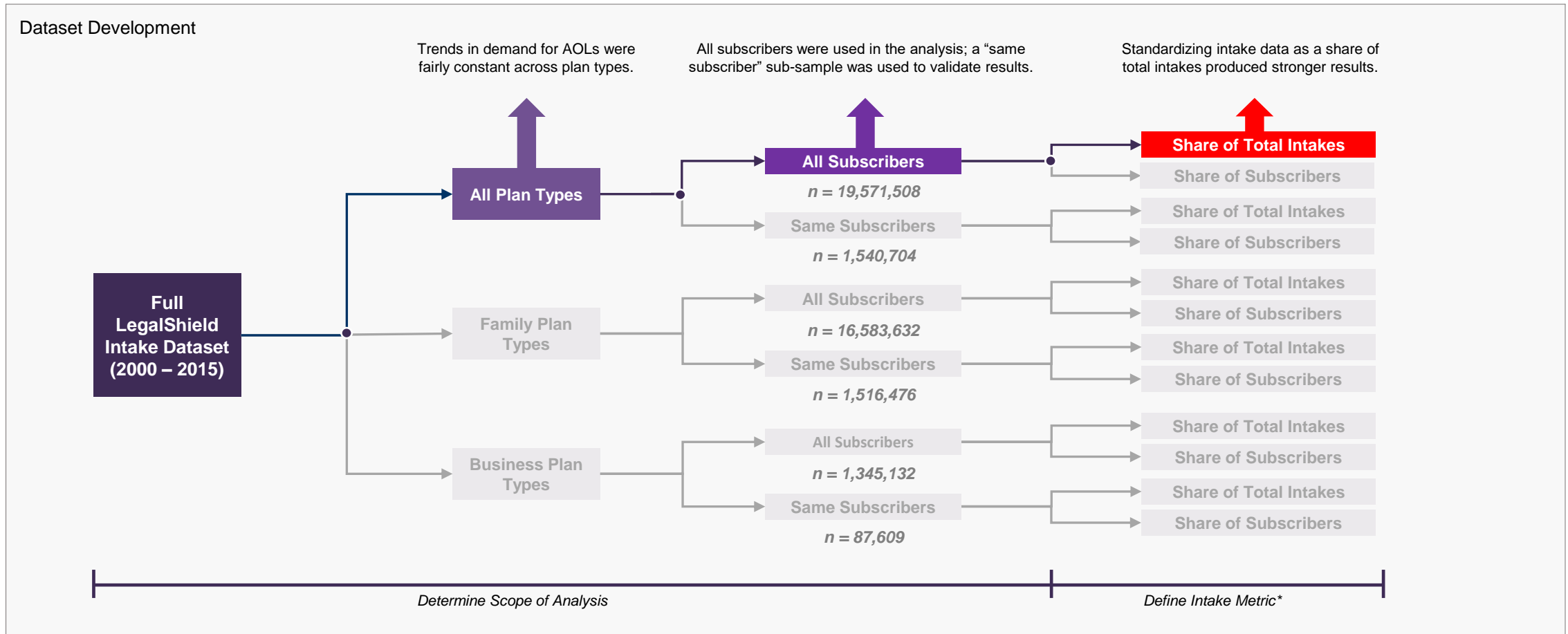Combine specific AOLs into composite indexes and test relationships with key macroeconomic indicators.

Data Construction & Cleaning

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

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.
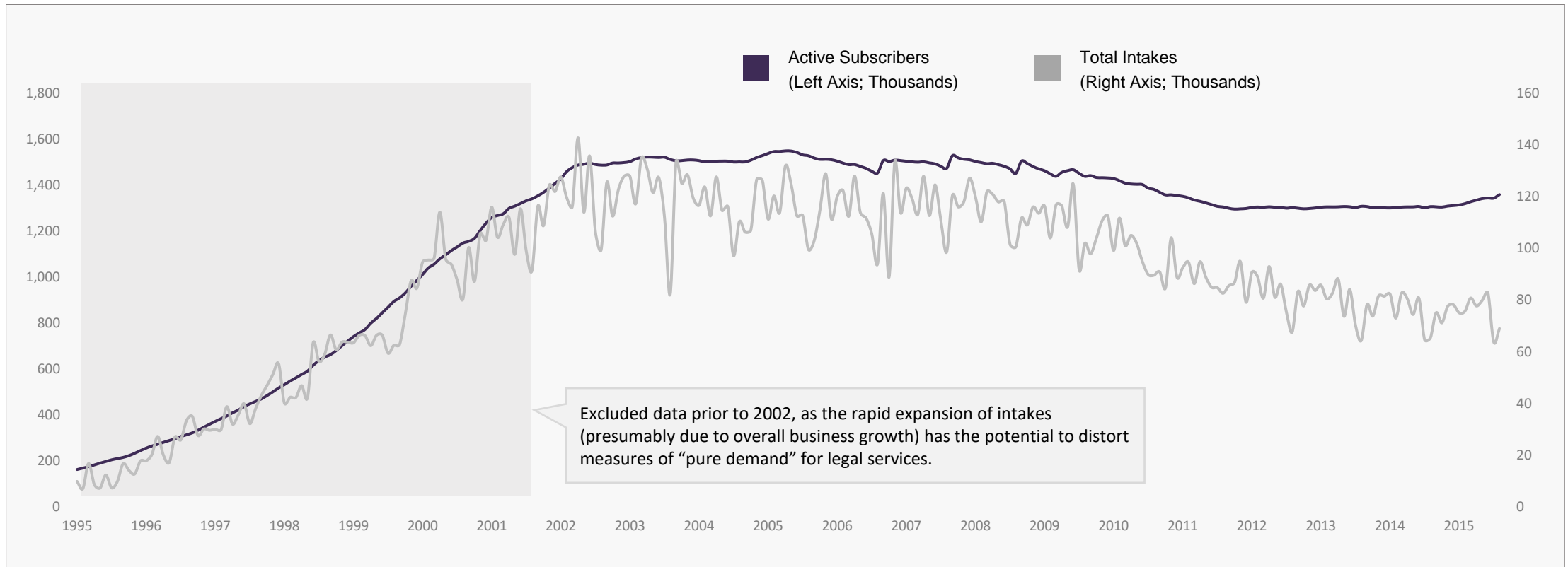
Analytical Scope

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

Same Subscribers
n = 1,540,704

Family Plan Types

All Subscribers
n = 16,583,632

Same Subscribers
n = 1,516,476

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

Share of Total Intakes
Share of Subscribers
Share of Total Intakes
Share of Subscribers

Share of Total Intakes
Share of Subscribers
Share of Total Intakes
Share of Subscribers

Determine Scope of Analysis

Define Intake Metric*

*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.

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

Filter 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	-	✓	✓	✓
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. 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)

Testing

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

Scoping Intake Data

1   **27 SCOPED AOLS:** 27 AOLs were subjected to several rounds of statistical testing.

2   **STATISTICAL RELATIONSHIP:** Test for correlation across various transformations.

3   **TRACKING HISTORICAL TREND:** Visually assess AOL to determine how closely it tracks its target indicator.

4   **LEADING PROPERTIES:** Test for leading / concurrent properties.

5   **ROBUST ACROSS TIME:** Confirm that relationships hold across various out-of-sample time periods.

Testing

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

1 **BASIC COORELATIONS:**
- 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

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	✓	✓	≈ 1 mo.*

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

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 Stress	Consumer Confidence	✓	✓	1 - 3 mo.
Housing Construction	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.

Testing

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

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 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)
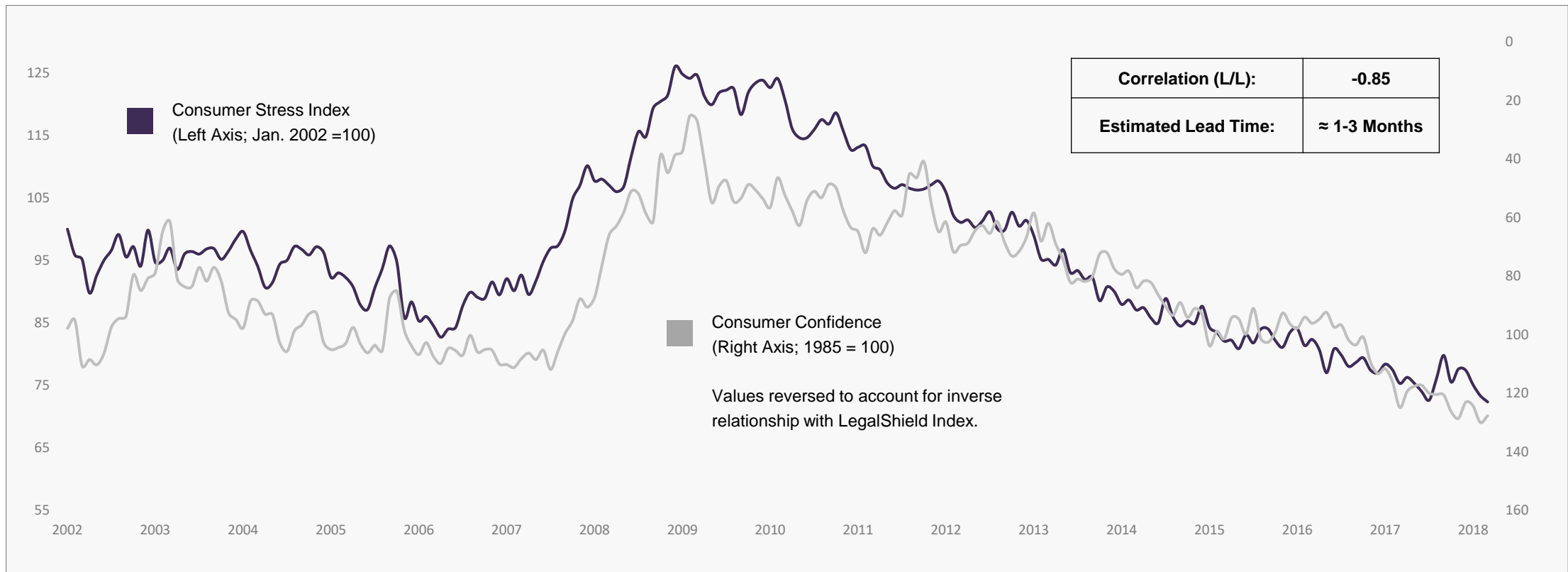
Test 2: Compared correlations between random samples of the data

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
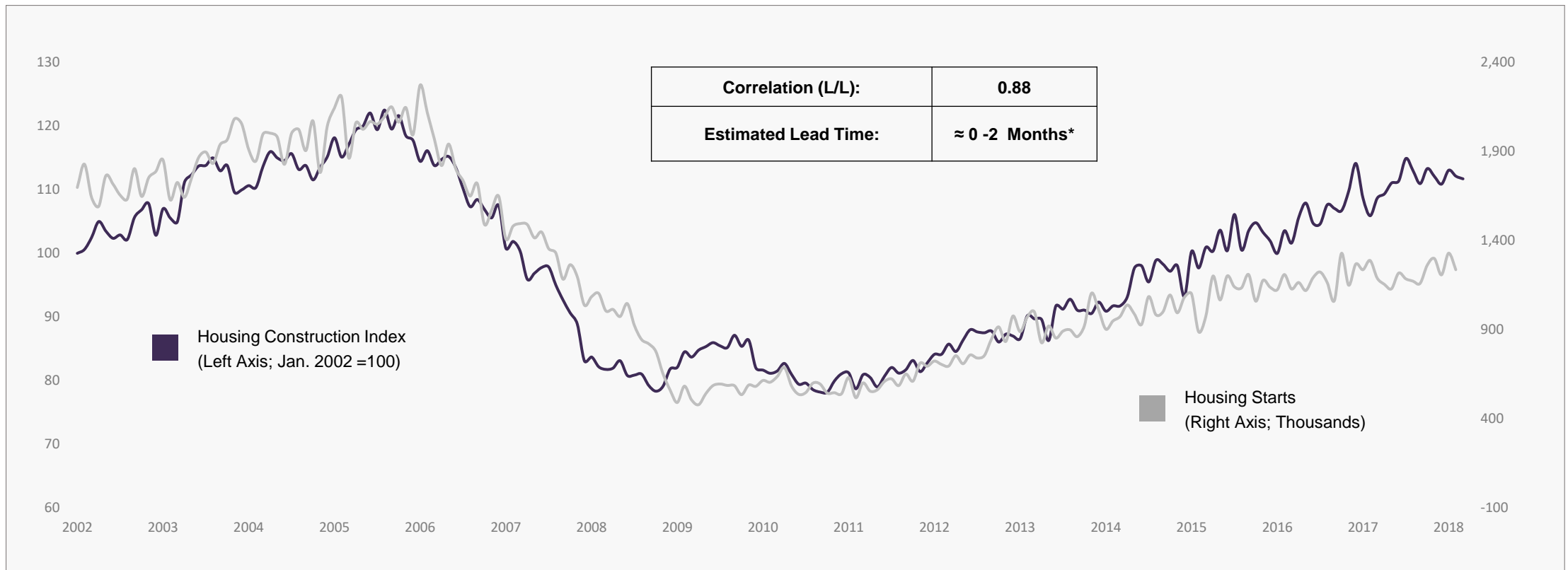
Composite Index: Consumer Stress

AOLs: Bankruptcy; Foreclosure; Consumer Finance

Correlation (L/L):	-0.85
Estimated Lead Time:	≈ 1-3 Months

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

■ Consumer Confidence
(Right Axis; 1985 = 100)

Values reversed to account for inverse relationship with LegalShield Index.

Composite Index: Housing Construction Index

AOLs: Foreclosure; Real Estate*

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

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

Housing Starts
(Right Axis; Thousands)
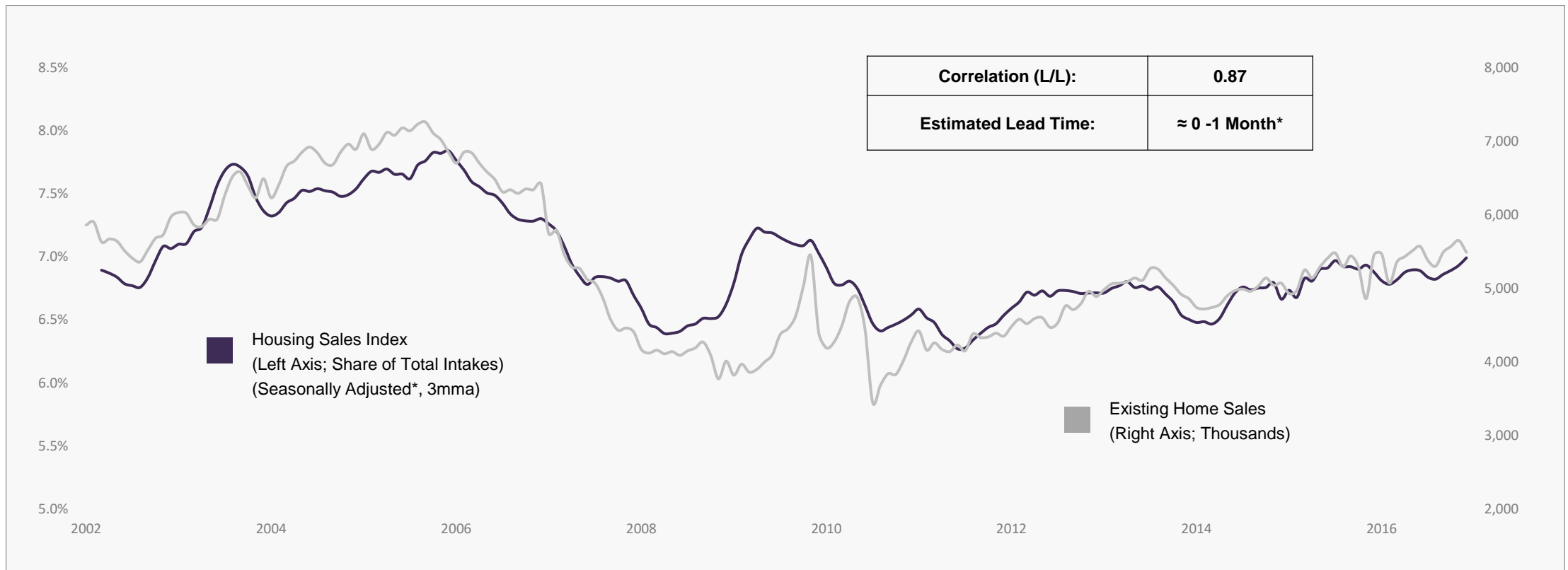
*The Housing Construction Index component of the Housing Activity Index was seasonally adjusted using the Census Bureau's X-13 ARIMA-SEATS Seasonal Adjustment Program. In addition to its statistical lead time, the Index has a timing advantage over housing starts of roughly a week due to release schedules.
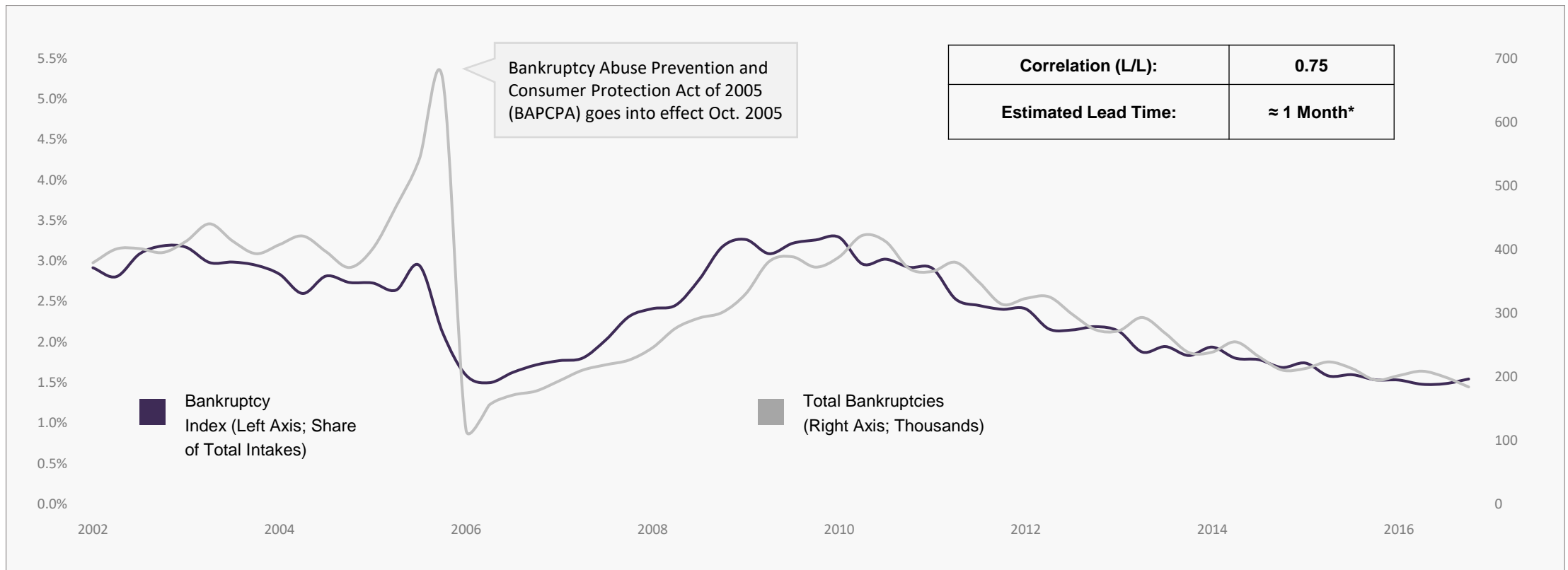
AOL: Real Estate

Target Series: Real Estate*

Correlation (L/L):	0.87
Estimated Lead Time:	≈ 0 -1 Month*

Housing Sales Index
(Left Axis; Share of Total Intakes)
(Seasonally Adjusted*, 3mma)

Existing Home Sales
(Right Axis; Thousands)

*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.
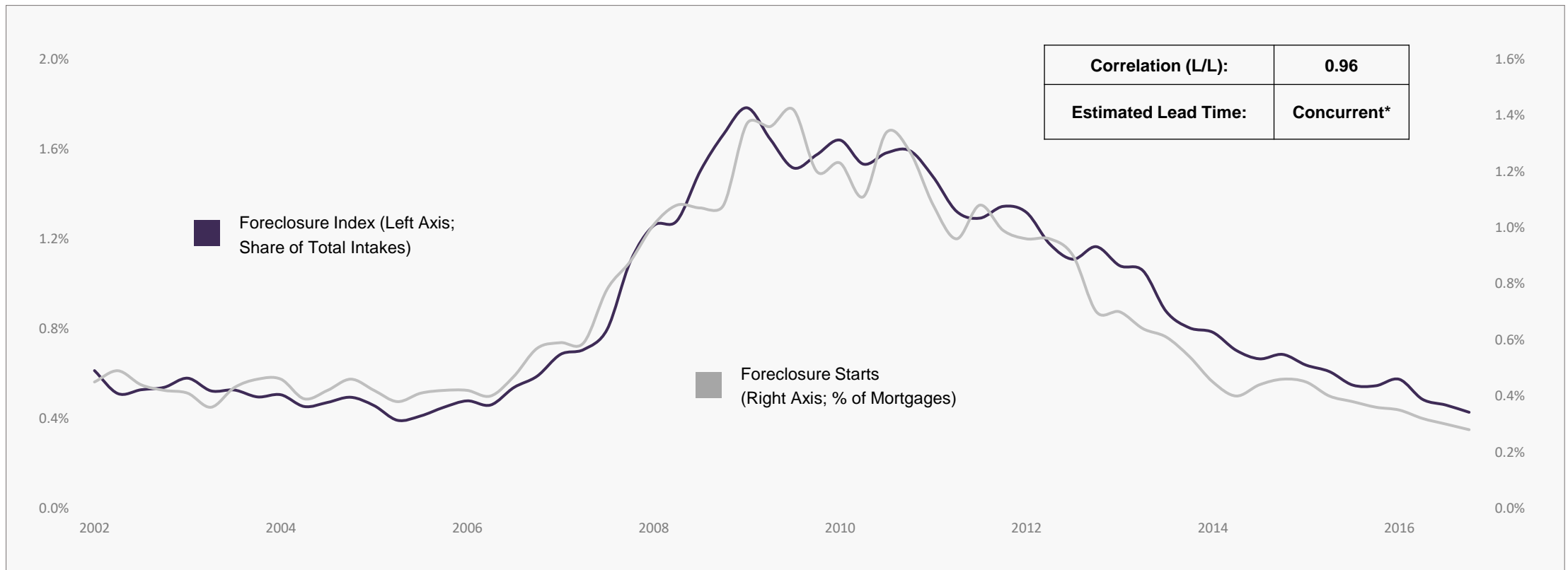
AOL: Bankruptcy

Target Series: Consumer Bankruptcies

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

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

Bankruptcy Index (Left Axis; Share of Total Intakes)

Total Bankruptcies (Right Axis; Thousands)

AOL: Foreclosure

Target Series: Foreclosure Starts

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

Foreclosure Index (Left Axis; Share of Total Intakes)

Foreclosure Starts (Right Axis; % of Mortgages)

*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*	✓+
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.*	✓