ITR ECONOMICS

EVP FLEX™

June 2019

Company A

A RECOVERY   B ACCELERATING GROWTH   C SLOWING GROWTH   D RECESSION
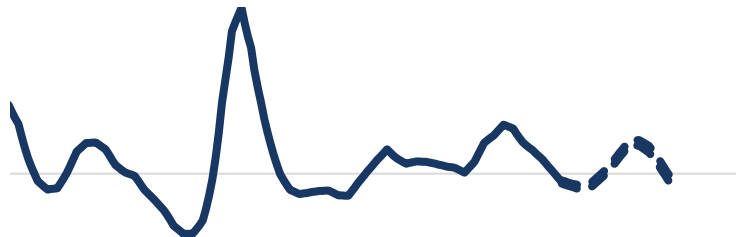
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www.itrondemand.com

Company A Outlook

Company A Recent Results and Forecast			
	Annual Sales (12MMT)	Growth Rate (12/12)	Business Cycle Phase
Data through March 2019	$8.5 million	-7.5%	D
Year-End 2019	$8.2 million	-10.3%	A
Year-End 2020	$10.5 million	28.2%	B
Year-End 2021	$10.1 million	-3.4%	D

Expected Impact of Economic Trends on Company A

- This section of the report will include important economic trends that are expected to impact the company during the agreed upon forecast period.
- We are likely to include impacts related to both the overall macroeconomy and markets of particular interest to the company.

Company A Forecast

- This section of the report will summarize important information about the company forecast.
- Some examples of included information are as follows: direction of the forecast, whether or not we made any changes to the forecast, or information received from the company that would impact the forecast.

Management Objectives™

- This section of the report will include actionable insights from our economists that are designed to help your business make practical and profitable business decisions.
- These management objectives are specifically tailored to the company.

Indicator Signals for Company A

Indicator	Jun-19	Sep-19	Dec-19	Mar-20	Year-End 2020	Year-End 2021	Timing
Company A Sales	D	D	A	A	B	D	N/A
Example Index	C	C	C	D	B	C	0
Example Index	C	C	D	D	N/A	N/A	10
Example Index	C	C	D	D	B	C	3
Example Index	C	C	N/A	N/A	N/A	N/A	9
Example Index	C	N/A	N/A	N/A	N/A	N/A	5

Note: The table above depicts what each of the included indicators is signaling for your business and considers the relevant timing relationship. Each of these indicators gives evidence regarding the likely trajectory of your business. This table gives a quick overview of what those signals mean for your company. For example, if US Industrial Production normally leads your business by 12 months and is expected to be in Phase C as of December 2019, then the table would show "C" in the Year-End 2020 column.

Macroeconomic Trends Overview

- This section of the report is meant to summarize important trends in the overall economy.

Key Trends in Other Indicators

- This section of the report includes important information about topics such as vertical markets, prices, or interest rates that should be key takeaways for the reader.

Company A Sales

Millions of $

	Mar-19	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22
Lower Forecast Range	-7.5	-11.9	-14.6	-12.3	-4.6	3.6	15.2	26.1	25.3	19.2	7.3	-6.4	-12.0
Annual Growth Rate (%)	**-5.6**	**-10.4**	**-12.6**	**-10.3**	**-2.6**	**5.6**	**17.2**	**28.2**	**27.8**	**22.2**	**10.3**	**-3.4**	**-9.0**
Upper Forecast Range	-4.5	-8.9	-10.6	-8.3	-0.6	7.6	19.2	30.3	30.3	25.2	13.3	-0.4	-6.0
Actual	**-7.5**												
Lower Forecast Range	8.5	8.3	8.0	8.0	8.3	8.7	9.5	10.3	10.6	10.6	10.3	9.8	9.5
Annual Sales (Millions of $)	**8.7**	**8.4**	**8.2**	**8.2**	**8.4**	**8.9**	**9.6**	**10.5**	**10.8**	**10.8**	**10.6**	**10.1**	**9.8**
Upper Forecast Range	8.8	8.5	8.4	8.3	8.6	9.0	9.8	10.6	11.0	11.1	10.9	10.4	10.1
Actual	**8.5**												
Quarterly Sales (Millions of $)	**2.0**	**2.2**	**1.9**	**2.1**	**2.3**	**2.6**	**2.6**	**2.9**	**2.6**	**2.7**	**2.4**	**2.4**	**2.3**
Actual	**1.8**												

Outlook:

- This section of the report serves as a written summary of our forecast expectations for the company.

Results:

- This section of the report will discuss the movement of the latest company data in comparison to the forecast.
- If the forecast is changed, this section will typically highlight the reason for the change and information about the significance of the revision.

Supporting Evidence:

- This section of the report summarizes the most compelling evidence in support of the forecast provided above.
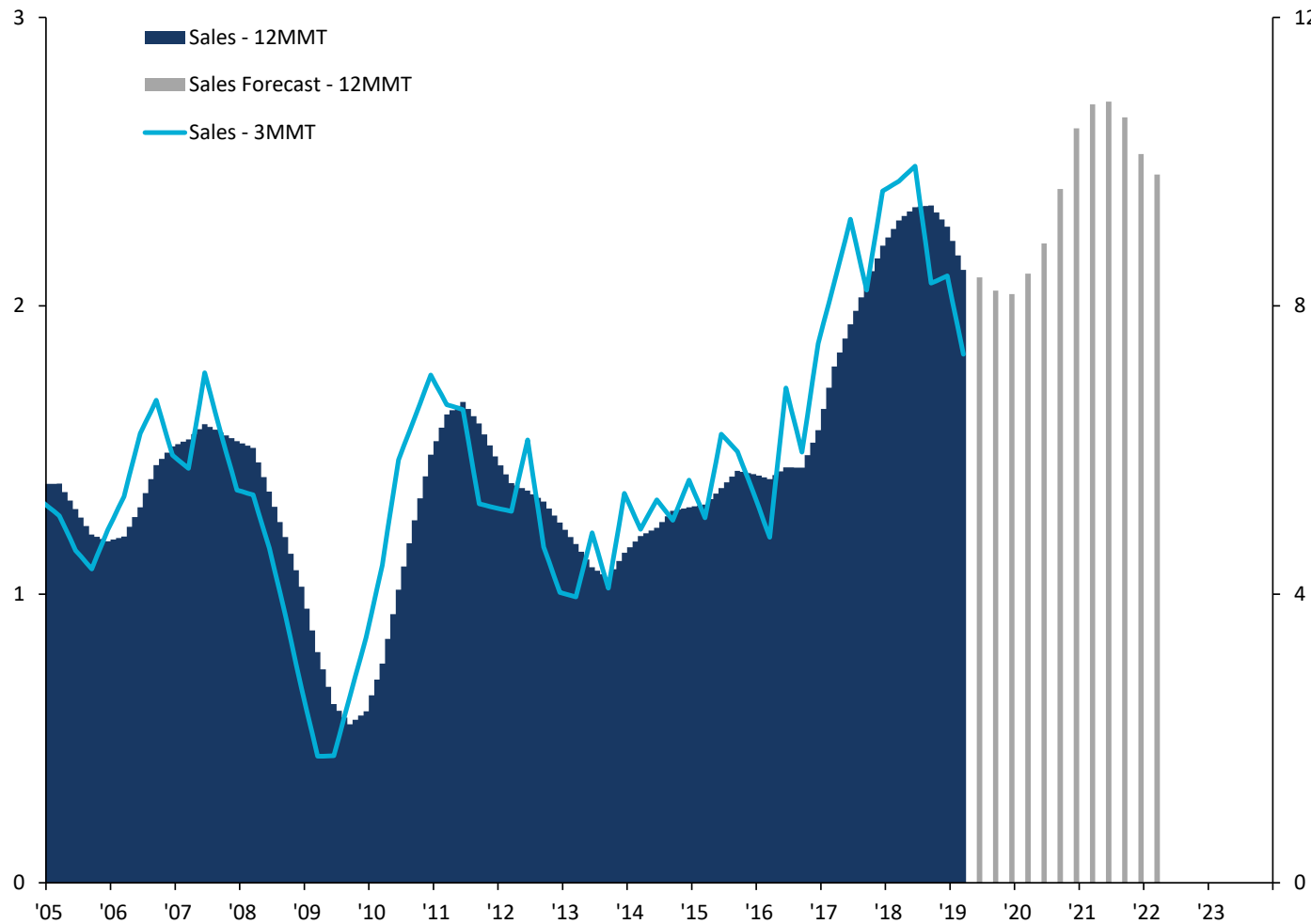
Risks:

- This section of the report summarizes the most important risks to the forecast that the client of which the client should be aware.
- Risks to the forecast listed in this section can be both positive and negative.

Company A
Data Trends, Millions of $

3MMT **12MMT**

QUARTERLY SALES (3MMT)

$1.8 million

ANNUAL SALES (12MMT)

## $8.5 million

OUTLOOK

This section includes a brief written description of the company forecast to accompany the chart to the left and the numerical values below.

Legend:
- Sales - 12MMT
- Sales Forecast - 12MMT
- Sales - 3MMT

	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22
Lower Forecast Range	8.3	8.0	8.0	8.3	8.7	9.5	10.3	10.6	10.6	10.3	9.8	9.5
Annual Sales (Millions of $)	**8.4**	**8.2**	**8.2**	**8.4**	**8.9**	**9.6**	**10.5**	**10.8**	**10.8**	**10.6**	**10.1**	**9.8**
Upper Forecast Range	8.5	8.4	8.3	8.6	9.0	9.8	10.6	11.0	11.1	10.9	10.4	10.1

Company A
Rates-of-Change

PHASE

D — RECESSION
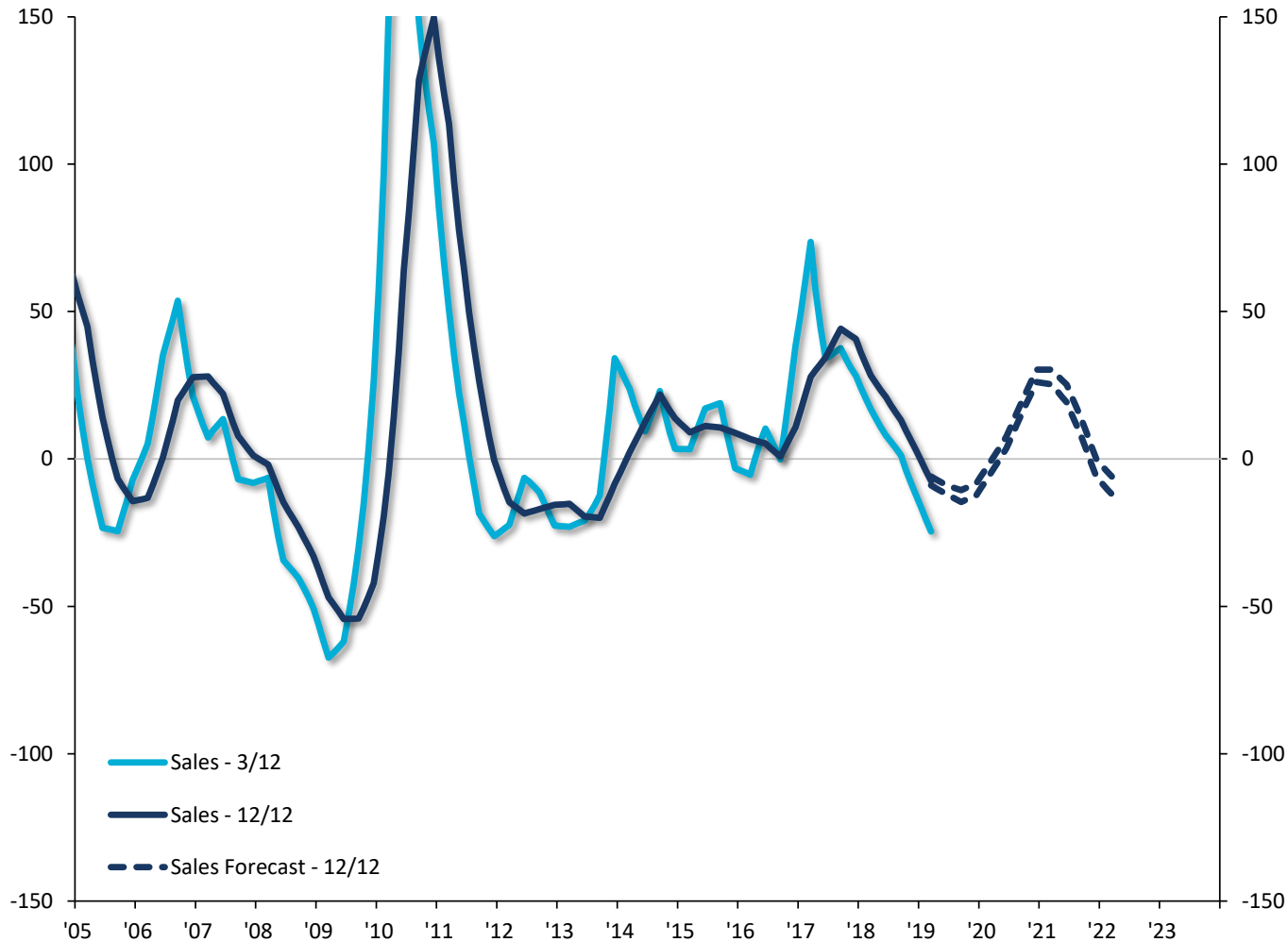
QUARTERLY GROWTH (3/12)

-24.6%

ANNUAL GROWTH (12/12)

-7.5%

NEXT 12/12 LOW

3Q19

NEXT 12/12 HIGH

4Q20

Legend:
- Sales - 3/12
- Sales - 12/12
- Sales Forecast - 12/12

	Jun-19	Sep-19	Dec-19	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22
Lower Forecast Range	-11.9	-14.6	-12.3	-4.6	3.6	15.2	26.1	25.3	19.2	7.3	-6.4	-12.0
Annual Growth Rate (%)	**-10.4**	**-12.6**	**-10.3**	**-2.6**	**5.6**	**17.2**	**28.2**	**27.8**	**22.2**	**10.3**	**-3.4**	**-9.0**
Upper Forecast Range	-8.9	-10.6	-8.3	-0.6	7.6	19.2	30.3	30.3	25.2	13.3	-0.4	-6.0

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Company A Sales to Division 1 Sales
12/12 Rates-of-Change

Sales (left axis, navy)
Sales (right axis, orange)

Legend:
- Company A Sales
- Company A Sales Forecast
- Division 1 Sales
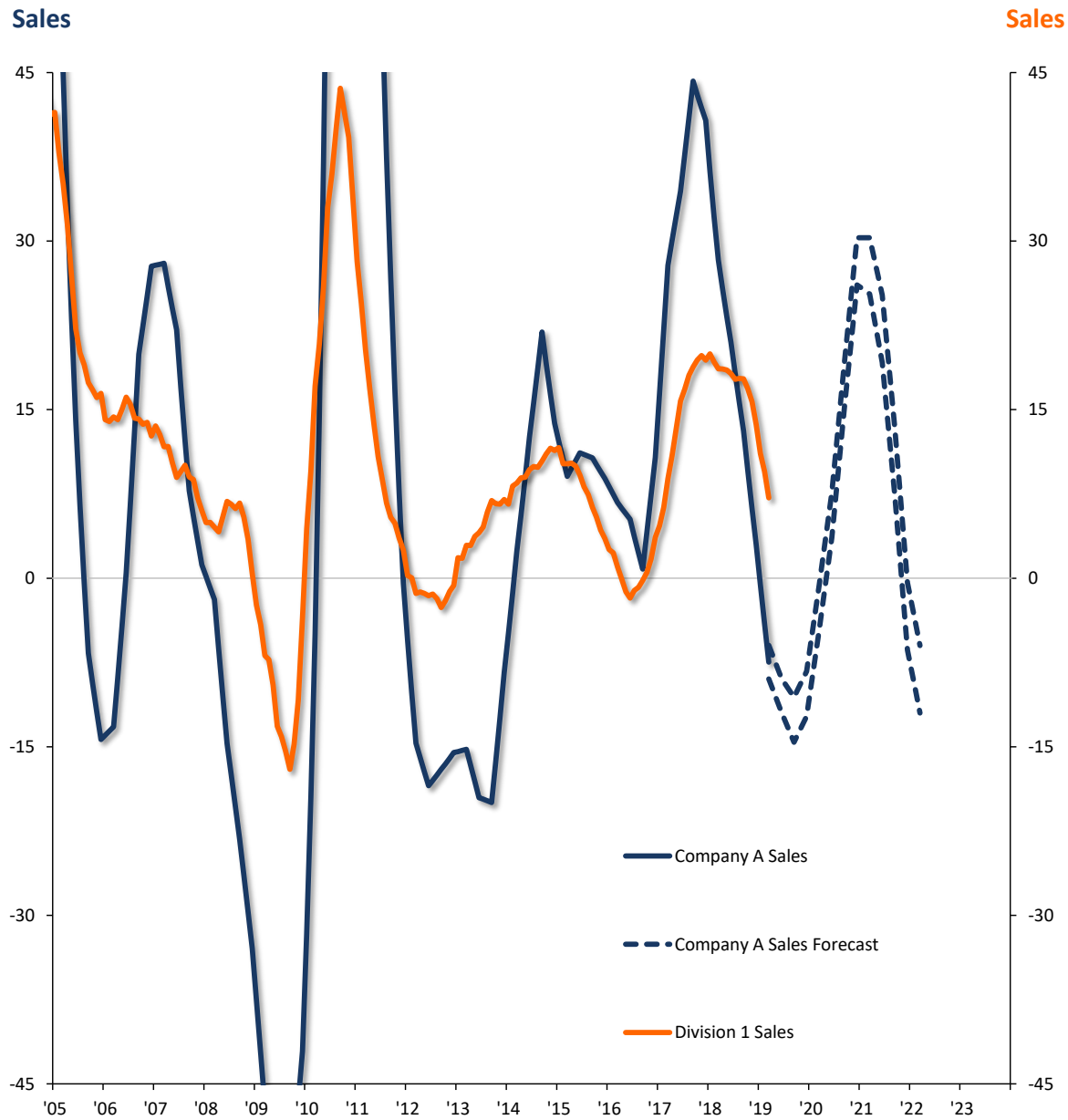
Division 1 Sales Phase
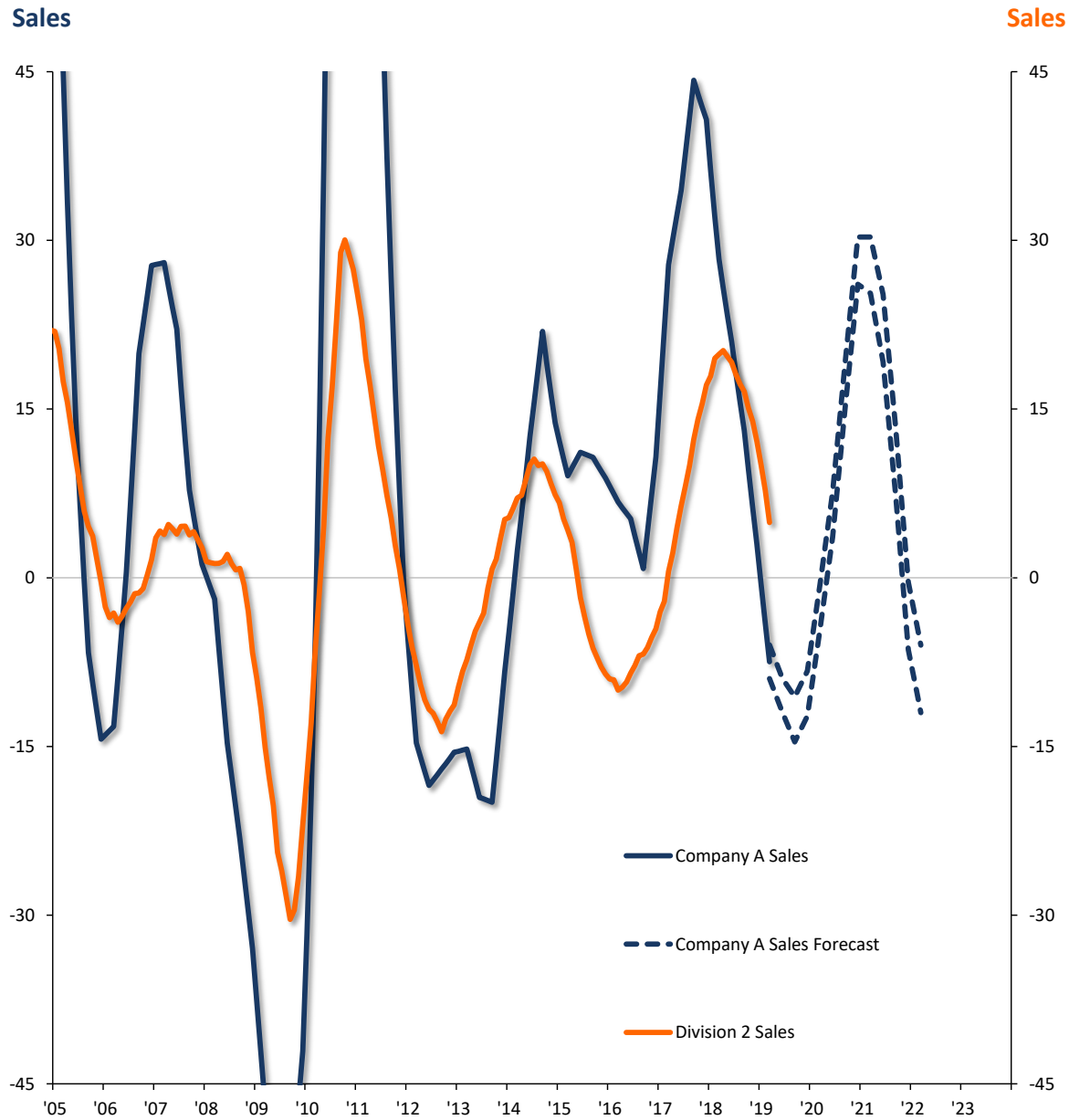
C — SLOWING GROWTH

Company A Sales Annual Growth (12/12)

-7.5%

Division 1 Sales Annual Growth (12/12)

7.2%

Company A Sales to Division 2 Sales
12/12 Rates-of-Change

Sales (left axis, blue)

Sales (right axis, orange)

Legend:
- Company A Sales
- Company A Sales Forecast
- Division 2 Sales

Division 2 Sales Phase

C — SLOWING GROWTH

Company A Sales Annual Growth (12/12)

-7.5%

Division 2 Sales Annual Growth (12/12)

4.9%

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This Headline Will Include the Most Important Takeaway for the Client

Sales
Index

Company A to Example Index

Legend:
- Sales - 12/12
- Sales Forecast - 12/12
- Index - 12/12
- ◆ Index Forecast - 12/12

All indicators are shifted along the horizontal axis to reflect their cyclical relationship to Company A Sales.

Complete Indicator Analysis: **ITR onDemand**
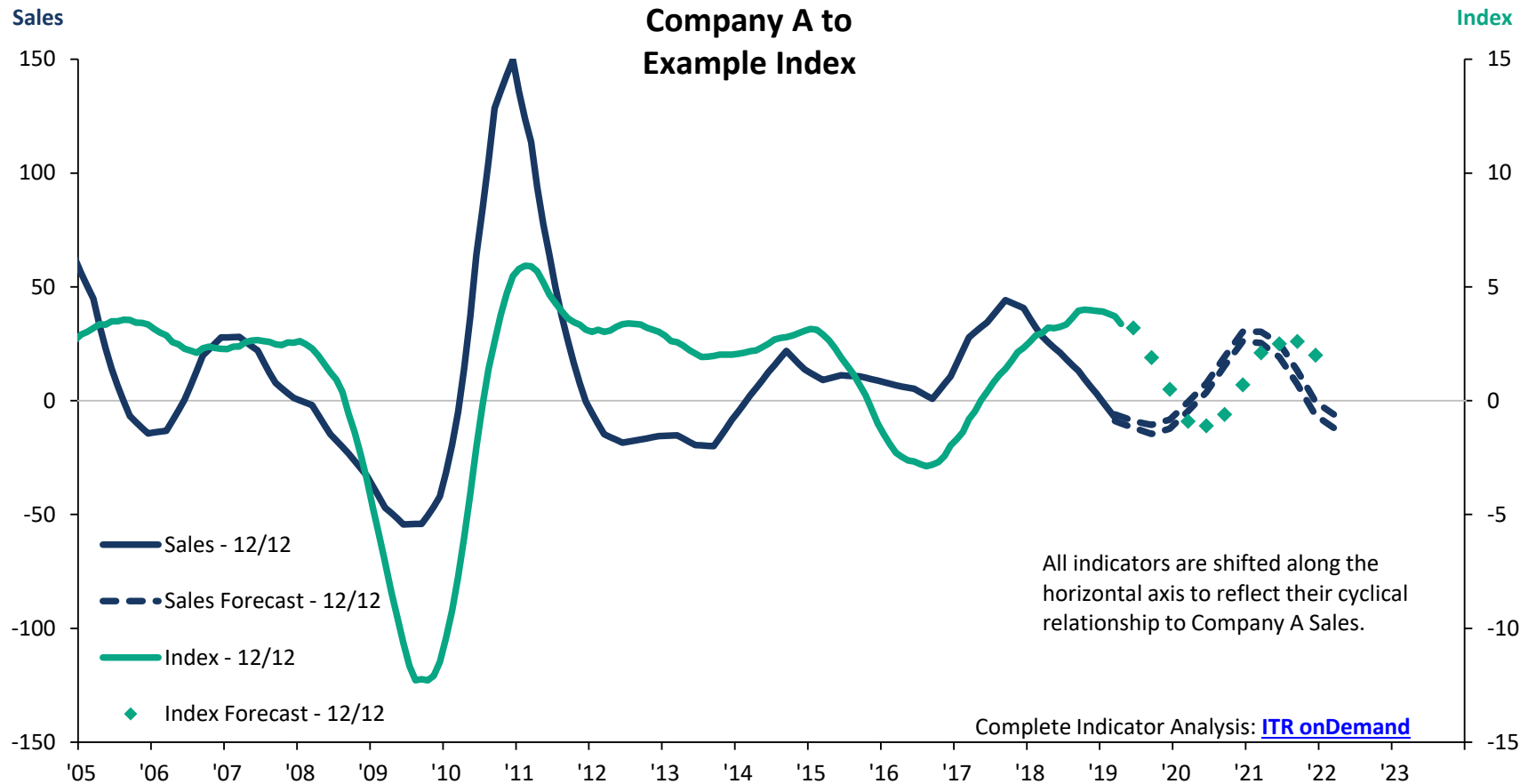
Indicator Snapshot

Phase C
Slowing Growth

Coincident Relationship to Sales 12/12

Turning Point Analysis

• The projected 2Q20 low in the Index 12/12 suggests a 1Q20 low in the Sales 12/12.

• The projected 3Q21 high in the Index 12/12 suggests a 2Q21 high in the Sales 12/12.

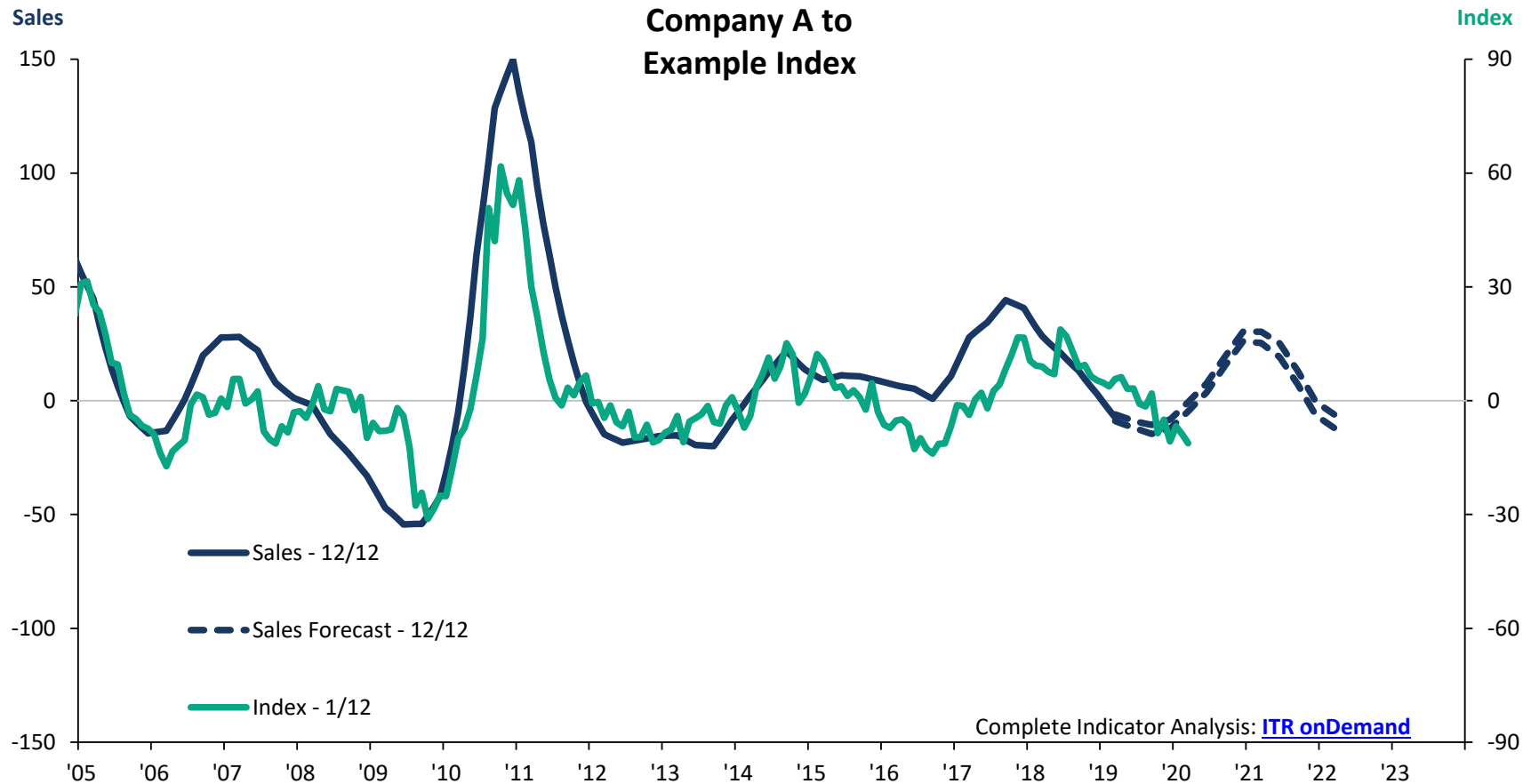**Current Indicator Amplitude**

April 2019 Index 12/12: 3.4%

Indicator Relevance

This section of the report will include a description of how the indicator relates to the company.

Indicator Phase Signals

Jun-19	Sep-19	Dec-19	Mar-20	Year-End 2020	Year-End 2021
C	C	C	D	B	C

This Headline Will Include the Most Important Takeaway for the Client

Sales

Company A to Example Index

Index

- Sales - 12/12
- ••• Sales Forecast - 12/12
- Index - 1/12

Complete Indicator Analysis: **ITR onDemand**

'05 '06 '07 '08 '09 '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23

Indicator Snapshot

Phase D Recession

10-Month Lead Time to Sales 12/12

Turning Point Analysis

- Decline in the Index 1/12 suggests decline in the Sales 12/12 into at least 1Q20.

Current Indicator Amplitude
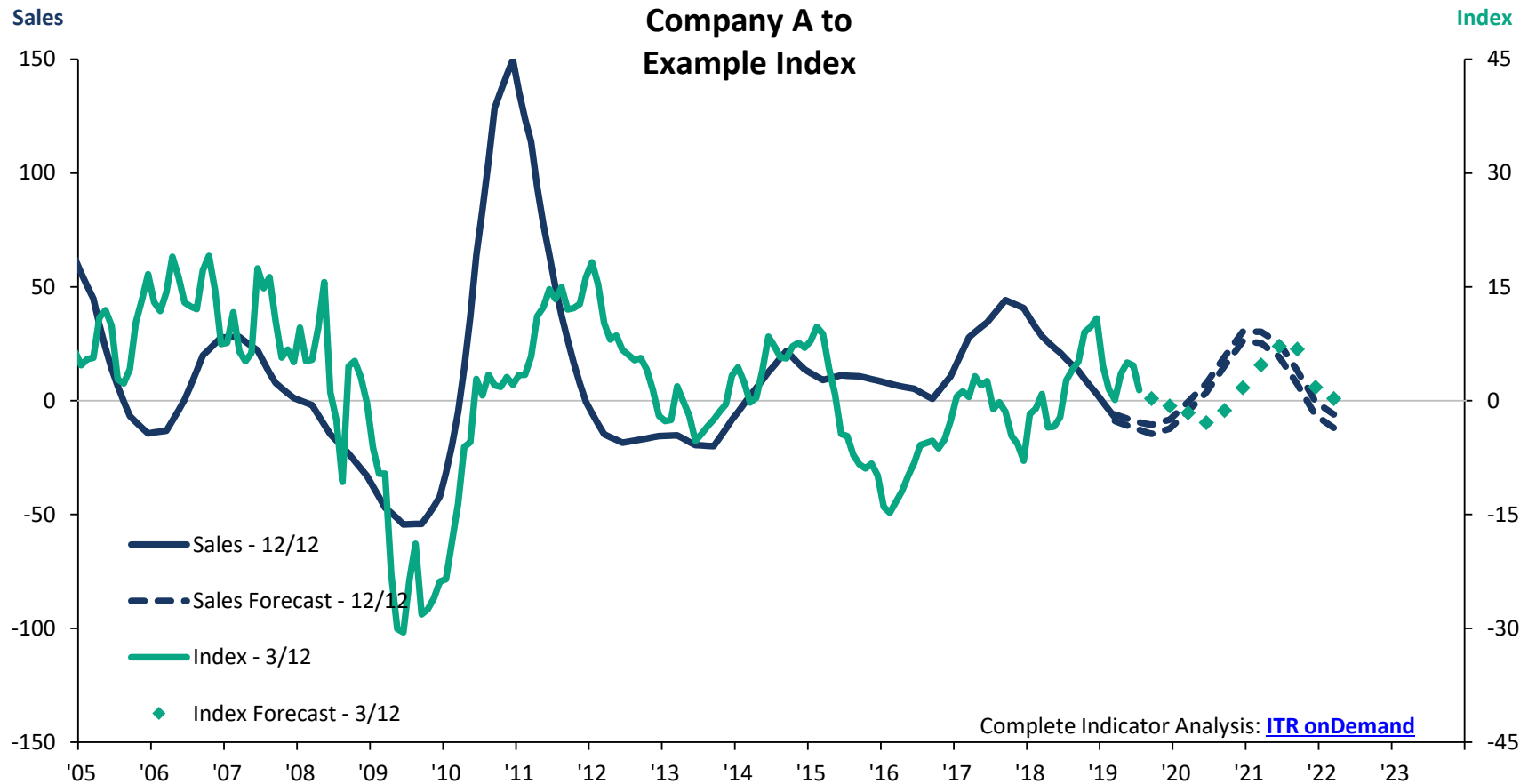
May 2019 Index 1/12: -11.2%

Indicator Relevance

This section of the report will include a description of how the indicator relates to the company.

Indicator Phase Signals

Jun-19	Sep-19	Dec-19	Mar-20	Year-End 2020	Year-End 2021
C	C	D	D	N/A	N/A

This Headline Will Include the Most Important Takeaway for the Client

Company A to Example Index

Legend:
- Sales - 12/12
- Sales Forecast - 12/12
- Index - 3/12
- ◆ Index Forecast - 3/12

Complete Indicator Analysis: **ITR onDemand**

Indicator Snapshot

Phase B
Accelerating Growth

3-Month Lead Time to
Sales 12/12

Turning Point Analysis

• Decline in the Index 3/12 into at least 4Q21 suggests subsequent decline in the Sales 12/12 into at least 1Q22.

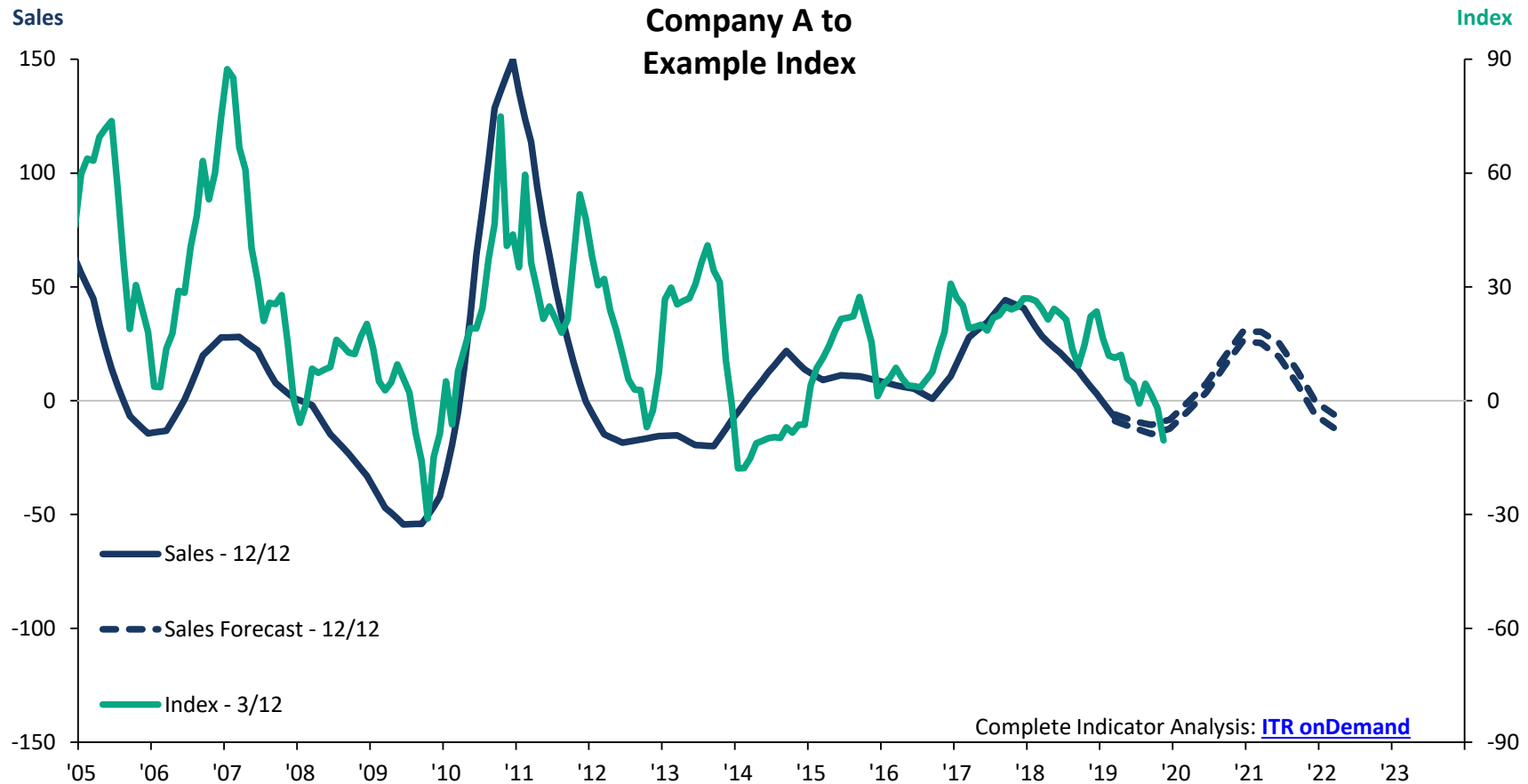• The projected 2Q21 high in the Index 12/12 suggests a 2Q21 high in the Sales 12/12.

Current Indicator Amplitude

April 2019 Index 3/12: 1.4%

Indicator Relevance

This section of the report will include a description of how the indicator relates to the company.

Indicator Phase Signals

Jun-19	Sep-19	Dec-19	Mar-20	Year-End 2020	Year-End 2021
C	C	D	D	B	C

This Headline Will Include the Most Important Takeaway for the Client

Sales
Index

Company A to Example Index

Legend:
- Sales - 12/12
- Sales Forecast - 12/12
- Index - 3/12

Complete Indicator Analysis: **ITR onDemand**

Indicator Snapshot

Phase D
Recession

9-Month Lead Time to
Sales 12/12

Turning Point Analysis
- Decline in the Index 3/12 suggests decline in the Sales 12/12 into at least 4Q19.

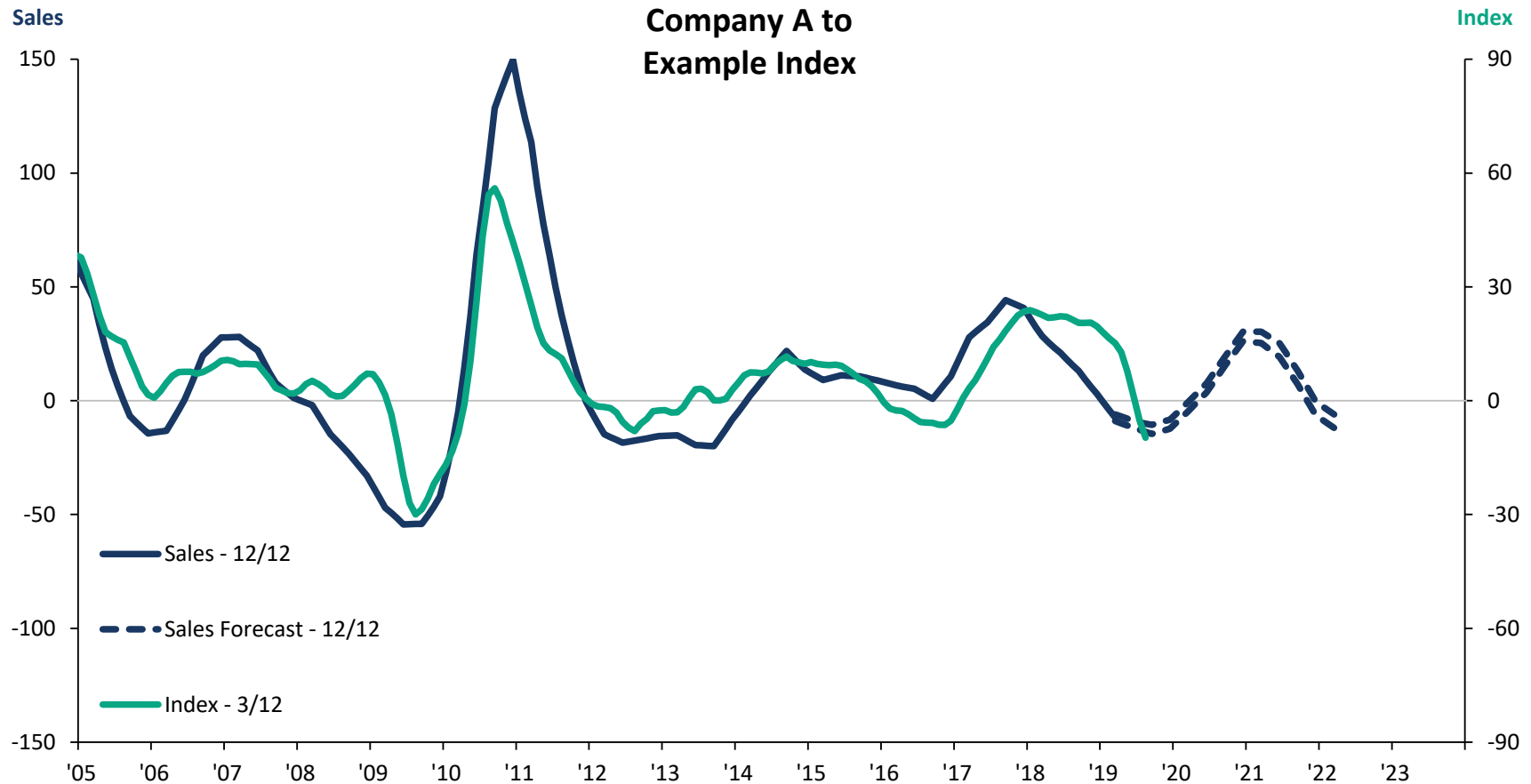**Current Indicator Amplitude**
February 2019 Index 3/12: -10.4%

Indicator Relevance
This section of the report will include a description of how the indicator relates to the company.

Indicator Phase Signals

Jun-19	Sep-19	Dec-19	Mar-20	Year-End 2020	Year-End 2021
C	C	N/A	N/A	N/A	N/A

This Headline Will Include the Most Important Takeaway for the Client

Sales   Company A to   **Index**
                             Example Index

Sales — 12/12

Sales Forecast — 12/12

Index — 3/12

Indicator Snapshot

**Phase D
Recession**

5-Month Lead Time to
Sales 12/12

Turning Point Analysis

• Decline in the Index 3/12 suggests decline in the Sales 12/12
into at least 3Q19.

Current Indicator Amplitude

March 2019 Index 3/12: -9.7%

Indicator Relevance

This section of the report will include a
description of how the indicator relates to the
company.

Indicator Phase Signals

				Year-End	Year-End
Jun-19	Sep-19	Dec-19	Mar-20	2020	2021
C	N/A	N/A	N/A	N/A	N/A

Company A Forecast History
Millions of $

Company A Logo

	Jun-18	Sep-18	Dec-18	Mar-19
Lower Forecast Range	20.0	11.0	0.7	-7.5
Annual Growth Rate (%)	21.4	12.5	2.2	-5.6
Upper Forecast Range	22.8	14.0	3.7	-4.5
Actual	21.0	13.1	3.0	-7.5
Deviation	in range	in range	in range	in range
Lower Forecast Range	9.3	9.1	8.8	8.5
Annual Sales (Millions of $)	9.5	9.3	9.0	8.7
Upper Forecast Range	9.7	9.5	9.2	8.8
Actual	9.4	9.4	9.1	8.5
Forecast Accuracy	98.9%	98.9%	98.9%	97.7%
Quarterly Sales (Millions of $)	2.1	2.3	2.5	2.0
Actual	2.5	2.1	2.1	1.8

Forecast Revision History:

- This section of the report will include descriptions and supporting evidence for any forecast revisions that were implemented within the last year.

Executive Vantage Point Flex Guide

**The data points included below are hypothetical and are provided
only to give guidance regarding how to read this report.**

Indicator Snapshot:

A RECOVERY **B** ACCELERATING GROWTH
C SLOWING GROWTH **D** RECESSION

- The indicator snapshot tells you the indicator's phase of the business cycle.

- It will also tell you whether the indicator leads, lags, or moves in real time with the company.

2-Month Lag Time → • This indicator lags your company by two months.

5-Month Lead Time → • This indicator leads your company by five months.

Coincident Relationship → • This indicator moves in real time with your company (no lead or lag time).

Headline:

Production at Highest Level in Six Years; Expect Growth into Mid-2015

- Simple! The most pertinent information to your company on the market. We address where the market is, where it's going, and if there have been any changes to our outlook.

Turning Point Analysis:

- **The 4Q12 high in the US Purchasing Managers Index 1/12 suggests a 1Q14 high in the Sales 12/12.**

- The cyclical turning points tell you when the indicator is reaching a cyclical high or low and when this suggests the company will reach a cyclical high or low, based on the previously mentioned lead, lag, or coincident relationship.

Indicator Phase Signals:

Mar-14	Jun-14	Sep-14	Dec-14	Year-End 2015	Year-End 2016
B	B	C	C	C	A

- The phase signals a suggested phase, adjusted for the lead/lag time of the indicator, for your company based on the actual or expected status of the indicator.
  Example: ITR expects Phase B in a six-month leading indicator to persist through December 2013 before transitioning to Phase C by March 2014. This would be shown as Phase B through June 2014 and Phase C in September 2014 given the six-month lead time.

- An indicator phase signal does not mean your company will enter that phase at that time.
  Example: Your company may enter recession even if US Industrial Production avoids recession.

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Data Trends:

Monthly Moving Total (MMT) vs Monthly Moving Average (MMA):
Averages are used when the data cannot be compounded, as with an index, percent, price level, or interest rate. Totals are used when it makes sense to add the data together, as with units sold or total dollars spent.

3MMT/A and 12MMT/A:
A 3-month or 12-month moving total/average is the total/average of the monthly data for the most recent 3 and 12 months, respectively. The 3MMT/A illustrates the seasonal changes inherent to the data series. The 12MMT/A removes seasonal variation to derive the underlying cyclical trend. It is also referred to as the annual total or annual average.

Click here for a brief video explanation of the methodology we use in this report.

Rates-of-Change:

A rate-of-change figure is the ratio comparing a data series during a specified time period to the same period one year ago. **Rates-of-change** are expressed in terms of the **annual percent change in a 12MMT/A, 3MMT/A, and actual monthly data.**

Rates-of-change reveal whether activity levels are rising or falling compared to last year. A rate-of-change trend illustrates and measures cyclical change and trends in the data. ITR Economics' three commonly used rates-of-change are the **1/12**, **3/12**, and **12/12**, which represent the year-over-year percent change of a single month, 3MMT/A, and 12MMT/A (respectively).

A rate-of-change above 0 indicates the data is higher than it was one year prior, while a rate-of-change below 0 indicates the data is below its year-ago level.

Accelerating Growth (B): 12/12 is rising above 0; data trend is accelerating in its ascent and is above the year-ago level. This is the second positive phase of the business cycle.

Recovery (A): 12/12 is rising below 0, and the data trend is either heading toward a low or is in the early stages of recovery. This is the first positive phase of the business cycle.

Business Cycle

The data trends and rates-of-change identify positions in the business cycle. These positions are:

Above year-ago level

Below year-ago level

Slowing Growth (C): 12/12 is declining but remains above 0; data trend ascent is slowing or has stopped its rise, but it is still above last year. This is the first negative phase of the business cycle.

Recession (D): 12/12 is below 0, data trend is below the year-ago level, and the rate of decline is intensifying. This is the second and final negative phase of the business cycle.

Indicator Definitions

Example Index	This section will include a definition and other key information for each of the indicators included within the report.
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