Winds of Change

Alex Chausovsky
Director of Speaking Services
2018 Preliminary Forecast Results
If you heard ITR around two years ago...

<table>
<thead>
<tr>
<th></th>
<th>Duration</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>US GDP</td>
<td>24</td>
<td>99.9%</td>
</tr>
<tr>
<td>US Ind. Production</td>
<td>34</td>
<td>99.4%</td>
</tr>
<tr>
<td>Europe Ind. Production</td>
<td>24</td>
<td>99.2%</td>
</tr>
<tr>
<td>Canada Ind. Production</td>
<td>27</td>
<td>97.1%</td>
</tr>
<tr>
<td>China Ind. Production</td>
<td>30</td>
<td>99.9%</td>
</tr>
<tr>
<td>Retail Sales</td>
<td>28</td>
<td>99.6%</td>
</tr>
<tr>
<td>Housing (Single Family Units)</td>
<td>26</td>
<td>99.2%</td>
</tr>
<tr>
<td>Employment (private sector)</td>
<td>30</td>
<td>99.4%</td>
</tr>
</tbody>
</table>

*ITR Economics provides the best economic intelligence to reduce risk and drive practical and profitable business decisions.*
Summary March 2019

Macroeconomic Slowdown for 2019

US
Global

Global Issues Impacting Businesses

Tariffs/Trade Uncertainty

Leading Indicator Signals are Mixed

Know which ones matter to you
How to track the leading indicators
Macroeconomic Trends
US Economy Stalls in 2019 and Into 2020

US Gross Domestic Product, SAAR, Chained 2012 $

US Gross Domestic Product
3-Month Moving Average

Quarter-over-Quarter Growth Rate
3/12 Rate-of-Change

- $18.7 trillion
- Phase: B
- Quarter-over-Quarter: 3.0%

ITR Outlook
2019: 0.5%
2020: 2.7%
2021: 1.1%

Source: BEA

First in Forecasts Since 1948
US States GDPs Ranked vs. World Country GDPs

World Rank
1.0 - 191.0

Data Sources: BEA; IMF
US GDP by Value Add

- Services: 48%
- Manufacturing: 12%
- Government: 12%
- Agriculture, forestry, fishing, and hunting
- Mining
- Utilities
- Construction
- Wholesale trade
- Retail trade
- Transportation and warehousing
- Information
- Services
- Government

Sources: BEA, ITR Economics
Slowing Growth for 2019
US Industrial Production Index

• Annual Trend: 107.3
• Phase: B
• Year-over-Year: 4.0%

US Industrial Production Index
12-Month Moving Average

Year-over-Year Growth Rate
12/12 Rate-of-Change

2019: 0.5%
2020: 0.7%
2021: 2.0%

Source: FRB
Leading Indicators
Tools for Seeing the Future
Leading Indicators

The Indicator has a 12-month lead time to the Industry Data.

Sources: FRB, ITR Economics
Leading Indicator System as a Powerful Tool

US Industrial Production Index to Leading Indicators

Sources: FRB, OECD, ISM, Yahoo Finance, IHS Markit

Rates-of-Change

DATACAST!
Leading Indicators Point to Global Economic Slowdown

Global Leading Indicators

- EZ Comp PMI
- EU Manufacturing PMI
- JP Morgan Global MFG PMI

Source: Markit Economics
It is not enough to do your best; you must know what to do, and then do your best.

W. Edwards Deming
Impact of Tax Reform: Now and Then
Is Freed Up Money Going to Capex?
US Corporate Tax Rate and Gross Business Investment

Corporate Tax Rate %
Gross Business Investment (% of GDP)
Linear (Gross Business Investment (% of GDP))

Atlanta Federal Reserve Survey

Sources: Tax Policy Center, FRED
Slowing Rate of Rise in CAPEX Trend

US Nondefense Capital Goods New Orders w/o Aircraft

A positive impact from the tax law showed up here

Source: Census Bureau
Total U.S. Public Debt

The Long View…

Source: Usagovemntspending.com

(% of GDP)
Depression Drivers

1. Demographics
2. Health Care Costs
3. Entitlements
4. Inflation
5. US National Debt
What to Tell the Kids

1. Live below their means
2. Learn a second language
3. Each household should have multiple or diverse income streams
4. Choose career(s) oriented toward the “opportunities”
5. Pay off as much debt as possible by 2030
6. Be ready to buy at the price cycle low in the depression
7. Be self-reliant
Tariffs & Trade
What is Driving the Protectionist Trade Policy?

US Trade Balance for Goods and Services

Source: US Census Bureau

Billions of Dollars
Tariffs: There Will Be Winners and Losers

“Fair trade”
Specialization is a good thing
Competition is a good thing
Economics is not a zero sum game
Potential disruption to supply chains
Price increases
Retaliation

US Tariffs

Proposed Chinese Imports, 267
Proposed Chinese Imports Round 2, 200
Proposed Auto Imports, 350

10% Tariff Sep 24th
25% Tariff Jan 1, 2019

Proposed China Round 1, 52.4
Proposed China Round 2, 60
Proposed India, 1.4
Proposed Japan, 1.9
Proposed Russia, 3.2

Proposed India Round 1, 1.4
Proposed Japan, 1.9
Proposed Russia, 3.2

Reciprocal Tariffs

China Round 1, 52.4
China Round 2, 60

Canada, 12.8
Mexico, 2.9
Europe, 3.2
Turkey, 1.8

Steel, 29
Solar Panels, 8.5
Washing Machines, 1.8
Aluminum, 17.4

0
100
200
300
400
500
600
700
800
900
1000

$ Value

Proposed
Actual
$250 Billion of Goods Subject to Tariffs Aimed at China

The US is China’s Biggest Customer

Exports from the US to China stand at $130.1bn, or 0.7% of US GDP. Exports from China to the US are a record high $436.9bn, or 3.8% of China GDP.

Slowing exports to the US will hurt their economy more than ours but it is not risk free.

<table>
<thead>
<tr>
<th>Industry Exports</th>
<th>US $ bn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace</td>
<td>16.3</td>
</tr>
<tr>
<td>Soybeans</td>
<td>12.4</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>10.0</td>
</tr>
<tr>
<td>Semiconductors</td>
<td>6.9</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>6.9</td>
</tr>
<tr>
<td>Waste &amp; Scrap</td>
<td>5.6</td>
</tr>
<tr>
<td>Ctrl Instruments</td>
<td>5.6</td>
</tr>
<tr>
<td>Synthetic Rubbers</td>
<td>3.9</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>3.4</td>
</tr>
<tr>
<td>Ind’l Machines</td>
<td>3.3</td>
</tr>
</tbody>
</table>
US Top Goods Export by State

Based on annual data, 2017

Source: US Census Bureau
Tariffed Versus Non-Tariffed Commodities

Commodity Prices

Source: WSJ, London Metal Exchange, BLS

3/12 Rates-of-Change

-12.5% Alum
-13.9% Copper
14.5% Steel
Brands That Have or Will Be Increasing Prices Due to Tariffs

CATERPILLAR
TOYOTA
WHIRLPOOL
COCA-COLA
WINNEBAGO
MILLER COORS
SAMUEL ADAMS
CAMPBELL SOUP
LG ELECTRONICS
GENERAL MOTORS
KLEENEX & HUGGIES
POLARIS INDUSTRIES
NEWELL BRANDS (Crock-pot, Rubbermaid, Sharpie)

“I can't just go to the shareholders and say, 'You're just going to have to accept my profit's going to be $40 million less. It doesn't work that way…’”

- Gavin Hattersley, CEO MillerCoors

Source: Business Insider, “These popular brands say Trump's tariffs will force them to raise prices”
Prices are in a Rising Trend but...

US Consumer Price Index

As seen in

Rates-of-Change
Source: BLS
Food & Bev is Slowing Sharply…

US Food and Beverage Production Index

Source: FRB

2012 = 100

MMA

3/12

12/12

3MMA

12MMA

114.2

3.0%

1.1%
...but not Alcohol!

US Beer, Wine, and Alcoholic Beverage Stores Retail Sales

Source: US Census Bureau

Billions of Dollars

4.0% 4.7%

3/12 12/12

$57.3

First in Forecasts Since 1948

ITR Economics

Source: US Census Bureau
Medical Equipment Production is a Countercyclical Market

US Medical Equipment & Supplies Production Index

Source: FRB

2012 = 100, N3391
The Growth in Fast Food is Accelerating

US Limited Service Eating Places (fast food) Retail Sales

Source: Census Bureau

Billions of Dollars
More Evidence of a “Healthy” Market

Personal Consumption Expenditures: Meals at Limited Service Eating Places

Source: US Dept of Commerce BEA

Billions of Dollars

3.7%
4.1%
18.9
8
15
22
29
-50
-25
0
25
22
0
12/12
3/12
18.9
4.1%
3.7%
3MMA
12MMA

First in Forecasts Since 1948

Source: US Dept of Commerce BEA
Personal Care Retail Sales have Transitioned to Slowing Growth

US Health & Personal Care Stores Retail Sales

Source: Census Bureau

Billions of Dollars
But Rise in Personal Consumption Expenditures Persists

US Personal Consumption Expenditures for Personal Care Products

Source: BEA

Billions of Dollars

4.2%
4.4%
138.2

'00 '02 '04 '06 '08 '10 '12 '14 '16 '18 '20 '22 '24

MMA

First in Forecasts Since 1948

Source: BEA
Acceleration in Pharma and Medical Device Growth

US Pharmaceuticals & Medical Devices Production Index

Source: FRB

2012 = 100

First in Forecasts Since 1948
The Pet Sector Remains a Robust Growth Opportunity

US Pets and Related Products Expenditures

Sources: US Dept. of Commerce BEA
Summary
Phase A - Recovery
Annual Sales are **BELOW** Year-Ago Levels, but the Rate-of-Decline is **SLOWING**.

Phase B – Accelerating Growth (Best)
Annual Sales are **ABOVE** Year-Ago Levels, and are **GROWING** at a **RAPID** Pace.

Phase C – Slowing Growth (Caution)
Annual Sales are **ABOVE** Year-Ago Levels, BUT the Rate-of-Growth is **SLOWING**

Phase D - Recession
Annual Sales are **BELOW** Year-Ago Levels, and are **DECLINING** at a **RAPID** Pace.
Actionable Advice for Phase C

1. Focus on the segments of the business that are the most profitable in Phase C

2. Trumpet your Phase C competitive advantages and start developing your message for the next phase (B or D, depending on your industry)

3. Cash Management for proper allocation and Inventory Control if applicable

4. Ask yourself what you shouldn’t be doing? (resource management and diversion to more profitable parts of the company)

5. Develop your rates-of-change so you will know when the trough is near (Using the ITR Checking Points™)
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