

A background image showing the front and side of several cars, heavily tinted with a solid red color. The cars are parked in a row, with the focus on the front of the car in the foreground on the right.

# 2017

# INDUSTRY

# REPORT

Six  
Month  
Update



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About the Authors

Insurance Auto Auctions, Inc. (IAA) is the leading live and live-online salvage vehicle auction company and a business unit of KAR Auction Services (NYSE: KAR). With more than 170 auction facilities — the largest footprint in North America — IAA provides registered buyers from more than 110 countries the opportunity to bid on and purchase vehicles from a comprehensive group of sellers, including insurance companies, fleet and rental companies, financing companies, charitable organizations and the general public. Through its weekly auctions, IAA has sold millions of vehicles, offering towing, financing and titling services. IAA leverages its business model to assist charitable organizations in the U.S. through its One Car One Difference® program. To date, IAA has provided millions of dollars in additional funding to charities by assisting in the processing of donated vehicles. Learn more about the program by visiting [1car1difference.com](http://1car1difference.com). With a talented team of more than 2,500 employees, IAA is committed to technological innovation and providing its customers the highest level of service in the salvage auto industry. To learn more, visit [IAA-Auctions.com](http://IAA-Auctions.com), and follow IAA on [Facebook](#), [Twitter](#) and [LinkedIn](#).

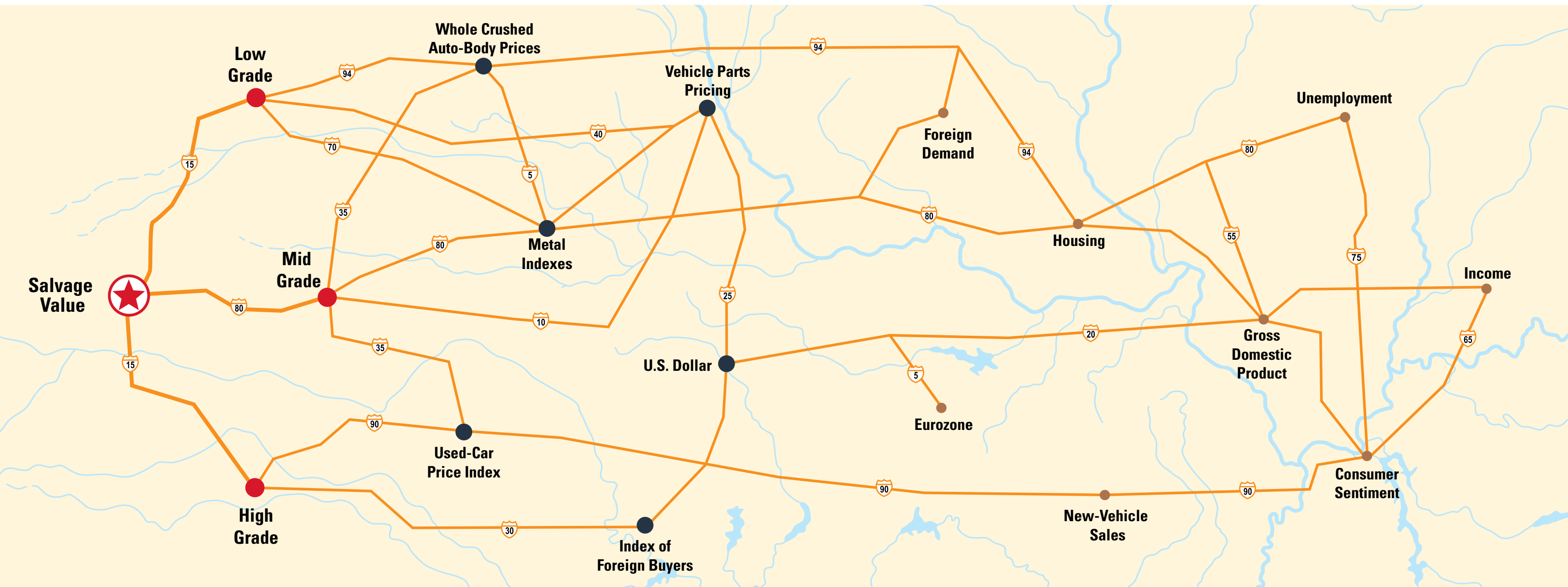
Disclaimer:  
*The auto salvage industry as discussed in this document refers to the industry as experienced by IAA. IAA does not possess data on the performance of other salvage companies; therefore, the analyses are based on how different economic factors impact the performance of vehicles sold through IAA's auctions.*

*The statements contained in this report and statements the company may make orally in connection with this report that are not historical facts are forward-looking statements. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from the results projected, expressed or implied by the forward-looking statements. Factors that could cause or contribute to such differences include those matters disclosed in the company's Securities and Exchange Commission filings. The company does not undertake any obligation to update any forward-looking statements.*

# SALVAGE VALUE LANDSCAPE

## A Map of Influences

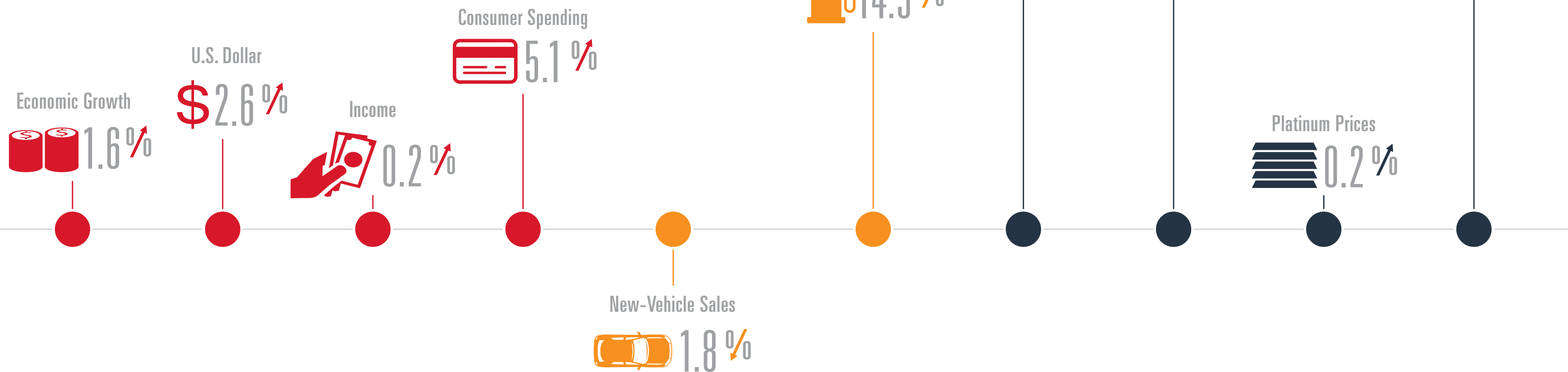
The complexity of the vehicle salvage industry is revealed when trying to understand how its drivers are linked by factors such as the economy, vehicle sale prices, driver behavior and weather. Each factor represented by a dot on the map is scaled to convey its level of impact on the industry.



- Vehicle Grade
- Primary Economic Factors
- Secondary Economic Factors

# EXECUTIVE Summary

First six months of 2017 – First six months of 2016



## U.S. Economy

The U.S. economy continues to grow at a sluggish pace, with both Q1 and Q2 figures hovering near the results of other quarters since the last recession. The labor market is solid, but labor productivity and wage growth are still struggling to catch up. Additionally, the inflation rate remains below the Federal Reserve's targeted 2.0% growth rate, casting uncertainty over future interest rate hikes despite increases in March and June. Find an in-depth overview of these details and additional factors used to track the U.S. economy in [Section 1](#) of this report.

## Automotive Industry

Slight softening of new-vehicle sales prompted some analysts to revise down their forecasts, but sales figures remain historically strong. The industry is still seeing high buyer incentives, with average discounts and rebates hitting new records in this first half of the year. Sales of passenger vehicles softened slightly, with sales of light-duty trucks working to keep new-vehicle sales afloat. A detailed overview of the automotive industry can be found in [Section 2](#) of this report.

## Salvage Industry

Macroeconomic conditions were favorable for all three vehicle grade segments in the first half of 2017, with whole crushed auto-body, aluminum and palladium prices all posting double-digit gains. These positive results bolstered overall prices for the industry. Additionally, although a strong U.S. dollar typically means a dip for the Index of Foreign Buyers, index values for this portion of

the year suggest that foreign buyer interest was high enough to offset the strength of the U.S. currency. More about all three segments and the factors that impacted their performance can be found in [Sections 3 and 4](#), followed by a summary of the first half of 2017 and an outlook for the remainder of the year in Section 6.

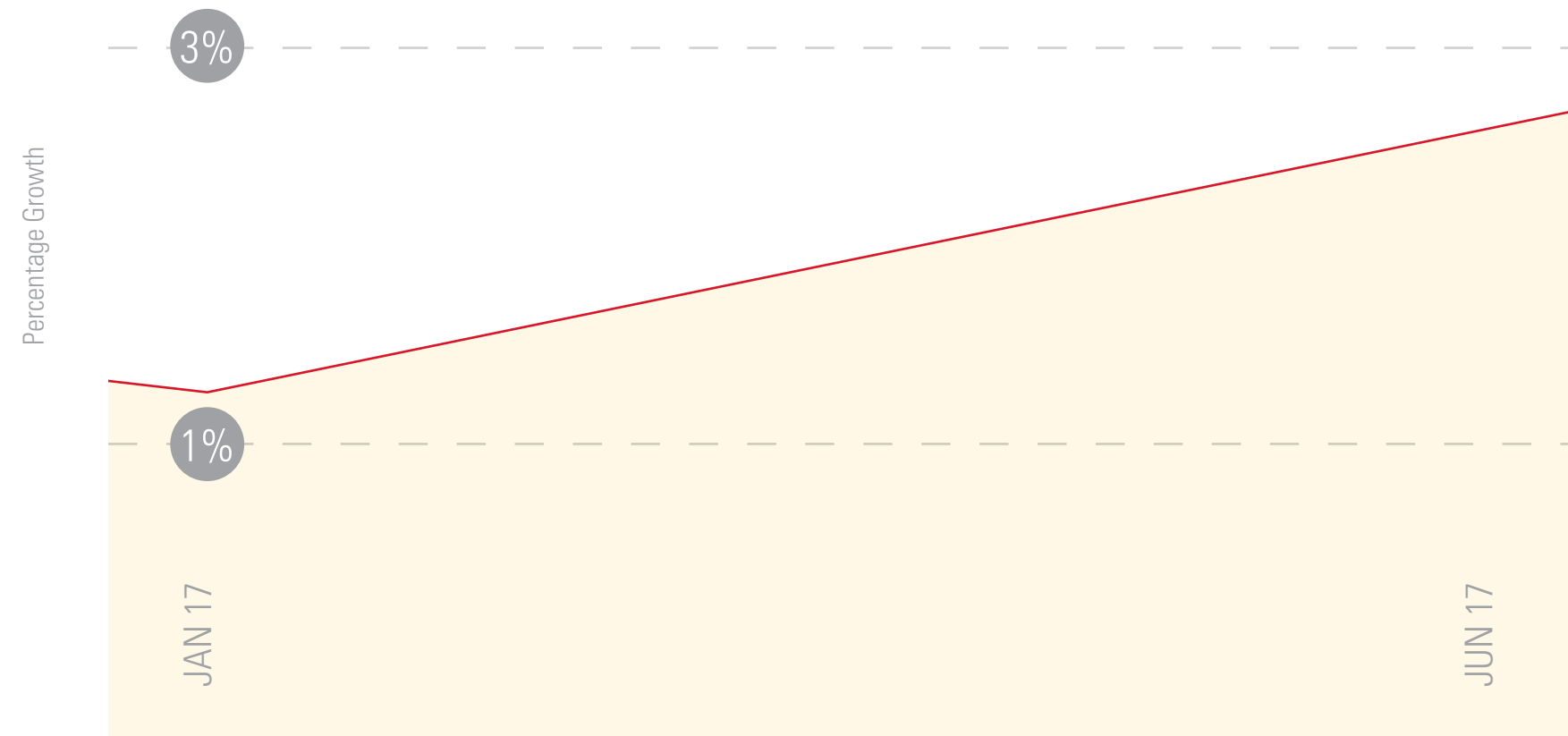
# SECTION 1

## Overview of U.S. Economy

Chart 1.1

### U.S. Real GDP Growth

Percentage of Growth  
Jan 2017 – Jun 2017



In the first quarter of 2017, non-residential business fixed investment decreased by 7.2% while labor force participation and productivity struggled to improve. Nevertheless, GDP growth was revised from 0.7% to 1.2% in the first quarter on the backs of stronger-than-expected consumer and business spending.<sup>1</sup>

# GROSS Domestic PRODUCT

This first-quarter GDP growth was on pace with the typically sluggish economic expansion seen in other quarters since the most recent recession, but progressed through the second quarter at a steady clip. A shrinking unemployment rate and tightening labor market helped boost personal

consumption 4.0%, while non-residential business investment saw a 5.2% increase. However, inflation remains historically weak, growing at only 0.3% in Q2. This is well below the Federal Reserve's targeted 2.0% rate, and cast uncertainty over the Fed's future plans.<sup>2</sup>

# 1.6%

# SECTION 1

(Continued)

## UNEMPLOYMENT



4.5%

The U.S. labor market was rock solid in the first half of 2017, with year-over-year unemployment decreasing 0.4 percentage points compared to the same period of 2016 (Chart 1.2). The unemployment rate dropped each sequential month through May, and ticked up 0.1% percentage point in June to reflect the increased number of people joining the labor force to look for jobs. Overall, payroll gains have been steady for the past decade, with the U.S. economy adding nearly 200,000 jobs a month for the past seven years, and economists emphasize the influence of longer-term trends on the current job gains.<sup>3</sup>

Alternate measures of unemployment and underemployment, like those which include discouraged workers, those only marginally attached to the labor force and part-time workers that would prefer full-time hours, reached their 16- and 10-year lows in May, respectively.<sup>4</sup>

Despite the shrinking unemployment rate and a tight labor market, average weekly earnings increased only slightly from January to June of 2017 (Chart 1.3), and just 0.2% year-over-year. Economists point to slow-growing inflation that hasn't hit the Federal Reserve's 2.0% target rate as a possible explanation for weak wages, as well as sluggish productivity growth.<sup>5</sup> Additionally, it's also noteworthy that wage growth in younger cohorts was considerable, but was masked by the loss in wages of droves of retiring baby boomers.<sup>6</sup>



Jan 2017 – Jun 2017

1.3%

## INCOME

## CONSUMER SENTIMENT & Spending on Durable Goods



Consumer Sentiment  
Jan 2017 – Jun 2017

3.5%



Consumer Spending  
on Durable Goods  
Jan 2017 – Jun 2017

0.8%

Consumer sentiment started the year strong, topping off at 98.5 to hit its highest mark ever. After dropping slightly in February and stagnating through May, this index saw a 2.1% drop in June. Generally, consumer sentiment remains strong due to higher incomes and wealth, favorable job prospects and low inflation expectations.<sup>7</sup> Consumer sentiment reached its highest averages in the first six months of 2017 since 2000, although the steep drop in June suggests confidence has started to soften.<sup>8</sup>

Consumer spending made a particularly steep climb of 5.1% year-over-year, fueled by the consumption fundamentals of high consumer confidence and boosts in both disposable income and household net worth.<sup>9</sup> In fact, the total net worth of U.S. households reached its highest level ever in the first quarter of 2017.<sup>10</sup> Additionally, while wage growth was slow, average hourly earnings reached their highest level ever in June, as tracked by the Bureau of Labor Statistics. Though sluggish, these wage gains likely helped consumer spending numbers in Q1 and Q2 of 2017.<sup>11</sup>

Average gasoline prices increased from the same period last year, but fell from January to June (Chart 1.5) and remain historically low. What was significant for gas price movement were the competing forces in crude oil supply, with OPEC's efforts to curb oil supply going head-to-head with a doubling of oil rigs, efficient drilling processes and increasing hydraulic fracturing in the U.S. These production strategies have largely kept each other in check, and balanced out to keep gas prices from making significant movements.<sup>12</sup>



Jan 2017 – Jun 2017

1.3%

## GAS PRICES

# U.S. Dollar

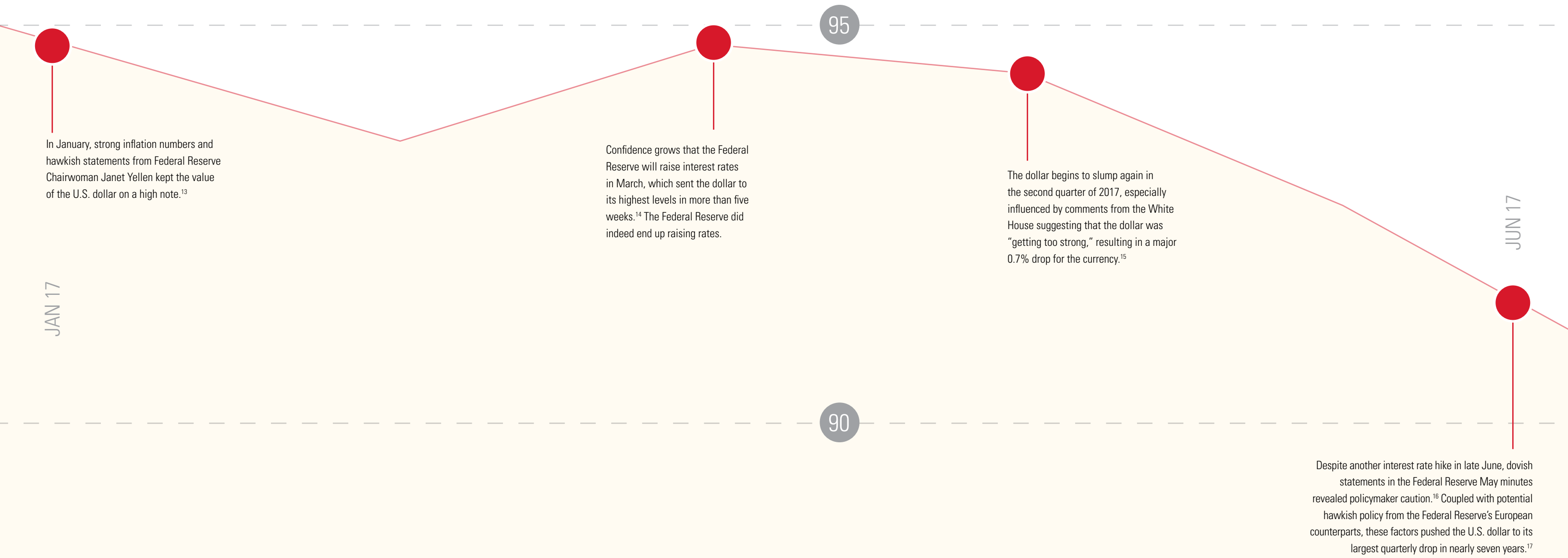
## 2.8%

It was an up-and-down six months for the U.S. dollar, with a relatively stable economy offset by cautious policymakers and forceful statements from the White House. By June, the U.S. dollar was on a slow slide downward, conveying investor uncertainty in the stability of the currency for the coming months.

### WHAT’S TO COME IN 2017?

Perception and anticipation of major legislation proposals can influence the value of the U.S. dollar. Difficulties with passing healthcare reform spurred doubt about the possibilities for tax reform, infrastructure and banking deregulation – all moves that would make the U.S. dollar more attractive to investors. Adding to this pressure is the possibility of rate hikes from the Bank of Japan and the European Central Bank, both of which would add to investors’ skittish stance on the U.S. dollar.<sup>18</sup>

Chart 1.6  
U.S. Dollar Index  
Jan 2017 – Jun 2017



# SECTION 2

## Automotive Industry

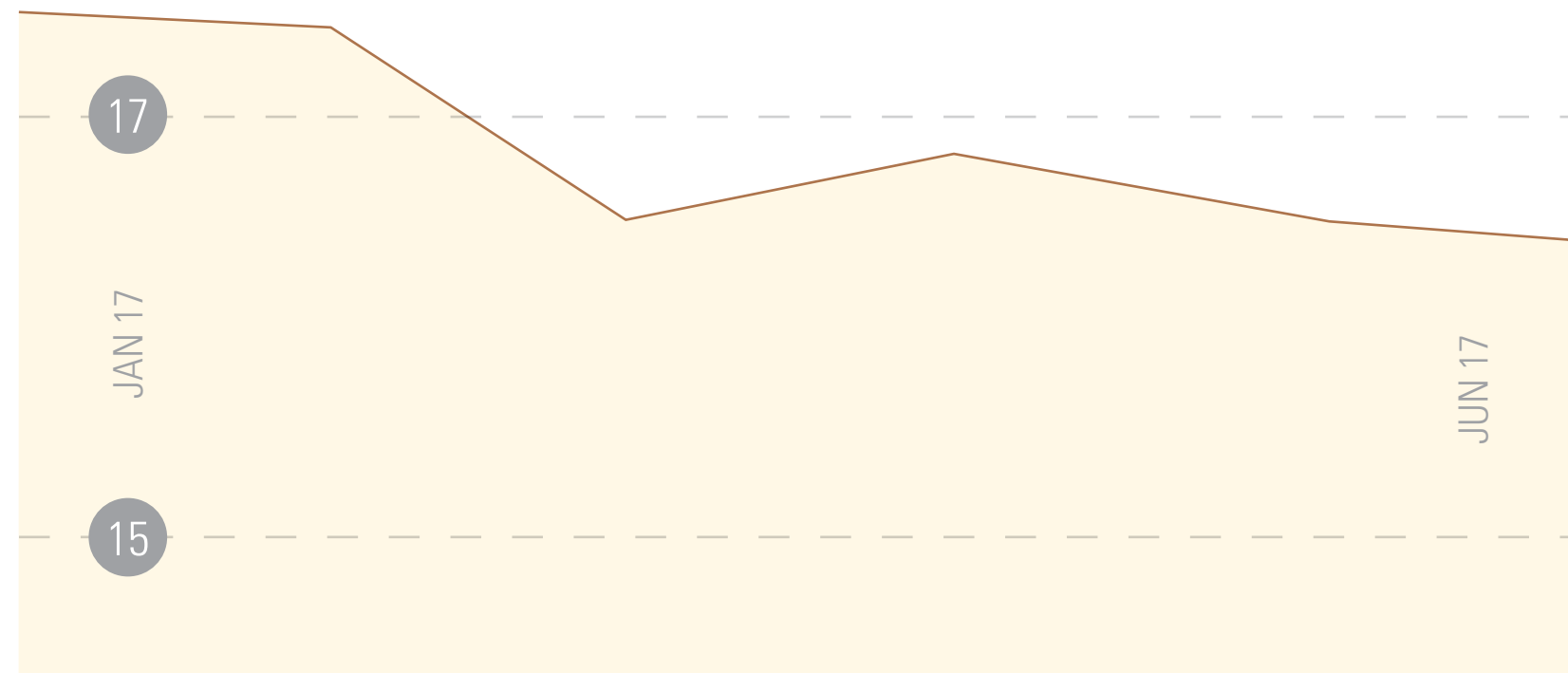
Chart 2.1

### U.S. Lightweight-Vehicle Sales

Automobiles and Light Trucks  
Jan 2017 – Jun 2017

The automotive industry has enjoyed a successful last couple years, and 2017 seems to be on pace to be another one. Incentives, low auto loan rates and reasonable gas prices continue to be favorable for the auto market.

Millions of Units (Annual Rate)



# TOTAL

## New Vehicle

# SALES

Compared to the same period last year, new-vehicle sales only slipped 1.8%. According to J.D. Power, buyer incentives were particularly strong, reaching a record \$3,830 in average discounts per vehicle in February and representing a 10.0% increase year-over-year.<sup>19</sup> Total vehicles sold dipped slightly

in June, but sales of light-duty trucks kept numbers afloat, increasing 3.9% compared to passenger cars' decrease of 12.1%.<sup>20</sup> This trend of increased light duty truck sales and decreased passenger vehicle sales carried through each month year-to-date.<sup>21</sup>

# 1.8%


# SECTION 3

## Overview of Segment Analysis

IAA’s framework for analyzing the salvage vehicle market includes six indicators of industry health.

### WHOLE CRUSHED AUTO-BODY PRICES

Compiled monthly by *American Recycler*, this measures five regional monthly averages for whole crushed car prices.



### USED-CAR PRICE INDEX

(UPCI) Measures the average monthly selling price of used cars and light trucks in the whole-car auction industry; compiled by ADESA, IAA’s sister company.



### METAL PRICES

Aluminum (London Metal Exchange spot prices), Platinum (Johnson Matthey base prices) and Palladium (Johnson Matthey base prices).



### U.S. DOLLAR INDEX

A Federal Reserve Bank of St. Louis index that measures the value of the U.S. dollar against an index of seven major currencies: the euro, Canadian dollar, Japanese yen, British pound, Swiss franc, Australian dollar and Swedish krona.



### VEHICLE PARTS AND EQUIPMENT PRICES

A Bureau of Labor Statistics index that measures the average change over time in consumer prices paid for vehicle parts and equipment.



### INDEX OF FOREIGN BUYERS

An index measuring the percentage of High Grade IAA vehicles sold to buyers from countries outside the United States.



To more accurately track how these six indicators relate to the market for salvage vehicles, IAA divides its inventory into three segments based on selling price. Each vehicle grade has unique characteristics and reacts to the aforementioned market factors differently:



**Low Grade vehicles** represent the bottom quintile (bottom 20%) and are older, have more miles or are more damaged than the average vehicle sold at auction. These vehicles are primarily purchased for their usable parts or scrap value. Therefore, their value is tied to the price of parts and scrap metals.



**Mid Grade vehicles** represent the middle three quintiles (middle 60%) and compose the largest portion of IAA’s inventory. These vehicles range from those that will be dismantled for parts and scrap to those that will be repaired and driven again.



**High Grade vehicles** represent the top quintile (top 20%) and tend to have little or no damage. This segment also includes high-value vehicles with desirable parts

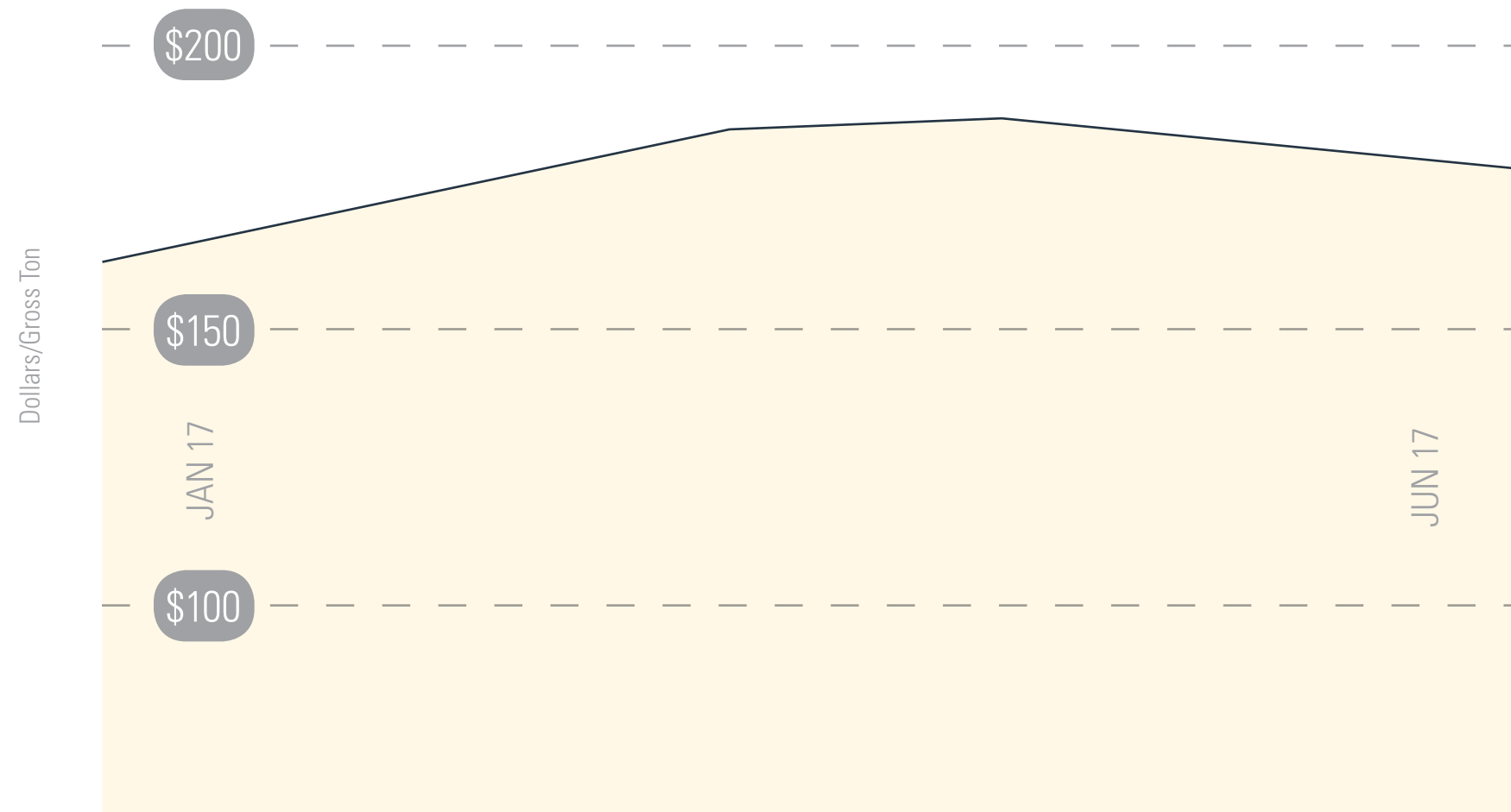
# SECTION 4

## Economic Indicators of Automotive Salvage

Chart 4.1

### Whole Crushed Auto-Body Prices

Jan 2017 – Jun 2017



Automotive salvage has its own set of unique influencers, and the following sections provide an overview of those factors that impact the value of salvage vehicles at auction.

## WHOLE CRUSHED Auto-Body Prices

Whole crushed auto-body prices saw some impressive gains in the first half of 2017. Prices increased month-to-month through April, and reached their highest mark since January of 2015. Values dipped in May and June, but their year-to-date average remained well above the average of the same period of 2016. Additionally, China has shut 42.39 million tons of crude steel capacity in the first half of the year, amounting to 84.0% of its target goals for steel capacity reduction. The

decrease in supply likely put upward pressure on the price of steel, which has a direct impact on whole crushed auto-body prices.<sup>22</sup> This easing of supply combined with increased infrastructure projects spurred high demand for scrap metal, especially amidst speculation whether the U.S. Commerce Department's Section 323 bill would pass, reducing Chinese steel imports to the U.S. This likely prompted buyers to get ahead of potential shortages in the future and drove prices higher once more.<sup>23</sup>

# 8.1%

# METAL Prices

IAA tracks three key metals for their content in salvage vehicles – aluminum, platinum and palladium. Like with whole crushed auto-body prices, the value of these metals is strongly affected by the strength of the U.S. dollar because they’re denominated in the currency. When the dollar gains value, metal prices typically fall because it takes fewer dollars to purchase the same amount of a particular metal. A strong U.S. dollar also turns away foreign buyers, as it means the metal becomes relatively more expensive for those customers, decreasing demand and consequently the prices.

## PLATINUM

Platinum prices had a sluggish first half of 2017. While the year started off strong, it was quickly offset by a weak second quarter. In the first quarter, platinum rallied as prices rose over \$1,000/ounce for the first time since October of 2016. Supporting this increase were steady vehicle sales in the U.S. and China.<sup>24</sup> But as the second quarter rolled around, platinum values hit some bumps. Diesel vehicles, in which platinum is primarily used, faced emissions-cheating scandals in Europe.<sup>25</sup> Combined with shrinking jewelry demand,<sup>26</sup> these factors prompted investors to shy away from the metal. South African producers cut capital expenditures and closed plants in an effort to stop falling platinum prices, but failed to act quickly enough to make a substantial impact.<sup>27</sup>

## 3.8%

Jan 2017 – Jun 2017

2017 Q1 Average  
 \$983.94

2017 Q2 Average  
 \$945.57

Dollars/Ounce

## PALLADIUM

Palladium saw healthy growth in the first half of 2017, with a number of global developments influencing those increases. For one, recent scandals involving diesel engines at Volkswagen and Fiat Chrysler have prompted a switch in investments toward petrol cars, which typically use palladium instead of platinum in their catalytic converters.<sup>28</sup> Additionally, economic growth in the U.S. and China also lifted demand for the palladium used in the auto industry.<sup>29</sup> In the second quarter, palladium hit its highest quarterly mark since the fall of 2014 and finished June with even more healthy demand for cars and SUVs in China. Combined with softened supply, this drove palladium prices even higher.<sup>30</sup>

## 15.4%

Jan 2017 – Jun 2017

2017 Q1 Average  
 \$769.21

2017 Q2 Average  
 \$823.06

Dollars/Ounce

# ALUMINUM Prices

5.3%

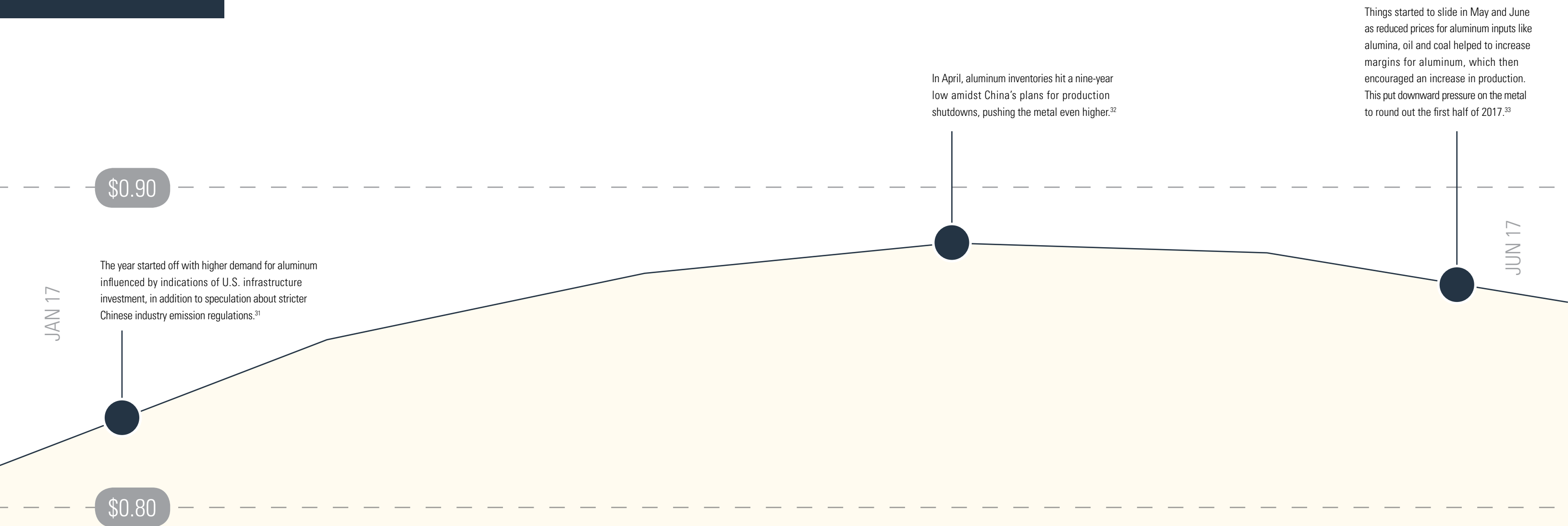
Chart 4.2

## Aluminum Prices

Dollars/Pound

Jan 2017 – Jun 2017

Aluminum enjoyed a strong start to the year, posting month-to-month increases for the first four months of the year. That momentum slowed as the summer months rolled around, with prices slipping in May and June.



## VEHICLE PARTS & Equipment Prices



Jan 2017 – Jun 2017

0.8%

Average prices for vehicle parts and equipment showed positive movement both year-to-date and year-over-year. Consistent growth in total miles driven aided prices, as more miles driven indicates more vehicle wear-and-tear that may require repair. Additionally, fears over a proposed import tax on Mexican goods also drove up prices, with Mexico being a major supplier of vehicle parts and equipment.<sup>34</sup> However, auto manufacturers' increased efforts to open factories in China worked to bring prices back down, with reduced labor costs and the ability for manufacturers to avoid tariffs on exports to China encouraging the move.<sup>35</sup>

Average used-car prices in the first half of 2017 rose 3.9% compared with the same period in 2016. Although the overall results continued to show year-over-year price gains, it must be cautioned that this was primarily a result of strength in truck prices and an inventory mix that favored younger off-lease units.<sup>36</sup> According to Tom Kontos, chief economist at KAR Auction Services, Inc., supply growth remains the principal downward force on used-car prices, which is revealed when sale prices are analyzed by sale type, model-year age, mileage and model class segment.<sup>37</sup> Low gasoline prices may have played a part in this dynamic as well, as wholesale values of cars have been depressed while trucks and SUVs have seen relative price strength.<sup>38</sup>

Used-car prices bucked seasonal trends to start the year, falling uncharacteristically in February possibly due to delays in tax returns that usually arrive in February and arm consumers with disposable income for used-vehicle purchases.<sup>39</sup> Prices recovered in March, as is characteristic of the spring tax return season, and followed seasonal trends during the second quarter, rising sequentially in April, leveling in May and falling in June.

For more information about used-car prices and the economic indicators affecting the wholesale market, check out ADESA's latest edition of *PULSE*.



Jan 2017 – Jun 2017

1.1%

## USED-CAR PRICE INDEX

## INDEX OF FOREIGN BUYERS



Jan 2017 – Jun 2017

0.5%

The Index of Foreign Buyers measures the proportion of vehicles purchased by buyers outside of the United States. Because a strong U.S. dollar makes it relatively more expensive for foreign buyers to purchase domestic goods, this index tends to have an inverse relationship with the value of the U.S. dollar. This is influential on High Grade vehicle values, since a stronger dollar puts downward pressure on international demand for these vehicles.

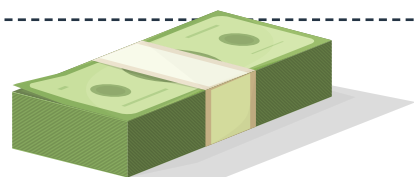
Due to seasonal fluctuations in the Index of Foreign Buyers, a 12-month moving average is used to smooth itself and the U.S. Dollar Index. Based on that adjustment,

the average value of the U.S. dollar increased 0.3% annually, and the Index of Foreign Buyers moved in the same direction, also increasing 0.3% compared to the same period of 2016. Usually, an increased U.S. dollar value would result in downward movement for the Index of Foreign Buyers, but a slight downturn in January was the only blip for the 12-month moving index, and it continued to increase on a monthly basis for each of the following five months – representing a 0.5% increase from January to June. This indicates that interest from foreign buyers outweighed the negative impact of the increasing strength of the U.S. dollar.

# FOLLOWING THE FEDERAL RESERVE



If you count on IAA for your market insight, you already know that we mention the Federal Reserve quite a bit. This special feature of the IAA 2017 Industry Report – 6-Month Update will delve into the influence of the Federal Reserve on the U.S. economy, currency, commodities and especially the automotive auction industry.

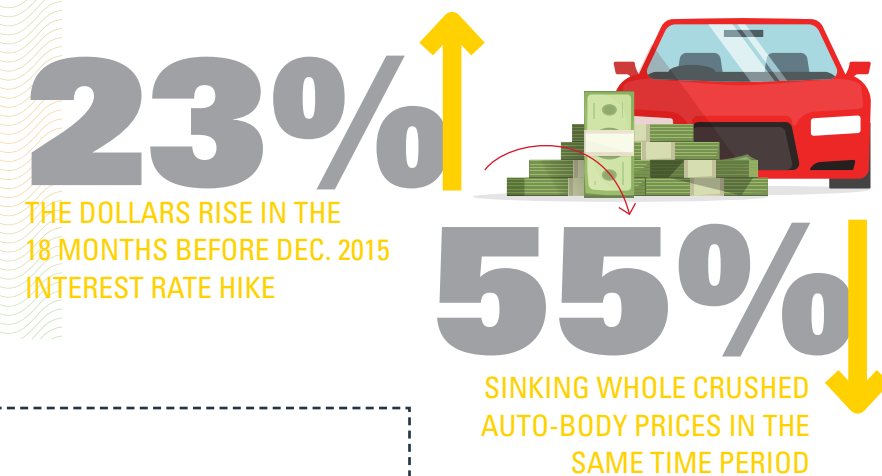


## WHAT IS THE FEDERAL RESERVE?

**The Federal Reserve is the central banking system of the United States.** It facilitates monetary policy with the express purpose to maximize employment and stabilize prices. In the context of current events, interest rates began to slide in 2006, culminating in the near 0% interest rate in response to the financial crisis in 2008 that persisted until the end of 2015. That was when unemployment rates shrunk back to pre-recession levels and the inflation rate remained below the targeted 2.0%. So it was finally time for an interest rate increase.

Will rates continue to rise? Now that we're more than halfway through 2017, we know that U.S. labor markets have continued to improve and that inflation rates have unexpectedly remained below the Federal Reserve's targeted 2.0% growth rate, contributing to what is currently the United States' third largest expansion ever. With interest rate hikes in March and June, analysts are buzzing about a potential third interest rate increase in 2017 as it was projected at the end of 2016.

What we're really interested in is how the Federal Reserve has an impact on the value of the U.S. dollar, which then has an impact on the value of scrap metal. For example...



## WHY DOES THIS MATTER TO US?

**The possibility of an interest rate increase, simply put, sends investors into a tizzy.** That being said, changes in the value of the U.S. dollar don't necessarily coincide with the moment that an interest rate hike occurs, but rather in anticipation of monetary policy changes. For example, the value of the dollar shot up 23.0% in the 18 months before the first interest rate hike in late 2015 as investors anticipated the Federal Reserve's move.

In turn, this is why we didn't see a dramatic increase in the value of the U.S. dollar in March and June of 2017, since investors had been expecting them for a while and had more or less "priced in" the rate increases. In fact, the value of the dollar fell in the second quarter of 2017 as investors became skeptical of the Federal Reserve raising rates again before the end of the year.

What we're really interested in is how the Federal Reserve has an impact on the value of the U.S. dollar, which then has a close relationship with the value of scrap metal. Going back to the dollar's 23.0% rise in the 18 months before the December 2015 interest rate hike, you'll also find that this coincided with whole crushed auto-body prices sinking 55.0%. And the persistent strength of the U.S. dollar through the first part of 2017 – despite recent declines – has also put downward pressure on the values of scrap. It has only been by way of other external factors, such as production closures and supply deficits, that the value of scrap has made recent gains.

## HOW DOES THIS IMPACT MY BUSINESS?

**Because commodities are denominated in the U.S. dollar,** its strong value makes it relatively more expensive for foreign buyers to purchase U.S. goods – including auction vehicles. Going back to those 18 months before the interest rate increase in December 2015, the rising value of the U.S. dollar also pushed the Index of Foreign Buyers down 1.3%.

In that sense, it's especially important for IAA to cultivate this global buyer community as much as possible to offset this effect. It takes establishing trust and distributing the best products for buying vehicles to pique the interest of buyers enough to override the strength of the dollar, and it's certainly possible – while the U.S. dollar and the Index of Foreign Buyers typically move in opposite directions, you'll notice that these factors both skewed positive for the first six months of 2017.

To get a first-hand account of how IAA builds our reputation globally – and how this increases bidding and buying – make sure to check out IAA Vice President of Global Market Development Dan Oscarson's blog, A Global Marketplace. See the inaugural publication of Dan's series here.

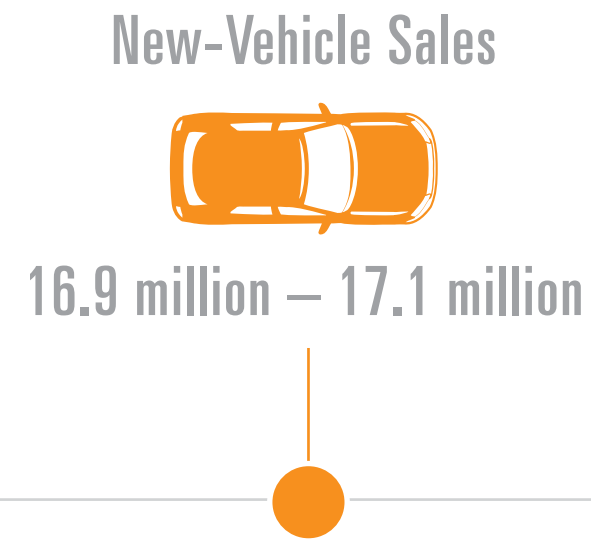
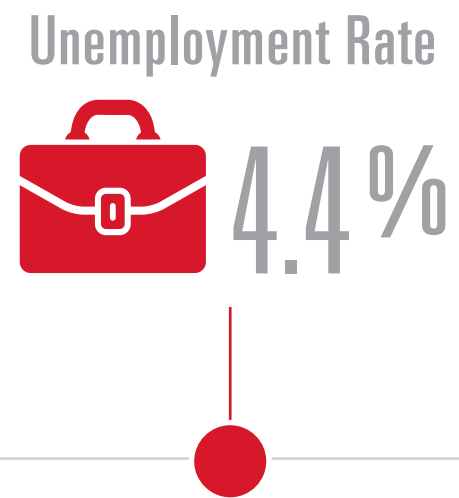
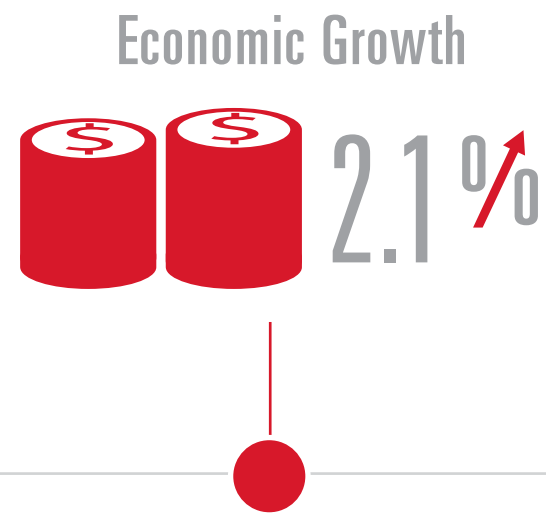


**It takes establishing trust and distributing the best products for buying vehicles to pique the interest of buyers enough to override the strength of the dollar, and it's certainly possible.**

# SECTION 6

## Looking Forward

Future economic and industry performance can never be certain, but there are some expectations for what's to come in the second half of 2017.



## U.S. Economy

The Federal Reserve Study of Professional Forecasters expects economic growth at 2.1% annually, with predictions at 2.5% in Q3 and 2.4% for Q4 to round out the year. The unemployment rate is also expected to fall to 4.4% in Q4.<sup>40</sup> The International Monetary Fund also predicts growth at 2.1% for 2017, but this was revised down from a previous forecast of 2.3%.<sup>41</sup>

## Automotive Industry

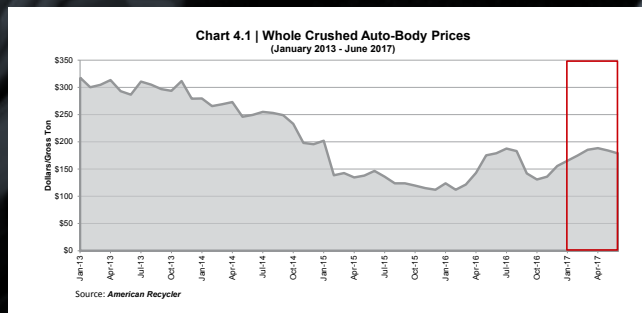
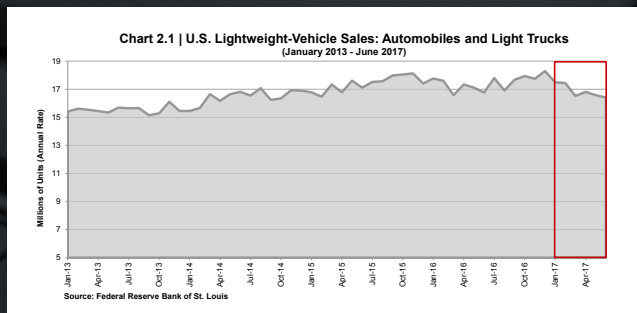
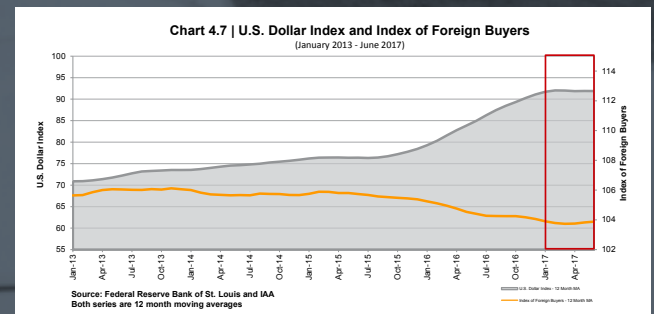
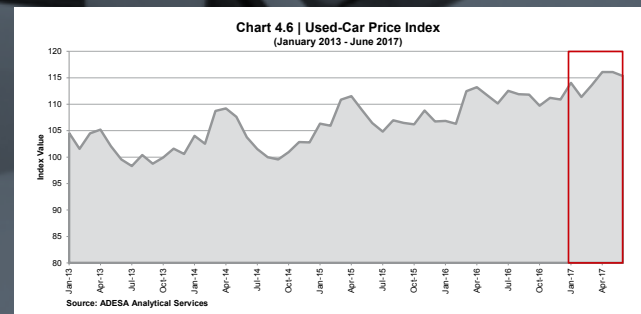
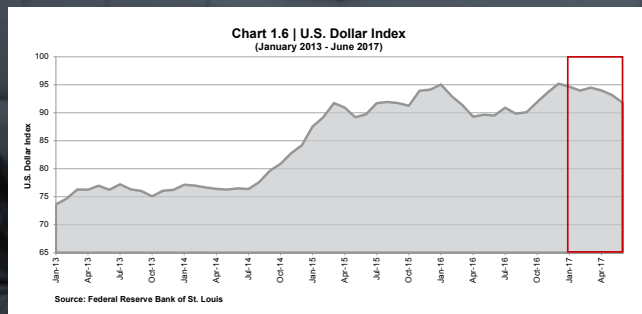
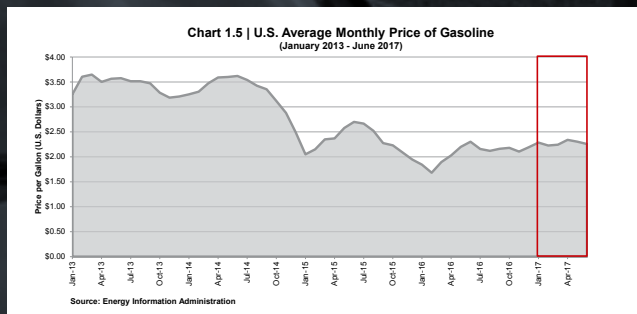
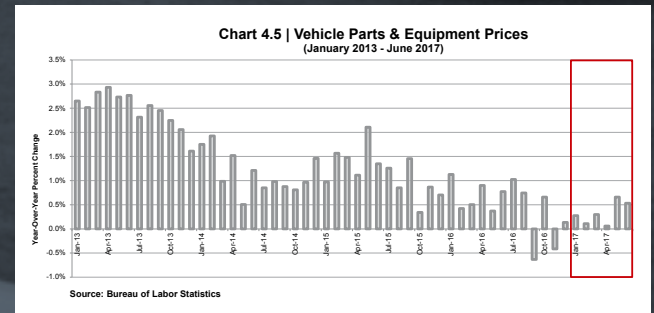
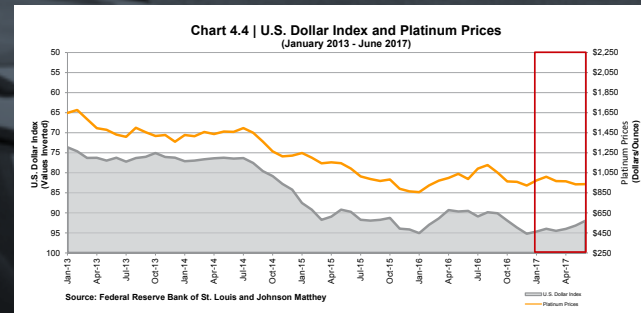
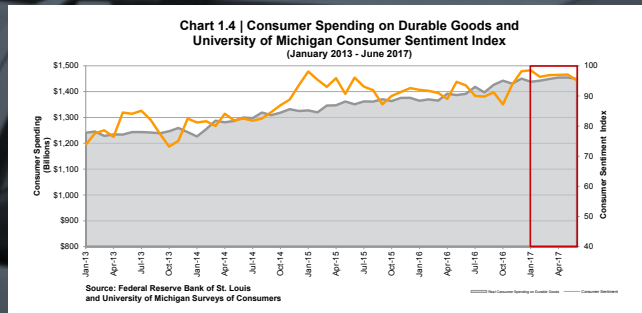
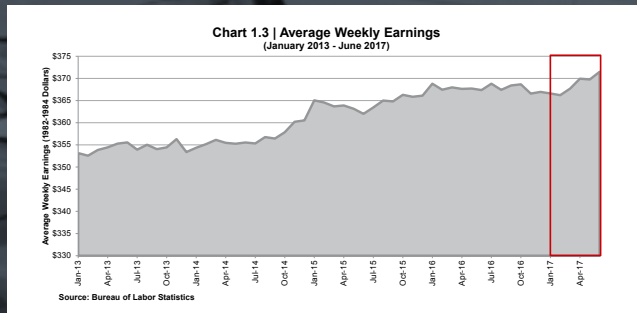
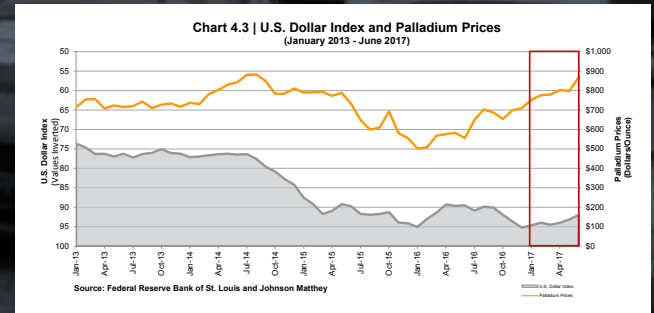
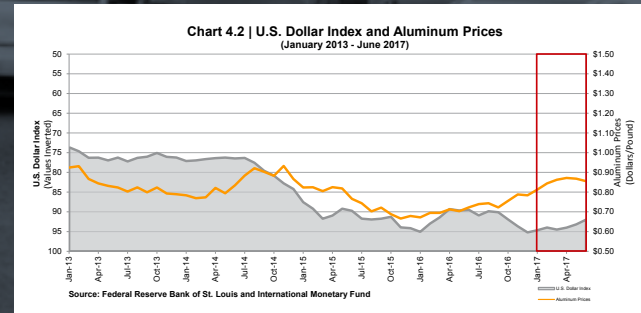
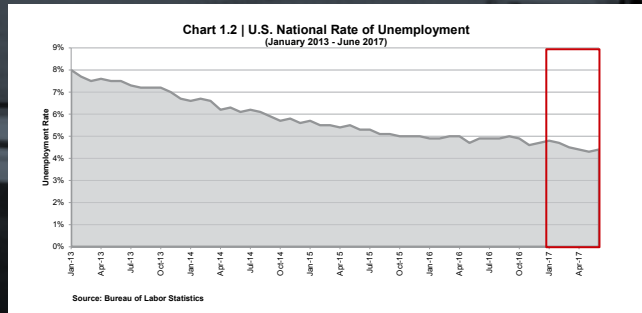
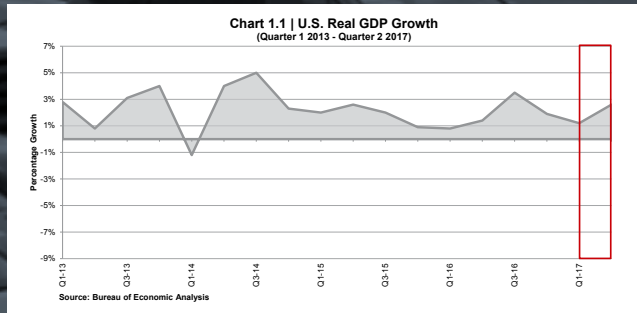
Analysts expect new-vehicle sales to not live up to the record-breaking numbers of 2016, with AlixPartners forecasting 16.9 million new-vehicle sales in 2017 and WardsAuto putting its prediction just a bit higher at 17.1 million new-vehicle sales.<sup>42</sup> LMC Automotive also initially had a forecast of 17.1 million units, but revised its prediction down to 17.0 million after U.S. auto sales fell for four consecutive months earlier this year.<sup>43</sup>

## Metals

As for the metals market, strong prices for aluminum could encourage production, which would then place downward pressure on this metal despite steady demand.<sup>44</sup> Palladium values are expected to stay strong and will likely hit their highest average yearly price on record, with analysts likening undersupply as a major influencer. Catalyst manufacturer Johnson Matthey stated in May that it expects the palladium market deficit to widen even further from last year's figures. However, platinum is moving in the opposite direction, and Johnson Matthey predicts the platinum market will see its first surplus in six years in 2017. Consequently, banks have cut their platinum price forecasts by 5.0%. Additionally, diesel vehicles, in which platinum is used in autocatalysts and jewelry are both facing falling demand in major markets like China and Europe, spelling out a rough 2017 for the metal.<sup>45</sup>

# SECTION 7

## Index Of Charts



The U.S. Dollar Index in charts 4.2 – 4.4 is inverted to clearly showcase the relationship between the value of the U.S. dollar and metals prices.

# SECTION 8

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# SECTION 9

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