Global Select Market on June 30, 2016.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

		FORM 10-K		
	NNUAL REPORT PURSUANT 134	TO SECTION 13 OR 15(D) OF THE SI	ECURITIES EXCHANGE ACT	OF
1,		For the fiscal year ended December 31, 2016		
		OR		
	RANSITION REPORT PURSUA	ANT TO SECTION 13 OR 15(D) OF TH	IE SECURITIES EXCHANGE A	ACT OF
1,		the transition period fromtoto	_	
		Commission File Number: 000-51728		
		can Railcar Industric	·	
	North Dakota		43-1481791	
	(State or Other Jurisdiction of Incorporation or Organization)	100 Clark Street St. Charles, Missouri 63301	(I.R.S. Employer Identification Number)	
	(Address of principal executive offices, including zip code)		
		Telephone (636) 940-6000 (Registrant's telephone number, including area code)		
	Securities registered purs	uant to Section 12(b) of the Act: Common Stock, p	ar value \$0.01 per share	
	Securit	ies registered pursuant to Section 12(g) of the Act	None	
Indicate by	check mark if the registrant is a well-know	n seasoned issuer, as defined in Rule 405 of the Sec	curities Act. Yes 🗆 No 🗷	
Indicate by	check mark if the registrant is not required	to file reports pursuant to Section 13 or Section 15	(d) of the Act. Yes □ No 🗷	
during the p		filed all reports required to be filed by Section 13 or period that the registrant was required to file such re		
be submitted		mitted electronically and posted on its corporate we ulation S-T (§ 232.405 of this chapter) during the pres). Yes 🗷 No 🗆		
	trant's knowledge, in definitive proxy or i	filers pursuant to Item 405 of Regulation S-K is no information statements incorporated by reference in		
		e accelerated filer, an accelerated filer, a non-acceler," and "smaller reporting company" in Rule 12b-2		y. See
Large Accel	erated Filer		Accelerated Filer	×
Non-Accele	rated Filer		Smaller Reporting Company	
Indicate by	check mark whether the registrant is a shel	ll company (as defined in Rule 12b-2 of the Exchan	ge Act). Yes □ No 🗷	
The aggrega	te market value of the voting and non-vot	ting stock held by non-affiliates of the registrant as	of the last business day of the registrant's	most

As of February 22, 2017, as reported on the NASDAQ Global Select Market, there were 19,083,878 shares of common stock, par value \$0.01 per share, of the registrant outstanding.

recently completed second fiscal quarter was approximately \$296 million, based on the closing sales price of \$39.47 per share of such stock on The NASDAQ

DOCUMENTS INCORPORATED BY REFERENCE

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Some of the statements contained in this report are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 (Exchange Act), including statements regarding our plans, objectives, expectations and intentions. Such statements include, without limitation, statements regarding various estimates we have made in preparing our financial statements, our plans, and the industry's ability, to address the Federal Railroad Administration (FRA) directive released September 30, 2016 and subsequently revised and superseded on November 18, 2016 (FRA Directive), our plans to manage our own lease fleet and terminate our contractual agreements with ARL, expected future trends relating to our industry, products and markets, the potential impact of regulatory developments, including developments related to the FRA Directive, anticipated customer demand for our products and services, trends relating to our shipments, leasing business, railcar services and revenues, trends related to shipments for direct sale versus lease, our strategic objectives and long-term strategies, our results of operations, financial condition and the sufficiency of our capital resources, our projects to expand our manufacturing flexibility and repair capacity, our capital expenditure plans, short- and long-term liquidity needs, ability to service our current debt obligations and future financing plans, our Stock Repurchase Program, anticipated benefits regarding the growth of our leasing business, the mix of railcars in our lease fleet and our lease fleet financings, anticipated production schedules for our products and the anticipated production schedules of our joint ventures, our backlog, our plans regarding future dividends and the anticipated performance and capital requirements of our joint ventures. These forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those anticipated. Investors should not place undue reliance on forward-looking statements, which speak only as of the date they are made and are not guarantees of future performance. We undertake no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

Risks and uncertainties that could adversely affect our business and prospects include without limitation:

- our prospects in light of the cyclical nature of our business;
- the health of and prospects for the overall railcar industry;
- risks relating to our compliance with the FRA Directive, any developments related to the FRA Directive and any costs or loss of revenue related thereto:
- risks relating to transitioning our management of our railcar leasing business from ARL and managing our lease fleet leading up to and after the ARL Sale:
- fluctuations in commodity prices, including oil and gas;
- the risk of being unable to market or remarket railcars for sale or lease at favorable prices or on favorable terms or at all;
- the impact, costs and expenses of any warranty claims we may be subject to now or in the future;
- the highly competitive nature of the manufacturing, railcar leasing and railcar services industries;
- the variable purchase patterns of our railcar customers and the timing of completion, customer acceptance and shipment of orders, as well as the mix of railcars for lease versus direct sale;
- risks relating to our compliance with, and the overall railcar industry's implementation of, United States and Canadian regulations related to the transportation of flammable liquids by rail;
- · our ability to manage overhead and variations in production rates;
- · our ability to recruit, retain and train qualified personnel;
- the impact of any economic downturn, adverse market conditions or restricted credit markets;
- our reliance upon a small number of customers that represent a large percentage of our revenues and backlog;
- fluctuations in the costs of raw materials, including steel and railcar components, and delays in the delivery of such raw materials and components;
- fluctuations in the supply of components and raw materials we use in railcar manufacturing;
- the ongoing risks related to our relationship with Mr. Carl Icahn, our principal beneficial stockholder through Icahn Enterprises L.P. (IELP), and certain of his affiliates;
- the risks associated with ongoing compliance with environmental, health, safety, and regulatory laws and regulations, which may be subject to change;
- the impact, costs and expenses of any litigation we may be subject to now or in the future;
- · the sufficiency of our liquidity and capital resources, including long-term capital needs to support the growth of our lease fleet;
- the impact of repurchases pursuant to our Stock Repurchase Program on our current liquidity and the ownership percentage of our principal beneficial stockholder through IELP, Mr. Carl Icahn;

- the risks associated with our current joint ventures and anticipated capital needs of, and production capabilities at our joint ventures;
- the conversion of our railcar backlog into revenues equal to our reported estimated backlog value;
- · the risks and impact associated with any potential joint ventures, acquisitions, strategic opportunities or new business endeavors;
- · the integration with other systems and ongoing management of our new enterprise resource planning system; and
- the risks related to our and our subsidiaries' indebtedness and compliance with covenants contained in our and our subsidiaries' financing arrangements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "projects," "projects," "protential" and similar expressions intended to identify forward-looking statements. Our actual results could be different from the results described in or anticipated by our forward-looking statements due to the inherent uncertainty of estimates, forecasts and projections and may be materially better or worse than anticipated. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Forward-looking statements represent our estimates and assumptions only as of the date of this report. We expressly disclaim any duty to provide updates to forward-looking statements, and the estimates and assumptions associated with them, after the date of this report, in order to reflect changes in circumstances or expectations or the occurrence of unanticipated events except to the extent required by applicable securities laws. All of the forward-looking statements are qualified in their entirety by reference to the factors discussed above and under "Risk Factors" set forth in Part I Item 1A of this Annual Report on Form 10-K, as well as the risks and uncertainties discussed elsewhere in this Annual Report on Form 10-K. We qualify all of our forward-looking statements by these cautionary statements. We caution you that these risks are not exhaustive. We operate in a continually changing business environment and new risks emerge from time to time.

AMERICAN RAILCAR INDUSTRIES, INC.

FORM 10-K

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AMERICAN RAILCAR INDUSTRIES, INC. FORM 10-K

PART I

Item 1: Business
INTRODUCTION

American Railcar Industries, Inc. (ARI) is a prominent North American designer and manufacturer of hopper and tank railcars, which are currently the two largest markets within the railcar industry. We provide our railcar customers with integrated solutions through a comprehensive set of high quality products and related services offered by our three reportable segments: manufacturing, railcar leasing and railcar services. Manufacturing consists of railcar manufacturing and railcar and industrial component manufacturing. We use certain of these components in our own railcar manufacturing and sell certain of these products to third parties. Railcar leasing consists of railcars manufactured by us and leased to third parties under operating leases. Railcar services consist of railcar repair, engineering and field services. Our business model combines manufacturing, railcar leasing and railcar services and is designed to support the industry with complete railcar solutions over the full life cycle of the railcar. Financial information about our business segments for the years ended December 31, 2016, 2015 and 2014 is set forth in Note 19 of our consolidated financial statements. Unless the context otherwise requires, references to "our company," "the Company", "we," "us" and "our," refer to us and our consolidated subsidiaries and our predecessors.

We were founded and incorporated in Missouri in 1988, reincorporated in Delaware in 2006 and reincorporated again in North Dakota in 2009. Since our formation, we have grown our business from being a small provider of railcar components and railcar maintenance services to an integrated provider of direct sale and leased railcars, railcar components and railcar maintenance and repair services. Our primary customers include shippers, leasing companies, industrial companies, and Class I railroads. In servicing this customer base, we believe our comprehensive railcar leasing and service offerings and our railcar components manufacturing business help us to further penetrate the general railcar manufacturing market. This breadth of product and service offerings provides us with opportunities to partner with our customers to improve our products and services and enhance the value of our offerings.

Our operations include eight manufacturing plants that fabricate and assemble raw materials, mainly steel, into railcars, railcar components and industrial components; eight railcar repair plants; and eleven mobile repair (mobile units) and mini repair shop (mini shop) locations. Our railcar services business includes railcar repair and maintenance, painting, lining, cleaning, inspections, engineering support and field services. In addition, at times we use our manufacturing facilities to perform certain repair projects. For example, we are currently using a portion of our tank railcar manufacturing facility to perform railcar repair work as it offers a cost effective way to perform repairs and retrofit services in a production line set-up. See Item 2 "*Properties*" for further discussion of our properties.

We are currently party to two joint ventures. Our Ohio Castings Company, LLC (Ohio Castings) joint venture has the capability to manufacture various railcar components for sale, through one of the joint venture partners, to third parties and the other joint venture partners. As discussed below, this joint venture is currently idled. Our Axis, LLC (Axis) joint venture manufactures and sells axles to its joint venture partners for use and distribution both domestically and internationally in traditional freight railcar markets and other railcar markets, such as transit and locomotive railcars.

PRODUCTS AND SERVICES

We design and manufacture special, customized and general-purpose railcars and a wide range of components primarily for the North American railcar and industrial markets. We have several different railcar types in our broad spectrum of hopper and tank railcar families that service various commodities. Customers may select the size and configuration of the railcar to best suit their needs. By offering our customers both direct sale and railcar leasing opportunities, we continue to foster long-term relationships with key customers, helping them to meet their business and financial objectives. We also support the railcar industry by offering a variety of comprehensive railcar repair services, ranging from full to light repair, engineering and on-site repairs and maintenance through our various repair facilities, including mobile units and mini shops. See Note 19 of our consolidated financial statements for financial information by segment.

Manufacturing

We primarily manufacture two types of railcars, hopper and tank railcars, but have the ability to produce additional railcar types. We offer our customers the option to buy or lease railcars. We also manufacture components for railcar and industrial markets.

Hopper railcars

We manufacture both general service and specialty carbon steel and stainless steel hopper railcars at our Paragould plant. All of our hopper railcars may be equipped with varying combinations of hatches, discharge outlets and protective coatings to provide our customers with a railcar designed to perform in precise operating environments. The flexible nature of our hopper railcar design allows it to be quickly modified to suit changing customer needs. This flexibility can continue to provide value after the initial purchase or lease because our railcars may be converted for reassignment to other services.

We have several different railcar types in our hopper family that target specific customers and specific commodities, including plastic pellets, industrial and food grade starches and flours, grain, corrosive chemicals, heavy ore minerals, clays, cement and sand. Our hopper railcars are specifically designed for shipping a variety of dry bulk products, from light density products, such as plastic pellets, to high-density products, such as cement and sand. Depending upon customer requirements, they can operate in a gravity, positive pressure or vacuum pneumatic unloading environment. CenterFlow® and other lines of hopper railcars provide protection for a wide range of dry bulk products and enhance the associated loading, unloading and cleaning processes. Improvements include enhanced designs of the shape of the railcars, underframes, outlet mounting frames, loading hatches, discharge outlets and rotary-dump, which improve the cargo loading and unloading processes.

Tank railcars

We manufacture general service, pressurized, coiled, lined and insulated carbon steel and stainless steel tank railcars at our Marmaduke plant. Our tank railcars are designed to transport a variety of commodities including chemicals, natural gas liquids, vegetable oil, corn syrup and other food products, ethanol and crude oil. Our pressure tank railcars transport products that require a pressurized state due to their liquid, semi-gaseous or gaseous nature, including chlorine, anhydrous ammonia, liquid propane and butane. Our pressure tank railcars feature a thicker pressure retaining inner shell that is separated from a jacketed outer shell by layers of insulation, thermal protection or both. Our pressure tank railcars are made from specific grades of normalized steel that are selected for toughness and ease of welding. Most of our tank railcars feature a sloped bottom tank that provides improved drainage. Many of our tank railcars feature coils that can be steam-heated to decrease cargo viscosity, which speeds unloading. We can alter the design of our tank railcars to address specific customer or regulatory requirements and we can also apply linings to tank railcars.

Other railcar types

We have the design capabilities, manufacturing flexibility and expertise to produce many other railcar types as we have in the past and may produce in the future, as demand may dictate.

Component manufacturing

In addition to manufacturing railcars, we also manufacture custom and standard railcar components. Our products include discharge outlets for hopper railcars, tank railcar components and valves, tank heads, manway covers, wheel pair sets, underframes, outlet components and running boards for industrial and railroad customers and hitches for the intermodal market. We use these components in our own railcar manufacturing and sell certain of these products to third parties.

We also manufacture aluminum and special alloy steel castings that we sell primarily to industrial customers. These products include castings for the trucking, construction, mining and oil and gas exploration markets, as well as finished, machined castings and other custom machined products.

Consulting and license agreements

In January 2013, we entered into a purchasing and engineering services agreement and license with ACF Industries, LLC (ACF), an affiliate of Mr. Carl Icahn, our principal beneficial stockholder through IELP. Under this agreement, we provide purchasing and engineering support to ACF in connection with ACF's manufacture and sale of certain tank railcars at its facility. Additionally, we provide certain intellectual property required to manufacture and sell such tank railcars. In December 2016, ARI and ACF amended this agreement to, among other things, extend the termination date from December 31, 2016 to December 31, 2017, subject to certain early termination events.

Railcar Leasing

Customers may lease our hopper and tank railcars through various leasing options. Maintenance of leased railcars may be provided, in part, through our railcar repair and refurbishment facilities. The terms of our railcar leases generally range from 5 to 10 years and generally provide for fixed monthly rentals. As of December 31, 2016, we had 11,268 railcars in our lease fleet, with over 99% under lease.

Railcar Services

Our railcar services segment focuses on railcar repair, engineering and field services. Our primary customers for services provided by this group are leasing companies and shippers of specialty hopper and tank railcars. Our railcar services segment provides us with insight into our customers' railcar needs, which we use to improve service and product offerings across all our business segments.

Repair services

This component of our business includes both our full service repair and refurbishment plants and our light service repair plants, which are strategically located to serve our customers. Our full service repair plants have full cleaning, interior and exterior coating, repair / rebuilding, non-destructive testing and engineering capabilities for a variety of railcar types. Our light repair plants provide a focused offering to specific areas, in addition to quicker throughput. We have the capacity to handle large reassignment projects, heavy wreck repair, and conversions to make, or keep, railcars compliant with regulations, as well as many other customer requirements. The capacity at these facilities will also aid us, and our customers, in complying with the Federal Railroad Administration's Revised Directive, as discussed below.

Engineering and field services

We offer a wide array of field services through our mobile units and mini shops. Working together with our field services network, our engineers are available to assist in quickly resolving railcar maintenance and regulatory compliance issues. Information learned in the field is used to educate other aspects of our business, allowing us to recognize and address maintenance and compliance issues that affect our customers' fleets.

Consulting and license agreements

In April 2015, we entered into a repair services and support agreement with ACF. Under this agreement, we provide certain sales and administrative and technical services, materials and purchasing support and engineering services to ACF to provide repair and retrofit services (Repair Services). Additionally, we provide a non-exclusive and non-assignable license of certain intellectual property related to the Repair Services for railcars.

SALES AND MARKETING

We sell and market our products and services in North America. Currently, American Railcar Leasing, LLC (ARL) markets our railcars for sale or lease, subject to certain exceptions, and acts as our manager to lease railcars on our behalf for a fee. ARL is an affiliate of Mr. Carl Icahn, our principal beneficial stockholder through IELP. In addition to ARL's marketing efforts on our behalf, we market our railcars for direct sale to certain leasing customers and sell our component products and railcar services.

On December 16, 2016, the equity holders of ARL entered into a purchase agreement (the ARL Purchase Agreement) to sell their interests in ARL to SMBC Rail Services, LLC (the Buyer). Subject to the terms and conditions of the ARL Purchase Agreement, the initial closing is anticipated to occur in the second quarter of 2017. In anticipation of the expected sale of ARL (the ARL Sale) to the Buyer, ARI and ARL entered into a railcar management transition agreement (the RMTA) to manage the transition, from ARL to ARI, of our railcar leasing business. See Note 18 of our consolidated financial statements for further discussion of the RMTA. Pursuant to the RMTA, following the transition of management of our railcar leasing business, we will begin to market all of our railcars for sale or lease, as well as continue to sell our component products and railcar services.

Certain of our component products are sold directly to customers via catalogs and the Internet through which our customers have access to our railcar and industrial components. Our marketing activities include commodity and industry based market research and analyses, advertising via electronic and print publications, participation in trade shows and industry forums and distribution of sales literature and marketing materials.

In 2016, our top two customers, CP Chemical Company, LLC and Equistar Chemicals, LP, accounted for approximately 17.9% and 12.3% of our consolidated revenues, respectively and no other customers accounted for more than 10% of our consolidated revenues. In 2016, sales to our top ten customers accounted for approximately 65.3% of our consolidated revenues.

See Note 19 of our consolidated financial statements for geographical information concerning the sales of our products and services, as well as other sales concentration information.

BACKLOG

We define backlog as the number and sales value of railcars that our customers have committed in writing to purchase or lease from us that have not been shipped. As of December 31, 2016, our total backlog was 3,813 railcars, of which 2,176 railcars

with an estimated value of \$198.3 million were orders for direct sale and 1,637 railcars with an estimated market value of \$152.2 million were orders for railcars that will be subject to lease. Approximately 67% of the railcars in our backlog are expected to be delivered during 2017, 37% for direct sale and 30% for lease. All of our backlog as of December 31, 2016 and December 31, 2015 related to railcars for non-affiliated customers. As of December 31, 2015, our total backlog was 7,081 railcars, of which 5,629 railcars with an estimated value of \$550.1 million were orders for direct sale and 1,452 railcars with an estimated market value of \$144.7 million were orders for railcars that will be subject to lease.

Railcars for Sale. As of December 31, 2016, approximately 57.1% of the total number of railcars in our backlog were railcars for direct sale. Estimated market value of railcars for direct sale reflects the total revenues expected as if such backlog were converted to actual revenues at the end of the particular period.

Railcars for Lease. As of December 31, 2016, approximately 42.9% of the total number of railcars in our backlog were for lease, subject to firm orders. Estimated backlog value of railcars that will be subject to lease reflects the estimated market value of each railcar as if it had been sold to a third party. Actual revenues for railcars subject to lease are recognized per the terms of the lease and are not based on the estimated backlog value.

The following table shows our reported railcar backlog and estimated future revenue value attributable to such backlog at the end of the periods shown. The reported backlog includes railcars relating to purchase or lease obligations based upon an assumed mix.

	<u></u>	2016	2015
Railcar backlog at January 1		7,081	11,732
New railcars shipped		(4,836)	(8,903)
New railcar orders		1,568	4,252
Railcar backlog at December 31		3,813	7,081
Estimated railcar backlog value at end of period (in thousands) (1)	\$	350,501	\$ 694,878

(1) Estimated backlog value reflects the total revenues expected to be attributable to the backlog reported at the end of the particular period as if such backlog were converted to actual revenues. Estimated backlog value reflects known price adjustments for material cost changes but does not reflect a projection of any future material price adjustments that are generally provided for in our customer contracts.

We cannot guarantee that the actual revenue from these orders will equal our reported estimated backlog value or that our future revenue efforts will be successful. Customer orders may be subject to requests for delays in deliveries, inspection rights and other customary industry terms and conditions, which could prevent or delay railcars in our backlog from being shipped and converted into revenue. Historically, we have experienced little variation between the number of railcars ordered and the number of railcars actually shipped. As delivery dates could be extended on certain orders, we cannot guarantee that our reported railcar backlog will convert to revenue in any particular period, if at all.

SUPPLIERS AND MATERIALS

Our business depends on the adequate supply of numerous railcar components, including railcar wheels, brakes, axles, bearings, yokes, tank railcar heads, sideframes, bolsters and other heavy castings, and raw materials, such as steel and normalized steel plate, used in the production and maintenance of railcars. Due to our vertical integration efforts, including our involvement in joint ventures, we are currently able to produce axles, and tank railcar heads and assemble wheel sets, along with numerous other railcar components.

The cost of raw materials and railcar components represents a significant amount of the direct manufacturing costs of our railcar product lines. Our railcar manufacturing contracts generally contain provisions for price adjustments that track fluctuations in the prices of certain raw materials and railcar components, including carbon and stainless steel, so that increases in our manufacturing costs caused by increases in the prices of these raw materials and components are passed on to our customers. Conversely, if the price of those materials or components decreases, a discount is applied to reflect the decrease in cost.

In 2016, our top three suppliers accounted for approximately 37.7% of the total materials that we purchased and our top ten suppliers accounted for approximately 59.6% of the total materials that we purchased.

Steel

We use hot rolled steel coils, as-rolled steel plate and normalized steel plate in our manufacturing operations. We can acquire hot rolled steel coils and standard as-rolled steel plate from several suppliers. However, there are a limited number of qualified domestic suppliers of the form and size of as-rolled and normalized steel plate that we need for manufacturing tank railcars, and these suppliers are our only source of this product. Normalized steel plate is a special form of heat-treated steel that is stronger and is more resistant to puncture than as-rolled steel plate. Normalized steel plate is required by federal regulations to be used in tank railcars carrying certain types of hazardous cargo.

Castings

Heavy castings that we use in our railcar manufacturing primarily include bolsters and sideframes that are components of truck assemblies, upon which railcars are mounted, as well as couplers and yokes. Historically, we have obtained a significant portion of our castings requirements from our joint venture, Ohio Castings. Beginning in January 2017, Ohio Castings' production was idled by the joint venture partners based on expected industry demand. We expect that Ohio Castings will remain idle through at least the end of 2017, subject to re-evaluation based on changes in future demand expectations. During this idle period, we expect to fulfill all of our castings requirements from third party vendors.

Axles

Axles, at times, have been a capacity constrained critical component of manufacturing railcars. Our joint venture, Axis, produces railcar axles and is our primary supplier of such axles.

COMPETITION

The North American railcar manufacturing industry has historically been extremely competitive. We compete primarily with Trinity Industries, Inc. (Trinity), The Greenbrier Companies, Inc. (Greenbrier), National Steel Car Limited, and FreightCar America, Inc. in the hopper railcar market and primarily with Trinity, Greenbrier and Union Tank Car Company in the tank railcar market. Competitors have expanded and may continue to expand their capabilities into our core railcar markets.

We also experience intense competition in our railcar leasing business from railcar manufacturers, leasing companies, banks and other financial institutions. Some of our railcar manufacturing competitors produce railcars for use in their own railcar leasing fleets, competing directly with our railcar leasing business and with other leasing companies. Some of this railcar leasing business competition also includes certain of our significant customers and affiliates, including ARL, though provisions in our railcar management contracts with ARL require ARL to treat our railcars consistent with generally accepted industry standards and to adhere to standards of conduct that are at least equal to the efforts used by ARL in its management of its own and other customers' railcars. As mentioned above, in anticipation of the ARL Sale, ARI and ARL entered into the RMTA to manage the transition, from ARL to ARI, of the management of our railcar leasing business. The RMTA, among other things and subject to its terms, also provides for the termination of, and the discharge and release of obligations under, certain other agreements to which ARI or its subsidiaries, on the one hand, and ARL, on the other hand, are parties, including our railcar management contracts with ARL. See Note 18 of our consolidated financial statements for further discussion of the RMTA.

Our competition for the sale of railcar components includes our competitors in the railcar manufacturing market, as well as a concentrated group of companies whose primary business focus is the production of one or more specialty components. We compete with numerous companies in our railcar services businesses, ranging from companies with greater resources than we have to small, local companies.

In addition to price, competition in all of our markets is based on quality, reputation, reliability of delivery, proximity to products and services, customer service and other factors.

INTELLECTUAL PROPERTY

We believe that manufacturing expertise, the improvement of existing technology and the development of new products may be more important than patent protection in establishing and maintaining a competitive advantage. Nevertheless, we have obtained several patents and will continue to make efforts to obtain patents, when available, in connection with our product development and design activities.

ARI®, Pressureaide®, CenterFlow® and our railcar logo are our U.S. registered trademarks. We also have a common law trademark in the name American Railcar. We currently license our trademarks "American Railcar" and the "diamond shape" of our logo to ARL pursuant to a Trademark License Agreement. In accordance with the terms of the RMTA, ARL will be required to discontinue using the name American Railcar and the diamond shape of its logo following the consummation of the

ARL Sale. Each trademark, trade name or service mark of any other company appearing in this report belongs to its respective holder.

In connection with the ARL Sale and pursuant to the terms and conditions of the RMTA, ARL provides us an irrevocable, fully paid, non-transferrable (except as set forth therein), royalty-free license to certain software and databases owned and used by ARL to manage leased railcars. We expect to use this license to manage our railcar leasing business. This license will remain in effect even if the ARL Sale is not consummated.

EMPLOYEES

As of December 31, 2016, we had 2,159 full-time employees in various locations throughout the United States and Canada, of which approximately 7.7% were party to domestic collective bargaining agreements at two of our repair facilities and at our Texas manufacturing facility.

REGULATION

The industries in which we operate are subject to extensive regulation by various governmental, regulatory and industry authorities and by federal, state, local and foreign authorities. The primary regulatory and industry authorities involved in the regulation of the railcar industry in the U.S. and Canada are the Federal Railroad Administration (FRA), the Association of American Railroads (AAR), U.S. Department of Transportation (USDOT) and Transport Canada (TC). The FRA administers and enforces U.S. Federal laws and regulations relating to railroad safety. These regulations govern equipment and safety compliance standards for railcars and other rail equipment used in interstate commerce. The AAR promulgates a wide variety of rules and regulations governing safety and design of equipment, relationships among railroads with respect to railcars in interchange and other matters. The AAR also certifies railcar manufacturers and component manufacturers that provide equipment for use on railroads in the U.S. New products must generally undergo AAR testing and approval processes. Because of these regulations, we must maintain certifications with the AAR as a manufacturer of railcars and railcar components, and products that we sell must meet AAR and FRA standards. We must comply with the rules of the USDOT and we are subject to oversight by TC that also requires compliance.

ENVIRONMENTAL MATTERS

We are subject to comprehensive federal, state, local and international environmental laws and regulations relating to the release or discharge of materials into the environment, the management, use, processing, handling, storage, transport or disposal of hazardous materials and wastes, and other laws and regulations relating to the protection of human health and the environment. These laws and regulations expose us to liability for the environmental condition of our current or formerly owned or operated facilities and negligent acts, and also may expose us to liability for the conduct of others or for our actions that complied with all applicable laws at the time these actions were taken. In addition, these laws may require significant expenditures to achieve compliance, and are frequently modified or revised to impose new obligations. Civil and criminal fines and penalties and other sanctions may be imposed for non-compliance with these environmental laws and regulations. Our operations that involve hazardous materials also raise potential risks of liability under common law.

Environmental operating permits are, or may be, required for our operations under these laws and regulations. These operating permits are subject to modification, renewal and revocation. We regularly monitor and review our operations, procedures and policies for compliance with permits, laws and regulations. Despite these compliance efforts, risk of environmental liability is inherent in the operation of our businesses, as it is with other companies engaged in similar businesses.

Certain real property we acquired from ACF in 1994 has been involved in investigation and remediation activities to address contamination. ACF is an affiliate of Mr. Carl Icahn, our principal beneficial stockholder through IELP. Substantially all of the issues identified with respect to these properties relate to the use of these properties prior to their transfer to us by ACF and for which ACF has retained liability for environmental contamination that may have existed at the time of transfer to us. ACF has also agreed to indemnify us for any cost that might be incurred with those existing issues. As of the date of this report, we do not believe we will incur material costs in connection with any activities relating to these properties, but we cannot assure that this will be the case. If ACF fails to honor its obligations to us, we could be responsible for the cost of any additional investigation or remediation activities relating to these properties that may be required.

We believe that our operations and facilities are in compliance with applicable laws and regulations and that any noncompliance is not likely to have a material adverse effect on our financial condition or results of operations.

Future events, such as new environmental regulations or changes in or modified interpretations of existing laws and regulations or enforcement policies, or further investigation or evaluation of the potential health hazards of products or business activities, may give rise to additional compliance and other costs that could materially adversely affect our business, financial condition

or results of operations. In addition, we have historically conducted investigation and remediation activities at properties that we own to address past contamination. To date, such costs have not been material. Although we believe we have satisfactorily addressed all known material contamination through our remediation activities, there can be no assurance that these activities have addressed all past contamination. The discovery of past contamination or the release of hazardous substances into the environment at our current or formerly owned or operated facilities could require us in the future to incur investigative or remedial costs or other liabilities that could be material or that could interfere with the operation of our businesses.

ADDITIONAL INFORMATION

Our principal executive offices are located at 100 Clark Street, St. Charles, Missouri, 63301, our telephone number is (636) 940–6000. We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (SEC). You may find a copy of these materials at the Public Reference Room maintained by the SEC at Room 1580, 100 F Street N.E., Washington, D.C. 20549. You may call the SEC at 1-800-SEC-0330 for more information on the operation of the public reference room. These materials may also be accessed through the SEC's website sec.gov. Copies of our annual, quarterly and current reports, Audit Committee Charter, Code of Business Conduct and Code of Ethics for Senior Financial Officers are available on our website americanzailcar.com or free of charge by contacting our Investor Relations Department at American Railcar Industries, Inc., 100 Clark Street, St. Charles, Missouri, 63301.

Item 1A: Risk Factors

The following risk factors should be considered carefully in addition to the other information contained in this Annual Report on Form 10-K. This Annual Report on Form 10-K contains forward-looking statements that involve risks and uncertainties. See "Special Note Regarding Forward-Looking Statements," above. Our actual results could differ materially from those contained in the forward-looking statements. Factors that may cause such differences include, but are not limited to, those discussed below and those discussed elsewhere in this Annual Report on Form 10-K. Additional risks and uncertainties that management is not aware of or that are currently deemed immaterial may also adversely affect our business operations. If any of the following risks materialize, our business, financial condition and results of operations could be materially adversely affected.

We undertake no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

The highly cyclical nature of the railcar industry may result in lower revenues during economic downturns or due to other factors.

The North American railcar market has been, and we expect it to continue to be, highly cyclical, resulting in volatility in demand for our products and services. Many of our customers operate in cyclical markets, such as the energy, chemical agricultural, food and construction industries, which are susceptible to macroeconomic downturns. Weakness in certain sectors of the U.S. economy may make it more difficult for us to sell or lease certain types of railcars. The cyclical nature of the railcar industry may result in lower revenues during economic or industry downturns due to decreased demand for both new and replacement railcars and railcar products and lower demand for railcars on lease. Decreased demand could result in lower new railcar volumes for sale and lease, increased downtime, reduced sale prices or lease rates and decreased cash flow.

The market for hopper and tank railcars is currently experiencing a downtum. We cannot assure you that hopper or tank railcar demand will maintain its current pace, that demand for any railcar types or railcar services will improve, or that our railcar backlog, orders or shipments will track industry-wide trends.

Our failure to obtain new orders could materially adversely affect our business, financial condition and results of operations, and may be exacerbated to the extent that our backlog is depleted due to shipments of railcars outpacing new orders. Downturns in part or all of the railcar manufacturing industry may occur in the future, resulting in decreased demand for our products and services, reduced backlog and adjustments in production at our railcar facilities. For example, a change in environmental regulations, oil prices, competitive pricing, pipeline capacity and other factors could trigger a cyclical shift and could impact demand for railcars in the energy transportation industry.

Further, a change in our product mix due to cyclical shifts in demand could have an adverse effect on our profitability. We have several different railcar types in our hopper and tank railcar families that we manufacture and lease. In addition, we repair a variety of railcars. The demand for specific types of these railcars varies from time to time. These shifts in demand could affect our margins and could have an adverse effect on our profitability. In addition, if we fail to manage our overhead costs and variations in production rates, our business could suffer.

We may incur significant costs, loss to reputation and further regulatory action as a result of the issuance of the FRA Directive, any of which could materially adversely affect our business, financial condition, results of operations and ability to access capital.

On September 30, 2016, the Federal Railroad Administration (FRA) issued Railworthiness Directive (RWD) No. 2016-01 (the Original Directive). The Original Directive addressed, among other things, certain welding practices in one weld area in specified DOT 111 tank railcars manufactured between 2009 and 2015 by ARI and ACF Industries, LLC (ACF). ACF is an affiliate of Mr. Carl Icahn, our principal and beneficial stockholder through IELP. We met and corresponded with the FRA following the issuance of the Original Directive to express our concerns with the Original Directive and its impact on us, as well as the industry as a whole.

On November 18, 2016 (the Issuance Date), the FRA issued RWD No. 2016-01 [Revised] (the Revised Directive). The Revised Directive changes and supersedes the Original Directive in several ways. The Original Directive indicated that approximately 14,800 general purpose tank railcars could be affected. The Revised Directive requires owners to identify their subject tank cars and then from that population identify the 15% of subject tank cars currently in hazardous materials service with the highest mileage in each tank car owner's fleet. Visual inspection of each of the subject tank railcars is required of the car operator prior to putting any railcar into service. Owners must ensure appropriate inspection, testing and repairs, if needed, within 12 months of the Issuance Date for the 15% of their subject tank railcars identified to be in hazardous materials service with the highest mileage. The FRA will monitor and analyze the results of the 15% sample and has reserved the right to impose additional test and inspection requirements for the remaining fleet of tank cars subject to the Revised Directive.

Owners, including the Company as a railcar lessor, and lessees of the subject railcars will likely incur costs associated with compliance with the Revised Directive, including but not limited to, costs of inspection, cleaning and repair, if necessary, as well as freight costs for transporting covered railcars to and from repair facilities. We, and other lessors of subject railcars, may also experience loss of revenue during periods of rent abatement, if applicable, as a result of railcars being out of service due to compliance with the Revised Directive.

In accordance with accounting principles generally accepted in the United States of America, as of December 31, 2016, we have established a loss contingency of \$12.3 million to cover our probable and estimable liabilities with respect to our response to the Revised Directive, taking into account currently available information and our contractual obligations in our capacity as both a manufacturer and lessor of railcars subject to the Revised Directive. The \$12.3 million loss contingency represents a reduction from the loss contingency that we established as of September 30, 2016 for the Original Directive and reflects the changes made by the FRA from the Original Directive to the Revised Directive that reduced the number of railcars that are currently required to be inspected and repaired, if necessary. It is reasonably possible that a loss exists in excess of the amount accrued by us. Subsequent developments with respect to the Revised Directive, including but not limited to actions by the FRA, whether as a result of its analysis of the 15% sample or otherwise, may affect our assessment and estimates of the loss contingency recorded as a reserve and require us to make payments in excess of our reserves, which could have an adverse effect on our results of operations.

Our overall costs of compliance with the Revised Directive beyond the probable and estimable liabilities discussed above cannot currently be reasonably estimated and we cannot assure you that the amount of our loss contingency accrual is adequate to cover our actual costs and losses. Such costs may be substantial and may not be adequately covered by insurance, if at all, and could include costs relating to, among others:

- · applicable warranties included in sale and leasing arrangements;
- · implementing changes to our manufacturing personnel or processes; and
- claims, litigation, settlements and/or regulatory proceedings.

On December 13, 2016, we filed a petition for review in the United States Court of Appeals for the District of Columbia Circuit against the FRA. We asserted that (i) the Revised Directive was unlawful and inconsistent with administrative law, (ii) the Revised Directive is arbitrary, capricious and inconsistent with law, (iii) the FRA exceeded its authority when it issued the Revised Directive and (iv) the Revised Directive was an improper adjudication under applicable laws. The petition requests that the court review, remand and vacate, defer enforcement of, and/or stay pending review, the Revised Directive. We cannot assure you that this petition will be successful in reversing or modifying the Revised Directive to benefit owners of railcars subject to the Revised Directive or, if it is successful, whether it will be successful in a reasonable amount of time. Regardless of the petition, significant uncertainty exists in connection with the Revised Directive and its implementation. Our attempts to comply with the Revised Directive may fail if we are unable to get clarification from the FRA on a variety of questions and we do not meet the expectations of the FRA in complying with the Revised Directive.

Complying with the Revised Directive could disrupt our operations or restrict our ability to expand our lease fleet. Failure to successfully manage our compliance with the Revised Directive and assist other car owners with their compliance efforts could cause delays or cancellations of orders, lost revenue, harm to our reputation, deterioration of business and customer relationships, including with our affiliates, and result in an adverse impact on our business, financial condition and results of operations. Any material loss of revenue due to rent abatement, or otherwise, could adversely affect our ability to comply with covenants in our debt facilities. We cannot assure that costs incurred to comply with any regulations, including the Revised Directive, will not be material to our business, financial condition or results of operations.

Under the Revised Directive, the FRA also reserved the right to seek civil penalties or to take any other appropriate enforcement action for violation of the Federal Hazardous Materials Regulations that have occurred. To the extent we become subject to any such civil penalties and/or enforcement actions, it could result in substantial costs and could harm our business, financial condition and results of operations.

Our transition to managing our own railcar lease fleet is subject to various risks and uncertainties and may adversely impact our customer relationships, business, financial condition, results of operations and prospects.

In anticipation of the expected sale of ARL (the ARL Sale) to SMBC Rail Services LLC (the Buyer) in the second quarter of 2017, we entered into a railcar management transition agreement (the RMTA) to manage the transition, from ARL to us, of the management of railcars owned by us and our subsidiaries. The RMTA, among other things, (i) permits us to assume the management of our railcars following the consummation of the ARL Sale; (ii) requires us to use commercially reasonable efforts to obtain the consent of noteholders (the Noteholder Consent) for ARI to replace ARL as manager of railcars owned by our subsidiary, Longtrain Leasing III, LLC (Longtrain) under that certain Indenture, dated January 29, 2015, between Longtrain and U.S. Bank National Association, as indenture trustee (the Longtrain Indenture), and certain related documents; and (iii) requires ARL to transfer to us certain books and records and electronic data with respect to our railcars and leasing business and otherwise assist in the transfer of the management of the leasing business to us, provided that if we do not obtain the Noteholder Consent, ARL, under the Buyer's management, will remain the manager of the railcars owned by Longtrain under the Longtrain Indenture. We have no obligation to pay any consent or similar fees in connection with obtaining the Noteholder Consent.

The process of transitioning the management of our leasing business from ARL to ARI may involve unexpected costs and expenses. This transition may cause confusion among our customers, and may lead our customers to attempt to negotiate changes in our existing relationships or cause them to consider entering into business relationships with other parties, including ARL, to our detriment. Further, we are engaging in a process to separate documentation of our leases from ARL's leases. This process requires the cooperation of our leasing customers and financing partners. If our customers and financing partners do not cooperate, we may need to rely on ARL's continued cooperation, under the Buyer's management, to enforce our rights as lessor under our leases.

Under our railcar management agreements, we have relied on ARL to manage and market our railcars for lease and re-lease. As a result, we have limited experience managing a leased fleet. We are in the process of building our lease management team, including by hiring new employees. Our ability to successfully manage our own railcar leasing business will depend in part on our ability to hire and/or rededicate qualified employees to support and manage our railcar leasing business. If we are unable to recruit, retain and train qualified personnel, our ability to manage our lease fleet could be materially adversely affected.

We cannot ensure an effective transition of the management of our leasing business from ARL to ARI will happen in a timely manner or at all. If we are unsuccessful or delayed in this endeavor, we may experience a material adverse effect on our business, financial condition, results of operations and prospects. Further, this transition could disrupt our business by causing unforeseen operating difficulties, diverting management's attention from day-to-day operations and requiring significant financial resources that would otherwise be used for the ongoing development of our business.

We may encounter challenges implementing the intellectual property that we have licensed for use in our leasing business, managing the cessation of use of certain of our intellectual property and protecting our intellectual property and confidential information from misuse.

Pursuant to the terms and conditions of the RMTA, ARL provides us an irrevocable, fully paid, non-transferrable (except as set forth therein), royalty-free license to certain software and databases owned and used by ARL to manage leased railcars. We could experience problems or delays in implementing such software and databases or integrating them with our current information technology systems that are important to the operations of our business. We may experience compatibility issues, additional training requirements, higher than expected implementation costs and other implementation or integration challenges and delays. If we experience delays in implementing the software and databases licensed from ARL, our leasing business could suffer. This could negatively impact our customers and customer relationships, our ability to maintain and grow our leasing business and our reputation as a railcar lessor. It could also have an adverse effect on our ability to generate and interpret

accurate management and financial reports and other information on a timely basis, which could materially adversely affect our financial reporting system and internal controls and our ability to manage our business.

The RMTA provides for the performance of services related to the software and databases by ARL for our benefit for a period of time after the ARL Sale, at which point ARL will be under the Buyer's management. We will rely on ARL to satisfy its performance and payment obligations under the RMTA. If ARL is unable to satisfy its obligations under the RMTA, including its indemnification obligations, we could incur operational difficulties or losses.

The RMTA also provides for the termination, as of the consummation of the ARL Sale, of a Trademark License Agreement between us and ARL, pursuant to which we granted to ARL a license to use our trademarks "American Railcar" and the "diamond shape" of its logo, and provides for the wind-down of ARL's use of such trademarks. We may experience problems with market and customer confusion as ARL transitions away from using the trademark American Railcar and its logo. The wind down of ARL's use of our trademarks will occur over a period of time depending on when railcars are in need of service and can be remarked and whether railcars are subject to a financing that requires railcars to bear certain marks.

ARL currently has access to certain intellectual property and confidential information necessary for ARL to perform its duties as our lease fleet manager. After the consummation of the ARL Sale, although we have contractually agreed to certain protections, we may not be able to prevent ARL, under the Buyer's management, from improperly using our proprietary information and intellectual property. If our intellectual property rights and confidential information are not adequately protected, our competitors could commercialize our technologies and use our information to compete against us in the market, which could result in a decrease in our sales and market share and could materially adversely affect our business, financial condition and results of operations.

Exposure to fluctuations in commodity and energy prices or reduced demand for commodities may impact our results of operations.

Fluctuations in commodity or energy prices, including crude oil and gas prices, or reduced demand for commodities could negatively impact the activities of our customers resulting in a corresponding adverse effect on the demand for our products and services. These shifts in demand could affect our results of operations and could have an adverse effect on our profitability.

Prices for oil and gas are subject to large fluctuations in response to relatively minor changes in the supply of and demand for oil and gas, market uncertainty and a variety of other economic factors that are beyond our control. Worldwide economic, political and military events, including war, terrorist activity, events in the Middle East and initiatives by the Organization of the Petroleum Exporting Countries (OPEC), have contributed, and are likely to continue to contribute, to price and volume volatility. Most recently, the increasing global supply of oil in conjunction with weakening demand from slowing economic growth in Europe and Asia has created downward pressure on crude oil prices. Changes in environmental or governmental regulations, pipeline capacity, the price of crude oil and gas and related products and other factors have reduced, and may continue to reduce demand for railcars in the energy transportation industry, including our primary railcar products, and have a material adverse effect on our financial condition and results of operations.

Demand for railcars that are used to transport ethanol and other renewable fuels may be affected by government subsidies and mandates, which may be enacted, changed or eliminated from time to time. It is possible that the reduction or elimination of current US mandates for ethanol blending in motor fuels could reduce the production of ethanol, which would reduce demand for portions of our tank car fleet and negatively impact our revenue and profitability.

We may be unable to re-market railcars from expiring leases on favorable terms or maintain railcars on lease at satisfactory terms due to decreases in customer demand, oversupply of railcars in the market, or other changes in supply and demand, which could adversely affect our business, financial condition and results of operations.

The failure to enter into commercially favorable railcar leases, re-lease or sell railcars upon lease expiration and successfully manage existing leases could have a material adverse effect on our business, financial condition and results of operations. Our ability to re-lease or sell leased railcars profitably is dependent upon several factors, including the cost of and demand for leases or ownership of newer or specific use models, the availability in the market of other used or new railcars, and changes in applicable regulations that may impact continued use of older railcars. In addition, low demand for certain types of railcars in our fleet may make it more difficult to lease those railcars to new customers if they are returned at the end of their existing leases or following a customer default.

A downturn in the industries in which our lessees operate or the economy generally and decreased demand for railcars could also increase our exposure to remarketing risk because lessees may demand reduced lease prices or shorter lease terms, which requires us to re-market leased railcars more frequently. Railcars that are returned by our customers often must undergo maintenance and service work before being leased to new customers, causing a delay in our ability to remarket such cars and

may require us to invest capital. Furthermore, the resale market for previously leased railcars has a limited number of potential buyers. Our inability to release or sell leased railcars on favorable terms could result in lower lease rates, lower lease utilization percentages and reduced revenues.

Our manufacturer's warranties expose us to potentially significant claims and our business could be harmed if our products contain undetected defects or do not meet applicable specifications.

We may be subject to significant warranty claims in the future relating to workmanship and materials involving our current or future railcar or component product designs, including claims based on the Directive. Such claims may include multiple claims based on one defect repeated throughout our mass production process or claims for which the cost of repairing the defective component is highly disproportionate to the original cost of the part. These types of warranty claims could result in costly product recalls, significant repair costs and damage to our reputation, which could materially adversely affect our business, financial condition and results of operations. Unresolved warranty claims could result in users of our products bringing legal actions against us.

Further, if our railcars or component products are defectively designed or manufactured, are subject to recall for performance or safety-related issues, contain defective components or are misused, we may become subject to costly litigation by our customers or others who may claim to be harmed by our products. Product liability claims could divert management's attention from our business, be expensive to defend and/or settle and result in sizable damage awards against us.

We operate in highly competitive industries and we may be unable to compete successfully, which could materially adversely affect our business, financial condition and results of operations.

We face intense competition in all geographic markets and in each area of our business. In our railcar manufacturing business we have five primary competitors. Any of these competitors may, from time to time, have greater resources than we do. Our current competitors have increased and may continue to increase their capacity in, or new competitors may enter into, the railcar markets in which we compete. Strong competition within the industry has led to pricing pressures and could limit our ability to maintain or increase prices or obtain better margins on our railcars for both direct sale and lease. If we produce any type of railcars other than what we currently produce, we will be competing with other manufacturers that may have more experience with that railcar type. Further, new competitors, or alliances among existing competitors, may emerge in the railcar or industrial components industries and rapidly gain market share. Customer selection of railcars for purchase or for lease may be driven by technological or price factors, and our competitors may provide or be able to provide more technologically advanced railcars or more attractive pricing and/or lease rates than we can provide. Such competitive factors may adversely affect our sales, utilization and/or lease rates, and consequently our revenues.

We also have intense competition in our railcar leasing business from railcar manufacturers, leasing companies, banks and other financial institutions. Some of this competition includes certain of our significant customers, including our affiliate, ARL. Subsequent to the ARL Sale, ARL will no longer be an affiliate of ARI but will continue to compete with us under the Buyer's ownership and management. Some of our railcar manufacturing competitors also produce railcars for use in their own railcar leasing fleets, competing directly with our railcar leasing business and with leasing companies. In connection with the releasing of railcars, we may encounter competition from, among other things, other railcars managed by ARL and other competitor railcar leasing companies.

We compete with numerous companies in our railcar services business, ranging from companies with greater resources than we have to small, local companies. In addition, new competitors, or alliances among existing competitors, may emerge, thereby intensifying the existing competition for our railcar services business.

Technological innovation by any of our existing competitors, or new competitors entering any of the markets in which we do business, could put us at a competitive disadvantage and could cause us to lose market share. Increased competition for our manufacturing, railcar leasing or railcar services businesses could result in price reductions, reduced margins and loss of market share, which could materially adversely affect our prospects, business, financial condition and results of operations.

The variable needs of our railcar customers, the timing of completion, customer acceptance and shipment of orders, as well as the mix of railcars for lease versus direct sale, all may cause our revenues and income from operations to vary substantially each quarter, which could result in significant fluctuations in our quarterly and annual results.

Our results of operations in any particular quarterly period may be significantly affected by the number and type of railcars manufactured and shipped in that period, which is impacted by customer needs that may vary greatly quarter to quarter and year to year. In addition, because revenues and earnings related to leased railcars are recognized over the life of the lease, our quarterly results may vary depending on the mix of lease versus direct sale railcars that we ship during a given period. Customers may decide to lease or buy our railcars based on many factors including tax and accounting considerations, interest

rates, and operational flexibility. We have no control over these external considerations and changes in these factors could impact demand for our railcars for sale or lease. The customer acceptance and title transfer or customer acceptance and shipment of our railcars determines when we record the revenues associated with our railcar sales or leases. Given this, the timing of customer acceptance and title transfer or customer acceptance and shipment of our railcars could cause fluctuations in our quarterly and annual results. The railroads could potentially go on strike or have other service interruptions, which could ultimately create a bottleneck and potentially cause us to slow down or halt our shipment and production schedules, which could materially adversely affect our business, financial condition and results of operations.

As a result of these fluctuations, we believe that comparisons of our sales and operating results between quarterly periods within the same year and between quarterly periods within different years may not be meaningful and, as such, these comparisons should not be relied upon as indicators of our future performance.

Our business is subject to various laws, rules and regulations and changes in legal and regulatory requirements applicable to us or the industries in which we operate may adversely impact our business, financial condition and results of operations.

Our business is subject to various laws, rules and regulations administered by authorities in jurisdictions in which we do business. In North America, our railcar fleet and manufacturing operations are subject to safety, operations, maintenance and mechanical standards, rules and regulations enforced by various federal and state agencies and industry organizations, including the U.S. Department of Transportation, the Federal Railroad Administration, Transport Canada, and the Association of American Railroads. State and provincial agencies regulate some health and safety matters related to rail operations not otherwise preempted by federal law. Our business and railcar fleet may be adversely impacted by new rules and regulations or changes to existing rules or regulations, which could require additional maintenance or substantial modification or refurbishment of our railcars or could make certain types of railcars inoperable or obsolete or require them to be phased out prior to their useful lives.

Derailments in North America of trains transporting crude oil have caused various U.S and Canadian regulatory agencies, industry organizations, as well as Class I Railroads and community governments, to focus attention on transportation by rail of flammable materials. Recent regulations related to rail transport of certain flammable liquids imposed by Canadian and United States regulators require, among other things, a new tank car design standard, a phase out of older DOT-111 cars that are not retrofitted, and a classification and testing program for unrefined petroleum based products, including crude oil. In addition, railroads and other organizations may impose requirements for railcars that are more stringent than, or in addition to, any governmental regulations that may be adopted. For example, additional laws and regulations have been proposed or adopted that may have a significant impact on railroad operations, including the implementation of "positive train control" (PTC) requirements. PTC is a collision avoidance technology intended to override engineer controlled locomotives and stop certain types of train accidents.

We are unable to predict what impact these or other regulatory changes may have, if any, on our business or the industry as a whole. These regulations and the industry's responsiveness in complying with these regulations may materially impact the rail industry as a whole; railroad operations; older and newer railcars that meet or exceed currently mandated standards; future railcar specifications; and the capability of the North American railcar manufacturing, repair and maintenance infrastructure to implement mandated retrofit configurations or new construction. As a result of such regulations, certain of our railcars could be deemed unfit for further commercial use (which would diminish or eliminate future revenue generated from leased railcars) and/or require retrofits or modifications. The costs associated with any required retrofits or modifications could be substantial. While certain regulatory changes could result in increased demand for refurbishment and/or new railcar manufacturing activity, our business, financial condition and results of operations could be materially adversely affected if we are unable to adapt our business to changing regulations or railroad standards, source critical components and raw materials such as steel in a timely manner and at reasonable cost, or at all, and/or take advantage of any increase in demand for our products and services. We cannot assure that costs incurred to comply with any new standards and regulations will not be material to our business, financial condition or results of operations.

Regulatory changes related to tank railcars in North America may impact future new railcar production rates and orders from our customers, as well as retrofit and maintenance work to existing railcars. In response to current regulations, we invested capital to further expand our manufacturing flexibility and repair capacity to address the needs of the industry. We cannot assure you that any increased manufacturing flexibility or repair capacity will be sufficient to meet the demands of the industry. Similarly, we cannot assure you of the impact of the regulatory changes affecting the North American railcar industry or our business.

If we face labor shortages or increased labor costs, our growth and results of operations could be materially adversely affected.

We depend on skilled labor in our manufacturing and other businesses. Due to the competitive nature of the labor markets in which we operate and the cyclical nature of the railcar industry, the resulting employment cycle increases our risk of not being able to retain, recruit and train the personnel we require, particularly when the economy expands, production rates are high or competition for such skilled labor increases. Our inability to recruit, retain and train adequate numbers of qualified personnel on a timely basis could materially adversely affect our business, financial condition and results of operations.

Volatility in the global financial markets may adversely affect our customers and suppliers resulting in adverse effects on our business, financial condition and results of operation.

During periods of volatility in the global financial markets, certain of our customers could delay or otherwise reduce their purchases of railcars and other products and services or could attempt to cancel, terminate, delay or renegotiate orders for sale or ongoing leases. If volatile conditions in the global credit markets prevent our customers' access to credit, order volumes may decrease or customers may default on payments owed to us. Some of the end users of our railcars acquire them through leasing arrangements with our leasing company customers. Economic conditions that result in higher interest rates may result in stricter borrowing conditions that could increase the cost of, or potentially deter or delay, new leasing arrangements. These factors may cause our customers to purchase or lease fewer railcars, which could materially adversely affect our business, financial condition and results of operations. If customers attempt to cancel, terminate, delay or renegotiate purchase orders or lease contracts, we may experience increased enforcement costs, including for litigation.

The railcars in our lease fleet consist of tank railcars and hopper railcars. The lessees of such types of railcars have historically been concentrated for use in certain industries and for certain products and our lessees generally reflect such industry and product concentrations. Consequently, any significant economic downturn in these industries or product markets could have a material adverse effect on the creditworthiness of the lessees and on the ability of such lessees to perform under the leases, which may impact our ability to re-lease railcars to those lessees or to other potential lessees with a need for railcars of the types we operate, reduce our revenue, divert management's attention or limit our ability to further attract financing to add liquidity in the future.

If our suppliers face challenges obtaining credit, selling their products, or otherwise operating their businesses, the supply of materials we purchase from them to manufacture our products may be interrupted. Any of these conditions or events could result in reductions in our revenues, increased price competition, or increased operating costs, which could adversely affect our business, financial conditions and results of operations.

We depend upon a small number of customers that represent a large percentage of our revenues. The loss of any single significant customer, a reduction in sales to any such significant customer or any such significant customer's inability to pay us in a timely manner could materially adversely affect our business, financial condition and results of operations.

Railcars are typically sold pursuant to large, periodic orders, and therefore, a limited number of customers typically represent a significant percentage of our revenue in any given year. The loss of any significant portion of our sales to any major customer, the loss of a single major customer or a material adverse change in the financial condition of any one of our major customers could materially adversely affect our business, financial condition and results of operations. If one of our significant customers was unable to pay due to financial condition, it could materially adversely affect our business, financial condition and results of operations. In addition, we cannot provide any assurances that we will continue to provide railcar repair services to ARL after the consummation of the ARL Sale, once ARL is under the Buyer's management.

The cost of raw materials and components that we use in our manufacturing operations, particularly steel, is subject to escalation and surcharges and could increase. Any increase in these costs or delivery delays of these raw materials could materially adversely affect our business, financial condition and results of operations.

The cost of raw materials, including steel, and components used in the production of our railcars, represents a significant amount of our direct manufacturing costs per railcar. We generally include provisions in our railcar manufacturing contracts that allow us to adjust prices as a result of increases and decreases in the cost of certain raw materials and components. The number of customers to which we are not able to pass on price increases may increase in the future, which could adversely affect our operating margins and cash flows. If we are not able to pass on price increases to our customers, we may lose railcar orders or enter into contracts with less favorable contract terms, any of which could materially adversely affect our business, financial condition and results of operations. Any fluctuations in the price or availability of steel, or any other material or component used in the production of our railcars or our railcar or industrial components, could materially adversely affect our business, financial condition and results of operations. Such price increases could reduce demand for our railcars or component products. Deliveries of raw materials and components may also fluctuate depending on various factors including supply and

demand for the raw material or component, or governmental regulation relating to the raw material or component, including regulation relating to importation.

Fluctuations in the supply of components and raw materials we use in manufacturing railcars, which are often only available from a limited number of suppliers, could cause production delays or reductions in the number of railcars we manufacture, which could materially adversely affect our business, financial condition and results of operations.

Our railcar manufacturing business depends on the adequate supply of numerous railcar components, such as railcar wheels, axles, brakes, bearings, yokes, sideframes, bolsters and other heavy castings and raw materials, such as steel. Some of these components and raw materials are only available from a limited number of domestic suppliers. Strong demand can cause industry-wide shortages of many critical components and raw materials as reliable suppliers could reach capacity production levels. Supply constraints in our industry are exacerbated because, although multiple suppliers may produce certain components, railcar manufacturing regulations and the physical capabilities of manufacturing facilities restrict the types and sizes of components and raw materials that manufacturers may use.

In addition, we do not carry significant inventories of certain components and procure most of our components on an as needed basis. In the event that our suppliers of railcar components and raw materials were to stop or reduce the production of railcar components and raw materials that we use, or refuse to do business with us for any reason, our business would be disrupted. Our inability to obtain components and raw materials in required quantities or of acceptable quality could result in significant delays or reductions in railcar shipments and could materially adversely affect our business, financial condition and results of operations.

We rely on a small number of suppliers for the materials we purchase for our business. If any of our significant suppliers of raw materials and components were to shut down operations, our business and financial results could be materially adversely affected as we may incur substantial delays and significant expense in finding alternative sources. The quality and reliability of alternative sources may not be the same and these alternative sources may charge significantly higher prices.

Companies affiliated with Mr. Carl Icahn are important to our business.

We manufacture railcars and railcar components for, lease railcars to, and provide railcar services to companies affiliated with Mr. Carl Icahn, our principal beneficial stockholder through IELP. We are currently subject to agreements, and may enter into additional agreements, with certain of these affiliates that are important to our business. To the extent our relationships with affiliates of Mr. Carl Icahn change due to the sale of his interest in us, such affiliates or otherwise, our business, financial condition and results of operations could be materially adversely affected.

Affiliates of Mr. Carl Icahn accounted for approximately 4.3%, 33.1% and 36.1% of our consolidated revenues in 2016, 2015 and 2014, respectively. This revenue is primarily attributable to railcar services provided to ARL for 2016 and the sale of railcars to ARL for 2015 and 2014. In the past, ARL has purchased all of its railcars from us, but has not been required to do so. As of December 31, 2016, we did not have any orders in our backlog from ARL. Upon consummation of the ARL Sale, ARL will no longer be affiliated with us or Mr. Carl Icahn, ARL will have no obligation to purchase our railcars or services and we cannot assure you that we will receive any revenues from ARL in the future. This revenue also has been and could continue to be generated from a purchasing and engineering services agreement and license with ACF, under which we provide purchasing support and engineering services to ACF in connection with ACF's manufacture and sale of certain tank railcars at its facility. Additionally, we have entered into a repair services and support agreement and license with ACF, under which we provide certain sales and administrative and technical services, materials and purchasing support and engineering services to ACF to provide repair and retrofit services. We also have entered into a parts purchasing and sale agreement and license with ACF, under which we from time to time, purchase from and sell to ACF certain parts for railcars. To the extent our relationships with ARL, ACF or Mr. Carl Icahn change, our business, financial condition and results of operations could be materially adversely affected.

We currently operate our leasing business under lease management agreements with ARL through which ARL markets our railcars for sale or lease and acts as our manager to lease railcars on our behalf for a fee. ARL also leases railcars on behalf of itself, its subsidiaries and other third parties, and therefore markets our railcars and railcars owned by others to the same customer base. Our management agreements with ARL contain provisions that require ARL to treat railcars owned by us and our subsidiaries in the same manner as railcars owned by ARL or other third parties for which ARL serves as manager. However, ARL may provide a leasing customer with railcars owned by others, instead of our railcars, based on a number of factors, such as customers' timing or geographic needs or other specifications. We intend to manage our own leasing business after the ARL Sale is completed.

Mr. Carl Icahn exerts significant influence over us and his interests may conflict with the interests of our other stockholders.

Mr. Carl Icahn currently controls approximately 62% of the voting power of our common stock, through IELP, and is able to control or exert substantial influence over us, including controlling the election of our directors and most matters requiring board or stockholder approval, including business strategies, mergers, business combinations, acquisitions or dispositions of significant assets, issuances of common stock, incurrence of debt or other financing and the payment of dividends. The existence of a controlling stockholder may have the effect of making it difficult for, or may discourage or delay, a third party from seeking to acquire a majority of our outstanding common stock, or a significant amount of our assets, which could adversely affect the market price of our stock.

As disclosed by a Schedule 13D filed on August 14, 2015, Mr. Carl Icahn and the Reporting Persons listed therein do not intend to sell their respective shares pursuant to our Stock Repurchase Program and, accordingly, the percentage of our shares beneficially owned by the Reporting Persons has increased and may continue to increase during the Stock Repurchase Program, thus further increasing Mr. Carl Icahn's control and influence over us.

Mr. Carl Icahn owns, controls and has an interest in a wide array of companies, some of which, such as ARL and ACF as described above, may compete directly or indirectly with us. As a result, his interests may not always be consistent with our interests or the interests of our other stockholders. For example, ARL competes directly with us and with some of our customers in the railcar leasing business. ACF has also previously manufactured railcars for us and under a purchasing and engineering services agreement and license has been manufacturing and selling tank railcars with engineering, purchasing and design support from us. Mr. Carl Icahn and entities controlled by him may also pursue acquisitions or business opportunities that may be in competition with or complementary to our business. Our articles of incorporation allow Mr. Carl Icahn, entities controlled by him, and any director, officer, member, partner, stockholder or employee of Mr. Carl Icahn or entities controlled by him, to take advantage of such corporate opportunities without first presenting such opportunities to us, unless such opportunities are expressly offered to any such party solely in, and as a direct result of, his or her capacity as our director, officer or employee. As a result, corporate opportunities that may benefit us may not be available to us in a timely manner, or at all. To the extent that conflicts of interest may arise among us, Mr. Carl Icahn and his affiliates, those conflicts may be resolved in a manner adverse to us or you.

Our investment in our lease fleet may use significant amounts of cash, which may require us to secure additional capital and we may be unable to arrange capital on favorable terms, or at all.

We use existing cash and cash generated through lease fleet financings to manufacture railcars we lease to customers, while cash from lease revenues is received over the term of the applicable lease. Depending upon the number of railcars that we lease and the amount of cash used in other operations, our cash balances and our availability under any of our lease fleet financings could be depleted, requiring us to seek additional capital. We rely on banks and capital markets to fund our lease fleet financings. These markets may experience high levels of volatility and access to capital may be limited for extended periods of time. In addition to conditions in the capital markets, changes in our financial performance or credit ratings or ratings outlook, as determined by rating agencies, could cause us to incur increased borrowing costs or to have greater difficulty accessing public and private markets for debt. Further, changes in interest rates could make it more difficult for us to incur additional debt or could impact the costs of our current financing facilities. Our inability to secure additional capital, on commercially reasonable terms, or at all, may limit our ability to support operations, maintain or expand our existing business, or take advantage of new business opportunities. We could also experience defaults on leases that could further constrain cash, impact our ability to re-lease railcars, reduce our revenues, divert management's attention or limit our ability to further attract financing to add liquidity in the future.

Changes in railroad efficiency may adversely affect demand for our railcars.

Regulations and railroad infrastructure investments that increase the speed at which railroads can operate trains may reduce the number of railcars needed for railroads to haul the same amount of cargo. Conversely, speed restrictions imposed by regulations may also have an adverse impact on demand for tank railcars or other types of freight railcars as other forms of transportation may become more effective. While rail velocity is affected by many factors including general economic conditions, weather conditions, railroad mergers, and increases in rail traffic, and has increased since the adoption of regulations in 2015, in some circumstances these factors may significantly reduce overall velocity on congested rail networks. This in turn could lead to an increase in the cost of rail freight transportation and impact availability, making rail less competitive compared to alternative modes of freight transportation. In each case, these changes could lead to reduced demand for our products and negatively impact our revenues and results of operations.

Train derailments or other accidents involving our products could subject us to legal claims that may adversely impact our business, financial condition and results of operations.

We manufacture railcars for our customers to transport a variety of commodities, including railcars that transport hazardous materials such as crude oil and other petroleum products. We also manufacture railcar components, as well as industrial components for use in several markets, including the trucking, construction, mining and oil and gas exploration markets. We could be subject to various legal claims, including claims for negligence, personal injury, physical damage and product liability, as well as potential penalties and liability under environmental laws and regulations, in the event of a train derailment or other accident involving our products or services. If we become subject to any such claims and are unable successfully to resolve them, our business, financial condition and results of operations could be materially adversely affected.

Increasing insurance claims and expenses could lower profitability and increase business risk.

The nature of our business subjects us to product liability, property damage, and personal injury claims, especially in connection with the manufacture, repair or other servicing of products or components that are used in the transport or handling of hazardous, toxic, or volatile materials. We maintain reserves for reasonably estimable liability claims and liability insurance coverage at levels based upon commercial norms in the industries in which we operate and our historical claims experience. There is no guarantee that cost-effective insurance will consistently be available to us. Over the last several years, insurance carriers have raised premiums for many companies operating in our industries. Increased insurance premiums may further increase our insurance expense as coverages expire or cause us to raise our self-insured retention. If the number or severity of claims within our self-insured retention increases, we could suffer costs in excess of our reserves. An unusually large liability claim or a series of claims based on a failure repeated throughout our mass production process may exceed our insurance coverage or result in direct damages if we were unable or elected not to insure against certain hazards because of high premiums or other reasons. In addition, the availability of, and our ability to collect on, insurance coverage is often subject to factors beyond our control. Moreover, any accident or incident involving us, even if we are fully insured or not held to be liable, could negatively affect our reputation among customers and the public, thereby making it more difficult for us to compete effectively, and could materially adversely affect the cost and availability of insurance in the future.

Litigation claims could increase our costs and weaken our financial condition.

We are currently, and may from time to time be, involved in various claims or legal proceedings arising out of our operations. The nature of our businesses and assets expose us to the potential for claims and litigation related to personal injury, property damage, environmental claims, regulatory claims, contractual disputes and various other matters. In particular, railcars we manufacture and lease will be used in a variety of manners, which may include carrying hazardous, flammable, and/or corrosive materials. An accident involving a railcar carrying such materials could lead to litigation and subject us to significant liability, particularly where the accident involves serious personal injury or loss of life. Our railcars, as well as our railcar and industrial components, are subject to risks of breakdowns, malfunctions, casualty and other negative events and it is possible that claims for personal injury, loss of life, property damage, business losses and other liability arising out of these or other types of incidents will be made against us. Additionally, in our normal course of business from time to time we enter into contracts with third parties that may lead to contractual disputes. Our failure to manufacture and maintain railcars in compliance with governmental regulations and industry rules could also expose us to fines and claims. Adverse outcomes in some or all of these matters could result in judgments against us for significant monetary damages that could increase our costs and weaken our financial condition. We seek contractual recourse and indemnification in the ordinary course of business, maintain reserves for reasonably estimable liabilities, and purchase liability insurance at coverage levels based upon commercial norms in our industries in an effort to mitigate our liability exposure. Nevertheless, our reserves may be inadequate to cover the uninsured portion of claims or judgments. Any such claims or judgments could materially adversely affect our business, financial condition and results

The success of our railcar leasing business is dependent, in part, on our lessees performing their obligations.

The ability of each lessee to perform its obligations under a lease will depend primarily on such lessee's financial condition, as well as other various factors. The financial condition of a lessee may be affected by various factors beyond our control, including, but not limited to, competition, operating costs, general economic conditions and environmental and other governmental regulation of or affecting the lessee's industry. High default rates on leases could increase the portion of railcars that may need to be remarketed after they are repossessed from defaulting lessees, impact our ability to re-lease railcars to lessees, reduce our revenues, divert management's attention or limit our ability to further attract financing to add liquidity in the future. There can be no assurance that the historical default experience with respect to our lease fleet will continue in the future.

Our failure to comply with laws and regulations imposed by federal, state, local and foreign agencies could materially adversely affect our business, financial condition, results of operations and ability to access capital.

The industries in which we operate are subject to extensive regulation by governmental, regulatory and industry authorities and by federal, state, local and foreign agencies. The risks of substantial costs and liabilities related to compliance with these laws and regulations are an inherent part of our business. Despite our intention to comply with these laws and regulations, we cannot guarantee that we will be able to do so at all times and compliance may prove to be more costly and limiting than we currently anticipate and compliance requirements could increase in future years. These laws and regulations are complex, change frequently and may become more stringent over time, which could impact our business, financial condition, results of operations and ability to access capital. If we fail to comply with the requirements and regulations of these agencies that impact our manufacturing, other processes and reporting requirements, we may face sanctions and penalties that could materially adversely affect our business, financial condition, results of operations and ability to access capital.

We are subject to a variety of environmental, health and safety laws and regulations and the cost of complying, or our failure to comply, with such requirements could materially adversely affect our business, financial condition, results of operations.

We are subject to a variety of federal, state, local and foreign environmental laws and regulations relating to the release or discharge of materials into the environment; the management, use, processing, handling, storage, transport or disposal of hazardous materials; or otherwise relating to the protection of public and employee health, safety and the environment. These laws and regulations expose us to liability for the environmental condition of our current or formerly owned or operated facilities, and may expose us to liability for the conduct of others or for our actions that complied with all applicable laws at the time these actions were taken. They may also expose us to liability for claims of personal injury or property damage related to alleged exposure to hazardous or toxic materials on our properties or as a result of a spill or discharge of material from a railcar we own. Despite our intention to be in compliance, we cannot guarantee that we will at all times comply with such requirements. The cost of complying with these requirements may also increase substantially in future years. If we violate or fail to comply with these requirements, we could be fined or otherwise sanctioned by regulators. In addition, these requirements are complex, change frequently and may become more stringent over time, which could materially adversely affect our business, financial condition and results of operations.

Our failure to maintain and comply with environmental permits that we are required to maintain could result in fines, penalties or other sanctions and could materially adversely affect our business, financial condition and results of operations. Future events, such as new environmental regulations, changes in or modified interpretations of existing laws and regulations or enforcement policies, newly discovered information or further investigation or evaluation of the potential health hazards of products or business activities, may give rise to additional compliance and other costs that could materially adversely affect our business, financial condition and results of operations.

Uncertainty surrounding acceptance of our new product offerings by our customers, and costs associated with those new offerings, could materially adversely affect our business.

Our strategy depends in part on our continued development and sale of new products, particularly new railcar designs, in order to expand or maintain our market share in our current and new markets. Any new or modified product design that we develop may not gain widespread acceptance in the marketplace and any such product may not be able to compete successfully with existing or new product designs that our competitors may have. Furthermore, we may experience significant initial costs of production of new products, particularly railcar products, related to training, labor and operating inefficiencies. To the extent that the total costs of production significantly exceed our anticipated costs of production, we may incur losses on the sale of any new products.

Equipment failures, delays in deliveries or extensive damage to our facilities, particularly our railcar manufacturing plants in Paragould or Marmaduke, Arkansas, could lead to production or service curtailments or shutdowns.

An interruption in manufacturing capabilities at our railcar plants in Paragould or Marmaduke or at any of our manufacturing facilities, whether as a result of equipment failure or any other reason, could reduce, prevent or delay production of our railcars or railcar and industrial components, which could alter the scheduled delivery dates to our customers and affect our production schedule. This could result in the delay or termination of orders, the loss of future sales and a negative impact to our reputation with our customers and in the railcar industry, all of which could materially adversely affect our business, financial condition and results of operations.

All of our facilities and equipment are subject to the risk of catastrophic loss due to unanticipated events, such as fires, earthquakes, explosions, floods, tornados, hurricanes or weather conditions. If there is a natural disaster or other serious disruption at any of our facilities, we may experience plant shutdowns or periods of reduced production as a result of

equipment failures, loss of power, delays in equipment deliveries, or extensive damage to any of our facilities, which could materially adversely affect our business. financial condition or results of operations.

Additionally, our insurance coverage may not adequately compensate us for losses incurred as a result of natural or other disasters.

Our mobile units and mini shop facilities may expose us to additional risks that may materially adversely affect our business.

Our mobile units and mini shop repair facilities are available to assist customers in quickly resolving railcar maintenance issues and services may be performed on a customer's property, thereby increasing our susceptibility to liability. Additionally, the resources available to employees to assist in providing services out of these facilities are less than what is available at a full repair facility. The effects of these risks may, individually or in the aggregate, materially adversely affect our business, financial condition and results of operations.

Our failure to complete capital expenditure projects on time and within budget, or the failure of these projects to operate as anticipated could materially adversely affect our business, financial condition and results of operations.

Our capital expenditure projects are subject to a number of risks and contingencies over which we may have little control and that may adversely affect the cost and timing of the completion of those projects, or the capacity or efficiencies of those projects once completed. If these capital expenditure projects do not achieve the results anticipated, we may not be able to satisfy our operational goals on a timely basis, if at all. If we are unable to complete such capital expenditure projects on time or within budget, or if those projects do not achieve the capacity or efficiencies anticipated, our business, financial condition and results of operations could be materially adversely affected.

Our relationships with our joint ventures could be unsuccessful, which could materially adversely affect our business.

We have entered into joint venture agreements with other companies to increase our sourcing alternatives and reduce costs. We also may seek to expand our relationships or enter into new agreements with other companies. In addition, we may experience managerial or other conflicts with our joint venture partners. If our joint venture partners are unable to fulfill their contractual obligations or if these relationships are otherwise not successful in the future, our manufacturing costs could increase, we could encounter production disruptions, growth opportunities could fail to materialize, or we could be required to fund such joint ventures in amounts significantly greater than initially anticipated, any of which could materially adversely affect our business, financial condition and results of operations.

If any of our joint ventures generate significant losses, it could adversely affect our results of operations. For example, if our Axis joint venture is unable to operate as anticipated, incurs significant losses or otherwise is unable to honor its obligation to us under the Axis loan, our financial results or financial position could be materially adversely affected. In addition, any fluctuation in the price or availability of castings while the Ohio Castings plant is idled could materially adversely affect our business, financial condition and results of operations.

The level of our reported railcar backlog may not necessarily indicate what our future revenues will be and our actual revenues may fall short of the estimated revenue value attributed to our railcar backlog.

We define backlog as the number of railcars to which our customers have committed in writing to purchase or lease from us that have not been shipped. The estimated backlog value in dollars is the anticipated revenue on the railcars included in the backlog for purchase and the estimated fair market value of the railcars included in the backlog for lease, though actual revenues for these leases are recognized pursuant to the terms of each lease. Our competitors may not define railcar backlog in the same manner as we do, which could make comparisons of our railcar backlog with theirs misleading. Customer orders may be subject to requests for delays in deliveries, inspection rights and other customary industry terms and conditions, which could prevent or delay our railcar backlog from being converted into revenues. Further, especially during economic downtums or industry-specific downturns, some of our customers may attempt to cancel or modify their contracts even if not permitted to do so under the contract. Consequently, and we may not be able to recover all revenue or earnings lost in the event of a breach of contract or if we agree to a customer accommodation. Our reported railcar backlog may not be converted into revenues in any particular period, if at all, and the actual revenues from such sales may not equal our reported estimates of railcar backlog value.

We may pursue strategic opportunities, including new joint ventures, acquisitions, new business endeavors or the sale of all or a portion of our business or assets, that involve inherent risks, any of which may cause us not to realize anticipated benefits and we may have difficulty integrating the operations of any joint ventures that we form, companies that we acquire or new business endeavors, which could materially adversely affect our results of operations.

We may not be able to successfully identify suitable joint venture, acquisition, new business endeavor or sale opportunities or complete any particular joint venture, acquisition, business combination, new business endeavor, sale, or other transaction on acceptable terms. Our identification of suitable joint venture opportunities, acquisition candidates, new business endeavors or buyers and the integration of new and acquired business operations involve risks inherent in assessing the values, strengths, weaknesses, risks and profitability of these opportunities. This includes their effects on our business, diversion of our management's attention and risks associated with unanticipated problems or unforeseen liabilities. These issues may require significant financial resources that could otherwise be used for the ongoing development of our current operations.

The difficulties of integration may be increased by the necessity of coordinating geographically dispersed organizations, integrating personnel with disparate business backgrounds and combining different corporate cultures. These difficulties could be further increased to the extent we pursue opportunities internationally or in new markets where we do not have significant experience. In addition, we may not be effective in retaining key employees or customers of the combined businesses. We may face integration issues pertaining to the internal controls and operations functions of the acquired companies and we may not realize cost efficiencies or synergies that we anticipated when selecting our acquisition or sale candidates. Any of these items could adversely affect our results of operations.

Our failure to identify suitable joint ventures, acquisition opportunities, new business endeavors or sales may restrict our ability to grow our business. If we are successful in pursuing such opportunities, we may be required to expend significant funds, incur additional debt, issue additional securities or sell our business or assets, which could materially adversely affect our results of operations and be dilutive to our stockholders. If we spend significant funds, incur additional debt or dispense with assets or stock, our ability to obtain financing for working capital or other purposes could decline and we may be more vulnerable to economic downturns and competitive pressures.

The price of our common stock is subject to volatility.

The market price for our common stock has varied between a high closing sales price of \$59.52 per share and a low closing sales price of \$33.56 per share in the past twenty-four months as of December 31, 2016. This volatility may affect the price at which our common stock could be sold. In addition, the broader stock market has experienced price and volume fluctuations. This volatility has affected the market prices of securities issued by many companies for reasons unrelated to their operating performance and may adversely affect the price of our common stock. The price for our common stock is likely to continue to be volatile and subject to price and volume fluctuations in response to market and other factors, including the other factors discussed in these risk factors.

In the past, following periods of volatility in the market price of their stock, many companies have been the subject of securities class action litigation. If we became involved in securities class action litigation in the future, it could result in substantial costs and diversion of our management's attention and resources and could harm our stock price, business, prospects, financial condition and results of operations.

Various other factors could cause the market price of our common stock to fluctuate substantially, including financial market and general economic changes, changes in governmental regulation, significant railcar industry announcements or developments, the introduction of new products or technologies by us or our competitors, our Stock Repurchase Program, and changes in other conditions or trends in our industry or in the markets of any of our significant customers.

Other factors that could cause our stock's price to fluctuate could be actual or anticipated variations in our or our competitors' quarterly or annual financial results or other significant press releases from us or our competitors, financial results failing to meet expectations of analysts or investors, including the level of our backlog and number of orders received during the period, changes in securities analysts' estimates of our future performance or of that of our competitors and the general health and outlook of our industry.

Our Stock Repurchase Program could affect the price of our common stock and increase volatility and may be suspended or terminated at any time, which may result in a decrease in the trading price of our common stock.

On July 28, 2015 our Board of Directors authorized the repurchase of up to \$250 million of our outstanding common stock. The Stock Repurchase Program will end upon the earlier of the date on which it is terminated by the Board or when all authorized repurchases are completed. The timing and amount of stock repurchases, if any, will be determined based upon our evaluation of market conditions and other factors. The Stock Repurchase Program may be suspended, modified or discontinued

at any time and we have no obligation to repurchase any amount of our common stock under the Stock Repurchase Program.

Repurchases pursuant to our Stock Repurchase Program could affect our stock price and increase the volatility of our common stock. The existence of a stock repurchase program could also cause our stock price to be higher than it would be in the absence of such a program and could potentially reduce the market liquidity for our stock. Although our Stock Repurchase Program is intended to enhance long-term stockholder value, we cannot assure this will occur. Further, short-term stock price fluctuations could reduce the program's effectiveness. Under the Stock Repurchase Program, 760,653 shares were repurchased during 2016, at a cost of \$28.6 million.

Repurchases pursuant to our Stock Repurchase Program could also impact the relative percentage interests of our stockholders and could cause a stockholder to become subject to additional reporting requirements under SEC rules and regulations or allow a stockholder to exert additional control over us.

Risks related to our activities or potential activities outside of the U.S. and any potential expansion into new geographic markets could adversely affect our results of operations.

Conducting business outside the U.S. subjects us to various risks, including changing economic, legal and political conditions, work stoppages, exchange controls, currency fluctuations, terrorist activities directed at U.S. companies, armed conflicts and unexpected changes in the U.S. and the laws of other countries relating to tariffs, trade restrictions, transportation regulations, foreign investments and taxation. Further, anti-corruption laws in the U.S. and in some foreign countries could conflict with certain local customs and practices and any failure to comply with laws governing international business practices may result in substantial penalties and fines. Some foreign countries in which we operate have regulatory authorities that regulate railroad safety, railcar design and railcar component part design, performance and manufacturing.

In addition, changes in regulatory requirements, tariffs and other trade barriers, more stringent rules relating to labor or the environment, adverse tax consequences and price exchange controls could make the manufacturing and distribution of our products internationally more difficult. The failure to comply with laws governing international business practices may result in substantial penalties and fines. Any international expansion or acquisition that we undertake could heighten these risks related to operating outside of the U.S.

If we lose any of our executive officers or key employees, our operations and ability to manage the day-to-day aspects of our business could be materially adversely affected.

Our future performance will substantially depend on our ability to retain and motivate our executive officers and key employees, both individually and as a group. If we lose any of our executive officers or key employees, who have many years of experience with our company and within the railcar industry and other manufacturing industries, or are unable to recruit qualified personnel, including personnel to manage our railcar leasing business, our ability to manage the day-to-day aspects of our business could be materially adversely affected. The loss of the services of one or more of our executive officers or key employees, who also have strong personal ties with customers and suppliers, could materially adversely affect our business, financial condition and results of operations. We do not currently maintain "key person" life insurance. Further, we do not have employment contracts with all of our executive officers and key employees.

Our integration of our new enterprise resource planning (ERP) system could negatively impact our business.

During the third quarter of 2015, we implemented an ERP system for our manufacturing, railcar leasing and corporate segments that supports substantially all of our operating and financial functions. We implemented this ERP system for our railcar services segment during the second quarter of 2016. We experienced delays with this project and have terminated and filed suit against a systems implementer we previously hired to implement this system. Although we hired a new systems implementer and the ERP system has been fully implemented, we could experience unforeseen issues, including compatibility issues, training requirements and other integration challenges and delays. Additionally, a significant problem with the integration with other systems or ongoing management of an ERP system and related systems could have an adverse effect on our ability to generate and interpret accurate management and financial reports and other information on a timely basis, which could have a material adverse effect on our financial reporting system and internal controls and adversely affect our ability to manage our business or comply with various regulations.

Some of our railcar services and component manufacturing employees belong to labor unions and strikes or work stoppages by them or unions formed by some or all of our other employees in the future could materially adversely affect our operations.

As of December 31, 2016, the employees at our sites that were party to collective bargaining agreements represent, in the aggregate, approximately 7.7% of our total workforce. Disputes with regard to the terms of these agreements or our potential

inability to negotiate acceptable contracts with these unions in the future could result in, among other things, strikes, work stoppages or other slowdowns by the affected workers. We cannot guarantee that our relations with our union workforce will remain positive nor can we guarantee that union organizers will not succeed in future attempts to organize our railcar manufacturing employees or employees at our other facilities. If our workers were to engage in a strike, work stoppage or other slowdown, other employees were to become unionized or the terms and conditions in future labor agreements were renegotiated, we could experience a significant disruption of our operations and higher ongoing labor costs. In addition, we could face higher labor costs in the future as a result of severance or other charges associated with layoffs, shutdowns or reductions in the size and scope of our operations.

Our indebtedness could materially adversely affect our business, financial condition and results of operations and prevent us from fulfilling our indebtedness obligations.

As of December 31, 2016, our total debt was \$571.0 million, consisting of borrowings under our lease fleet financings. In February 2016, we repaid amounts outstanding under our revolving loan in full and as of the date of this report, we have borrowing availability of \$200.0 million under this facility.

Our indebtedness could materially adversely affect our business, financial condition and results of operations. For example, it could:

- increase our vulnerability to general economic and industry conditions;
- require us to dedicate a substantial portion of our cash flow from operations to payments of our indebtedness, which would reduce the availability of
 our cash flow to fund working capital, capital expenditures, expansion efforts and other general corporate purposes;
- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we operate, including by restricting our ability to manage our own lease fleet in connection with the ARL Sale;
- · place us at a competitive disadvantage compared to our competitors that have less debt; and
- limit, among other things, our ability to borrow additional funds for working capital, capital expenditures, general corporate purposes or acquisitions.

Our inability to comply with covenants in place or our inability to make the required principal and interest payments may cause an event of default, which could have a substantial adverse impact to our business, financial condition and results of operation. In the event of a default on our lease fleet financings, the debtors may foreclose on all or a portion of the fleet of railcars and related leases used to secure the financing. Such foreclosure, if a significant number of railcars or related leases are affected, could result in the loss of a significant amount of our assets and adversely affect revenues.

Our wholly-owned subsidiary, Longtrain Leasing III, LLC's (LLIII), lease fleet financing is an obligation of LLIII, is generally non-recourse to ARI, and is secured by a first lien on the subject assets of LLIII consisting of railcars, railcar leases, receivables and related assets, subject to limited exceptions.

Despite our indebtedness, we may still be able to incur substantially more debt, as may our subsidiaries, which could further exacerbate the risks associated with our indebtedness.

Despite our indebtedness, we may be able to incur future indebtedness, including secured indebtedness, and this debt could be substantial. If new debt is added to our or our subsidiaries' current debt levels, the related risks that we or they now face could be magnified.

We may not be able to generate sufficient cash flow to service our obligations and we may not be able to refinance our indebtedness on commercially reasonable terms, or at all.

Our ability to make payments on and to refinance our indebtedness and to fund planned capital expenditures, strategic transactions, joint venture capital requirements or expansion efforts will depend on our ability to generate cash in the future. This, to a certain extent, is subject to economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

Our business may not be able to generate sufficient cash flow from operations and there can be no assurance that future borrowings will be available to us in amounts sufficient to enable us to pay our indebtedness as such indebtedness matures and to fund our other liquidity needs, or at all. If this is the case, we will need to refinance all or a portion of our indebtedness on or before maturity, and we cannot be certain that we will be able to refinance any of our indebtedness on commercially reasonable terms, or at all. We might have to adopt one or more alternatives, such as reducing or delaying planned expenses and capital expenditures, selling assets, restructuring debt, or obtaining additional equity or debt financing. These financing strategies may

not be implemented on satisfactory terms, if at all. Our ability to refinance our indebtedness or obtain additional financing and to do so on commercially reasonable terms will depend on our financial condition at the time, restrictions in any agreements governing our indebtedness and other factors, including the condition of the financial markets and the railcar industry.

If we do not generate sufficient cash flow from operations and additional borrowings, refinancing or proceeds of asset sales are not available to us, we may not have sufficient cash to enable us to meet all of our obligations.

If ACF does not, or is unable to, honor its remedial or indemnity obligations to us regarding environmental matters, such environmental matters could materially adversely affect our business, financial condition and results of operations.

Certain real properties we acquired from ACF in 1994 had been involved in investigation and remediation activities to address contamination both before and after their transfer to ARI. ACF is an affiliate of Mr. Carl Icahn, our principal beneficial stockholder through IELP. Substantially all of the issues identified with respect to these properties relate to the use of these properties prior to their transfer to us by ACF and for which ACF has retained liability for environmental contamination that may have existed at the time of transfer to us. ACF has also agreed to indemnify us for any cost that might be incurred with those existing issues. As of the date of this report, we do not believe we will incur material costs in connection with activities relating to these properties, but we cannot assure that this will be the case. If ACF fails to honor its obligations to us, we could be responsible for the cost of any additional investigation or remediation activities relating to these properties that may be required. These additional costs could be material or could interfere with the operation of our business. Any environmental liabilities we may incur that are not covered by adequate insurance or indemnification will also increase our costs and have a negative impact on our profitability.

If we are unable to protect our intellectual property and prevent its improper use by third parties, our ability to compete in the market may be harmed.

Various patent, copyright, trade secret and trademark laws afford only limited protection and may not prevent our competitors from duplicating our products or gaining access to our proprietary information and technology. These means also may not permit us to gain or maintain a competitive advantage. To the extent we expand internationally, we become subject to the risk that foreign intellectual property laws will not protect our intellectual property rights to the same extent as intellectual property laws in the U.S.

Any of our patents may be challenged, invalidated, circumvented or rendered unenforceable. We cannot guarantee that we will be successful should one or more of our patents be challenged for any reason. If our patent claims are rendered invalid or unenforceable, or narrowed in scope, the patent coverage afforded our products could be impaired, which could significantly impede our ability to market our products, negatively affect our competitive position and could materially adversely affect our business, financial condition and results of operations.

Our pending or future patent applications may not result in an issued patent and, if patents are issued to us, such patents may not provide meaningful protection against competitors or against competitive technologies. The U.S. federal courts may invalidate our patents or find them unenforceable. Competitors may also be able to design around our patents. Other parties may develop and obtain patent protection for more effective technologies, designs or methods. If these developments were to occur, it could have an adverse effect on our sales. If our intellectual property rights are not adequately protected we may not be able to commercialize our technologies, products or services and our competitors could commercialize our technologies, which could result in a decrease in our sales and market share and could materially adversely affect our business, financial condition and results of operations.

Our products could infringe the intellectual property rights of others, which may lead to litigation that could itself be costly, result in the payment of substantial damages or royalties, and prevent us from using technology that is essential to our products.

We cannot guarantee that our products, manufacturing processes or other methods do not infringe the patents or other intellectual property rights of third parties. Infringement and other intellectual property claims and proceedings brought against us, whether successful or not, could result in substantial costs and harm our reputation. Such claims and proceedings can also distract and divert our management and key personnel from other tasks important to the success of our business. In addition, intellectual property litigation or claims could force us to do one or more of the following:

- · cease selling or using any of our products that incorporate the asserted intellectual property, which would adversely affect our revenues;
- pay substantial damages for past use of the asserted intellectual property;
- · obtain a license from the holder of the asserted intellectual property, which license may not be available on reasonable terms, if at all; and

• redesign or rename, in the case of trademark claims, our products to avoid infringing the intellectual property rights of third parties, which may be costly and time-consuming, if possible at all.

In the event of an adverse determination in an intellectual property suit or proceeding, or our failure to license essential technology, our sales could be harmed and our costs could increase, which could materially adversely affect our business, financial condition and results of operations.

Our investment activities are subject to risks that could materially adversely affect our results of operations, liquidity and financial condition.

From time to time, we may invest in marketable securities, or derivatives thereof, including higher risk equity securities and high yield debt instruments. These securities are subject to general credit, liquidity, market risks and interest rate fluctuations that have affected various sectors of the financial markets and in the past have caused overall tightening of the credit markets and declines in the stock markets. The market risks associated with any investments we may make could materially adversely affect our business, financial condition, results of operations and liquidity.

Our investments at any given time also may become highly concentrated within a particular company, industry, asset category, trading style or financial or economic market. In that event, our investment portfolio will be more susceptible to fluctuations in value resulting from adverse economic conditions affecting the performance of that particular company, industry, asset category, trading style or economic market than a less concentrated portfolio would be. As a result, our investment portfolio could become concentrated and its aggregate return may be volatile and may be affected substantially by the performance of only one or a few holdings. For reasons not necessarily attributable to any of the risks set forth in this report (for example, supply/demand imbalances or other market forces), the prices of the securities in which we invest may decline substantially.

Changes in assumptions or investment performance related to pension plans that we sponsor could materially adversely affect our financial condition and results of operations.

We are responsible for making funding contributions to two frozen pension plans and are liable for any unfunded liabilities that may exist should any of our plans be terminated. Our liability and resulting costs for these plans may increase or decrease based upon a number of factors, including actuarial assumptions used, the discount rate used in calculating the present value of future liabilities, and investment performance, which could materially adversely affect our financial condition and results of operations. There is no assurance that interest rates will remain constant or that our pension fund assets can earn the expected rate of return, and our actual experience may be significantly different. Our pension expenses and funding may also be greater than we currently anticipate if our assumptions regarding plan earnings and expenses turn out to be incorrect.

We may be required to reduce the value of our inventory, long-lived assets and/or goodwill, which could materially adversely affect our business, financial condition and results of operations.

We may be required to reduce inventory carrying values using the lower of cost or market approach in the future due to a decline in market conditions in the industries in which we operate, which could materially adversely affect our business, financial condition and results of operations. Future events, such as a weak economic environment or challenging market conditions, new or modified laws and regulations affecting our railcars, and events related to particular customers or railcar types could cause us to conclude that impairment indicators exist and that goodwill associated with our acquired businesses is impaired. Any resulting impairment loss related to reductions in the value of our inventory, long-lived assets or our goodwill could materially adversely affect our business, financial condition and results of operations.

We review long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the long-lived assets may not be recoverable. As discussed in Note 3 and Note 8 of our consolidated financial statements, no triggering events occurred in 2016 to cause concern that our long-lived assets or goodwill would be impaired and thus no goodwill impairment loss was noted in 2016. We perform an annual goodwill impairment test each year. Assumptions used in our impairment tests regarding future operating results of our reporting units could prove to be inaccurate. This could cause an adverse change in our valuation and thus any of our long-lived assets or goodwill impairment tests may have been flawed. Any future impairment tests are subject to the same risks.

The use of railcars as a significant mode of transporting freight could decline, become more efficient over time, experience a shift in types of modal transportation, and/or certain railcar types could become obsolete.

As the freight transportation markets we serve continue to evolve and become more efficient, the use of railcars may decline in favor of other more economic modes of transportation. Features and functionality specific to certain railcar types could result in those railcars becoming obsolete as customer requirements for freight delivery change. Our operations may be adversely impacted by changes in the preferred method used by customers to ship their products or changes in demand for particular

products. The industries in which our customers operate are driven by dynamic market forces and trends, which are in turn influenced by economic and political factors in the U.S. and abroad. Demand for our railcars may be significantly affected by changes in the markets in which our customers operate. A significant reduction in customer demand for transportation or manufacture of a particular product or change in the preferred method of transportation used by customers to ship their products could result in the economic obsolescence of our railcars, including those leased by our customers.

Our stock price may decline due to sales of shares beneficially owned by Mr. Carl Icahn through IELP.

Sales of substantial amounts of our common stock, or the perception that these sales may occur, may materially adversely affect the price of our common stock and impede our ability to raise capital through the issuance of equity securities in the future. Of our outstanding shares of common stock, currently approximately 62% are beneficially owned by Mr. Carl Icahn, our principal beneficial stockholder through IELP.

Certain stockholders are contractually entitled, subject to certain exceptions, to exercise their demand registration rights to register their shares under the Securities Act of 1933. If this right is exercised, holders of any of our common stock subject to these agreements will be entitled to participate in such registration. By exercising their registration rights, and selling a large number of shares, these holders could cause the price of our common stock to decline. Approximately 11.2 million shares of common stock are covered by such registration rights.

Changes in accounting standards or inaccurate estimates or assumptions in the application of accounting policies could materially adversely affect our financial condition and results of operations.

Our accounting policies and methods are fundamental to how we record and report our financial condition and results of operations. Some of these policies require use of estimates and assumptions that may affect the reported value of our assets or liabilities and financial results and are critical because they require management to make difficult, subjective, and complex judgments about matters that are inherently uncertain. Accounting standard setters and those who interpret the accounting standards, such as the Financial Accounting Standards Board and SEC may amend or even reverse their previous interpretations or positions on how these standards should be applied. These changes can be hard to predict and can materially impact how we record and report our financial condition and results of operations. In some cases, we could be required to apply a new or revised standard retroactively, resulting in the restatement of prior period financial statements.

We are a "controlled company" within the meaning of the NASDAQ Global Select Market rules and therefore we are not subject to all of the NASDAQ Global Select Market corporate governance requirements.

As we are a "controlled company" within the meaning of the corporate governance standards of the NASDAQ Global Select Market, we have elected, as permitted by those rules, not to comply with certain corporate governance requirements. For example, our board of directors does not have a majority of independent directors and we do not have a nominating committee or compensation committee consisting of independent directors. As a result, our officers' compensation is not determined by our independent directors, and director nominees are not selected or recommended by a majority of independent directors.

Payments of cash dividends on our common stock may be made only at the discretion of our board of directors and may be restricted by North Dakota law.

Any decision to pay dividends will be at the discretion of our board of directors and will depend upon our operating results, strategic plans, capital requirements, financial condition, provisions of our borrowing arrangements and other factors our board of directors considers relevant. Furthermore, North Dakota law imposes restrictions on our ability to pay dividends. Accordingly, we may not be able to continue to pay dividends in any given amount in the future, or at all.

We are governed by the North Dakota Publicly Traded Corporations Act. Interpretation and application of this act is scarce and such lack of predictability could be detrimental to our stockholders.

The North Dakota Publicly Traded Corporations Act, which we are governed by, was enacted in 2007 and, to our knowledge, no other companies are yet subject to its provisions and interpretations of its likely application are scarce. Although the North Dakota Publicly Traded Corporations Act specifically provides that its provisions must be liberally construed to protect and enhance the rights of stockholders in publicly traded corporations, this lack of predictability could be detrimental to our stockholders.

Unanticipated changes in our tax provisions, exposure to additional tax liabilities, or contests with the Internal Revenue Service regarding tax positions we may take could affect our financial condition and profitability.

Judgement is required to determine our provision for income taxes. Changes in estimates of projected future operating results, loss of deductibility of items, or recapture of prior deductions could result in significant increases to our tax expense and

liabilities that could adversely affect our financial condition and profitability.

Further, we may take tax positions that the Internal Revenue Service (IRS) or other tax authorities may contest. If the IRS or other tax authorities successfully contest a position that we take, we may be required to pay additional taxes, interest or fines and any payments could have an effect on our results of operations or financial position.

We may be affected by climate change or market or regulatory responses to climate change.

Changes in laws, rules, and regulations, or actions by authorities under existing laws, rules, or regulations, to address greenhouse gas emissions and climate change could negatively impact our customers and business. For example, restrictions on emissions could significantly increase costs for our customers whose production processes require significant amounts of energy. Customers' increased costs could reduce their demand to purchase or lease our railcars. In addition, railcars in our fleet that are used to carry fossil fuels, such as coal and petroleum, could see reduced demand if new government regulations mandate a reduction in fossil fuel consumption. Potential consequences of laws, rules, or regulations addressing climate change could have an adverse effect on our financial position, results of operations, and cash flows.

We are subject to cybersecurity risks and other cyber incidents resulting in disruption.

Threats to information technology systems associated with cybersecurity risks and cyber incidents or attacks continue to grow. We depend on information technology systems. In addition, we collect, process and retain sensitive and confidential customer information in the normal course of business. Despite the security measures we have in place and any additional measures we may implement in the future, our facilities and systems, and those of our third-party service providers, could be vulnerable to security breaches, computer viruses, lost or misplaced data, programming errors, human errors, acts of vandalism or other events. Any disruption of our systems or security breach or event resulting in the misappropriation, loss or other unauthorized disclosure of confidential information, whether by us directly or our third-party service providers, could damage our reputation, expose us to the risks of litigation and liability, disrupt our business or otherwise affect our results of operations.

Terrorist attacks could negatively impact our operations and profitability and may expose us to liability.

Terrorist attacks may negatively affect our operations. Such attacks in the past have caused uncertainty in the global financial markets and economic instability in the U.S. and elsewhere, and further acts of terrorism, violence or war could similarly affect global financial markets and trade, as well as the industries in which we and our customers operate. In addition, terrorist attacks or hostilities may directly impact our physical facilities or those of our suppliers or customers, which could adversely impact our operations. These uncertainties could also adversely affect our ability to obtain additional financing on terms acceptable to us, or at all.

It is also possible that our products, particularly railcars we produce, could be involved in a terrorist attack. Although the terms of our lease agreements require lessees to indemnify us and others against a broad spectrum of damages arising out of the use of the railcars, and we currently carry insurance to potentially offset losses in the event that customer indemnifications prove to be insufficient, we may not be fully protected from liability arising from a terrorist attack that involves our railcars. In addition, any terrorist attack involving any of our railcars may cause reputational damage, or other losses, which could materially and adversely affect our business.

National and international political developments in response to a terrorist attack or uncertainties related to potential attacks may cause governments to enact legislation or regulations directed toward improving the security of railcars, could cause decreased demand for railcars and result in downturns in the industries in which we or our customers operate. Depending on the severity, scope, and duration of these circumstances, the impact on our financial position, results of operations and cash flows could be material.

Our internal controls over financial accounting and reporting may not detect all errors or omissions in our financial statements.

If we fail to maintain adequate internal controls over financial accounting, we may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 and related regulations. Effective internal and disclosure controls are necessary for us to provide reliable financial reports and effectively prevent fraud and to operate successfully as a public company. If we cannot provide reliable financial reports or prevent fraud, our reputation and operating results would be harmed. Although management has concluded that adequate internal control procedures are in place as of December 31, 2016, no system of internal control provides absolute assurance that the financial statements are accurate and free of error.

Item 1B: Unresolved Staff Comments

None

Item 2: Properties

Our headquarters is located in St. Charles, Missouri. We lease this facility pursuant to a lease agreement that expires December 31, 2021.

As of December 31, 2016, we owned manufacturing plants located in Paragould, Arkansas; Marmaduke, Arkansas; Jackson, Missouri; Kennett, Missouri; and Longview, Texas.

In addition, as of December 31, 2016, we operate eight railcar services facilities and eleven mobile units and mini shop facilities where we provide railcar repair and field services. Six of the railcar services facilities are owned and two are leased.

Item 3: Legal Proceedings

See Note 14, Commitments and Contingencies, to the consolidated financial statements located in Part II, Item 8 of this report, which is incorporated by reference into this Part I, Item 3, for a description of the litigation, legal and administrative proceedings as of December 31, 2016.

Item 4: Mine Safety Disclosure

Not applicable.

PART II

Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock trades on the NASDAQ Global Select Market under the symbol ARII. There were approximately 14 holders of record of common stock as of February 22, 2017.

The following table shows the high and low closing sales prices per share of our common stock by quarter for the period from January 1, 2015 through December 31, 2016:

	Pr			
	High		Low	
Year Ended December 31, 2016				
Quarter ended March 31, 2016	\$ 44.13	\$	35.79	
Quarter ended June 30, 2016	43.73		35.94	
Quarter ended September 30, 2016	42.90		37.85	
Quarter ended December 31, 2016	47.38		35.52	

	Hi	gh	Low		
Year Ended December 31, 2015					
Quarter ended March 31, 2015	\$	57.86 \$	47.77		
Quarter ended June 30, 2015		59.52	48.18		
Quarter ended September 30, 2015		48.49	33.56		
Quarter ended December 31, 2015		57.72	34.05		

Dividends

During 2016 and 2015, we declared and paid cash dividends of \$0.40 per share of our common stock each quarter, totaling \$31.0 million and \$33.2 million, respectively. Any future dividends will be at the discretion of our board of directors and will depend upon our operating results, strategic plans, capital requirements, financial condition, provisions of any of our borrowing arrangements, applicable law and other factors our board of directors considers relevant.

Stock Repurchase Program

On July 28, 2015, our Board of Directors authorized the repurchase of up to \$250.0 million of our outstanding common stock (the Stock Repurchase Program). The Stock Repurchase Program will end upon the earlier of the date on which it is terminated by the Board or when all authorized repurchases are completed. The timing and amount of future stock repurchases, if any, will be determined based upon our evaluation of market conditions and other factors. The Stock Repurchase Program may be suspended, modified or discontinued at any time and we have no obligation to repurchase any amount of our common stock under the Stock Repurchase Program. Under the Stock Repurchase Program, 760,653 and 1,507,766 shares were repurchased during 2016 and 2015, respectively, at a cost of \$28.6 million and \$57.4 million, respectively.

This table provides information with respect to purchases by the Company of shares of its Common Stock on the open market as part of the Stock Repurchase Program during the quarter ended December 31, 2016:

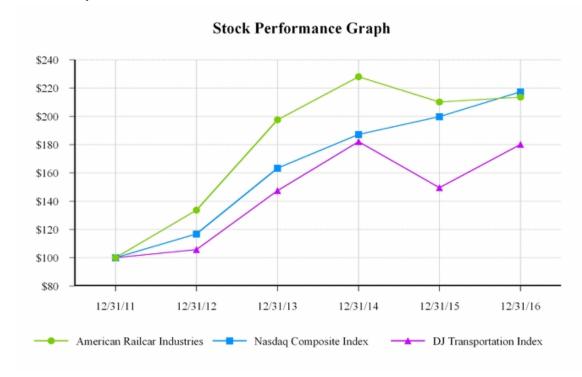
Period	Number of Shares Purchased	verage Price aid per Share	Total Number of Shares Purchased As Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plan		
October 1, 2016 through October 31, 2016	125,939	\$ 37.33	125,939	\$	170,478,953	
November 1, 2016 through November 30, 2016	177,154	\$ 36.71	177,154	\$	163,975,779	
December 1, 2016 through December 31, 2016	_	\$ _		\$	163,975,779	
Total	303,093		303,093			

(1) On July 28, 2015, the Company's board of directors authorized the Stock Repurchase Program pursuant to which the Company may, from time to time, repurchase up to \$250.0 million of its common stock. The Stock Repurchase Program will end upon the earlier of the date on which it is terminated by the Board or when all authorized repurchases are completed.

Stock Performance Graph

The following Stock Performance Graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934 (the Exchange Act), each as amended, except to the extent that we specifically incorporate it by reference into such filing.

The following graph illustrates the cumulative total stockholder return on our common stock during the five year period ended December 31, 2016, and compares it with the cumulative total return on the NASDAQ Composite Index and DJ Transportation Index. The comparison assumes \$100 was invested on December 31, 2011 in our common stock and in each of the foregoing indices and assumes reinvestment of dividends, if any. The performance shown is not necessarily indicative of future performance.



Item 6: Selected Consolidated Financial Data

The following table sets forth our selected consolidated financial data for the periods presented. The consolidated statements of operations and cash flow data for the years ended December 31, 2016, 2015 and 2014 and the consolidated balance sheet data as of December 31, 2016 and 2015 are derived from our audited consolidated financial statements and related notes included elsewhere in this annual report. The consolidated statements of operations and cash flow data for the years ended December 31, 2013 and 2012 and the consolidated balance sheet data as of December 31, 2014, 2013 and 2012 are derived from our historical consolidated financial statements not included in this filing. See "Index to Consolidated Financial Statements."

		Years ended December 31,									
		2016		2015 1		2014 1		2013 1		2012 1	
	As Adjusted										
			(in thousands, except per share data)								
Consolidated statement of operations data:											
Revenues											
Manufacturing ²	\$	429,774	\$	700,061	\$	600,326	\$	646,100	\$	633,547	
Railcar leasing		132,245		116,714		65,108		31,871		13,444	
Railcar services ³		77,114		72,561		67,572		72,621		64,732	
Total revenues		639,133		889,336		733,006		750,592		711,723	
Cost of revenues											
Manufacturing		(360,755)		(539,136)		(455,547)		(503,178)		(506,083)	
Other operating loss		(12,288)		_		_		_		_	
Railcar leasing		(41,732)		(36,161)		(23,733)		(13,394)		(5,906)	
Railcar services		(62,178)		(56,492)		(54,386)		(55,408)		(51,383)	
Total cost of revenues		(476,953)		(631,789)		(533,666)		(571,980)		(563,372)	
Gross profit		162,180		257,547		199,340		178,612		148,351	
Selling, general and administrative		(32,343)		(30,866)		(29,420)		(27,705)		(26,931)	
Net gains on disposition of leased railcars		272		25		138		_		_	
Earnings from operations		130,109		226,706		170,058		150,907		121,420	
Interest income ⁴		1,785		2,164		2,517		2,716		3,003	
Interest expense		(22,803)		(21,801)		(7,622)		(7,337)		(17,765)	
Loss on debt extinguishment		_		(2,126)		(1,896)		(392)		(2,267)	
Other income (loss)		185		(11)		(20)		2,037		1,905	
Earnings (loss) from joint ventures		4,924		5,812		1,570		(8,595)		(451)	
Earnings before income taxes		114,200		210,744		164,607		139,336		105,845	
Income tax expense		(41,537)		(77,291)		(65,074)		(52,440)		(42,022)	
Net earnings	\$	72,663	\$	133,453	\$	99,533	\$	86,896	\$	63,823	
Net earnings per common share—basic & diluted	\$	3.74	\$	6.39	\$	4.66	\$	4.07	\$	2.99	
Weighted average common shares outstanding—basic & diluted		19,439		20,883		21,352		21,352		21,352	
Dividends declared per common share	\$	1.60	\$	1.60	\$	1.60	\$	1.00	\$	0.25	
Consolidated balance sheet data:											
Cash and cash equivalents	\$	178,571	\$	298,064	\$	88,109	\$	97,252	\$	205,045	
Net working capital		239,558		273,337		106,688		148,122		273,953	
Property, plant and equipment, net		177,051		176,311		160,787		159,375		155,893	
Railcars on leases, net		908,010		848,717		663,315		372,551		220,282	
Total assets		1,456,250		1,525,074		1,190,261		823,583		807,384	
Total liabilities		905,980		988,777		694,845		389,681		437,919	
Total stockholders' equity		550,270		536,297		495,416		433,902		369,465	
Consolidated cash flow data:											
Net cash provided by operating activities	\$	180,503	\$	264,503	\$	136,799	\$	164,766	\$	121,378	
Net cash used in investing activities		(114,738)		(240,638)		(323,200)		(166,376)		(214,397)	
Net cash (used in) provided by financing activities		(185,206)		186,399		177,479		(106,045)		(9,130)	
Effect of exchange rate changes on cash and cash equivalents		(52)		(309)		(221)		(138)		22	
		. ,		()		,		, ,			

You should read this information together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes thereto included elsewhere in this Annual Report.

- (1) Financial data for 2012-2015 has been adjusted to reflect our change in accounting for debt issuance costs with the adoption of ASU 2015-03. See Note 3 of our consolidated financial statements.
- (2) Includes revenues from affiliates of \$0.8 million, \$269.6 million, \$245.9 million, \$250.5 million and \$103.7 million in 2016, 2015, 2014, 2013 and 2012, respectively.
- (3) Includes revenues from affiliates of \$26.8 million, \$24.9 million, \$19.3 million, \$17.2 million and \$21.4 million in 2016, 2015, 2014, 2013 and 2012, respectively.
- (4) Includes income from related parties of \$1.7 million, \$2.1 million, \$2.4 million, \$2.7 million and \$2.9 million in 2016, 2015, 2014, 2013 and 2012, respectively.

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion in conjunction with "Selected Consolidated Financial Data" and our consolidated financial statements and related notes included in this Annual Report on Form 10-K. This discussion contains forward-looking statements that are based on management's current expectations, estimates and projections about our business and operations. Our actual results may differ materially from those currently anticipated and expressed in such forward-looking statements, including as a result of the factors we describe under "Risk Factors" and elsewhere in this annual report. See "Special Note Regarding Forward-Looking Statements" appearing at the beginning of this report and "Risk Factors" set forth in Item 1A of this report.

EXECUTIVE SUMMARY

We are a prominent North American designer and manufacturer of hopper and tank railcars, which are currently the two largest markets within the railcar industry. We provide our railcar customers with integrated solutions through a comprehensive set of high quality products and related services offered by our three reportable segments: manufacturing, railcar leasing and railcar services. Manufacturing consists of railcar manufacturing and railcar and industrial component manufacturing. Railcar leasing consists of railcars manufactured by us and leased to third parties under operating leases. Railcar services consist of railcar repair, engineering and field services. Our business model combines manufacturing, railcar leasing and railcar services and is designed to support the industry with complete railcar solutions over the full life cycle of the railcar.

Our results for 2016 reflect the cyclicality of the North American railcar market. As the industry is facing lower railcar loadings and increased rail speeds along with volatility in oil prices, more railcars have been placed and still remain in storage, resulting in lower fleet utilization for much of the industry. Both the tank and hopper railcar markets have softened as demand has shifted to lower volumes of more specialized railcars. The tank railcar market has been impacted more heavily than most other markets, as a result of the over saturation of that market in recent years. As of December 31, 2016, we had a backlog of 3,813 railcars, 1,637 of which will go to our lease fleet. We continue working with customers on opportunities to fill our production schedule for the second half of 2017. Our consolidated operating margin was 20.4% in 2016 and was largely supported by the growth of our railcar leasing segment.

Our flexible workforce and knowledgeable management team provides us with the ability to effectively adjust our production rates in an effort to align them with industry trends. Even at lower production levels, we continue to efficiently produce high quality hopper and tank railcars. In 2016, we shipped 4,836 railcars, which is 45.7% lower than our record high shipments in 2015. We cannot assure you that hopper or tank railcar demand will maintain its current pace, that demand for any railcar types or railcar services will improve, or that our railcar backlog, orders or shipments will track industry-wide trends. Railcars built for our lease fleet represented 18.9% of our total railcar shipments in 2016 compared to 29.6% in 2015. Because revenues and earnings related to leased railcars are recognized over the life of the lease, our quarterly and annual results may vary depending on the mix of lease versus direct sale railcars that we ship during a given period.

Our railcar services business continues to support the industry, offering repair services over the railcar life cycle. We have expanded this business to add flexibility and capacity. Our existing repair network stands ready to respond to additional demand opportunities that may arise, including at our tank railcar manufacturing facility that provides us the flexibility not only to produce railcars but also to perform traditional repair and retrofit services in a production line set-up. The capacity at these facilities will also aid us, and our customers, in complying with the Revised Directive, as discussed below.

Management Transition of our Railcar Leasing Business

On December 16, 2016, the equity holders of ARL entered into a purchase agreement to sell their interests in ARL to SMBC Rail Services, LLC (the Buyer), with closing anticipated to occur in the second quarter of 2017. In anticipation of the expected sale of ARL (the ARL Sale) to the Buyer, ARI and ARL entered into a railcar management transition agreement (the RMTA) to

manage the transition, from ARL to ARI, of the management of our railcar leasing business. See Note 18 of our consolidated financial statements for further discussion of the RMTA.

We believe our integrated business model of providing complete life cycle solutions for the railcar industry lends itself to a solid foundation of knowledge that we intend to leverage as we transition to internally managing our railcar leasing business. Together with ARL, under the RMTA, we are preparing for this new opportunity to further strengthen our organization, which we believe will help us continue to be competitive in the North American railcar leasing market as we continue to utilize synergies from our manufacturing and railcar services operations.

Our current liquidity of \$378.6 million, including \$200.0 million available under our revolving credit facility, provides us with the ability to further grow our lease fleet, as demand may dictate. Since entering the railcar leasing business in 2011, we have strategically grown our lease fleet to 11,268 railcars at December 31, 2016. Adding railcars to our lease fleet remains a strategic priority for us, as we target key customers and key railcar types to meet their needs. Although the industry is experiencing declining lease rates as a result of the softness in the overall market, the expiration dates of our operating leases for railcars in our lease fleet are spread over the next several years, which helps mitigate the risks of renewing leases at lower rates or any inability we may experience in renewing leases or re-leasing these railcars.

FRA Directive

As previously disclosed, on September 30, 2016 the Federal Railroad Administration (FRA) issued Railworthiness Directive (RWD) No. 2016-01 (the Original Directive), as discussed in Note 14, Commitments and Contingencies, to the consolidated financial statements located in Part II, Item 8 of this report. The Original Directive addressed, among other things, certain welding practices in one weld area in specified DOT 111 tank railcars manufactured between 2009 and 2015 by ARI and ACF Industries, LLC (ACF). ACF is an affiliate of Mr. Carl Icahn, our principal beneficial stockholder through IELP. The Company met and corresponded with the FRA following the issuance of the Original Directive to express the Company's concerns with the Original Directive and its impact on ARI, as well as the industry as a whole.

On November 18, 2016 (the Issuance Date), the FRA issued RWD No. 2016-01 [Revised] (the Revised Directive). The Revised Directive changes and supersedes the Original Directive in several ways.

The Original Directive indicated that approximately 14,800 general purpose tank railcars could be affected. The Revised Directive requires owners to identify their subject tank cars and then from that population identify the 15% of subject tank cars currently in hazardous materials service with the highest mileage in each tank car owner's fleet. Visual inspection of each of the subject tank railcars is required by the car operator prior to putting any railcar into service. Owners must ensure appropriate inspection, testing and repairs, if needed, within 12 months of the Issuance Date for the 15% of their subject tank railcars identified to be in hazardous materials service with the highest mileage. The FRA will monitor and analyze the results of the 15% sample and has reserved the right to impose additional test and inspection requirements for the remaining fleet of tank cars subject to the Revised Directive.

We have evaluated our potential exposure related to the Revised Directive and have established a loss contingency of \$12.3 million to cover our probable and estimable liabilities, as of December 31, 2016, with respect to our response to the Revised Directive, taking into account currently available information and our contractual obligations in our capacity as both a manufacturer and lessor of railcars subject to the Revised Directive. This amount is included in accrued expenses and other liabilities on the consolidated balance sheet and will continue to be evaluated as our and our customers' compliance with the Revised Directive progresses and our understanding of the impact the Revised Directive may have on our business, including results of operations and cash flows, evolves. The \$12.3 million loss contingency represents a reduction from the loss contingency that we established as of September 30, 2016 for the Original Directive, and reflects the changes made by the FRA from the Original Directive to the Revised Directive that reduced the number of railcars that are currently required to be inspected and repaired, if necessary. We cannot assure you that the amount we have established as a loss contingency is adequate to cover actual costs or losses we may experience. See Note 14, Commitments and Contingencies, to the consolidated financial statements located in Part II, Item 8 of this report for more information on the loss contingency.

Although the Revised Directive addresses some of our concerns and clarifies certain requirements of the Original Directive, we have identified significant issues with the Revised Directive. As a result, in a letter to the FRA dated November 28, 2016, we requested that the FRA immediately rescind or stay the Revised Directive without reinstating the Original Directive. In addition, ARI has sought judicial review of and relief from the Revised Directive. On December 13, 2016, we filed a petition for review in the United States Court of Appeals for the District of Columbia Circuit against the FRA. We asserted that (i) the Revised Directive was unlawful and inconsistent with administrative law, (ii) the Revised Directive is arbitrary, capricious and inconsistent with law, (iii) the FRA exceeded its authority when it issued the Revised Directive and (iv) the Revised Directive was an improper adjudication under applicable laws. The petition requests that the court review, remand and vacate, defer enforcement of, and/or stay pending review, the Revised Directive. We cannot assure you that this petition will be successful in

reversing or modifying the Revised Directive to benefit owners with railcars subject to the Revised Directive or, if it is successful, whether it will be successful in a reasonable amount of time. Regardless of the petition, significant uncertainty exists in connection with the Revised Directive and its implementation. Our attempts to comply with the Revised Directive may fail if we are unable to get clarification from the FRA on a variety of questions and we do not meet the expectations of the FRA in complying with the Revised Directive.

RESULTS OF OPERATIONS

Consolidated Results

The following table summarizes our historical operations for the years ended December 31, 2016, 2015 and 2014. Our historical results are not necessarily indicative of operating results that may be expected in the future.

	2016		2015 2014		2	2016 vs 2015		2015 vs 2014	2016 vs 2015	2015 vs 2014	
		(in thousands)								(in ^o	%'s)
Revenues:											
Manufacturing	\$ 429,774	\$	700,061	\$	600,326	\$	(270,287)	\$	99,735	(38.6)	16.6
Railcar leasing	132,245		116,714		65,108		15,531		51,606	13.3	79.3
Railcar services	77,114		72,561		67,572		4,553		4,989	6.3	7.4
Total revenues	639,133		889,336		733,006		(250,203)		156,330	(28.1)	21.3
Cost of revenues:											
Manufacturing	(360,755))	(539,136)		(455,547)		178,381		(83,589)	(33.1)	18.3
Other operating loss	(12,288))	_		_		(12,288)		_	*	*
Railcar leasing	(41,732))	(36,161)		(23,733)		(5,571)		(12,428)	15.4	52.4
Railcar services	(62,178))	(56,492)		(54,386)		(5,686)		(2,106)	10.1	3.9
Total cost of revenues	(476,953))	(631,789)		(533,666)		154,836		(98,123)	(24.5)	18.4
Selling, general and administrative	(32,343))	(30,866)		(29,420)		(1,477)		(1,446)	4.8	4.9
Net gains on disposition of leased railcars	272		25		138		247		(113)	*	*
Earnings from operations	130,109		226,706		170,058		(96,597)		56,648	(42.6)	33.3

^{*-} Not meaningful

Revenues

2016 vs. 2015

Our total consolidated revenues for 2016 decreased by 28.1% compared to 2015. This decrease was due to decreased revenues in our manufacturing segment, partially offset by increased revenues in our railcar leasing and railcar services segments. During 2016, we shipped 3,922 direct sale railcars, which excludes 914 railcars (18.9% of total shipments) built for our lease fleet, compared to 6,270 direct sale railcars during 2015, which excludes 2,633 railcars (29.6% of total shipments) built for our lease fleet.

Manufacturing revenues decreased in 2016 by 38.6% compared to 2015. Given the decrease in tank railcar demand and a shift in production to a larger mix of specialty railcars, tank railcar shipments have decreased. Hopper railcar production has also shifted to a larger mix of specialty railcars and demand for that market has softened, resulting in fewer hopper railcar shipments. The decrease in manufacturing revenues was due to a decrease of 37.9% driven by 2,348 fewer railcar shipments for direct sale with average selling prices remaining relatively flat given a higher mix of more specialty hopper railcars in 2016 with higher average selling prices as compared to 2015, partially offset by fewer tank railcars sold, which generally have higher selling prices than hopper railcars, combined with more competitive pricing on both hopper and tank railcars. The remaining decrease of 0.7% was due to a decrease in revenue from certain material cost changes that we generally pass through to customers, as discussed below.

Railcar leasing revenues for 2016 increased by 13.3% compared to 2015. This increase was primarily due to an increase in the number of railcars on lease, partially offset by a slight decline in weighted average lease rates compared to 2015. The lease fleet totaled 11,268 railcars at the end of 2016, compared to 10,362 railcars at the end of 2015.

Railcar services revenues for 2016 increased by 6.3% compared to 2015. This increase was primarily due to an increase in demand and volume associated with additional capacity resulting from our expansion projects that continued to ramp up in 2016.

2015 vs. 2014

Our total consolidated revenues for 2015 increased by 21.3% compared to 2014. This increase was due to increased revenues across all three of our segments, with the largest dollar increase in our manufacturing segment. During 2015, we shipped 6,270 direct sale railcars, which excludes 2,633 railcars (29.6% of total shipments) built for our lease fleet, compared to 4,727 direct sale railcars during 2014, which excludes 3,291 railcars (41.0% of total shipments) built for our lease fleet.

Manufacturing revenues increased in 2015 by 16.6% compared to 2014. This change was due to an increase of 18.5% driven by 1,543 more railcar shipments for direct sale, partially offset by an overall decrease in average selling prices due to a change in product mix, and a decrease of 1.9% due to a decrease in revenue from certain material cost changes that we generally pass through to customers, as discussed below. Hopper railcar shipments for direct sale significantly increased during 2015 compared to 2014, as that market peaked in terms of volume as demand shifted towards more specialty hopper railcar types. This increase resulted in a higher mix of hopper railcars sold, which generally have lower average selling prices than tank railcars due to less material and labor content. Tank railcar shipments for direct sale decreased as production shifted to a larger mix of specialty tank railcars that have higher average selling prices due to the complexity of the design.

Railcar leasing revenues for 2015 increased by 79.3% compared to 2014. This increase was primarily due to an increase in the number of railcars on lease, as lease rates were relatively flat compared to 2014. The lease fleet totaled 10,362 railcars at the end of 2015, compared to 7,730 railcars at the end of 2014.

Railcar services revenues for 2015 increased by 7.4% compared to 2014. This increase was primarily due to an increase in demand, a favorable change in the mix of work at our repair facilities and the additional capacity resulting from our Brookhaven repair facility that became operational during the third quarter of 2014.

Cost of Revenues

2016 vs. 2015

Our total consolidated cost of revenues for 2016 decreased by 24.5% compared to 2015 due to decreased cost of revenues in our manufacturing segment that were partially offset by the loss contingency recognized during 2016 related to the Revised Directive. The overall decrease from the manufacturing segment was partially offset by an increase in our cost of revenues for our railcar leasing and railcar services segments.

Cost of revenues (excluding the other operating loss attributable to the manufacturing segment, as discussed below) decreased for our manufacturing segment by 33.1%, due to a decrease of 32.2% driven by lower direct sale railcar shipments, as discussed above, partially offset by increased costs associated with the production of more specialized hopper railcars, as discussed above, and higher costs associated with the lower volumes of tank railcars, which requires us to adjust our production schedules and output of new tank railcars and monitor and control overhead spending and employee levels. The remaining decrease of 0.9% was driven by lower material costs for key components and steel, which is also reflected as a decrease in selling prices as our practice is to generally pass changes in these costs through to the customer.

Also included as a component of manufacturing cost of revenues was the other operating loss of \$12.3 million, which represents a loss contingency recognized during 2016 to cover our probable and estimable liabilities, as of December 31, 2016, with respect to our response to the Revised Directive, taking into account currently available information and our contractual obligations in our capacity as both a manufacturer and lessor of railcars subject to the Revised Directive. For further discussion, refer to the Executive Summary above and Note 14, Commitments and Contingencies, to the consolidated financial statements located in Part II, Item 8 of this report.

Cost of revenues for our railcar leasing segment increased for 2016 by 15.4% compared to 2015, primarily as a result of an increase in the number of railcars in our lease fleet, as discussed above.

Cost of revenues for our railcar services segment increased for 2016 by 10.1% compared to 2015, primarily due to an increase in demand, volume and costs associated with the ramp up of operations at our recently completed expansion projects, as discussed above, as well as higher depreciation expenses.

2015 vs. 2014

Our total consolidated cost of revenues for 2015 increased by 18.4% compared to 2014. This increase was due to increased cost of revenues across all three of our segments, with the largest dollar increase in our manufacturing segment.

Cost of revenues increased for our manufacturing operations by 18.3%, due to an increase of 20.8% driven by higher direct sale railcar shipments, as discussed above, partially offset by improved operational efficiencies and a decrease of 2.5% driven by lower material costs for key components and steel. The decrease in costs for key components and steel is also reflected as a decrease in selling prices as our practice is to generally pass changes in these costs through to the customer.

Cost of revenues for our railcar leasing segment increased for 2015 by 52.4% compared to 2014, primarily as a result of an increase in the number of railcars in our lease fleet, as discussed above.

Cost of revenues for our railcar services segment increased for 2015 by 3.9% compared to 2014, primarily due to an increase in volume of work, a favorable change in mix of work at our repair facilities resulting in increased material and labor content and the additional capacity resulting from our Brookhaven repair facility, as discussed above.

Selling, general and administrative expenses

Our total selling, general and administrative expenses increased by 4.8% in 2016 compared to 2015. This \$1.5 million increase was primarily due to increased consulting expenses and higher depreciation, partially offset by lower bad debt and incentive compensation expense.

Our total selling, general and administrative expenses increased by 4.9% in 2015 compared to 2014. This \$1.4 million increase was primarily driven by higher depreciation related to our new enterprise resource planning system, increased legal and compliance costs, sales commissions and other corporate expenses, partially offset by lower incentive compensation expense and lower bad debt expense.

Interest expense

Interest expense for 2016 was \$22.8 million compared to \$21.8 million in 2015. This increase was primarily driven by a higher average debt balance during 2016 compared to 2015 primarily due to the use of our revolving loan facility at the beginning of 2016.

Interest expense for 2015 was \$21.8 million compared to \$7.6 million in 2014. In January 2015, our wholly-owned subsidiary, Longtrain Leasing III, LLC (LLIII), completed a \$625.5 million private placement of two classes of fixed rate secured railcar equipment notes bearing interest at a rate of 2.98% and 4.06% per annum, respectively, as discussed further in the 'Liquidity and Capital Resources' section below, resulting in a higher average debt balance during 2015 compared to 2014. In addition, in 2015 our weighted average interest rate increased to 3.5% compared to a weighted average interest rate of 2.2% during 2014 as a result of refinancing our prior variable rate debt obligations with fixed rate debt, thereby minimizing the effect of any rise in interest rates.

Loss on debt extinguishment

During 2015, we refinanced our lease fleet financing facilities, resulting in net proceeds of \$211.6 million under a private placement of secured railcar equipment notes. This refinancing resulted in a \$2.1 million non-cash charge related to the accelerated write-off of the remainder of deferred debt issuance costs incurred in connection with the 2014 lease fleet financing facilities.

During 2014, we refinanced our lease fleet financing facility, paying off \$194.2 million of outstanding debt under our original 2012 lease fleet financing facility with borrowings under a new facility. This refinancing resulted in a \$1.9 million non-cash charge related to the accelerated write-off of the remainder of deferred debt issuance costs incurred in connection with the original lease fleet financing facility.

Earnings (Loss) from joint ventures

							\$ Increase (Decrease)			
		2016		2015		2014	2	2016 vs 2015	2	2015 vs 2014
	<u>-</u>				(in	thousands)				
Ohio Castings	\$	(299)	\$	582	\$	1,815	\$	(881)	\$	(1,233)
Axis		5,223		5,230		(245)	\$	(7)	\$	5,475
Total Earnings from Joint Ventures	\$	4,924	\$	5,812	\$	1,570	\$	(888)	\$	4,242

Our joint venture earnings were \$4.9 million in 2016 compared to \$5.8 million in 2015. Our Ohio Castings joint venture experienced decreased sales in 2016 due to a ramp down of production from the high levels experienced in 2015 to more historical levels in an effort to align the joint venture's production level with expected industry demand. Then in January 2017, Ohio Castings' production was idled by the joint venture partners based on expected industry demand. We expect that Ohio Castings will remain idle through at least the end of 2017, subject to re-evaluation based on changes in future demand expectations. During this idle period, we expect to fulfill all of our castings requirements from third party vendors.

Our Axis joint venture has also ramped down production in 2016 in line with expected industry demand, but even with lower production levels earnings remain comparable to 2015, reflecting improved efficiencies and better profitability.

Our joint venture earnings were \$5.8 million in 2015 compared to \$1.6 million in 2014. This increase was a result of increased sales and production levels at our Axis joint venture due to strong railcar industry demand, which generated improved efficiencies and better profitability than 2014 when the joint venture experienced unanticipated interruptions and incurred additional costs in its efforts to meet customer demand. The increased earnings from Axis were partially offset by decreased sales at our Ohio Castings joint venture due to a ramp down of production to more historical levels that align with the joint venture's expected production level.

Income tax expense

Income tax expense in 2016 was \$41.5 million compared to \$77.3 million in 2015. This decrease was a result of lower earnings from operations as our effective tax rate remained relatively flat at 36.4% and 36.7% of our earnings before income taxes in 2016 and 2015, respectively.

Income tax expense in 2015 was \$77.3 million, or 36.7% of our earnings before income taxes, compared to \$65.1 million, or 39.5%, in 2014. The decrease in the effective tax rate is primarily due to a decrease in our state effective tax rates due to a shift in the geographical mix of revenues, in addition to the impact of state tax credits. The effective tax rate for 2014 was also higher due to the loss of the domestic production activities deduction from prior years.

Segment Results

The table below summarizes our historical revenues, earnings from operations and operating margin for the periods shown. Intersegment revenues are accounted for as if sales were to third parties. Operating margin is defined as total segment earnings from operations as a percentage of total segment revenues. Our historical results are not necessarily indicative of operating results that may be expected in the future. Refer to Note 19 of the consolidated financial statements for further discussions of our segments.

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	External	Intersegment			Total	\$ Change	% Change		
			(in tho	usano	ls)				
<u>2016</u>									
Manufacturing	\$ 429,774	\$	95,159	\$	524,933	\$ (494,527)	(48.5)		
Railcar leasing	132,245		_		132,245	15,531	13.3		
Railcar services	77,114		1,807		78,921	4,424	5.9		
Eliminations			(96,966)		(96,966)	 224,369	(69.8)		
Total Consolidated	\$ 639,133	\$	_	\$	639,133	\$ (250,203)	(28.1)		
<u>2015</u>									
Manufacturing	\$ 700,061	\$	319,399	\$	1,019,460	\$ (161)	_		
Railcar leasing	116,714		_		116,714	51,606	79.3		
Railcar services	72,561		1,936		74,497	6,655	9.8		
Eliminations	_		(321,335)		(321,335)	98,230	(23.4)		
Total Consolidated	\$ 889,336	\$	_	\$	889,336	\$ 156,330	21.3		
<u>2014</u>									
Manufacturing	\$ 600,326	\$	419,295	\$	1,019,621				
Railcar leasing	65,108		_		65,108				
Railcar services	67,572		270		67,842				
Eliminations	_		(419,565)		(419,565)				
Total Consolidated	\$ 733,006	\$	_	\$	733,006				

Earnings (Loss) from Operations

		2016	2015		2014	2	016 vs 2015	2	2015 vs 2014	2016 vs 2015	2015 vs 2014
	<u></u>			(in	thousands)					(in %	%'s)
Manufacturing	\$	56,736	\$ 240,891	\$	262,937	\$	(184,155)	\$	(22,046)	(76.4)	(8.4)
Railcar leasing		79,084	70,344		36,090		8,740		34,254	12.4	94.9
Railcar services		11,421	13,898		10,366		(2,477)		3,532	(17.8)	34.1
Corporate		(18,249)	(18,779)		(18,339)		530		(440)	(2.8)	2.4
Eliminations		1,117	(79,648)		(120,996)		80,765		41,348	(101.4)	(34.2)
Total Consolidated	\$	130,109	\$ 226,706	\$	170,058	\$	(96,597)	\$	56,648	(42.6)	33.3

Operating Margin

	2016	2015	2014
Manufacturing	10.8%	23.6%	25.8%
Railcar leasing	59.8%	60.3%	55.4%
Railcar services	14.5%	18.7%	15.3%
Total Consolidated	20.4%	25.5%	23.2%

Manufacturing

2016 vs. 2015

Our manufacturing segment revenues for 2016, including an estimate of revenues for railcars built for our lease fleet, decreased by \$494.5 million compared to 2015. This decrease resulted from a lower volume of shipments, as discussed below, an overall decrease in average selling prices with a higher mix of hopper railcars, which generally sell at lower prices than tank railcars due to less material and labor content, more competitive pricing on both hopper and tank railcars, and a decrease in revenue from material cost changes that we generally pass through to customers, as discussed in 'Consolidated Results' above.

During 2016, we shipped 4,836 railcars, including 914 railcars built for our lease fleet, compared to 8,903 railcars, including 2,633 railcars built for our lease fleet during 2015.

Manufacturing segment revenues for 2016 included estimated revenues of \$94.3 million relating to railcars built for our lease fleet, compared to \$319.4 million for 2015. This decrease in estimated revenues related to railcars built for our lease fleet was due to lower quantities of both hopper and tank railcars shipped for lease. Such revenues are based on an estimated fair market value of the leased railcars as if they had been sold to a third party, and are eliminated in consolidation. Revenues from railcars manufactured for our railcar leasing segment are not recognized in consolidated revenues as railcar sales, but rather lease revenues are recognized over the term of the lease in accordance with the monthly lease revenues. Railcars built for the lease fleet represented 18.9% of our railcar shipments for 2016 compared to 29.6% for 2015.

From time to time, we manufacture and sell railcars to companies controlled by Mr. Carl Icahn, our principal beneficial stockholder through IELP, including, but not limited to, American Railcar Leasing LLC (ARL) (collectively, the IELP Entities). Our manufacturing segment had no direct sales of railcars to the IELP Entities during 2016, primarily due to our focus on growing our own lease fleet as industry demand has softened. During 2015, we had \$259.9 million of direct sales of railcars to IELP Entities. In addition, we recorded \$0.7 million of revenue from ACF for royalties and profits on railcars sold by ACF and for sales of railcar components to ACF in 2016, compared to \$9.6 million in 2015. ACF is also affiliated with Mr. Carl Icahn. Total manufacturing segment revenues from our affiliates represent 0.1% of our total consolidated revenues in 2016, compared to 30.3% in 2015.

Earnings from operations for our manufacturing segment, which include an allocation of selling, general and administrative costs, as well as estimated profit for railcars manufactured for our railcar leasing segment, decreased by \$184.2 million for 2016 compared to 2015. Estimated profit on railcars built for our lease fleet, which is eliminated in consolidation, was \$9.5 million for 2016 compared to \$87.7 million for 2015, and is based on an estimated fair market value of revenues as if the railcars had been sold to a third party, less the cost to manufacture.

Operating margin from our manufacturing segment decreased to 10.8% in 2016 from 23.6% in 2015. These decreases for both earnings from operations and operating margin were primarily due to the impact of the loss contingency related to the Revised Directive recognized by the manufacturing segment of \$12.3 million during 2016, as discussed above. Furthermore, during 2016, we had a higher mix of hopper railcar shipments, which generally sell at lower prices than tank railcars, in addition to more competitive pricing on both hopper and tank railcars, combined with higher costs associated with the lower production rates at our tank railcar manufacturing facility.

2015 vs. 2014

Our manufacturing segment revenues for 2015, including an estimate of revenues for railcars built for our lease fleet, were flat compared to 2014. During 2015, we shipped 8,903 railcars, including 2,633 railcars built for our lease fleet, compared to 8,018 railcars, including 3,291 railcars built for our lease fleet during 2014. Although there was a higher volume of shipments in 2015 compared to 2014, there was a higher mix of hopper railcars in 2015, which generally sell at lower prices than tank railcars due to less material and labor content combined with a decrease in revenue from certain material cost changes that we generally pass through to customers, as discussed in 'Consolidated Results' above.

Manufacturing segment revenues for 2015 included estimated revenues of \$319.4 million relating to railcars built for our lease fleet, compared to \$419.3 million for 2014. This decrease in estimated revenues related to railcars built for our lease fleet was due to a lower quantity of tank railcars shipped for lease, partially offset by a higher quantity of hopper railcars shipped for lease. Additionally, this change in product mix resulted in an overall decrease in average selling prices as hopper railcars generally have lower average selling prices than tank railcars due to less material and labor content. Such revenues are based on an estimated fair market value of the leased railcars as if they had been sold to a third party, and are eliminated in consolidation. Revenues from railcars manufactured for our railcar leasing segment are not recognized in consolidated revenues as railcar sales, but rather lease revenues are recognized over the term of the lease in accordance with the monthly lease revenues. Railcars built for the lease fleet represented 29.6% of our railcar shipments for 2015 compared to 41.0% for 2014.

Manufacturing segment revenues included direct sales of railcars to the IELP Entities totaling \$259.9 million of our total consolidated revenues in 2015, compared to \$226.9 million in 2014. In addition, we recorded \$9.6 million of revenue from ACF for royalties and profits on railcars sold by ACF and for sales of railcar components to ACF in 2015, compared to \$19.0 million in 2014. ACF is also affiliated with Mr. Carl Icahn, our principal beneficial stockholder through IELP. Total manufacturing segment revenues from our affiliates represent 30.3% of our total consolidated revenues in 2015, compared to 33.5% in 2014.

Earnings from operations for our manufacturing segment, which include an allocation of selling, general and administrative costs, as well as estimated profit for railcars manufactured for our railcar leasing segment, decreased by \$22.0 million for 2015

compared to 2014. Estimated profit on railcars built for our lease fleet, which is eliminated in consolidation, was \$87.7 million for 2015 compared to \$126.0 million for 2014, and is based on an estimated fair market value of revenues as if the railcars had been sold to a third party, less the cost to manufacture. Operating margin from our manufacturing segment decreased to 23.6% in 2015 from 25.8% in 2014. These decreases were due to a higher mix of hopper railcars shipments, which generally sell at lower prices than tank railcars due to less material and labor content.

Railcar leasing

2016 vs. 2015

Our railcar leasing segment revenues for 2016 increased by \$15.5 million compared to 2015. The primary reason for the increase in revenue was an increase in the number of railcars on lease with third parties. We had 11,268 railcars in our lease fleet at the end of 2016 compared to 10,362 railcars at the end of 2015

Beginning in 2016, we leased railcars to certain of the IELP Entities under an operating lease arrangement, consistent with our leasing arrangements with non-affiliates. Revenues from railcars leased to certain of the IELP Entities were \$0.3 million for the year ended December 31, 2016.

In 2016, earnings from operations for our railcar leasing segment, which include an allocation of selling, general and administrative costs, increased by \$8.7 million compared to 2015. This increase is primarily due to the growth in the number of railcars in our lease fleet. Operating margin from our railcar leasing segment was 59.8% for 2016 compared to 60.3% in 2015. This decrease was due to a slight decline in weighted average lease rates compared to 2015.

2015 vs. 2014

Our railcar leasing segment revenues for 2015 increased by \$51.6 million compared to 2014. The primary reason for the increase in revenue was an increase in the number of railcars on lease with third parties. We had 10,362 railcars in our lease fleet at the end of 2015 compared to 7,730 at the end of 2014.

In 2015, earnings from operations for our railcar leasing segment, which include an allocation of selling, general and administrative costs, increased by \$34.2 million compared to 2014. Operating margin from our railcar leasing segment increased to 60.2% for 2015 from 55.4% in 2014. These increases were driven by the growth in the number of railcars in our lease fleet.

Railcar services

2016 vs. 2015

Our railcar services segment revenues for 2016 increased 5.9% compared to 2015. The increase was primarily due to an increase in demand and volume associated with additional capacity resulting from our expansion projects that continued to ramp up in 2016, as discussed in 'Consolidated Results' above.

For 2016, our railcar services revenues included transactions with ARL totaling \$26.8 million, or 4.2% of our total consolidated revenues, compared to \$24.9 million, or 2.8% of our total consolidated revenues in 2015. Following the consummation of the ARL Sale, which is currently anticipated to occur during the second quarter of 2017, the RMTA, among other things and subject to its terms, provides for the termination of our railcar services agreement, dated April 15, 2011 (as amended), between ARL and ARI, pursuant to which ARI provides ARL railcar repair, engineering, administrative and other services on an as needed basis. See Note 18 of our consolidated financial statements for further discussion of the RMTA. We cannot provide any assurances that we will continue to provide railcar repair services to ARL after the consummation of the ARL Sale.

In 2016, earnings from operations for our railcar services segment, which include an allocation of selling, general and administrative costs, decreased 17.8% compared to 2015. Operating margin from railcar services decreased to 14.5% for 2016 from 18.7% in 2015. These decreases are due to an increase in demand, volume and costs associated with the ramp up of operations at our recently completed expansion projects as well as higher depreciation expenses, as discussed above and additional administrative support expenses to foster anticipated growth of this segment.

2015 vs. 2014

Our railcar services segment revenues for 2015 increased 9.8% compared to 2014. The increase was primarily due to an increase in demand, a favorable change in the mix of work at our repair facilities and the additional capacity resulting from our Brookhaven repair facility.

For 2015, our railcar services revenues included transactions with ARL totaling \$24.9 million, or 2.8% of our total consolidated revenues, compared to \$19.3 million, or 2.6% of our total consolidated revenues in 2014.

In 2015, earnings from operations for our railcar services segment, which include an allocation of selling, general and administrative costs, increased 34.1% compared to 2014. Operating margin from railcar services increased to 18.7% for 2015 from 15.3% in 2014. These increases are due to an increase in revenues coupled with improved efficiencies and a favorable mix of work.

LIQUIDITY AND CAPITAL RESOURCES

As of December 31, 2016, we had net working capital of \$239.6 million, including \$178.6 million of cash and cash equivalents. As of December 31, 2016, we had \$571.0 million of debt outstanding, net of unamortized debt issuance costs of \$4.9 million, under an indenture entered into by our wholly-owned subsidiary, Longtrain Leasing III, LLC (LLIII) and we also had up to \$200.0 million available to us under a revolving loan, as discussed below.

Outstanding and Available Debt

Subsidiary lease fleet financings

In January 2015, we refinanced the Longtrain Leasing I, LLC (LLI) and Longtrain Leasing II, LLC (LLII) lease fleet financing facilities to, among other things, increase our borrowings. LLIII issued \$625.5 million in aggregate principal amount of notes, pursuant to an Indenture (the Indenture). The notes are fixed rate secured railcar equipment notes bearing interest at a rate of 2.98% per annum for the Class A-1 Notes and 4.06% per annum for the Class A-2 Notes (collectively with the Class A-1 Notes, the Notes). As of December 31, 2016, there were \$200.5 million and \$375.5 million of Class A-1 and Class A-2 notes outstanding, respectively. The Notes have a legal final maturity date of January 17, 2045 and an expected principal repayment date of January 15, 2025.

Pursuant to the terms of the Indenture, LLIII is required to maintain deposits in a liquidity reserve bank account equal to nine months of interest payments. As of December 31, 2016 and December 31, 2015, the liquidity reserve amount was \$16.7 million and \$16.9 million, respectively, and included within 'Restricted cash' on the consolidated balance sheets.

While the legal final maturity date of the Notes is January 17, 2045, cash flows from LLIII's assets will be applied, pursuant to the flow of funds provisions of the Indenture, so as to achieve monthly targeted principal balances. Also, under the flow of funds provisions of the Indenture, early amortization of the Notes may be required in certain circumstances. If the Notes are not repaid by the expected principal repayment date on January 15, 2025, additional interest will accrue at a rate of 5.0% per annum and be payable monthly according to the flow of funds. LLIII can prepay or redeem the Class A-1 Notes, in whole or in part, on any payment date, subject to the payment of a make-whole amount with respect to certain prepayments or redemptions made on or prior to the scheduled payment date occurring in January 2018. LLIII can prepay or redeem the Class A-2 Notes, in whole or in part, on any payment date occurring on or after January 16, 2018, subject to the payment of a make-whole amount with respect to certain prepayments or redemptions made on or prior to the scheduled payment date occurring in January 2022.

The Indenture also contains certain customary events of default, including among others, failure to pay amounts when due after applicable grace periods, failure to comply with certain covenants and agreements, and certain events of bankruptcy or insolvency. Certain events of default under the Indenture will make the outstanding principal balance and accrued interest on the Notes, together with all amounts then due and owing to the noteholders, immediately due and payable without further action. For other events of default, the Indenture Trustee, acting at the direction of a majority of the noteholders, may declare the principal of and accrued interest on all Notes then outstanding to be due and payable immediately.

The Notes are obligations of LLIII, are generally non-recourse to ARI, and are secured by a first lien on the subject assets of LLIII consisting of railcars, railcar leases, receivables and related assets, subject to limited exceptions. ARI has, however, entered into agreements containing certain representations, undertakings, and indemnities customary for asset sellers and parent companies in transactions of this type, and ARI is obligated to make any selections of transfers of railcars, railcar leases, receivables and related assets to be transferred to LLIII without any adverse selection, to cause ARL, as the manager, to maintain, lease, and re-lease LLIII's equipment no less favorably than similar portfolios serviced by ARL, and to repurchase or replace certain railcars under certain conditions set forth in the respective financing documents. See below and Note 18, Related Party Transactions, for further discussion regarding this agreement with ARL and the impact of the anticipated ARL Sale.

ARI lease fleet financings

In December 2015, we completed a financing of our railcar lease fleet with availability of up to \$200.0 million under a credit agreement (2015 Credit Agreement). The 2015 Credit Agreement contains an incremental borrowing provision under which

ARI, as debtor and subject to the conditions set forth in the 2015 Credit Agreement, has the right but not the obligation to increase the amount of the facility in an aggregate amount of up to \$100.0 million (the amounts extended under the 2015 Credit Agreement, inclusive of any amounts extended under the incremental facility, the Revolving Loans), to a maximum principal amount of \$300.0 million. We may use the proceeds of the Revolving Loans to finance the manufacturing of railcars on an ongoing basis, to pay related transaction costs, fees and expenses in connection with the 2015 Credit Agreement, to finance ongoing working capital requirements and for other general corporate purposes. The initial Revolving Loan obtained at closing amounted to approximately \$99.5 million, net of fees and expenses. In February 2016, we repaid amounts outstanding under the Revolving Loan in full and as of the date of this report we have borrowing availability of \$200.0 million under this facility.

The Revolving Loans accrue interest at a rate per annum equal to Adjusted LIBOR (as defined in the 2015 Credit Agreement) for the applicable interest period, plus 1.45%, subject to an alternative rate as set forth in the 2015 Credit Agreement. The interest rate increases by 2.0% following certain defaults or maturity.

The Revolving Loans and the other obligations under the 2015 Credit Agreement are fully recourse to the Company and are secured by a first lien and security interest on certain specified railcars (together with specified replacement railcars), related leases, related receivables and related assets, subject to limited exceptions, a controlled bank account, and following an election by the Company (the Election), the applicable railcar management agreement with ARL. See below and Note 18, Related Party Transactions, for further discussion regarding this agreement with ARL and the impact of the anticipated ARL Sale.

Subject to the provisions of the 2015 Credit Agreement, the Revolving Loans may be borrowed and reborrowed until the maturity date. The Revolving Loans may be prepaid at the Company's option at any time without premium or penalty (other than customary LIBOR breakage fees and customary reimbursement of increased costs). See Note 11 to the consolidated financial statements for further discussion of the prepayment and final scheduled maturity of the Revolving Loans.

The Revolving Loans are also subject to acceleration upon and following specified events of default. The 2015 Credit Agreement contains certain representations, warranties, and affirmative and negative covenants applicable to us and, following the Election, ARL, which are customarily applicable to senior secured facilities. Key defaults and events of default include failure to repay principal, interest, fees and other amounts owed under the 2015 Credit Agreement; making misrepresentations; cross-defaults to certain other indebtedness of the Company; the rendering of certain judgments against the Company; impermissible transfers of equipment; occurrence of a Material Adverse Change (as defined in the 2015 Credit Agreement); and the Company's bankruptcy or insolvency. Many defaults are subject to cure periods prior to such default giving rise to the right of the lenders and administrative agent to accelerate the Revolving Loans and to exercise remedies.

If a default occurs and is not cured within any applicable grace period or is not waived, the lenders and the administrative agent would be entitled to take various actions, including the acceleration of amounts due under the 2015 Credit Agreement. If the indebtedness under the 2015 Credit Agreement were accelerated, the Company may not have sufficient funds to pay such indebtedness. In that event, the lenders and the administrative agent would be entitled to enforce their security interests in the collateral securing such indebtedness.

Management Transition of our Railcar Leasing Business

On December 16, 2016, we entered into the RMTA with ARL to manage the transition from ARL to ARI, of the management of our railcar leasing business in anticipation of the ARL Sale. The RMTA, among other things, (i) permits ARI to assume the management of its leased railcars following the consummation of the ARL Sale; (ii) requires ARI to use commercially reasonable efforts to obtain the consent of noteholders (the Noteholder Consent) for ARI to replace ARL as manager of the LLIII railcars under the Indenture, and certain related documents; and (iii) requires ARL to transfer to ARI certain books and records and electronic data with respect to ARI and LLIII's lease railcars and the Company's and LLIII's leasing businesses and otherwise assist in the transfer of the management of the leasing businesses to ARI, provided that if ARI does not obtain the Noteholder Consent, ARL will remain the manager of the LLIII railcars under the Indenture. The Company has no obligation to pay any consent or similar fees in connection with obtaining the Noteholder Consent. In addition, pursuant to the terms and conditions of the Agreement, ARL provides ARI an irrevocable, fully paid, non-transferrable (except as set forth therein), royalty-free license to certain software and databases owned and used by ARL to manage its railcars and the railcars owned by ARI and LLIII.We also anticipate amending the 2015 Credit Agreement to permit us to separate the management of our railcars from ARL's management.

Cash Flows

The following table summarizes our change in cash and cash equivalents:

		Year Ended December 31,						
	_	2016			2015		2014	
		(in thousands)						
Net cash provided by (used in):								
Operating activities			180,503		264,503		136,799	
Investing activities			(114,738)		(240,638)		(323,200)	
Financing activities			(185,206)		186,399		177,479	
Effect of exchange rate changes on cash and cash equivalents			(52)		(309)		(221)	
(Decrease) Increase in cash and cash equivalents	•	\$	(119,493)	\$	209,955	\$	(9,143)	

Net Cash Flows Provided by Operating Activities

Cash flows from operating activities are affected by several factors, including fluctuations in business volume, contract terms for billings and collections, the timing of collections on our accounts receivable, processing of payroll and associated taxes and payments to our suppliers.

2016 vs. 2015

Our net cash provided by operating activities for the year ended December 31, 2016 was \$180.5 million compared to \$264.5 million for the year ended December 31, 2015. The decrease was primarily due to decreased earnings, as described above, and changes in various operating assets and liabilities, including income taxes receivable and accrued expenses, as well as accounts receivable, inventories, and accounts payable, related to the timing of shipments and customer payments.

2015 vs. 2014

Our net cash provided by operating activities for the year ended December 31, 2015 was \$264.5 million compared to \$136.8 million for the year ended December 31, 2014. The increase was primarily due to increased earnings, as described above, and changes in various operating assets and liabilities, including accounts receivable, inventories, and accounts payable, related to the timing of shipments and customer payments. Additionally, in 2015 we collected the income taxes receivable that was outstanding at December 31, 2014.

Net Cash Used In Investing Activities

2016 vs. 2015

Our net cash used in investing activities for the year ended December 31, 2016 was \$114.7 million compared to \$240.6 million for the year ended December 31, 2015. The decrease was due to reduced spending on leased railcars and capital expenditures in 2016 compared to 2015. Railcars built for the lease fleet represented 18.9% of our railcar shipments for 2016 compared to 29.6% for 2015, partially offset by the purchase of short-term investments in 2016

2015 vs. 2014

Our net cash used in investing activities for the year ended December 31, 2015 was \$240.6 million compared to \$323.2 million for the year ended December 31, 2014. The decrease was primarily a result of lower capital expenditures for our lease fleet in 2015 compared to 2014. Railcars built for the lease fleet represented 29.6% of our railcar shipments for 2015 compared to 41.0% for 2014.

Capital expenditures

We continuously evaluate facility requirements based on our strategic plans, production requirements and market demand and may elect to change our level of capital investments in the future. These investments are all based on an analysis of the estimated rates of return and impact on our profitability. We continue to pursue opportunities to reduce our costs through continued vertical integration of component parts. From time to time, we may expand our business by acquiring other businesses or pursuing other strategic growth opportunities including, without limitation, joint ventures.

Capital expenditures for the year ended December 31, 2016 were \$113.3 million, including \$90.3 million related to manufacturing railcars for lease to others, as well as costs that were for capitalized projects that we expect will continue to

expand our business, maintain equipment, improve efficiencies and reduce costs. We cannot assure that we will be able to complete any of our projects on a timely basis or within budget, if at all, or that our capital expenditures will align with industry demand for our products and services.

Cash Flow from Financing Activities

2016 vs. 2015

Our net cash used in financing activities for the year ended December 31, 2016 was \$185.2 million compared to net cash provided by financing activities of \$186.4 million for the year ended December 31, 2015. The cash used in financing activities in 2016 was primarily a result of the \$100.0 million repayment of our Revolving Loan, compared to the cash provided by financing activities in 2015 resulting from the \$211.6 million and \$99.5 million in net proceeds that we received from the January 2015 lease fleet refinancing and the December 2015 revolving credit facility, respectively, as discussed above, partially offset by the related debt issuance costs of \$5.9 million. Additionally, we repurchased \$28.6 million of shares of our common stock under the Stock Repurchase Program during 2016, compared to \$57.4 million in 2015 and we paid quarterly dividends of \$0.40 per share, totaling \$31.0 million during 2016, compared to a total of \$33.2 million in 2015. This change resulted from a reduction in the number of shares outstanding due to repurchases under our stock repurchase program. See discussion of the Stock Repurchase Program and dividends in Item 5.

2015 vs. 2014

Our net cash provided by financing activities for the year ended December 31, 2015 was \$186.4 million compared to \$177.5 million for the year ended December 31, 2014. The cash provided by financing activities in 2015 was a result of the \$211.6 million and \$99.5 million in net proceeds that we received from the January 2015 lease fleet refinancing and the December 2015 revolving credit facility, respectively, as discussed above, partially offset by the related debt issuance costs of \$5.9 million, an increase in the liquidity reserve of \$9.8 million associated with the Notes, and repurchases of \$57.4 million of shares of our common stock under the Stock Repurchase Program. The cash provided by financing activities during 2014 was a result of the \$122.0 million in net proceeds that we received from the 2014 lease fleet financing in January and the \$100.0 million in proceeds received from the lease fleet financing facility completed by our wholly-owned subsidiary, Longtrain Leasing II, LLC in October 2014 (the LLII Term Loan), as discussed in Note 11 of the consolidated financial statements. Additionally, we paid quarterly dividends of \$0.40 per share, totaling \$33.2 million during 2015, compared to a total of \$34.2 million in 2014. This change resulted from a reduction in the number of shares outstanding due to repurchases under our Stock Repurchase Program.

Future Liquidity

As of December 31, 2016, our current liquidity consisted of our existing cash and cash equivalents balance, anticipated cash flows from operations, and borrowing availability of \$200.0 million under the 2015 Credit Agreement. We expect to require additional financing over and above our current liquidity position to continue to grow our leasing business in connection with demand.

Additionally, we expect our future cash flows from operations could be impacted by the state of the credit markets and the overall economy, the number of railcar orders we receive, our shipments and our production rates, as well as costs and expenses related to our compliance with governmental and industry regulations and requirements, including but not limited to the Revised Directive. Our future liquidity may also be impacted by the number of railcar orders we receive for lease versus direct sale. However, we believe we have a strong balance sheet with good borrowing capacity based on, among other things, our ability to use any unencumbered railcars in our lease fleet as collateral in any future financing transaction.

Our operating performance may also be affected by other matters discussed under "Risk Factors," and trends and uncertainties discussed in this discussion and analysis, as well as elsewhere in this annual report. These risks, trends and uncertainties may also materially adversely affect our long-term liquidity.

Our current capital expenditure plans for 2017 include projects that we expect will expand capabilities, maintain equipment, improve efficiencies and reduce costs. We also plan to increase our railcar lease fleet in 2017 to meet customer demand for leased railcars that have been ordered. Capital expenditures for 2017 are currently projected to be approximately \$160 million, which includes expected additions to our lease fleet of approximately \$145 million. However, this estimate may vary throughout the course of 2017. We cannot assure that we will be able to complete any of our projects on a timely basis or within budget, if at all.

Our long-term liquidity is contingent upon future operating performance, our and our wholly-owned leasing subsidiary's ability to continue to meet our respective financial covenants under our respective financing facilities, our ability to satisfy our

covenants under any other indebtedness we may enter into, and the ability to repay or refinance any such indebtedness as it becomes due. We may also require additional capital in the future to fund capital expenditures, acquisitions or other investments, including additions to our lease fleet, and to comply with governmental and industry regulations and requirements. These capital requirements could be substantial.

Other potential projects, including possible strategic transactions that could complement and expand our business units, will be evaluated to determine if the project or opportunity is right for us. We anticipate that any future expansion of our business will be financed through existing resources, cash flow from operations, term debt associated directly with that project or other new financing. We cannot guarantee that we will be able to meet existing financial covenants or obtain term debt or other new financing on favorable terms, if at all. Our liquidity will be impacted to the extent additional stock repurchases are made under our Stock Repurchase Program.

Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2016, and the effect that these obligations and commitments are expected to have on our liquidity and cash flow in future periods.

	Payments due by Period									
Contractual Obligations	1 year or Total less 1-3 years			1-3 years	3-5 years			After 5 years		
					(ir	thousands)				
Operating Lease Obligations ¹	\$	7,067	\$	1,278	\$	2,266	\$	2,220	\$	1,303
Notes		576,013		25,588		51,097		52,712		446,616
Interest Payments on Notes ²		451,770		20,873		39,460		36,370		355,067
Pension Funding ³		4,963		179		1,496		2,040		1,248
Capital Project Related ⁴		1,803		1,803		_		_		_
Total	\$	1,041,616	\$	49,721	\$	94,319	\$	93,342	\$	804,234

- (1) The operating lease commitment includes the future minimum rental payments required under non-cancelable operating leases for property and equipment leased by us.
- (2) The weighted average interest rate on the Notes is 3.6% and is payable monthly.
- (3) Our pension funding commitments include minimum funding contributions required by law for our two funded pension plans as well as expected benefit payments for our one unfunded pension plan.
- (4) Represents the costs for materials and for services provided by third parties related to various capital projects.

We have excluded from the contractual obligations table above, our gross amount of unrecognized tax benefits of \$2.0 million. While it is uncertain as to the amount, if any, of these unrecognized tax benefits that will be settled by means of a cash payment, we estimate that a change to this balance of up to \$1.0 million may occur within the current year.

We have an agreement with Axis to purchase new railcar axles. We do not have any minimum volume purchase requirements under this agreement.

Off-Balance Sheet Arrangements

Other than operating leases, we have no other off-balance sheet arrangements.

Contingencies

See Note 14, Commitments and Contingencies, to the consolidated financial statements located in Part II, Item 8 of this report, which is incorporated by reference into this Part II, Item 7, for a description of the litigation, legal and administrative proceedings, including our loss contingency of \$12.3 million related to the Revised Directive as of December 31, 2016.

CRITICAL ACCOUNTING ESTIMATES AND POLICIES

We prepare our consolidated financial statements in accordance with U.S. GAAP (generally accepted accounting principles). The preparation of our consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of sales and expenses during the reporting period. Estimates and assumptions are periodically evaluated and may be adjusted in future periods. A summary of our significant accounting policies are described in Note 3 of our consolidated financial statements in this annual report. Some of these policies involve a high degree of judgment in their application. The critical accounting policies, in management's judgment, are those described below. If different assumptions or conditions prevail, or if our estimates and assumptions prove to be incorrect, actual results could be materially different from those reported.

Inventories

Inventories are stated at the lower of cost or market, on a first-in, first-out basis, and include the cost of materials, direct labor and manufacturing overhead. We allocate fixed production overheads to the costs of conversion based on the normal capacity of our production facilities. If any of our production facilities are not operating at normal capacity, unallocated production overheads are recognized as a current period charge. We evaluate our ability to realize the value of our inventory based on a combination of factors including historical usage rates, forecasted sales or usage, product end of life dates, estimated current and future market values and new product introductions. Assumptions used in determining our estimates of future product demand may prove to be incorrect; in which case, the provision required for excess and obsolete inventory would have to be adjusted in the future. When recorded, our reserves are intended to reduce the carrying value of our inventory to its net realizable value.

Impairment of Long-lived Assets

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the long-lived assets may not be recoverable. During the year ended December 31, 2016, no triggering events occurred. The criteria for determining impairment of such long-lived

assets to be held and used is determined by comparing the carrying value of these long-lived assets to be held and used to management's best estimate of future undiscounted cash flows expected to result from the use of the long-lived assets. If the long-lived assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the long-lived assets exceeds the fair value of the long-lived assets. The estimated fair value of the long-lived assets is measured by estimating the present value of the future discounted cash flows to be generated.

The North American railcar market has been, and we expect it to continue to be highly cyclical, generally fluctuating in correlation with the U.S. economy. We continually monitor our long-lived assets for impairment in response to events or changes in circumstances.

Goodwill

As of December 31, 2016, we had \$7.2 million of goodwill recorded in conjunction with a past business acquisition, all allocated to a reporting unit that is part of our manufacturing segment. We evaluate goodwill for impairment at least annually and whenever events or changes in circumstances indicate that the carrying amount may not be recoverable.

We perform the annual goodwill impairment test as of November 1 each year. For purposes of goodwill impairment testing, our manufacturing segment is the only segment with allocated goodwill. The review for impairment is either a qualitative assessment or a two-step process. If we choose to perform a qualitative assessment and determine that the fair value of the reporting unit more likely than not exceeds the carrying value, no further evaluation is necessary. In evaluating whether it is more likely than not that the fair value of the reporting unit is greater than its carrying amount, we consider various qualitative and quantitative factors, including macroeconomic conditions, railcar industry trends and the fact that the reporting unit has historical positive operating cash flows that we anticipate will continue.

For the two-step process, the first step is to compare the estimated fair value of the operating unit with the recorded net book value (including the goodwill). If the estimated fair value of the operating unit is higher than the recorded net book value, no impairment is deemed to exist and no further testing is required. If, however, the estimated fair value of the operating unit is below the recorded net book value, then a second step must be performed to determine if impairment of the goodwill is required. In this second step, the implied fair value of goodwill is calculated as the excess of the fair value of the operating unit over the fair value assigned to the operating unit's assets and liabilities. If the implied fair value of goodwill is less than the book value of the goodwill, the difference is recognized as an impairment loss.

The reporting unit fair value is based upon consideration of various valuation methodologies, including guideline transaction multiples, multiples of current earnings, and projected future cash flows discounted at rates commensurate with the risk involved (Discounted Cash Flow or DCF). Assumptions used in a DCF require the exercise of significant judgment, including judgment about appropriate discount rates and terminal values, growth rates, and the amount and timing of expected future cash flows.

We performed the two-step process as of November 1, 2016 utilizing the market and income approaches and significant assumptions discussed below. Upon completion of step one, we determined that the estimated fair value of the reporting unit was higher than the carrying value and therefore no further testing was deemed necessary and no impairment of goodwill was recorded. See Notes 3 and 8 of the consolidated financial statements for further details.

Market approach

The market approach produces indications of value by applying multiples of enterprise value to revenue as well as enterprise value to earnings before depreciation, amortization, interest and taxes. The multiples indicate what investors are willing to pay for comparable publicly held companies. When adjusted for the risk level and growth potential of the subject company relative to the guideline companies, these multiples are a reasonable indication of the value an investor would attribute to the subject company.

Income approach

The income approach considers the subject company's future sales and earnings growth potential as the primary source of future cash flow. We prepared a five-year financial projection for the reporting unit and used a discounted net cash flow method to determine the fair value. Net cash flow consists of after-tax operating income, plus depreciation, less capital expenditures and working capital needs. The discounted cash flow method considers a five-year projection of net cash flow and adds to those cash flows a residual value at the end of the projection period.

Significant estimates and assumptions used in the evaluation were forecasted revenues and profits, the weighted average cost of capital and tax rates. Forecasted revenues of the reporting unit were estimated based on historical trends of the ARI plants that the reporting unit supplies parts to, which are driven by the railcar market forecast. Forecasted margins were based on historical experience. The reporting unit does not have a selling, administrative or executive staff; therefore, an estimate of salaries and benefits for key employees was added to represent selling, general and administrative expenses. The weighted average cost of capital was calculated using an estimated cost of equity and debt.

All of the above estimates and assumptions were determined by management to be reasonable based on the knowledge and information at the time of the evaluation. As such, this carries a risk of uncertainty. There could be significant fluctuations in the cost of raw materials, unionization of our workforce or other factors that might significantly affect the reporting unit's cost structure and negatively impact the projection of financial performance. If the railcar industry forecasts or our market share were to change significantly, the fair value of the reporting unit could be materially adversely impacted. Other events that might

occur that could have a negative effect would be a natural disaster that would render the facility unusable, a significant litigation settlement, or other event that would result in a production shut down or significant expense to the reporting unit.

Income Taxes

For financial reporting purposes, income tax expense or benefit is estimated based on planned tax return filings. The amounts anticipated to be reported in those filings may change between the time the financial statements are prepared and the time the tax returns are filed. Further, because tax filings are subject to review by taxing authorities, there is also the risk that a position on a tax return may be challenged by a taxing authority. If the taxing authority is successful in asserting a position different from that taken by us, differences in tax expense or between current and deferred tax items may arise in future periods. Any such differences, which could have a material impact on our consolidated financial statements, would be reflected in the consolidated financial statements when management considers them probable of occurring and the amount reasonably estimable.

We recognize deferred tax assets and liabilities based on the differences between the financial statement carrying amounts and the tax basis of assets and liabilities. We regularly evaluate recoverability of our deferred tax assets and establish a valuation allowance, if necessary, based on historical taxable income, projected future taxable income, the expected timing of the reversals of existing temporary differences and the implementation of tax-planning strategies. We consider whether it is more likely than not that some portion or all of the deferred tax assets will be realized. It is possible that some or all of our deferred tax assets could ultimately expire unused.

U.S. GAAP provides that the tax effects from an uncertain tax position can be recognized in the financial statements only if the position is "more-likely-than-not" to be sustained if the position were to be challenged by a taxing authority. The assessment of the tax position is based solely on the technical merits of the position, without regard to the likelihood that the tax position may be challenged. If an uncertain tax position meets the "more-likely-than-not" threshold, the largest amount of tax benefit that is greater than 50% likely to be recognized upon ultimate settlement with the taxing authority is recorded. See Note 12 of the consolidated financial statements for additional information.

Pension Benefits

Pension costs and liabilities are dependent on assumptions used in calculating such amounts. The primary assumptions include factors such as discount rates, expected return on plan assets, and mortality and retirement rates, as discussed below:

Discount rates

The discount rate assumption used to determine the December 31, 2016 benefit obligations was 3.89%. The discount rate assumption used to determine the 2016 net periodic cost was 4.08%. We review these rates annually and adjust them to reflect current yields on long-term, high-quality corporate bonds. We deemed these rates appropriate based on the Citigroup Pension Discount curve analysis along with expected payments to retirees.

Expected return on plan assets

Our expected return on plan assets for our funded pension plans of 7.25% for 2016 is derived from detailed periodic studies, which include a review of asset allocation strategies, anticipated future long-term performance of individual asset classes, risks (standard deviations) and correlations of returns among the asset classes that comprise the plans' asset mix. While the studies give appropriate consideration to recent plan performance and historical returns, the assumptions are primarily long-term, prospective rates of return.

Mortality and retirement rates

Mortality and retirement rates are based on actual and anticipated plan experience.

In accordance with GAAP, actual results that differ from the assumptions are accumulated and amortized over future periods and, therefore, generally affect recognized expense and the recorded obligation in future periods. While management believes that the assumptions used are appropriate, differences in actual experience or changes in assumptions may affect our pension obligations and future expense.

The following information illustrates the sensitivity to a change in certain assumptions for our pension plans:

Change in Assumption		Effect on 2017 Pre-Tax Pension Expense		fect on December 31, ojected Benefit Obligation
		(in th	ousands)	
1% decrease in discount rate	\$	213	\$	3,027
1% increase in discount rate	\$	(257)	\$	(2,805)
1% decrease in expected return on assets	\$	161		N/A
1% increase in expected return on assets	\$	(161)		N/A

This sensitivity analysis reflects the effects of changing one assumption. Various economic factors and conditions often affect multiple assumptions simultaneously and the effects of changes in key assumptions are not necessarily linear.

Contingencies and Litigation

The industries in which we operate are subject to extensive regulation by various governmental, regulatory and industry authorities and by federal, state, local and foreign authorities. Civil and criminal fines and penalties and other sanctions may be imposed for non-compliance with these regulations and may require significant expenditures to achieve compliance and may be modified or revised to impose new obligations. Based on information currently available with respect to such regulations, we estimate future costs for compliance requirements and establish a loss contingency for them when it is probable that we have incurred a liability and the related costs can be reasonably estimated. If further developments in or resolution of a matter of this nature result in facts and circumstances that are significantly different than the assumptions used to develop the loss contingency, it could be materially understated or overstated. Adjustments to these liabilities are made when additional information becomes available that affects the estimated costs to comply with any regulation or when expenditures for which reserves are established are made. Due to the uncertain nature of these regulatory matters, there can be no assurance that we will not become involved in future litigation or other proceedings or, if we were found to be responsible or liable in any litigation or proceeding, that such costs would not be material to us.

The Company is involved in claims and lawsuits incidental to our business. Based on information currently available with respect to such claims, lawsuits, including information on claims and lawsuits as to which the Company is aware but for which the Company has not been served with legal process, it is management's opinion that such claims, suits and complaints are without merit or the ultimate outcome of all such claims, suits, and complaints would not have a significant effect on the future liquidity, results of operations or financial position of ARI if disposed of unfavorably. However, resolution of certain claims or suits by settlement or otherwise, could impact the operating results of the reporting period in which such resolution occurs. See Note 14, Commitments and Contingencies, to the consolidated financial statements for further explanation.

Environmental

Certain real property we acquired from ACF in 1994 has been involved in investigation and remediation activities to address contamination. Substantially all of the issues identified with respect to these properties relate to the use of these properties prior to their transfer to us by ACF and for which ACF has retained liability for environmental contamination that may have existed at the time of transfer to us. ACF has also agreed to indemnify us for any cost that might be incurred with those existing issues. As of the date of this report, we do not believe that we will incur material costs in connection with any activities relating to these properties, but we cannot assure that this will be the case. If ACF fails to honor its obligations to us, we could be responsible for the cost of any additional investigation or remediation activities relating to these properties that may be required. We cannot assure that we will not become involved in future litigation or other proceedings, or that we will be able to recover under our indemnity provisions if we were found to be responsible or liable in any litigation or proceeding, or that such costs would not be material to us.

Share-based Compensation

We use the Black-Scholes-Merton (Black-Scholes) model to estimate the fair value of our share-based awards issued under the Amended and Restated 2005 Equity Incentive Plan. The Black-Scholes model requires estimates of the expected term of the share-based award, future volatility, dividend yield, forfeiture rate and the risk-free interest rate. We estimate the expected term of stock appreciation rights (SARs) based on SEC Staff Accounting Bulletin Official Text Topic 14D2, which addressed the expected term aspect of the Black-Scholes model. It stated that companies that did not have adequate exercise history on equity instruments were allowed to use the "simplified method" prescribed by the SEC, which called for an average of the vesting period and the expiration period of grants with "plain vanilla" characteristics. These characteristics included service based vesting instruments granted at the money along with certain other requirements.

Our SARs have fair value estimates that are generated from the Black-Scholes calculation. This calculation requires inputs as mentioned above that may require some judgment or estimation. We use our best judgment at the time of valuation to estimate fair value on the SARs. All SARs granted are classified as liabilities on the consolidated balance sheets, given that they settle in cash, and thus, must be revalued every period. As such, the fair value estimates on the SARs we granted to our employees are subject to volatility inherent in the stock price since it is based on current market values at the end of every period. Share-based compensation on all equity awards is expensed using a graded vesting method over the vesting period of the instrument.

Item 7A: Quantitative and Qualitative Disclosures About Market Risk

We are exposed to price risks associated with the purchase of raw materials, especially steel and heavy castings. The cost of steel, heavy castings and all other materials used in the production of our railcars represents more than half of our direct manufacturing costs per railcar. Given the significant volatility in the price of raw materials, this exposure can affect our costs of production. We believe that the risk to our margins and profitability has been somewhat reduced by the variable pricing provisions we generally include in our railcar sales contracts. These provisions adjust the purchase prices of our railcars to reflect fluctuations in the cost of certain raw materials and components on a dollar for dollar basis and, as a result, we are generally able to pass on to our customers most increases in raw material and component costs with respect to the railcars we plan to produce and deliver to them. We believe that we currently have good supplier relationships and do not currently anticipate that material constraints will limit our production capacity. Such constraints may exist if railcar production were to increase beyond current levels, or regulatory, or other economic changes were to occur that affect the availability of our raw materials.

In December 2015, the Company completed a financing of its railcar lease fleet with availability of up to \$200.0 million under a credit agreement (2015 Credit Agreement). As of December 31, 2016, the Company had borrowing availability of \$200.0 million under this facility. In the event the Company were to draw on this Revolving Loan, our earnings could be affected by changes in interest rates as this facility accrues interest at a rate per annum equal to Adjusted LIBOR (as defined in the 2015 Credit Agreement) for the applicable interest period, plus 1.45%.

Item 8: Financial Statements and Supplementary Data

American Railcar Industries, Inc.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders American Railcar Industries, Inc.

We have audited the internal control over financial reporting of American Railcar Industries, Inc. (a North Dakota corporation) and subsidiaries (the "Company") as of December 31, 2016, based on criteria established in the 2013 Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in the 2013 *Internal Control-Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements of the Company as of and for the year ended December 31, 2016, and our report dated February 24, 2017 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

St. Louis, Missouri February 24, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders American Railcar Industries, Inc.

We have audited the accompanying consolidated balance sheets of American Railcar Industries Inc. (a North Dakota corporation) and subsidiaries (the "Company") as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive income, cash flows, and stockholders' equity for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of American Railcar Industries, Inc. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2016, based on criteria established in the 2013 *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 24, 2017 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

St. Louis, Missouri February 24, 2017

Total stockholders' equity

Total liabilities and stockholders' equity

AMERICAN RAILCAR INDUSTRIES, INC. AND SUBSIDIARIES CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

As of December 31. 2016 2015 Assets Current assets: 298,064 Cash and cash equivalents 178,571 Restricted cash 16,714 16,917 Short-term investments—available for sale securities 8,958 29,018 39,727 Accounts receivable, net Accounts receivable, due from related parties 4,790 9,401 Inventories, net 75,028 96,965 Prepaid expenses and other current assets 7,116 8,623 Total current assets 457,481 332,411 Property, plant and equipment, net 177,051 176,311 Railcars on leases, net 908,010 848,717 Goodwill 7,169 7,169 Investment in and loans to joint ventures 26,332 27,397 Other assets 7,999 5,277 1,525,074 Total assets \$ 1,456,250 \$ Liabilities and Stockholders' Equity Current liabilities: Accounts payable 29,314 \$ 36,080 Accounts payable, due to related parties 3,252 4,477 Accrued expenses, including loss contingency of \$10,127 and \$0 at December 31, 2016 and 2015, 15,411 5,880 respectively 7,660 Accrued income taxes payable 464 11,628 11,459 Accrued compensation Short-term debt, including current portion of long-term debt 25,588 125,784 Total current liabilities 92,853 184,144 Long-term debt, net of unamortized debt issuance costs of \$4,863 and \$5,081 as of December 31, 2016 and 2015, respectively 545,392 570,756 Deferred tax liability, net 252,943 222,338 Pension and post-retirement liabilities 8,648 8,484 Other liabilities, including loss contingency of \$2,161 and \$0 at December 31, 2016 and 2015, respectively 3,055 6,144 Total liabilities 905,980 988,777 Stockholders' equity: Common stock, \$0.01 par value, 50,000,000 shares authorized, 19,083,878 and 19,844,531 shares outstanding at December 31, 2016 and 2015, respectively 213 213 Additional paid-in capital 239,609 239,609 Retained earnings 402,810 361,153 Accumulated other comprehensive loss (6,331)(7,255)Treasury stock (86,031)(57,423)

See Notes to the Consolidated Financial Statements.

550,270

1,456,250

536,297

1,525,074

AMERICAN RAILCAR INDUSTRIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except share and per share amounts)

For the Years Ended December 31,

	2016		2015	2014
Revenues:				
Manufacturing (including revenues from affiliates of \$837, \$269,563 and \$245,891 in 2016, 2015 and 2014, respectively)	\$	429,774	\$ 700,061	\$ 600,326
Railcar leasing		132,245	116,714	65,108
Railcar services (including revenues from affiliates of \$26,781, \$24,880 and \$19,304 in 2016, 2015 and 2014, respectively)		77,114	72,561	67,572
Total revenues		639,133	 889,336	733,006
Cost of revenues:				
Manufacturing		(360,755)	(539,136)	(455,547)
Other operating loss (refer to Note 14, Commitments and Contingencies)		(12,288)	_	_
Railcar leasing		(41,732)	(36,161)	(23,733)
Railcar services		(62,178)	(56,492)	(54,386)
Total cost of revenues		(476,953)	(631,789)	(533,666)
Gross profit		162,180	257,547	199,340
Selling, general and administrative		(32,343)	(30,866)	(29,420)
Net gains on disposition of leased railcars		272	25	138
Earnings from operations		130,109	226,706	170,058
Interest income (including income from related parties of \$1,663, \$2,105 and \$2,429 in 2016, 2015 and 2014, respectively)		1,785	2,164	2,517
Interest expense		(22,803)	(21,801)	(7,622)
Loss on debt extinguishment		_	(2,126)	(1,896)
Other income (loss)		185	(11)	(20)
Earnings from joint ventures		4,924	5,812	1,570
Earnings before income taxes		114,200	 210,744	164,607
Income tax expense		(41,537)	(77,291)	(65,074)
Net earnings	\$	72,663	\$ 133,453	\$ 99,533
Net earnings per common share—basic and diluted	\$	3.74	\$ 6.39	\$ 4.66
Weighted average common shares outstanding—basic and diluted		19,439	20,883	21,352
Cash dividends declared per common share	\$	1.60	\$ 1.60	\$ 1.60

AMERICAN RAILCAR INDUSTRIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (In thousands)

For the Years Ended December 31,

	2016	2015	2014	
Net earnings	\$ 72,663	\$ 133,453	\$	99,533
Currency translation	215	(1,955)		(1,035)
Postretirement plans (1)	294	49		(2,820)
Short-term investments (2)	415			
Comprehensive income	\$ 73,587	\$ 131,547	\$	95,678

- (1) Net of tax effect of \$0.3 million, less than \$0.1 million and \$1.8 million for 2016, 2015 and 2013, respectively.
- (2) Net of tax effect of \$0.2 million for 2016.

AMERICAN RAILCAR INDUSTRIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF CASH FLOWS (In thousands)

For the Years Ended December 31,

	ror	the Years Ended Decemi	er 31,	
	2016	2015	2014	
Operating activities:				
Net earnings	\$ 72,663	\$ 133,453	\$ 99,533	
Adjustments to reconcile net earnings to net cash provided by operating activities:				
Depreciation	52,216	45,729	34,212	
Amortization of deferred costs	506	393	549	
(Gain) loss on disposal of property, plant, equipment and leased railcars	(63)	154	(71)	
Earnings from joint ventures	(4,924)	(5,812)	(1,570)	
Provision for deferred income taxes	30,139	61,644	72,369	
Item related to investing activities:				
Dividends received from short-term investments	(107)	_	_	
Realized gains on short-term investments—available for sale securities	(73)	_	_	
Item related to financing activities:				
Loss on debt extinguishment	_	2,126	1,896	
Changes in operating assets and liabilities:				
Accounts receivable, net	(10,290)	4,465	(11,715)	
Accounts receivable, due from affiliates	4,629	23,518	(16,703)	
Income taxes receivable	1,244	30,899	(31,576)	
Inventories, net	21,974	19,812	(26,935)	
Prepaid expenses and other current assets	(2,553)	1,206	(4,244)	
Accounts payable	(6,760)	(32,630)	16,034	
Accounts payable, due to related parties	(1,225)	1,683	1,383	
Accrued expenses and taxes	16,887	(19,105)	639	
Other	6,240	(3,032)	2,998	
Net cash provided by operating activities	180,503	264,503	136,799	
Investing activities:				
Purchases of property, plant and equipment	(23,068)	(36,614)	(20,070)	
Grant Proceeds	75	_	_	
Capital expenditures—leased railcars	(90,332)	(211,646)	(307,680)	
Proceeds from the sale of property, plant, equipment and leased railcars	926	122	800	
Purchase of short-term investments—available for sale securities	(8,750)	_	_	
Proceeds from the sale of short-term investments—available for sale securities	504	_	_	
Proceeds from repayments of loans and distributions from joint ventures	5,907	7,500	3,750	
Net cash used in investing activities	(114,738)	(240,638)	(323,200)	
Financing activities:	, , ,	, , ,	,	
Repayments of short-term and long-term debt	(125,783)	(432,645)	(204,486)	
Proceeds from short-term and long-term debt	_	725,306	418,682	
Change in interest reserve related to long-term debt	204	(9,739)	13	
Stock repurchases	(28,608)	(57,423)	_	
Payment of common stock dividends	(31,006)	(33,243)	(34,164)	
Debt issuance costs	(13)	(5,857)	(2,566)	
Net cash (used in) provided by financing activities	(185,206)	186,399	177,479	
Effect of exchange rate changes on cash and cash equivalents	(52)	(309)	(221)	
(Decrease) increase in cash and cash equivalents	(119,493)	209,955	(9,143)	
Cash and cash equivalents at beginning of year	298,064	88,109	97,252	
Cash and cash equivalents at end of year	\$ 178,571	\$ 298,064	\$ 88,109	
1-	Ψ 170,371	270,004	\$ 00,109	

AMERICAN RAILCAR INDUSTRIES, INC. AND SUBSIDIARIES CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (In thousands)

	Common Stock- Shares	Common stock	Additional paid-in capital		Retained earnings		Accumulated other comprehensive (loss) income	Tre	easury Stock	Total stockholders' equity
Balance December 31, 2013	21,352	\$ 213	\$ 239,609	\$	195,574	\$	(1,494)	\$		\$ 433,902
Net earnings	_	_	_		99,533		_		_	99,533
Currency translation	_	_	_		_		(1,035)		_	(1,035)
Postretirement plans	_	_	_		_		(2,820)		_	(2,820)
Cash dividends declared	_	_	_		(34,164)		_		_	(34,164)
Balance December 31, 2014	21,352	\$ 213	\$ 239,609	\$	260,943	\$	(5,349)	\$	_	\$ 495,416
Net earnings		_	_	Ξ	133,453	Ξ	_		_	133,453
Currency translation	_	_	_		_		(1,955)		_	(1,955)
Postretirement plans	_	_	_		_		49		_	49
Cash dividends declared	_	_	_		(33,243)		_		_	(33,243)
Stock repurchases	(1,508)	_	_		_		_		(57,423)	(57,423)
Balance December 31, 2015	19,844	\$ 213	\$ 239,609	\$	361,153	\$	(7,255)	\$	(57,423)	\$ 536,297
Net earnings	_		_	_	72,663	Ξ	_		_	72,663
Currency translation	_	_	_		_		215		_	215
Postretirement plans	_	_	_		_		294		_	294
Short-term investments	_	_	_		_		415		_	415
Cash dividends declared	_	_	_		(31,006)		_		_	(31,006)
Stock repurchases	(761)	_	_		_		_		(28,608)	(28,608)
Balance December 31, 2016	19,083	\$ 213	\$ 239,609	\$	402,810	\$	(6,331)	\$	(86,031)	\$ 550,270

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the Years Ended December 31, 2016, 2015 and 2014

Note 1 – Description of the Business

American Railcar Industries, Inc. (a North Dakota corporation) and its wholly-owned subsidiaries (collectively the Company or ARI) manufactures railcars, which are offered for sale or lease, custom and standard railcar components and other industrial products, primarily aluminum and special alloy steel castings. These products are sold to various types of companies including shippers, leasing companies, industrial companies, and Class I railroads. ARI leases railcars manufactured by the Company to certain markets. ARI provides railcar services consisting of railcar repair services, ranging from full to light repair, engineering and on-site repairs and maintenance through the Company's various repair facilities, including mini repair shops and mobile repair units.

The accompanying consolidated financial statements have been prepared by ARI and include the accounts of ARI and its direct and indirect wholly-owned subsidiaries: Castings, LLC (Castings), ARI Component Venture, LLC (ARI Component), ARI Fleet Services of Canada, Inc., ARI Longtrain, Inc. (Longtrain), Longtrain Leasing I, LLC (LLI), Longtrain Leasing II, LLC (LLII), Longtrain Leasing III, LLC (LLIII), ARI Railcar Services LLC and Southwest Steel Casting Company, LLC. All intercompany transactions and balances have been eliminated.

Note 2 — Recent Accounting Pronouncements

In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-09, Improvements to Employee Share-Based Payment Accounting, which amends Accounting Standards Codification (ASC) Topic 718, Compensation - Stock Compensation. This ASU simplifies several aspects of the accounting for share-based payment award transactions, including (i) income tax consequences, (ii) classification of awards as either equity or liabilities, (iii) whether or not to estimate forfeitures or account for them when they occur and (iv) classification on the statement of cash flows. The standard is effective for interim and annual periods beginning after December 31, 2016. Early adoption will be permitted with any adjustments reflected as of the beginning of the fiscal year of adoption. The Company does not anticipate this standard will have a material impact on its consolidated financial statements and disclosures.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which amends ASC Topic 840, Leases, and is intended to increase the transparency and comparability of accounting for lease transactions. This ASU requires most leases to be recognized on the balance sheet. Lessees will need to recognize a right-of-use asset and a lease liability for virtually all leases. The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. For income statement purposes, the FASB retained a dual model, requiring leases to be classified as either operating or finance. Lessor accounting remains similar to the current model. Targeted improvements were made to lessor accounting to align, where necessary, with certain changes to the lessee model and the new revenue recognition standard. The ASU will require both quantitative and qualitative disclosures regarding key information about leasing arrangements. The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. Transition will require application of the new guidance at the beginning of the earliest comparative period presented. The Company is evaluating the impact of this standard on its consolidated financial statements and disclosures.

In April 2015, the FASB issued ASU 2015-03, Simplifying the Presentation of Debt Issuance Costs, which amends ASC Subtopic 835-30, Interest - Imputation of Interest. The new standard requires that all costs incurred to issue debt be presented in the balance sheet as a direct deduction from the carrying value of the debt. The standard is effective for interim and annual periods beginning after December 31, 2015 and is required to be applied on a retrospective basis. The retrospective adoption of this guidance during the first quarter of 2016 resulted in a reclassification of debt issuance costs related to the Company's long-term debt on the Company's December 31, 2015 and 2014 balance sheets and did not have a material impact on the Company's consolidated financial position, results of operations or cash flows.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). ASU 2014-09 supersedes the revenue recognition requirements in Revenue Recognition (Topic 605), and requires entities to recognize revenue in a way that depicts the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. The new revenue recognition standard also requires disclosures that sufficiently describe the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. This ASU was amended by ASU No. 2015-14, issued in August 2015, which deferred the original effective date by one year; the effective date of this ASU is for fiscal years, and interim reporting periods within those years, beginning after December 15, 2017, using one of two retrospective application methods. Early adoption is permitted only as of the annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. The Company has developed an implementation plan to adopt this new guidance. As part of this

plan, the Company is currently assessing the impact of these new standards on its business processes, business and accounting systems, and consolidated financial statements and related disclosures. The Company currently expects to complete its analysis, including implementing any necessary changes to existing business processes and systems to accommodate these new standards, during 2017. The Company currently intends to adopt this new guidance on January 1, 2018 using the modified retrospective application method. To date, the Company has not identified any material differences in its existing revenue recognition methods that would require modification under the new standards.

Note 3 - Summary of Accounting Policies

Cash and cash equivalents

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents.

Short-term investments

The Company has held investments in equity securities and classified them as available for sale, based upon whether it intended to hold the investment for the foreseeable future. Available for sale securities are reported at fair value on the Company's consolidated balance sheets while unrealized holding gains and losses on available for sale securities are excluded from earnings and reported as a separate component of accumulated other comprehensive income (loss). When the available for sale securities are sold, the unrealized gains and losses are realized in the consolidated statements of operations. For purposes of determining gains and losses, the cost of securities was based on specific identification.

When applicable, the Company evaluates its investments in unrealized loss positions for other-than-temporary impairment on an annual basis or whenever events or changes in circumstances indicate that the unit cost of the investment may not be recoverable.

Revenue recognition

Revenues from manufactured railcar sales are recognized following completion of manufacturing, inspection, customer acceptance and title transfer, which is when the risk for any damage or loss with respect to the railcars passes to the customer, in accordance with the Company's contractual terms. Revenues from railcar and industrial components are recorded at the time of product shipment, in accordance with the Company's contractual terms.

Revenues from railcar leasing are generated from operating leases that are priced as an integrated service that includes amounts related to executory costs, such as certain maintenance, insurance, and ad valorem taxes and are recognized on a straight-line basis per terms of the underlying lease. If railcars are sold under a lease that is less than one year old, the proceeds from the railcars sold that were on lease will be shown on a gross basis in revenues and cost of revenues at the time of sale. Sales of leased railcars that have been on lease for more than one year are recognized as a net gain or loss from the disposal of the long-term asset as a component of earnings from operations.

Revenues from railcar maintenance services are recognized upon completion and shipment of railcars from ARI's plants. The Company does not currently bundle railcar service contracts with new railcar sales. Revenues from engineering and field services are recognized as performed.

Amounts billed prior to meeting revenue recognition criteria are accounted for as deferred revenue.

The Company records amounts billed to customers for shipping and handling as sales and records related costs as cost of revenues.

ARI presents any sales tax assessed by a governmental authority that is directly imposed on a revenue-producing transaction between a seller and a customer on a net basis.

Accounts receivable, net

On a routine basis, the Company evaluates its accounts receivable and establishes an allowance for doubtful accounts based on the history of past write-offs and collections and current credit conditions. Accounts are placed for collection on a limited basis once all other methods of collection have been exhausted. When it has been determined that the customer is no longer in business and/or refuses to pay, the accounts are written off.

Inventories, net

Inventories are stated at the lower of cost or market on a first-in, first-out basis, and include the cost of materials, direct labor and manufacturing overhead. The Company allocates fixed production overheads to the costs of conversion based on the

normal capacity of its production facilities. If any of the Company's production facilities are operating below normal capacity, unallocated production overheads are recognized as a current period charge. All profit for inventory purchased from the Company's joint ventures that is still on hand at period end is eliminated

Property, plant, equipment, and railcars on leases, net

Land, buildings, machinery, equipment, and railcars on operating leases are carried at cost, which could include capitalized interest on borrowed funds. Maintenance and repair costs are charged directly to earnings. Tooling is generally capitalized and depreciated over a period of approximately five years. Internally developed software is capitalized and amortized over a period ranging from five to ten years.

Buildings are depreciated over estimated useful lives that range from 15 to 39 years. The estimated useful lives of other depreciable assets, including machinery, equipment and leased railcars vary from 3 to 30 years. Depreciation is calculated using the straight-line method for financial reporting purposes and on accelerated methods for tax purposes.

Impairment of long-lived assets

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of assets may not be recoverable. The Company has determined that there were no triggering events that required an assessment for impairment of long-lived assets, therefore no impairment charges were recognized during any of the years presented.

The criteria for determining impairment of such long-lived assets to be held and used is determined by comparing the carrying value of these long-lived assets to be held and used to management's best estimate of future undiscounted cash flows expected to result from the use of the long-lived assets. If the long-lived assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the long-lived assets exceeds the fair value of the long-lived assets. The estimated fair value of long-lived assets is measured by estimating the present value of the future discounted cash flows to be generated.

Debt issuance costs

Debt issuance costs were incurred in connection with ARI's issuance of debt under its lease fleet financing facilities and were amortized over the term of the related debt, with the exception of the January 2015 private placement notes that are amortized using the effective interest method. Debt issuance costs were also incurred in connection with ARI's December 2015 revolving credit facility and are amortized over the term of the related debt. See Note 11 for further discussion.

Goodwill

Goodwill is not amortized but is reviewed for impairment at least annually or as events or changes in circumstances indicate that the carrying amount may not be recoverable. ARI performs the annual goodwill impairment test on November 1 of each year.

The review for impairment is either a qualitative assessment or a two-step process. If the Company chooses to perform a qualitative assessment by assessing qualitative factors to determine if any potential impairment exists and determine that the fair value of the reporting unit more likely than not exceeds the carrying value, no further evaluation is necessary.

For the two-step process, the first step is to compare the estimated fair value of the operating unit with the recorded net book value (including the goodwill). The detailed test is performed by first comparing the carrying value of the reporting unit, including goodwill to its fair value. The fair value of the reporting unit is determined using a combination of methods including prices of comparable businesses using recent transactions involving businesses similar to the Company and a present value technique, referred to as the market and income approaches, respectively. If the estimated fair value of the operating unit is higher than the recorded net book value, no impairment is deemed to exist and no further testing is required. If, however, the estimated fair value of the operating unit is below the recorded net book value, then a second step must be performed to determine if impairment of the goodwill is required. In this second step, the implied fair value of goodwill is calculated as the excess of the fair value of the operating unit over the fair value assigned to the operating unit's assets and liabilities. If the implied fair value of goodwill is less than the book value of the goodwill, the difference is recognized as an impairment loss. See Note 8 for further discussion on this analysis.

Investment in and loans to joint ventures

The Company uses the equity method to account for its investments in various joint ventures as described in Note 9. Under the equity method, the Company recognizes its share of the earnings and losses of the joint ventures as they accrue. Advances and

distributions are charged and credited directly to the investment account. If the Company makes loans to its joint ventures, which it has done historically, such loans are included in the investment account.

Income taxes

ARI accounts for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial reporting basis and the tax basis of ARI's assets and liabilities at enacted tax rates expected to be in effect when such amounts are recovered or settled. ARI regularly evaluates recoverability of its deferred tax assets and establishes a valuation allowance, if necessary, based on historical taxable income, projected future taxable income, the expected timing of the reversals of existing temporary differences and the implementation of tax-planning strategies. The Company also records unrecognized tax positions, including potential interest and penalties as income tax expense. For further discussion of income taxes refer to Note 12.

Pension plans

Certain ARI employees participate in noncontributory, defined benefit pension plans and a supplemental executive retirement plan. Benefits for the salaried employees are based on salary and years of service, while those for hourly employees are based on negotiated rates and years of service.

ARI also previously sponsored a retiree health care plan covering certain employees. Benefit costs accrued during the years employees rendered service.

Foreign currency translation

Balance sheet amounts from the Company's Canadian operations are translated at the exchange rate effective at year-end and the statement of operations amounts are translated at the average rate of exchange prevailing during the year. Currency translation adjustments are included in stockholders' equity as part of accumulated other comprehensive income (loss).

Comprehensive income

Comprehensive income is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive income consists of net earnings, foreign currency translation, changes resulting from realized and unrealized gains and losses related to postretirement liability transactions and changes resulting from realized and unrealized gains and losses on short-term investments or derivative instruments for which hedge accounting is being applied. All components of comprehensive income are shown net of tax.

Earnings per common share

Basic earnings per common share is calculated as net earnings attributable to common stockholders divided by the weighted-average number of common shares outstanding during the respective period.

Use of estimates

ARI has made a number of estimates and assumptions relating to the reporting of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Significant items subject to estimates and assumptions include, but are not limited to, deferred taxes, workers' compensation accrual, valuation allowances for accounts receivable and inventory obsolescence, depreciable lives of assets, goodwill impairment, share-based compensation fair values, loss contingencies and the reserve for warranty claims. Actual results could differ from those estimates.

Share-based compensation

The share-based compensation cost recorded for stock appreciation rights (SARs) is based on their fair value. For further discussion of share-based compensation refer to Note 15.

Reclassifications

Certain prior-period amounts on the consolidated financial statements and in the notes to the consolidated financial statements have been reclassified to conform to current-period presentation. There have been no material reclassifications during the current period.

Note 4 - Fair Value Measurements

The fair value hierarchal disclosure framework prioritizes and ranks the level of market price observability used in measuring assets and liabilities at fair value. Market price observability is impacted by a number of factors, including the type of investment and the characteristics specific to the asset or liability. Assets or liabilities with readily available active quoted prices or for which fair value can be measured from actively quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value.

Assets and liabilities measured and reported at fair value are classified and disclosed in one of the following categories:

- Level 1 Quoted prices are available in active markets for identical assets and/or liabilities as of the reporting date. The type of assets and/or liabilities included in Level 1 include listed equities and listed derivatives. The Company does not adjust the quoted price for these assets and/or liabilities, even in situations where they hold a large position and a sale could reasonably impact the quoted price.
- Level 2 Pricing inputs are other than quoted prices in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Assets and/or liabilities that are generally included in this category include corporate bonds and loans, less liquid and restricted equity securities and certain over-the-counter derivatives.
- Level 3 Pricing inputs are unobservable for the assets and/or liabilities and include situations where there is little, if any, market activity for the assets and/or liabilities. The inputs into the determination of fair value require significant management judgment or estimation.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, an investment's level within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. ARI's assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the investment.

The following methods and assumptions were used by the Company in estimating fair values for other financial instruments as of December 31, 2016 and 2015:

- Cash and cash equivalents, restricted cash, accounts receivable, amounts due to/from affiliates, accounts payable and accrued expenses approximate fair values because of the short maturity or the liquid nature of these instruments.
- · Available for sale securities fair value estimates are based on quoted prices with an active trading market (Level 1).
- The carrying value of the December 2015 revolving credit facility, at December 31, 2015, approximated fair value because the interest rate adjusts to the market interest rate (Level 3 input). There was no outstanding debt under this facility as of December 31, 2016.
- The fair value of the private placement notes are calculated by taking the net present value of future principal and interest payments using a discount rate that is based on the Company's most recent fixed debt transaction. The inputs used in the calculation are classified within Level 2 of the fair value hierarchy. The fair value of the Notes outstanding was \$582.4 million and \$608.4 million as of December 31, 2016 and 2015, respectively.
- The Company's pension plans' investments in equity securities, exchange traded funds and U.S. government treasury instruments are valued based on quoted prices in active markets (Level 1) and short-term investments, collective funds and asset backed securities are valued based on derived prices in active markets (Level 2).

Note 5 - Accounts Receivable, net

Accounts receivable, net, consists of the following:

	December 31,				
	2016		2015		
	(in tho	usands)			
Accounts receivable, gross	\$ 39,869	\$	30,422		
Less allowance for doubtful accounts	(142)		(1,404)		
Total accounts receivable, net	\$ 39,727	\$	29,018		

The allowance for doubtful accounts consists of the following:

		Years Ended December 31,						
		2016		2015		2014		
	(in thousa							
Beginning balance	\$	1,404	\$	1,172	\$	109		
(Adjustment) Provision		(1,248)		234		1,065		
Write-offs		(14)		(2)		(2)		
Ending balance	\$	142	\$	1,404	\$	1,172		

Note 6 - Inventories, net

Inventories consist of the following:

		Decem	ber 31,	,	
	2	2016		2015	
		(in tho	usands)	_	
Raw materials	\$	46,789	\$	65,575	
Work-in-process		28,386		31,184	
Finished products		3,332		3,393	
Total inventories		78,507		100,152	
Less reserves		(3,479)		(3,187)	
Total inventories, net	\$	75,028	\$	96,965	

Inventory reserves consist of the following:

Y	ears end	led December 3	1,	
2016		2015		2014
	(in	thousands)		
\$ 3,187	\$	2,553	\$	2,314
718		1,145		420
(426)		(511)		(181)
\$ 3,479	\$	3,187	\$	2,553
\$ \$	2016 \$ 3,187 718 (426)	2016 (in \$ 3,187 \$ 718 (426)	2016 2015 (in thousands) \$ 3,187 \$ 2,553 718 1,145 (426) (511)	(in thousands) \$ 3,187 \$ 2,553 \$ 718 1,145 (426) (511)

Note 7 - Property, Plant, Equipment and Railcars on Leases, net

The following table summarizes the components of property, plant, equipment and railcars on leases, net:

			December 31,			
			2016		2015	
			(in tho	usands)	1	
Operations / Corporate:						
Buildings		\$	182,970	\$	167,537	
Machinery and equipment			232,171		219,488	
Land			4,328		3,687	
Construction in process			1,966		16,784	
			421,435		407,496	
Less accumulated depreciation			(244,384)		(231,185)	
Property, plant and equipment, net		\$	177,051	\$	176,311	
Railcar Leasing:		-				
Railcars on leases		\$	996,422	\$	906,786	
Less accumulated depreciation			(88,412)		(58,069)	
Railcars on leases, net		\$	908,010	\$	848,717	
	64					

Railcars on lease agreements

The Company leases railcars to third parties under multi-year agreements. Railcars subject to lease agreements are classified as operating leases and are depreciated in accordance with the Company's depreciation policy.

Capital expenditures for leased railcars represent cash outflows for the Company's cost to produce railcars shipped or to be shipped for lease.

As of December 31, 2016, future contractual minimum rental revenues required under non-cancellable operating leases for railcars with terms longer than one year are as follows (in thousands):

2017	\$ 121,931
2018	109,343
2019	91,566
2020	56,615
2021	40,097
2022 and thereafter	57,138
Total	\$ 476,690

The future contractual minimum rental revenues shown above include total rental revenues from affiliates of 1.3%. See Note 18, Related Party Transactions, for further discussion regarding lease agreements with IELP Entities.

Depreciation expense

The following table summarizes depreciation expense:

			December 31,		
	 2016		2015	2014	
		(in thousands)		
Total depreciation expense	\$ 52,216	\$	45,729	\$	34,212
Depreciation expense on leased railcars	\$ 30,395	\$	26,163	\$	16,454

Note 8 - Goodwill

As of December 31, 2016, the Company had \$7.2 million of goodwill related to the March 2006 acquisition of Custom Steel; a subsidiary of Steel Technologies, Inc. The results attributable to Custom Steel are included in the manufacturing segment.

The Company performed the two-step impairment review process as of November 1, 2016 utilizing the market and income approaches and significant assumptions discussed below. Upon completion of step one, the Company determined that the estimated fair value was higher than the recorded net book value and therefore no further testing was deemed necessary and no impairment of goodwill was recorded. Additionally, no impairment was recognized in any prior periods and there were no indicators of impairment since the annual assessment date.

Market Approach

The market approach produces indications of value by applying multiples of enterprise value to revenue as well as enterprise value to earnings before depreciation, amortization, interest and taxes. The multiples indicate what investors are willing to pay for comparable publicly held companies. When adjusted for the risk level and growth potential of the subject company relative to the guideline companies, these multiples are a reasonable indication of the value an investor would attribute to the subject company.

Income Approach

The income approach considers the subject company's future sales and earnings growth potential as the primary source of future cash flow. ARI prepared a five-year financial projection for the reporting unit and used a discounted net cash flow method to determine the fair value. Net cash flow consists of after-tax operating income, plus depreciation, less capital expenditures and working capital needs. The discounted cash flow method considers a five-year projection of net cash flow and adds to those cash flows a residual value at the end of the projection period.

Significant estimates and assumptions used in the evaluation were forecasted revenues and profits, the weighted average cost of capital and tax rates. Forecasted revenues of the reporting unit were estimated based on historical trends of the ARI plants that the reporting unit supplies parts to, which are driven by the railcar market forecast. Forecasted margins were based on historical experience. The reporting unit does not have a selling, administrative or executive staff; therefore, an estimate of salaries and benefits for key employees was added to represent selling, general and administrative expenses. The weighted average cost of capital was calculated using an estimated cost of equity and debt.

All of the above estimates and assumptions were determined by management to be reasonable based on the knowledge and information at the time of the evaluation. As such, this carries a risk of uncertainty. There could be significant fluctuations in the cost of raw materials, unionization of the Company's workforce or other factors that might significantly affect the reporting unit's cost structure and negatively impact the projection of financial performance. If the railcar industry forecasts or ARI's market share were to change significantly, the fair value of the reporting unit could be materially adversely impacted. Other events that might occur that could have a negative effect would be a natural disaster that would render the facility unusable, a significant litigation settlement or other event that would result in a production shut down or significant expense to the reporting unit.

Note 9 - Investments in and Loans to Joint Ventures

As of December 31, 2016, the Company was party to two joint ventures: Ohio Castings Company LLC (Ohio Castings) and Axis LLC (Axis). Through its wholly-owned subsidiary, Castings, the Company has a 33.3% ownership interest in Ohio Castings, a limited liability company formed to produce various steel railcar parts for use or sale by the ownership group. Through its wholly-owned subsidiary, ARI Component, the Company has a 41.9% ownership interest in Axis, a limited liability company formed to produce railcar axles for use or sale by the ownership group.

The Company accounts for these joint ventures using the equity method. Under this method, the Company recognizes its share of the earnings and losses of the joint ventures as they accrue. Advances and distributions are charged and credited directly to the investment accounts. From time to time, the Company also makes loans to its joint ventures that are included in the investment account. The investment balance for these joint ventures is recorded within the Company's manufacturing segment. The carrying amount of investments in and loans to joint ventures, which also represents ARI's maximum exposure to loss with respect to the joint ventures, are as follows:

	Decen	iber 31,		
	2016		2015	
	(in the	usands)	
Carrying amount of investments in and loans to joint ventures				
Ohio Castings	\$ 7,477	\$	7,776	
Axis	18,855		19,621	
Total investments in and loans to joint ventures	\$ 26,332	\$	27,397	

See Note 18 for information regarding financial transactions with ARI's joint ventures.

Ohio Castings

Ohio Castings has produced railcar parts that are sold to one of the joint venture partners. This joint venture partner then sells these railcar parts to outside third parties at current market prices and sells them to the Company and the other joint venture partner at Ohio Castings' cost plus a licensing fee.

In December 2016, based on expected industry demand, a decision was made to idle Ohio Casting's manufacturing facility, beginning in January 2017. The Company expects that Ohio Castings will remain idle through at least the end of 2017, subject to re-evaluation based on changes in future demand expectations. Ohio Castings performed an analysis of long-lived assets in accordance with ASC 360, *Property, Plant and Equipment*. Based on this analysis, Ohio Castings concluded that there was no impairment of its long-lived assets. In turn ARI evaluated its investment in Ohio Castings and determined there was no impairment. The Company and Ohio Castings will continue to monitor for impairment as necessary.

The Company has determined that, although the joint venture is a variable interest entity (VIE), accounting for its activity under the equity method is appropriate given that the Company is not the primary beneficiary, does not have a controlling financial interest and does not have the ability to individually direct the activities of Ohio Castings that most significantly impact its economic performance. The significant factors in this determination were that neither Castings nor the Company, has rights to the majority of returns, losses or votes, all major and strategic decisions are decided between the partners, and the risk of loss to the Company and Castings is limited to its investment in Ohio Castings.

Summary financial position information for Ohio Castings, the investee company, in total, are as follows:

	Decem	ber 31,	
	2016		2015
	(in tho	usands)	_
Financial position:			
Current assets	\$ 13,267	\$	14,589
Non-current assets	9,751		9,921
Total assets	23,018		24,510
Current liabilities	3,667	-	4,261
Members' equity	19,351		20,249
Total liabilities and members' equity	\$ 23,018	\$	24,510

Summary financial results of operations for Ohio Castings, the investee company, in total, are as follows:

		Y	/ears	s Ended December 3	1,	
		2016		2015		2014
	_			(in thousands)		
Results of operations:						
Revenues	\$	49,103	\$	74,113	\$	83,872
Gross profit	\$	2,230	\$	4,787	\$	8,277
Net (loss) earnings	\$	(897)	\$	1,230	\$	5,906

Axis

ARI, through ARI Component, owns a portion of a joint venture, Axis, to manufacture and sell railcar axles. ARI currently owns 41.9% of Axis, while a minority partner owns 9.7%, and the other significant partner owns 48.4%.

Under the terms of the joint venture agreement, ARI and the other significant partner are required, and the minority partner is entitled, to contribute additional capital to the joint venture, on a pro rata basis, of any amounts approved by the joint venture's executive committee, as and when called by the executive committee.

Under the amended Axis credit agreement (Axis Credit Agreement), whereby ARI and the other significant partner are equal lenders, principal payments are due each fiscal quarter, with the last payment due on December 31, 2019. During 2016 and 2015, the applicable interest rate for the loans under the Axis Credit Agreement was 7.75%. Interest payments are due and payable monthly.

The balance outstanding on these loans, including interest, due to ARI Component, was \$17.7 million and \$23.6 million as of December 31, 2016 and 2015, respectively.

ARI currently intends to fund the cash needs of Axis through loans and capital contributions through at least March 31, 2018. The other significant joint venture partner has indicated its intent to also fund the cash needs of Axis through loans and capital contributions through at least March 31, 2018.

The Company has determined that, although the joint venture is a VIE, accounting for its activity under the equity method is appropriate given that the Company is not the primary beneficiary, does not have a controlling financial interest and does not have the ability to individually direct the activities of Axis that most significantly impact its economic performance. The significant factors in this determination were that neither ARI Component nor the Company has rights to the majority of returns, losses or votes, the executive committee and board of directors of the joint venture are comprised of one representative from each significant partner with equal voting rights and the risk of loss to the Company and ARI Component is limited to its investment in Axis and the loans due to the Company under the Axis Credit Agreement.

Summary combined financial position information for Axis, the investee company, in total, are as follows:

	Decem	ber 31,	
	2016		2015
	 (in tho	usands)	_
Financial position:			
Current assets	\$ 13,017	\$	8,009
Non-current assets	 26,271		31,494
Total assets	39,288		39,503
Current liabilities	14,076		14,544
Non-current liabilities	23,626		35,439
Total liabilities	 37,702		49,983
Members' equity (deficit)	1,586		(10,480)
Total liabilities and members' deficit	\$ 39,288	\$	39,503

Summary combined financial results of operations for Axis, the investee company, in total, are as follows:

	Years Ended December 31,						
	2016		2015		2014		
	(in thousands)						
Results of operations:							
Revenues	\$ 60,358	\$	70,289	\$	69,667		
Gross profit	\$ 16,467	\$	17,961	\$	5,496		
Earnings before interest	\$ 15,397	\$	16,972	\$	4,496		
Net earnings (loss)	\$ 12,066	\$	12,782	\$	(390)		

As of December 31, 2016, the investment in Axis was comprised entirely of ARI's term loan, which the Company has evaluated to be fully recoverable.

Note 10 - Warranties

The Company's standard warranty is up to one year for parts and services and five years for new railcars. Factors affecting the Company's warranty liability include the number of units sold, historical and anticipated rates of claims and historical and anticipated costs per claim. Fluctuations in the Company's warranty provision and experience of warranty claims are the result of variations in these factors. The Company assesses the adequacy of its warranty liability based on changes in these factors.

The overall change in the Company's warranty reserve is reflected on the consolidated balance sheets in accrued expenses and other liabilities and is detailed as follows:

Years Ended December 31,							
2014							
1,385							
1,263							
(261)							
(1,434)							
953							
2							

Note 11 – Debt

Subsidiary Lease Fleet Financings

From time to time, the Company, through its wholly-owned subsidiaries LLI, LLII and LLIII, has entered into lease fleet financings in order to, among other things, support and grow its railcar leasing business. Currently, only the LLIII lease fleet financing remains outstanding. The lease fleet financings are obligations of the respective wholly-owned subsidiary, are

generally non-recourse to ARI, and are secured by a first lien on the subject assets of the respective subsidiary, consisting of railcars, railcar leases, receivables and related assets, subject to limited exceptions. ARI has, however, entered into agreements containing certain representations, undertakings, and indemnities customary for asset sellers and parent companies in transactions of this type, and ARI is obligated to make any selections of transfers of railcars, railcar leases, receivables and related assets to be transferred to LLI, LLII and LLIII without any adverse selection, to cause American Railcar Leasing LLC (ARL), as the manager, to maintain, lease, and re-lease LLI's, LLII's and LLIII's equipment no less favorably than similar portfolios serviced by ARL, and to repurchase or replace certain railcars under certain conditions set forth in the respective loan documents. See below and Note 18, Related Party Transactions, for further discussion regarding these agreements with ARL.

January 2014 lease fleet refinancing

In December 2012, LLI entered into a senior secured delayed draw term loan facility (Original Term Loan). In January 2014, LLI refinanced its Original Term Loan under an amended and restated credit agreement (Amended and Restated Credit Agreement). In connection with the refinancing, LLI entered into a new senior secured term loan facility in an aggregate principal amount of \$316.2 million, net of fees and expenses (Refinanced Term Loan). Of this amount, \$194.2 million was used to refinance the Original Term Loan, resulting in net proceeds of \$122.0 million. In conjunction with the refinancing, the Company incurred a \$1.9 million loss, which is shown as 'Loss on debt extinguishment' on the consolidated statements of operations. This non-cash charge is related to the accelerated write-off of deferred debt issuance costs incurred in connection with the Original Term Loan. The Refinanced Term Loan accrued interest at a rate per annum equal to the 1-month LIBOR rate plus 2.0%, for a rate of 2.2% as of December 31, 2014. The Refinanced Term Loan was repaid in connection with the LLIII Indenture discussed below.

October 2014 bridge financing

In October 2014, LLII entered into a lease fleet financing facility for \$100.0 million which was repaid in connection with the LLIII Indenture discussed below.

January 2015 private placement notes

In January 2015, LLIII issued \$625.5 million in aggregate principal amount of notes pursuant to an Indenture. The notes are fixed rate secured railcar equipment notes bearing interest at a rate of 2.98% per annum for the Class A-1 Notes and 4.06% per annum for the Class A-2 Notes (collectively, the Notes), each payable monthly. Of the aggregate principal amount, \$408.5 million was used to refinance the LLI and LLII lease fleet financing facilities, resulting in net proceeds of \$211.6 million. In conjunction with the refinancing, the Company incurred a \$2.1 million loss, which is shown as 'Loss on debt extinguishment' on the consolidated statements of operations. This non-cash charge is related to the accelerated write-off of deferred debt issuance costs incurred in connection with the LLI and LLII lease fleet financings. As of December 31, 2016, there were \$200.5 million and \$375.5 million of Class A-1 and Class A-2 notes outstanding, respectively, compared to \$226.3 million and \$375.5 million of Class A-1 and Class A-2 notes outstanding, respectively, as of December 31, 2015. The Notes have a legal final maturity date of January 17, 2045 and an expected principal repayment date of January 15, 2025.

While the legal final maturity date of the Notes is January 17, 2045, cash flows from LLIII's assets will be applied, pursuant to the flow of funds provisions of the Indenture, so as to achieve monthly targeted principal balances. Also, under the flow of funds provisions of the Indenture, early amortization of the Notes may be required in certain circumstances. Pursuant to the terms of the Indenture, the Company is required to maintain deposits in a liquidity reserve bank account equal to nine months of interest payments. As of December 31, 2016 and December 31, 2015, the liquidity reserve amount was \$16.7 million and \$16.9 million, respectively, and included within 'Restricted cash' on the consolidated balance sheets.

LLIII can prepay or redeem the Class A-1 Notes, in whole or in part, subject to the payment of a make-whole amount with respect to certain prepayments or redemptions made on or prior to the payment date occurring in January 2018. LLIII can prepay or redeem the Class A-2 Notes, in whole or in part, on any payment date occurring on or after January 16, 2018, subject to the payment of a make-whole amount with respect to certain prepayments or redemptions made on or prior to the payment date occurring in January 2022.

The Indenture contains covenants which limit, among other things, LLIII's ability to incur additional indebtedness or encumbrances on its assets, pay dividends or make distributions, make certain investments, perform its business other than specified activities, enter into certain types of transactions with its affiliates, and sell assets or consolidate or merge with or into other companies. These covenants are subject to a number of exceptions and qualifications. The Company was in compliance with these covenants as of December 31, 2016.

As of December 31, 2016, the principal payments remaining on the Notes were as follows:

	_	Payments due by Period											
		2017		2018		2019		2020		2021		Thereafter	
		(in thousands)											
Notes	\$	25,588	\$	25,590	\$	25,507	\$	26,354	\$	26,358	\$	446,616	

ARI Lease fleet financings

December 2015 revolving credit facility

In December 2015, the Company completed a financing of its railcar lease fleet with availability of up to \$200.0 million under a credit agreement (2015 Credit Agreement). See 'Liquidity and Capital Resources' section for further discussion regarding the incremental borrowing provision under the 2015 Credit Agreement. The initial Revolving Loan obtained at closing amounted to approximately \$99.5 million, net of fees and expenses. In February 2016, we repaid amounts outstanding under the Revolving Loan in full and as of December 31, 2016, the Company has borrowing availability of \$200.0 million under this facility.

The Revolving Loan accrues interest at a rate per annum equal to Adjusted LIBOR (as defined in the 2015 Credit Agreement) for the applicable interest period, plus 1.45%. Interest is payable on the last day of each 1, 2, or 3-month interest period, the day of any mandatory prepayment, and the maturity date.

The Revolving Loan and the other obligations under the 2015 Credit Agreement are fully recourse to the Company and are secured by a first lien and security interest on certain specified railcars (together with specified replacement railcars), related leases, related receivables and related assets, subject to limited exceptions, a controlled bank account, and following an election by the Company (the Election), the applicable railcar management agreement with ARL. See Note 18, Related Party Transactions, for further discussion regarding this agreement with ARL.

Subject to the provisions of the 2015 Credit Agreement, the Revolving Loan may be borrowed and reborrowed until the maturity date. The Revolving Loan may be prepaid at the Company's option at any time without premium or penalty (other than customary LIBOR breakage fees and customary reimbursement of increased costs). The final scheduled maturity of the Revolving Loan is December 10, 2018, or such earlier date as provided in the 2015 Credit Agreement. The Company was in compliance with all of its covenants under the 2015 Credit Agreement as of December 31, 2016.

Potential ARL Sale and Railcar Management Transition Agreement

On December 16, 2016, ARI entered into the RMTA with ARL to manage the transition, from ARL to ARI, of the management of the Company's railcar leasing business in anticipation of the ARL Sale. The RMTA, among other things, (i) permits ARI to assume the management of its leased railcars following the consummation of the ARL Sale; (ii) requires ARI to use commercially reasonable efforts to obtain the consent of noteholders (the "Noteholder Consent") for ARI to replace ARL as manager of the LLIII railcars under the Indenture and certain related documents; and (iii) requires ARL to transfer to ARI certain books and records and electronic data with respect to ARI and LLIII's leased railcars and the Company's and LLIII's leasing businesses and otherwise assist in the transfer of the management of the leasing businesses to ARI, provided that if ARI does not obtain the Noteholder Consent, ARL will remain the manager of the LLIII railcars under the Indenture. The Company has no obligation to pay any consent or similar fees in connection with obtaining the Noteholder Consent. In addition, pursuant to the terms and conditions of the RMTA, ARL provides ARI an irrevocable, fully paid, non-transferrable (except as set forth therein), royalty-free license to certain software and databases owned and used by ARL to manage its railcars and the railcars owned by ARI and LLIII. ARI also anticipates amending the 2015 Credit Agreement to permit ARI to separate the management of its railcars from ARL's management.

The future contractual minimum rental revenues related to the railcars pledged under all Lease Fleet Financings as of December 31, 2016 were as follows (in thousands).

2017	\$ 69,128
2018	56,678
2019	41,941
2020	23,291
2021	13,961
2022 and thereafter	10,378
Total	\$ 215,377

As of December 31, 2016 and December 31, 2015, the net book value of the railcars that were pledged as part of the Company's and its subsidiaries Lease Fleet Financings was \$544.1 million and \$563.7 million, respectively.

Note 12 - Income Taxes

Income tax expense consists of:

	Years Ended December 31,				
	2016		2015		2014
		(in	thousands)		
Current:					
Federal	\$ 10,262	\$	11,322	\$	(10,569)
State and local	642		3,587		3,100
Foreign	494		738		174
Total current	 11,398		15,647		(7,295)
Deferred					
Federal	26,955		56,431		63,577
State and local	3,148		5,221		8,804
Foreign	36		(8)		(12)
Total deferred	30,139		61,644		72,369
Total income tax expense	\$ 41,537	\$	77,291	\$	65,074

The reconciliation of income taxes computed at the United States federal statutory tax rate to income tax expense is:

	Years Ended December 31,					
	2016		2015		2014	
	(in thousands)					
Computed income tax expense	\$ 39,970	\$	73,760	\$	57,612	
State and local tax expense	2,221		4,207		6,709	
Permanent differences, including domestic production activities deduction	(623)		(724)		523	
Adjustments for uncertain tax positions	110		204		206	
Other, net	(141)		(156)		24	
Total income tax expense	\$ 41,537	\$	77,291	\$	65,074	

The tax effects of temporary differences that have given rise to deferred tax assets and liabilities are presented below:

		December 31,			
		2016		2016	
	_		(in tho	usands)	
Non-current deferred tax assets					
Provisions not currently deductible	\$	3	12,421	\$	8,192
Stock based compensation			842		110
Net operating loss carryforwards—federal and state			189		173
Net capital loss carryforwards—federal and state			1,833		1,859
Tax credits and other			327		519
Pensions and post retirement			3,231		3,223
Total deferred tax asset	\$	3	18,843	\$	14,076
Non-current deferred tax liabilities	=				
Investment in joint ventures/partnerships	\$	5	(2,084)	\$	(2,056)
Property, plant and equipment			(269,478)		(234,358)
Unrealized gain on financial instruments			(224)		_
Total deferred tax liability	\$	5	(271,786)	\$	(236,414)
71	_				

The net deferred tax asset (liability) is classified as non-current in the consolidated balance sheets as follows:

	December 31,			
	2016	2015		
	 (in tho	usands)		
Deferred tax assets	\$ 18,843	\$ 14,076		
Deferred tax liability	(271,786)	(236,414)		
Deferred tax liability, net	(252,943)	(222,338)		

ARI considers its Canadian earnings to be permanently reinvested, and therefore has not recorded a provision for U.S. income tax or foreign withholding taxes on the cumulative undistributed earnings of its Canadian subsidiary. Such undistributed earnings from ARI's Canadian subsidiary have been included in consolidated retained earnings in the amount of \$4.2 million and \$2.6 million as of December 31, 2016 and 2015, respectively. If ARI were to change its intentions and such earnings were remitted to the U.S., these earnings would be subject to U.S. income taxes. However, as of December 31, 2016 and 2015 foreign tax credits would be available to offset these taxes such that the U.S. tax impact would be insignificant.

As of December 31, 2016, the Company had state net operating loss carryforwards in the amount of \$3.8 million, which have varying expiration dates that extend into 2036. In 2015, ARI had state net operating loss carryforwards of \$3.7 million.

In 2016, the Company continued to carry forward its federal capital losses of \$4.7 million that was generated in 2013. In 2015, the Company utilized the entire balance of alternative minimum tax credits of \$1.3 million related to the 2014 carryback of the federal net operating loss.

As of December 31, 2016, the Company's gross unrecognized tax benefits were \$2.0 million, of which \$1.6 million, net of federal benefit on state matters, would impact the effective tax rate if reversed. As of December 31, 2015, the Company's gross unrecognized tax benefits were \$1.7 million, of which \$1.2 million, net of federal benefit on state matters, would impact the effective tax rate if reversed.

The aggregate changes in the balance of unrecognized tax benefits were as follows:

	Years Ended December 31,					
		2016		2015		2014
	(in thousands)					
Beginning balance	\$	1,684	\$	1,422	\$	1,142
Increases in tax positions for prior years		253		30		91
Increases in tax positions for current year		86		298		189
Settlements and decreases in tax positions		_		(66)		_
Ending balance	\$	2,023	\$	1,684	\$	1,422

The total amount of interest and penalties included in the tax provision as an income tax expense for the years ended December 31, 2016 and 2015 was \$0.1 million each year. The Company believes it is possible that within the next twelve months its unrecognized tax benefits could change up to \$1.0 million as a result of the Company's analysis of state tax filing requirements.

The statute of limitation on the Company's 2012 federal income tax return expired in September 2016. The Company's federal income tax returns for tax years 2013 and beyond remain subject to examination, with the latest statute of limitations expiring in October 2020.

Certain of the Company's 2008 through 2012 state income tax returns and all of the Company's state income tax returns for 2013 and beyond remain open and subject to examination, with the latest statute of limitations expiring in December 2021, upon the filing of the 2016 state tax returns. The Company's foreign subsidiary's income tax returns for 2012 and beyond remain open to examination by foreign tax authorities.

The Company began its implementation of the recent regulations concerning amounts paid to acquire, produce, or improve tangible property and recovery of basis upon disposition with the filing of its 2014 tax return. The Company then completed its implementation efforts with the filing of its 2015 tax return, without any material impact to its financial condition or results of operations.

Note 13 - Pension Plans

The Company is the sponsor of three defined benefit plans that are frozen and no additional benefits are accruing thereunder. Two of the Company's defined benefit pension plans cover certain employees at designated repair facilities. The assets of these defined benefit pension plans are held by independent trustees and consist primarily of equity and fixed income securities. The Company also sponsors an unfunded, non-qualified supplemental executive retirement plan that covers several of the Company's current and former employees.

The Company's measurement date is December 31 and costs of benefits relating to current service for those employees to whom the Company is responsible to provide benefits are currently expensed.

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The change in the pension benefit obligation, change in plan assets and the funded status is as follows:

	Years	Years Ended December 31,		
	2016	2016		
		in thousa	nds)	
ion				
ary 1	\$ 24	,737 \$	25,863	
		208	177	
		984	947	
		198	(998)	
ministrative expenses		(208)	(177)	
	(1	,086)	(1,075)	
on at December 31	\$ 24	,833 \$	24,737	
assets				
t January 1	\$ 16	,212 \$	17,281	
eturn on plan assets	1	,119	(358)	
trative expenses		(208)	(177)	
contributions		111	541	
	(1	,086)	(1,075)	
value at December 31	\$ 16	,148 \$	16,212	
of plan assets at December 31	\$ (8	,685) \$	(8,525)	

Amounts recognized in the consolidated balance sheets are as follows:

	Years Ended December 31,			,	
		2016		2015	
		(in thou	ısands)		
Accrued benefit liability—short term	\$	(112)	\$	(112)	
Accrued benefit liability—long term		(8,573)		(8,413)	
Net liability recognized at December 31	\$	(8,685)	\$	(8,525)	
Net actuarial loss	\$	(8,144)	\$	(8,747)	
Net prior service cost		(9)		(17)	
Accumulated other comprehensive loss pre-tax at December 31	\$	(8,153)	\$	(8,764)	

The short-term liability has been reported within 'Accrued compensation' on the consolidated balance sheets.

The components of net periodic benefit cost for the years ended December 31, 2016, 2015 and 2014 are as follows:

	Years Ended December 31,				
	2016		2015		2014
	(in thousands)				
Components of net periodic benefit cost					
Service cost	\$ 208	\$	177	\$	227
Interest cost	984		947		970
Expected return on plan assets	(1,134)		(1,282)		(1,251)
Recognized actuarial loss	816		798		269
Amortization of prior service cost	8		8		8
Total net periodic benefit cost	\$ 882	\$	648	\$	223

The Company amortizes actuarial loss and gain using a weighted average amortization period for all plans of 9 years. The net actuarial loss that is expected to be amortized from accumulated other comprehensive loss into net periodic benefit costs during the year ended December 31, 2016 is \$0.8 million.

Additional information

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid as follows (in thousands):

2017	\$ 1,173
2018	1,225
2019	1,269
2020	1,306
2021	1,345
2022 and thereafter	7,216

The Company expects to contribute \$0.1 million to its pension plans in 2017.

Pension costs and liabilities are dependent on assumptions used in calculating such amounts. The primary assumptions include factors such as discount rates, expected return on plan assets, mortality rates and retirement rates, as discussed below:

Discount rates

The Company reviews these rates annually and adjusts them to reflect current yields on long-term, high-quality corporate bonds. The Company deemed these rates appropriate based on the Citigroup Pension Discount curve analysis along with expected payments to retirees.

Expected return on plan assets

The Company's expected return on plan assets is derived from detailed periodic studies, which include a review of asset allocation strategies, anticipated future long-term performance of individual asset classes, risks (standard deviations) and correlations of returns among the asset classes that comprise the plans' asset mix. While the studies give appropriate consideration to recent plan performance and historical returns, the assumptions are primarily long-term, prospective rates of return.

Mortality and retirement rates

Mortality and retirement rates are based on actual and anticipated plan experience.

The decrease in the discount rates and the use of the updated mortality tables and projection scales resulted in an increase in the benefit obligation, which will be amortized through actuarial losses. The assumptions used to determine end of year benefit obligations are shown in the following table:

	i ears Ended	December 51,
	2016	2015
Discount rate	3.89%	4.08%

Vacus Ended December 21

The assumptions used in the measurement of net periodic cost are shown in the following table:

	Years	Years Ended December 31				
	2016	2015	2014			
Discount rate	4.08%	3.75%	4.64%			
Expected return on plan assets	7.25%	7.50%	7.50%			

The Company's pension plans' asset valuation in the fair value hierarchy levels, discussed in detail in Note 4, along with the weighted average asset allocations as of December 31, 2016, by asset category, are as follows:

		Level 1	Level 2	L	Level 3	Total	
	·-		(in tho	usands)			
Asset Category							
Short-term investments	\$	_	\$ 612	\$	_ 5	\$ 612	2
Corporate stocks - common		3,808	_		_	3,808	8
Mutual funds - equity		5,725	_		_	5,725	5
Debt securities							
Exchange traded funds		5,003	_		_	5,003	3
Government		545	_		_	545	5
Asset backed		_	455		_	455	5
Total assets at fair value	\$	15,081	\$ 1,067	\$		\$ 16,148	8

The Company's pension plans' asset valuation in the fair value hierarchy levels, along with the weighted average asset allocations as of December 31, 2015, by asset category, are as follows:

	Level 1	1	Level 2	Level 3	Total		
			(in tho	usands)			
Asset Category							
Short-term investments	\$ _	\$	607	\$	\$	607	
Corporate stocks - common	3,831		_	_		3,831	
Mutual funds - equity	5,775		_	_		5,775	
Debt securities							
Exchange traded funds	4,938		_	_		4,938	
Government	608		_	_		608	
Asset backed	_		453	_		453	
Total assets at fair value	\$ 15,152	\$	1,060	\$	\$	16,212	

The overall objective of the pension plans' investments is to grow plan assets in relation to liabilities, while prudently managing the risk of a decrease in the pension plans' assets. The pension plans' investment committee has established a target investment mix with upper and lower limits for investments in equities, fixed-income and other appropriate investments. Assets will be re-allocated among asset classes from time-to-time to maintain an investment mix as established for each plan. The investment committee has established an average target investment mix of approximately 65% equities and approximately 35% fixed-income for the plans.

The Company invests in a balanced portfolio of individual equity securities, exchange traded funds, mutual funds and individual debt securities to maintain a diversified portfolio structure with distinguishable investment objectives. The objective

of the total portfolio is long-term growth and appreciation along with capital preservation, to maintain the value of plan assets over time in real terms net of fees, distributions and liquidity obligations.

The pension plans' assets are valued at fair value. The following is a description of the valuation methodologies used in determining fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Short-term investments. The pension plans' assets are invested in short-term investments to manage liquidity. These investments consist of openended money market mutual funds that invest in first-tier securities and high quality, short-term obligations to earn income but maintain a high degree of liquidity and preserve capital. These money market funds are classified within the Level 2 valuation hierarchy since fair value inputs are derived prices in active markets and the fund is not traded on a national securities exchange. Short-term investments are not subject to liquidity redemption restrictions.

Corporate stocks - common. The pension plans' assets are invested in separately managed accounts, each with a specific investment objective which invests solely in equity securities of small, mid, and large sized companies that are publicly traded for growth and diversification. As the fair value of the securities represent quoted prices available in active markets, these have been categorized as Level 1 of the fair value hierarchy. Equity securities are not subject to liquidity redemption restrictions.

Mutual funds - equities. Investment vehicles include mutual funds that invest in large-cap publicly traded common stocks. The mutual funds, which are traded on a national securities exchange in an active market, are valued using daily publicly available prices and accordingly classified within Level 1 of the valuation hierarchy.

Debt securities. The pension plans' assets are invested in debt securities for diversification and volatility reduction of equity securities. Investment vehicles include exchange traded funds (ETFs), U.S. government securities, and asset backed securities. Debt securities are not subject to liquidity redemption restrictions. The ETFs are invested in diversified portfolios of fixed-income instruments and are traded on a national securities exchange. As the fair value of the ETFs represent quoted prices available in active markets, they are classified within the Level 1 valuation hierarchy. U.S. government treasury bills are classified within the Level 1 valuation hierarchy since fair value is based on public price quotations in active markets. The asset backed securities are classified within the Level 2 valuation hierarchy since fair value inputs are derived prices in active markets.

Note 14 - Commitments and Contingencies

As of December 31, 2016, future minimum rental payments required under noncancellable operating leases for property and equipment leased by the Company with lease terms longer than one year are as follows (in thousands):

2017	\$ 1,278
2018	1,145
2019	1,121
2020	1,161
2021	1,059
2022 and thereafter	 1,303
Total	\$ 7,067

Total rent expense for the years ended December 31, 2016, 2015 and 2014 was \$2.2 million, \$2.6 million and \$2.6 million, respectively.

The Company is subject to comprehensive federal, state, local and international environmental laws and regulations relating to the release or discharge of materials into the environment, the management, use, processing, handling, storage, transport or disposal of hazardous materials and wastes, and other laws and regulations relating to the protection of human health and the environment. These laws and regulations not only expose ARI to liability for the environmental condition of its current or formerly owned or operated facilities, and its own negligent acts, but also may expose ARI to liability for the conduct of others or for ARI's actions that were in compliance with all applicable laws at the time such actions were taken. In addition, these laws may require significant expenditures to achieve compliance and are frequently modified or revised to impose new obligations. Civil and criminal fines and penalties and other sanctions may be imposed for non-compliance with these environmental laws and regulations. ARI's operations that involve hazardous materials also raise potential risks of liability under common law.

Certain real property ARI acquired from ACF Industries LLC (ACF) in 1994 had been involved in investigation and remediation activities to address contamination both before and after their transfer to ARI. ACF is an affiliate of Mr. Carl Icahn, the Company's principal beneficial stockholder through Icahn Enterprises L.P. (IELP). Substantially all of the issues identified with respect to these properties relate to the use of these properties prior to their transfer to ARI by ACF and for which ACF has retained liability for environmental contamination that may have existed at the time of transfer to ARI. ACF has also agreed to indemnify ARI for any cost that might be incurred with those existing issues. As of the date of this report, ARI does not believe it will incur material costs in connection with activities relating to these properties, but it cannot assure that this will be the case. If ACF fails to honor its obligations to ARI, ARI could be responsible for the cost of any additional investigation or remediation that may be required. The Company believes that its operations and facilities are in substantial compliance with applicable laws and regulations and that any noncompliance is not likely to have a material adverse effect on its financial condition or results of operations.

ARI is party to a collective bargaining agreement with a labor union at a parts manufacturing facility that will expire in April 2017, unless extended or modified. ARI is also party to collective bargaining agreements with labor unions at two repair facilities that will expire in January and September 2021, respectively, unless extended or modified.

The Company has various agreements with and commitments to related parties. See Note 19 for further detail.

Certain claims, suits and complaints arising in the ordinary course of business have been filed or are pending against ARI. In the opinion of management, all such claims, suits, and complaints arising in the ordinary course of business are without merit or would not have a significant effect on the future liquidity, results of operations or financial position of ARI if disposed of unfavorably.

GyanSys

On October 24, 2014, the Company filed a complaint in United States District Court for the Southern District of New York against GyanSys, Inc. (GyanSys). The complaint asserts a claim against GyanSys for breaching its contract with ARI to implement an enterprise resource planning system. The Company's complaint alleges that it has suffered damages in excess of \$25 million as a result of GyanSys' breach. GyanSys filed a response to the suit denying its responsibility. It also alleged a counterclaim against ARI for breach of contract and wrongful termination, seeking equitable relief and damages, which GyanSys alleges to be more than \$10 million. At this time, the Company does not have sufficient information to reasonably form an estimate of the potential outcome (gain or loss) of this litigation. As a result, no such accrual has been recorded. On September 9, 2015, the court denied ARI's motion to dismiss the wrongful termination counterclaim. A trial date has been tentatively scheduled for June 12, 2017. However, ARI continues to believe that GyanSys' counterclaims lack merit and will continue to vigorously defend against these counterclaims.

FRA Directive

On September 30, 2016 the Federal Railroad Administration (FRA) issued Railworthiness Directive (RWD) No. 2016-01 (the Original Directive). The Original Directive addressed, among other things, certain welding practices in one weld area in specified DOT 111 tank railcars manufactured between 2009 and 2015 by ARI and ACF Industries, LLC (ACF). ACF is an affiliate of Mr. Carl Icahn, the Company's principal and beneficial stockholder through IELP. The Company met and corresponded with the FRA following the issuance of the Original Directive to express the Company's concerns with the Original Directive and its impact on ARI, as well as the industry as a whole.

On November 18, 2016 (the Issuance Date), the FRA issued RWD No. 2016-01 [Revised] (the Revised Directive). The Revised Directive changes and supersedes the Original Directive.

The Original Directive indicated that approximately 14,800 general purpose tank railcars could be affected. The Revised Directive requires owners to identify their subject tank cars and then from that population identify the 15% of subject tank cars currently in hazardous materials service with the highest mileage in each tank car owner's fleet. Visual inspection of each of the subject tank railcars is required by the car operator prior to putting any railcar into service. Owners must ensure appropriate inspection, testing and repairs, if needed, within 12 months of the Issuance Date for the 15% of their subject tank railcars identified to be in hazardous materials service with the highest mileage. The FRA will monitor and analyze the results of the 15% sample and has reserved the right to impose additional test and inspection requirements for the remaining fleet of tank cars subject to the Revised Directive.

The Company has evaluated its potential exposure related to the Revised Directive and has established a loss contingency of \$12.3 million to cover its probable and estimable liabilities, as of December 31, 2016, with respect to the Company's response to the Revised Directive, taking into account currently available information and the Company's contractual obligations in its capacity as both a manufacturer and lessor of railcars subject to the Revised Directive. This amount is included in accrued

expenses and other liabilities on the consolidated balance sheet and will continue to be evaluated as ARI's and its customers' compliance with the Revised Directive progresses and the Company's understanding of the impact the Revised Directive may have on its business, including results of operations and cash flows, evolves. Actual results could differ from this estimate. The \$12.3 million loss contingency, as of December 31, 2016, represents a reduction of \$4.7 million from the loss contingency that the Company established as of September 30, 2016 for the Original Directive, and reflects the changes made by the FRA from the Original Directive to the Revised Directive that reduced the number of railcars that are currently required to be inspected and repaired, if necessary.

It is reasonably possible that a loss exists in excess of the amount accrued by the Company. However, the amount of potential costs and expenses expected to be incurred for compliance with the Revised Directive in excess of the loss contingency of \$12.3 million cannot be reasonably estimated at this time.

Although the Revised Directive addresses some of the Company's concerns and clarifies certain requirements of the Original Directive, ARI has identified significant issues with the Revised Directive. As a result, in a letter to the FRA dated November 28, 2016, ARI has requested that the FRA immediately rescind or stay the Revised Directive without reinstating the Original Directive. In addition, ARI has sought judicial review of and relief from the Revised Directive. On December 13, 2016, ARI filed a petition for review in the United States Court of Appeals for the District of Columbia Circuit against the FRA. In the petition, the Company asserted that (i) the Revised Directive was unlawful and inconsistent with administrative law, (ii) the Revised Directive is arbitrary, capricious and inconsistent with law, (iii) the FRA exceeded its authority when it issued the Revised Directive and (iv) the Revised Directive was an improper adjudication under applicable laws. The petition requests that the court review, remand and vacate, defer enforcement of, and/or stay pending review, the Revised Directive. The Company cannot assure you that this petition will be successful in reversing or modifying the Revised Directive or if it is successful, whether it will be successful in a reasonable amount of time to benefit railcar owners with cars subject to the Revised Directive. Regardless of the petition, significant uncertainty exists in connection with the Revised Directive and its implementation. The Company's attempts to comply with the Revised Directive may fail if it is unable to get clarification from the FRA on a variety of questions and the Company or other car owners cannot meet the expectations of the FRA in complying with the Revised Directive. Legal fees incurred with respect to this matter will be expensed in the period in which they occur, in accordance with the Company's accounting policy.

Note 15 - Share-based Compensation

The Company accounts for share-based compensation granted under the Amended and Restated 2005 Equity Incentive Plan (the 2005 Plan) based on the fair values calculated using the Black-Scholes-Merton (Black-Scholes) option-pricing formula. The 2005 Plan is administered by the Company's board of directors or a committee of the board.

The 2005 Plan permits the Company to issue stock and grant stock options, restricted stock, stock units and other equity interests to purchase or acquire up to 1,000,000 shares of the Company's common stock. Awards covering no more than 300,000 shares may be granted to any person during any fiscal year. The Company has not granted options since January 2006, all of which have been exercised or expired unexercised prior to 2012. As a result, the Company did not recognize any compensation expense related to stock options during the years ended December 31, 2016, 2015 and 2014. As of December 31, 2016, an aggregate of 855,476 shares were available for issuance in connection with future equity instrument grants under the Company's 2005 Plan.

Stock appreciation rights

Beginning in 2007, the compensation committee of the Company's board of directors periodically issued stock appreciation rights (SARs) to certain employees under the 2005 Plan. SARs are subject to certain vesting provisions as stipulated for each individual grant and generally have an expiration period of 7 years. SARs granted under the 2005 Plan must have an exercise price at or above the fair market value on the date of grant.

Share-based compensation is expensed using a graded vesting method over the vesting period of the instrument. Currently, ARI has SARs outstanding that are only settled in cash, as discussed below and thus, are treated as liability based awards. The fair value of the liability associated with share-based compensation is based on the components used to calculate the Black-Scholes value, including the Company's closing market price, as of that date and is considered a Level 2 input. For definition and discussion of a Level 2 input for fair value measurement, refer to Note 4.

The following table presents the amounts incurred by ARI for share-based compensation, or SARs and the corresponding line items on the consolidated statements of operations that they are classified within:

	Years Ended December 31,						
		2016		2015	2014		
	' <u>'</u>						
Share-based compensation expense (income):							
Cost of revenues: Manufacturing	\$	(87)	\$	89	\$	697	
Cost of revenues: Railcar services		(11)		7		186	
Selling, general and administrative		849		550		2,309	
Total share-based compensation expense	\$	751	\$	646	\$	3,192	

Income tax benefits related to share-based compensation arrangements were less than \$0.1 million, \$0.4 million and \$2.1 million for the years ended December 31, 2016, 2015 and 2014, respectively.

SARs are generally granted with a three year vesting period and vest in three equal increments on the first, second and third anniversaries of the grant date. Each holder must remain employed by the Company through each such date in order to vest in the corresponding number of SARs. Prior to 2014, various awards also had either market or performance conditions, and with the exception of the 2008 grants, those special conditions were achieved.

The SARs have exercise prices that represent the closing price of the Company's common stock on the date of grant. Upon the exercise of any SAR, the Company shall pay the holder, in cash, an amount equal to the excess of (A) the aggregate fair market value (as defined in the 2005 Plan) in respect of which the SARs are being exercised, over (B) the aggregate exercise price of the SARs being exercised, in accordance with the terms of the applicable Stock Appreciation Rights Agreement (the SARs Agreement). The SARs are subject in all respects to the terms and conditions of the 2005 Plan and the applicable SARs Agreement, which contain non-solicitation, non-competition and confidentiality provisions.

The fair value of all unexercised SARs is determined at each reporting period under the Black-Scholes option pricing methodology based on the inputs in the table below, which projected that the specific performance targets for applicable grants will be fully met. The fair value of the SARs is expensed on a graded vesting basis over the vesting period. Changes in the fair value of vested SARs are expensed in the period of change. The following table provides an analysis of all SARs outstanding and assumptions that were used as of December 31, 2016:

			Grant Year		
	2016	2015	2014	2012	2011
SARs outstanding	139,581	97,977	59,072	11,230	3,185
Weighted average exercise price	\$44.83	\$50.27	\$50.51	\$29.31	\$24.45
Weighted average expected volatility	43.0%	43.5%	43.5%	38.6%	29.2%
Weighted average risk-free interest rate	1.6%	1.5%	1.5%	0.9%	0.9%
Expected Dividend yield	3.5%	3.5%	3.5%	3.5%	3.5%

The stock volatility rate was determined using the volatility rates of the Company's common stock over the same period as the expected life of each grant. The risk-free rate is based on the U.S. Treasury yield curve in effect for the expected term of the SARs at the time of grant. The expected dividend yield was determined using the most recent quarter's dividend. The expected life for each grant was calculated using the simplified method prescribed by the Securities and Exchange Commission (SEC) due to inadequate exercise activity for the Company's SARs. The simplified method uses the average of the vesting period and expiration period.

The following is a summary of SARs activity under the 2005 Plan:

	Stock Appreciation Rights (SARs)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Weighted Average Fair Value of SARs	Aggregate Intrinsic Value (\$000)
Outstanding at January 1, 2014	207,234	\$25.85			
Granted	119,342	\$49.31			
Cancelled/Forfeited	(50,550)				
Exercised	(136,915)				
Outstanding at December 31, 2014	139,111	\$41.02			
Granted	134,037	\$50.27			
Cancelled/Forfeited	(29,817)				
Exercised	(39,288)				
Outstanding at December 31, 2015	204,043	\$47.93			
Granted	139,581	\$44.83			
Cancelled/Forfeited	(27,288)				
Exercised	(5,291)				
Outstanding at December 31, 2016	311,045	\$46.85	66 months	\$10.56	\$310
Exercisable at December 31, 2016	77,024	\$46.30	56 months	\$10.03	\$246

As of December 31, 2016, unrecognized compensation costs related to the unvested portion of SARs were estimated to be \$1.0 million and were expected to be recognized over a weighted average period of 23 months.

Note 16 – Stock Repurchase Program

On July 28, 2015, the Company's board of directors authorized a stock repurchase program (the Stock Repurchase Program) pursuant to which the Company may, from time to time, repurchase up to \$250.0 million of its common stock. The Stock Repurchase Program will end upon the earlier of the date on which it is terminated by the Board or when all authorized repurchases are completed. Under the Stock Repurchase program, 760,653 and 1,507,766 shares were repurchased during 2016 and 2015, respectively, at a cost of \$28.6 million and \$57.4 million, respectively.

Note 17 – Accumulated Other Comprehensive Income (Loss)

The following table presents the balances of related after-tax components of accumulated other comprehensive income (loss).

	 Accumulated Short-term Investment Transactions	Accumulated Currency Translation	Accumulated Postretirement Transactions		Accumulated Other Comprehensive Income (Loss)	
		(In tl	ıou	sands)		
Balance December 31, 2013	\$ _	\$ 760	\$	(2,254)	\$ (1,494)	
Currency translation	_	(1,035)		_	(1,035)	
Minimum pension liability re-valuation, net of tax effect of \$1,755	_	_		(2,784)	(2,784)	
Amortization of net actuarial gain, net of tax effect of \$24	_	_		(36)	(36)	
Balance December 31, 2014	\$ _	\$ (275)	\$	(5,074)	\$ (5,349)	
Currency translation	_	(1,955)		_	(1,955)	
Minimum pension liability re-valuation, net of tax effect of \$228	_	_		(414)	(414)	
Amortization of net actuarial gain, net of tax effect of \$293	_	_		463	463	
Balance December 31, 2015	\$ _	\$ (2,230)	\$	(5,025)	\$ (7,255)	
Currency translation	_	 215		_	215	
Minimum pension liability re-valuation, net of tax effect of \$34	_	_		(184)	(184)	
Amortization of net actuarial loss, net of tax effect of \$300	_	_		478	478	
Unrealized gain on Available for Sale Securities, net of tax effect of \$224	415	_		_	415	
Balance December 31, 2016	\$ 415	\$ (2,015)	\$	(4,731)	\$ (6,331)	

Note 18 - Related Party Transactions

Agreements with ACF

The Company has the following agreements with ACF, a company controlled by Mr. Carl Icahn, the Company's principal beneficial stockholder through IELP:

Component purchases

The Company has from time to time purchased components from ACF under a long-term agreement, as well as on a purchase order basis. Under the manufacturing services agreement entered into in 1994 and amended in 2005, ACF agreed to manufacture and distribute, at the Company's instruction, various railcar components. In consideration for these services, the Company agreed to pay ACF based on agreed upon rates. The agreement automatically renews unless written notice is provided by the Company.

Also in April 2015, ARI entered into a parts purchasing and sale agreement with ACF. The agreement was unanimously approved by the independent directors of ARI's audit committee. Under this agreement, ARI and ACF may, from time to time, purchase and sell to each other certain parts for railcars (Parts). ARI also provides a non-exclusive and non-assignable license of certain intellectual property to ACF related to the manufacture and sale of Parts to ARI. The buyer under the agreement must pay the market price of the parts as determined in the agreement or as stated on a public website for all ARI buyers. ARI may provide designs, engineering and purchasing support, including all materials and components to ACF. Subject to certain early termination events, the agreement terminates on December 31, 2020.

For the years ended December 31, 2016, 2015 and 2014, ARI purchased \$6.8 million, \$18.1 million, and \$5.1 million, respectively, of components from ACF.

Purchasing and engineering services agreement

In January 2013, ARI entered into a purchasing and engineering services agreement and license with ACF. The agreement was unanimously approved by the independent directors of ARI's audit committee. Under this agreement, ARI provides purchasing support and engineering services to ACF in connection with ACF's manufacture and sale of tank railcars at its facility in Milton, Pennsylvania. Additionally, ARI has granted ACF a non-exclusive, non-assignable license to certain of ARI's intellectual property, including certain designs, specifications, processes and manufacturing know-how required to manufacture and sell tank railcars during the term of the agreement. In December 2016, ARI and ACF amended this agreement to, among other provisions, extend the termination date to December 31, 2017 from December 31, 2016, subject to certain early termination events.

In consideration of the services and license provided by ARI to ACF in conjunction with the agreement, ACF pays ARI a royalty and, if any, a share of the net profits (Profits) earned on each railcar manufactured and sold by ACF under the agreement, in an aggregate amount equal to 30% of such Profits, as calculated under the agreement. Profits are net of certain of ACF's start-up and shutdown expenses and certain maintenance capital expenditures. If no Profits are realized on a railcar manufactured and sold by ACF pursuant to the agreement, ARI will still be entitled to the royalty for such railcar and will not share in any losses incurred by ACF in connection therewith. In addition, any railcar components supplied by ARI to ACF for the manufacture of these railcars are provided at fair market value.

Under the agreement, ACF had the exclusive right to manufacture and sell subject tank railcars for any new orders scheduled for delivery to customers on or before January 31, 2014. ARI has the exclusive right to any sales opportunities for tank railcars for any new orders scheduled for delivery after that date and through termination of the agreement. ARI also has the right to assign any sales opportunity to ACF, and ACF has the right, but not the obligation, to accept such sales opportunity. Any sales opportunity accepted by ACF will not be reflected in ARI's orders or backlog.

For the years ended December 31, 2016, 2015 and 2014, revenues of \$0.7 million, \$9.6 million, and \$19.0 million respectively, were recorded under this agreement for sales of railcar components to ACF and for royalties and profits on railcars sold by ACF and are included under manufacturing revenues from affiliates on the consolidated statements of operations.

Repair services and support agreement

In April 2015, ARI entered into a repair services and support agreement with ACF. The agreement was unanimously approved by the independent directors of ARI's audit committee. Under this agreement, ARI provides certain sales and administrative and technical services, materials and purchasing support and engineering services to ACF to provide repair and retrofit services (Repair Services). Additionally, ARI provides a non-exclusive and non-assignable license of certain intellectual property related to the Repair Services for railcars. ARI receives 30% of the net profits (as defined in the agreement) for Repair Services related

to all railcars not owned by ARL or its subsidiaries and 20% of the net profits for Repair Services related to all railcars owned by ARL or its subsidiaries, if any, but does not absorb any losses incurred by ACF.

Under the agreement, ARI has the exclusive right to sales opportunities related to Repair Services, except for any sales opportunity related to Repair Services presented to ACF by ARL with respect to ARL-owned railcars. ARI also has the right to assign any sales opportunities related to Repair Services to ACF, and ACF has the right, but not the obligation, to accept such sales opportunity. Subject to certain early termination events, the agreement terminates on December 31, 2020. After the consummation of the ARL Sale, ARI expects to amend this agreement with ACF.

For both the years ended December 31, 2016 and December 31, 2015, revenues of less than \$0.1 million were recorded under this agreement.

Agreements with IELP Entities

The Company has or had the following agreements with companies controlled by Mr. Carl Icahn, the Company's principal beneficial stockholder through IELP, including, but not limited to, ARL (collectively, the IELP Entities):

Railcar services agreement

In April 2011, the Company entered into a railcar services agreement with ARL (the Railcar Services Agreement). Under the Railcar Services Agreement, ARI provides ARL railcar repair, engineering, administrative and other services, on an as needed basis, for ARL's lease fleet at mutually agreed upon prices. The Railcar Services Agreement had an initial term of three years and automatically renews for additional one year periods unless either party provides at least sixty days prior written notice of termination. As discussed below, this Railcar Services Agreement is expected to terminate upon the consummation of the ARL Sale in accordance with the RMTA.

For the years ended December 31, 2016, 2015 and 2014, revenues of \$26.8 million, \$24.9 million, and \$19.3 million were recorded under the Railcar Services Agreement, respectively. These revenues are included under railcar services revenues from affiliates on the consolidated statements of operations. The Railcar Services Agreement was unanimously approved by the independent directors of the Company's audit committee.

Railcar management agreements

From time to time, the Company and its wholly-owned subsidiaries have entered into railcar management agreements with ARL, pursuant to which the Company and its respective wholly-owned subsidiaries engaged ARL to manage, sell, operate, market, store, lease, re-lease, sublease and service ARI's railcars, subject to the terms and conditions of the agreement. These agreements provide that ARL will manage the leased railcars (as identified in the respective agreement) including arranging for services, such as repairs or maintenance, as deemed necessary. Subject to the terms and conditions of each agreement, ARL receives, in respect of leased railcars, a management fee based on the lease revenues. Each of these agreements were unanimously approved by the independent directors of the Company's audit committee.

On February 29, 2012, the Company entered into a railcar management agreement with ARL (the ARI railcar management agreement). The agreement, as amended was effective January 1, 2011, will continue through December 31, 2018 and thereafter it automatically renews for additional one-year periods unless written notice is received from either party at least six months prior to the expected renewal. In December 2012, LLI entered into a similar agreement with ARL (the LLI railcar management agreement). In January 2014, LLI and ARL amended the LLI railcar management agreement to, among other provisions, extend the termination date to January 15, 2020. On October 16, 2014, LLII entered into a railcar management agreement with ARL (the LLII railcar management agreement). Under the ARI railcar management, in addition to the management fee, ARL receives a fee consisting of a lease origination fee, and, in respect of railcars sold by ARL, sales commissions.

In January 2015, in connection with the Company's refinancing of its lease fleet financings, the LLI and LLII railcar management agreements were terminated and LLIII entered into a similar railcar management agreement with ARL. This agreement extends through the Notes' final maturity date of January 17, 2045, unless terminated earlier pursuant to its terms (together with the railcar management agreements discussed above, collectively the Railcar Management Agreements). As discussed below, the Railcar Management Agreements are expected to terminate pursuant to and at the times set forth in the RMTA.

For the years ended December 31, 2016, 2015 and 2014, total lease origination and management fees incurred under the Railcar Management Agreements were \$6.8 million, \$7.0 million and \$5.1 million, respectively. These fees are included in cost of revenues for railcar leasing on the consolidated statements of operations. For the years ended December 31, 2016, 2015 and

2014, total sales commissions incurred were \$1.0 million, \$1.0 million and \$0.6 million, respectively. These costs are included in selling, general and administrative costs on the consolidated statements of operations.

Railcar Management Transition Agreement

On December 16, 2016, ARI entered into a railcar management transition agreement (the RMTA) with ARL. In anticipation of the expected sale of ARL (the ARL Sale) to SMBC Rail Services LLC (the Buyer), ARI and ARL entered into the RMTA to manage the transition, from ARL to ARI, of the management of our railcar leasing business, including the railcars owned by the Company (the ARI Railcars) and its subsidiary, LLIII (the LLIII Railcars). Pursuant to railcar management agreements with each of ARI and LLIII, ARL, as manager, currently markets ARI Railcars for sale or lease and LLIII Railcars for lease, and arranges for the operation, storage, re-lease, sublease, service, repair, overhaul, replacement and maintenance of the ARI Railcars and the Longtrain Railcars (collectively, the Leased Railcars). As discussed below, certain affiliates of ARI and the Buyer are also parties to the Agreement for limited purposes.

The RMTA, among other things, (i) permits ARI to assume the management of the Leased Railcars following the consummation of the ARL Sale; (ii) requires ARI to use commercially reasonable efforts to obtain the Noteholder Consent for ARI to replace ARL as manager of the LLIII Railcars under the Indenture, and certain related documents; and (iii) requires ARL to transfer to ARI certain books and records and electronic data with respect to the Leased Railcars and the Company's and LLIII's leasing businesses. and otherwise assist in the transfer of the management of the leasing businesses to ARI, provided that if ARI does not obtain the Noteholder Consent, ARL will remain the manager of the LLIII Railcars under the Indenture. The Company has no obligation to pay any consent or similar fees in connection with obtaining the Noteholder Consent.

Pursuant to the terms and conditions of the Agreement, ARL provides ARI an irrevocable, fully paid, non-transferrable (except as set forth therein), royalty-free license to certain software and databases owned and used by ARL to manage its railcars and the Leased Railcars. The Agreement also provides for the termination, as of the consummation of the ARL Sale, of the Trademark License Agreement, dated as of June 30, 2005, between ARI and ARL (the Trademark License), pursuant to which ARI granted to ARL a license to use ARI's trademarks "American Railcar" and the "diamond shape" of its logo, and provides for the wind-down of ARL's use of such trademarks.

Pursuant to the terms and conditions of the Agreement, ARI has agreed not to solicit or hire ARL employees until 24 months after the consummation of the ARL Sale, subject to certain exceptions.

The Agreement, subject to its terms, also provides for the termination of, and the discharge and release of obligations under, certain other agreements that ARI and its subsidiaries are party to on the one hand, and ARL is party to on the other hand, including (i) the Railcar Management Agreement, dated February 29, 2012 (as amended), between ARI and ARL, pursuant to which ARI engaged ARL to manage ARI's railcars; (ii) subject to receiving Noteholder Consent (and the terms and conditions thereof), the Railcar Management Agreement, dated January 29, 2015, between LLIII and ARL, pursuant to which LLIII engaged ARL to manage LLIII's railcars; (iii) the Railcar Services Agreement, dated April 15, 2011 (as amended), between ARI and ARL, pursuant to which ARI provides ARL railcar repair, engineering, administrative and other services on an as needed basis; (iv) the Consulting Services Agreement, dated as of March 1, 2016, between ARI and ARL, pursuant to which ARI agreed to provide legal services to ARL; and (v) the Trademark License described above.

Pursuant to the terms and conditions of the Agreement, American Entertainment Properties Corporation (AEPC) has agreed to (i) undertake certain payment and performance obligations of ARL to ARI and (ii) pay or reimburse, as applicable, certain costs and expenses of ARI incurred in connection with the ARL Sale and the Agreement. In addition, pursuant to the terms and conditions of the Agreement, Buyer and an affiliate of Buyer have agreed to undertake certain payment and performance obligations of ARL to ARI following the closing of the ARL Sale.

In addition to ARL, AEPC is controlled by Mr. Carl Icahn, ARI's principal beneficial stockholder, through IELP. The independent directors of the Company's Audit Committee reviewed the terms and conditions of the RMTA and received advice from independent legal counsel in connection therewith. The Audit Committee unanimously approved the terms and conditions of, and the Company's entry into, the RMTA.

Railcar orders

The Company has from time to time manufactured and sold railcars to the IELP Entities under long-term agreements, as well as on a purchase order basis. Revenues from railcars sold to the IELP Entities were zero, \$259.9 million and \$226.9 million for the years ended December 31, 2016, 2015 and 2014, respectively, and are included in manufacturing revenues from affiliates on the consolidated statements of operations. Any related party sales of railcars under an agreement or purchase order have been and will be subject to the approval or review by the independent directors of the Company's audit committee.

Railcar leases

Beginning in 2016, the Company has leased railcars to certain of the IELP Entities under an operating lease arrangement. Revenues from railcars leased to certain of the IELP Entities were \$0.3 million for the year ended December 31, 2016 and are included in railcar leasing revenues from affiliates on the consolidated statements of operations. Any related party railcar lease agreements have been and will be subject to the approval or review by the independent directors of the Company's audit committee.

Agreements with other related parties

The Company's Axis joint venture entered into a credit agreement in 2007. During 2009, the Company and the other significant partner acquired the loans from the lenders party thereto, with each party acquiring a 50.0% interest in the loans. The balance outstanding on these loans, due to ARI Component, was \$17.7 million and \$23.6 million as of December 31, 2016 and 2015, respectively. See Note 9 for further information regarding this transaction and the terms of the underlying loans.

Effective January 1, 2010, ARI entered into a services agreement to provide Axis various administrative services such as accounting, tax, human resources and purchasing assistance for an annual fee of \$0.3 million, payable in equal monthly installments. This agreement had an initial term of one year and automatically renews for additional one-year periods unless written notice is received from either party.

In July 2007, ARI entered into an agreement with its joint venture, Axis, to purchase new railcar axles from the joint venture. The Company has no minimum volume purchase requirements under this agreement.

ARI is party to a scrap agreement with M. W. Recycling (MWR), a company controlled by Mr. Carl Icahn, the Company's principal beneficial stockholder through IELP. Under the agreement, ARI sells and MWR purchases scrap metal from several ARI plant locations. This agreement had an initial term through November 2015 and was renewed in September 2016, with an effective date in December 2015, to among other things, extend the term through May 2019, after which the agreement continues until terminated by either party, in accordance with the provisions of the agreement. For the years ended December 31, 2016, 2015 and 2014, MWR collected scrap material totaling \$2.2 million, \$4.2 million and \$8.7 million, respectively. This agreement was approved by the independent directors of the Company's audit committee.

Insight Portfolio Group LLC (Insight Portfolio Group), is an entity formed and controlled by Mr. Carl Icahn in order to maximize the potential buying power of a group of entities with which Mr. Carl Icahn has a relationship in negotiating with a wide range of suppliers of goods, services and tangible and intangible property at negotiated rates. ARI, and a number of other entities with which Mr. Carl Icahn has a relationship, have minority ownership interests in, and pay fees as part of being a member of Insight Portfolio Group.

During each of the years ended December 31, 2016, 2015 and 2014, the Company incurred \$0.2 million of fees as a member of Insight Portfolio Group. These charges are included in selling, general and administrative costs on the consolidated statements of operations.

In March 2014, the Company appointed Mr. Yevgeny Fundler as its senior vice president, general counsel, and secretary. In March 2014, Mr. Fundler also assumed the role of general counsel with ARL. In addition, since March 2010, he has consulted for Insight Portfolio Group as its general counsel. The independent directors of the Company's audit committee considered Mr. Fundler's provision of services to ARL and Insight Portfolio Group in connection with their review and approval of Mr. Fundler's employment by the Company. On February 19, 2016, ARI, ARL and Mr. Fundler agreed that, effective March 1, 2016, Mr. Fundler will cease to be an employee of ARL. In connection with this change, the Company entered into a consulting services agreement with ARL (the Consulting Services Agreement), pursuant to which ARI agreed to designate and cause one or more of its employees to be available to provide legal services to ARL. This agreement is expected to terminate in accordance with the RMTA upon consummation of the ARL Sale, as discussed further above.

Financial information for transactions with joint ventures

For the years ended December 31, 2016, 2015 and 2014, ARI purchased \$33.9 million, \$65.3 million, and \$80.4 million, respectively, of railcar components from joint ventures.

Note 19 - Operating Segments and Sales, Geographic and Credit Concentrations

ARI operates in three reportable segments: manufacturing, railcar leasing and railcar services. These reportable segments are organized based upon a combination of the products and services offered and performance is evaluated based on revenues and segment earnings (loss) from operations. Intersegment revenues are accounted for as if sales were to third parties.

Manufacturing

Manufacturing consists of railcar manufacturing, and railcar and industrial component manufacturing. Intersegment revenues are determined based on an estimated fair market value of the railcars manufactured for the Company's railcar leasing segment, as if such railcars had been sold to a third party. Revenues for railcars manufactured for the Company's railcar leasing segment are not recognized in consolidated revenues as railcar sales, but rather lease revenues are recognized over the term of the lease. Earnings from operations for manufacturing include an allocation of selling, general and administrative costs, as well as profit for railcars manufactured for the Company's railcar leasing segment based on revenue determined as described above.

Railcar leasing

Railcar leasing consists of railcars manufactured by the Company and leased to third parties under operating leases. Earnings from operations for railcar leasing include an allocation of selling, general and administrative costs and also reflect origination fees paid to ARL associated with originating the lease to the Company's leasing customers. The origination fees represent a percentage of the revenues from the lease over its initial term and are paid up front.

Railcar services

Railcar services consists of railcar repair services provided through the Company's various repair facilities, including mini repair shops and mobile repair units, offering a range of services from full to light repair. Earnings from operations for railcar services include an allocation of selling, general and administrative costs as well as certain operating costs related to this segment's use of a portion of the Company's tank railcar manufacturing facility to perform railcar repair work.

Segment financial results

The information in the following table is derived from the segments' internal financial reports used by the Company's management for purposes of assessing segment performance and for making decisions about allocation of resources.

			Revenues			Capital Expenditures	Depreciation & Amortization		
		External		Intersegment	Total	Earnings (Loss) from Operations			
					(in the	ousa	inds)		
For the Year Ended Dec	ember 31	<u>, 2016</u>							
Manufacturing	\$	429,774	\$	95,159	\$ 524,933	\$	56,736	\$ 14,808	\$ 15,911
Railcar leasing		132,245		_	132,245		79,084	90,332	30,395
Railcar services		77,114		1,807	78,921		11,421	6,646	3,262
Corporate		_		_	_		(18,249)	1,539	2,648
Eliminations		_		(96,966)	(96,966)		1,117	_	_
Total Consolidated	\$	639,133	\$	_	\$ 639,133	\$	130,109	\$ 113,325	\$ 52,216
For the Year Ended Dec	ember 31	<u>, 2015</u>							
Manufacturing	\$	700,061	\$	319,399	\$ 1,019,460	\$	240,891	\$ 21,589	\$ 15,024
Railcar leasing		116,714		_	116,714		70,344	211,646	26,163
Railcar services		72,561		1,936	74,497		13,898	8,865	2,818
Corporate		_		_	_		(18,779)	6,160	1,724
Eliminations		_		(321,335)	(321,335)		(79,648)	_	_
Total Consolidated	\$	889,336	\$	_	\$ 889,336	\$	226,706	\$ 248,260	\$ 45,729
	-								
For the Year Ended Dec	ember 31	<u>, 2014</u>							
Manufacturing	\$	600,326	\$	419,295	\$ 1,019,621	\$	262,937	\$ 13,298	\$ 14,472
Railcar leasing		65,108		_	65,108		36,090	307,820	16,454
Railcar services		67,572		270	67,842		10,366	4,672	2,609
Corporate		_		_	_		(18,339)	1,960	677
Eliminations		_		(419,565)	(419,565)		(120,996)	_	_
Total Consolidated	\$	733,006	\$	_	\$ 733,006	\$	170,058	\$ 327,750	\$ 34,212

Total Assets

		December 31,							
		2016		2015		2014			
Manufacturing	\$	256,622	\$	272,721	\$	318,157			
Railcar leasing		1,254,824		1,190,180		905,862			
Railcar services		57,061		56,880		52,639			
Corporate/Eliminations		(112,257)		5,293		(86,397)			
Total Consolidated	\$	1,456,250	\$	1,525,074	\$	1,190,261			

Geographic Concentrations

The Company's operations are primarily located in the United States. The Company's foreign sales revenues were, in the aggregate, 4.4%, 4.9% and 4.2% of total consolidated revenues for 2016, 2015 and 2014, respectively. Total foreign assets were, in the aggregate, 1.2% and 0.8% of total consolidated assets as of December 31, 2016 and 2015, respectively.

Sales to Related Parties

As discussed in Note 18, ARI has numerous arrangements with related parties. Below is a summary of revenue from affiliates for each operating segment reflected as a percentage of total consolidated revenues.

	December 31,						
	2016	2015	2014				
Manufacturing	0.1%	30.3%	33.5%				
Railcar Leasing	%	%	%				
Railcar Services	4.2%	2.8%	2.6%				

Sales and Credit Concentration

Manufacturing revenues from customers that accounted for more than 10% of total consolidated revenues are outlined in the table below. The railcar leasing and railcar services segments had no customers that accounted for more than 10% of the total consolidated revenues for the years ended December 31, 2016, 2015 and 2014.

		December 31,							
	2016	2015	2014						
Chevron Phillips Chemical	17.9%	*	*						
Equistar Chemicals, LP	12.1%	*	*						
IELP Entities	*	29.2%	31.0%						

^{* -} Manufacturing revenues from these customers were less than 10% of total consolidated revenues during the respective periods presented above.

Manufacturing accounts receivable from customers that accounted for more than 10% of consolidated receivables (including accounts receivable, net and accounts receivable, due from related parties) are outlined in the table below. The railcar leasing and railcar services segments had no customers that accounted for more than 10% of the consolidated receivables balance as of December 31, 2016 and 2015.

		December 31	·••
		2016	2015
Manufacturing receivables from significant customers		53.4%	20.9%
	86		

Note 20 - Supplemental Cash Flow Information

ARI received interest income of \$1.8 million, \$2.2 million and \$2.5 million for the years ended December 31, 2016, 2015 and 2014, respectively.

ARI paid interest expense, net of capitalized interest, of \$22.4 million, \$20.7 million and \$6.9 million for the years ended December 31, 2016, 2015 and 2014, respectively.

ARI paid \$2.8 million of taxes, net of refunds for the year ended December 31, 2016, received net tax refunds of \$15.9 million for the year ended December 31, 2015, and paid \$24.2 million of taxes, net of refunds, for the year ended December 31, 2014.

ARI paid \$0.1 million, \$1.0 million and \$5.3 million to employees related to SARs exercises during the years ended December 31, 2016, 2015 and 2014, respectively.

ARI had \$1.0 million, \$2.4 million and \$3.3 million of capital expenditures in accounts payable and accrued expenses on the consolidated balance sheets at December 31, 2016, 2015 and 2014, respectively.

Note 21 - Selected Quarterly Financial Data (unaudited)

	First quarter		Second quarter		Third quarter		Fourth quarter	
		(in th	ousands, exc	ept pe	er share data)		_	
2016								
Revenues	\$ 176,180	\$	150,484	\$	144,962	\$	167,507	
Gross profit	48,487		43,271		22,610		47,812	
Net earnings	22,792		19,896		7,689		22,286	
Net earnings per common share-basic and diluted	\$ 1.16	\$	1.02	\$	0.40	\$	1.16	

	First quarter		Second quarter		Third quarter	Fourth quarter
		(in tl	nousands, exc	ept p	er share data)	
2015						
Revenues	\$ 263,776	\$	191,998	\$	172,667	\$ 260,895
Gross profit	67,696		60,554		57,552	71,745
Net earnings	34,976		32,969		29,357	36,151
Net earnings per common share-basic and diluted	\$ 1.64	\$	1.54	\$	1.39	\$ 1.82

Note 22 - Subsequent Events

On February 15, 2017, ARI entered into a Consulting Services Agreement (the Agreement) with ARL, a company controlled by Mr. Carl Icahn, ARI's principal beneficial stockholder through IELP. The Agreement was unanimously approved by the independent directors of ARI's audit committee.

Pursuant to the terms and conditions of the Agreement, ARI will provide customer service and engineering services (collectively referred to as "Services") to ARL upon ARL's request. In order to provide the Services, ARI may designate and cause one or more of its employees to provide the Services to ARL as provided in the Agreement. In exchange for the Services to be performed under the Agreement, ARL will pay to ARI a total weekly fee calculated based on the hours worked multiplied by an agreed rate for each of the Services performed. In addition, ARL will reimburse ARI for all reasonable and documented costs and expenses incurred in accordance with the Agreement.

This Agreement is terminable by ARI or ARL upon five business days' prior written notice with respect to any or all of the Services. Unless previously terminated prior thereto, this Agreement will automatically terminate on the date that the sale of ARL's equity interests to SMBC occurs.

On February 22, 2017, the board of directors of the Company declared a cash dividend of \$0.40 per share of common stock of the Company to stockholders of record as of March 17, 2017 that will be paid on March 24, 2017.

Item 9: Changes In and Disagreements with Accountants on Accounting and Financial Disclosure

None

Item 9A: Controls and Procedures

Disclosure Controls and Procedures

Under the supervision and with the participation of our Chief Executive Officer (principal executive officer) and Chief Financial Officer (principal financial officer), our management evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report on Form 10-K (the Evaluation Date). Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the Evaluation Date, our disclosure controls and procedures are effective to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Changes in internal controls over financial reporting

There has been no change in our internal control over financial reporting during the most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining effective internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance, as opposed to absolute assurance, of achieving their internal control objectives.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2016. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control — Integrated Framework (2013)*. Based on management's assessment, we believe that, as of December 31, 2016, our internal control over financial reporting is effective based on those criteria.

The effectiveness of internal control over financial reporting as of December 31, 2016, has been audited by Grant Thornton, LLP, the independent registered public accounting firm, who also audited our consolidated financial statements. Grant Thornton's attestation report on our internal control over financial reporting is included herein.

Item 9B: Other Information

Not applicable.

PART III

Item 10: Directors, Executive Officers and Corporate Governance

We have adopted a Code of Business Conduct and a Code of Ethics for Senior Financial Officers that applies to all of our directors, officers and employees. The Code of Business Conduct and Code of Ethics for Senior Financial Officers are posted on our website at americanrailcar.com under the caption "Corporate Governance." We intend to satisfy the disclosure requirement under Item 5.05 of Current Report on Form 8-K regarding an amendment to, or waiver from, a provision of this code by posting such information on our website, at the address specified above.

The additional information required by this item is incorporated by reference to our Proxy Statement for the 2017 Annual Meeting of Stockholders (2017 Proxy Statement) to be filed with the SEC within 120 days after the close of our fiscal year.

Item 11: Executive Compensation

Information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days after the close of our fiscal year.

Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days after the close of our fiscal year.

Item 13: Certain Relationships and Related Transactions, and Director Independence

Information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days after the close of our fiscal year.

Item 14: Principal Accounting Fees and Services

Information required by this item is incorporated by reference to our 2017 Proxy Statement to be filed with the SEC within 120 days after the close of our fiscal year.

Part IV

Item 15: Exhibits and Financial Statement Schedules

(a) (1) Financial Statements.

See Item 8.

(2) Financial Statement Schedules.

All schedules are omitted because they are not required, not significant, not applicable or the information is shown in the financial statements or the notes to consolidated financial statements.

(3) Exhibits.

See Exhibits Index for a listing of exhibits, which are filed herewith or incorporated herein by reference to the location indicated.

Item 16: Form 10-K Summary

None.

Date: February 24, 2017

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

American Railcar Industries, Inc.

By: /s/ Jeffrey S. Hollister

Name: Jeffrey S. Hollister

Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signatures</u>	Title	Date
/s/ Jeffrey S. Hollister Jeffrey S. Hollister	President and Chief Executive Officer (principal executive officer)	February 24, 2017
/s/ Luke M. Williams Luke M. Williams	Senior Vice President, Chief Financial Officer and Treasurer (principal financial and accounting officer)	February 24, 2017
/s/ SungHwan Cho SungHwan Cho	Director	February 24, 2017
/s/ Harold First Harold First	Director	February 24, 2017
/s/ James C. Pontious James C. Pontious	Director	February 24, 2017
/s/ J. Mike Laisure J. Mike Laisure	Director	February 24, 2017
/s/ Michael Nevin Michael Nevin	Director	February 24, 2017
/s/ Jonathan Frates Jonathan Frates	Director	February 24, 2017
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EXHIBIT INDEX

Exhibit No.	Description of Exhibit
2.1	Agreement and Plan of Merger between American Railcar Industries, Inc., a Missouri corporation, and American Railcar Industries, Inc., a Delaware corporation, (incorporated by reference to Exhibit 2.1 to ARI's Annual Report on Form 10-K for the fiscal year ended December 31, 2005, filed with the SEC on March 28, 2006).
2.2	Stock Purchase Agreement dated March 24, 2006 between Steel Technologies, Inc. and ARI Acquisition Sub joined in by American Railcar Industries (incorporated by reference to Exhibit 2.2 to ARI's Current Report on Form 8-K, filed with the SEC on March 28, 2006).
2.3	Agreement and Plan of Merger between American Railcar Industries, Inc., a Delaware corporation, and American Railcar Industries, Inc., a North Dakota corporation, (incorporated by reference to Exhibit 2.1 to ARI's Current Report on Form 8-K, filed with the SEC on June 30, 2009).
3.1	Amended and Restated Articles of Incorporation of American Railcar Industries, Inc., a North Dakota corporation (incorporated by reference to Exhibit 3.1 to ARI's Current Report on Form 8-K, filed with the SEC on June 30, 2009).
3.2	Bylaws of American Railcar Industries, Inc., a North Dakota corporation (incorporated by reference to Exhibit 3.2 to ARI's Current Report on Form 8-K, filed with the SEC on June 30, 2009).
4.1	Specimen Common Stock Certificate of American Railcar Industries, Inc., a North Dakota corporation (incorporated by reference to Exhibit 4.2 to ARI's Current Report on Form 8-K, filed with the SEC on June 30, 2009).
4.2	Indenture by and between Longtrain Leasing III, LLC, as Issuer and U.S. Bank National Association, as Indenture Trustee, dated January 29, 2015 (incorporated by reference to Exhibit 4.1 to ARI's Current Report on Form 8-K, filed with the SEC on February 4, 2015).†
10.1	Asset Transfer Agreement dated as of October 1, 1994 by and among ACF Industries, Incorporated, American Railcar Industries, Inc. and Carl Icahn (incorporated by reference to Exhibit 10.1 to ARI's Registration Statement on Form S-1, filed with the SEC on December 13, 2005).
10.2	License Agreement dated as of October 1, 1994 by and between ACF Industries, Incorporated and American Railcar Industries, Inc. as Licensee (incorporated by reference to Exhibit 10.2 to ARI's Registration Statement on Form S-1, filed with the SEC on December 13, 2005).
10.3	License Agreement dated as of October 1, 1994 by and between American Railcar Industries, Inc. and ACF Industries, Incorporated as Licensee (incorporated by reference to Exhibit 10.3 to ARI's Registration Statement on Form S-1, filed with the SEC on December 13, 2005).
10.4	Manufacturing Services Agreement dated as of October 1, 1994 between ACF Industries, Incorporated and American Railcar Industries, Inc., as ratified and amended on June 30, 2005 (incorporated by reference to Exhibit 10.4 to ARI's Registration Statement on Form S-1, filed with the SEC on December 13, 2005).
10.5	Assignment and Assumption, Novation and Release dated as of June 30, 2005 by and between ACF Industries Holding, Inc., American Railcar Industries, Inc., Gunderson Specialty Products, Inc., Gunderson, Inc., Castings, LLC, ASF-Keystone, Inc., Amsted Industries Incorporation and Ohio Castings Company, LLC (incorporated by reference to Exhibit 10.22 to ARI's Registration Statement on Form S-1, filed with the SEC on December 13, 2005).
10.6	Ohio Castings Company, LLC Amended and Restated Limited Liability Company Agreement, dated as of June 20, 2003 (incorporated by reference to Exhibit 10.25 to ARI's Registration Statement on Form S-1, filed with the SEC on December 13, 2005).
10.7	Employee Benefit Plan Agreement dated as of December 1, 2005 between American Railcar Industries, Inc. and ACF Industries LLC (incorporated by reference to Exhibit 10.31 to ARI's Registration Statement on Form S-1, Amendment No. 1, filed with the SEC on January 4, 2006). #
10.8	Supplemental Executive Retirement Plan of American Railcar Industries, Inc. (incorporated by reference to Exhibit 10.34 to ARI's Annual Report on Form 10-K for the fiscal year ended December 31, 2005, filed with the SEC on March 28, 2006). #
10.9	American Railcar, Inc. 2005 Equity Incentive Plan, as amended (incorporated by reference to Exhibit 10.36 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2006, filed with the SEC on May 15, 2006). #

10.10	Registration Rights Agreement, dated February 28, 2007 (incorporated by reference to Exhibit 10.44 to ARI's Current Report on Form 8-K, filed with the SEC on March 1, 2007).
10.11	Axis, LLC Amended and Restated Limited Liability Company Agreement, dated as of January 25, 2008 (incorporated by reference to Exhibit 10.51 to ARI's Annual Report on Form 10-K for the fiscal year ended December 31, 2007, filed with the SEC on February 22, 2008).
10.12	Form of 2009 Stock Appreciation Rights Agreement (incorporated by reference to Exhibit 10.58 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, filed with the SEC on May 8, 2009). #
10.13	Axis Credit Agreement dated as of December 28, 2007, as amended January 28, 2008, February 29, 2008, March 31, 2008 and August 5, 2009 (incorporated by reference to Exhibit 10.60 to ARI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, filed with the SEC on November 6, 2009). †
10.14	Master Assignment Agreement dated as of August 5, 2009 (incorporated by reference to Exhibit 10.61 to ARI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2009, filed with the SEC on November 6, 2009). †
10.15	Form of 2010 Stock Appreciation Rights Agreement (incorporated by reference to Exhibit 10.62 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed with the SEC on May 5, 2010). #
10.16	Lease Agreement, dated as of October 29, 2010 (incorporated by reference to Exhibit 10.63 to ARI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010, filed with the SEC on November 2, 2010). †
10.17	Fifth Amendment to the Axis Credit Agreement dated as of March 31, 2011. (incorporated by reference to Exhibit 10.64 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, filed with the SEC on May 3, 2011).
10.18	Railcar Services Agreement dated as of April 15, 2011 between American Railcar Industries, Inc. and American Railcar Leasing LLC (incorporated by reference to Exhibit 10.65 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, filed with the SEC on May 3, 2011). †
10.19	Form of 2011 Stock Appreciation Rights Agreement (incorporated by reference to Exhibit 10.66 to ARI's Current Report on Form 8-K, filed with the SEC on May 13, 2011). #
10.20	Railcar Management Agreement dated as of February 29, 2012 between American Railcar Industries, Inc. and American Railcar Leasing LLC, together with the related Letter Agreement (incorporated by reference to Exhibit 10.39 to ARI's Annual Report on Form 10-K for the year ended December 31, 2011, filed with the SEC on March 2, 2012). †
10.21	Sixth Amendment to the Axis Credit Agreement dated as of March 30, 2012 (incorporated by reference to Exhibit 10.2 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, filed with the SEC on May 1, 2012). #
10.22	Form of 2012 Stock Appreciation Rights Agreement (incorporated by reference to Exhibit 10.1 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, filed with the SEC on May 1, 2012). #
10.23	Seventh Amendment to the Axis Credit Agreement dated as of December 18, 2012 by and among ARI Component Venture LLC, Amsted Rail Company, Inc., and Axis Operating Company LLC (incorporated by reference to Exhibit 10.44 to ARI's Annual Report on Form 10-K for the year ended December 31, 2012, filed with the SEC on March 12, 2013).
10.24	Purchasing and Engineering Services Agreement and License dated as of January 7, 2013 by and between American Railcar Industries, Inc. and ACF Industries, LLC (incorporated by reference to Exhibit 10.48 to ARI's Annual Report on Form 10-K for the year ended December 31, 2012, filed with the SEC on March 12, 2013). †
10.25	Amendment No. 1 to the Longtrain Credit Agreement dated as of February 15, 2013 by and among Longtrain Leasing I, LLC and Fifth Third Bank, as Administrative Agent for the lenders (incorporated by reference to Exhibit 10.49 to ARI's Annual Report on Form 10-K for the year ended December 31, 2012, filed with the SEC on March 12, 2013).
10.26	Purchase Agreement dated as of December 27, 2013 by and between American Railcar Industries, Inc. and Cresta Fund Ltd (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on January 6, 2014).
10.27	Amended and Restated Credit Agreement dated as of January 15, 2014 by and among Longtrain Leasing I, LLC, American Railcar Industries, Inc., Key Equipment Finance, a division of KeyBank National Association, as administrative agent, and the lenders party thereto from time to time (incomparated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K. filed with the SEC on January 15, 2014)

10.28	Amendment No. 1 to the Longtrain Railcar Management Agreement dated as of January 15, 2014 by and between Longtrain Leasing I, LLC and American Railcar Leasing LLC (incorporated by reference to Exhibit 10.2 to ARI's Current Report on Form 8-K, filed with the SEC on January 15, 2014).
10.29	American Railcar Industries, Inc. 2014 Management Incentive Plan (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on July 14, 2014). #
10.30	Credit Agreement dated as of October 16, 2014 by and among Longtrain Leasing II, LLC, American Railcar Industries, Inc., Credit Suisse AG, New York Branch, and the lenders party thereto from time to time (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on October 22, 2014).
10.31	Railcar Management Agreement dated as of October 16, 2014 by and between Longtrain Leasing II, LLC and American Railcar Leasing LLC. (incorporated by reference to Exhibit 10.39 to ARI's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on February 20, 2015). †
10.32	First Amendment to the Purchasing and Engineering Services Agreement and License dated as of January 7, 2013 by and between American Railcar Industries, Inc. and ACF Industries, LLC, dated as of August 22, 2014 (incorporated by reference to Exhibit 10.1 to ARI's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014, filed with the SEC on October 30, 2014). †
10.33	Eighth Amendment to the Axis Credit Agreement dated as of December 31, 2013 by and among ARI Component Venture LLC, Amsted Rail Company, Inc., and Axis Operating Company LLC (incorporated by reference to Exhibit 10.40 to ARI's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on February 20, 2015).
10.34	Ninth Amendment to the Axis Credit Agreement dated as of December 22, 2014 by and among ARI Component Venture LLC, Amsted Rail Company, Inc., and Axis Operating Company LLC (incorporated by reference to Exhibit 10.41 to ARI's Annual Report on Form 10-K for the year ended December 31, 2014, filed with the SEC on February 20, 2015).
10.35	Railcar Management Agreement dated as of January 29, 2015 by and between Longtrain Leasing III, LLC and American Railcar Leasing LLC (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on February 4, 2015).†
10.36	Form of 2014 Stock Appreciation Rights Agreement (incorporated by reference to Exhibit 10.1 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed with the SEC on May 5, 2014). #
10.37	Offer Letter between American Railcar Industries, Inc. and Yevgeny Fundler, dated as of February 26, 2014 (incorporated by reference to Exhibit 10.2 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, filed with the SEC on May 5, 2014). #
10.38	Employment Agreement between American Railcar Industries, Inc. and Jeffrey S. Hollister, dated as of September 24, 2014 (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on September 24, 2014). #
10.39	Offer Letter between American Railcar Industries, Inc. and Umesh Choksi, dated as of September 24, 2014 (incorporated by reference to Exhibit 10.2 to ARI's Current Report on Form 8-K, filed with the SEC on September 24, 2014). #
10.40	First Amendment to the Railcar Management Agreement, dated as of December 31, 2015, between American Railcar Leasing LLC and American Railcar Industries, Inc. together with the related First Amendment to Letter Agreement(incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on December 15, 2015).†
10.41	Credit Agreement, Chattel Mortgage and Security Agreement, dated as of December 10, 2015, among American Railcar Industries, Inc. as debtor, the lenders that are signatories thereto, as the lenders, and Crédit Agricole Corporate and Investment Bank, as sole lead arranger and administrative agent (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on December 15, 2015).
10.42	Second Amendment to the Purchasing and Engineering Services Agreement and License dated as of January 11, 2013 by and between American Railcar Industries, Inc. and ACF Industries, LLC, dated as of November 5, 2015 (incorporated by reference to Exhibit 10.44 to ARI's Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on February 23, 2016).
10.43	Amended and Restated American Railcar, Inc. 2005 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on June 11, 2015). #
10.44	American Railcar Industries, Inc. 2015 Management Incentive Plan (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on June 5, 2015). #

10.45		Repair Services and Support Agreement dated as of April 24, 2015 by and between American Railcar Industries, Inc. and ACF Industries, LLC (incorporated by reference to Exhibit 10.2 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 6, 2015).†
10.46		Parts Purchasing and Sale Agreement dated as of April 24, 2015 by and between American Railcar Industries, Inc. and ACF Industries, LLC (incorporated by reference to Exhibit 10.2 to ARI's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed with the SEC on May 6, 2015).†
10.47		Consulting Services Agreement dated as of March 1, 2016 by and between American Railcar Industries, Inc. and American Railcar Leasing LLC (incorporated by reference to Exhibit 10.49 to ARI's Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on February 23, 2016). #
10.48		American Railcar Industries, Inc. 2016 Management Incentive Plan (incorporated by reference to Exhibit 10.1 to ARI's Quarterly Report on Form 10-Q, filed with the SEC on April 29, 2016). #
10.49		Railcar Management Transition Agreement dated as of December 16, 2016 by and among American Railcar Industries, Inc., American Railcar Leasing LLC, American Entertainment Properties Corp., SMRSH LLC and SMBC Rail Services LLC (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on December 19, 2016).
10.50		Third Amendment to the Purchasing and Engineering Services Agreement and License dated as of January 11, 2013 by and between American Railcar Industries, Inc. and ACF Industries, LLC, dated as of December 20, 2016.*
10.51		Consulting Services Agreement dated as of February 15, 2017 by and between American Railcar Industries, Inc. and American Railcar Leasing LLC (incorporated by reference to Exhibit 10.1 to ARI's Current Report on Form 8-K, filed with the SEC on February 21, 2017).
21.1		Subsidiaries of American Railcar Industries, Inc.*
23.1		Consent of Grant Thornton LLP.*
31.1		Rule 13a-15(e) and 15d-15(e) Certification of the Chief Executive Officer.*
31.2		Rule 13a-15(e) and 15d-15(e) Certification of the Chief Financial Officer.*
32.1		Certification pursuant to 18 U.S.C., Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. * *
101.INS		XBRL Instance Document (filed electronically herewith)*
101.SCH		XBRL Taxonomy Extension Schema Document (filed electronically herewith)*
101.CAL		XBRL Taxonomy Extension Calculation Linkbase Document (filed electronically herewith)*
101.LAB		XBRL Taxonomy Extension Label Linkbase Document (filed electronically herewith)*
101.PRE		XBRL Taxonomy Presentation Linkbase Document (filed electronically herewith)*
101.DEF		XBRL Taxonomy Definition Linkbase Document (filed electronically herewith)*
*	Fil	ed herewith

- Confidential treatment has been requested and/or granted with respect to the redacted portions of this agreement. A complete copy of this agreement, including the redacted portions has been filed separately with the SEC. †
- Furnished herewith
- # Indicates management contract or compensatory plan or arrangement.

THIRD AMENDMENT TO AGREEMENT

THIS THIRD AMENDMENT TO AGREEMENT (this "Amendment") is dated as of December __, 2016 (the "Effective Date") and is entered into between ACF Industries, LLC ("ACF"), and American Railcar Industries, Inc. ("ARI").

ACF and ARI are parties to that certain Purchasing and Engineering Services Agreement and License dated as of January 7, 2013, as amended on August 22, 2014 and October 15, 2015 (the "Agreement"). Reference is made to the Agreement for a complete statement of its terms. Capitalized terms used herein that are not otherwise defined shall have the meanings assigned to them, respectively, in the Agreement.

The parties wish hereby to modify the Agreement as more particularly set forth in this Amendment. Accordingly, for good and valuable consideration (receipt of which is hereby acknowledged), and intending to be legally bound hereby, the parties agree as follows:

- 1. <u>Amendment</u>. As of the Effective Date:
- (a) A reference to "December 31, 2016" in Section 15(b) of the Agreement is deleted and replaced with a reference to "December 31, 2017".
- 2. <u>Miscellaneous</u>. The Agreement, as modified hereby, contains the complete, entire and exclusive statement of the parties' understanding with respect to its subject matter and supersedes all prior and contemporaneous agreements and understandings between them with respect to such subject matter. All of the terms, conditions, representations and warranties contained in the Agreement, as modified hereby, shall remain in full force and effect and are hereby ratified, confirmed and restated. In the event of any subsequent amendment of the Agreement, the terms and conditions of this Amendment shall remain in effect unless expressly modified by such amendment. This Amendment may be executed in one or more counterparts, each of which shall be deemed to be an original, and all of which together shall constitute one and the same Amendment. This Amendment may be executed and delivered via email with the same force and effect as if it were executed and delivered by the parties simultaneously in the presence of one another.

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed as of the date first written above.

ACF INDUSTRIES, LLC	AMERICAN RAILCAR INDUSTRIES, INC.			
Ву:	Ву:			
Name/Title:	Name/Title:			
Date:	Date:			

American Railcar Industries, Inc. wholly owns the following companies:

Subsidiary

- 1 ARI Component Venture, LLC¹, a Delaware limited liability company
- 2 ARI Fleet Services of Canada, Inc., a corporation registered in Ontario, Canada
- 3 ARI Leasing, LLC, a Delaware limited liability company
- 4 ARI Longtrain, Inc., a Delaware corporation
- 5 ARI Property Bude, LLC, a Delaware limited liability company
- 6 ARI Property Brookhaven, LLC, a Delaware limited liability company
- 7 ARI Property Goodrich, LLC, a Delaware limited liability company
- 8 ARI Longview, LLC, a Delaware limited liability company
- 9 ARI Mobile Repair Services, LLC, a Delaware limited liability company
- 10 ARI Property North Kansas, LLC, a Delaware limited liability company
- 11 ARI Property Tennille, LLC, a Delaware limited liability company
- 12 ARI Railcar Services, LLC, a Delaware limited liability company
- 13 Blue Lagoon Realty, LLC, a Delaware limited liability company
- 14 Castings LLC², a Delaware limited liability company
- Longtrain Leasing I, LLC, a Delaware limited liability company
- 16 Longtrain Leasing II, LLC, a Delaware limited liability company
- 17 Longtrain Leasing III, LLC, a Delaware limited liability company
- 18 Southwest Steel Casting Company, LLC, a Texas limited liability company
- 19 Southwest Steel Property, LLC, a Delaware limited liability company

¹ARI Component Venture, LLC, is a joint venture partner in Axis, LLC, a Delaware limited liability company, which owns Axis Operating Company LLC, a Delaware limited liability company.

²Castings, LLC is a joint venture partner in Ohio Castings Company, LLC, a Delaware limited liability company.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated February 24, 2017, with respect to the consolidated financial statements, and internal control over financial reporting included in the Annual Report of American Railcar Industries, Inc. and subsidiaries on Form 10-K for the year ended December 31, 2016. We hereby consent to the incorporation by reference of said reports in the Registration Statement of American Railcar Industries, Inc. and subsidiaries on Form S-8 (File No. 333-136680).

/s/ GRANT THORNTON LLP

St. Louis, Missouri February 24, 2017

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Jeffrey S. Hollister, certify that:

- 1. I have reviewed this annual report on Form 10-K of American Railcar Industries, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 24, 2017	/s/ Jeffrey S. Hollister
	Jeffrey S. Hollister, President and Chief Executive Officer

Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Luke M. Williams, certify that:

- 1. I have reviewed this annual report on Form 10-K of American Railcar Industries, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 24, 2017

/s/ Luke M. Williams

Luke M. Williams, Senior Vice President, Chief Financial Officer and Treasurer

Certification Pursuant to Rule 13a-14 (b) of the Securities Exchange Act of 1934 and Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350 (a) and (b))

I, Jeffrey S. Hollister, President and Chief Executive Officer of American Railcar Industries, Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- 1. the annual report on Form 10-K of the Company for the year ended December 31, 2016 (the "Annual Report") fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2. the information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 24, 2017 /s/ Jeffrey S. Hollister

/s/ Jeffrey S. Hollister
Jeffrey S. Hollister, President and Chief Executive Officer

I, Luke M. Williams, Senior Vice President, Chief Financial Officer, and Treasurer of American Railcar Industries, Inc. (the "Company"), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

- 1. the annual report on Form 10-K of the Company for the year ended December 31, 2016 (the "Annual Report") fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2. the information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 24, 2017 /s/ Luke M. Williams

Luke M. Williams, Senior Vice President, Chief Financial Officer and Treasurer

A signed original of these written statements required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.