REED'S, INC. Form 424B3 October 06, 2017

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REED'S, INC.

#### 810,417 Shares of Common Stock

This prospectus covers the resale by the selling shareholders identified in the "Selling Shareholders" section of this prospectus of up to an aggregate of 810,417 shares of our common stock issuable upon the exercise of warrants. We will not receive any of the proceeds from the sale of shares of our common stock by the selling shareholders. We will receive up to \$1,161,126 from the exercise of the warrants.

Shares of our common stock are traded on the NYSE American under the symbol "REED". On October 5, 2017, the closing sales price for our common stock was \$2.23 per share.

Investing in our common stock involves substantial risk. In reviewing this prospectus, you should carefully consider the matters described under the heading "Risk Factors" beginning on page 8.

Neither we nor any selling shareholder has authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities, or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense. This is not an offer to sell nor a solicitation of an offer to buy securities in any jurisdiction where it would be unlawful.

The date of this prospectus is October 6, 2017

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#### ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-1 that we filed with the Securities and Exchange Commission (the "SEC").

Unless the context otherwise requires, "Reed's," "Company," "we," "us" and "our" refer to Reed's, Inc., and "selling sharehold and "selling shareholder" refer to one or more selling shareholders identified in the "Selling Shareholders" section of this prospectus. References to "securities" include any security that we or the selling shareholders might offer under this prospectus or any prospectus supplement.

We have filed or incorporated by reference exhibits to the registration statement of which this prospectus forms a part. You should read the exhibits carefully for provisions that may be important to you.

We have not authorized any dealer, salesperson or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which it relates, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on its front cover or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or securities are sold on a later date.

### THE COMPANY

We develop, manufacture, market and sell natural non-alcoholic carbonated soft drinks, Kombucha, candies and ice creams. We currently manufacture, license, market and sell several unique product lines:

Reed's Ginger Brews,

Virgil's Root Beer, Cream Sodas, Dr. Better and Real Cola, including ZERO diet sodas,

Culture Club Kombucha,

China Colas,

Reed's Ginger candy and other products,

Sonoma Sparkler and other juice based products.

We also have a private label business.

We sell our products throughout the US and in select international markets. We started in specialty gourmet and natural food stores and have moved more into mainstream over time. We estimate that our products are sold in well over 22,000 natural, conventional, drug, club and mass merchandise accounts in the US, with approximately 10,000 of those being mainstream supermarkets. We sell our products through a network of natural, gourmet and beer distributors and direct to certain large national retailers.

We produce and co-pack our beverage products in part at our facility in Los Angeles, California, known as the Brewery and at contracted co-packing facilities in Pennsylvania and Indiana. These co-pack facilities typically service the eastern half of the United States and nationally for certain products that we do not produce at The Brewery.

Key elements of our business strategy include:

increase our relationship with and sales to the approximately 15,000 supermarkets that carry our products in natural and mainstream and capture more of the 30,000 supermarkets nationwide,

expand our distribution network by adding regional direct store delivery (DSD's) and additional direct accounts, stimulate consumer demand and awareness for our existing brands and products through promotions and advertising, develop additional product flavors under our brands (brand extensions) and other new products, including specialty packaging and alternative uses for our products,

develop and produce private-label products for select customers,

lower our cost of sales for our products by gaining economies of scale in our purchasing, and optimize the size and focus of our sales force to manage our relationships with distributors and retail outlets.

We create consumer demand for our products by:

supporting in-store sampling programs of our products, generating free press through public relations, advertising in store publications, maintaining a company website (www.reedsinc.com), active social media campaigns on facebook.com, twitter.com and youtube.com, participating in large public events as sponsors, and in the recent past deployed a national television commercial on cable television networks.

Corporate Information

Our principal executive offices are located at 13000 South Spring Street, Los Angeles, California 90061. Our telephone number is (310) 217-9400. Our corporate website is www.reedsinc.com. Information contained on our website or that is accessible through our website should not be considered to be part of this prospectus. Our transfer agent is Transfer Online, Inc., telephone (503) 227-2950.

#### WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a post effective amendment to registration statement on Form S-1, including exhibits and schedules, under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information about the Company and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at <a href="https://www.sec.gov">www.sec.gov</a>. You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street, NE, Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities. We will also provide you with a copy of any or all of the reports or documents that have been incorporated by reference into this prospectus or the registration statement of which it is a part upon written or oral request, and at no cost to you. If you would like to request any reports or documents from the company, please contact:

Shareholder Services

Reed's, Inc.

13000 South Spring Street

Los Angeles, California 90061

(310) 217-9400, extension 28 or dmiles@reedsinc.com

We are subject to the information reporting requirements of the Securities Exchange Act of 1934, as amended, and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection and copying at the public reference room and web site of the SEC referred to above. We also maintain a website at www.reedsinc.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

#### NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements, within the meaning of the Federal securities laws, which involve substantial risks and uncertainties. Any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "outlook", "believes", "plans", "intends", "expects", "goals", "potential", "continues", "may", "should", "seeks", "will", "would", "approximately", "predicts", "estimate and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these words. You should read statements that contain these words carefully because they discuss our plans, strategies, prospects and expectations concerning our business, operating results, financial condition and other similar matters. We believe that it is important to communicate our future expectations to our investors. There will be events in the future, however, that we are not able to predict accurately or control. The factors listed under "Risk Factors" in this prospectus and in any documents incorporated by reference into this prospectus as well as any

cautionary language in this prospectus, provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Such risks and uncertainties include, among other things, risks and uncertainties related to:

Our ability to generate sufficient cash flow to support capital expansion plans and general operating activities;

Decreased demand for our products resulting from changes in consumer preferences;

Competitive products and pricing pressures and our ability to gain or maintain its share of sales in the marketplace;

The introduction of new products;

We are subject to a broad range of evolving federal, state and local laws and regulations including those regarding the labeling and safety of food products, establishing ingredient designations and standards of identity for certain foods, environmental protections, as well as worker health and safety. Changes in these laws and regulations could have a material effect on the way in which we produce and market our products and could result in increased costs;

Changes in the cost and availability of raw materials and the ability to maintain our supply arrangements and relationships and procure timely and/or adequate production of all or any of our products;

Our ability to penetrate new markets and maintain or expand existing markets;

Maintaining existing relationships and expanding the distributor network of our products;

The marketing efforts of distributors of our products, most of whom also distribute products that are competitive with our products;

Decisions by distributors, grocery chains, specialty chain stores, club stores and other customers to discontinue carrying all or any of our products that they are carrying at any time;

The availability and cost of capital to finance our working capital needs and growth plans;

The effectiveness of our advertising, marketing and promotional programs;

Changes in product category consumption;

Economic and political changes;

Consumer acceptance of new products, including taste test comparisons;

Possible recalls of our products:

Our ability to make suitable arrangements for the co-packing of any of our products;

Our ability to find alternative copacking and production facilities for our Kombucha and Private Label products if our Los Angeles production facility is damaged by a disaster; and

The continued listing of our common stock on the NYSE American.

Before you invest in our securities, you should be aware that the occurrence of the events described in these risk factors and elsewhere in this prospectus under the heading "Risk Factors" could have a material adverse effect on our business, results of operations and financial position. Any forward-looking statement made by us in this prospectus speaks only as of the date on which we make it. Factors or events that could cause our actual results to differ will emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. All forward-looking statements should be evaluated with the understanding of their inherent uncertainty. You are advised to consult any further disclosures we make on related subjects in the reports we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act.

## THE OFFERING

This prospectus covers the resale by the selling shareholders identified in the "Selling Shareholders" section of this prospectus of up to an aggregate of 810,417 shares of our common stock issuable upon the exercise of warrants. We will not receive any of the proceeds from the sale of shares of our common stock by the selling shareholders. We will receive up to \$1,161,126 from the exercise of the warrants.

### **Private Placement of Securities**

On July 13, 2017, we entered into Warrant Exercise Agreements with Raptor/Harbor Reeds SPV LLC, a Delaware limited liability company (the "Lead Investor") and three other investors holding participation rights in the transaction signatory thereto to reprice warrants to purchase 1,906,925 shares of our common stock (the "Repriced Warrants"). The Repriced Warrants have an exercise price per share of \$1.50 and were revised to modify language pertaining to "Fundamental Transactions". Restrictions upon exercise were waived as to 1,093,750 warrant shares for aggregate gross proceeds to Reed's of \$1,640,625.

Reed's also issued to the holders, pro rata based on the number of shares each Holder exercised, additional second tranche warrants to purchase up to 512,560 shares of our common stock and additional third tranche warrants to purchase up to 87,746 shares of our common stock. Second tranche warrants have a term of five years, may be exercised commencing 6 months from the date of issuance and have an exercise price equal to \$2.00. The third tranche warrants were exercisable immediately upon issuance for a term of five-years, with an exercise price equal to \$1.55.

The Company agreed to register the second tranche warrants, third tranche warrants, and 210,111 re-priced warrants not previously registered within 45 days of the warrant exercise transaction. The 210,111 repriced warrants were issued on April 19, 2017, have a five-year term and exercise price equal to \$1.50.

The proceeds of the warrant exercises will be used by Reed's for general corporate purposes.

#### RISK FACTORS

Our business is influenced by many factors that are difficult to predict and that involve uncertainties that may materially affect our actual operating results, cash flows and financial condition. Before making an investment decision in our securities, you should carefully consider the specific factors set forth below together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus in light of your particular investment objectives and financial circumstances.

#### **Risks Relating to Our Business**

We have a history of operating losses. If we continue to incur operating losses, we eventually may have insufficient working capital to maintain or expand operations according to our business plan.

Our loss from operations was (\$2,657,000) in the six months ended June 30, 2017, as compared to a loss of (\$1,549,000) in the same period of 2016 or an overall decrease in the loss of \$1,108,000. The loss was comprised of decrease in net sales revenue of \$2,111,000, offset partially decreases in operating expenses category that totaled \$621,000. Loss from operations was (\$3,053,000) in the year ended December 31, 2016, as compared to loss from operations of (\$2,730,000) in 2015 or an increase of \$323,000. The increase in the operating loss is due to the decline in sales that were not offset by similar reduction in cost of goods sold that resulted in a lower gross profit of \$2,623,000. The lower gross profit was mirrored by a similar decrease in expenses of \$2,300,000.

If we continue to suffer losses from operations, our working capital may be insufficient to support our ability to expand our business operations as rapidly as we would deem necessary at any time, unless we are able to obtain additional financing. There can be no assurance that we will be able to obtain such financing on acceptable terms, or at all. If adequate funds are not available or are not available on acceptable terms, we may not be able to pursue our business objectives and would be required to reduce our level of operations, including reducing infrastructure, promotions, personnel and other operating expenses. These events could adversely affect our business, results of operations and financial condition. If adequate funds are not available or if they are not available on acceptable terms, our ability to fund the growth of our operations, take advantage of opportunities, develop products or services or otherwise respond to competitive pressures, could be significantly limited.

If we are not able to successfully execute on our operating plan for the next 18 months, our financial condition and results of operation may be materially adversely affected, and we may not be able to continue as a going concern.

It is critical that we meet our sales goals and increase sales going forward. If we do not meet our sales goals, our available cash and working capital will decrease and our financial condition will be negatively impacted.

The Company's Loan and Security Agreement with PMC Financial Services Group, LLC (PMC) that provides a \$6,000,000 revolving line of credit, a \$3,000,000 term loan and a Capital Expansion loan up to \$4,700,000 is secured by substantially all the assets of the Company mature on October 21, 2018. At June 30, 2017 and December 31, 2016, the aggregate amount outstanding under the line of credit was \$4,589,000 and \$4,384,000, respectively. As of June 30, 2017, and December 31, 2016, the amount outstanding under the terms loan was \$3,000,000 and \$3,000,000 respectively. At June 30, 2017 and December 31, 2016, the balance on the CAPEX loan balance was \$4,318,000 and \$3,950,000 respectively, and as of June 30, 2017, the Company had future borrowing availability of \$315,000.

Although we estimate the Company currently has sufficient cash and liquidity to meet its anticipated working capital for the next twelve months, the uncertainties relating to our ability to successfully execute our operating plan, combined with the difficult financing environment, could raise substantial doubt about our ability to continue as a going concern through 2018.

We may need additional financing in the future, which may not be available when needed or may be costly and dilutive.

We may require additional financing to support our working capital needs in the future. The amount of additional capital we may require, the timing of our capital needs and the availability of financing to fund those needs will depend on a number of factors, including our strategic initiatives and operating plans, the performance of our business and the market conditions for debt or equity financing. Additionally, the amount of capital required will depend on our ability to meet our case sales goals and otherwise successfully execute our operating plan. We believe it is imperative to meet these sales objectives in order to lessen our reliance on external financing in the future. Although we believe various debt and equity financing alternatives will be available to us to support our working capital needs, financing arrangements on acceptable terms may not be available to us when needed. Additionally, these alternatives may require significant cash payments for interest and other costs or could be highly dilutive to our existing shareholders. Any such financing alternatives may not provide us with sufficient funds to meet our long-term capital requirements. If necessary, we may explore strategic transactions that we consider to be in the best interest of the Company and our shareholders, which may include, without limitation, public or private offerings of debt or equity securities, a rights offering, and other strategic alternatives; however, these options may not ultimately be available or feasible.

## Restrictive covenants related to our debt obligations may restrict our ability to obtain future financing.

We are prohibited from entering into a Variable Rate Transaction (defined below) for a period of two years expiring April 21, 2019. "Variable Rate Transaction" means a transaction in which the Company (i) issues or sells any debt or equity securities that are convertible into, exchangeable or exercisable for, or include the right to receive additional shares of common stock either (A) at a conversion price, exercise price or exchange rate or other price that is based upon and/or varies with the trading prices of or quotations for the shares of common stock at any time after the initial issuance of such debt or equity securities, or (B) with a conversion, exercise or exchange price that is subject to being reset at some future date after the initial issuance of such debt or equity security or upon the occurrence of specified or contingent events directly or indirectly related to the business of the Company or the market for the common stock (including a price based anti-dilution provision that resets the conversion, exercise or exchange price due to the pricing of a financing that occurs after the date of such transaction) or (ii) enters into any agreement, including, but not limited to, an equity line of credit, whereby the Company may issue securities at a future determined price. We are also restricted from incurring future indebtedness pursuant to our current secured debt obligations.

In addition, we granted certain investors rights of participation in future financings, in the aggregate, of up to 100%. These participation rights could severely impact the Company's ability to engage investment bankers to structure a financing transaction and raise additional financing on favorable terms. Furthermore, negotiating and obtaining a waiver to these participation may either not be possible or may be costly to the Company.

Our indebtedness and liquidity needs could restrict our operations and make us more vulnerable to adverse economic conditions.

Our existing indebtedness may adversely affect our operations and limit our growth, and we may have difficulty making debt service payments on such indebtedness as payments become due. We may also experience the occurrence of events of default or breach of financial covenants. If market or other economic conditions deteriorate, our ability to comply with these covenants may be impaired. If we violate any of the restrictions or covenants, a significant portion of our indebtedness may become immediately due and payable, our lenders' commitment to make further loans to us may terminate. We might not have, or be able to obtain, sufficient funds to make these accelerated payments.

Our reliance on distributors, retailers and brokers could affect our ability to efficiently and profitably distribute and market our products, maintain our existing markets and expand our business into other geographic markets.

Our ability to maintain and expand our existing markets for our products, and to establish markets in new geographic distribution areas, is dependent on our ability to establish and maintain successful relationships with reliable

distributors, retailers and brokers strategically positioned to serve those areas. Most of our distributors, retailers and brokers sell and distribute competing products and our products may represent a small portion of their businesses. The success of this network will depend on the performance of the distributors, retailers and brokers of this network. There is a risk that the mentioned entities may not adequately perform their functions within the network by, without limitation, failing to distribute to sufficient retailers or positioning our products in localities that may not be receptive to our product. Our ability to incentivize and motivate distributors to manage and sell our products is affected by competition from other beverage companies who have greater resources than we do. To the extent that our distributors, retailers and brokers are distracted from selling our products or do not employ sufficient efforts in managing and selling our products, including re-stocking the retail shelves with our products, our sales and results of operations could be adversely affected. Furthermore, such third-parties' financial position or market share may deteriorate, which could adversely affect our distribution, marketing and sales activities.

Our ability to maintain and expand our distribution network and attract additional distributors, retailers and brokers will depend on a number of factors, some of which are outside our control. Some of these factors include:

the level of demand for our brands and products in a particular distribution area; our ability to price our products at levels competitive with those of competing products; and our ability to deliver products in the quantity and at the time ordered by distributors, retailers and brokers.

We may not be able to successfully manage all or any of these factors in any of our current or prospective geographic areas of distribution. Our inability to achieve success with regards to any of these factors in a geographic distribution area will have a material adverse effect on our relationships in that particular geographic area, thus limiting our ability to maintain or expand our market, which will likely adversely affect our revenues and financial results.

We incur significant time and expense in attracting and maintaining key distributors.

Our marketing and sales strategy depends in large part on the availability and performance of our independent distributors. We currently do not have, nor do we anticipate in the future that we will be able to establish, long-term contractual commitments from some of our distributors. We may not be able to maintain our current distribution relationships or establish and maintain successful relationships with distributors in new geographic distribution areas. Moreover, there is the additional possibility that we may have to incur additional expenditures to attract and maintain key distributors in one or more of our geographic distribution areas in order to profitably exploit our geographic markets.

If we lose any of our key distributors or national retail accounts, our financial condition and results of operations could be adversely affected.

We depend in large part on distributors to distribute our beverages and other products. Most of our outside distributors are not bound by written agreements with us and may discontinue their relationship with us on short notice. Most distributors handle a number of competitive products. In addition, our products are a small part of our distributors' businesses.

We continually seek to expand distribution of our products by entering into distribution arrangements with regional bottlers or other direct store delivery distributors having established sales, marketing and distribution organizations. Many of our distributors are affiliated with and manufacture and/or distribute other soda and non-carbonated brands and other beverage products. In many cases, such products compete directly with our products.

The marketing efforts of our distributors are important for our success. If our brands prove to be less attractive to our existing distributors and/or if we fail to attract additional distributors, and/or our distributors do not market and promote our products above the products of our competitors, our business, financial condition and results of operations could be adversely affected.

It is difficult to predict the timing and amount of our sales because our distributors are not required to place minimum orders with us.

Our independent distributors and national accounts are not required to place minimum monthly or annual orders for our products. In order to reduce their inventory costs, independent distributors typically order products from us on a "just in time" basis in quantities and at such times based on the demand for the products in a particular distribution area. Accordingly, we cannot predict the timing or quantity of purchases by any of our independent distributors or whether any of our distributors will continue to purchase products from us in the same frequencies and volumes as they may have done in the past. Additionally, our larger distributors and partners may make orders that are larger than we have historically been required to fill. Shortages in inventory levels, supply of raw materials or other key supplies could negatively affect us.

If we do not adequately manage our inventory levels, our operating results could be adversely affected.

We need to maintain adequate inventory levels to be able to deliver products to distributors on a timely basis. Our inventory supply depends on our ability to correctly estimate demand for our products. Our ability to estimate demand for our products is imprecise, particularly for new products, seasonal promotions and new markets. If we materially underestimate demand for our products or are unable to maintain sufficient inventory of raw materials, we might not be able to satisfy demand on a short-term basis. If we overestimate distributor or retailer demand for our products, we may end up with too much inventory, resulting in higher storage costs, increased trade spend and the risk of inventory spoilage. If we fail to manage our inventory to meet demand, we could damage our relationships with our distributors and retailers and could delay or lose sales opportunities, which would unfavorably impact our future sales and adversely affect our operating results. In addition, if the inventory of our products held by our distributors and retailers is too high, they will not place orders for additional products, which would also unfavorably impact our sales and adversely affect our operating results.

Our dependence on independent contract manufacturers could make management of our manufacturing and distribution efforts inefficient or unprofitable.

We are expected to arrange for our contract manufacturing needs sufficiently in advance of anticipated requirements, which is customary in the contract manufacturing industry for comparably sized companies. Based on the cost structure and forecasted demand for the particular geographic area where our contract manufacturers are located, we continually evaluate which of our contract manufacturers to use. To the extent demand for our products exceeds available inventory or the production capacity of our contract manufacturing arrangements, or orders are not submitted on a timely basis, we will be unable to fulfill distributor orders on demand. Conversely, we may produce more product inventory than warranted by the actual demand for it, resulting in higher storage costs and the potential risk of inventory spoilage. Our failure to accurately predict and manage our contract manufacturing requirements and our inventory levels may impair relationships with our independent distributors and key accounts, which, in turn, would likely have a material adverse effect on our ability to maintain effective relationships with those distributors and key accounts.

Increases in costs of energy and freight may have an adverse impact on our gross margin.

Over the past few years, volatility in the global oil markets has resulted in high fuel prices, which many shipping companies have passed on to their customers by way of higher base pricing and increased fuel surcharges. With recent declines in fuel prices, some companies have been slow to pass on decreases in their fuel surcharges. If fuel prices increase again, we expect to experience higher shipping rates and fuel surcharges, as well as energy surcharges on our raw materials. It is hard to predict what will happen in the fuel markets in 2017. Due to the price sensitivity of our products, we may not be able to pass such increases on to our customers.

Disruption within our supply chain, contract manufacturing or distribution channels could have an adverse effect on our business, financial condition and results of operations.

Our ability, through our suppliers, business partners, contract manufacturers, independent distributors and retailers, to make, move and sell products is critical to our success. Damage or disruption to our suppliers or to manufacturing or distribution capabilities due to weather, natural disaster, fire or explosion, terrorism, pandemics such as influenza, labor strikes or other reasons, could impair the manufacture, distribution and sale of our products. Many of these events are outside of our control. Failure to take adequate steps to protect against or mitigate the likelihood or potential impact of such events, or to effectively manage such events if they occur, could adversely affect our business, financial condition and results of operations.

If we are unable to attract and retain key personnelour efficiency and operations would be adversely affected.

Our success depends on our ability to attract and retain highly qualified employees in such areas as sales, marketing, product development and finance. We recently hired Valentin Stalowir as our new Chief Executive Officer. In general, we compete to hire new employees, and, in some cases, must train them and develop their skills and competencies. Our operating results could be adversely affected by increased costs due to increased competition for employees, higher employee turnover or increased employee benefit costs. Any unplanned turnover, particularly involving our key personnel, could negatively impact our operations, financial condition and employee morale.

If we fail to protect our trademarks and trade secrets, we may be unable to successfully market our products and compete effectively.

We rely on a combination of trademark and trade secrecy laws, confidentiality procedures and contractual provisions to protect our intellectual property rights. Failure to protect our intellectual property could harm our brand and our reputation, and adversely affect our ability to compete effectively. Further, enforcing or defending our intellectual property rights, including our trademarks, copyrights, licenses and trade secrets, could result in the expenditure of significant financial and managerial resources. We regard our intellectual property, particularly our trademarks and trade secrets to be of considerable value and importance to our business and our success, and we actively pursue the registration of our trademarks in the United States and internationally. However, the steps taken by us to protect these proprietary rights may not be adequate and may not prevent third parties from infringing or misappropriating our trademarks, trade secrets or similar proprietary rights. In addition, other parties may seek to assert infringement claims against us, and we may have to pursue litigation against other parties to assert our rights. Any such claim or litigation could be costly. In addition, any event that would jeopardize our proprietary rights or any claims of infringement by third parties could have a material adverse effect on our ability to market or sell our brands, profitably exploit our products or recoup our associated research and development costs.

## Litigation or legal proceedings could expose us to significant liabilities and damage our reputation.

We may become party to litigation claims and legal proceedings. Litigation involves significant risks, uncertainties and costs, including distraction of management attention away from our business operations. We evaluate litigation claims and legal proceedings to assess the likelihood of unfavorable outcomes and to estimate, if possible, the amount of potential losses. Based on these assessments and estimates, we establish reserves and disclose the relevant litigation claims or legal proceedings, as appropriate. These assessments and estimates are based on the information available to management at the time and involve a significant amount of management judgment. Actual outcomes or losses may differ materially from those envisioned by our current assessments and estimates. Our policies and procedures require strict compliance by our employees and agents with all U.S. and local laws and regulations applicable to our business operations, including those prohibiting improper payments to government officials. Nonetheless, our policies and procedures may not ensure full compliance by our employees and agents with all applicable legal requirements. Improper conduct by our employees or agents could damage our reputation or lead to litigation or legal proceedings that could result in civil or criminal penalties, including substantial monetary fines, as well as disgorgement of profits.

## We are subject to risks inherent in sales of products in international markets.

Our operations outside of the United States contribute to our revenue and profitability, and we believe that developing and emerging markets present important future growth opportunities for us. However, there can be no assurance that existing or new products that we manufacture, distribute or sell will be accepted or be successful in any particular foreign market, due to local or global competition, product price, cultural differences, consumer preferences or otherwise. Here are many factors that could adversely affect demand for our products in foreign markets, including our inability to attract and maintain key distributors in these markets; volatility in the economic growth of certain of these markets; changes in economic, political or social conditions, imposition of new or increased labeling, product or production requirements, or other legal restrictions; restrictions on the import or export of our products or ingredients or substances used in our products; inflationary currency, devaluation or fluctuation; increased costs of doing business due to compliance with complex foreign and U.S. laws and regulations. If we are unable to effectively operate or manage the risks associated with operating in international markets, our business, financial condition or results of operations could be adversely affected.

Changes in accounting standards and subjective assumptions, estimates and judgments by management related to complex accounting matters could significantly affect our financial results.

The United States generally accepted accounting principles and related pronouncements, implementation guidelines and interpretations with regard to a wide variety of matters that are relevant to our business, such as, but not limited to, stock-based compensation, trade spend and promotions, and income taxes are highly complex and involve many subjective assumptions, estimates and judgments by our management. Changes to these rules or their interpretation or

changes in underlying assumptions, estimates or judgments by our management could significantly change our reported results.

If we are unable to maintain effective disclosure controls and procedures and internal control over financial reporting, our stock price and investor confidence could be materially and adversely affected.

We are required to maintain both disclosure controls and procedures and internal control over financial reporting that are effective. Because of their inherent limitations, internal control over financial reporting, however well designed and operated, can only provide reasonable, and not absolute, assurance that the controls will prevent or detect misstatements. Because of these and other inherent limitations of control systems, there is only the reasonable assurance that our controls will succeed in achieving their goals under all potential future conditions. The failure of controls by design deficiencies or absence of adequate controls could result in a material adverse effect on our business and financial results, which could also negatively impact our stock price and investor confidence.

If we are unable to build and sustain proper information technology infrastructure, our business could suffer.

We depend on information technology as an enabler to improve the effectiveness of our operations and to interface with our customers, as well as to maintain financial accuracy and efficiency. If we do not allocate and effectively manage the resources necessary to build and sustain the proper technology infrastructure, we could be subject to transaction errors, processing inefficiencies, the loss of customers, business disruptions, or the loss of or damage to intellectual property through security breaches.

## We could be subject to cybersecurity attacks.

Cybersecurity attacks are evolving and include malicious software, attempts to gain unauthorized access to data, and other electronic security breaches that could lead to disruptions in business processes, unauthorized release of confidential or otherwise protected information and corruption of data. Such unauthorized access could subject us to operational interruption, damage to our brand image and private data exposure, and harm our business.

#### **Risk Factors Relating to Our Industry**

We may experience a reduced demand for some of our products due to health concerns (including obesity) and legislative initiatives against sweetened beverages.

Consumers are concerned about health and wellness; public health officials and government officials are increasingly vocal about obesity and its consequences. There has been a trend among some public health advocates and dietary guidelines to recommend a reduction in sweetened beverages, as well as increased public scrutiny, potential new taxes on sugar-sweetened beverages, and additional governmental regulations concerning the marketing and labeling/packing of the beverage industry. Additional or revised regulatory requirements, whether labeling, tax or otherwise, could have a material adverse effect on our financial condition and results of operations. Further, increasing public concern with respect to sweetened beverages could reduce demand for our beverages and increase desire for more low-calorie soft drinks, water, enhanced water, coffee-flavored beverages, tea, and beverages with natural sweeteners. We are continuously working to launch new products that round out our diversified portfolio.

Legislative or regulatory changes that affect our products could reduce demand for products or increase our costs.

Taxes imposed on the sale of certain of our products by federal, state and local governments in the United States, Canada or other countries in which we operate could cause consumers to shift away from purchasing our beverages. Several municipalities in the United States have implemented or are considering implementing taxes on the sale of certain "sugared" beverages, including non-diet soft drinks, fruit drinks, teas and flavored waters to help fund various initiatives. These taxes could materially affect our business and financial results.

Additional taxes levied on us could harm our financial results.

Recent legislative proposals to reform U.S. taxation of non-U.S. earnings could have a material adverse effect on our financial results by subjecting a significant portion of our non-U.S. earnings to incremental U.S. taxation and/or by delaying or permanently deferring certain deductions otherwise allowed in calculating our U.S. tax liabilities.

We compete in an industry that is brand-conscious, so brand name recognition and acceptance of our products are critical to our success.

Our business is substantially dependent upon awareness and market acceptance of our products and brands by our targeted consumers. In addition, our business depends on acceptance by our independent distributors of our brands as beverage brands that have the potential to provide incremental sales growth rather than reduce distributors' existing beverage sales. Although we believe that we have been relatively successful towards establishing our brands as recognizable brands in the New Age beverage industry, it may be too early in the product life cycle of these brands to determine whether our products and brands will achieve and maintain satisfactory levels of acceptance by independent distributors and retail consumers. We believe that the success of our product name brands will also be substantially dependent upon acceptance of our product name brands. Accordingly, any failure of our brands to maintain or increase acceptance or market penetration would likely have a material adverse affect on our revenues and financial results.

Competition from traditional non-alcoholic beverage manufacturers may adversely affect our distribution relationships and may hinder development of our existing markets, as well as prevent us from expanding our markets.

We target a niche in the estimated \$100 billion carbonated and non-carbonated soft drink markets in the US, Canada and international markets. Our brands are generally regarded as premium and natural, with upscale packaging and are loosely defined as the artisanal (craft), premium bottled carbonated soft drink category. The soft drink industry is highly fragmented and the craft soft drink category consists of such competitors as, Henry Weinhards, Thomas Kemper, Hansen's, Izze, Boylan and Jones Soda, to name a few. These brands have the advantage of being seen widely in the national market and being commonly known for years through well-funded ad campaigns. Our products have a relatively high price for an artisanal premium beverage product, minimal mass media advertising and a relatively small but growing presence in the mainstream market compared to many of our competitors.

The beverage industry is highly competitive. We compete with other beverage companies not only for consumer acceptance but also for shelf space in retail outlets and for marketing focus by our distributors, all of whom also distribute other beverage brands. Our products compete with a wide range of drinks produced by a relatively large number of manufacturers, most of which have substantially greater financial, marketing and distribution resources than ours. Some of these competitors are placing severe pressure on independent distributors not to carry competitive sparkling brands such as ours. We also compete with regional beverage producers and "private label" soft drink suppliers.

Increased competitor consolidations, market-place competition, particularly among branded beverage products, and competitive product and pricing pressures could impact our earnings, market share and volume growth. If, due to such pressure or other competitive threats, we are unable to sufficiently maintain or develop our distribution channels, we may be unable to achieve our current revenue and financial targets. As a means of maintaining and expanding our distribution network, we intend to introduce product extensions and additional brands. We may not be successful in doing this and other companies may be more successful in this regard over the long term. Competition, particularly from companies with greater financial and marketing resources than ours, could have a material adverse effect on our existing markets, as well as on our ability to expand the market for our products.

We compete in an industry characterized by rapid changes in consumer preferences and public perception, so our ability to continue developing new products to satisfy our consumers' changing preferences will determine our long-term success.

Failure to introduce new brands, products or product extensions into the marketplace as current ones mature and to meet our consumers' changing preferences could prevent us from gaining market share and achieving long-term profitability. Product lifecycles can vary and consumers' preferences and loyalties change over time. Although we try

to anticipate these shifts and innovate new products to introduce to our consumers, we may not succeed. Customer preferences also are affected by factors other than taste, such as health and nutrition considerations and obesity concerns, shifting consumer needs, changes in consumer lifestyles, increased consumer information and competitive product and pricing pressures. Sales of our products may be adversely affected by the negative publicity associated with these issues. If we do not adequately anticipate or adjust to respond to these and other changes in customer preferences, we may not be able to maintain and grow our brand image and our sales may be adversely affected.

#### Global economic conditions may continue to adversely impact our business and results of operations.

The beverage industry, and particularly those companies selling premium beverages like us, can be affected by macro-economic factors, including changes in national, regional, and local economic conditions, unemployment levels and consumer spending patterns, which together may impact the willingness of consumers to purchase our products as they adjust their discretionary spending. The recent disruptions in the overall economy and financial markets as a result of the global economic downturn have adversely impacted the United States and Canada. This reduced consumer confidence in the economy has reduced consumers' discretionary spending and we believe this has negatively affected consumers' willingness to purchase beverage products such as ours. Moreover, adverse economic conditions may adversely affect the ability of our distributors to obtain the credit necessary to fund their working capital needs, which could negatively impact their ability or desire to continue to purchase products from us in the same frequencies and volumes as they have done in the past. If we experience similar adverse economic conditions in the future, sales of our products could be adversely affected, collectability of accounts receivable may be compromised and we may face obsolescence issues with our inventory, any of which could have a material adverse impact on our operating results and financial condition.

#### If we encounter product recalls or other product quality issues, our business may suffer.

Product quality issues, real or imagined, or allegations of product contamination, even when false or unfounded, could tarnish our image and could cause consumers to choose other products. In addition, because of changing government regulations or implementation thereof, or allegations of product contamination, we may be required from time to time to recall products entirely or from specific markets. Product recalls could affect our profitability and could negatively affect brand image.

#### We could be exposed to product liability claims.

Although we have product liability and basic recall insurance, insurance coverage may not be sufficient to cover all product liability claims that may arise. To the extent our product liability coverage is insufficient, a product liability claim would likely have a material adverse effect upon our financial condition. In addition, any product liability claim brought against us may materially damage the reputation and brand image of our products and business.

#### Our business is subject to many regulations and noncompliance is costly.

The production, marketing and sale of our beverages, including contents, labels, caps and containers, are subject to the rules and regulations of various federal, provincial, state and local health agencies. If a regulatory authority finds that a current or future product or production run is not in compliance with any of these regulations, we may be fined, or production may be stopped, which would adversely affect our financial condition and results of operations. Similarly, any adverse publicity associated with any noncompliance may damage our reputation and our ability to successfully market our products. Furthermore, the rules and regulations are subject to change from time to time and while we closely monitor developments in this area, we cannot anticipate whether changes in these rules and regulations will impact our business adversely. Additional or revised regulatory requirements, whether labeling, environmental, tax or otherwise, could have a material adverse effect on our financial condition and results of operations.

#### Significant additional labeling or warning requirements may inhibit sales of affected products.

Various jurisdictions may seek to adopt significant additional product labeling or warning requirements relating to the chemical content or perceived adverse health consequences of certain of our products. These types of requirements, if they become applicable to one or more of our products under current or future environmental or health laws or regulations, may inhibit sales of such products. In California, a law requires that a specific warning appear on any

product that contains a component listed by the state as having been found to cause cancer or birth defects. This law recognizes no generally applicable quantitative thresholds below which a warning is not required. If a component found in one of our products is added to the list, or if the increasing sensitivity of detection methodology that may become available under this law and related regulations as they currently exist, or as they may be amended, results in the detection of an infinitesimal quantity of a listed substance in one of our beverages produced for sale in California, the resulting warning requirements or adverse publicity could affect our sales.

# Climate change may negatively affect our business.

There is growing concern that a gradual increase in global average temperatures may cause an adverse change in weather patterns around the globe resulting in an increase in the frequency and severity of natural disasters. While warmer weather has historically been associated with increased sales of our products, changing weather patterns could have a negative impact on agricultural productivity, which may limit availability or increase the cost of certain key ingredients such as sugar cane, natural flavors and supplements used in our products. Also, increased frequency or duration of extreme weather conditions may disrupt the productivity of our facilities, the operation of our supply chain or impact demand for our products. In addition, the increasing concern over climate change may result in more regional, federal and global legal and regulatory requirements and could result in increased production, transportation and raw material costs. As a result, the effects of climate change could have a long-term adverse impact on our business and results of operations.

We may not be able to develop successful new beverage products, which are important to our growth.

An important part of our strategy is to increase our sales through the development of new beverage products. We cannot assure you that we will be able to continue to develop, market and distribute future beverage products that will enjoy market acceptance. The failure to continue to develop new beverage products that gain market acceptance could have an adverse impact on our growth and materially adversely affect our financial condition. We may have higher obsolescent product expense if new products fail to perform as expected due to the need to write off excess inventory of the new products.

Our results of operations may be impacted in various ways by the introduction of new products, even if they are successful, including the following:

sales of new products could adversely impact sales of existing products;

we may incur higher cost of goods sold and selling, general and administrative expenses in the periods when we introduce new products due to increased costs associated with the introduction and marketing of new products, most of which are expensed as incurred; and

when we introduce new platforms and bottle sizes, we may experience increased freight and logistics costs as our co-packers adjust their facilities for the new products.

The growth of our revenues is dependent on acceptance of our products by mainstream consumers.

We have dedicated significant resources to introduce our products to the mainstream consumer. As such, we have increased our sales force and executed agreements with distributors who, in turn, distribute to mainstream consumers at grocery stores and other retailers. If our products are not accepted by the mainstream consumer, our business could suffer.

Our failure to accurately estimate demand for our products could adversely affect our business and financial results.

We may not correctly estimate demand for our products. Our ability to estimate demand for our products is imprecise, particularly with new products, and may be less precise during periods of rapid growth, particularly in new markets. If we materially underestimate demand for our products or are unable to secure sufficient ingredients or raw materials including, but not limited to, glass, labels, flavors or packing arrangements, we might not be able to satisfy demand on a short-term basis. Furthermore, industry-wide shortages of certain juice concentrates and sweeteners have been and

could, from time to time in the future, be experienced, which could interfere with and/or delay production of certain of our products and could have a material adverse effect on our business and financial results. We do not use hedging agreements or alternative instruments to manage this risk.

The loss of our largest customers would substantially reduce revenues.

Our customers are material to our success. If we are unable to maintain good relationships with our existing customers, our business could suffer.

During the year ended December 31, 2016, the Company had two customers who accounted for approximately 22% and 12% of its sales, respectively; and during the year ended December 31, 2015, the Company had two customers who accounted for approximately 28% and 14% of its sales, respectively. No other customer accounted for more than 10% of sales in either year. As of December 31, 2016, the Company had accounts receivable due from one customer who comprised \$719,000 (25%) of its total accounts receivable; and as of December 31, 2015, the Company had accounts receivable due from two customers who comprised \$782,000 (24%) and \$373,000 (12%), respectively, of its total accounts receivable. No other customer accounted for more than 10% of accounts receivable in either year.

During the three months ended June 30, 2017, the Company had one customer that accounted for 23% of gross sales and 26% of sales in the same period in the prior year. During the six months ended June 30, 2017, the Company had one customer that accounted for 22% of sales and 26% of sales in the same period in the prior year. No other customer accounted for more than 10% of gross sales in the periods. As of June 30, 2017, the Company had one customer that accounted for 17% of accounts receivable. As of December 31, 2016, the Company had two customers that accounted for 28% and 12% of accounts receivable. No other customer accounted for more than 10% accounts receivable as of those dates.

The loss of our largest vendors would substantially reduce revenues.

Our vendors are material to our success. If we are unable to maintain good relationships with our existing vendors, our business could suffer.

During the three months ended June 30, 2017, the Company had one vendor that accounted for 18% of all purchases, and 27% of all purchases in the same period in the prior year. During the six months ended June 30, 2017, the Company had one vendor that accounted for 18% of purchases and 27% in the same period in the prior year. No other vendor accounted for more than 10% of purchases in the periods.

As of June 30, 2017, the Company had one vendor that accounted for 20% of all payables. As of December 31, 2016, the Company had one vendor that accounted for 12% of all payables. No other vendor accounted for more than 10% of accounts payable in either period.

The loss of our third-party distributors could impair our operations and substantially reduce our financial results.

We depend in large part on distributors to distribute our beverages and other products. Most of our outside distributors are not bound by written agreements with us and may discontinue their relationship with us on short notice. Most distributors handle a number of competitive products. In addition, our products are a small part of our distributors' businesses.

We continually seek to expand distribution of our products by entering into distribution arrangements with regional bottlers or other direct store delivery distributors having established sales, marketing and distribution organizations. Many of our distributors are affiliated with and manufacture and/or distribute other soda and non-carbonated brands and other beverage products. In many cases, such products compete directly with our products.

The marketing efforts of our distributors are important for our success. If our brands prove to be less attractive to our existing distributors and/or if we fail to attract additional distributors, and/or our distributors do not market and promote our products above the products of our competitors, our business, financial condition and results of operations could be adversely affected.

Price fluctuations in, and unavailability of, raw materials and packaging that we use could adversely affect us.

We do not enter into hedging arrangements for raw materials. Although the prices of raw materials that we use have not increased significantly in recent years, our results of operations would be adversely affected if the price of these raw materials were to rise and we were unable to pass these costs on to our customers.

We depend upon an uninterrupted supply of the ingredients for our products, a significant portion of which we obtain overseas, principally from China and Brazil. We obtain almost all of our crystallized ginger from Fiji and our Ginger Chews from Indonesia. Any decrease in the supply of these ingredients or increase in the prices of these ingredients as a result of any adverse weather conditions, pests, crop disease, interruptions of shipment or political considerations, among other reasons, could substantially increase our costs and adversely affect our financial performance.

We also depend upon an uninterrupted supply of packaging materials, such as glass for our bottles and kegs for our 5 liter party kegs. We obtain our bottles domestically and our kegs from Europe. Any decrease in supply of these materials or increase in the prices of the materials, as a result of decreased supply or increased demand, could substantially increase our costs and adversely affect our financial performance.

The loss of any of our co-packers could impair our operations and substantially reduce our financial results.

We rely on third parties, called co-packers in our industry, to produce some of our beverages, to produce our glass bottles and to bottle some of our beverages. Our co-packing arrangements with other companies are on a short term basis and such co-packers may discontinue their relationship with us on short notice. Our co-packing arrangements expose us to various risks, including:

if any of those co-packers were to terminate our co-packing arrangement or have difficulties in producing beverages for us, our ability to produce our beverages would be adversely affected until we were able to make alternative arrangements; and

our business reputation would be adversely affected if any of the co-packers were to produce inferior quality.

We compete in an industry characterized by rapid changes in consumer preferences and public perception, so our ability to continue to market our existing products and develop new products to satisfy our consumers' changing preferences will determine our long-term success.

Consumers are seeking greater variety in their beverages. Our future success will depend, in part, upon our continued ability to develop and introduce different and innovative beverages. In order to retain and expand our market share, we must continue to develop and introduce different and innovative beverages and be competitive in the areas of quality and health, although there can be no assurance of our ability to do so. There is no assurance that consumers will continue to purchase our products in the future. Additionally, many of our products are considered premium products and to maintain market share during recessionary periods, we may have to reduce profit margins, which would adversely affect our results of operations. In addition, there is increasing awareness and concern for the health consequences of obesity. This may reduce demand for our non-diet beverages, which could affect our profitability. Product lifecycles for some beverage brands and/or products and/or packages may be limited to a few years before consumers' preferences change. The beverages we currently market are in varying stages of their lifecycles and there can be no assurance that such beverages will become or remain profitable for us. The beverage industry is subject to changing consumer preferences and shifts in consumer preferences may adversely affect us if we misjudge such preferences. We may be unable to achieve volume growth through product and packaging initiatives. We also may be unable to penetrate new markets. If our revenues decline, our business, financial condition and results of operations will be materially and adversely affected.

Our quarterly operating results may fluctuate significantly because of the seasonality of our business.

Our highest revenues occur during the spring and summer, the second and third quarters of each fiscal year. These seasonality issues may cause our financial performance to fluctuate. In addition, beverage sales can be adversely affected by sustained periods of bad weather.

#### Our manufacturing process is not patented.

None of the manufacturing processes used in producing our products are subject to a patent or similar intellectual property protection. Our only protection against a third party using our recipes and processes is confidentiality agreements with the companies that produce our beverages and with our employees who have knowledge of such processes. If our competitors develop substantially equivalent proprietary information or otherwise obtain access to our knowledge, we will have greater difficulty in competing with them for business, and our market share could decline.

If we are not able to retain the full time services of our management team, it will be more difficult for us to manage our operations and our operating performance could suffer.

Our business is dependent, to a large extent, upon the services of our management team. We depend on our management team. We do not have a written employment agreement with any member of our management team. In addition, we do not maintain key person life insurance on any of our management team. Therefore, in the event of the loss or unavailability of any member of the management team to us, there can be no assurance that we would be able to locate in a timely manner or employ qualified personnel to replace him. The loss of the services of any member of our management team or our failure to attract and retain other key personnel over time would jeopardize our ability to execute our business plan and could have a material adverse effect on our business, results of operations and financial condition.

The price of our common stock may be volatile, and a shareholder's investment in our common stock could suffer a decline in value.

There has been significant volatility in the volume and market price of our common stock, and this volatility may continue in the future. In addition, factors such as quarterly variations in our operating results, litigation involving us, general trends relating to the beverage industry, actions by governmental agencies, national economic and stock market considerations as well as other events and circumstances beyond our control could have a significant impact on the future market price of our common stock and the relative volatility of such market price.

A prolonged decline in the price of our common stock could result in a reduction in the liquidity of our common stock and a reduction in our ability to raise capital. If we are unable to raise the funds required for all of our planned operations and key initiatives, we may be forced to allocate funds from other planned uses, which may negatively impact our business and operations, including our ability to develop new products and continue our current operations.

Many factors that are beyond our control may significantly affect the market price of our shares. These factors include:

price and volume fluctuations in the stock markets; changes in our revenues and earnings or other variations in operating results; any shortfall in revenue or increase in losses from levels expected by us or securities analysts; changes in regulatory policies or law; operating performance of companies comparable to us; and general economic trends and other external factors.

Even if an active market for our common stock is established, stockholders may have to sell their shares at prices substantially lower than the price they paid for it or might otherwise receive than if a broad public market existed.

There has been a very limited public trading market for our securities and the market for our securities, may continue to be limited, and be sporadic and highly volatile.

There is currently a limited public market for our common stock. Holders of our common stock may, therefore, have difficulty selling their shares, should they decide to do so. In addition, there can be no assurances that such markets will continue or that any shares, which may be purchased, may be sold without incurring a loss. Any such market price of our shares may not necessarily bear any relationship to our book value, assets, past operating results, financial

condition or any other established criteria of value, and may not be indicative of the market price for the shares in the future.

Future financings could adversely affect common stock ownership interest and rights in comparison with those of other security holders.

Our board of directors has the power to issue additional shares of common or preferred stock up to the amounts authorized in our certificate of incorporation without stockholder approval, subject to restrictive covenants contained in the Company's contracts. If additional funds are raised through the issuance of equity or convertible debt securities, the percentage ownership of our existing stockholders will be reduced, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we issue any additional common stock or securities convertible into common stock, such issuance will reduce the proportionate ownership and voting power of each other stockholder. In addition, such stock issuances might result in a reduction of the book value of our common stock. Any increase of the number of authorized shares of common stock or preferred stock would require board and shareholder approval and subsequent amendment to our certificate of incorporation.

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#### Risk Factors Related to this Offering and Our Common Stock

If we are not able to achieve our objectives for our business, the value of an investment in our company could be negatively affected.

In order to be successful, we believe that we must, among other things:

increase the sales volume and gross margins for our products; maintain efficiencies in operations; manage our operating expenses to sufficiently support operating activities; maintain fixed costs at or near current levels; and avoid significant increases in variable costs relating to production, marketing and distribution.

We may not be able to meet these objectives, which could have a material adverse effect on our results of operations. We have incurred significant operating expenses in the past and may do so again in the future and, as a result, will need to increase revenues in order to improve our results of operations. Our ability to increase sales will depend primarily on success in expanding our current markets, improving our distribution base, and introducing new brands, products or product extensions to the market. Our ability to successfully enter new distribution areas and obtain national accounts will, in turn, depend on various factors, many of which are beyond our control, including, but not limited to, the continued demand for our brands and products in target markets, the ability to price our products at competitive levels, the ability to establish and maintain relationships with distributors in each geographic area of distribution and the ability in the future to create, develop and successfully introduce one or more new brands, products, and product extensions.

Any future equity or debt issuances by us, including the exercise of outstanding warrants, may have dilutive or adverse effects on our existing shareholders.

From time to time, we may issue additional shares of common stock or convertible securities. The issuance of these securities could dilute our shareholders' ownership in our company and may include terms that give new investors rights that are superior to those of our current shareholders. Moreover, any issuances by us of equity securities may be at or below the prevailing market price of our common stock and in any event may have a dilutive impact on our shareholders' ownership interest, which could cause the market price of our common stock to decline.

We do not intend to pay any cash dividends on our shares of common stock in the near future, so our shareholders will not be able to receive a return on their shares unless they sell their shares.

We intend to retain any future earnings to finance the development and expansion of our business. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. There is no assurance that future dividends will be paid, and if dividends are paid, there is no assurance with respect to the amount of any such dividend. Unless we pay dividends, our shareholders will not be able to receive a return on their shares unless they sell such shares.

We have been notified by the NYSE American of our failure to meet standards for continued listing of our common stock. Failure to meet continued listing standards could result in delisting of our common stock.

On June 22, 2016, Reed's, Inc, a Delaware corporation ("Reed's" or the "company") received notice from NYSE American of the company's failure to meet standards for continued listing in Sections 1003(a)(i), 1003(a)(ii) and 1003(a)(iii) of the NYSE American Company Guide. The company previously qualified by exception to the listing rules based on meeting the trading standards of public float, number of shareholders and market capitalization. Recently, due to the decrease in the trading price of the company's common stock, the company is not meeting the \$50,000,000 market capitalization exception. The company has 18 months during which to meet the listing standards. Failure to meet continued listing standards could result in delisting of our common stock from the NYSE American, LLC.

A delisting of our common stock and our inability to list the stock on another national securities exchange could negatively impact us by: (i) reducing the liquidity and market price of our common stock; (ii) reducing the number of investors willing to hold or acquire our common stock, which could negatively impact our ability to raise equity financing; (iii) limiting our ability to use a registration statement to offer and sell freely tradable securities, thereby preventing us from accessing the public capital markets; and (iv) impairing our ability to provide equity incentives to our employees. While a delisting of our common stock would not constitute a specific event of default under the documents governing our senior credit facilities, our lenders could claim that a delisting would trigger a default under the material adverse change covenant or the cross-default provisions under such documents.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws include provisions that:

authorize our board of directors to issue, without further action by the stockholders, shares of undesignated preferred stock;

specify that special meetings of our stockholders can be called only upon the request of a majority of our board of directors or our Chief Executive Officer;

establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors; and

prohibit cumulative voting in the election of directors.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management, and may discourage, delay or prevent a transaction involving a change of control of our company that is in the best interest of our minority stockholders. Even in the absence of a takeover attempt, the existence of these provisions may adversely affect the prevailing market price of our common stock if they are viewed as discouraging future takeover attempts.

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Furthermore, we are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation's voting stock. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

before the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or

at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

The existence of this provision may have an anti-takeover effect with respect to transactions the Company's board of directors does not approve in advance. Section 203 may also discourage attempts that might result in a premium over the market price for the shares of Common Stock held by stockholders.

These provisions of Delaware law and the Certificate of Incorporation could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of the Company's common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the Company's management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Christopher J. Reed, our founder, Chief Innovation Officer, and a member of our Board of Directors, holds approximately 18% of our common stock and may greatly influence the outcome of all matters on which stockholders vote.

Because Christopher J. Reed controls a large portion of our stock, approximately 18%, he may greatly influence the outcome of all matters on which stockholders vote. Mr. Reed's interests may not always coincide with the interests of

other holders of our common stock.

If securities analysts or industry analysts downgrade our shares, publish negative research or reports, or do not publish reports about our business, our share price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us, our business and our industry. If one or more analysts adversely change their recommendation regarding our shares or our competitors' stock, our share price would likely decline. If one or more analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our share price or trading volume to decline. As a result, the market price for our common stock may decline.

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#### SELLING SHAREHOLDERS

The shares of common stock being offered by the selling shareholders are those previously issued to the selling shareholders, those issuable to the selling shareholders, upon exercise of the warrants, and those issuable to the placement agent upon exercise of placement agent warrants. For additional information regarding the issuances of those shares of common stock and warrants, see "The Offering – Private Placement of Securities". We are registering the shares of common stock in order to permit the selling shareholders to offer the shares for resale from time to time. Except for the ownership of securities and rights granted as investors, the selling shareholders have not had any material relationship with us within the past three years.

The table below lists the selling shareholders and other information regarding the beneficial ownership of the shares of common stock by each of the selling shareholders. The second column lists the number of shares of common stock beneficially owned by each selling shareholder, based on its ownership of the shares of common stock, notes and/ or warrants, as of August 24, 2017, assuming exercise of the warrants held by the selling shareholders and conversion of notes on that date, without regard to any limitations on exercise or conversion.

The third column lists the shares of common stock being offered by this prospectus by the selling shareholders.

In accordance with the terms of warrant exercise agreements with the selling shareholders, this prospectus covers the resale of 810,417 shares of common stock issuable upon warrants issued to the selling shareholders in private placements, determined as if the outstanding warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the registration right agreement, without regard to any limitations on the exercise of the warrants. The fourth column assumes the sale of all of the shares offered by the selling shareholders pursuant to this prospectus.

Under the terms of the warrants, a selling shareholder (other than the Lead Investor) may not exercise the warrants to the extent such exercise would cause such selling shareholder, together with its affiliates and attribution parties, to beneficially own a number of shares of common stock which would exceed 4.99% of our then outstanding common stock following such exercise, excluding for purposes of such determination shares of common stock issuable upon exercise of the warrants which have not been exercised. The number of shares in the second column does not reflect this limitation. The selling shareholders may sell all, some or none of their shares in this offering. See "Plan of Distribution".

Any selling shareholders who are affiliates of broker-dealers and any participating broker-dealers are deemed to be "underwriters" within the meaning of the Securities Act and any commissions or discounts given to any such selling

stockholder or broker-dealer may be regarded as underwriting commissions or discounts under the Securities Act.

The term "selling shareholders" also includes any pledgees, assignees, or other successors in interest to the selling shareholders named in the table below. Unless otherwise indicated, to our knowledge, each person named in the table below has sole voting and investment power (subject to applicable community property laws) with respect to the shares of common stock set forth opposite such person's name. We will file a supplement to this prospectus (or a post-effective amendment hereto, if necessary) to name successors to any named selling stockholders who are able to use this prospectus to resell the common stock registered hereby.

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Name of Selling Shareholder	Number of Shares Owned Before Offering	Number of Shares Being Offered	Number of Shares Owned After Offering	Percent of Shares Owned After Offering	
Raptor/ Harbor Reeds SPV LLC (1)	2,960,000(2)	410,000(3)	2,550,000(4)	16.85	%
CVI Investments, Inc. (5)	129,681	129,681(6)	0	0	
Intracoastal Capital, LLC (7)	174,361	174,361(8)	0	*	
Anson Investments Master Fund, LP (9)	96,375	96,375 (10)	0	0	

- (1) James Pallotta and Daniel Doherty have discretionary authority to vote and dispose of the shares of common stock held by Raptor/ Harbor Reeds SPV LLC and may be deemed to be the beneficial owners of these shares. Raptor/ Harbor Reeds SPV LLC is an affiliate of a registered broker dealer. The shares being registered hereunder consist of shares issuable upon conversion of warrants acquired in the ordinary course of business, and, at the time of the acquisition of such securities, Raptor/ Harbor Reeds SPV LLC did not have any arrangements or understandings, directly or indirectly, with any person to distribute such securities.
- (2) Includes 60,000 shares issuable upon exercise of a currently-exercisable warrant and an additional 650,000 shares issuable upon exercise of a warrant that becomes exercisable on October 21, 2017. Also includes 1,133,333 shares of Common Stock issuable, on or after October 18, 2017, upon conversion of Convertible Non-Redeemable Secured Promissory Note in the original principal amount of \$3,400,000. Also includes 350,000 shares issuable upon exercise of second tranche warrant that becomes exercisable on January 13, 2018.
- (3) Consists of 350,000 shares underlying second tranche warrants and 60,000 shares underlying third tranche warrants.
- (4) Includes 142,700 shares owned by James Pallotta, natural control person and member of Raptor/ Harbor Reeds SPV LLC and 20,000 shares owned by Daniel Doherty, natural control person and member of Raptor/ Harbor Reeds SPV LLC. Mr. Pallotta and Mr. Doherty each disclaim beneficial ownership of such shares. Also includes 650,000 shares underlying a warrant exercisable on or after October 21, 2017, 1,133,333 shares underlying a Convertible Non-Redeemable Secured Promissory Note convertible, on or after October 18, 2017.
- (5) Heights Capital Management, Inc. ("Heights"),p">

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may take or dispose of positions in listed or over-the-counter options or other instruments based on indices designed to track the performance of components of the U.S. equity market,

may take short positions in the underlying stocks or other securities of the kind described above — i.e., we and/or our affiliates may sell securities of the kind that we do not own or that we borrow for delivery to purchaser, and/or may take or dispose of positions in interest rate swaps, options swaps and treasury bonds.

We and/or our affiliates may acquire a long or short position in securities similar to the offered notes from time to time and may, in our or their sole discretion, hold or resell those securities.

In the future, we and/or our affiliates expect to close out hedge positions relating to the notes and perhaps relating to other notes with returns linked to the index, the underlying stocks or 3-month USD LIBOR. We expect our affiliates' steps to involve sales of instruments linked to the index, the underlying stocks or 3-month USD LIBOR on or shortly before any call observation date or the determination date, as applicable. Our affiliates' steps also may involve sales and/or purchases of some or all of the listed or over-the-counter options, futures or other instruments linked to the index.

The hedging activity discussed above may adversely affect the market value of your notes from time to time and the value of the consideration that we will deliver on your notes at maturity. See "Additional Risk Factors Specific to Your Notes" above for a discussion of these adverse effects.

#### THE INDEX

The Motif Capital National Defense 7 ER Index (the "index") tracks the U.S. exchange-listed common equity securities (including American Depositary Receipts, or "ADRs") of companies concentrated in six sub-industries within the industrials and information technology sectors (aerospace & defense, construction & engineering, construction machinery & heavy trucks, IT consulting & other services, electronic equipment & instruments and communications equipment) that may benefit from increased defense-related spending by the United States and foreign governments (the "national defense theme"). The index is calculated by measuring the extent to which (a) (i) such U.S. exchange-listed common equity securities and (ii) in certain circumstances, a money market position outperform (b) the sum of (i) the return on a notional cash deposit at a notional interest rate of 3-month USD LIBOR plus (ii) 0.75% per annum (accruing daily). Each U.S. exchange-listed common equity security included in the index generally will be subject to a maximum and a minimum weight constraint. In addition, the index is subject to a 7.0% volatility control. As explained in more detail below, if with respect to any index business day (as defined below) the volatility of the equity securities over a look-back period is greater than 7.0%, the weight assigned to the equity securities within the index will be rebalanced into the money market position in order to comply with the volatility control. Historically, a very significant portion (up to approximately 92%) of the index consistently has been allocated to the money market position.

The index was first launched on June 1, 2016 and based on an initial value for the base index (as defined below under "Base Index Composition") of 100 on June 20, 2006. The level of the index is calculated and published by Solactive AG (the "index calculation agent") and is reported by Bloomberg under the symbol "MCDER Index". The index is sponsored by Motif Capital Management, Inc. (the "index sponsor"). Additional information about the index may be obtained from the index calculation agent's website at solactive.com/?s=motif&index=DE000SLA2WC9. We are not incorporating by reference the website or any material it includes in this document.

As of April 25, 2019, there were 45 constituent stocks in the index and the top ten constituent stocks, by weight, were: The Boeing Company (5.20%); Lockheed Martin Corporation (4.98 %); General Dynamics Corporation (4.24%); Raytheon Company (4.14%); Northrop Grumman Corporation (4.06%); Harris Corporation (3.28%); United Technologies Corporation (3.23%); L-3 Technologies, Inc. (2.64%); Huntington Ingalls Industries Inc. (2.08%) and TransDigm Group Inc. (1.84%). As of that same date, 51.96% of the index was comprised of the money market position. For hypothetical and historical data regarding the index's monthly average exposure to the money market position, see "— Average Allocation Between the Base Index and the Money Market Position for Each Month" below. A full list of index constituents as of the last calendar day of each month is available on the index sponsor's website. We are not incorporating by reference the website or any materials it includes in this document. For additional information on constituent stocks with a weight equal to or in excess of 5% of the index, see "— Underlying Stocks With Weights Equal to or in Excess of 5% of the Index as of April 25, 2019" below.

The index sponsor divides the companies included in the base index into six sub-industries based on the Global Industry Classification Standard (GICS). The sub-industries are (with the approximate percentage of underlying stocks in the base index included in such sub-industries as of April 25, 2019 indicated in parentheses) (percentages may not sum to 100% due to rounding): aerospace & defense (84.2%); construction & engineering (2.9%); construction machinery & heavy trucks (0.5%); IT consulting & other services (7.1%); electronic equipment & instruments (3.9%) and communications equipment (1.3%). These six sub-industries are contained within the following two sectors: industrials (with respect to the aerospace & defense, construction & engineering and construction machinery & heavy trucks sub-industries) and information technology (with respect to the IT consulting & other services, electronic equipment & instruments and communications equipment sub-industries). Index sponsors may use very different standards for determining sector and sub-industry designations. In addition, many companies operate in a number of different sectors and/or sub-industries, but are listed in only one sector and sub-industry and the basis on which that sector and sub-industry is selected may also differ. As a result, sector and sub-industry

comparisons between indices with different index sponsors may reflect differences in methodology as well as actual differences in the sector and sub-industry composition of the indices.

#### **Base Index Composition**

On the third Friday of each June (the "base index observation day"), the index sponsor determines the U.S. exchange listed common equity securities (including ADRs) included in the base index (the "underlying stocks"), and their exposure to the national defense theme, by identifying revenue derived from defense-related sales (as discussed below). Then, the index calculation agent determines the target weight of each of the underlying stocks (as defined below under "Determining the weight of each underlying stock in the base index — Target weights"). If the limited circumstance described under "Determining the weight of each underlying stock in the base index — Short-term treasury bond ETF position" below applies, on that date the index calculation agent will also determine the target weight of the iShares Short-Term Treasury Bond ETF (the "underlying ETF") in the index. The rebalancing of the underlying stocks and the underlying ETF, if applicable, and their weights by changing the respective number of shares will be implemented over a five day period (the "base index rebalancing period") beginning on the day that is three index business days after the applicable base index observation day and including the four following index business days (each a "base index rebalancing day"). The underlying stocks and, if applicable, the underlying ETF together comprise the "base index".

Determining the underlying stocks

Identify the underlying stock universe

The index sponsor identifies companies that derive revenue from defense-related sales.

Apply GICS sub-industry classification screen

In order to identify the universe of relevant companies that derive revenue from defense-related sales, the index sponsor applies a GICS sub-industry classification screen. GICS is a classification system produced by MSCI, Inc. and S&P Dow Jones Indices LLC, and additional information is available at msci.com/gics. We are not incorporating by reference the website or any material it includes in this prospectus supplement.

The GICS classification structure includes four hierarchical levels: sector, industry group, industry and sub-industry. After the index sponsor obtains the GICS sub-industry classification for each company with U.S. exchange-listed common equity (including ADRs), such company is included in the underlying stock universe for potential inclusion in the base index if its GICS sub-industry classification is one of the six following: aerospace & defense; construction & engineering; construction machinery & heavy trucks; IT consulting & other services; electronic equipment & instruments; and communications equipment. Within the GICS classification structure, these six sub-industries are contained in the industrials and information technology sectors. As of the close of business on September 21, 2018, MSCI, Inc. and S&P Dow Jones Indices LLC updated the GICS classification structure. Among other things, the update reclassified select companies previously classified in the information technology sector prior to September 21, 2018 into a newly created communications services sector. Any company previously included in the information technology sector prior to September 21, 2018 (which included the IT consulting & other services, electronic equipment & instruments and communications equipment sub-industries) that is reclassified as a result of the updates will no longer be eligible for inclusion in the index. The GICS structure changes are expected to be considered in connection with the June 2019 annual index review.

## Apply keyword screen

In order to identify the universe of relevant companies that derive revenue from defense-related sales, the index sponsor references specific sections of two reports prepared and published annually by the United States Department of Defense in connection with its annual budget request. The index sponsor reviews the (i) "mission area categories"

from the Program Acquisition Cost by Weapon System report from the United States Department of Defense website and (ii) "key initiatives" from the Pursue Investments in Military Capabilities section of the Defense Budget Overview from the United States Department of Defense website (each, a "budget report" and together, the "budget reports").

Each unique mission area category and key initiative identified as described in the paragraph above is paired with specific keywords. The keywords associated with each mission area category and key initiative are:

Aircraft and Related Systems: "Aircraft", "Unmanned Aerial Vehicle"

Ground Systems: "Ground Systems", "Combat Vehicle", "Tactical Vehicle"

Missile Defense Programs: "Missile Defense"

Missiles and Munitions: "Missiles", "Munitions"

Mission Support Activities: "Mission Support"

• Shipbuilding and Maritime Systems: "Shipbuilding", "Maritime Systems", "Submarine", "Aircraft Carrier"

Space Based Systems: "Space Based Systems", "Launch Vehicle", "Satellite"

Cyberspace Operations: "Cyberdefense", "Cybersecurity"

Research, Development, Test, and Evaluation Science & Technology: "RDT&E"

Command, Control, Communications, Computers, and Intelligence (C4I) Systems: "Intelligence", "C4ISR" Fifteen index business days (as defined below) prior to each base index observation day, the index committee (as defined below) will determine if any new budget report has been released. If a new budget report has been released, the index committee will make any necessary updates to the list if a mission area category or key initiative has been added or deleted. If a new mission area category or key initiative has been added, the index committee will determine a set of keywords relevant to both such new mission area category or key initiative and the national defense theme. If a mission area category or key initiative has been deleted from the relevant budget report, such mission area category or key initiative and its corresponding keywords will no longer be included. Any changes to the mission area categories or key initiatives and/or the relevant keywords will be effective for use beginning on such base index observation day.

Using (i) all of the keywords identified above corresponding to the mission area categories and key initiatives and (ii) "Department of Defense" as an additional keyword, semantic searches are then conducted over the most recent annual regulatory filings (i.e., Forms 10-K, 40-F and 20-F) of all companies with U.S. exchange-listed common equity filed with the Securities and Exchange Commission (the "SEC") in order to identify companies with a positive match for one or more keyword(s). All companies with a positive match are added to the underlying stock universe for potential inclusion in the base index.

Apply underlying stock screens

Any stock that fails any of the following screens is removed from the underlying stock universe:

Average daily dollar volume: stocks having an average daily dollar volume ("ADDV") of less than \$1,000,000 over the most recent 30-day period are removed from the underlying stock universe. ADDV for a stock on a given day is equal to the 30-day average of such stock's daily dollar value from (but excluding) such day to (and including) the day which is the 30th calendar day prior thereto. For each trading day during the 30-calendar day period, the daily dollar value is equal to such stock's trading volume for such day multiplied by such stock's last available price as of the close of trading for such day. A stock's trading volume may be equal to zero on a trading day. In addition, while the ADDV period consists of 30 calendar days, only trading days within such period are used for purposes of the ADDV calculation and the actual number of trading days varies from period to period.

Market capitalization: stocks of companies whose market capitalization is less than \$500 million are removed from the underlying stock universe. Market capitalization for a company stock on a given day is calculated by multiplying the total number of outstanding shares on such day by the closing price of a share of such stock on such day. In the event that an index market disruption event (determined with respect to a stock subject to this market capitalization screen as specified in the "Index Market Disruptions" section below) occurs or is continuing on such day with respect to such stock, the market capitalization will be equal to the market capitalization on the immediately prior index business day on which no index market disruption event occurs or is continuing with respect to such stock. (For purposes of determining whether an index market disruption event occurs or is continuing with respect to a stock in

the context of this market capitalization screen, any references in the "Index Market Disruptions" section to "underlying stock" shall mean any stock subject to this market capitalization stock screen.)

Closing price: stocks having a closing price of less than \$1 at any point over the most recent thirty day period are removed from the underlying stock universe.

Revenue: stocks of companies having total revenue of less than \$25 million over the previous twelve month period as of their most recent annual regulatory filing are removed from the underlying stock universe.

Return data: stocks having less than 60 days of historical return data over the most recent 90 day period are removed from the underlying stock universe.

Calculate exposure to the national defense theme

For each company that continues to be included in the underlying stock universe, such company's "exposure to the national defense theme" is equal to the quotient of (i) such company's total theme revenue (calculated as described below) divided by (ii) such company's total revenue.

In order to determine a company's total theme revenue, the most recent annual regulatory filing for such company is reviewed to identify and total such company's revenue derived from defense-related sales ("theme revenue"). With respect to a company, the sum of the theme revenue identified in sub-step 1, sub-step 2 or sub-step 3 below is such company's total theme revenue.

The theme revenue for each company is determined as follows:

#### Sub-Step 1:

If a company reports one or more revenue amount(s) that are (i) earned solely from direct or indirect sales to one or more of the United States Department of Defense, any related agency, as identified by the U.S. government at usa.gov/federal-agencies/department-of-defense, or any foreign government military organization (each, a "defense organization"); or (ii) classified as being earned solely from direct or indirect defense sales, military sales and/or foreign military sales ("defense-related sales"), such revenue amount(s) will be identified as theme revenue. (We are not incorporating by reference the above website or any material it includes in this prospectus supplement.) If any theme revenue is identified for a company as a result of sub-step 1, the sum of all theme revenue identified in sub-step 1 will be the company's total theme revenue and no additional review of the company's most recent annual regulatory filing for further theme revenue will take place (i.e., neither sub-step 2 nor sub-step 3 will be conducted).

- i. For example, if a company reports a revenue amount earned from sales to the United States Department of Defense and a separate revenue amount earned from foreign military sales, both of those revenue amounts will be considered theme revenue.
- ii. In contrast, if a company reports a revenue amount earned from sales to both the United States Department of Defense and police forces (but does not specify the amount of sales attributable to either the United States Department of Defense or police forces individually), such revenue amount will not be considered theme revenue under sub-step 1. Such revenue amount will not be reviewed under sub-step 2 below unless no theme revenue of any type is identified for the company as a result of sub-step 1. Thus, for example, if a company reports (i) one revenue amount of \$100 million earned from sales to the United States Department of Defense ("revenue amount A") and (ii) a second revenue amount of \$50 million earned from sales to both the United States Department of Defense and police forces ("revenue amount B"), then the total theme revenue in this example is \$100 million (i.e., revenue amount A).

### Sub-Step 2:

If a company reports one or more revenue amount(s) that are (i) earned from a combination of direct or indirect sales to one or more defense organizations and one or more organizations that are not defense organizations ("non-defense organizations") or (ii) classified as being earned from a combination of direct or indirect defense-related sales and sales that are not defense-related sales ("non-defense-related sales"), such revenue amount(s) will be identified as theme revenue. If any theme revenue is identified for a company as a result of sub-step 2, the sum of all theme revenue identified in sub-step 2 will be the company's total theme revenue and no additional review of the company's most recent annual regulatory filing for further theme revenue will take place (i.e., sub-step 3 will not be conducted).

- i. For example, if a company that had no theme revenue identified under sub-step 1 reports a revenue amount earned from sales to both the United States Department of Defense and police forces, such revenue amount will be considered theme revenue.
- ii. For example, if a company that had no theme revenue identified under sub-step 1 reports (i) one revenue amount of \$200 million earned from sales to the United States Department of Defense and intelligence agencies ("revenue amount A"), (ii) a second revenue amount of \$50 million earned from sales to foreign governments ("revenue amount B") and (iii) a third revenue amount of \$25 million earned from sales to the United States Army and police forces ("revenue amount C"), then the total theme revenue in this example is \$225 million (i.e., the total theme revenue is the sum of revenue amount A and revenue amount C, each of which was identified as theme revenue pursuant to sub-step 2; revenue amount B is not relevant because it is not theme revenue pursuant to sub-step 2).

Sub-Step 3:

If a company does not report any theme revenue described in sub-step 1 or sub-step 2 above, but the company reports one or more revenue amount(s) earned solely from direct or indirect sales to one or more of the United States government or a foreign government, such amount(s) will be the company's theme revenue, and the sum of such theme revenue will be the company's total theme revenue. No additional review of the company's most recent annual regulatory filing for further theme revenue will take place. If no theme revenue is determined in sub-step 1, sub-step 2 or sub-step 3, it will be determined that the company does not have any theme revenue.

- i. For example, if a company that has no theme revenue identified under sub-step 1 or sub-step 2 reports a revenue amount earned from sales to the United States government and a separate revenue amount earned from sales to foreign governments, both of those revenue amounts will be considered theme revenue.
- ii. In contrast, if a company that has no theme revenue identified under sub-step 1 or sub-step 2 reports a revenue amount earned from sales to the United States government and commercial enterprises (but does not specify the amount of revenue attributable to either the United States government or commercial enterprises individually), such revenue amount will not be considered theme revenue.

Stocks of companies with less than 10% of exposure to the national defense theme are removed from the underlying stock universe.

All remaining stocks are included in the base index and become the underlying stocks.

A summary flow chart of the total theme revenue determination, entitled "Summary Flow Chart II: Total Theme Revenue" can be found at the end of this discussion of the index.

Determining the weight of each underlying stock in the base index

Initial weights

For each underlying stock, the index calculation agent determines the company's market capitalization derived from its exposure to the national defense theme. The "adjusted market capitalization" is equal to a company's exposure to the national defense theme multiplied by such company's total market capitalization.

A company's "total market capitalization" is equal to the total outstanding shares of such company on the base index observation day multiplied by the closing price of such shares on the base index observation day. In the event that an index market disruption event occurs or is continuing on a base index observation day with respect to an underlying stock that was included in the base index on the index business day prior to such base index observation day, the market capitalization of such underlying stock on the immediately prior index business day on which no index market disruption event occurs or is continuing with respect to such underlying stock will be the market capitalization used to calculate such underlying stock's adjusted market capitalization. In the event that an index market disruption event occurs or is continuing on a base index observation day with respect to a stock that was not included in the base index on the index business day prior to such base index observation day, the theme adjusted market capitalization for such stock will be set to zero, and such stock will not be included in the base index.

The adjusted market capitalization of an underlying stock is then divided by the aggregate of the adjusted market capitalization for all underlying stocks. The result is the initial weight for such underlying stock and a thematically weighted portfolio.

### Target weights

The initial weight for each stock will then be adjusted by the index calculation agent, as necessary, to comply with the weight constraints. The resulting adjusted weight is the target weight for the underlying stock.

The weight constraints apply to each underlying stock so that each underlying stock must have a minimum weight of not less than 0.1% and a maximum weight of not more than the lesser of (i) 10% and (ii) ADDV (as defined under "Base Index Components" above, and expressed as a numerical value) x 10 expressed as a percentage. Negative weights are not permitted.

For any underlying stock with an initial weight of less than 0.1%, the target weight for such underlying stock will be adjusted to 0.1% prior to any additional adjustment to such underlying stock's target weight that is made to comply with the underlying stock maximum weight constraint of any other underlying stock.

For any underlying stock with an initial weight greater than the maximum weight for such underlying stock, the target weight for such underlying stock will be set to such underlying stock's maximum weight. The difference in the weight between the underlying stock's initial weight and the underlying stock's target weight will be proportionally redistributed to the rest of the underlying stock target weights, subject to the maximum weight constraint for each underlying stock. This is an iterative process and is performed repeatedly, until no underlying stock violates its maximum weight constraint.

The sum of the weights of the underlying stocks (and, in the limited circumstance described under "Short-term treasury bond ETF position" below, the underlying ETF) is always equal to 1.0.

If the sum of the target weights for the underlying stocks is less than 1.0, the base index will also include exposure to the underlying ETF, such that the sum of the target weights for the underlying stocks and the weight of the underlying ETF will equal 1.0, as described under "Short-term treasury bond ETF position" below.

Short-term treasury bond ETF position

If on any base index observation day, the sum of the target weights for the underlying stocks is less than 1.0, the base index will also include exposure to the underlying ETF. The underlying ETF will have a weight in the base index equal to the difference between 1.0 and the sum of the target weights for all underlying stocks (the "underlying ETF target weight").

The short-term treasury bond ETF position is intended to express the notional returns accruing to a hypothetical investor from an investment in the underlying ETF, which is comprised of publicly-issued

U.S. Treasury securities that have a remaining maturity of greater than one month and less than or equal to one year. The underlying ETF seeks investment results that correspond generally to the price and yield performance before fees and expenses, of public obligations of the U.S. Treasury that have a minimum term to maturity of greater than one month and less than or equal to one year, as measured by the ICE U.S. Treasury Short Bond Index. The underlying ETF's shares trade on the NASDAQ under the ticker symbol "SHV". We obtained the following fee information from the iShares® website without independent verification. The underlying ETF investment advisor, BlackRock Fund Advisors ("BFA") is entitled to receive a management fee from the underlying ETF based on a percentage of the ETF's average daily net assets, at an annual rate of 0.15%. BFA is responsible for substantially all expenses of the ETF, except interest expenses, taxes, brokerage expenses, future distribution fees or expenses and extraordinary expenses.

If for any reason the underlying ETF ceases to exist, is delisted, terminated, wound up, liquidated or files for bankruptcy, is combined with another exchange traded fund that has a different investment objective, or changes its currency of denomination, then the index committee, in its sole discretion, can choose to replace the underlying ETF with a successor exchange traded fund that in the determination of the index committee most closely replicates the underlying ETF. Any such changes or actions taken with respect to the underlying ETF by the index committee are publicly announced as promptly as is reasonably practicable and normally at least five index business days prior to the effective date of the change or actions.

### Base index rebalancing period

The target weight of each underlying stock and the underlying ETF target weight, if applicable, for each annual rebalancing will be determined on the applicable base index observation day regardless of whether an index market disruption event, as described below under "Index Market Disruptions", occurs.

The annual rebalancing of the underlying stocks based on their target weights will be implemented over the base index rebalancing period. The base index rebalancing period is comprised of five index rebalancing days, beginning on the day that is three index business days after the applicable base index observation day and including the four following index business days, subject to adjustment as described below under "Index Market Disruptions". Following each base index observation day, any change in the number of shares of an underlying stock in the base index from the prior base index observation day based on such underlying stock's target weight will be implemented incrementally on each day during the applicable base index rebalancing period. While the number of shares of each underlying stock will be rebalanced incrementally based on its target weight over the base index rebalancing period, because of price movements of the underlying stocks, the weights of the underlying stocks at the end of the base index rebalancing period and thereafter will be greater than or less than (but not equal to) the applicable underlying stock target weights set on the corresponding base index observation date.

If, on a base index observation day, the base index includes exposure to the underlying ETF, the number of shares of the underlying ETF will be rebalanced, as necessary, based on the underlying ETF target weight along with the number of shares of the underlying stocks incrementally on each day in such base index rebalancing period.

A summary flow chart of the annual base index rebalancing process, entitled "Summary Flow Chart I: Rebalancing" can be found at the end of this discussion of the index.

#### Total Return Index Rebalancing

In order to control volatility, on each total return index rebalancing day, which is each index business day, the exposure of the index to the base index may be partially rebalanced into the money market position if the realized volatility of the base index exceeds 7.0% (the "volatility cap"). The base index as controlled for volatility is the "total return index".

An "index business day" is a day on which the New York Stock Exchange is open for its regularly trading session.

To operate the volatility control, the annualized historical realized volatility of the base index (the "annualized base index realized volatility") is calculated over the relevant volatility cap period with respect to each total return index rebalancing day. Annualized base index realized volatility is the degree of

variation in the daily closing prices of the underlying stocks and the underlying ETF, if applicable, over the relevant volatility cap period. The "volatility cap period" is the period from (and including) the day which is 21 index business days before the given total return index rebalancing day to (but excluding) the day that is 1 index business day prior to the given total return index rebalancing day. As long as with respect to any given total return index rebalancing day such calculated volatility is equal to or less than the volatility cap, the weight of the base index in the total return index will be set to 100%, meaning that none of the base index weight will be rebalanced into the money market position. However, if with respect to any given total return index rebalancing day such calculated volatility exceeds the volatility cap, the exposure of the total return index to the base index will be partially rebalanced into the money market position for that total return index rebalancing day, done through a reduction of the base index weight to the percentage that is equal to the volatility cap divided by such calculated volatility. As a result, the total return index's exposure to the respective underlying stock weights and the underlying ETF weight, if applicable, within the index will be ratably reduced.

### The money market position

The money market position is intended to express the notional returns accruing to a hypothetical investor from an investment in a notional money market account denominated in U.S. dollars that accrues interest at a rate determined by reference to the notional interest rate, which equals 3-month USD LIBOR, as described below. The money market position will have a positive notional return if the notional interest rate is positive.

On any calendar day, the value of the money market position (the "money market position value") will equal the product of the money market position value on the notional interest rate reset date immediately preceding the given calendar day multiplied by 1 plus the product of (i) the notional interest rate on the notional interest rate reset date immediately preceding the given calendar day multiplied by (ii) the day count fraction for the period from (but excluding) the notional interest rate reset date immediately preceding the given calendar day to (and including) the given calendar day, determined by using the day count fraction of actual/360.

The notional interest rate will be reset quarterly, on each January 2, April 2, July 2, and October 2 or, if one of those dates is not an index business day, on the index business day immediately following such date. Each such date is referred to herein as a "notional interest rate reset date".

The "notional interest rate" on any notional interest rate reset date will equal 3-month USD LIBOR, which is the offered rate for three-month deposits in U.S. dollars, as that rate appears on Reuters screen 3750 page as of 11:00 a.m., London time, as observed two London business days prior to the relevant notional interest rate reset date. Each such date is referred to herein as a "USD LIBOR interest determination date". "Reuters screen" means the display on the Reuters service, or any successor or replacement service, on the page specified above, or any successor or replacement page on that service. A "London business day" is a day on which commercial banks and foreign currency markets settle payments and are open for general business in London. If the rate described above does not so appear on Reuters screen 3750 page, then 3-month USD LIBOR will be determined on the basis of the rates at which three-month deposits in U.S. dollars are offered by four major banks in the London interbank market selected by the index calculation agent at approximately 12:00 P.M., London time, on the relevant USD LIBOR interest determination date, to prime banks in the London interbank market, beginning on the relevant notional interest rate reset date, and in a representative amount. The index calculation agent will request the principal London office of each of these major banks to provide a quotation of its rate. If at least two quotations are provided, 3-month USD LIBOR for the relevant notional interest rate reset date will be the arithmetic mean of the quotations. If fewer than two of the requested quotations described above are provided, 3-month USD LIBOR for the relevant notional interest rate reset date will be the arithmetic mean of the rates quoted by major banks in New York City, selected by the index calculation agent, at approximately 11:00 A.M., New York City time, on the relevant notional interest rate reset date, for loans in U.S. dollars to leading European banks for a period of three months, beginning on the relevant notional interest rate reset

date, and in a representative amount. If no quotation is provided as described in the preceding paragraph, then the index calculation agent, after consulting such sources as it deems comparable to any of the foregoing quotations or display page, or any such source as it deems

reasonable from which to estimate 3-month USD LIBOR or any of the foregoing lending rates, shall determine 3-month USD LIBOR for that notional interest rate reset date in its sole discretion.

The "day count convention" is equal to (actual/360).

A summary flow chart of the daily total index rebalancing process, entitled "Summary Flow Chart I: Rebalancing" can be found at the end of this discussion of the index.

Calculating the Index Value

Index value calculation

The index is calculated on an excess return basis, meaning that the value of the index is equal to the excess return of the total return index over the sum of (i) 0.75% per annum (accruing daily) plus (ii) the return that could be earned on a notional cash deposit at the notional interest rate, compounded daily.

On any given index business day, the "index value" is equal to (i) the product of (a) the index value as of the notional interest rate reset date immediately preceding the given index business day multiplied by (b) the difference of (1) the quotient of (A) the total return index value as of the given index business day divided by (B) the total return index value as of the notional interest rate reset date immediately preceding the given index business day minus (2) the product of (A) the notional interest rate as of the notional interest rate reset date immediately preceding the given index business day multiplied by (B) the day count fraction for the period from (but excluding) the notional interest rate reset date immediately preceding (but not including) the given index business day to (and including) the given index business day, determined using the day count convention reduced by (ii) the product of (a) 0.75% per annum multiplied by (b) the day count fraction for the period from (but excluding) the notional interest rate reset date immediately preceding (but not including) the given index business day to (and including) the given index business day, determined using the day count convention.

#### Total return index value calculation

On any given index business day, the "total return index value" is equal to the product of (i) the total return index value as of the total return index rebalancing day immediately preceding the given index business day multiplied by (ii) the sum of (a) the product of (1) the quotient of the base index value as of the given index business day divided by the base index value as of the total return index rebalancing day immediately preceding the given index business day multiplied by (2) the base index weight as of the total return index rebalancing day immediately preceding the given index business day divided by the money market position value as of the total return index rebalancing day immediately preceding the given index business day multiplied by (2) 1 minus the base index weight as of the total return index rebalancing day immediately preceding the given index business day immediately preceding the given index business day.

The "base index weight" is equal to the lesser of (i) 100% and (ii) the quotient of (a) the volatility cap divided by (b) the annualized base index realized volatility as of the total return index rebalancing day immediately preceding (but not including) the given index business day.

#### Base index value calculation

On any given index business day, the "base index value" is equal to the sum of, for each underlying stock and the underlying ETF, if applicable, (a) the number of underlying stock shares or underlying ETF shares, if applicable, as of the given index business day multiplied by (b) the closing price of such underlying stock or the underlying ETF, if

applicable, as of the given index business day.

On any given index business day that is a base index rebalancing day, for each underlying stock, the number of "underlying stock shares" for such underlying stock is equal to the product of (i) the weight for such underlying stock calculated as though no index market disruption event occurred or was continuing on the given base index rebalancing day multiplied by (ii) the quotient of (a) the sum of, for each underlying stock and the underlying ETF, if applicable, the product of (I) the number of underlying stock shares or underlying ETF shares, if applicable, as of the index business day immediately preceding the given base index rebalancing day multiplied by (II) the closing price of such underlying stock or the underlying ETF, if applicable, as of the index business day immediately preceding the given base index

rebalancing day divided by (b) the closing price of such underlying stock on the index business day immediately preceding the given base index rebalancing day.

On any given index business day that is a base index rebalancing day, for each underlying stock, the "weight for such underlying stock calculated as though no index market disruption event occurred or was continuing on the given base index rebalancing day" is calculated as the sum of (i) the underlying stock weight on the index business day immediately preceding the first base index rebalancing day of the relevant base index rebalancing period plus (ii) the product of (a) the remainder of (I) the underlying stock target weight that was determined on the base index observation day immediately preceding the given base index rebalancing day minus (II) the underlying stock weight on the index business day immediately preceding the first base index rebalancing day of the relevant base index rebalancing period multiplied by (b) the remainder of (I) the number of base index rebalancing days elapsed as of (and including) the given base index rebalancing day in the relevant base index rebalancing period divided by (II) the total number of base index rebalancing days in the relevant base index rebalancing period.

The "underlying stock weight" for each underlying stock on any given index business day is calculated as the quotient of (i) the product of (a) the number of underlying stock shares of such underlying stock on the given index business day multiplied by (b) the closing price of the underlying stock on the given index business day divided by (ii) the sum of, for each underlying stock and the underlying ETF, if applicable, the product of (a) the number of underlying stock shares for such underlying stock or underlying ETF shares, if applicable, on the given index business day multiplied by (b) the closing price of such underlying stock or the underlying ETF, if applicable, on the given index business day.

On any given index business day that is a base index rebalancing day, for the underlying ETF, if applicable, the number of "underlying ETF shares" is equal to the product of (i) the weight for the underlying ETF calculated as though no index market disruption event occurred or was continuing on the given base index rebalancing day multiplied by (ii) the quotient of (a) the sum of, for each underlying stock and the underlying ETF, the product of (I) the number of underlying stock shares or underlying ETF shares as of the index business day immediately preceding the given base index rebalancing day multiplied by (II) the closing price of such underlying stock or the underlying ETF as of the index business day immediately preceding the given base index rebalancing day divided by (b) the closing price of the underlying ETF on the index business day immediately preceding the given base index rebalancing day.

For the underlying ETF, if applicable, the "weight for the underlying ETF calculated as though no index market disruption event occurred or was continuing on the given base index rebalancing day" is calculated as the sum of (i) the underlying ETF weight on the index business day immediately preceding the first base index rebalancing day of the relevant base index rebalancing period plus (ii) the product of (a) the remainder of (I) the underlying ETF target weight that was determined on the base index observation day immediately preceding the given base index rebalancing day minus (II) the underlying ETF weight on the index business day immediately preceding the first base index rebalancing day of the relevant base index rebalancing period multiplied by (b) the remainder of (I) the number of base index rebalancing days elapsed as of (and including) the given base index rebalancing day in the relevant base index rebalancing period divided by (II) the total number of base index rebalancing days in the relevant base index rebalancing period.

The "underlying ETF weight" on any given index business day is calculated as the quotient of (i) the product of (a) the number of underlying ETF shares on the given index business day multiplied by (b) the closing price of the underlying ETF on the given index business day divided by (ii) the sum of, for each underlying stock and the underlying ETF, the product of (a) the number of underlying stock shares for such underlying stock or underlying ETF shares, if applicable, on the given index business day multiplied by (b) the closing price of such underlying stock or the underlying ETF, if applicable, on the given index business day.

On any given index business day that is a base index rebalancing day, in the event that there is a potential adjustment event affecting the underlying stock or the underlying ETF, if applicable, adjustments to the number of underlying stock shares or underlying ETF shares, if applicable, computed as described above, will be made as described under "Potential Adjustment Events" below.

On any given index business day that is not a base index rebalancing day, the number of underlying stock shares and underlying ETF shares, if applicable, will remain unchanged from the last base index rebalancing day, subject to any potential adjustment events affecting the underlying stock or the underlying ETF, if applicable. In the case of a potential adjustment event affecting an underlying stock or the underlying ETF, if applicable, adjustments to the number of underlying stock shares or underlying ETF shares, if applicable, will be made as described under "Potential Adjustment Events" below.

## **Index Market Disruptions**

#### Index value calculation

If on any index business day, an index market disruption event occurs or is continuing with respect to any non-zero weighted underlying stock or underlying ETF, if applicable, included in the index, the index calculation agent shall postpone calculation of the index value to the next index business day on which no index market disruption event occurs or is continuing with respect to any non-zero weighted underlying stock or underlying ETF, if applicable, included in the index and an indicative level for the index will be published. Such level will be identified as a "disrupted indicative level". The index calculation agent shall resume calculating the index value on the first index business day on which no index market disruption event is occurring or continuing with respect to any underlying stock or the underlying ETF, if applicable, by using (i) for the number of underlying stock shares of each underlying stock or the number of underlying ETF shares of the underling ETF, if applicable, that had not been affected by such index market disruption event, the number of underlying stock shares and underlying ETF shares, if applicable, that would have been used as if the base index rebalancing day(s), if applicable, occurred on each index business day on which such index market disruption event occurred or was continuing and the total return index rebalancing day and subsequent total return index rebalancing day(s) (as applicable) occurred on each index business day on which such index market disruption event occurred or was continuing and (ii) for the number of underlying stock shares of each underlying stock or the number of underlying ETF shares of the underlying ETF, if applicable, that had been affected by such index market disruption event, the number of underlying stock shares and underlying ETF shares, if applicable, on the index business day immediately preceding the first day of such index market disruption event.

On the sixth index business day following the occurrence of an index market disruption event with respect to any underlying stocks or the underlying ETF, if applicable, included in the index, if such index market disruption event is continuing and such underlying stocks or the underlying ETF, if applicable, have not been removed from the index, the index committee may determine in its sole discretion to instruct the index calculation agent to calculate the index, using a price for such underlying stocks or the underlying ETF, if applicable, as determined by the index committee in its sole discretion. In the event the index committee determines on such sixth business day, in its sole discretion, that no such instructions should be given to the index calculation agent, the index committee may revisit such determination on any index business day thereafter on which the index market disruption event is continuing.

Notwithstanding the foregoing, in the event of a force majeure event in which all underlying stocks and the underlying ETF, if applicable, are affected, the calculation and publication of the index will be postponed until, in the determination of the index calculation agent, such force majeure event has been resolved.

Base index rebalancing day or total return index rebalancing day

Base index rebalancing day

As discussed above, the target weight attributed to each underlying stock and the underlying ETF, if applicable, will be determined on each base index observation day regardless of whether an index market disruption event (as defined below) occurs.

If an index market disruption event affects an underlying stock or the underlying ETF, if applicable, on a base index rebalancing day, the index calculation agent shall then rebalance the base index for that base index rebalancing day and for every subsequent base index rebalancing day within the applicable

base index rebalancing period as if (i) for each underlying stock or the underlying ETF, if applicable, that had not been affected by such index market disruption event, the base index rebalancing day occurred on such day and (ii) for each underlying stock or the underlying ETF, if applicable, that had been affected by such index market disruption event, the base index rebalancing day did not occur on such day (i.e., each underlying stock or the underlying ETF, if applicable, that was affected by such index market disruption event is not further rebalanced during such base index rebalancing period).

Therefore, if an underlying stock or the underlying ETF, if applicable, is affected by an index market disruption event on a base index rebalancing day, the number of shares of such underlying stock or the underlying ETF, if applicable, will not be further rebalanced over the remaining base index rebalancing days in the applicable base index rebalancing period. Instead, the number of such underlying stock shares or underlying ETF shares, if applicable, will be held constant over the remaining days in the applicable base index rebalancing period, such that the number of underlying stock shares or underlying ETF shares, if applicable, will remain equal to the number of underlying stock shares or underlying ETF shares, if applicable, after the close on the index business day immediately preceding the base index rebalancing day on which it was first affected by such index market disruption event.

For each underlying stock or the underlying ETF, if applicable, affected by an index market disruption event on a base index rebalancing day, the underlying stock weight or underlying ETF weight, if applicable, for each subsequent base index rebalancing day during the applicable base index rebalancing period will be calculated as the quotient of (i) the product of (a) the number of such underlying stock shares or underlying ETF shares, if applicable, after the close on the index business day immediately preceding the given base index rebalancing day multiplied by (b) the last available traded price of such underlying stock or underlying ETF, if applicable, on the index business day immediately preceding the given base index rebalancing day divided by (ii) the sum of, for each underlying stock and the underlying ETF, if applicable, the product of (a) the number of underlying stock shares or underlying ETF shares, if applicable, on the index business day immediately preceding the given base index rebalancing day multiplied by (b) as applicable, the closing price or the last available traded price of such underlying stock or the underlying ETF, if applicable, as of the index business day immediately preceding the given base index rebalancing day.

If not all underlying stocks and the underlying ETF, if applicable, are affected by an index market disruption event, then the shares of such underlying stocks and the underlying ETF, if applicable, not affected by an index market disruption event will not be rebalanced over the base index rebalancing period based on the underlying stock target weight or underlying ETF target weight, if applicable. Instead, on each subsequent base index rebalancing day, the number of shares of the underlying stock and underlying ETF, if applicable, will be adjusted such that each underlying stock and the underlying ETF, if applicable, will retain a weight within the remaining weight of the base index not allocated to the underlying stock(s) or the underlying ETF, if applicable, affected by an index market disruption event that is proportional to its underlying stock target weight or underlying ETF target weight, if applicable, relative to the underlying stock target weights and underlying ETF target weight, if applicable, of all other underlying stocks and the underlying ETF, if applicable, not affected by an index market disruption event.

Thus, on each base index rebalancing day, the underlying stock weight and the underlying ETF weight, if applicable, for each underlying stock and the underlying ETF, if applicable, not affected by an index market disruption event is calculated as: the product of (i) the quotient of (a) the underlying stock weight or underlying ETF weight, if applicable, calculated as though no index market disruption event occurred or was continuing on any base index rebalancing day in the applicable base index rebalancing period divided by (b) 1 minus the sum of, for each underlying stock or the underlying ETF, if applicable, affected by an index market disruption event, such underlying stock weight or underlying ETF weight, if applicable, calculated as though no index market disruption event occurred or was continuing on any base index rebalancing day in the applicable base index rebalancing period multiplied by (ii) 1 minus the sum of the underlying stock weight(s) and underlying ETF weight, if applicable, for each underlying stock and the underlying ETF, if applicable, affected by an index market disruption event during the applicable base

index rebalancing period.

The number of underlying stock shares or underlying ETF shares, if applicable, for each underlying stock or the underlying ETF, if applicable, not affected by an index market disruption event will then, on

each subsequent base index rebalancing day in the applicable base index rebalancing period, be calculated as the product of (i) the weight of the underlying stock or the underlying ETF, if applicable, for the given base index rebalancing day multiplied by (ii) the quotient of (a) the sum of, for each underlying stock or the underlying ETF, if applicable, (I) the number of underlying stock shares or underlying ETF shares, if applicable, after the close on the index business day immediately preceding the given base index rebalancing day multiplied by (II) as applicable, the closing price or the last available traded price if the closing price is not available of such underlying stock or the underlying ETF, if applicable, on the index business day immediately preceding the given base index rebalancing day divided by (b) the closing price of such underlying stock or the underlying ETF, if applicable, on the index business day immediately preceding the given base index rebalancing day.

For example, on a base index observation day, a hypothetical base index with no minimum or maximum weight constraints and no underlying ETF requirement consists of only four underlying stocks (stock A, stock B, stock C and stock D), all four of which were included in the base index on the index business day prior to the base index observation day, at weights of 40%, 20%, 30% and 10%, respectively. For illustrative purposes, the closing price for each underlying stock is assumed to be the same at \$10 per share at the end of each day. With the assumption of a constant closing price of \$10, the number of underlying stock shares on the index business day prior to the base index observation day can be assumed to be 4, 2, 3 and 1 for Stock A, Stock B, Stock C and Stock D, respectively. On the base index observation day, the underlying stock target weight of each underlying stock is determined to be equal to 20%, 50%, 10% and 20%, respectively.

If an index market disruption event affects stock A on the second base index rebalancing day in the applicable base index rebalancing period, the second base index rebalancing day and all subsequent base index rebalancing days in the base index rebalancing period will be deemed to have not occurred with respect to stock A. The number of underlying stock shares for stock A will be held constant at 3.6, which is equal to the number of underlying stock shares for stock A at the end of the first base index rebalancing day (the last index business day without an index market disruption event), as stock A was rebalanced by 1/5 of the decrease on the first base index rebalancing day in the base index rebalancing period. Similarly, the number of underlying stock shares for stock B, stock C and stock D will be 2.6, 2.6 and 1.2, respectively, at the end of the first base index rebalancing day.

The weight for Stock A, given the index market disruption event, will now be 36% for the second base index rebalancing day (compared to a weight of 32% which would have been expected for stock A for such day in the absence of the index market disruption event). The weights for stock B, stock C and stock D will be calculated such that each retains a weight within the remaining weight of the base index not allocated to stock A's weight that is proportional to its underlying stock target weight relative to the other underlying stock target weights. The weight in the base index not allocated to stock A's weight is equal to 64%. The weight in the base index that was to be allocated to stock A on the second base index rebalancing day in the absence of the index market disruption event was 68% for such day. Therefore, the weight for stock B on the second base index rebalancing day will be equal to 30.12% (the product of 32%/68% multiplied by 64%), versus the weight of 32% in the absence of the index market disruption event for stock B on the second base index rebalancing day) and the weight for stock C and stock D will be equal to 20.71% and 13.18%, respectively (versus the weights of 22% and 14%, respectively, on the second base index rebalancing day in the absence of an index market disruption event). Therefore, the underlying stock shares for stock A, stock B, stock C and stock D will be 3.6, 3.012, 2.071 and 1.318, respectively for the second base index rebalancing day.

In contrast, if an index market disruption event does not affect stock A during the base index rebalancing period but an index market disruption event affects stock B on the third base index rebalancing day in the applicable base index rebalancing period, the third base index rebalancing day and all subsequent base index rebalancing days in the base index rebalancing period will be deemed to have not occurred with respect to stock B. The underlying stock shares for stock B will be held at 3.2 shares for the remaining base index rebalancing days (as stock B was rebalanced by a total

of 2/5 of the increase over the first and second base index rebalancing days in the base index rebalancing period to a weight of 32%). Therefore, on the fifth and final day of the base index rebalancing period, the weights for stock A, stock C and stock D will be calculated such that each retains a weight within the remaining weight of the base index not allocated to stock B's weight that is proportional to its underlying stock target weight

relative to the others underlying stock target weights. The weight in the base index not allocated to stock B's weight is equal to 68%. Therefore, the weight for stock A on the final rebalancing day in the base index rebalancing period will be equal to 27.2% (versus the underlying stock target weight of 20%). Correspondingly, the underlying stock shares for stock A, stock B, stock C and stock D will be 2.72, 3.2, 1.36 and 2.72, respectively, at the end of the base index rebalancing period (in the absence of the index market disruption event affecting stock B, the underlying stock shares for stock A, stock B, stock C and stock D would have been 2, 5, 1 and 2, respectively).

#### Total return index rebalancing day

If a total return index rebalancing day must be effected on an index business day on which an index market disruption event affects an underlying stock or the underlying ETF, if applicable, the index calculation agent shall then rebalance the index as if (i) for each underlying stock or the underlying ETF, if applicable, that had not been affected by an index market disruption event, the total return index rebalancing day occurred on such day and (ii) for each underlying stock that had been affected by such index market disruption event, the total return index rebalancing day did not occur on such day, provided that for purposes of calculating the annualized base index realized volatility the alternative calculations set forth in the next paragraph apply (i.e., other than for purposes of calculating the annualized base index realized volatility in the manner set forth in the next paragraph, each underlying stock or the underlying ETF, if applicable, that was affected by such index market disruption event is disregarded for purposes of total return index rebalancing).

Solely for purposes of calculating the annualized base index realized volatility which includes an index business day on which an index market disruption event has occurred or is continuing with respect to any underlying stock or the underlying ETF, if applicable (except if such index market disruption event affects all the underlying stocks and the underlying ETF, if applicable), the base index value will include any underlying stock or the underlying ETF, if applicable, that has been affected by an index market disruption event and will be calculated (i) in the event of a trading disruption related to movements in price that exceed limits established by the relevant exchange, by assuming the closing price of the underlying stock or the closing price of the underlying ETF, if applicable, is equal to such price limit on such index business day or (ii) in the event of an index market disruption event which is not a trading disruption related to movements in price that exceed limits established by the relevant exchange, by multiplying the last traded price of the underlying stock or the underlying ETF, if applicable, on the immediately preceding relevant index business day by the percentage change (whether positive or negative) of the underlying stock or the underlying ETF, if applicable, having the largest absolute total return (expressed in percentage; as adjusted for dividends, splits and spin-offs) from the immediately preceding relevant index business day to the relevant index business day; provided, that if an index market disruption event has occurred and is continuing with respect to more than one underlying stock on an index business day, then the index calculation agent shall consult with the index committee to determine the values to be used for such disrupted underlying stock for purposes of calculating the annualized base index realized volatility, such determination to be made by the index committee in its sole discretion based on its review of such market and other information as it believes relevant to such determination.

An "index market disruption event" with respect to an underlying stock or the underlying ETF, if applicable, will have occurred in any of the following situations (as determined by the index calculation agent in its sole discretion): (i) the official closing price, level or other measure of any underlying stock or the underlying ETF, if applicable, is unavailable on any relevant day on which such measure is scheduled to be published; (ii) a relevant exchange is not open for trading during its regular trading session, or closes prior to its scheduled closing time, on any relevant day or there is an exchange disruption; (iii) upon the occurrence or existence of a trading disruption for more than two hours of trading, or at any time during the one-hour period that ends at the scheduled closing time of the relevant exchange, and which the index calculation agent determines is material; (iv) with respect to the underlying ETF, the net asset value per share is not calculated or is not announced by the underlying ETF or the sponsor of the underlying ETF, and such event has a material impact on the index; (v) with respect to the underlying ETF, the underlying ETF or the

sponsor of the Underlying ETF suspends creations or redemptions of shares, and such event has a material impact on the index; (vi) upon the occurrence or existence of an index dislocation; or (vii) upon the occurrence or existence of a force majeure event.

A "trading disruption" means any suspension of or limitation imposed on trading by the relevant exchange or related exchange, and whether by reason of movements in price exceeding limits permitted by the relevant exchange or otherwise, relating to the underlying stock shares, the underlying ETF shares, the index underlying the underlying ETF or futures or options on the underlying stock shares, the underlying ETF shares or the index underlying the underlying ETF.

An "exchange disruption" means any event that disrupts or impairs (as determined by the index calculation agent in its sole discretion) the ability of market participants in general to effect transactions in, or obtain market values for, the shares of the underlying stock or underlying ETF on the relevant exchange or futures or options on the underlying stock shares, underlying ETF shares or the index underlying the underlying ETF, in each case on the relevant related exchange.

An "exchange" means the primary exchange on which shares of an underlying stock or the underlying ETF are listed.

A "related exchange" means, in respect of an underlying stock, the underlying ETF or the index underlying the underlying ETF, as the case may be, the primary exchange (or exchanges) or quotation system (or quotation systems) on which futures or options contracts relating to such underlying stock, the underlying ETF or the index underlying the underlying ETF, as the case may be, are traded, if any.

An "index dislocation" means the index calculation agent determines that a market participant, as a result of a market-wide condition relating to the index, any underlying stock or the underlying ETF, would (i) be unable, after using commercially reasonable efforts, to acquire, establish, re-establish, substitute, maintain, unwind, or dispose of all or a material portion of any hedge position relating to the index, an underlying stock or the underlying ETF, or (ii) incur a materially increased cost in doing so, including due to any capital requirements or other law or regulation.

A "force majeure event" means the index calculation agent determines that there has been the occurrence of a systems failure, natural or man-made disaster, act of God, armed conflict, act of terrorism, riot or labor disruption or any similar intervening circumstance that is beyond the reasonable control of the index sponsor, index calculation agent or any of their respective affiliates that index calculation agent determines is likely to have a material effect on a component necessary for the calculation of the index, or on its ability to perform its role in respect of the index.

#### Potential Adjustment Events

In the event that an underlying stock or the underlying ETF, if applicable, is affected by a "potential adjustment event", the index calculation agent may make adjustments to the number of shares of such underlying stock or the underlying ETF, if applicable, reflected in the index and/or the weighting of the underlying stock or the underlying ETF, if applicable, if it determines that the event could have a diluting or concentrative effect on the theoretical value of the underlying stock shares or the underlying ETF shares, if applicable, and would not otherwise be accounted for in the index. The table below describes the potential adjustment events for which the index calculation agent may make adjustments. The effective date of any adjustment made will be as of the ex-date for the potential adjustment event with the exception of ad-hoc situations as described below.

Ad-hoc situations are defined as circumstances when either the index calculation agent receives information about the effectiveness of a transaction after the last trading day of an underlying stock or the underlying ETF, if applicable, or the underlying stock or the underlying ETF, if applicable, has been suspended from trading with immediate effect and will not resume trading until its delisting and/or has been delisted from the relevant exchange with immediate effect. In case of ad-hoc situations, the adjustment will be applied with a notice period of two index business days, i.e., the effective date for the adjustment will be the third index business day following the announcement.

If a potential adjustment event is announced prior to an underlying stock being removed from the index, but the ex-date occurs after the underlying stock is removed from the index, the underlying stock will never be adjusted for such adjustment event.

Potential Adjustment Event	Adjustment Adjustment Description			
Cash Dividends Special/Extraordinary Dividends	Yes	The dividend is reinvested in the underlying stock or underlying ETF		
	Yes	The dividend is reinvested in the underlying stock or underlying ETF		
Stock Dividend	Yes	Where shareholders receive "B" new shares for every "A" share held, the number of shares is adjusted by multiplying the original number of shares by the quotient of (a) the sum of A and B divided by (b) A.  Where shareholders receive "B" new shares for every "A" share held, the number of		
Stock Split	Yes	shares is adjusted by multiplying the original number of shares by the quotient of B divided by A.		
		Where company X is acquired, proceeds equal to the original number of shares of company X multiplied by the latest available price determined by the calculation agent are reinvested proportionally across the index.		
Stock Cash Acquisition	Yes	If an ad-hoc situation applies, then a notional position in company X, where the valuation of the notional position is exactly equal to the proceeds, will be maintained in the base index during the two index business day notice period prior to the effective date.		
		If company Y, the acquirer, is currently in the index, and irrespective of whether or not an ad-hoc situation applies to the adjustment event, then where shareholders receive "B" new shares of company Y for every "A" share of company X held, the shares of company X are replaced by shares of company Y where the number of shares of company Y is obtained by multiplying the original number of shares of company X by the quotient of B divided by A.		
Stock Merger	Yes	If the acquirer is not a current index constituent, then the shares of the acquired company will be removed from the index and the proceeds will be reinvested proportionally across the index. If an ad-hoc situation applies and the acquirer company Z is not a current index constituent, and where shareholders receive "C" shares of company Z for every "A" share of company X held, then for the two index business day notice period, the shares of company X will be replaced by shares of company Z obtained by multiplying the original number of shares of company X by the quotient of C divided by A. The shares of company Z will be removed from the index on the effective date and proceeds will be reinvested proportionally across the index.		
		Where shareholders receive "B" new shares of spun-off company Y for every "A" share of parent company X held, a position in company Y is initiated where the number of shares of company Y is obtained by multiplying the original number of shares of company X by the quotient of B divided by A.		
Stock Spinoff	Yes	If the effective date of the spinoff is a base index rebalancing day, the effective proceeds of the spinoff obtained by multiplying the original number of shares of company X by the quotient of B divided by A and that further multiplied by the latest available price of company Y determined by the index calculation agent are		
Stock Delisting	Yes	reinvested in company X.		

The proceeds received from the sale of the delisted securities are reinvested proportionally across the index. If an ad-hoc situation applies, then a notional cash position equal to the proceeds will be maintained in the base index during the two index business day notice period prior to the effective date.

For potential adjustment events not listed in the table above, the index calculation agent may make adjustments if it determines that the event could have a diluting or concentrative effect on the theoretical value of the underlying stock shares or the underlying ETF shares, if applicable, and would not otherwise be accounted for in the index. Any such adjustments are publicly announced in advance wherever practicable.

#### The Index Committee and Index Calculation Agent

An index committee is responsible for overseeing the index, the methodology and the implementation thereof, while the index calculation agent is responsible for the calculation of the index, including responding to index market disruption events (as defined under "Index Market Disruption Events" above) and potential adjustment events. The index committee will initially be comprised of three full-time employees of Motif Capital Management, Inc. or one or more of its affiliates.

The index committee may exercise limited discretion with respect to the index, as contemplated by the methodology, including in determining the underlying stocks included in the base index and theme revenue. Any such changes or actions are publicly announced as promptly as is reasonably practicable and normally at least five index business days prior to their effective date. The index calculation agent may from time to time consult the index committee on matters of interpretation with respect to the methodology.

#### Data Error

If the index calculation agent determines that the price made available by the relevant exchange reflects a manifest error for an underlying stock or the underlying ETF, if applicable, with a non-zero weighting in the index (or the published level of the notional interest rate) reflects a manifest error, the calculation of the index shall be delayed until such time as a corrected price or level is made available. In the event a corrected price or level is not made available on a timely basis or in the event that the price made available for an underlying stock or the underlying ETF, if applicable (or the published level of a notional interest rate), is subsequently corrected and such correction is published, then the index calculation agent may, if practicable and if the index calculation agent determines, acting in good faith, that such error is material, adjust or correct the relevant calculation or determination, including the price of the underlying stock or the underlying ETF, if applicable, as of any index business day to take into account such adjustment or correction.

On any index business day during which the price of for an underlying stock or the underlying ETF, if applicable, reflects such an error (and such error has not been corrected), the underlying stock target weights, underlying ETF target weight, if applicable, and the base index weight will be calculated using the price made available by the relevant exchange (notwithstanding any manifest error). If the calculation agent determines that any such error is material (as described above) and if the relevant exchange subsequently corrects such price it has made available, the index value may be calculated using such corrected price, but the quantities of the underlying stocks and the underlying ETF, if applicable, implied by the underlying stock target weights and the underlying ETF weight, if applicable, and the base index weight (each prior to the error being corrected) will not be adjusted.

### Non-Data Error

If there is a missed potential adjustment event (as described under "Potential Adjustment Events" above) (a "missed potential adjustment event") or a deviation from the index methodology as described in this document (a "missed index methodology event"), and a correction can be made within 2 days or fewer after such missed potential adjustment event or missed index methodology event, the index calculation agent will recalculate the index value for the index business day on which such event occurred and each following index business day on which the index value was affected by such missed potential adjustment event or missed index methodology event, using the corrected potential adjustment

event adjustment or index methodology. If such a correction occurs more than 2 days after such missed corporate event or missed index methodology event, the index will not be recalculated.

The following summary flow chart is provided for purposes of illustration only and should be read together with, and not as a substitute for, the preceding disclosure regarding the index.

SUMMARY FLOW CHART I: REBALANCING

The following summary flow chart is provided for purposes of illustration only and should be read together with, and not as a substitute for, the preceding disclosure regarding the index.

SUMMARY FLOW CHART II: TOTAL THEME REVENUE

#### Closing Levels of the Index

The closing level of the index has fluctuated in the past and may, in the future, experience significant fluctuations. Any upward or downward trend in the historical or hypothetical closing level of the index during the period shown below is not an indication that the index is more or less likely to increase or decrease at any time during the life of your notes.

We cannot give you any assurance that the future performance of the index or the underlying stocks will result in your receiving an amount greater than the outstanding face amount of your notes on the stated maturity date.

Neither we nor any of our affiliates make any representation to you as to the performance of the index. Before investing in the offered notes, you should consult publicly available information to determine the index levels between the date of this prospectus supplement and the date of your purchase of the offered notes. The actual performance of the index over the life of the offered notes, as well as the cash settlement amount on a call payment date or at maturity, may bear little relation to the historical index performance information or hypothetical performance data shown below.

The graph below shows the daily closing levels of the index from April 25, 2009 through April 25, 2019 (using hypothetical performance data and historical closing levels). As a result, the following graph does not reflect the global financial crisis which began in 2008, which had a materially negative impact on the price of most equity securities and, as a result, the level of most equity indices. Since the index was launched on June 1, 2016 and has a limited operating history, the graph includes hypothetical performance data for the index prior to its launch on June 1, 2016. The hypothetical performance data prior to June 1, 2016 was obtained from the index sponsor's website, without independent verification. The index sponsor advises that such hypothetical performance data was derived using the index rules as of June 1, 2016, but applied retroactively using historical underlying stock and notional interest rate levels. The historical closing levels from June 1, 2016 to April 25, 2019 were obtained from Bloomberg Financial Services, without independent verification. (In the graph, historical closing levels can be found to the right of the vertical solid line marker.) You should not take the hypothetical performance data or historical closing levels of the index as an indication of the future performance of the index.

Average Allocation Between the Base Index and the Money Market Position for Each Month

Historically, a very significant portion (up to approximately 92%) of the index consistently has been allocated to the money market position. The graph below shows the average allocation between the base index (consisting of the underlying stocks) and the money market position for each month from March 2009 through March 2019. This graph uses hypothetical performance data for the index prior to its launch on June 1, 2016 using the index rules as of June 1, 2016, but applied retroactively using historical underlying stock and notional interest rate levels. (In the graph below, this hypothetical information can be found to the left of the vertical solid line marker.) You should not take the historical information or hypothetical data as an indication of the future performance of the index.

Performance of the Notional Interest Rate (3-Month USD LIBOR) Reflected in the Money Market Position

The money market position reflects the returns accruing on a hypothetical cash investment in a notional money market account denominated in U.S. dollars that accrues interest at the notional interest rate, which is equal to 3-month USD LIBOR.

The graph below illustrates the historical levels of the 3-month USD LIBOR rate from April 25, 2009 through April 25, 2019. The level of the 3-month USD LIBOR rate has fluctuated in the past and may, in the future, experience significant fluctuations. Any historical upward or downward trend in the level of the 3-month USD LIBOR rate during the period shown below is not an indication that the level of the 3-month USD LIBOR rate is more or less likely to increase or decrease at any time during the life of the notes. See "U.K. Regulators Will No Longer Persuade or Compel Banks to Submit Rates for Calculation of LIBOR After 2021; Interest Rate Benchmark May Be Discontinued" and "Additional Risk Factors Specific to Your Notes — Regulation and Reform of "Benchmarks", Including LIBOR and Other Types of Benchmarks, May Cause such "Benchmarks" to Perform Differently Than in the Past, or to Disappear Entirely, or Have Other Consequences Which Cannot Be Predicted" for more information about 3-month USD LIBOR.

You should not take the historical level of the 3-month USD LIBOR rate as an indication of future levels of the 3-month USD LIBOR rate.

Neither we nor any of our affiliates make any representation to you as to the performance of the 3-month USD LIBOR rate. The actual levels of the 3-month USD LIBOR rate during the term of the notes may bear little relation to the historical levels of the 3-month USD LIBOR rate shown below.

We obtained the 3-month USD LIBOR rates shown in the graph below from Reuters, without independent verification.

Underlying Stocks With Weights Equal to or in Excess of 5% of the Index as of April 25, 2019

The Boeing Company is registered under the Securities Exchange Act of 1934 (the "Exchange Act"). Companies with stocks registered under the Exchange Act are required to file financial and other information specified by the U.S. Securities and Exchange Commission ("SEC") periodically. Information filed with the SEC can be inspected and copied at the SEC's public reference room located at 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330. In addition, information filed by this underlying stock issuer with the SEC electronically can be reviewed through a web site maintained by the SEC. The address of the SEC's web site is sec.gov. Information filed with the SEC by the above-referenced underlying stock issuer under the Exchange Act can be located by referencing its SEC file number specified below.

The graph below, except where otherwise indicated, shows the daily historical closing prices of The Boeing Company from April 25, 2009 through April 25, 2019, adjusted for corporate events, if applicable. We obtained the prices in the graph below using data from Bloomberg Financial Services, without independent verification. We have taken the description of the underlying stock issuer set forth below from publicly available information without independent verification.

According to publicly available information, The Boeing Company is an aerospace firm. Information filed with the SEC by The Boeing Company under the Exchange Act can be located by referencing SEC file number 001-00442.

Comparative Performance of the Index and the S&P Aerospace & Defense Select Industry Index

For comparative purposes, the graph below shows the performance, from April 25, 2009 through April 25, 2019, of the index (in blue, and using historical information and hypothetical performance data, as explained below) and the S&P Aerospace & Defense Select Industry Index (in red). The S&P Aerospace & Defense Select Industry Index is a modified equal-weighted index that is designed to measure the performance of stocks in the S&P Total Market Index that are classified in the GICS® aerospace & defense sub-industry. The S&P Total Market Index tracks all U.S. common stocks listed on the NYSE, NYSE Arca, NYSE American (formerly NYSE MKT), NASDAQ Global Select Market, NASDAQ Select Market, NASDAQ Capital Market, Bats BZX, Bats BYX, Bats EDGA, Bats EDGX or IEX. Because the S&P Aerospace & Defense Select Industry Index only includes stocks in the aerospace & defense sub-industry, there are fewer sub-industries represented by the S&P Aerospace & Defense Select Industry Index than the six sub-industries represented by the index.

For comparative purposes, each of the index and the S&P Aerospace & Defense Select Industry Index have been adjusted to have a closing level of 100 on April 25, 2009 by dividing the applicable closing level on each day by that index's closing level on April 25, 2009 and multiplying the quotient by 100. The historical closing levels of the index from June 1, 2016 to April 25, 2019 used to create this graph reflect the actual performance of the index and were obtained from Bloomberg Financial Services, without independent verification. (In this graph, the historical closing levels of the index can be found to the right of the vertical solid line marker.) The index sponsor of the index advises that the hypothetical performance data from April 25, 2009 through May 31, 2016 used to create this graph was derived using the index rules as of June 1, 2016, but applied retroactively using historical underlying stock and notional interest rate levels. The daily historical closing levels of the S&P Aerospace & Defense Select Industry Index from April 25, 2009 through April 25, 2019 used to create this graph were obtained from Bloomberg Financial Services, without independent verification. You should not take this graph, or the hypothetical performance data or historical closing levels of the index, or the historical closing levels of the S&P Aerospace & Defense Select Industry Index, used to create this graph, as an indication of the future performance of the index or the correlation (if any) between the level of the index and the level of the S&P Aerospace & Defense Select Industry Index.

#### Additional Selected Performance Information for the Index

The following table provides additional selected hypothetical data and historical performance information for the index as of April 25, 2019. The data prior to June 1, 2016 reflected in this table is hypothetical and was derived using the index rules as of June 1, 2016, but applied retroactively using historical underlying stock and notional interest rate levels. We obtained all of the hypothetical data and historical performance information in this table from the index sponsor, without independent verification. You should not take the historical information or hypothetical data as an indication of the future performance of the index.

Effective Performance (1M)	2.7%		
Effective Performance (6M)	1.1%		
Effective Performance (1Y)	-1.5%		
Effective Performance (3Y)	37.5%		
Effective Performance (5Y)	42.4%		
Effective Performance (10Y)	110.1%		
Annualized Performance (since June 2011)*			
Annualized Volatility (since June 2011)*			
Return over risk (since June 2011)**			
Maximum Peak-to-Trough Drawdown (since June 2011)***			

<sup>\*</sup>Calculated on an annualized basis since June 1, 2011.

<sup>\*\*</sup>Calculated by dividing the annualized performance by the annualized volatility since June 1, 2011.

<sup>\*\*\*</sup> The largest percentage decline in the index level from any previously occurring level since June 1, 2011.

#### License Agreement

Motif is a registered trademark of Motif Investing, Inc. ("Motif Investing") and has been licensed for use by Motif Capital Management, Inc. ("Motif Capital") and sublicensed for certain purposes by GS Finance Corp. ("Goldman"). The "Motif Capital National Defense 7 ER Index" is a product of Motif Capital and has been licensed for use by Goldman. Goldman's notes are not sponsored, endorsed, sold or promoted by Motif Investing, Motif Capital, or their respective affiliates. Neither Motif Capital nor Motif Investing make any representation or warranty, express or implied, to the owners of the notes or any member of the public regarding the advisability of investing in securities generally or in the notes particularly or the ability of the Motif Capital National Defense 7 ER Index to track general market performance.

Motif Capital's only relationship to Goldman with respect to the Motif Capital National Defense 7 ER Index is the licensing of the Index and certain trademarks, service marks and/or trade names of Motif Capital, other than a non-controlling interest held by The Goldman Sachs Group Inc., Goldman's parent company, in Motif Investing Inc., the index sponsor's ultimate parent company. The Motif Capital National Defense 7 ER Index is determined, composed and calculated by Motif Capital without regard to Goldman or the notes. Motif Capital has no obligation to take the needs of Goldman or the owners of the notes into consideration in determining, composing or calculating the Motif Capital National Defense 7 ER Index. Motif Capital is not responsible for and has not participated in the determination of the prices, and amount of the notes or the timing of the issuance or sale of the notes or in the determination or calculation of the equation by which the notes are to be converted into cash. Motif Capital has no obligation or liability in connection with the administration, marketing or trading of the notes. There is no assurance that investment products based on the Motif Capital National Defense 7 ER Index will accurately track index performance or provide positive investment returns. Inclusion of a security within an index is not a recommendation by Motif Capital to buy, sell, or hold such security, nor is it considered to be investment advice.

MOTIF CAPITAL DOES NOT GUARANTEE THE ADEQUACY, ACCURACY, TIMELINESS AND/OR THE COMPLETENESS OF THE Motif Capital National Defense 7 ER Index OR ANY DATA RELATED THERETO OR ANY COMMUNICATION, INCLUDING BUT NOT LIMITED TO, ORAL OR WRITTEN COMMUNICATION (INCLUDING ELECTRONIC COMMUNICATIONS) WITH RESPECT THERETO. MOTIF CAPITAL SHALL NOT BE SUBJECT TO ANY DAMAGES OR LIABILITY FOR ANY ERRORS, OMISSIONS, OR DELAYS THEREIN. MOTIF CAPITAL MAKES NO EXPRESS OR IMPLIED WARRANTIES, AND EXPRESSLY DISCLAIMS ALL WARRANTIES, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE OR AS TO RESULTS TO BE OBTAINED BY GOLDMAN, OWNERS OF THE NOTES, OR ANY OTHER PERSON OR ENTITY FROM THE USE OF THE Motif Capital National Defense 7 ER Index OR WITH RESPECT TO ANY DATA RELATED THERETO. WITHOUT LIMITING ANY OF THE FOREGOING, IN NO EVENT WHATSOEVER SHALL MOTIF CAPITAL BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO, LOSS OF PROFITS, TRADING LOSSES, LOST TIME OR GOODWILL, EVEN IF THEY HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, WHETHER IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE.

THERE ARE NO THIRD PARTY BENEFICIARIES OF ANY AGREEMENTS OR ARRANGEMENTS BETWEEN MOTIF CAPITAL AND Goldman.

#### SUPPLEMENTAL DISCUSSION OF FEDERAL INCOME TAX CONSEQUENCES

The following section supplements the discussion of U.S. federal income taxation in the accompanying prospectus.

The following section is the opinion of Sidley Austin llp, counsel to GS Finance Corp. and The Goldman Sachs Group, Inc. It applies to you only if you hold your notes as a capital asset for tax purposes. This section does not apply to you if you are a member of a class of holders subject to special rules, such as:

- •a dealer in securities or currencies:
- •a trader in securities that elects to use a mark-to-market method of accounting for your securities holdings;
- •a bank:
- •a regulated investment company;
- •a life insurance company;
- •a tax-exempt organization;
- •a partnership;
- •a person that owns the notes as a hedge or that is hedged against interest rate risks;
- •a person that owns the notes as part of a straddle or conversion transaction for tax purposes; or
- •a United States holder (as defined below) whose functional currency for tax purposes is not the U.S. dollar.

This section is based on the U.S. Internal Revenue Code of 1986, as amended, its legislative history, existing and proposed regulations under the Internal Revenue Code, published rulings and court decisions, all as currently in effect. These laws are subject to change, possibly on a retroactive basis.

You should consult your tax advisor concerning the U.S. federal income tax and other tax consequences of your investment in the notes, including the application of state, local or other tax laws and the possible effects of changes in federal or other tax laws.

**United States Holders** 

This subsection describes the tax consequences to a United States holder. You are a United States holder if you are a beneficial owner of notes and you are:

- •a citizen or resident of the United States;
- •a domestic corporation;
- •an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust if a United States court can exercise primary supervision over the trust's administration and one or more United States persons are authorized to control all substantial decisions of the trust.

If you are not a United States holder, this section does not apply to you and you should refer to "— United States Alien Holders" below.

Your notes will be treated as debt instruments subject to special rules governing contingent payment debt instruments for U.S. federal income tax purposes. Under those rules, the amount of interest you are required to take into account for each accrual period will be determined by constructing a projected payment schedule for your notes and applying rules similar to those for accruing original issue discount on a hypothetical noncontingent debt instrument with that projected payment schedule. This method is applied by first determining the yield at which we would issue a noncontingent fixed rate debt instrument with terms and conditions similar to your notes (the "comparable yield") and then determining as of the issue date a payment schedule that would produce the comparable yield. These rules will generally have the effect of requiring you to include amounts in income in respect of your notes, even though you generally will not receive any payments from us until maturity.

It is not entirely clear how, under the rules governing contingent payment debt instruments, the maturity date for debt instruments (such as your notes) that provide for the possibility of early redemption should be determined for purposes of computing the comparable yield and projected payment schedule. It would be reasonable, however, to compute the comparable yield and projected payment schedule for your notes (and we intend to make the computation in such a manner) based on the assumption that your notes will remain outstanding until the stated maturity date.

We have determined that the comparable yield for the notes is equal to % per annum, compounded semi-annually with a projected payment at maturity of \$ based on an investment of \$1,000.

Based on this comparable yield, if you are an initial holder that holds a note until maturity and you pay your taxes on a calendar year basis, we have determined that you would be required to report the following amounts as ordinary income, not taking into account any positive or negative adjustments you may be required to take into account based on the actual payments on the notes, from the note each year:

Total Interest Deemed to Have Accrued from Interest Deemed to Accrue During Original Issue Date (per \$1,000 note) as of End of Accrual Period (per \$1,000 note) Accrual Period

Accrual Period

through

December 31, 2019

January 1, 2020 through

December 31, 2020

January 1, 2021 through

December 31, 2021

January 1, 2022 through

December 31, 2022

January 1, 2023 through

December 31, 2023

January 1, 2024 through

December 31, 2024

January 1, 2025 through

December 31, 2025

January 1, 2026 through

You are required to use the comparable yield and projected payment schedule that we compute in determining your interest accruals in respect of your notes, unless you timely disclose and justify on your U.S. federal income tax return the use of a different comparable yield and projected payment schedule.

The comparable yield and projected payment schedule are not provided to you for any purpose other than the determination of your interest accruals in respect of your notes, and we make no representation regarding the amount of contingent payments with respect to your notes.

If you purchase your notes at a price other than their adjusted issue price determined for tax purposes, you must determine the extent to which the difference between the price you paid for your notes and their adjusted issue price is attributable to a change in expectations as to the projected payment schedule, a change in interest rates, or both, and reasonably allocate the difference accordingly. The adjusted issue price of your notes will equal your notes' original issue price plus any interest deemed to be accrued on your notes (under the rules governing contingent payment debt instruments) as of the time you purchase your notes. The original issue price of your notes will be the first price at which a substantial amount of the notes is sold to persons other than bond houses, brokers or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers. Therefore, you may be required to make the adjustments described above even if you purchase your notes in the initial offering if you purchase your notes at a price other than the issue price.

If the adjusted issue price of your notes is greater than the price you paid for your notes, you must make positive adjustments increasing (i) the amount of interest that you would otherwise accrue and include in income each year, and (ii) the amount of ordinary income (or decreasing the amount of ordinary loss) recognized upon maturity by the amounts allocated under the previous paragraph to each of interest and the projected payment schedule; if the adjusted issue price of your notes is less than the price you paid for your notes, you must make negative adjustments, decreasing (i) the amount of interest that you must include in income each year, and (ii) the amount of ordinary income (or increasing the amount of ordinary loss) recognized upon maturity by the amounts allocated under the

previous paragraph to each of interest and the projected payment schedule. Adjustments allocated to the interest amount are not made until the date the daily portion of interest accrues.

Because any Form 1099-OID that you receive will not reflect the effects of positive or negative adjustments resulting from your purchase of notes at a price other than the adjusted issue price determined for tax purposes, you are urged to consult with your tax advisor as to whether and how adjustments should be made to the amounts reported on any Form 1099-OID.

You will recognize income or loss upon the sale, exchange, redemption or maturity of your notes in an amount equal to the difference, if any, between the cash amount you receive at such time and your adjusted basis in your notes. In

general, your adjusted basis in your notes will equal the amount you paid for your notes, increased by the amount of interest you previously accrued with respect to your notes (in accordance with the comparable yield and the projected payment schedule for your notes), and increased or decreased by the amount of any positive or negative adjustment, respectively, that you are required to make if you purchase your notes at a price other than the adjusted issue price determined for tax purposes.

Any income you recognize upon the sale, exchange, redemption or maturity of your notes will be ordinary interest income. Any loss you recognize at such time will be ordinary loss to the extent of interest you included as income in the current or previous taxable years in respect of your notes, and, thereafter, capital loss. If you are a noncorporate holder, you would generally be able to use such ordinary loss to offset your income only in the taxable year in which you recognize the ordinary loss and would generally not be able to carry such ordinary loss forward or back to offset income in other taxable years.

Pursuant to recently enacted legislation, for taxable years beginning after December 31, 2018, with respect to a debt instrument issued with original issue discount, such as the notes, an accrual method taxpayer that reports revenues on an applicable financial statement generally must recognize income for U.S. federal income tax purposes no later than the taxable year in which such income is taken into account as revenue in an applicable financial statement of the taxpayer. For this purpose, an "applicable financial statement" generally means a financial statement certified as having been prepared in accordance with generally accepted accounting principles or that is made on the basis of international financial reporting standards and which is used by the taxpayer for various specified purposes. This rule could potentially require such a taxpayer to recognize income for U.S. federal income tax purposes with respect to the notes prior to the time such income would be recognized pursuant to the rules described above. Potential investors in the notes should consult their tax advisors regarding the potential applicability of these rules to their investment in the notes.

#### **United States Alien Holders**

If you are a United States alien holder, please see the discussion under "United States Taxation — Taxation of Debt Securities — United States Alien Holders" in the accompanying prospectus for a description of the tax consequences relevant to you. You are a United States alien holder if you are the beneficial owner of the notes and are, for U.S. federal income tax purposes:

- a nonresident alien individual;
- a foreign corporation; or
- an estate or trust that in either case is not subject to U.S. federal income tax on a net income basis on income or gain from the notes.

We will not attempt to ascertain whether any underlying stock issuer would be treated as a "United States real property holding corporation" ("USRPHC"), within the meaning of Section 897 of the Internal Revenue Code. If any underlying stock issuer was so treated, certain adverse U.S. federal income tax consequences could possibly apply to a United States alien holder. You should refer to information filed with the SEC with respect to each underlying stock issuer and consult your tax advisor regarding the possible consequences to you, if any, if the issuer of a particular underlying stock is or becomes a USRPHC.

In addition, the Treasury Department has issued regulations under which amounts paid or deemed paid on certain financial instruments ("871(m) financial instruments") that are treated as attributable to U.S.-source dividends could be treated, in whole or in part depending on the circumstances, as a "dividend equivalent" payment that is subject to tax at a rate of 30% (or a lower rate under an applicable treaty), which in the case of amounts you receive upon the sale, exchange, redemption or maturity of your notes, could be collected via withholding. If these regulations were to apply to the notes, we may be required to withhold such taxes if any U.S.-source dividends are paid on any underlying

stocks or on the underlying ETF included in the index during the term of the notes. We could also require you to make certifications (e.g., an applicable Internal Revenue Service Form W-8) prior to the maturity of the notes in order to avoid or minimize withholding obligations, and we could withhold accordingly (subject to your potential right to claim a refund from the Internal Revenue Service) if such certifications were not received or were not satisfactory. If withholding was required, we would not be required to pay any additional amounts with respect to amounts so withheld. These regulations generally will apply to 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) issued (or significantly modified and treated as retired and reissued) on or after January 1, 2021, but will also apply to certain 871(m) financial instruments (or a combination of financial instruments treated as having been entered into in connection with each other) that have a delta (as defined in the applicable Treasury regulations) of one and are issued (or significantly modified and treated as retired and reissued) on or after January 1, 2017. In addition, these regulations will not apply to financial instruments that reference a "qualified index" (as defined in the regulations). We have determined that, as of the issue date of your notes, your notes will not be subject to withholding under these rules. In certain limited circumstances, however, you should be aware that it is possible for United States

alien holders to be liable for tax under these rules with respect to a combination of transactions treated as having been entered into in connection with each other even when no withholding is required. You should consult your tax advisor concerning these regulations, subsequent official guidance and regarding any other possible alternative characterizations of your notes for U.S. federal income tax purposes.

Foreign Account Tax Compliance Act (FATCA) Withholding

Pursuant to Treasury regulations, Foreign Account Tax Compliance Act (FATCA) withholding (as described in "United States Taxation—Taxation of Debt Securities—Foreign Account Tax Compliance Act (FATCA) Withholding" in the accompanying prospectus) will generally apply to obligations that are issued on or after July 1, 2014; therefore, the notes will generally be subject to the FATCA withholding rules. Pursuant to recently proposed regulations, the Treasury Department has indicated its intent to eliminate the requirements under FATCA of withholding on gross proceeds from the sale, exchange, maturity or other disposition of relevant financial instruments. The Treasury Department has indicated that taxpayers may rely on these proposed regulations pending their finalization.

#### EMPLOYEE RETIREMENT INCOME SECURITY ACT

This section is only relevant to you if you are an insurance company or the fiduciary of a pension plan or an employee benefit plan (including a governmental plan, an IRA or a Keogh Plan) proposing to invest in the notes.

The U.S. Employee Retirement Income Security Act of 1974, as amended ("ERISA") and the U.S. Internal Revenue Code of 1986, as amended (the "Code"), prohibit certain transactions ("prohibited transactions") involving the assets of an employee benefit plan that is subject to the fiduciary responsibility provisions of ERISA or Section 4975 of the Code (including individual retirement accounts, Keogh plans and other plans described in Section 4975(e)(1) of the Code) (a "Plan") and certain persons who are "parties in interest" (within the meaning of ERISA) or "disqualified persons" (within the meaning of the Code) with respect to the Plan; governmental plans may be subject to similar prohibitions unless an exemption applies to the transaction. The assets of a Plan may include assets held in the general account of an insurance company that are deemed "plan assets" under ERISA or assets of certain investment vehicles in which the Plan invests. Each of The Goldman Sachs Group, Inc. and certain of its affiliates may be considered a "party in interest" or a "disqualified person" with respect to many Plans, and, accordingly, prohibited transactions may arise if the notes are acquired by or on behalf of a Plan unless those notes are acquired and held pursuant to an available exemption. In general, available exemptions are: transactions effected on behalf of that Plan by a "qualified professional asset manager" (prohibited transaction exemption 84-14) or an "in-house asset manager" (prohibited transaction exemption 96-23), transactions involving insurance company general accounts (prohibited transaction exemption 95-60), transactions involving insurance company pooled separate accounts (prohibited transaction exemption 90 1), transactions involving bank collective investment funds (prohibited transaction exemption 91-38) and transactions with service providers under Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code where the Plan receives no less and pays no more than "adequate consideration" (within the meaning of Section 408(b)(17) of ERISA and Section 4975(f)(10) of the Code). The person making the decision on behalf of a Plan or a governmental plan shall be deemed, on behalf of itself and the plan, by purchasing and holding the notes, or exercising any rights related thereto, to represent that (a) the plan will receive no less and pay no more than "adequate consideration" (within the meaning of Section 408(b)(17) of ERISA and Section 4975(f)(10) of the Code) in connection with the purchase and holding of the notes, (b) none of the purchase, holding or disposition of the notes or the exercise of any rights related to the notes will result in a nonexempt prohibited transaction under ERISA or the Code (or, with respect to a governmental plan, under any similar applicable law or regulation), and (c) neither The Goldman Sachs Group, Inc. nor any of its affiliates is a "fiduciary" (within the meaning of Section 3(21) of ERISA) or, with respect to a governmental plan, under any similar applicable law or regulation) with respect to the purchaser or holder in connection with such person's acquisition, disposition or holding of the notes, or as a result of any exercise by The Goldman Sachs Group, Inc. or any of its affiliates of any rights in connection with the notes, and neither The Goldman Sachs Group, Inc. nor any of its affiliates has provided investment advice in connection with such person's acquisition, disposition or holding of the notes.

If you are an insurance company or the fiduciary of a pension plan or an employee benefit plan (including a government plan, an IRA or a Keogh plan) and propose to invest in the notes, you should consult your legal counsel.

#### DEFAULT AMOUNT ON ACCELERATION

If an event of default occurs and the maturity of your notes is accelerated, the company will pay the default amount in respect of the principal of your notes at the maturity, instead of the amount payable on the stated maturity date as described earlier. We describe the default amount under "Terms and Conditions" above.

For the purpose of determining whether the holders of our Series E medium-term notes, which include your notes, are entitled to take any action under the indenture, we will treat the outstanding face amount of your notes as the outstanding principal amount of that note. Although the terms of the offered notes differ from those of the other Series E medium-term notes, holders of specified percentages in principal amount of all Series E medium-term notes, together in some cases with other series of our debt securities, will be able to take action affecting all the Series E medium-term notes, including your notes, except with respect to certain Series E medium-term notes if the terms of such notes specify that the holders of specified percentages in principal amount of all of such notes must also consent to such action. This action may involve changing some of the terms that apply to the Series E medium-term notes, accelerating the maturity of the Series E medium-term notes after a default or waiving some of our obligations under the indenture. In addition, certain changes to the indenture and the notes that only affect certain debt securities may be made with the approval of holders of a majority in principal amount of such affected debt securities. We discuss these matters in the accompanying prospectus under "Description of Debt Securities We May Offer — Default, Remedies and Waiver of Default" and "Description of Debt Securities We May Offer — Modification of the Debt Indentures and Waiver of Covenants".

#### SUPPLEMENTAL PLAN OF DISTRIBUTION

GS Finance Corp. will sell to GS&Co., and GS&Co. will purchase from GS Finance Corp., the aggregate face amount of the offered notes specified on the front cover of this prospectus supplement. GS&Co. proposes initially to offer the notes to the public at the original issue price set forth on the cover page of this prospectus supplement, and to certain securities dealers at such price less a concession not in excess of % of the face amount. The original issue price for notes purchased by certain retirement accounts and certain fee-based advisory accounts will be % of the face amount of the notes, which will reduce the underwriting discount specified on the cover of this prospectus supplement with respect to such notes to %.

In the future, GS&Co. or other affiliates of GS Finance Corp. may repurchase and resell the offered notes in market-making transactions, with resales being made at prices related to prevailing market prices at the time of resale or at negotiated prices. GS Finance Corp. estimates that its share of the total offering expenses, excluding underwriting discounts and commissions, will be approximately \$\frac{1}{2}\$. For more information about the plan of distribution and possible market-making activities, see "Plan of Distribution" in the accompanying prospectus.

We have been advised that GS&Co. will also pay a fee in connection with the distribution of the notes to SIMON Markets LLC, a broker-dealer affiliated with GS Finance Corp.

We expect to deliver the notes against payment therefor in New York, New York on May 31, 2019. Under Rule 15c6-1 of the Securities Exchange Act of 1934, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on any date prior to two business days before delivery will be required to specify alternative settlement arrangements to prevent a failed settlement.

We have been advised by GS&Co. that it intends to make a market in the notes. However, neither GS&Co. nor any of our other affiliates that makes a market is obligated to do so and any of them may stop doing so at any time without notice. No assurance can be given as to the liquidity or trading market for the notes.

Any notes which are the subject of the offering contemplated by this prospectus supplement, the accompanying prospectus and the accompanying prospectus supplement may not be offered, sold or otherwise made available to any retail investor in the European Economic Area. Consequently no key information document required by Regulation (EU) No 1286/2014 (the "PRIIPs Regulation") for offering or selling the notes or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the notes or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation. For the purposes of this provision:

- (a) the expression "retail investor" means a person who is one (or more) of the following:
- (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); or
- (ii) a customer within the meaning of Directive 2002/92/EC (as amended, the "Insurance Mediation Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or
- (iii) not a qualified investor as defined in Directive 2003/71/EC (as amended, the "Prospectus Directive"); and
- (b) the expression an "offer" includes the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), GS&Co. has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") it has not made and will not make an offer of notes which are the subject of the offering contemplated by this prospectus

supplement, the accompanying prospectus and the accompanying prospectus supplement to the public in that Relevant Member State except that, with effect from and including the Relevant Implementation Date, an offer of such notes may be made to the public in that Relevant Member State:

- (a) at any time to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the relevant dealer or dealers nominated by the issuer for any such offer; or
- (c) at any time in any other circumstances falling within Article 3(2) of the Prospectus Directive, S-58

provided that no such offer of notes referred to above shall require us or any dealer to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of notes to the public" in relation to any notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State.

Any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) in connection with the issue or sale of the notes may only be communicated or caused to be communicated in circumstances in which Section 21(1) of the FSMA does not apply to GS Finance Corp. or The Goldman Sachs Group, Inc.

All applicable provisions of the FSMA must be complied with in respect to anything done by any person in relation to the notes in, from or otherwise involving the United Kingdom.

The notes may not be offered or sold in Hong Kong by means of any document other than (i) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) and any rules made thereunder, or (ii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) or which do not constitute an offer to the public within the meaning of that Ordinance; and no advertisement, invitation or document relating to the notes may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere) which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the Securities and Futures Ordinance and any rules made thereunder.

This prospectus supplement, along with the accompanying prospectus supplement and the accompanying prospectus have not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement, along with the accompanying prospectus supplement and the accompanying prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA")) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for six months after that corporation has acquired the notes under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in

Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore ("Regulation 32").

Where the notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for six months after that trust has acquired the notes under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

The notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The notes may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

The notes are not offered, sold or advertised, directly or indirectly, in, into or from Switzerland on the basis of a public offering and will not be listed on the SIX Swiss Exchange or any other offering or regulated trading facility in Switzerland. Accordingly, neither this prospectus supplement nor any accompanying prospectus supplement, prospectus or other marketing material constitute a prospectus as defined in article 652a or article 1156 of the Swiss Code of Obligations or a listing prospectus as defined in article 32 of the Listing Rules of the SIX Swiss Exchange or any other regulated trading facility in Switzerland. Any resales of the notes by the underwriters thereof may only be undertaken on a private basis to selected individual investors in compliance with Swiss law. This prospectus supplement and accompanying prospectus and prospectus supplement may not be copied, reproduced, distributed or passed on to others or otherwise made available in Switzerland without our prior written consent. By accepting this prospectus supplement and accompanying prospectus and prospectus supplement or by subscribing to the notes, investors are deemed to have acknowledged and agreed to abide by these restrictions. Investors are advised to consult with their financial, legal or tax advisers before investing in the notes.

The notes will not be listed on any securities exchange or interdealer quotation system.

#### Conflicts of Interest

GS&Co. is an affiliate of GS Finance Corp. and The Goldman Sachs Group, Inc. and, as such, will have a "conflict of interest" in this offering of notes within the meaning of Financial Industry Regulatory Authority, Inc. (FINRA) Rule 5121. Consequently, this offering of notes will be conducted in compliance with the provisions of FINRA Rule 5121. GS&Co. will not be permitted to sell notes in this offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder.

We have not authorized anyone to provide any information or to make any representations other than those contained or incorporated by reference in this prospectus supplement, the accompanying prospectus supplement or the accompanying prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus supplement, the accompanying prospectus supplement and the accompanying prospectus is an offer to sell only the notes offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus supplement, the accompanying prospectus supplement and the accompanying prospectus is current only as of the respective dates of such documents.

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