

THE POWER OF WORDS: THE IMPACT OF  
POWER LANGUAGE IN CORPORATE  
FINANCIAL DISCLOSURES

by

MACKENZIE PIKE

DARRIN J. GRIFFIN, COMMITTEE CHAIR  
ALEXA CHILCUTT  
TODD DEZOORT

A THESIS

Submitted in partial fulfillment of the requirements  
for the degree of Master of Arts in the  
Department of Communication  
in the Graduate School of  
The University of Alabama

TUSCALOOSA, ALABAMA

2019

Copyright Mackenzie Palmer Pike 2019  
ALL RIGHTS RESERVED

## ABSTRACT

The current research seeks to understand how CEOs use power in their language when disclosing financial information and its ability to predict the financial success of a company. The amount of power one has dictates one's ability to achieve goals and influence others (Berger, 1985), and those with power are constantly engaging in behaviors and actions that communicate the amount of power they have (Hall, Coats & LeBeau, 2005). Nonverbal communication is used to display power through channels such as hand and body gestures, facial expressions, and language. Using the Linguistic Inquiry and Word Count (LIWC) software, an analysis of power language communicated by CEOs through their Management Discussion and Analysis (MD&A) section of their SEC 10-K filing was conducted and examined in relation to net income. It was found that companies that use more power language in MD&A statements have higher net incomes; companies with female CEOs, while having higher overall net incomes, have no relationship between power language and net income; companies with male CEOs have a significant relationship between power language and net income. Future research should explore the perception of power language in MD&As and its impact on investment decisions.

## LIST OF ABBREVIATIONS AND SYMBOLS

$M$	Mean: the sum of a set of measurements divided by the number of measurements in the set
$N$	total sample size
$n$	subsample size
$p$	Probability associated with the occurrence under the null hypothesis of a value as extreme as or more extreme than the observed value
$r$	Pearson product-moment correlation
$SD$	Standard deviation: measure of the spread of the data; square root of the average of the squared differences of the mean
$t$	Computed value of $t$ test
$<$	Less than
$=$	Equals to

## ACKNOWLEDGEMENTS

I am incredibly grateful to have had the opportunity to pursue this research project at the University of Alabama. This would not have been possible without the help of faculty, colleagues, mentors, and friends.

I first would like to thank Darrin Griffin, the chairman of this thesis committee. Throughout my time at the University, Dr. Griffin has been an incredible mentor to me in research, academia, and life. The opportunities he has given me through involvement in the Human Communication Research Lab have helped me not only understand the nuances of research but also the importance of collaboration for growth. I cannot overstate the impact my involvement in the research community he has fostered in the lab has had on my academic experience. Dr. Griffin encourages his students to take charge of their own research projects, knowing just how much structure to give in order to foster success. Most importantly, he always knows just when to give help and encouragement to keep me moving forward. Dr. Griffin's support of me and my research has made an incredible impact on me and will continue to drive me in my academic career. I am extremely grateful to have had his mentorship throughout this project.

Next, I would like to thank my committee members, Alexa Chilcutt and Todd DeZoort. Dr. Chilcutt's insight and perspective on the communication field has been invaluable in my educational experience. I am greatly appreciative for her willingness to join my committee and

for encouraging me through this process. I am equally grateful to Dr. DeZoort from the Culverhouse School of Accounting. As an outside member of my committee, Dr. DeZoort has been incredibly helpful for understanding the business and accounting aspects of this project. I am so grateful that Dr. DeZoort has taken the time to help me pursue this research and understand the impacts of the findings. This project would not have been possible without the guidance of all of the committee members involved.

This project was also brought to fruition with the help of Troy Pollard. Dr. Pollard kindly spent time helping me understand the Compustat and Execucomp programs that were crucial to my data collection. Additionally, I would like to thank Fareed Bordbar for sharing his expertise in statistical analyses. This project also would not have been possible if it were not for my brother, Steven Pike. Without his insight, I would never have expanded my research to financial analysis and this project would have taken a much different path. Our competitive nature helps us push each other to be the best in every aspect of our lives, and this project benefitted from that.

Finally, I would like to thank Zach Arth. I could not have asked for a better mentor or friend over the last three years. I am forever grateful not only for his willingness to be a sounding board for any and all research-related issues but also for his friendship and support. Zach was always willing to listen, laugh, and give advice not only in the lab but also on the tennis court or in a coffee shop. To that end, I would be remiss if I did not thank Monarch Espresso Bar. Thank you for being a place for work and play, and for giving me an amazing space to spend countless hours working on this project. I am so grateful to always have a place with great coffee and even better people to go to work.

This project would not have been possible without the help and support of faculty, colleges, mentors and friends. I am extremely grateful to Beth Bennett, the Department Chair for

Communication Studies, for her willingness to allow me to be the first Accelerated Masters' Student to tackle a thesis. Completing this project has been challenging and fulfilling, and I am thankful to everyone who helped me along the way.

## CONTENTS

ABSTRACT .....	ii
LIST OF ABBREVIATIONS AND SYMBOLS.....	iii
ACKNOWLEDGEMENTS .....	iv
LIST OF FIGURES.....	x
CHAPTER 1: RATIONALE.....	1
CHAPTER 2: LITERATURE REVIEW.....	3
Power.....	4
<i>Power Theory</i> .....	6
Nonverbal Communication .....	7
<i>Facial Expression</i> .....	8
<i>Facial Expressions and power</i> .....	9
<i>Vocalics</i> .....	10
<i>Vocalics and power</i> .....	11
<i>Gestures</i> .....	12
<i>Gestures and power</i> .....	13
<i>Body Postures</i> .....	13
<i>Body postures and power</i> .....	14
<i>Proxemics</i> .....	15
<i>Proxemics and power</i> .....	16
<i>Gaze</i> .....	17



<i>Gaze and power</i> .....	17
<i>Haptics</i> .....	18
<i>Haptics and power</i> .....	19
<i>Appearance and Power</i> .....	19
Language and Power .....	20
<i>Linguistic Inquiry and Word Count</i> .....	21
Financial Disclosures.....	24
<i>Management Discussion and Analysis</i> .....	25
<i>Language and MD&amp;A statements</i> .....	25
Power and Leadership .....	28
<i>Gender</i> .....	30
CHAPTER 3: METHOD.....	33
Sample .....	33
Data Collection and Organization .....	35
Analysis .....	37
CHAPTER 4: RESULTS .....	40
Gender .....	41
Post Hoc Analyses.....	42
CHAPTER 5: DISCUSSION .....	45
Post Hoc Analyses.....	50
Implications and Limitations.....	53

Conclusions and Future Research .....	54
REFERENCES .....	57
APPENDICES .....	66
A. Logic for study: RQs, Hs, variables, and analysis.....	66
B. Sample Management Discussion and Analyses (Cleaned).....	67
<i>Hershey’s Co., 2017, Female CEO</i> .....	67
<i>LA-Z-BOY, Co., 2017, Male CEO</i> .....	88

## LIST OF FIGURES

1. Logic for study: RQs, Hs, variables, and analysis..... 70

## CHAPTER 1: RATIONALE

There are companies that make millions of dollars each year, employ thousands of people, and are supported by public investors. These companies are large, complex organizations, and those who invest their money in these companies have limited insights on the inner workings of the organization. Besides public statements (i.e., press releases), the public, investors, and the government have an important way to learn about a company each year: their tax statements, specifically their 10-K statements filed with the Securities and Exchange Commission. Within a 10-K statement, there is a section titled the Management Discussion and Analysis, which is a narrative of the financial year for the company. As top management of the company write these statements, they not only include relevant content but also communicate information about themselves and the organization through their language (Lammers, Dubois, Rucker & Galinsky, 2013).

Using the Brunswikian lens model as theoretical framework, researchers are able to study the enactment of verticality (Brunswik, 1956). Verticality refers to one who is attempting to move up in the vertical dimension of social interactions, which means they are trying to gain power. Power, the ability to influence others, is therefore omnipresent in all of our interactions and can be used in all channels of nonverbal communication (Harrison, 1973), including language in its spoken and written forms.

Previous research has analyzed text from MD&A statements to make predictions about financial success through use of language (Feldman, Govindaraj, Livnat, & Segal, 2010) to

detect fraud (Boo & Simnett, 2002), and to predict bankruptcy (Mayew, Sethuraman, & Venkatachalan, 2015). However, researchers have yet to examine the power dimensions of language used in these statements. It has been found that the power of a CEO (decision-making power within the company) is positively related to the amount of money a company earns (Daily & Johnson, 1997; Liu & Jirapom, 2010) and is loaned (Pathan, 2009). Therefore, understanding how power language is used by CEOs and top managements when disclosing financial information can help investors make better decisions when investing and help company management utilize power to attract investors.

This research seeks to better understand how companies that are publicly traded in the United States use power language in their MD&A statements. Further, this thesis also seeks to understand the relationship between the use of power language and net income. That is, do companies who use more power language make more money?

Furthermore, differences in power use and perception by males and females makes gender a variable of interest in this study. Men and women enact power differently in nonverbal communication (Mehrabian, 1969); males with high power display more traditional signs of power and dominance, while females display their power through other means such as warmth and support (Pillemer, Graham & Burke, 2014). Additionally, the perception of power of men and women differ when enacting the same nonverbal communications (Apple, Streeter & Krauss, 1979). To better understand the relationship between power and gender, this research will examine the impact that the gender of the CEO of a company has on the use of power language and the company's net income.

## CHAPTER 2: LITERATURE REVIEW

In United States public stock exchanges alone, trillions of dollars are traded every single day. Publicly traded companies employ one third of the labor market (Davis, Haltiwanger, Jarmin, Miranda, Foote, & Nagypal, 2006). If the economy goes into recession, the lives of millions of Americans will be affected. Not only are millions of people employed by publicly traded companies, but millions of Americans also invest their personal money in the system. Approximately half of Americans have money invested in the market, in the forms of stocks and bonds (Davis et. al., 2006). These investments in businesses affect the profitability of the company and, hopefully, drive the ability for investors to make increased returns. However, the majority of Americans with money invested in the system do not choose themselves which companies and stocks to invest their money in, but rather they rely on professionals to understand the system and make smart choices with their money.

Professional investors are trained to examine a variety of factors when making investments. One primary source of information is the SEC 10-K tax filings that companies are required to file with the U.S. Federal Government every year. These documents outline the financial year for the company and include all relevant information such as earnings, losses, any difficulties the company may have faced in the past year, and their plans moving forward. One important element of this statement that investors consider when examining a company is the Management Discussion and Analysis (MD&A) statement, a narrative of the financial year for

the company, written by the top management. This section gives the leaders of a company an opportunity to *tell the story of the numbers* to be found in the filing.

The MD&A differs from the rest of the filing because it is designed to be written from the point of view of the top management. MD&A statements being written by the management is important because they have the goal of convincing the reader that their company is a good investment-minimizing the negative events and capitalizing on the positive. To do this, they must not only give investors financial information and content, but they also must give the investor information about the company more broadly, how it is doing and how it is predicted to perform in the future. Management must convey to investors that they are effective at leading the company and that the organization is on track. In this way, the MD&A can have large implications on investments in the company-which impacts potential earnings in the future.

Besides the content of their tax filings, the language used in MD&A statements can give important insights on the company and its leadership. To convince investors that their company is one that should be bought into, management can use the language in their financial statements to convey characteristics of the leaders of the company. When considering the potential success of a leader and their organization, the amount of power the leader has can be indicative of success (Rule & Ambady, 2009). The amount of power a leader has and that which is conveyed to others can play a role in an investor's decision to invest.

#### Power

Power is an important aspect of communication, as it is one of the two dimensions of social interactions. Scientists refer to two main dimensions of social interactions: the horizontal and vertical dimensions (Burgoon & Hale, 1984). The horizontal dimension deals with concepts concerning friendliness/warmth on one end and hostility/aggression on the other. The vertical

dimension, also known as the control dimension, deals with concepts related to power, with one end being low power and the other being high power (Hall, Coats & LeBeau, 2005). Power is defined as the ability to influence others (Berger, 1985). Those with more power have increased influence over those with less power.

When studying power, the concept of dominance oftentimes plays a role, so it is importance to distinguish between the two. Power, the amount of influence one has over another, is essentially the ability to make others comply with you. Dominance, meanwhile, has been considered both a personality characteristic and a behavior. As a characteristic, dominance refers to one who participates in actions that are meant to gain power or attempt to influence others (Ellyson & Dovidio, 1985), often within a group setting. An individual with power has control over individuals both in and out of the group or organization, meanwhile one with dominance acts within a specific group (which could simply be a dyad). When one acts on dominance, it becomes a communication style through which one exercises the benefits of their power or attempts to gain power (Ellyson & Dovidio, 1985). Dominance, therefore, differs from power in its ability to be both a characteristic and a behavior rather than an overarching concept.

Another related concept to power and dominance is status. Status refers to the position one has on the social (or organizational) hierarchy in which an interaction is taking place. Status roles are usually clearly defined, oftentimes through labels and titles which make clear where each interactant falls on the hierarchy. The clarity of status allows interactants to make predictions and have expectations about specific abilities one should have at each level of the hierarchy, as well as the behaviors one should engage in (Berger, Wagner & Zelditch, 1983). For instance, Lee and Ofshe (1981) found that individuals are able to determine the relative status of



individuals based on their demeanors when interacting with each other. Of the three related concepts (power, dominance, status), status is the most concrete and specific concept.

Power is omnipresent in all interpersonal exchanges which makes it difficult to conceptualize and operationalize (Scott, 1994). In a study examining visual behaviors in interactions, participants equally associated the same behaviors rated for both dominance and power (Dovido & Ellyson, 1982). The concepts of power and dominance are oftentimes intertwined in our perceptions of others, which makes it difficult to separate the two for the purpose of research. Power implies a large breadth of influence that extends beyond the situation in which an interaction takes place, and dominance is more specific to the interaction itself. However, when examining these interactions, participants (and interactants in their everyday lives) cannot necessarily distinguish between the perception of power, dominance, and status and so the three are oftentimes confounded.

### *Power Theory*

To apply the concept of verticality (dealing with the vertical dimension of social interaction) to nonverbal behavior, scholars adopt the Brunswikian lens model (Brunswik, 1956), which provides a framework to discuss the vertical dimension of social interactions. The model states that there are two perspectives: the target (an individual with power) and the perceiver (an individual who observes the nonverbal displays of power, particularly in relation to the known power the target actually has). This approach emphasizes the need for an interpersonal interaction, with a person perceiving the amount of power being nonverbally displayed. Henley (1977) also emphasized the importance of both a sender and encoder in the nonverbal communication of power. If there is no encoder, he says, it is simply nonverbal *behavior*, not

nonverbal *communication*. Addressing this, the Brunswikian lens is an effective tool for understanding the nonverbal communication of power.

To understand how concepts such as power are conveyed through MD&A statements (nonverbally through language), it is vital to understand how nonverbal communication is enacted and functions, and how the channels of nonverbal communication are used specifically to display power. Following a breakdown of nonverbal communication and how power is embodied in each is a discussion of the nonverbal elements of language and how they are analyzed through the Linguistic Inquiry and Word Count (LIWC ) software. Finally, three research questions and three hypotheses will be posed concerning language analysis and power in MD&A statements.

### Nonverbal Communication

As communication is not limited to the words that are spoken, many exchanges of meaning-making that people engage in everyday are conducted via nonverbal communication. Nonverbal communication consists of all interactions and messages communicated in any forms, except words (Matsumoto, Frank, & Hwang, 2013). These forms are referred to as channels of nonverbal communication, and they typically include: facial expression, vocal cues, gestures, body posture, interpersonal distance, and touch. Other channels of nonverbal communication include appearance and, most important to this study, the nonverbal elements of language. Each of these channels of nonverbal communication serve many functions (Harrison, 1973), including defining and regulating communication and being a message in and of itself. Defining communication through nonverbal channels includes aspects such as the environment in which the interaction takes place (e.g., the lighting, the physical place, the time of day). Nonverbal communication can regulate verbal communication by providing cues to others about concepts

such as turn-taking in conversation. Finally, nonverbal communication can communicate a message without verbal communication to accompany it (e.g., the “okay” hand gesture). In these ways, all of the elements of nonverbal communication can play a role in every interaction.

### *Facial expression*

In his book, *The Expression of the Emotions in Man and Animals*, Darwin (1862) proposed the idea that emotions were evolved phenomena that were evolutionarily beneficial, biologically produced, and universal. For the next century, scientists would debate this issue until Tomkins and McCarter (1964) corroborated this claim with a study on facial expressions and emotional states, finding that they were, in fact, related. Research on facial expressions of emotion has continued to attract the attention of scholars across disciplines.

Facial expressions are arguably the most prominent channel of nonverbal communication (Matsumoto, Frank & Hwang, 2013). This is due to the expression of emotions that the face is able to convey, as the face can show both voluntary and involuntary reactions to stimuli. Additionally, the face is an important channel for communication because people oftentimes are not aware of what their face is doing (Barr & Kleck, 1995), making it a wealth of unfiltered information. Universally, there are seven biological (Izard, 2007), or universal, emotions that are displayed and recognized by people from all cultures, all over the world: happiness, anger, sadness, disgust, fear, surprise, and contempt (Matsumoto, Keltner, Shiota, O’Sullivan & Frank, 2008). These seven emotions, along with the more nuanced expression of emotions that are displayed and recognized within cultures and in-groups, are important to understand because emotions serve several functions: preparing one to act, giving or withholding information about oneself and their thoughts, and helping interactants understand one’s personality, motivations

and intentions (Matsumoto, Frank & Hwang, 2013). These functions of facial expressions make it a critical channel of nonverbal communication.

Along with the expression of emotion, the face is a channel for other nonverbal communication expression and a source of information. Facial expressions can be used as speech illustration, used in conjunction with verbal communication to emphasize or otherwise clarify a message (Matsumoto, Frank & Hwang, 2013). This is often done through movement of the eyebrows and mouth (e.g., raising eyebrows when asking a question). These movements can also facilitate and regulate conversation, such as giving cues to when a person is done talking (turntaking). Additionally, the face can show the amount of cognitive load a person is experiencing, letting an interactant know how hard another is thinking and processing information. Finally, it is important to note that the face and facial muscles are used for biological functions such as eating, breathing, and talking. Irregularities in these functions may send important messages about a person (i.e., distressed breathing indicating stress) or may simply be an involuntary expression (i.e., athletes making faces when straining) that provides information. We are able to distinguish between important nonverbal communication through facial expressions and less important information “because facial expressions of emotion are part of our evolutionary history and are a biologically innate ability, we all have the ability to read facial expressions of emotion” (Matsumoto, Frank & Hwang, 2013, p. 14). In this way, the face is used as an important channel of nonverbal communication.

#### *Facial expressions and power*

One of the most common indicators of power in interpersonal interactions is the use of facial expressions. More powerful people use more facial expressions than others (Hall et al., 2005). They are more likely to display exaggerated displeasure and are perceived to use their

eyebrows heavily in displaying emotion (i.e., lowered eyebrows in anger). Individuals lower in power are perceived to smile more, as smiling is seen as a submissive act (Hall, Horgan & Carter, 2002). While there is generally no actual difference in the amount of smiling between high and low power individuals, smiles and laughter can be used to convey power (Remland, 1982). For example, laughing sarcastically or smiling during adversarial times can be a display of power and dominance. This aligns with the finding that people who *feel* more powerful are more expressive (Carney et al., 2005). The power people perceive themselves to have and the more dominant behaviors people engage in, the more expressive their face becomes.

### *Vocalics*

Beyond the words spoken, the voice also functions as a channel of nonverbal communication. Vocal cues operate in two subchannels: style and tone, together called prosody. Style includes the patterns of speaking, including pauses, fillers, and irregularities in speaking fluencies (Nolan, 1980). Tone refers to the acoustic properties of the voice, such as loudness and pitch (Murphy, 2000). These two aspects of vocal cues are interdependent, as one cannot happen without the other. Every time a person speaks, they must use both style and tone. When understanding the nonverbal aspects of the voice, individuals look to paralinguistics to gain information. Paralinguistics is any aspect of speech that is not the words themselves (Knapp & Harrison, 1972) and includes elements of style and tone. Sometimes referred to as the *music of speech*, nonverbal elements of speech conveyed through the voice function as another channel of communication.

The voice can be used to understand both permanent and temporal traits of a speaker. Aspects of the voice can give cues to an interactant such as demographic traits of the speaker, including gender, age, and native language. Participants are able to match a speaker to their

photograph, using aspects such as pitch (women's voices are traditionally higher than men's (Pear, 1931) and accents (non-native speakers will traditionally have an accent when speaking their non-native tongue (Walton & Orlikoff, 1994). The voice can also give information about more transient states, including emotions, attitudes, and cognitive load (see Johnson, Emde, Scherer & Klinmner, 1986; Sillars, Coletti, Parry & Rogers, 1982). Finally, the voice can even inform an interactant about underlying personality traits, such as being an introvert or extrovert (Lippa, 1998; Siegman, 1987). As with other communication, it is important to remember that each culture develops its own rules about the agreement of facial expressions and emotions-or rather, which they put more emphasis on when interacting (Juslin & Laukka, 2003). Within these contexts, elements of the voice can convey useful information about the speaker, both in terms of traits and temporary states.

#### *Vocalics and power*

Power can also be heard. More powerful people use less filler words when talking and are more articulate (Leigh & Summers, 2002). Having more power is also associated with speaking louder, faster, and deeper (Hall et al., 2005). These paralinguistic cues help others perceive the power of an individual just by listening to them during an interaction. For instance, powerful people are more likely to give shorter answers to questions than their subordinates. Additionally, powerful people have more variation in their tone and frequency of speech (Hall et al., 2005). This makes sense, as people are more likely to be persuaded by an individual with more varied tone, a faster speaking rate, less errors, and shorter response times (Leigh & Summers, 2002), and the ability to persuade and influence is an important element of having power. Powerful people appropriately speed up and slow down when they talk and are better at

using the full range of tones in their voice when speaking. This increased vocal variation is both nonverbally displayed by those with power and perceived by others to indicate high power.

The voice and turn-taking also communicate power and dominance in interactions. Sorrentino and Botillier (1975) found that those with more power speak more in conversations than those with less power that they are speaking with. More powerful people are also more likely to speak first or initiate the conversation (Packwood, 1974) and are more likely to interrupt others when they are speaking but are less likely to be interrupted themselves (Natale, Entin, & Jaffe, 1979). Finally, those with more power are more likely to engage in overlapping speech, or talking over one another (Ferguson, 1977). The use of the voice in relation to others' speech, therefore, can be a nonverbal indicator of power.

### *Gestures*

The use of gestures is another important aspect of nonverbal communication. Bouissac (2006) suggests that gestures were evolutionarily beneficial to perform when developing language, and therefore coevolved alongside physical and cognitive anatomy to facilitate communication. Using gestures along with language allowed our ancestors to communicate more efficiently by developing systems beyond words and verbal language (Capirci & Volterra, 2008; Matsumoto, Frank & Hwang, 2013). Gestures, primarily hand movements, are now understood to be able to illustrate speech, convey verbal meaning, and demonstrate embodied cognition. Gestures illustrate speech by emphasizing the verbal aspects of communication through hand and facial movements (Freedman & Hofman, 1967). Gestures convey verbal meaning when they are enacted in the absence of verbal communication but are able to clearly communicate a meaning (i.e., waving hello). These gestures are referred to as emblems. Finally, gestures can be movements or indications of thought or thinking (Kinsbourne, 2006). These uses of gestures in

communication effectively nonverbally communicate information between interactants.

Gestures are enacted in many ways and are play a crucial role facilitating social interactions. It is important to note that gestures, unlike many facial expressions, are not universal. Gestures are learned, like language, rather than biological. Each culture has its own rules about the appropriateness and use of illustrative gestures when interacting (Kita, 2003). Additionally, each culture creates its own vocabulary for the emblems they use. This culture specific emblem dictionary refers not only to cultures on a large scale but also to organizational cultures as well (Morris, 1979). For instance, soccer referees have their own emblem vocabulary used to communicate with each other and the players across the field. When the culturally appropriate gestural vocabulary is used, gestures can help smooth social interactions (Chartrand & Bargh, 1999). Gestures used as backchannel communication can help manage conversation through active listening behaviors such as slight nods and vocalizations (i.e., *mhmm*, sympathetic noises). Using gestures appropriately can help facilitate successful social interactions.

#### *Gestures and power*

Gestures, including illustrative speech and emblems, can be used to show power nonverbally. Individuals with more power gesture more frequently, emphasizing their speech through nonverbal behaviors (Spiegel & Machotka, 1974). These gestures are physically larger in powerful people, as they make more expansive motions than those with less power (Spiegel & Machotka, 1974). Additionally, powerful people are more likely to gesture at things from a distance, such as pointing abstractly instead of directly (Henley, 1977). These gestures can give interactants information about power during interactions.

#### *Body Postures*



When discussing nonverbal communication, “body language,” including the postures and movements of the body, is the channel frequently referenced in common vernacular. The body has the ability to communicate both one’s general affect (like/dislike, positive/negative) and temporal states of attitude and emotion, as well as giving information about the status of and relationships between interactants (Mehrabrian, 1969). This can be done through body orientation, with open arms, chest, and legs signaling a positive affect; standing with arms akimbo (hands on hips) is considered a negative body orientation (Matsumoto, Frank & Hwang, 2013). The body can also be used to communicate emotional states, with research participants being able to recognize emotional states based on the strides and postures of actors who were enacting a series of emotions (i.e., happiness, anger; Montepare, Golstein, & Clausen, 1987). Gait, the movement the body makes when walking, can also give insights to personality traits, such as the ability to detect the dominance of a walker (Montepare & Zebrowitz, 1993). Nonverbal cues related to the body, movement, and posture can therefore be tools for interpersonal communication.

### *Body postures and power*

Made famous by the Ted talk given by Amy Cuddy titled “Your body language may shape who you are,” the “power pose” has become widely known as a way to increase confidence and potential success. Power posing consists of placing your hands akimbo, expanding your chest, planting your feet hips-width apart, and facing forward with your head (Carney, 2010). This power pose is an example of how nonverbal communication has real effects on how people interact with each other, as it has been linked with biological changes such as increased testosterone and confidence. These changes show that concepts such as power are internalized and directly linked with the nonverbal communication and actions that you partake

in.

The “power pose” helps illustrate many trends in nonverbal power communication but must be understood in the context of culture and situation. The ability to have relaxed, expansive posture (such as arms akimbo) is indicative of an individual with higher power (Mehrabian, 1981). Individuals with more power are more likely to engage in “behaviors implying strength, conform-relaxation, and fearlessness” (pg. 47, Mehrabian, 1981), while submissiveness is associated with “weakness, smallness, discomfort, tension, and fearlessness” (pg. 47). It is also important to remember that every culture creates their own expectations and norms for nonverbal communication and power. In some cultures, making yourself small and “submissive” is a sign of respect and humility, not necessarily a reflection of the individual’s power or status. Therefore, while posture can be used to convey power, it must be considered in context.

### *Proxemics*

The use of space is pervasive in daily interactions as we navigate the physical world. Proxemics, how individuals utilize space and interpersonal distance (Hall, 1966), is a channel of nonverbal communication that helps regulate interpersonal interactions by controlling the amount of stimulation of the senses one receives. Hall (1966) proposed four zones of personal space that each person navigates: intimate, personal, social and public. These zones start small (intimate) and increase in size (in concentric circles) with the largest of interpersonal distances being the public zone. Each culture has different physical distances that each of these zones can be measured at depending on the specific context, but each of these concentric zones are present in all cultures examined thus far (Hall, 1966, 1973). However, the most important factor in deciding the appropriate distance of interaction is the relationships that the interactants have within the context of the interaction (Little, 1968). The ability to control and purposefully use

space in interactions is important for successful social coordination (Sussnamn & Rosenfeld, 1978) and is therefore an important aspect of interpersonal communication, emphasizing the important role proxemics plays in all face-to-face interactions.

### *Proxemics and power*

Those with more power are more commanding of the space they inhabit. High powered individuals are more likely to invade others' space (Carney, Hall, Smith & LeBeau, 2005). For example, managers are able to enter their subordinates' offices whenever they need to while their subordinates do not have open access to their superior's workspace. Because of this, high power individuals are able to start and end most conversations as they please. The ability to move in space is also seen in interpersonal interactions, where high powered individuals interact at closer distances than those with less power (Hall et al., 2005). More powerful people are then able to utilize space to display their power.

The orientation of individuals in relation to others when interacting also gives important information about power. Those with more power do not need to directly orient themselves towards others, as those with less power must do to show respect (Mehrabian, 1981). Mehrabian (1981) suggests that this may have evolutionary roots, as those with more power had less fear of attack from those around them with less power, so they are more able to show their back (which makes them vulnerable to attack when they can't see their possible attackers). Therefore, the orientation of individuals in relation to others when interacting is influenced by and gives insight to the power relations between the individuals.

Power in the workplace is perhaps best demonstrated by the metaphor whereby the CEO and executive offices occupying the top floors of office buildings and decreases the importance

and power of the people working on the floors below them. In the same way, the most powerful person in the room sits at the head of the table during a board meeting (Heckel, 1973).

Hierarchical power, in this case, is metaphorically obvious, but many other displays of power are oftentimes less literal, intangible, and can be received on the unspoken channels and based on perception rather than clearly defined or operationalized organized hierarchies.

### *Gaze*

The use of the eyes and gaze constitute another channel of nonverbal communication. Gaze is used to convey a variety of traits in both humans and nonhuman primates, including indicating the affiliation and relationship between interactants (Argyle & Cook, 1976). Gaze can also be used to convey dominance, power, or aggression (Fehr & Exline, 1987) as well as signs of nurturance and warmth. However, like other nonverbal channels, the use of gaze is dictated by the rules and expectations that each culture creates regarding appropriateness and its use. All cultures create rules around gaze because both aggression and affiliation are important to for the facilitation and maintenance of group interactions (Matsumoto, Frank & Hwang, 2013). In the United States, gaze can be a nonverbal sign of respect, whereas in other countries direct gaze can be considered disrespectful. Gaze, when used appropriately, can be used as an important cue to the power relations between individuals and in groups.

### *Gaze and power*

Powerful people intentionally use gaze and eye contact. Those with high power use more prolonged gazes and are the target for more gazes from others (Edinger & Patterson, 1983). Those with less power are perceived make less eye contact when speaking but have more attentional gaze toward others when they are speaking. Meanwhile, high powered individuals do not look at others when listening as frequently. This give and take can be referred to as a visual

dominance ratio, which is an index of visual power (Exline, Ellyson & Long, 1975). Individuals with more power are looked at more than they look at others, giving them a higher visual dominance ratio than a low-power individual who focuses their gaze on others more than others focus their gaze on them. Accordingly, Anderson (2008) says that “social status is conveyed through who looks at whom (p. 456),” illustrating how gaze communicates status and power.

### *Haptics*

From a comforting pat on the back to a punch in the face, the use of touch in interpersonal communication sends messages that are important to the success (or failure) of the interaction. The use of interpersonal touch, or haptics, is considered one of the first and most primal forms of communication developed by humans (Knapp, 1972). Before the full development of language, touch was used to help convey messages to one another, as it still does today. Individuals are able to communicate specific emotions through haptics, including anger, love, fear, disgust, and gratitude (Hertenstein, Holmes, McCullough & Keltner, 2009). It is important to take into account both the context of the touch and the existing relationship between the interactants when examining the use of touch in interactions (Remland, Jones, & Brinkman, 1991), as well as the cultural influences on the interactants. Cultures can be categorized into “contact” and “non-contact” cultures (Watson, 1970; Anderson & McDaniel 1998), which explain the cultural expectations concerning touch and haptics. Contact cultures touch more frequently (their proximal zones are smaller as well), meanwhile non-contact cultures have more strict expectations about the appropriateness of touch in interactions.

Haptics and touch are not limited to touching others, but also includes self-touch. When individuals use touch on their own bodies, they can use both adaptors and manipulators. Adaptors help one adapt to internal stimuli (i.e., scratching an itch) and manipulators help one

adapt to external stimuli (i.e., holding your own hands to comfort yourself in a stressful situation; Matsumoto, Frank & Hwang, 2013). Adaptors and manipulators are not always attempting to send a message, for instance scratching an itch on your arm might not have anything to do with the conversation you are having and may not affect the flow of the interaction. However, changes in the frequency or patterns of self-touch can be indicative of an individual's current emotional and cognitive state.

### *Haptics and power*

The use of touch can also be a tool to convey power. Those who engage in more self-touch (manipulators and adaptors) are perceived to be less powerful (Schultheiss & Brunstein, 2002). This is because these acts are often indicators of discomfort, which is associated with low power. People who use touch more in interactions are perceived as more dominant and more powerful. The use of touch has been found to increase compliance in others, which is an important aspect of maintaining power (Kleinke, 1977; Patterson, Powell & Lenihan, 1986). Powerful people have the ability to influence others to comply with their wants and needs, and touch plays an important role in gaining and maintaining that power.

### *Appearance and Power*

When making first impressions, clothing plays an integral role in the perception of power. It has been found that "high status dress" is associated with more power and relative status on the organizational hierarchy (Anderson, 2008). High status dress typically consists of suits, especially when compared to workers who wear uniforms (Mast & Hall, 2004). Uniforms are associated with positions of lower power in an organization (i.e., janitors, minimum-wage workers), but depending on the specific job uniforms may also be a symbol of power (i.e., police officer; Bickman, 1974). Beyond individual power displays, the attire of a workplace can be a

reflection of the organization more largely. Companies that have large variations in employee attire, tend to be associated with increased instability and a lack of leadership (Schefflen, 1972). This emphasizes that the clothing that employees choose (or must) wear not only sends information about that individual's power, but it can also convey information about the organization, as a whole.

An underlying theme that dictates the nonverbal behaviors of those with more power is the ability of powerful people to *choose* what behaviors to engage in (Anderson, 2008). Those with less power do not have the leeway to decide whether to break or conform to nonverbal communication norms in interactions, whereas powerful people can choose to do so. One representation of this is the use of relaxation by superiors when interacting with their inferiors. Research has found that superiors can choose to be more relaxed and break the norms (i.e., putting their hands behind their head, or perhaps even putting their feet up on a desk) since they have the power to do so. Simultaneously, it is sometimes advantageous for powerful people to be more active, displaying dominant behaviors (i.e., standing while another is sitting during an interaction). This is also shown in body orientation during conversation. Those with less power more often orient themselves towards those with more power in the conversation, while the more powerful person can choose how to orient themselves in relation to the others (Burgoon & Saine, 1978; Mehrabian, 1968). People with less power do not have the ability to break interaction norms with their superiors as they can be punished for doing so, whereas powerful people can conform and break norms in the ways that most benefit them.

#### Language and Power

Displays of power are not limited to traditional nonverbal communication, or what is commonly referred to as "body language" in common vernacular. The final nonverbal channel is

language. As technology has developed and many of our interactions have become more digitized, we have found ways to “inject nonverbal information” (Matsumoto, Frank & Hwang, 2013, p. 55) into written communications. This can be done through the use of punctuation and capitalization (i.e., writing in all capital letters indicates “yelling”). Underlying psychological and personality traits (including power) can be conveyed through spoken and written linguistic means via word choice, and sentence construct (Pennebaker, Boyd, Jourdan, & Blackburn, 2015). Many nonverbal elements of language display inner thoughts and feelings and can express many of the related concepts of power otherwise communicated through more tangible means such as the body or space.

Those with more power use language differently than those with less power. In a study examining the use of language by Wikipedia users when interacting online, it was found that those with more power (as indicated by relative editor status) participate in more language coordination than those with less power. This means that powerful individuals actively match the patterns and communicative style of their fellow interactant, presumably in order to facilitate more effective conversation (Danescu-Niculescu-Mizil, Lee, Pang & Kleinberg, 2012). Along with language coordination in interactions, the language itself that is used can have power. Language high in the power dimension has been found to have the same effects as other nonverbal power displays, such as inciting action from the person using the language and influencing submissiveness from others (Galinsky, Gruenfeld & Magee, 2003). Powerful language has also been shown to reflect the amount of power one has internalized (Lammers, Dubois, Rucker & Galinsky, 2013). Research on power and language has bloomed since the development of software that can analyze textual language, such as the Linguistic Inquiry and Word Count (LIWC, pronounced “Luke”); this program and others like it standardized the



operationalization of power in order to form reliable measures when examining linguistic corpora.

### *Linguistic Inquiry and Word Count*

LIWC is a language analysis software that is able to analyze language for psychological dimensions based on word choice and frequency of their use. The software has a set of dictionaries that are curated and validated through research in social, clinical, health, and cognitive psychology and has become a common research tool for linguistic analysis (Pennebaker, Francis & Booth, 2001). LIWC analyses documents word for word, sorting and categorizing the language used into a series of dimensions that are “psychologically meaningful” (Tausczik & Pennebaker, 2010, p. 1). The dictionaries used to sort words into categories were created through a rigorous process of selection and validation. The first LIWC software was created simply to identify positively and negatively affected words and the research team then expanded the number of categories to over 80 language dimensions. To create the LIWC dictionaries, researchers referenced sources such as dictionaries and thesauruses, deployed a survey, and consulted research assistants. The tentative dictionaries were then rated by three judges who independently rated each word’s fit into their respective categories. If two thirds of the judges felt the word should be either included or excluded, the majority ruled on the decision. This process was repeated with another set of judges, with a reliability rate of 93-100% (Tausczik & Pennebaker, 2010). The process of judging has been repeated several times since the original dictionaries were created in 1994, with additional judging occurring in 1997 and 2007 (Pennebaker, Chung, Ireland, Gonzales, & Booth, 2007). The most recent version of LIWC also tested the words in each category to determine if they were, in fact, statistically significantly related to one another and their respective categories. Because of the rigor of the dictionary

validation process that LIWC uses to maintain its analysis capabilities, it has become a reliable tool for research analysis to understand the psychometric properties of language.

Today, LIWC can analyze over 90 variables in written language. LIWC begins by generating a total word count for the document, which is later used to calculate the percentage of the total word count each category accounts for. In addition to word count, LIWC analyses other language metrics (i.e., words per sentence), grammatical elements (i.e., use of pronouns, articles, verbs, etc.), and punctuation use. Grammatical elements such as the use of pronouns and negations are described as function words, as they can give insight to the attention of the writer which can be indicative of the priorities, focus, and even thoughts of the writer (Tausczik & Pennebaker, 2010). The use of grammar and language as indicators of psychological states of the writer indicates the importance of the analysis of these aspects of written language through LIWC.

In addition to the analysis of language metrics and grammar, LIWC analyses language for various psychological dimensions. Performing its original function, LIWC still examines language for positive and negative affect, which are considered linguistic expressions of emotion. The software has been found to rate language for positive and negative words in the same way that humans do, when examining the same document (Alpers, Winzelberg, Classen, Roberts, Dev, Koopman & Taylor, 2005). Additionally, LIWC recognizes the use of social words, which indicate the relative relationship between individuals as well as the perception one has of another person (Semin & Fiedler, 1988). Cognitive processes such as tentativeness and certainty constitute a dimension of language LIWC analyses. As well, LIWC has dictionaries for both perceptual (seeing, hearing, feeling) and biological processes (having to do with health, the body, etc.). Words related to relativity (space and motion) and time orientation (past, present,

future) are also categorized into their own respective dimensions. The software also analyses words dealing with personal concerns (work, leisure) and informal speech (swearing).

One dimension of the LIWC categorization is the core drives and needs, which includes affiliation, achievement and rewards, and power. This means that LIWC has dictionaries curated for power, which includes power, status, and dominance features. The dimensions of LIWC are represented as percentages of the total word count that fall into each respective category. For instance, a power score of 7.3 means that 7.3% of the total words in the document are related to power (these words exist in the power dictionary). LIWC also has four “summary variables” that are calculated as algorithms. These variables are analytical thinking, clout, authentic, and emotional tone. These variables differ from the other dimensions of LIWC because they are not comprised of curated dictionaries (algorithms used are not specifically revealed due to proprietary purposes). These variables are represented as percentages (converted from a standardized score). The clout variable, which is of interest to this study, differs from the power dimension as it deals with the display of confidence, and speaking with a level of expertise (Donohue, Liang, & Druckman, 2014). Power, meanwhile, deals with status and dominance in relation to others, while clout is not concerned with others. Both clout and power are of interest in this study, and will be used as linguistic indicators of power.

### Financial Disclosures

One of the most important ways that CEOs communicate with potential investors, current investors, and the government is in their 10-K filing for the Securities and Exchange Commission (SEC). In 1933, with the establishment of the SEC, the US government began requiring public companies to file annual reports that detailed the financial information of the company (Li, 2008). These reports are designed to allow regulators to check on the legality of

the financial functions of a company, to inform the research of analysts, and most importantly to give investors insight into the company's finances in order to be informed about the outcomes and prospects of their money (Epstein & Pelepu, 1999). Within this report, there is a required section titled Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A), in which the top executives of the company write in narrative form about the past year's financial performance (Barron, Kile, & O'Keefe, 1999). This section of a company's annual report is a written insight into the management of the company and the decisions they make.

### *Management Discussion and Analysis*

Further analyses of MD&A statements were instigated by a push from Congress and the SEC to produce more quality financial disclosure information (particularly the MD&A section; Holder-Webb & Cohen, 2007). The importance of this section lies in the narrative's ability to inform investment decisions for marginal- or poor-performing firms by giving insights on what is happening internally during the time of financial distress for the company. Holder-Webb and Cohen (2007) found that when companies first start having trouble, MD&A statements and financial disclosure information actually increases in quality. And, if a company is able to recover from distress, they are more likely to have better quality disclosures in the future. These results indicate that companies only disclose quality information when it is beneficial to them economically, as investors want more information before investing money to a company that is not succeeding, as the risk is larger. For these reasons, Holder-Webb and Cohen (2007) speculate that companies make decisions about disclosure quality based on economic incentives rather than moral ones. See *Appendix B* for examples of MD&A statements.

### *Language and MD&A statements*

As people use nonverbal aspects of written language to convey information to others, researchers work extended beyond quantitative data in the analysis of company success and instead sought out qualitative data to explore trends in language as a predictor of financial phenomenon. The first linguistic analyses of financial disclosure statements explored the theory of selective disclosure in relation to bankruptcy and fraud. Boo and Simnett (2002) found that failing companies tried to hide their shortcomings from investors in their written language, and that successful companies were more likely to have an optimistic outlook in their written statements/language. Interest in the correlation between written language in corporate financial reporting and other variables that might predict company success is an area of research ripe with opportunity.

Researchers have explored many other linguistic phenomena in financial disclosures and MD&A statements in relation to company success. The tone of words used in MD&A statements have been found to be predictive of company earnings (Feldman, Govindaraj, Livnat, & Segal, 2010). The tone of an MD&A, as measured by the comparing positive and negative word categories, can help investors predict the company's earnings in the next quarter, particularly by comparing the changes in tone used from previous earnings. Tone is not the sole important factor in this process, though, as a company's general information disclosure should be taken into account when analyzing their statements (Feldman, et al. 2010). With this understanding, Feldman (2010) emphasizes the use of language as a tool for understanding financial statements.

Tone and language have been further examined to predict share prices and higher earnings. Company press releases concerning financial information that have more optimistic tones are associated with better earnings (Davis, Matsumoto, & Zhang, 2012). This tone change also affects share prices for the company, with more pessimistic disclosure leading to lower

prices and more optimistic language leading to higher prices. The tone of MD&A statements have also been examined to predict fraudulent behavior by the firm. Research has found that the language used by firms that committed fraud are unique in that they write their statements in a way that *appears* more credible, but that actually gives less content and leaves out important information (Humpherys, Moffit, Burns, Burgoon, & Felix, 2011).

Tone and language in company MD&A statements is also correlated with the likelihood of bankruptcy (Mayew, Sethuraman & Venkatachalan, 2015). Those with more positive versus negative words are more likely to rebound and avoid bankruptcy. Furthermore, the writing style in an MD&A has been found to correlate with earnings. Companies that used more obfuscation in their language (making it less readable) performed more poorly than those who used less obfuscation (Li, 2008). Additionally, the use of more complex writing styles (sentence structure, technical words, length) is related to and can predict fraud in companies, as can be detected through writing (Humphery, Moizer, & Turley 1993). This emphasizes that the language used by executive management in MD&A statements is an important qualitative insight to the success of the company and the ability of the leadership of the company to achieve and maintain profit.

As researchers have extensively studied nonverbal power in communication in general, the use of power nonverbally in language in the context of corporate financial disclosures has yet to be examined in the literature. As well, while researchers have seen how language use in MD&A statements affects companies and their financial outcomes, power has yet to be a variable considered in these types of language analyses. Accordingly, this thesis is guided by the following research question (see *Appendix A*):

*RQ1: Do publicly traded companies differ in their use of power language in their MD&A statements?*

## Power and Leadership

Power and power perception are especially important to consider when analyzing MD&A statements and the language used by management of a company because of the strong correlation power has with leadership and company success. Those with the most power in the workplace are the top management and leaders of the company. These people are the decision makers and the choices they make can affect everyone else in the organization. As the MD&A section is written and approved of by top executives in a company, it functions as a way of insight to the company and its management's use of power. In particular, the CEO of a company is the head of the organization with the most power and leadership ability. Therefore, significant interest has been shown in examining how leaders use power and how this use affects their organization.

Research has explored how the inferences made about faces of CEOs can predict the amount of financial success that a company will have (Rule & Ambady, 2009). When participants were prompted with photographs of just a CEO's face and asked them to rate the competence, dominance and leadership ability of a CEO, it was found that perceived CEOs that were perceived to be better leaders had companies with better earnings. However, CEOs who were rated as more dominant were individually paid more than CEOs perceived as less dominant (Rule & Ambady, 2009). Previously, in 2008, Rule and Ambady also found that there were links between perceived personality traits and leadership ability and company income. CEOs who were rated higher on the *power composite*, consisting of competence, dominance, and facial maturity, had companies earning higher income.

Power-related traits are significantly related to company income, as was leadership ability (Rule & Ambady, 2008). These two perceived traits remain significant even when controlling for the other variable, meaning that both perceived power and leadership ability

individually affect company income and that the perception of leadership and power are not co-dependent but in fact separate, recognizable traits that both affect company income. These studies show that company leaders with more (perceived) power lead companies with higher earnings. Power-related traits that can be detected from the face, such as dominance, likeability, competence, and trustworthiness, were found to be significantly related to company income.

Knowing that characteristics such as power influence company success, researchers went on to explore the connections between psychological and physical characteristics and successfully leading a company. Leaders with more evolutionarily beneficial features (i.e., wider face, taller) as well as evolutionarily beneficial psychological characteristics (i.e., dominance, extraversion) are able to be more effective leaders (Judge, Piccolo, & Kosalka, 2009; Van Vugt, Hogan, & Kaiser, 2008). These traits are also ones associated with more dominance and power. This study found that the characteristics of CEOs precede the amount of income a company has, meaning that the profits or losses can be more closely attributed to the characteristics of the CEO. This means that CEO characteristics “actively influence the performance of their firms” (Wong, Ormiston & Haselhuhn, 2011, p. 1481).

Power and leadership are found to be correlated both with each other and with success. Leaders who are perceived as more powerful have been shown to demonstrate more effective leadership skills. These include creating and executing goals and in particular a leaders’ ability to stick to those goals and make decisions that support those goals (Galinsky, Jordan, & Sivanathan, 2008). This means that these leaders have clear vision and actively work to fulfill this vision. Additionally, high power leaders are more likely to think on a large scale, rather than on individual issues (Galinsky et al., 2008) and therefore more likely to focus on relevant information and appropriate problem solving (Overbeck & Park, 2001). Finally, high-powered



leaders are optimistic and are more likely to engage with opportunities presented to them (Fleischmann, Lammers & Galinsky, 2019). These increasingly effective leadership skills found in those that have more power are vital to pursuing the success of a company. This association between leaders with high-power and success informs the first hypothesis:

*H1: Companies that use more power language in their MD&A statements will have higher net incomes.*

### *Gender*

It is important to note that there are gender differences in both the perceptions and displays of power. For example, women with higher pitched voices are perceived as less powerful than women with lower pitched voices (Hall et al., 2005). This is amplified in the difference in pitch between men and women, as men traditionally have much deeper voices than women. This leads to men being perceived as more powerful than women of the same status when only hearing their voice (Apple, Streeter & Krauss, 1979). The importance of this can be illustrated by Margaret Thatcher, the former prime minister for the United Kingdom. In the 1970s, Thatcher took voice lessons from the British Royal National Theatre to lower the pitch of her voice and establish a more authoritarian and powerful tone. This was done in an effort to maintain face in a male-dominated political arena. Thatcher became known as “The Iron Lady”; this was partly made as a reference to her steely and firm tone that made many of her speeches so memorable.

Vocal pitch is not the only nonverbal power difference between men and women. Women are more likely to smile more often, which is considered a sign of submissiveness and low power (Kennedy & Camden, 1983). When women smile, they are perceived as even less powerful than men when they smile. Women in leadership who also speak more rapidly are also perceived as

more powerful than women who speak more slowly (Carney et al., 2005). As well, women with closed off body language are perceived as more powerful than those with expansive postures, which is an opposite trend that is seen in males (Mehrabian, 1969). This illustrates how all of the channels on nonverbal communication can be used to display power differently in men and women. Given this difference in displays of power between genders, the final research questions and hypotheses are posed:

*RQ2: Can the gender of a CEO predict a company's net income?*

All other criteria being the same, men and women in power communicate power differently. It has been found that male CEOs are perceived to be more powerful, dominant, and be better leaders while female CEOs are perceived as more supportive and compassionate (Pillemer, Graham & Burke, 2014). These characteristics were found to be perceived to increase as the CEO became more powerful, whereas powerful female CEOs were perceived as more supportive, compassionate, and warm than less powerful CEOs. The same occurred with male CEOs and the traits associated with them (power, dominance, and leadership). This difference in gender and power perception may play an important role in the success of female CEOs and the way they portray power, leading to the second hypothesis:

*H2: Companies with female CEOs will use less power language in their MD&A statements than companies with male CEOs.*

If companies with female CEOs use power language differently (specifically less power), and the use of power language affects the financial success of the company, then there may be a difference in how the gender of a CEO affects the language and income. If females with power do not display it in traditional dominant and power-seeking ways (Hall et. al., 2005) then

investors may perceive the company and its leader to be less powerful and therefore a bad investment. This leads to the third research question:

*RQ3: How does gender influence the relationship between power language and net income?*

While females may display power differently than males in the financial statements, this is merely an expression of power. Females with more power are more likely to be perceived as warmer and more supportive (Pillemer, Graham & Burke, 2014) versus males with more power who are perceived as more dominant. While the expression of power is different, the amount of power the individual (male or female) has is what drives their leadership ability and their potential for success, not the expression of that power. Therefore, females being less likely to express power in language should not show a relationship because lack of variance or existence of this variable. Meanwhile, males display power more traditionally, with high-powered males using more high-powered language (Pillemer, Graham & Burke, 2014). Since use of power in language being associated with financial success, we pose the third hypotheses:

*H3i: Companies with female CEOs will have no correlation between power language and net income.*

*H3ii: Companies with male CEOs will have a positive correlation between power language and net income.*

## CHAPTER 3: METHOD

### Sample

The first research question and hypothesis are concerned with the use of power language in MD&A statements and the relationship of this variable to net profits of companies. To examine this relationship, a random sample of publicly traded companies was collected using the Compustat program, a comprehensive database of financial and market information for companies traded in the United States and globally. Data for net income, standardized company identifiers (CIK numbers), and net income collection dates for all companies in the United States from January 2016 to December 2018 were gathered ( $N = 35,716$ ) and downloaded. The Statistical Package for Social Science (SPSS) was then used to make a random selection of 100 companies in the database that was collected using Compustat. SPSS is a statistical analysis software developed for the social sciences that is now used by many fields for statistical data analysis, data management, and data documentation (SPSS, 2018). From this selection, any companies missing information on net income or Central Index Key (CIK) numbers were removed from the sample. As net income is a variable of interest, companies without this information are not viable for analysis and were therefore removed. CIK numbers are assigned to each company reporting data to the SEC, and without this number it is difficult to collect an MD&A. Some companies, particularly large companies, may file their tax statements through several associated corporations, making it difficult to match a company's tax statements to their collected net income based solely on the company name. Therefore, as previously mentioned,

companies without this data were unusable and therefore removed. After this process, there were 64 viable companies collected to be used for analyses.

The second sample collected for this study were obtained to address the second and third research questions and the second and third hypotheses, which are aimed at testing the relationships between CEO gender, power language, and net profits. Within the Compustat program, the database Execucomp is available for access. The Execucomp database contains information about the executives for companies traded both in the United States and globally, including variables such as salary information, executive age, and gender. The data for all companies within Execucomp from January 2016 to December 2018 ( $N = 27,222$ ) in the United States was collected. This dataset was then imported into SPSS and the list of companies was separated by those with female executives and male executives. A random sample of 300 companies with female executives was selected. Upon examining the selection, company datapoints for executives who were not CEOs (i.e., CFOs, Vice-Presidents) were removed. Companies with CEOs who were hired less than a year before the data date that the net income for the company was collected were discarded, as the CEO would not have sufficient influence over the language used in the MD&A that is of interest for the study (e.g., if a CEO was hired in August of 2017 and the net income was collected in December of 2017, the company would be discarded). Additionally, companies without CIK or net income information were discarded. After discarding nonviable companies, the number companies with female CEOs was deemed too small for significant analysis ( $n = 12$ ) so an additional 500 companies with female executives were randomly selected from the sample. These companies were narrowed down in the same manner as previously mentioned and any repeated companies selected using random sampling were discarded. This entire process resulted in a total of 32 companies with female CEOs. A

random sample of 300 companies with male CEOs was then collected and companies were discarded using the same methods as the female CEO sample. Additional samples were not required to attain 32 viable companies with male CEOs.

### Data Collection and Organization

To collect the Management Discussion and Analysis section of each company's 10-K tax filings, a company's CIK was entered into the SEC's company filings search service (<https://www.sec.gov/edgar/searchedgar/companysearch.html>). Annual reports to the SEC are required by all publicly traded companies to provide information to investors about the company and to disclose financial information (Simon, 1989) however the MD&A section is found within the 10-K tax filings, which is not required by all companies. Any company in the sample that did not submit a 10-K filing was removed from the sample. The MD&A was collected for the year prior to the net income data reported for each company (i.e., if a company's net income was reporting for 2017, the MD&A was collected from the 2016 filings). Each company's 10-K was examined, and the MD&A section was removed and imported into a Word Document and the file was labeled with the company's name.

Once all MD&A statements were collected, the documents were cleaned to be able to run through the Linguistic Inquiry and Word Count software. To do so, all page breaks, tables, legends, and supplementary materials were removed (see Markowitz & Hancock, 2016) as they would not be analyzed properly by LIWC and would negatively influence the fidelity of the outputs derived from the statements. Section titles and headings were not removed from the documents, as these are not standardized and developed by the authors of the statements. Thus, their impact on the LIWC results could be meaningful. Although some previous research has proposed that it is necessary to run a Python script to standardize American and British spellings

of words, this was not necessary for this study because LIWC 2015 has been updated to include both American and British dictionaries (Pennebaker Booth, Boyd & Francis, 2015). It should be noted that “misspellings, colloquialisms, foreign words, and abbreviations are usually not in the internal dictionaries” (Pennebaker, Francis & Booth, 2007, p. 7). Some words and jargon specific to tax filings or specific companies may not be able to be analyzed by LIWC, but the frequency of these words in each filing cannot be known. No other edits or removals aside from the ones mentioned here occurred.

After cleaning of the documents was complete, they were input into the LIWC software. The following variables were collected for each filing: word count, analytic, clout, authentic, tone, words per sentence, dictionary words, positive emotions, negative emotions, power, reward, risk and money. For the purposes of this study, the data for power and clout for each filing was of the most interest. Data for power and clout for each company was merged into a spreadsheet with net income data for each company and imported into SPSS. Another spreadsheet was developed for sample 2 that also contained this information with the addition of a gender variable.

Within LIWC, the two variables of interest in relation to power language that were collected were power and clout. The power dictionary includes words that concern power, status, and dominance. The power dimension is represented by the number of words or phrases from the power dictionary a piece of writing may contain, represented as a percentage of the total word count. LIWC has another dimension that relates to status, clout. Clout measures the relative social status that is displayed linguistically, as well as confidence and leadership. This differs from the power dimension because clout does not require an awareness of status or hierarchy level. Clout is measured based on an algorithm that considers characteristics such as confidence

and leadership to estimate the relative power or status of the author based on the language that they use. Clout is reported as a percentage, with higher scores being representative of an increased use of this type of language.

### Analysis

As this study is concerned with trends based on average companies, outliers were strategically removed from datasets to ensure that the data is representative of a typical company. According to Hawkins (1980) “the intuitive definition of an outlier would be ‘an observation which deviates so much from other observations as to arouse suspicions that it was generated by a different mechanism’” (p. 1). This study determined outliers based on interquartile rules (IQR). SPSS calculates the difference between the upper quartile of the sample and the lower quartile of the sample and multiplies that difference by either 1.5 or 3 to determine outliers (Tukey, 1977). Values that are higher or lower than 1.5 times the difference of the interquartile range are designated as outliers by circles and values higher or lower than three times the difference of the interquartile range are designated as outliers by asterisks when data is visualized in a box and whisker plot. Outliers identified by the 1.5 IQR are oftentimes not true outliers, being inaccurately identified up to 50% of the time (Hoaglin & Iglewicz, 1987). Therefore, outliers for this study were removed based on the interquartile range rule of three used in the SPSS program, as this is a more conservative calculation and the values are more likely to be true outliers.

The first research question, concerning the power language used by companies, was explored by collecting descriptive statistics concerning companies’ use of power language in MD&A statements including: high/low scores, mean, standard deviation, skewness and kurtosis. These descriptive statistics for the use of clout language were also examined in relation to research question one. The first hypothesis was focused on power language, particularly in



relation to net income. The data for net income was visualized in a boxplot and outliers were removed. Seven companies were removed as outliers based on their net income (all seven companies were outliers on the high end, making far more money than the average company). After these outliers were removed, a Pearson correlation was run to examine the relationship between power language and net income.

The first hypothesis was examined through an additional method. The median power score (median = 2.83) was calculated for the 57 companies remaining after outliers were removed. Companies that had lower power scores than the median were placed in a low-power group ( $n = 28$ ); companies that had higher power scores than the median were placed in a high-power group ( $n = 29$ ). One company's power score fell on the median. To determine which group this company was placed in, the mean power score was calculated (mean = 2.93). Since the median score of 2.83 was below the mean, the company was placed in the low-power group. These two groups were then compared in an independent  $t$ -test to examine the relationship between net income and power.

The second research question explores the relationship between CEO gender and net income. The data for the net profits of companies with male and female CEOs were visualized in box plots and outliers were removed. There were six outliers in both the male and female groups which were removed. Following this, an independent  $t$ -test was run to examine the differences in net income for companies with male versus female CEOs.

For the second hypothesis, the relationship between gender of a CEO and the power language used was examined. The data used in analysis includes the removal of outliers established from research question 2. In addition to the removal of outliers based on net income, outliers based on power language were of interest. Data on power language scores for both male

and female groups were visualized in box plots. The male group had no outliers. The female group had one outlier and that company was removed from analysis. A *t*-test was used to examine the difference in power language used by companies with male and female CEOs.

In order to answer the third research question, two hypotheses were posed to examine the relationship between power language and net profit in companies led by male and female CEOs. Part one of the third hypothesis concerns the relationship between the power language used in MD&A statements of companies with female CEOs and their net profits; part two of the third hypothesis concerns the relationship between the power language used in MD&A statements of companies with male CEOs. Pearson correlations were run to examine these relationships.

## CHAPTER 4: RESULTS

To begin data analysis for the first research question, descriptive statistics were collected to help understand how companies use power language in their MD&A statements. Since both the power and clout variables are related to power language, analysis on both variables were conducted. Overall, companies do not use a lot of power language, averaging 2.96% of their total words used. The lowest percentage of power language used by a company in the sample was 1.74% and the highest score was 4.97% ( $SD = 0.76$ ), so there was not a large range considering these scores could range to 100%. Since the range of data points were small, the differences in each hundredth of a point might affect the impact of the power language. It should be noted that there was no significant skew (0.84, standard error = 0.30) or kurtosis (0.31, standard error = 0.60). This means that the data was normally distributed and therefore fit the assumptions of inferential statistical analyses that would be used to test the study's predictions and questions. That is, the data did not cluster on the high or low power ends and that there were not large clusters of data at one particular power score, making the distribution symmetrical when visualized.

The clout score is also of interest to this study, so the descriptive statistics were also collected for clout scores. Clout scores, an algorithmically calculated score out of 100, averaged 64.19 ( $SD = 9.35$ ). Clout scores had a much larger range than power scores, with the lowest clout score being 47.28 and the highest being 83.42. However, the range of scores was still normally distributed, not having significant skewness (-0.17, standard error = 0.30) or kurtosis (-0.84, standard error = 0.60).

After visualizing data for power and clout language, the first hypothesis was tested to explore the relationship between company power language and net profit. Upon running a Pearson correlation, it was found that companies who used more power language earned higher net profits ( $r(57) = 0.272, p < 0.05$ ). To further explore how power language and net income, companies were separated into high and low power groups their net profits were compared. An independent samples  $t$ -test was calculated and it was found that companies in the high-power language group made more money ( $M = 90.08, SD = 136.63$ ) than companies in the low-power language group ( $M = 12.21, SD = 121.96$ );  $t(55) = -2.72, p < 0.05$ . Net income scores are reported on a score of 1=1 million. For example, a net income score of 15.67 is equal to \$15,670,000. On average, companies who used more power language (high-power language group) made \$77.87 million more than companies using less power language (low-power language group).

### Gender

Beyond the relationship between power language and net income, this study is concerned with the differences in the use of power language by companies with male or female CEOs and the affect it has on their company's net income. The second research question asks if the gender of a CEO can predict a company's net profit. Upon running an independent samples  $t$ -test on male and female CEO net incomes, results showed that companies with female CEOs ( $M = 196.11, SD = 254.73$ ) earned higher net profits than companies with male CEOs ( $M = 35.93, SD = 173.71$ );  $t(48) = -2.60, p < 0.05$ ). On average, companies with female CEOs made \$160.18 million more than companies with male CEOs. To further analyze the differences between companies with male and female CEOs, an exploration was conducted of the power language used by these companies. An independent samples  $t$ -test revealed no significant difference in the

power language used by companies with female CEOs ( $M = 2.74$ ,  $SD = 0.34$ ) versus companies with male CEOs ( $M = 2.82$ ,  $SD = 0.61$ );  $t(47) = 0.53$ ,  $p > 0.05$ .

Finally, this research explored the relationship between the power language used by companies with male and female CEOs and their net income in the third research question, examined through the third hypotheses. Beginning with companies with female CEOs, a Pearson correlation revealed that companies with female CEOs had no significant correlation between power language and net income ( $r(24) = -0.29$ ,  $p > 0.05$ ). That is, the amount of power language used by companies with female CEOs had no correlation with their company's net income.

Concerning companies with male CEOs, a Pearson correlation test revealed a significant correlation between power language and net income in companies with male CEOs ( $r(25) = 0.46$ ,  $p < 0.05$ ). That is, companies with male CEOs that used higher levels of power language in their MD&A statements made more money than companies that used lower levels of power language.

#### Post Hoc Analyses

Power is not the only variable in LIWC that examines psychological dimensions related to power and status. The clout variable can also be an indicator of power and was therefore calculated for all companies. Since power and clout are conceptually related but measured differently in LIWC (power is a percentage and clout is an algorithm), the relationship between the measurement of the two variables was of interest. To examine the relationship between the power and clout variables, a Pearson correlation test was utilized. Accordingly, power and clout are negatively correlated ( $r(64) = 0.18$ ,  $p < 0.05$ ). That is, as a company uses more power language, they use less clout language (and vice versa). An additional analysis of the relationship between clout language and net income was examined using a Pearson correlation. There is a

negative relationship between clout language and net income ( $r(57) = -0.281, p < 0.05$ ). That is, companies who use less clout language earned higher net incomes.

Additionally, companies were split into high-clout and low-clout groups to examine the relationship between clout language and net profit. To do so, the median clout score was calculated and companies earning lower clout scores than the median were placed in the low-clout group and companies earning higher clout scores than the median were placed in the high-clout group. One company fell on the median score. The mean was calculated, and the company was placed in the high clout group since the company earned an above-average clout score. An independent samples  $t$ -test was run with no significant differences between the groups ( $t(55) = 1.5, p > 0.05$ ). It is notable that more companies who lost money were placed in the high-clout group ( $n = 13$ ) versus the low-clout group ( $n = 3$ ). These findings conceptually validate the finding that power and clout are negatively related as a company with high power language will use less clout language and high-power language is related to higher net incomes. Therefore, it follows that high clout language is related to lower net incomes.

As clout is conceptually similar to power, analyses concerning clout language and gender were also conducted. In relation to clout language and gender, a  $t$ -test revealed no significant difference in the clout language used by companies with female CEOs ( $M = 67.77, SD = 8.58$ ) versus companies with male CEOs ( $M = 66.64, SD = 10.17$ );  $t(47) = -0.42, p > 0.05$ . That is, both companies with male and female CEOs use clout language in a similar manner.

Clout language and net income was also examined in relation to CEO gender individually. First examining companies with female CEOs, a Pearson correlation revealed no significant relationship between clout language and net income for companies with female CEOs ( $r(24) = 0.28, p > 0.05$ ). Additionally, a Pearson correlation revealed no significant relationship between

clout language and net income for companies with male CEOs ( $r(25) = -.08, p > 0.05$ ). This means that there is no relationship between how much clout language a company uses and their net income, regardless of the gender of their CEO.

## CHAPTER 5: DISCUSSION

Power is a crucial aspect of communication, negotiated between individuals and groups in every communication scenario (Berger, 1985; Scott, 1994) and is an indicator of status both socially and professionally. It can be used as a predictor of success in my contexts. Previous research has examined the impact of nonverbal power perception in the workplace, indicating that power displays by leaders correlate positively with leadership skills (Rule & Ambody, 2008). Additionally, these displays correlate with actual money these leaders earn (Rule & Ambody, 2009). Nonverbal communication is not limited to visual and auditory cues, as language has nonverbal elements such as paralanguage (see Knapp & Harrison, 1972) or underlying psychological indicators that can be indicative of psychological states and personality traits (Pennebaker, Boyd, Jourdan, & Blackburn, 2015). Recent research has studied the strategic use of language in MD&A statements in the 10-K tax document that companies file yearly to the U.S. Securities and Exchange Commission, including how tone and language obfuscation relate to company success (Feldman, Govindaraj, Livnat, & Segal, 2010; Markowitz & Hancock, 2016). The current research project specifically set out to examine the relationship between the amount of power language a company uses in their Management Discussion and Analysis and their net income.

Using a random selection of companies traded within the United States between 2016 and 2018, the use of power in MD&A statements was explored to test for the relationship between language use and financial performance (RQ1). Results revealed that companies do not vary greatly in their use of power language. That is, companies do not typically use very high amounts



of power language in their MD&A statements; MD&A statements had low percentages of power language when quantified by LIWC. This is probably due to MD&A statements being operationalized as formal tax documents (Epstein & Pelepu, 1999). These documents have strict standards for reporting company information and while the MD&A is more of a narrative than other sections found in these financial reporting files, the language being used is still embedded within the formally constrained document (Barron, Kile, & O’Keefe, 1999). While the power language scores generated by the textual analysis software were generally low, the variance within the scores were normally distributed and allowed for inferential tests to be performed. That is, there are companies that use more or less power language than others, making power language a variable measurable in MD&A statements that researchers are able to study for trends and impacts.

In examining the use of power language by companies, the relationship between power language and net income was of interest to this study (H1). As the MD&A statement is a tool that investors use when deciding to buy stocks of bonds in a company, the language used in the statement may have an impact on the investment strategies of investors and the subsequent financial success of the company. The first hypothesis predicted that companies that have higher power scores will have higher net incomes than companies with low power scores. This hypothesis was supported by the data, indicating that power language is a predictor of the amount of money that a company will make—these two variables were positively correlated as predicted.

The use of power language has been previously explored in relation to its ability to impact others in comparison to other avenues of nonverbal communication. Galinsky, Gruenfeld, and Magee (2003) found that power displayed nonverbally through language can have the same

effect concerning perception and influence as power displayed through other nonverbal means (e.g., gesture, haptics). This suggests that the power language used in MD&A statements may affect the investment decisions made by investors upon reading a company's tax filings.

Additionally, language is able to reflect underlying psychological and personality states of the writer, meaning the leaders in a company dictating the language in an MD&A statement rely on language that is indicative of the power they possess in their company (correlated with leadership skills). This power can be perceived by a reader and incite an investment response based on the connection between power and success.

The positive relationship between power language and net profit aligns with research on the presence of and impact of nonverbal power. As power language is positively related with net income, power language is likely to reflect actual power that a company possesses. In the workplace, leaders who exhibit more nonverbal power (e.g., more dominance indicators in facial structure, use of posture and gesture to display power) also exhibit better leadership skills (Rule & Ambady, 2008) and are more effective leaders (Van Vugt, Hogan, & Kaiser, 2008). In this way, effective leadership includes leading companies that are more financially successful. Therefore, the finding that companies with high power language in their MD&A statements making more money corroborates evidence from other research that high power displays in the workplace are related to more success.

The strategic use of power nonverbally aligns with the goals and practices of Impression Management Theory. Individuals engage in behaviors in order to create and maintain a desired perception of themselves (Schnieder, 1981). Individual engage in these behaviors in the workplace, in particular (Gardner & Martinko, 1988). Since being perceived as powerful can have positive outcomes in relation to financial success, it is of interest for companies to present

themselves as powerful. As predicted by the study hypotheses, power is displayed through the nonverbal elements and psychological dimensions of language. Language can be used to “inject nonverbal information” into written communication (Matsumoto, Frank & Hwang, 2013, p. 55), and these language cues were measured by LIWC and revealed significant statistical relationships using inferential statistical tests. The current research not only corroborates the relationship between nonverbal power and success but also the use of power as a nonverbal element of language that has social influence.

Beyond the relationship between power language and net income, this research was interested in the affect that the gender of a company’s CEO may have on the use of the CEO’s power language and its relationship with company net income. This exploration had two parts: the use of power language in MD&A statements and how it related to net income earned. First, it was of interest to see whether there is an existing difference between the net income earned by companies with male versus female CEOs (RQ2). Results revealed that there is a significant difference in earnings between the genders but, contrary to the hypothesis, companies with female CEOs earned significantly more money on average than companies with male CEOs in the sample. Companies with female CEOs have been found to have better firm performance as a result of management styles (Dezo & Ross, 2008) and lower risk levels for losses (Khan & Vieito, 2013). This research’s finding aligns with the evidence from other studies that companies with female CEOs are more financially successful on average than businesses with male leadership.

Next, this study sought to examine the difference in the use of power language by companies with male or female CEOs (H2). Through an examination of MD&A statements from companies with male and female CEOs, results indicated that there is no significant difference in

the way that companies use power language as influenced by having a male or female CEO. This finding did not support the hypothesis, which predicted that companies with male CEOs will use more power language than companies with female CEOs. This prediction was based on research detailing the difference in nonverbal power displayed by men and women. That is, men are more prone to display dominant and aggressive behaviors, while women tend to show warmth and more compassion (Pillemer, Graham & Burke, 2014). However, this null finding may be related to the overall structure of the MD&A statements. As previously mentioned, the MD&A is embedded within a formal, structured tax filing and overall companies do not use high levels of power in general, and their use of language is likely stifled by the structured nature of the expectations for modeled language in this genre (see Markowitz & Hancock, 2019). The structure of this type of document may affect a company's ability to use very high or very low levels of power language, making the differences between the statements of companies with male versus female CEOs small enough to so as it is not likely to find predicted differences.

While there is no significant difference in the way that companies with male or female CEOs use power language, the way that power language is related to net income varies considerably (RQ3). Companies with female CEOs show no relationship between the amount of power language used and their net income, supporting the study's hypothesis (H3i). This may be due to the fact that companies with female CEOs are overall more high-performing than companies with male CEOs. This high performance leads to less variations in company net income (specifically with less dramatic low or negative incomes). This means that there is a lack of spread in both net income and power scores (differences between power scores are very small) and this lack of overall variance in the data may have contributed to the lack of a relationship between power language and net income in companies with female CEOs. Additionally, as

females display power differently nonverbally, there may not be an expectation for power language in these statements. Therefore, investors may be less sensitive to differences in the use of power language in statements with female CEOs as it would not be considered an accurate indicator of their power. Perhaps an analysis of affective processes and language would be a better indicator of power as displayed by females.

While there is no relationship between the power language used by companies with female CEOs and their net income, there is a positive relationship between the power language used by companies with male CEOs and their net incomes, supporting the predicted hypothesis (H3ii). This finding corroborates research that finds a relationship between nonverbal power and success as well as research showing that males display power nonverbally in a traditional sense. Men are more likely to display power through what could be considered *traditional* means: for example, aggression and dominance displays. These characteristics align with evolutionary displays of power that were necessary to maintain status and power in social groups (Judge, Piccolo, & Kosalka, 2009). The LIWC dictionary that operationalizes vocabulary that is categorized under the power dimension considers these traditional markers in its analysis. Therefore, powerful male CEOs will communicate that power through words that are detected by LIWC's power category.

#### Post Hoc Analyses

Power was the primary variable of interest in this study but clout, a conceptually similar variable, was also calculated using LIWC while running the other analyzes for the study. The relationship between clout and power was examined to test if the conceptual similarities was reflected in measurement. A post-hoc analysis discovered that power and clout are negatively correlated, meaning that the more power language a company used in their MD&A statement,

the less clout language that was displayed. The clout variable is calculated as an algorithm in the software and its precise mechanism for developing a score is not disclosed by LIWC for proprietary reasons. However, the description of the variable is the only reference available to make predictions about why power and clout are not positively related.

The LIWC user manual suggests that a text that displays high amounts of clout indicates that the author has “expertise and is confident” whereas the use of a lower amount of clout language in a text sample may suggest a “more tentative” or “humble” approach to communicating inner states, thoughts, or feelings (Pennebaker, Booth, Boyd & Francis, 2015, p. 22); words in the power dictionary include “references relevant to status, dominance, social hierarchies” (p. 22). The clout variable is calculated algorithmically and is likely related to pronoun usage, as LIWC authors cite Kacewicz, Pennebaker, Davis, Jeon and Graesser (2014) when discussing the development of the clout variable. Kacewicz et. al. (2014) found that those with higher status are more other-focused when speaking, using fewer first-person singular pronouns, and more first-person plural and second person plural pronouns. Therefore, it is likely that the clout algorithm includes an analysis of pronoun usage as an indicator of status.

As indicated by the LIWC software developers, clout is conceptually related to expertise and confidence levels in speech (Pennebaker, Booth, Boyd & Francis, 2015). Based on citations referenced by the creators of LIWC when discussing the formation of the clout variable (Kacewicz, Pennebaker, Davis, Jeon & Graesser, 2014), clout is likely calculated using information about pronoun usage. It is possible that since the MD&A statements are written in a third-person, formal tone, their first and second-person pronoun usage may be minimal and therefore influence the results generated in the use of clout. If there are too few variations in pronoun usage, clout scores based on the LIWC algorithm will result in overall low scores.

Conceptually, clout and power seem related, given that those who are powerful are typically associated with being confident and having expertise, however the calculation of the variable may limit the ability to accurately assess the true relationship between clout language and power language in MD&A statements, in particular. With this said, the relationship between clout and power language was significant and negatively related. Therefore, it is worth inquiring in future research as to the cause of this relationship in language and developing a better understanding of how these two language variables interact with one another in text.

While those who are powerful are typically associated with high confidence and expertise, those with more power may have the ability to be humbler. Those who are humble will not need to inflate their sense of clout and status to readers since they are secure in their power and success. Humbleness is related to lower clout scores, which may explain why companies with high power have low clout in their statements. Companies that use high clout language may simply be inflating their appearance of success through their language to attempt to influence investors. When companies were sorted into low and high clout groups, there were more companies who lost money in the low-clout group in comparison to the high-clout group. Companies attempting to appear to have more expertise by using language related to such (i.e., jargon) may have higher clout scores but lower power scores since they are simply trying to appear powerful while their income reveals their actual power and status.

The finding that clout is negatively related to power was further solidified through post hoc analyses of the relationship between clout scores and net income even when gender of CEO is included as a variable. Companies with male and female CEOs did not differ in their use of clout language. Furthermore, companies (gender of CEO excluded) had a relationship between clout language and net income. Essentially, while the clout variable appears to be conceptually

related to the power variable in the analysis of status, is not practically related to the power measurements of MD&A statements.

### Implications and Limitations

There is a precedent in accounting research to examine the language used in MD&A statements to gain insights on companies and make predictions concerning their financial situations. Using a communication and linguistic analysis lens to examine these statements brings new insight to the analysis of required written tax reports. The corpus of statements analyzed in this study was drawn from the largest, most comprehensive database of information on publicly traded companies. Two softwares with large databases of all publicly traded companies were used (Compustat and within it, Execucomp), and these databases are updated daily and are frequently used to gather information for research as well as to plan investment strategies. The statements gathered from these databases are reliable and up-to-date. The statements gathered ranged from 2016-2018 and are current. The conclusions drawn from their analyses are applicable to today's financial market and these findings hold implications for investors and others interested in the financial success of companies. Additionally, the language analysis software used to examine the words used in the MD&A statements, LIWC, is an established analysis tool that is validated across many studies in the social sciences. LIWC is considered the standard for linguistic analysis of documents in research (Pennebaker, Francis & Booth, 2001) and the standardization of analysis procedures used by LIWC gives this study greater reliability and validity in its findings.

There are several limitations to the current research. First, companies analyzed in this study were limited to publicly traded companies in the United States. There are large numbers of businesses and companies that are privately owned and operated in the U.S. that were not



included in the sample. Furthermore, companies based in countries outside of the U.S. were not included, but many people invest in these companies as the current economy is a global network. Additionally, a limitation of this research relates to sample size. Collecting MD&A statements from companies with female CEOs proved difficult, as there are significantly less female CEOs than male CEOs. Companies without datapoints such as net income and CIK numbers were not able to be analyzed, limiting further the sample available. The sample sizes for analyses on companies with male or female CEOs was not very large, making conclusions drawn from these samples less generalizable until further research corroborates findings on a larger scale.

Finally, this study sought to examine gender differences in power language and net income by sorting companies based on the gender of the CEO. While the CEO has great influence in the company's operation and policies, the CEO is not the sole author of MD&A statements. Multiple employees in a company work on the tax filings to present to the SEC. The Chief Financial Officer oftentimes has a large role in penning the statements, as well as hired tax experts and lawyers, and other C-suite executives (Tarca, Street, & Aerts, 2011). However, the CEO signs off on the documents before submission and in smaller companies may play a larger role in the messaging within the MD&A statement, itself.

### Conclusions and Future Research

Every day, over \$175 billion is traded in stock exchanges in the United States. As investors are making decisions about which companies they should buy stocks and bonds in, the Management Discussion and Analysis section of the 10-K tax filing is referenced to gain information and insight on the financial future of a company. The language used in these statements have the ability to educate and potentially influence investors' perceptions of the company. As written language contains not only the literal meaning ascribed to the denotative

and connotative meanings of the words and phrases used, there are also important nonverbal elements of communication that provides information to investors that might otherwise be less accessible and obvious. The analysis of this nonverbal and psychological elements of language can prove to be fruitful in the quest for the most accurate information and to inform the most educated decisions of stakeholders and investors.

This research was interested in examining the way that power language is used in MD&A statements and how that language relates to the net profits a company earns. Through a linguistic analysis using the LIWC software, results revealed that the more power language a company uses, the more money that company makes. This finding can be an indicator that companies that are more powerful indicate this through linguistic cues and this may influence investors to put money into a company. Of course, it is not possible to make claims of causality from the data because it is cross-sectional, but it is possible that this is a potential relationship caused by the use of companies MD&A language. Additionally, the findings of this study may encourage companies to increase their use of power language in an effort to influence investors and increase net income.

As male and females have been shown to nonverbally display power differently, the power language used by companies with male and female CEOs was examined in relation to the net income earned. Results showed that companies with male or female CEOs did not use power language differently, but there was a partial relationship between power language and net income when examining gender as a covariate. Companies with female CEOs did not have a relationship between power language and net income, but that these companies make more money annually than companies with male CEOs. Companies with male CEOs have a significant positive relationship between power language and their net income, with higher power language

indicating higher net incomes. In the workplace, female companies with female CFOs are less likely to misreport financial information (Gupta, et al., 2019). Future research should consider investigating the language use and habits of companies led by women to gain insight on building stable, successful practices in both language use and company leadership practices.

Finally, while it is said that investors use the MD&A statement to aid in their decision making when investing, there is no guarantee that investors read the whole of these statements or the weight that investors place on these statements. It is probable that the MD&A statement is used in conjunction with additional documentation and information on a company, such as press releases, statistical predictions of company success, numerical financial data, and past experience with the company. Future research should consider examining how the perceptions that investors have of MD&A statements with high and low power language and examine the influence this power language may have on the decision-making process of investors.

## REFERENCES

- Alpers, G.W., Winzelberg, A.J., Classen, C., Roberts, H., Dev, P., Koopman, C., & Taylor, C. B., (2005). Evaluation of computerized text analysis in an Internet breast cancer support group. *Computers in Human Behavior*, 21(2), 361-376.
- Anderson, R. J., & Spencer, H. G. (1999). Population models of genomic imprinting. I. Differential viability in the sexes and the analogy with genetic dominance. *Genetics*, 153(4), 1949-1958.
- Anderson, R. A., & McDaniel Jr, R. R. (1998). Intensity of registered nurse participation in nursing home decision making. *The Gerontologist*, 38(1), 90-100.
- Anderson, P. A. (2008). Positions of power: Status and dominance in organizational communication. *The nonverbal communication reader*, 350-467.
- Argyle, M., & Cook, M. (1976). Gaze and mutual gaze.
- Barr, C. L., & Kleck, R. E. (1995). Self-other perception of the intensity of facial expressions of emotion: Do we know what we show?. *Journal of Personality and Social Psychology*, 68(4), 608.
- Barron, O. E., Kile, C. O., & O'KEEFE, T. B. (1999). MD&A quality as measured by the SEC and analysts' earnings forecasts. *Contemporary Accounting Research*, 16(1), 75-109.
- Berger, C. R. (1985). Social power and interpersonal communication. *Handbook of interpersonal communication*, 439-499.
- Berger, J., Wagner, D. G., & Zelditch Jr, M. (1985). Introduction: Expectation states theory: Review and assessment. *Status, rewards, and influence: How expectations organize behavior*, 1-72.
- Bickman, L. (1974). The Social Power of a Uniform 1. *Journal of Applied Social Psychology*, 4(1), 47-61.
- Boo, E. F., & Simnett, R. (2002). The information content of management's prospective comments in financially distressed companies: A note. *Abacus*, 38(2), 280-295.
- Bouissac, P. (2006). Gesture in evolutionary perspective. *Gesture*, 6(2), 189-204.
- Brunswik, E. (1956). *Perception and the representative design of psychological experiments*. Univ of California Press.

- Burgoon, J. K., Buller, D. B., Hale, J. L., & de Turk, M. A. (1984). Relational messages associated with nonverbal behaviors. *Human Communication Research*, 10(3), 351-378.
- Burgoon, J. K., & Hale, J. L. (1984). The fundamental topoi of relational communication. *Communication Monographs*, 51(3), 193-214.
- Burgoon, J. K., & Saine, T. P. (1978). *The unspoken dialogue: An introduction to nonverbal communication*. Houghton Mifflin Harcourt (HMH).
- Capirci, O., & Volterra, V. (2008). Gesture and speech: The emergence and development of a strong and changing partnership. *Gesture*, 8(1), 22-44.
- Carney, D. R., Hall, J. A., & LeBeau, L. S. (2005). Beliefs about the nonverbal expression of social power. *Journal of Nonverbal Behavior*, 29(2), 105-123.
- Carney, D. R., Cuddy, A. J., & Yap, A. J. (2010). Power posing: Brief nonverbal displays affect neuroendocrine levels and risk tolerance. *Psychological science*, 21(10), 1363-1368.
- Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: the perception-behavior link and social interaction. *Journal of personality and social psychology*, 76(6), 893.
- Daily, C. M., & Johnson, J. L. (1997). Sources of CEO power and firm financial performance: A longitudinal assessment. *Journal of Management*, 23(2), 97-117.
- Danescu-Niculescu-Mizil, C., Lee, L., Pang, B., & Kleinberg, J. (2012). Echoes of power: Language effects and power differences in social interaction. In *Proceedings of the 21st international conference on World Wide Web* (pp. 699-708). ACM.
- Davis, S. J., Haltiwanger, J., Jarmin, R., Miranda, J., Foote, C., & Nagypal, E. (2006). Volatility and dispersion in business growth rates: Publicly traded versus privately held firms [with comments and discussion]. *NBER macroeconomics annual*, 21, 107-179.
- Davis, A. K., Ge, W., Matsumoto, D., & Zhang, J. L. (2012). The effect of managerial “style” on the tone of earnings conference calls. In *CAAA Annual Conference*.
- Darwin, C., & Prodger, P. (1998). *The expression of the emotions in man and animals*. Oxford University Press, USA.
- Dezső, C. L., & Ross, D. G. (2008). ‘Girl Power’: Female participation in top management and firm performance. *University of Maryland Robert H Smith School of Business*.
- Donohue, W. A., Liang, Y., & Druckman, D. (2014). Validating LIWC dictionaries: the Oslo I accords. *Journal of Language and Social Psychology*, 33(3), 282-301.
- Dovido, J., & Ellyson, S. (1982). Decoding Visual Dominance: Attributions of Power Based on Relative Percentages of Looking While Speaking and Looking While Listening. *Social Psychology Quarterly*, 45, 106-114.

- Edinger, J. A., & Patterson, M. L. (1983). Nonverbal involvement and social control. *Psychological Bulletin*, 93(1), 30.
- Ellyson, S. L., & Dovidio, J. F. (1985). Power, dominance, and nonverbal behavior: Basic concepts and issues. In *Power, dominance, and nonverbal behavior* (pp. 1-27). Springer, New York, NY.
- Epstein, M. J., & Palepu, K. G. (1999). What financial analysts want. *Strategic Finance*, 80(10), 48-53.
- Exline, R. V., Ellyson, S. L., & Long, B. (1975). Visual behavior as an aspect of power role relationships. In *Nonverbal communication of aggression* (pp. 21-52). Springer, Boston, MA.
- Fehr, B. J., & Exline, R. V. (1987). Social visual interaction: A conceptual and literature review.
- Feldman, R., Govindaraj, S., Livnat, J., & Segal, B. (2010). Management's tone change, post earnings announcement drift and accruals. *Review of Accounting Studies*, 15(4), 915-953.
- Ferguson, F. (1977). *Wordsworth: Language as counter-spirit*(p. xiv). New Haven: Yale University Press.
- Fleischmann, A., Lammers, J., Conway, P., & Galinsky, A. D. (2019). Paradoxical effects of power on moral thinking: Why power both increases and decreases deontological and utilitarian moral decisions. *Social Psychological and Personality Science*, 10(1), 110120.
- Freedman, N., & Hoffman, S. P. (1967). Kinetic behavior in altered clinical states: Approach to objective analysis of motor behavior during clinical interviews. *Perceptual and motor skills*, 24(2), 527-539.
- Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From power to action. *Journal of personality and social psychology*, 85(3), 453.
- Galinsky, A. D., Jordan, J., & Sivanathan, N. (2008). Harnessing power to capture leadership. *Leadership at the crossroads*, 1, 283-299.
- Gardner, W. L., & Martinko, M. J. (1988). Impression management in organizations. *Journal of management*, 14(2), 321-338.
- Gupta, V. K., Mortal, S., Chakrabarty, B., Guo, X., & Turban, D. B. (2019). CFO Gender and Financial Statement Irregularities. *Academy of Management Journal*, (ja).
- Hall, E. T. (1966). *The hidden dimension*. New York: Doubleday.
- Hall, E.T. (1973). *The silent language*. New York: Anchor.
- Hall, S., & Du Gay, P. (Eds.). (1996). *Questions of Cultural Identity: SAGE Publications*. Sage.

- Hall, J. A., Carter, J. D., & Horgan, T. G. (2000). Gender differences in nonverbal communication of emotion. *Gender and emotion: Social psychological perspectives*, 97-117.
- Hall, J. A., Coats, E. J., & LeBeau, L. S. (2005). Nonverbal behavior and the vertical dimension of social relations: a meta-analysis. *Psychological bulletin*, 131(6), 898.
- Harrison, R. P. (1989). Nonverbal communication. *Human Communication As a Field of Study: Selected Contemporary Views*, 113.
- Hawkins, D. M. (1980). *Identification of outliers* (Vol. 11). London: Chapman and Hall.
- Heckel, R. V. (1973). Leadership and voluntary seating choice. *Psychological reports*, 32(1), 141-142.
- Henley, N. (1977). *Body politics: Power, sex, and nonverbal communication*. Prentice Hall.
- Hertenstein, M. J., Holmes, R., McCullough, M., & Keltner, D. (2009). The communication of emotion via touch. *Emotion*, 9(4), 566.
- Hoaglin, D. C., and Iglewicz, B. (1987), Fine tuning some resistant rules for outlier labeling. *Journal of American Statistical Association*, 82, 1147-1149.
- Holder-Webb, L., & Cohen, J. R. (2007). The association between disclosure, distress, and failure. *Journal of Business Ethics*, 75(3), 301-314.
- Humphrey, C., Moizer, P., & Turley, S. (1993). The audit expectations gap in Britain: An empirical investigation. *Accounting and Business Research*, 23(sup1), 395-411.
- Humpherys, S. L., Moffitt, K. C., Burns, M. B., Burgoon, J. K., & Felix, W. F. (2011). Identification of fraudulent financial statements using linguistic credibility analysis. *Decision Support Systems*, 50(3), 585-594.
- Izard, C. E. (2007). Emotion feelings stem from evolution and neurobiological development, not from conceptual acts: Corrections for Barrett et al.(2007). *Perspectives on Psychological Science*, 2(4), 404-405.
- Johnson, W. F., Emde, R. N., Scherer, K. R., & Klinnert, M. D. (1986). Recognition of emotion from vocal cues. *Archives of General Psychiatry*, 43(3), 280-283.
- Judge, T. A., Piccolo, R. F., & Kosalka, T. (2009). The bright and dark sides of leader traits: A review and theoretical extension of the leader trait paradigm. *The leadership quarterly*, 20(6), 855-875.
- Juslin, P. N., & Laukka, P. (2003). Communication of emotions in vocal expression and music performance: Different channels, same code?. *Psychological bulletin*, 129(5), 770.

- Kacewicz, E., Pennebaker, J. W., Davis, M., Jeon, M., & Graesser, A. C. (2014). Pronoun use reflects standings in social hierarchies. *Journal of Language and Social Psychology, 33*(2), 125-143.
- Kennedy, C. W., & Camden, C. (1983). Interruptions and nonverbal gender differences. *Journal of Nonverbal Behavior, 8*(2), 91-108.
- Khan, W. A., & Vieito, J. P. (2013). CEO gender and firm performance. *Journal of Economics and Business, 67*, 55-66.
- Kinsbourne, M. (2006). Gestures as embodied cognition: A neurodevelopmental interpretation. *Gesture, 6*(2), 205-214.
- Kita, S. (Ed.). (2003). *Pointing: Where language, culture, and cognition meet*. Psychology Press.
- Kleinke, C. L. (1977). Compliance to requests made by gazing and touching experimenters in field settings. *Journal of experimental social Psychology, 13*(3), 218-223.
- Knapp, M. L., Hall, J. A., & Horgan, T. G. (2013). *Nonverbal communication in human interaction*. Cengage Learning.
- Knapp, M. L., & Harrison, R. P. (1972). *Observing and Recording Nonverbal Data in Human Transactions*.
- Lammers, J., Dubois, D., Rucker, D. D., & Galinsky, A. D. (2013). Power gets the job: Priming power improves interview outcomes. *Journal of Experimental Social Psychology, 49*(4), 776-779.
- Lee, M. T., & Ofshe, R. (1981). The impact of behavioral style and status characteristics on social influence: A test of two competing theories. *Social Psychology Quarterly*.
- Leigh, T. W., & Summers, J. O. (2002). An initial evaluation of industrial buyers' impressions of salespersons' nonverbal cues. *Journal of Personal Selling & Sales Management, 22*(1), 41-53.
- Li, F. (2008). Annual report readability, current earnings, and earnings persistence. *Journal of Accounting and economics, 45*(2-3), 221-247.
- Little, K. B. (1968). Cultural variations in social schemata. *Journal of personality and social psychology, 10*(1), 1.
- Lippa, R. (1998). Gender-related individual differences and the structure of vocational interests: The importance of the people–things dimension. *Journal of personality and social psychology, 74*(4), 996.
- Liu, Y., and P. Jiraporn. 2008. *CEO Power and the Cost of Debt*. Working paper, University of New Hampshire.



- Mast, M. S., & Hall, J. A. (2004). Who is the boss and who is not? Accuracy of judging status. *Journal of Nonverbal Behavior*, 28(3), 145-165.
- Markowitz, D. M., & Hancock, J. T. (2019). Deception and Language: The Contextual Organization of Language and Deception (COLD) Framework. In *The Palgrave Handbook of Deceptive Communication* (pp. 193-212). Palgrave Macmillan, Cham.
- Markowitz, D. M., & Hancock, J. T. (2016). Linguistic obfuscation in fraudulent science. *Journal of Language and Social Psychology*, 35(4), 435-445.
- Matsumoto, D., Frank, M. G., & Hwang, H. S. (Eds.). (2013). *Nonverbal communication: Science and applications: Science and applications*. Sage.
- Matsumoto, D., Keltner, D., Shiota, M. N., O'Sullivan, M. A. U. R. E. E. N., & Frank, M. (2008). Facial expressions of emotion. *Handbook of emotions*, 3, 211-234.
- Mayr, A. (2008). *Language and power: An introduction to institutional discourse*. A&C Black.
- Mayew, W. J., Sethuraman, M., & Venkatachalam, M. (2014). MD&A Disclosure and the Firm's Ability to Continue as a Going Concern. *The Accounting Review*, 90(4), 1621-1651.
- Mehrabian, A. (1968). Relationship of attitude to seated posture, orientation, and distance. *Journal of personality and social psychology*, 10(1), 26.
- Mehrabian, A. (1969). Significance of posture and position in the communication of attitude and status relationships. *Psychological Bulletin*, 71(5), 359.
- Mehrabian, A. (1971). *Silent messages* (Vol. 8). Belmont, CA: Wadsworth.
- Montepare, J. M., Goldstein, S. B., & Clausen, A. (1987). The identification of emotions from gait information. *Journal of Nonverbal Behavior*, 11(1), 33-42.
- Montepare, J. M., & Zebrowitz, L. A. (1993). A cross-cultural comparison of impressions created by age-related variations in gait. *Journal of Nonverbal Behavior*, 17(1), 55-68.
- Morris, D. (1979). *Gestures, their origins and distribution*. Stein & Day Pub.
- Murphy, P. J. (2000). Spectral characterization of jitter, shimmer, and additive noise in synthetically generated voice signals. *The Journal of the Acoustical Society of America*, 107(2), 978-988.
- Natale, M., Entin, E., & Jaffe, J. (1979). Vocal interruptions in dyadic communication as a function of speech and social anxiety. *Journal of Personality and Social Psychology*, 37(6), 865.
- Nolan, F. J. D. (1980). *The phonetic bases of speaker recognition* (Doctoral dissertation, University of Cambridge).

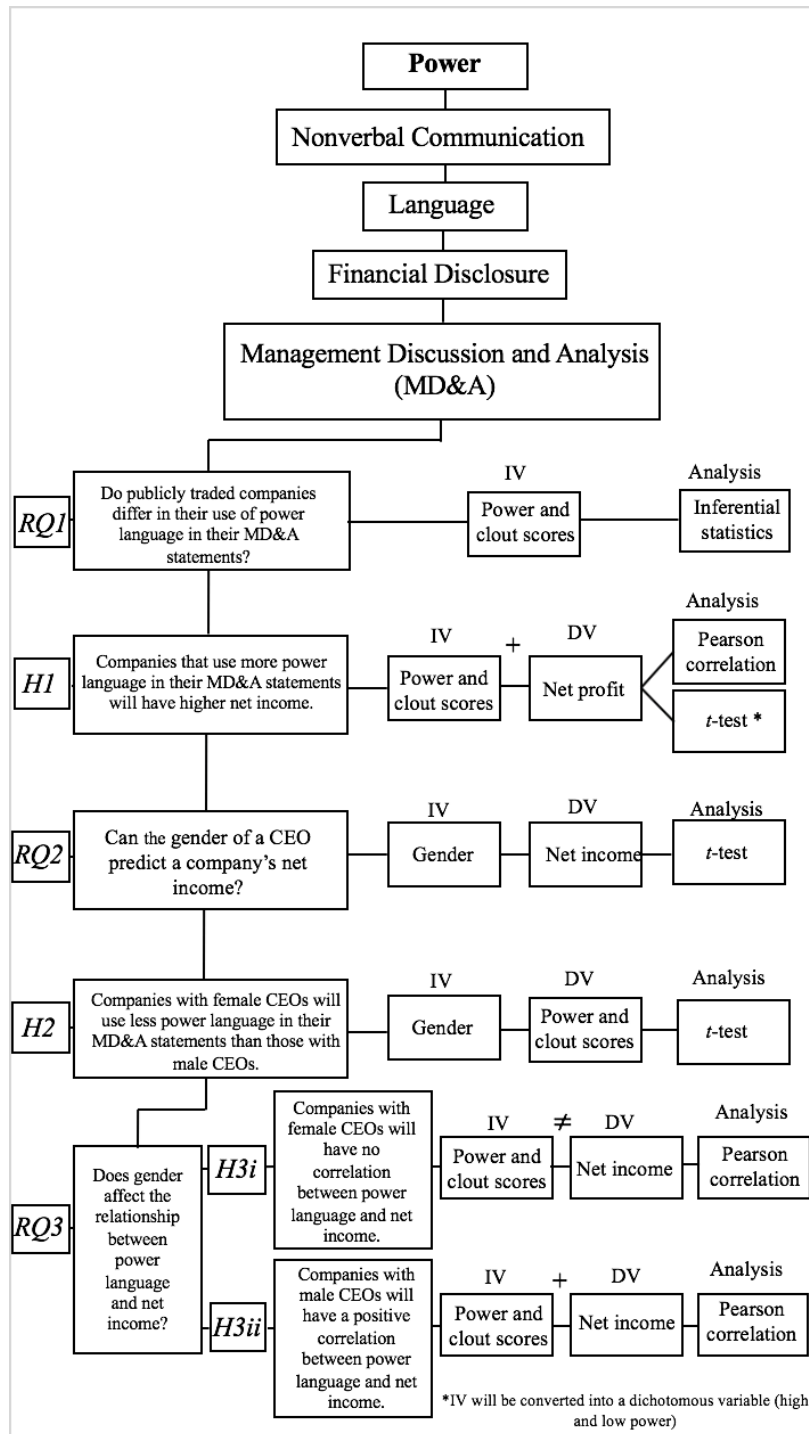
- Overbeck, J. R., & Park, B. (2001). When power does not corrupt: superior individuation processes among powerful perceivers. *Journal of personality and social psychology*, 81(4), 549.
- Packwood, W. T. (1974). Loudness as a variable in persuasion. *Journal of Counseling Psychology*, 21(1), 1.
- Pathan, S. (2009). Strong boards, CEO power and bank risk-taking. *Journal of Banking & Finance*, 33(7), 1340-1350.
- Patterson, M. L. (2012). *Nonverbal behavior: A functional perspective*. Springer Science & Business Media.
- Patterson, M. L., Powell, J. L., & Lenihan, M. G. (1986). Touch, compliance, and interpersonal affect. *Journal of Nonverbal behavior*, 10(1), 41-50.
- Pear, T. H. (1931). Voice and personality.
- Pennebaker, J.W., Booth, R.J., Boyd, R.L., & Francis, M.E. (2015). Linguistic Inquiry and Word Count: LIWC2015. Austin, TX: Pennebaker Conglomerates (www.LIWC.net).
- Pennebaker, J. W., Boyd, R. L., Jordan, K., & Blackburn, K. (2015). *The development and psychometric properties of LIWC2015*.
- Pennebaker, J. W., Booth, R. J., & Francis, M. E. (2007). Linguistic Inquiry and Word Count (LIWC): LIWC2007 . *Austin, TX: LIWC.net*.
- Pennebaker, J. W., Francis, M. E., & Booth, R. J. (2001). Linguistic inquiry and word count: LIWC 2001. *Mahway: Lawrence Erlbaum Associates*, 71(2001), 2001.
- Pillemer, J., Graham, E. R., & Burke, D. M. (2014). The face says it all: CEOs, gender, and predicting corporate performance. *The Leadership Quarterly*, 25(5), 855-864.
- Remland, M. (1982). The implicit ad hominem fallacy: Nonverbal displays of status in argumentative discourse. *The Journal of the American Forensic Association*, 19(2), 79-86.
- Remland, M. S., Jones, T. S., & Brinkman, H. (1991). Proxemic and haptic behavior in three European countries. *Journal of nonverbal behavior*, 15(4), 215-232.
- Rule, N. O., & Ambady, N. (2008). The face of success: Inferences from chief executive officers' appearance predict company profits. *Psychological science*, 19(2), 109-111.
- Rule, N. O., & Ambady, N. (2009). She's got the look: Inferences from female chief executive officers' faces predict their success. *Sex Roles*, 61(9-10), 644-652.
- Schefflen, A. E. (1972). Body Language and the Social Order; Communication as Behavioral Control.

- Schneider, D. J. (1981). Tactical self-presentations: Toward a broader conception. In *Impression management theory and social psychological research* (pp. 23-40). Academic Press.
- Schubert, T. W. (2005). Your highness: vertical positions as perceptual symbols of power. *Journal of personality and social psychology*, 89(1), 1.
- Schultheiss, O. C., & Brunstein, J. C. (2002). Inhibited power motivation and persuasive communication: A lens model analysis. *Journal of personality*, 70(4), 553-582.
- Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of management journal*, 37(3), 580-607.
- Semin, G. R., & Fiedler, K. (1988). The cognitive functions of linguistic categories in describing persons: Social cognition and language. *Journal of personality and Social Psychology*, 54(4), 558.
- Siegmán, A. W. (1987). The telltale voice: Nonverbal messages of verbal communication.
- Sillars, A. L., Coletti, S. F., Parry, D., & Rogers, M. A. (1982). Coding verbal conflict tactics: Nonverbal and perceptual correlates of the “avoidance-distributive-integrative” distinction. *Human Communication Research*, 9(1), 83-95.
- Simon, C. J. (1989). The effect of the 1933 Securities Act on investor information and the performance of new issues. *The American Economic Review*, 295-318.
- Sorrentino, R. M., & Boutillier, R. G. (1975). The effect of quantity and quality of verbal interaction on ratings of leadership ability. *Journal of Experimental Social Psychology*, 11(5), 403-411.
- Spiegel, J., & Machotka, P. (1974). *Messages of the body*. Free Press.
- SPSS, I. (2018). IBM Statistical Package for Social Sciences. *Seattle, WA: IBM*.
- Sussman, N. M., & Rosenfeld, H. M. (1978). Touch, justification, and sex: Influences on the aversiveness of spatial violations. *The Journal of Social Psychology*, 106(2), 215-225.
- Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of language and social psychology*, 29(1), 24-54.
- Tarca, A., Street, D. L., & Aerts, W. (2011). Factors affecting MD&A disclosures by SEC registrants: Views of practitioners. *Journal of international accounting, auditing and taxation*, 20(1), 45-59.
- Tomkins, S. S., & McCarter, R. (1964). What and where are the primary affects? Some evidence for a theory. *Perceptual and motor skills*, 18(1), 119-158.
- Tukey, J.W. (1977). *Exploratory Data Analysis*. Reading, MA: Addison-Wesley.

- Van Vugt, M., Hogan, R., & Kaiser, R. B. (2008). Leadership, followership, and evolution: Some lessons from the past. *American Psychologist*, 63(3), 182.
- Walton, J. H., & Orlikoff, R. F. (1994). Speaker race identification from acoustic cues in the vocal signal. *Journal of Speech, Language, and Hearing Research*, 37(4), 738-745.
- Watson, O. M. (2014). *Proxemic behavior: A cross-cultural study* (Vol. 8). Walter de Gruyter GmbH & Co KG.
- Wong, E. M., Ormiston, M. E., & Haselhuhn, M. P. (2011). A face only an investor could love: CEOs' facial structure predicts their firms' financial performance. *Psychological Science*, 22(12), 1478-1483.

## APPENDIX

### A. Logic for study: RQs, Hs, variables, and analysis



## B. Sample Management Discussion and Analyses (Cleaned)

*Hershey's Co., 2017, Female CEO*

### Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis ("MD&A") is intended to provide an understanding of Hershey's financial condition, results of operations and cash flows by focusing on changes in certain key measures from year to year. The MD&A should be read in conjunction with our Consolidated Financial Statements and accompanying Notes included in Item 8 of this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed elsewhere in this Annual Report on Form 10-K, particularly in Item 1A. "Risk Factors."

The MD&A is organized in the following sections:

- Overview and Outlook
- Non-GAAP Information
- Consolidated Results of Operations
- Segment Results
- Financial Condition
- Critical Accounting Policies and Estimates

#### OVERVIEW AND OUTLOOK

We are the largest producer of quality chocolate in North America and a global leader in chocolate and nonchocolate confectionery. We market, sell and distribute our products under more than 80 brand names in approximately 70 countries worldwide. We report our operations through two segments: North America and International and Other.

In 2016, we made good progress against our strategic objectives, including a focus on our consumer brand engagement and continued refinement of our mix of marketing investments. These initiatives, as well as improved analytics, operating efficiencies and new information technology capabilities, strengthened our business model and positioned the Company for future growth. We continued to generate solid operating cash flow, totaling approximately \$1 billion in 2016, which affords the Company significant financial flexibility. We are also in the process of conducting a strategic review of our global cost structure that we believe will result in solid gross and earnings before interest and taxes ("EBIT") margin expansion once executed.

Our 2016 marketplace performance was similar to the slower growth experienced by other consumer packaged goods ("CPG") companies. Additionally, the U.S. candy, mint and gum ("CMG") category and manufacturers were impacted by a shorter Easter season and merchandising and display strategies at select customers. For the full year, U.S. CMG retail takeaway increased 0.4%, lower than the historical average. Our U.S. CMG market share performance improved in the second half of 2016, resulting in full year market share of 31.2%, including barkTHINS, which is approximately in line with the prior year. For the full year 2016, our U.S. market share, including CMG, salty snacks, snack bars, meat snacks, grocery items and barkTHINS, increased approximately 10 basis points.

Our full year 2016 net sales totaled \$7,440.2 million, an increase of 0.7% versus \$7,386.6 million in 2015. Excluding a 0.7% impact from unfavorable foreign exchange rates, our net sales

increased 1.4%. The increase was driven by higher North America volumes, largely in products supported by increased promotional programming such as NCAA March Madness, the Summer Olympics and NCAA Football College Game Day, as well as new product innovation such as Snack Mix, Snack Bites and Hershey's Cookie Layer Crunch bars. Additionally, our consolidated net sales for the year ended December 31, 2016 included approximately \$35.6 million attributed to barkTHINS. Our full year 2016 net income and earnings per share-diluted (EPS) increased 40.4% and 44.0%, respectively, compared to 2015 results, which were impacted by significant goodwill impairment charges. Excluding these goodwill impairment charges in 2015 and other items impacting comparability in both periods (as defined in the Non-GAAP Information section of this MD&A), 2016 adjusted net income increased 4.3%, reflecting the benefits from continued productivity and cost savings initiatives and a lower effective income tax rate, while adjusted EPS-diluted also benefited from recent share buybacks, increasing a total of 7.0%.

For 2017, we expect net sales growth of approximately 2% to 3%, which includes a 0.5% net benefit from acquisitions and a 0.25% unfavorable impact from foreign currency exchange rates. Excluding the unfavorable impact from foreign currency exchange rates, our net sales are expected to increase approximately 2.25% to 3.25%. Our focus is on the continued rollout of Hershey's Cookie Layer Crunch bars, barkTHINS chocolate distribution gains and other new products such as Reese'sCrunchers candy and Krave meat bars and sticks. We anticipate that these investments and related consumer marketing plans will accelerate our North America sales growth versus 2016 performance, which should enable us to outpace the broader food group in this challenging operating environment. Our previously discussed productivity and cost savings programs are on track, and we will continue to focus on reducing nonessential spending going into 2017. Additionally, our effective tax rate is expected to be favorable versus 2016 driven by a favorable international tax mix, tax credits and other incentives, and the adoption of Accounting Standards Update 2016-09, Compensation—Stock Compensation (Topic 718): Improvements to Employee Share- Based Payment Accounting. As a result, we expect full year 2017 reported EPS-diluted, prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"), to improve and be in the \$4.54 to \$4.65 range. From a non-GAAP perspective, we currently expect 2017 adjusted EPS-diluted to increase approximately 7% to 9% and to be in the \$4.72 to \$4.81 range. A reconciliation of reported to adjusted projections for 2017 are reflected in the non-GAAP reconciliations that follow.

#### NON-GAAP INFORMATION

The comparability of certain of our financial measures is impacted by unallocated mark-to-market losses on commodity derivatives, costs associated with business realignment activities, costs relating to the integration of acquisitions, non-service related components of our pension expense (income) ("NSRPE(I)"), goodwill and other intangible asset impairment charges, settlement of the SGM liability in conjunction with the purchase of the remaining 20% of the outstanding shares of SGM, the gain realized on the sale of a trademark, costs associated with the early extinguishment of debt and other non-recurring gains and losses.

To provide additional information to investors to facilitate the comparison of past and present performance, we use non-GAAP financial measures within MD&A that exclude the financial impact of these activities. These non-GAAP financial measures are used internally by management in evaluating results of operations and determining incentive compensation, and in assessing the impact of known trends and uncertainties on our business, but they are not intended to replace the presentation of financial results in accordance with GAAP. A reconciliation of the

non-GAAP financial measures referenced in MD&A to their nearest comparable GAAP financial measures as presented in the Consolidated Statements of Income is provided below.

In the assessment of our results, we review and discuss the following financial metrics that are derived from the reported and non-GAAP financial measures presented above:

Details of the activities impacting comparability that are presented as reconciling items to derive the non-GAAP financial measures in the tables above are as follows:

#### Mark-to-market losses on commodity derivatives

Commensurate with our discontinuance of hedge accounting treatment for commodity derivatives, we are adjusting the mark-to-market losses on such commodity derivatives, until such time as the related inventory is sold. Since we often purchase commodity contracts to price inventory requirements in future years, we make this adjustment to facilitate the year-over-year comparison of cost of sales on a basis that matches the derivative gains and losses with the underlying economic exposure being hedged for the period. For the year ended December 31, 2016, unallocated mark-to-market losses on commodity derivatives totaled \$163.2 million.

#### Business realignment activities

We periodically undertake restructuring and cost reduction activities as part of ongoing efforts to enhance long-term profitability. For the years ended December 31, 2016, 2015 and 2014, we incurred \$107.6 million, \$121.0 million and \$34.3 million, respectively, of pre-tax costs related to business realignment activities. See Note 7 to the Consolidated Financial Statements for more information.

#### Acquisition integration costs

For the year ended December 31, 2016, we incurred expenses totaling \$6.5 million related to integration of the 2016 acquisition of Ripple Brand Collective, LLC, as we incorporated this business into our operating practices and information systems. For the year ended December 31, 2015, we incurred costs related to the integration of the 2014 acquisitions of SGM and The Allan Candy Company and the 2015 acquisition of Krave totaling \$22.5 million as we incorporated these businesses into our operating practices and information systems. These 2015 expenses included charges incurred to write-down approximately \$6.4 million of expired or near-expiration work-in-process inventory at SGM, in connection with the implementation of our global quality standards and practices. In addition, integration costs for 2015 were offset by a \$6.8 million reduction in the fair value of contingent consideration paid to the Krave shareholders. For the year ended December 31, 2014, we incurred costs of \$13.3 million largely related to the acquisition of SGM, offset by a \$4.6 million gain relating to the acquisition of a controlling interest in Lotte Shanghai Foods Co., Ltd.

#### Non-service related pension expense (income)

NSRPE(I) includes interest costs, the expected return on pension plan assets, the amortization of actuarial gains and losses, and certain curtailment and settlement losses or credits. NSRPE(I) can fluctuate from year to year as a result of changes in market interest rates and market returns on pension plan assets. We believe that the service cost component of our total pension benefit costs closely reflects the operating costs of our business and provides for a better comparison of our operating results from year to year. Therefore, we exclude NSRPE(I) from our internal performance measures. Our most significant defined benefit pension plans were closed to most new participants in 2007, resulting in ongoing service costs that are stable and predictable. We recorded pre-tax NSRPE(I) of \$27.2 million, \$18.1 million and \$(1.8) million for the years ended December 31, 2016, 2015 and 2014, respectively.

#### Settlement of SGM liability



In the fourth quarter of 2015, we reached an agreement with the SGM selling shareholders to reduce the originally-agreed purchase price for the remaining 20% of SGM, and we completed the purchase on February 3, 2016. In the first quarter of 2016, we recorded a \$26.7 million gain relating to the settlement of the SGM liability, representing the net carrying amount of the recorded liability in excess of the cash paid to settle the obligation for the remaining 20% of the outstanding shares.

#### Goodwill and other intangible asset impairment

As discussed in Note 3 to the Consolidated Financial Statements, in connection with our 2016 annual impairment testing of other indefinite lived assets, we recognized a trademark impairment charge of \$4.2 million primarily resulting from plans to discontinue a brand sold in India. In the second and third quarters of 2015, we recorded a total \$280.8 million non-cash goodwill impairment charge, representing a write-down of all of the goodwill resulting from the SGM acquisition, including \$14.4 million relating to the portion of goodwill that had been allocated to our China chocolate reporting unit, based on synergies to be realized by this business. For the year ended December 31, 2014, we recorded non-cash goodwill and other intangible asset impairment charges totaling \$15.9 million associated with our business in India.

#### Loss on early extinguishment of debt

During the third quarter of 2015, we recorded a \$28.3 million loss on the early extinguishment of debt relating to a cash tender offer. See Note 4 to the Consolidated Financial Statements for further information.

#### Gain on sale of trademark

During the first quarter of 2015, we recorded a \$9.9 million gain relating to the sale of a non-core trademark.

#### Constant Currency Net Sales Growth

We present certain percentage changes in net sales on a constant currency basis, which excludes the impact of foreign currency exchange. This measure is used internally by management in evaluating results of operations and determining incentive compensation. We believe that this measure provides useful information to investors because it provides transparency to underlying performance in our net sales by excluding the effect that foreign currency exchange rate fluctuations have on the year-to-year comparability given volatility in foreign currency exchange markets.

To present this information for historical periods, current period net sales for entities reporting in other than the U.S. dollar are translated into U.S. dollars at the average monthly exchange rates in effect during the corresponding period of the prior fiscal year, rather than at the actual average monthly exchange rates in effect during the current period of the current fiscal year. As a result, the foreign currency impact is equal to the current year results in local currencies multiplied by the change in average foreign currency exchange rate between the current fiscal period and the corresponding period of the prior fiscal year.

A reconciliation between reported and constant currency growth rates is provided below:

#### 2017 Outlook

The following table provides a reconciliation of projected 2017 EPS-diluted, prepared in accordance with GAAP, to projected non-GAAP EPS-diluted for 2017, prepared on a non-GAAP basis, with adjustments consistent to those discussed previously. The reconciliation of 2016 and 2015 EPS-diluted, prepared in accordance with GAAP, to 2016 and 2015 non-GAAP EPS-diluted is provided below for comparison.

Our 2017 projected EPS-diluted, as presented above, does not include the impact of mark-to-market gains and losses on our commodity derivative contracts. Due to the volatility of commodity market prices, it is not possible to forecast this mark-to-market impact. Pursuant to our revised accounting policy for commodity derivatives as discussed in Note 5 to the Consolidated Financial Statements, we currently reflect changes in the fair value of our commodity derivatives as incurred within cost of goods sold, with an adjustment within our corporate unallocated expenses to enable us to present the gains and losses on commodity derivatives within our segment income at the time the related inventory is sold.

#### CONSOLIDATED RESULTS OF OPERATIONS

##### Net Sales

##### 2016 compared with 2015

Net sales increased 0.7% in 2016 compared with 2015, reflecting volume increases of 0.8% and a 0.6% benefit from net acquisitions and divestitures, partially offset by an unfavorable impact from foreign currency exchange rates of 0.7%. Excluding foreign currency, our net sales increased 1.4% in 2016. The volume improvement was primarily driven by new chocolate and snacking products in the United States, including Snack Mix, Snack Bites and Hershey's Cookie Layer Crunch bars. While the North America segment had unfavorable price realization due to increased levels of trade promotional spending, this was essentially offset by favorable price realization in the International and Other segment, due to significantly lower levels of trade spending and returns, discounts and allowances.

##### 2015 compared with 2014

Net sales decreased 0.5% in 2015 compared with 2014, reflecting volume declines of 3.4% and an unfavorable impact from foreign currency exchange rates of 1.6%, substantially offset by favorable net price realization of 3.5% as well as a 1.0% benefit from net acquisitions and divestitures. The favorable net price realization, primarily in the United States, was attributed to the price increase announced in mid-2014. The volume declines were attributed to volume elasticity relating to the pricing action in the United States as well as lower everyday product sales given the challenging shopper environment in North America, coupled with lower sales in China. Excluding the impact of foreign currency exchange rates, our net sales increased 1.1% in 2015.

##### Key U.S. CMG Marketplace Metrics

The consumer takeaway and market share information provided above are for measured channels of distribution accounting for approximately 90% of our U.S. confectionery retail business. These channels of distribution primarily include food, drug, mass merchandisers and convenience store channels, plus Wal-Mart Stores, Inc., partial dollar, club and military channels. These metrics are based on measured market scanned purchases as reported by Nielsen and provide a means to assess our retail takeaway and market position relative to the overall category.

The amounts presented above are solely for the U.S. CMG category which does not include revenue from our snack mixes and grocery items. For the full year 2016, our CMG market share, including barkTHINS was 31.2%, about the same as 2015. Including barkTHINS, CMG, salty snacks, snack bars, meat snacks and grocery items, our full year U.S. market share increased approximately 10 basis points.

##### Cost of Sales and Gross Margin

##### 2016 compared with 2015

Cost of sales increased 7.0% in 2016 compared with 2015. Incremental business realignment costs and mark-to-market losses on commodity derivative instruments increased cost of sales by 5.3%, while the remaining increase was primarily attributed to higher volume and higher supply chain costs, in part due to higher manufacturing variances and some incremental fixed costs related to the commencement of manufacturing in the Malaysia facility. As described in Note 5 to the Consolidated Financial Statements, our commodity derivative instruments are no longer designated for hedge accounting treatment and, as a result, the changes in fair market value are recognized currently in cost of sales.

Gross margin decreased by 340 basis points in 2016 compared with 2015. Mark-to-market losses on commodity derivative instruments and incremental depreciation expense related to business realignment activities drove a 300 basis point decline in gross margin. Higher trade promotional spending and supply chain costs also contributed to the decreased gross margin, but were partially offset by supply chain productivity and cost savings initiatives. On a non-GAAP basis, excluding the losses on commodity derivative instruments as well as business realignment costs, 2016 adjusted gross margin decreased by 40 basis points.

2015 compared with 2014

Cost of sales decreased 2.0% in 2015 compared with 2014. Supply chain productivity and volume declines reduced cost of sales by approximately 6.6%. These declines were substantially offset by higher supply chain and commodity costs, and unfavorable sales mix, which together increased total cost of sales by approximately 4.1%. In addition, cost of sales was impacted by acquisition and integration costs of \$7.3 million, business realignment costs of \$8.8 million and NSRPE of \$2.5 million, which collectively increased cost of sales by approximately 0.5%. In comparison, cost of sales benefited by \$1.1 million in 2014, primarily due to NSRPI.

Gross margin increased by 80 basis points in 2015 compared with 2014. Favorable net price realization as well as supply chain productivity and other cost savings initiatives collectively improved gross margin by 330 basis points. However, these benefits were substantially offset by higher supply chain and commodity costs as well as unfavorable sales mix, which collectively reduced gross margin by approximately 250 basis points. On a non GAAP basis, excluding the business realignment and acquisition and integration charges, 2015 gross margin increased by 110 basis points.

Selling, Marketing and Administrative

2016 compared with 2015

Selling, marketing and administrative (“SM&A”) expenses decreased \$53.9 million or 2.7% in 2016. Advertising and related consumer marketing expense decreased 4.0% during this period. We spent less on advertising and related consumer marketing in our International and Other segment, particularly in the China market, and our spending in North America declined as our marketing mix models were weighted toward higher trade promotional spending. Excluding these advertising and related consumer marketing costs, selling and administrative expenses for 2016 decreased by 2.0% as compared to 2015 as a result of our continued focus on reducing non-essential spending. SM&A expenses in 2016 were also impacted by business realignment costs of \$18.6 million, NSRPE of \$15.2 million and acquisition and integration costs of \$6.5 million. In 2015, SM&A expenses included business realignment costs of \$17.4 million, NSRPE of \$15.6 million and acquisition and integration costs of \$13.6 million.

2015 compared with 2014

SM&A expenses increased \$70.9 million or 3.7% in 2015. Advertising and related consumer marketing expense increased 1.0% during this period. Excluding these advertising and

related consumer marketing costs, selling and administrative expenses for 2015 increased by 6.7% compared to 2014, driven by incremental increases from acquired businesses. Excluding the impact of acquisition costs, SM&A expenses for 2015 declined as a result of our continued focus on reducing non-essential spending. SM&A expenses in 2015 were also impacted by charges of \$13.6 million attributed to the productivity initiative we announced in June 2015, acquisition and integration costs of \$13.6 million, NSRPE of \$15.6 million and other business realignment costs of \$3.7 million. In 2014, SM&A expenses included acquisition and integration costs of \$12.4 million, other business realignment costs of \$2.9 million and NSRPE of \$0.9 million.

#### Goodwill and Other Intangible Asset Impairment Charges

In 2016, in connection with the annual impairment testing of indefinite lived intangible assets, we recognized a trademark impairment charge of \$4.2 million, primarily resulting from plans to discontinue a brand sold in India.

As discussed in Note 3 to the Consolidated Financial Statements, the SGM business performed below expectations throughout 2015, with net sales and earnings levels well below pre-acquisition levels. As a result of this declining performance, in the second quarter of 2015 we recorded an estimated goodwill impairment charge of \$249.8 million relating to the SGM reporting unit. During the third quarter of 2015, we updated our estimates of the acquisition date fair values of the net assets acquired, which increased the value of acquired goodwill by \$16.6 million. We also finalized the impairment test of the goodwill relating to the SGM reporting unit, which resulted in an additional \$16.6 million write-off of this increase to goodwill. During the third quarter of 2015, we also wrote off \$14.4 million of goodwill that resulted from the SGM acquisition and was assigned to our existing China chocolate business, as this reporting unit was expected to benefit from acquisition synergies relating to the sale of Golden Monkey-branded product through its Tier 1 and hypermarket distributor networks. This goodwill impairment was driven by the continued declining performance in our China chocolate business through the third quarter of 2015, as a result of the macroeconomic challenges mentioned previously, as well as changing consumer shopping behavior in China.

In 2014, the annual impairment testing of our India reporting unit resulted in a \$11.4 million goodwill impairment charge and a \$4.5 million write-down of a trademark associated with the India business. These impairment charges were largely a result of our decision at the time to exit the oils portion of the India business and realign our approach to regional marketing and distribution in India.

The assessment of the valuation of goodwill and other long-lived assets is based on management estimates and assumptions, as discussed in our critical accounting policies included in Item 7 of this Annual Report on Form 10-K. These estimates and assumptions are subject to change due to changing economic and competitive conditions.

#### Business Realignment Activities

We are currently pursuing several business realignment activities designed to increase our efficiency and focus our business behind key growth strategies. Costs recorded for business realignment activities during 2016, 2015 and 2014 and their classification within the Statements of Income are as follows:

##### Operational Optimization Program

In the second quarter of 2016, we commenced a program (the “Operational Optimization Program”) to optimize our production and supply chain network, which includes select facility consolidations. The program encompasses the continued transition of our China chocolate and

SGM operations into a united Golden Hershey platform, including the integration of the China sales force, as well as workforce planning efforts and the consolidation of production within certain facilities in China and North America.

We have incurred pre-tax costs of \$88 million to date, including non-cash asset-related incremental depreciation costs, severance and employee benefit costs, costs to consolidate and relocate production, and third-party costs incurred to execute these activities. We currently expect to incur additional cash costs of approximately \$37 million over the next two years to complete this program. The Operational Optimization Program is expected to drive annual savings of approximately \$52 million by 2018.

#### 2015 Productivity Initiative

In mid-2015, we initiated a productivity initiative (the “2015 Productivity Initiative”) intended to move decision making closer to the customer and the consumer, to enable a more enterprise-wide approach to innovation, to more swiftly advance our knowledge agenda, and to provide for a more efficient cost structure, while ensuring that we effectively allocate resources to future growth areas. Overall, the 2015 Productivity Initiative was undertaken to simplify the organizational structure to enhance the Company's ability to rapidly anticipate and respond to the changing demands of the global consumer.

The 2015 Productivity Initiative was executed throughout the third and fourth quarters of 2015, resulting in a net reduction of approximately 300 positions, with the majority of the departures taking place by the end of 2015. For the year ended December 31, 2016, we incurred charges totaling \$19.3 million, consisting of pension settlement charges, adjustments to estimated severance benefits and incremental third-party costs related to the design and implementation of the new organizational structure. The 2015 Productivity Initiative was completed during the third quarter of 2016. We incurred total costs of \$125.0 million relating to this initiative, including pension settlement charges of \$13.7 million recorded in 2016 and \$10.2 million recorded in 2015 relating to lump sum withdrawals by employees retiring or leaving the Company as a result of this initiative. We have realized approximately \$82 million in savings since inception of the 2015 Productivity Initiative.

#### Other international restructuring programs

Other costs incurred in connection with business realignment activities for the year ended December 31, 2015 related principally to accelerated depreciation and amortization and employee severance costs for multiple programs commenced in 2014 to rationalize certain non-U.S. manufacturing and distribution activities and to establish our own sales and distribution teams in Brazil in connection with our acquisition of the remaining 49% interest in Hershey do Brasil Ltda. under a cooperative agreement with Pandurata Netherlands B.V. (“Bauducco”).

#### Mauna Loa divestiture

In December 2014, we entered into an agreement to sell the Mauna Loa Macadamia Nut Corporation (“Mauna Loa”). As a result of the expected sale, in 2014 we recorded an estimated loss on the anticipated sale of \$22.3 million to reflect the disposal entity at fair value, less an estimate of the selling costs. The sale, completed in the first quarter of 2015, resulted in an additional loss on sale of \$2.7 million based on updates to the selling expenses and tax benefits.

#### Project Next Century

The 2014 costs shown relate primarily to the demolition of the Company's former manufacturing facility, representing the final phase of the Project Next Century program. As of December 31, 2014, we have concluded Project Next Century.

Segment operating results do not include business realignment and related costs, as these initiatives are generally centrally managed and are not included within our internal measures of segment performance.

#### Operating Profit and Operating Profit Margin 2016 compared with 2015

Operating profit increased 16.2% in 2016 compared with 2015 due primarily to lower goodwill and intangible asset impairment charges, lower SM&A costs and lower business realignment costs, offset in part by the lower gross profit. Operating profit margin increased to 16.2% in 2016 from 14.0% in 2015 due primarily to these same factors. On a non-GAAP basis, 2016 operating profit and operating profit margin increased 2.4% and 40 basis points, respectively, reflecting the reduction in total SM&A costs, including advertising and related consumer marketing, offset in part by higher trade promotional spending.

#### 2015 compared with 2014

Operating profit decreased 25.5% in 2015 compared with 2014 due primarily to the goodwill impairment charges, higher SM&A costs related to acquisitions as well as higher business realignment costs, offset in part by the higher gross profit. Operating profit margin decreased to 14.0% in 2015 from 18.8% in 2014 due to the goodwill impairment charges, higher SM&A expenses as a percent of sales, and higher business realignment costs.

On a non-GAAP basis, 2015 operating profit and operating profit margin increased 1.8% and 40 basis points, respectively.

#### Interest Expense, Net

#### 2016 compared with 2015

Net interest expense was \$15.6 million lower in 2016 than in 2015, as the 2015 amount included the premium paid to repurchase long-term debt as part of a cash tender offer. This decrease was partially offset by lower capitalized interest expense and lower interest income.

#### 2015 compared with 2014

Net interest expense was \$22.3 million higher in 2015 than in 2014 due primarily to the premium paid to repurchase long-term debt as part of a cash tender offer. This increase was partially offset by higher capitalized interest expense coupled with savings resulting from fixed-to-floating interest rate swap agreements put in place toward the end of 2014.

#### Other (Income) Expense, Net

#### 2016 compared with 2015

Other (income) expense, net was \$13.9 million lower in 2016 than 2015, due primarily to the \$26.7 million settlement of the SGM liability in 2016, partially offset by an increase in the write-down of equity investments qualifying for federal historic and energy tax credits.

#### 2015 compared with 2014

Other (income) expense, net was \$27.4 million higher in 2015 than 2014, due primarily to the write-down of equity investments qualifying for federal historic and energy tax credits, partially offset by the gain on the sale of a noncore trademark.

#### Income Taxes and Effective Tax Rate

#### 2016 compared with 2015

Our effective income tax rate was 34.5% for 2016 compared with 43.1% for 2015. The 2015 tax rate was significantly impacted by the non-deductible goodwill impairment charges. Excluding the impact of the goodwill impairment and other non-GAAP charges, the 2016 effective income tax rate was 190 basis points lower than the 2015 rate. The 2016 non-GAAP

rate reflects greater benefit from manufacturing deductions, research and development and investment tax credits, and a favorable foreign rate differential relating to our cocoa procurement operations.

#### 2015 compared with 2014

Our effective income tax rate was 43.1% for 2015 compared with 35.2% for 2014. The 2015 tax rate was significantly impacted by the non-deductible goodwill impairment charges. Excluding the impact of the goodwill impairment and other non-GAAP charges, the 2015 effective income tax rate was 130 basis points lower than the 2014 rate. The 2015 rate benefited from tax credits realized from the investment tax strategy initiated in the second quarter of 2015, which was partially offset by the valuation allowance recorded against the SGM net operating loss carryforwards.

#### Net Income and Net Income Per Share

##### 2016 compared with 2015

Net income increased \$207.0 million, or 40.4%, while EPS-diluted increased \$1.02, or 44.0%, in 2016 compared with 2015. The increases in both net income and EPS-diluted were driven by the lower goodwill and intangible asset impairment charges, lower SM&A costs and lower business realignment costs, as noted above. Our 2016 EPSdiluted also benefited from lower weighted-average shares outstanding as a result of share repurchases pursuant to our Board-approved repurchase programs.

On a non-GAAP basis, net income increased \$38.8 million in 2016, or 4.3%, and EPS-diluted increased \$0.29, or 7.0%, as compared with 2015. The increases in 2016 non-GAAP net income and non-GAAP EPS-diluted were primarily driven by the lower SM&A expense as well as the lower tax rate.

##### 2015 compared with 2014

Net income decreased \$333.9 million, or 39.4%, while EPS-diluted decreased \$1.45, or 38.5%, in 2015 compared with 2014. The decreases in both net income and EPS-diluted were driven by the goodwill impairment charges, higher SM&A costs related to acquisitions and higher business realignment costs, as noted above. Our 2015 EPSdiluted benefited from lower weighted-average shares outstanding as a result of share repurchases pursuant to our Board-approved repurchase programs.

On a non-GAAP basis, net income increased \$13.8 million in 2015, or 1.5%, and EPS-diluted increased \$0.14, or 3.5%, as compared with 2014. The increases in 2015 non-GAAP net income and non-GAAP EPS-diluted were primarily driven by gross margin expansion and lower net interest expense.

#### SEGMENT RESULTS

The summary that follows provides a discussion of the results of operations of our two reportable segments: North America and International and Other. The segments reflect our operations on a geographic basis. For segment reporting purposes, we use “segment income” to evaluate segment performance and allocate resources. Segment income excludes unallocated general corporate administrative expenses, unallocated mark-to-market gains and losses on commodity derivatives, business realignment and impairment charges, acquisition integration costs, NSRPE(I) and other unusual gains or losses that are not part of our measurement of segment performance. These items of our operating income are largely managed centrally at the corporate level and are excluded from the measure of segment income reviewed by the CODM and used for resource allocation and internal management reporting and performance evaluation.

Segment income and segment income margin, which are presented in the segment discussion that follows, are non-GAAP measures and do not purport to be alternatives to operating income as a measure of operating performance. We believe that these measures are useful to investors and other users of our financial information in evaluating ongoing operating profitability as well as in evaluating operating performance in relation to our competitors, as they exclude the activities that are not integral to our ongoing operations. For further information, see the Non-GAAP Information section of this MD&A.

Our segment results, including a reconciliation to our consolidated results, were as follows:

#### North America

The North America segment is responsible for our chocolate and non-chocolate confectionery market position, as well as our grocery and growing snacks market positions, in the United States and Canada. This includes developing and growing our business in chocolate and non-chocolate confectionery, pantry, food service and other snacking product lines. North America accounted for 87.8%, 87.6% and 85.6% of our net sales in 2016, 2015 and 2014, respectively. North America results for the years ended December 31, 2016, 2015 and 2014 were as follows:

#### 2016 compared with 2015

Net sales of our North America segment increased \$64.9 million or 1.0% in 2016 compared to 2015, reflecting volume increases of 1.4% and the favorable net impact of acquisitions and divestitures of 0.7%, partially offset by unfavorable net price realization of 0.9% and an unfavorable impact from foreign currency exchange rates that reduced net sales by approximately 0.2%. Our 2016 North America performance was similar to the slower growth experienced by other CPG companies. Additionally, the U.S. CMG category and manufacturers were impacted by a shorter Easter season and merchandising and display strategies at select customers. The segment's volume increase was primarily attributable to new product introductions, partially offset by lower everyday product sales. The unfavorable net price realization resulted from increased levels of trade promotional spending necessary to support higher levels of instore merchandising and display activity. Our Canada operations were impacted by the stronger U.S. dollar, which drove the unfavorable foreign currency impact.

Our North America segment income decreased \$33.0 million or 1.6% in 2016 compared to 2015, driven by lower gross margin as higher trade promotional spending and higher supply chain costs were only partially offset by the benefit from supply chain productivity and cost savings initiatives.

#### 2015 compared with 2014

Net sales of our North America segment increased \$115.4 million or 1.8% in 2015 compared to 2014, reflecting net price realization of 4.8% and the favorable net impact of acquisitions and divestitures of 0.3%, substantially offset by volume declines of 2.5% and an unfavorable impact from foreign currency exchange rates that reduced net sales by approximately 0.8%. The volume decline was due to elasticity related to the 2014 pricing action as well as lower everyday product sales, which were impacted by changing consumer shopping habits, such as channel shifting and e-commerce, an increase in competitive activity and a proliferation of broader snacking options in the marketplace. Our Canada operations were impacted by the stronger U.S. dollar, which drove the unfavorable foreign currency impact.



Our North America segment income increased \$157.8 million or 8.2% in 2015 compared to 2014, driven by gross margin expansion, primarily due to favorable price realization and supply chain productivity, which offset volume declines and input cost increases.

#### International and Other

The International and Other segment includes all other countries where we currently manufacture, import, market, sell or distribute chocolate and non-chocolate confectionery and other products. Currently, this includes our operations in China and other Asia markets, Latin America, Europe, Africa and the Middle East, along with exports to these regions. While a less significant component, this segment also includes our global retail operations, including Hershey's Chocolate World stores in Hershey, Pennsylvania, New York City, Las Vegas, Shanghai, Niagara Falls (Ontario), Dubai and Singapore, as well as operations associated with licensing the use of certain trademarks and products to third parties around the world.

International and Other accounted for 12.2%, 12.4% and 14.4% of our net sales in 2016, 2015 and 2014, respectively. International and Other results for the years ended December 31, 2016, 2015 and 2014 were as follows:

#### 2016 compared with 2015

Net sales of our International and Other segment decreased \$11.3 million or 1.2% in 2016 compared to 2015, reflecting an unfavorable impact from foreign currency exchange rates of 4.4%, volume declines of 3.7% and the unfavorable impact of net acquisitions and divestitures of 0.1%, substantially offset by favorable net price realization of 7.0%. Excluding the unfavorable impact of foreign currency exchange rates, the net sales of our International and Other segment increased by approximately 3.2%.

The favorable net price realization was driven by lower direct trade expense as well as lower returns, discounts and allowances in China, which declined significantly compared to the prior year. The volume decrease primarily related to lower sales in India due to the discontinuance of the edible oil business as well as lower sales in our global retail and licensing business, partially offset by net sales increases in Latin America and select export markets. Constant currency net sales in Mexico and Brazil increased on a combined basis by approximately 13%, driven by solid chocolate marketplace performance.

Our International and Other segment loss decreased \$69.0 million in 2016 compared to 2015. Combined income in Latin America and export markets improved versus the prior year and performance in China benefited from lower direct trade and returns, discounts and allowances that were significantly lower than the prior year.

#### 2015 compared with 2014

Net sales of our International and Other segment decreased \$150.6 million or 14.1% in 2015 compared to 2014, reflecting volume declines of 9.0%, an unfavorable impact from foreign currency exchange rates of 6.2% and unfavorable net price realization of 4.0%, partially offset by incremental revenue from the acquisition of SGM representing an increase of 5.1% to 2015 net sales. Excluding the unfavorable impact of foreign currency exchange rates, the net sales of our International and Other segment declined approximately 7.9%.

The net sales decline was driven by volume declines in our China chocolate business. In 2015, chocolate category growth in China was flat relative to the prior year; however our 2015 chocolate retail takeaway in China declined by 11%, resulting in a market share decline in China of 1.1%.

Performance in our focus markets of Mexico and Brazil improved and, on a constant currency basis, net sales in 2015 in these countries increased by approximately 6% and 3%,

respectively, versus 2014. Constant currency net sales in India declined in 2015, primarily due to the planned discontinuance of edible oil products.

Our International and Other segment loss was \$98.1 million in 2015 compared to segment income of \$40.0 million in 2014. The decline was primarily attributable to lower net sales of chocolate products in China, coupled with losses at SGM as that business was also impacted by the uncertain macroeconomic conditions in China as well as incremental integration-related costs.

#### Unallocated Corporate Expense

Unallocated corporate expense includes centrally-managed (a) corporate functional costs relating to legal, treasury, finance and human resources, (b) expenses associated with the oversight and administration of our global operations, including warehousing, distribution and manufacturing, information systems and global shared services, (c) noncash stock-based compensation expense and (d) other gains or losses that are not integral to segment performance.

Unallocated corporate expense totaled \$497.4 million in both 2016 and 2015. Savings realized in 2016 from our productivity and cost savings initiatives were offset by higher employee-related costs and an increase in corporate depreciation and amortization. As compared to 2014 unallocated corporate expense of \$503.2 million, the reduction in 2015 expense was driven primarily by the implementation of the 2015 Productivity Initiative discussed previously.

#### FINANCIAL CONDITION

We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. Significant factors affecting liquidity include cash flows generated from operating activities, capital expenditures, acquisitions, dividends, repurchases of outstanding shares, the adequacy of available commercial paper and bank lines of credit, and the ability to attract long-term capital with satisfactory terms. We generate substantial cash from operations and remain in a strong financial position, with sufficient liquidity available for capital reinvestment, payment of dividends and strategic acquisitions.

#### Cash Flow Summary

The following table is derived from our Consolidated Statement of Cash Flows:  
Operating activities

Our principal source of liquidity is operating cash flows. Our net income and, consequently, our cash provided by operations are impacted by sales volume, seasonal sales patterns, timing of new product introductions, profit margins and price changes. Sales are typically higher during the third and fourth quarters of the year due to seasonal and holiday-related sales patterns. Generally, working capital needs peak during the summer months. We meet these needs primarily with cash on hand, bank borrowings or the issuance of commercial paper.

Cash provided by operating activities in 2016 decreased \$231.0 million relative to 2015. This decrease was driven by the following factors:

Working capital (comprised of trade accounts receivable, inventory, accounts payable and accrued liabilities) consumed cash of \$37 million in 2016, while it generated cash of \$57 million in 2015. This \$94 million fluctuation was mainly driven by an \$87 million payment to settle an interest rate swap in connection with the issuance of new debt in August 2016.

Prepaid expenses and other current assets consumed cash of \$43 million in 2016, while they generated cash of \$118 million in 2015. This \$161 million fluctuation was mainly driven by higher payments on commodity futures contracts in 2016 as the market price of cocoa declined, versus receipts in the 2015 period. As noted previously, we utilize commodity futures contracts

to economically manage the risk of future price fluctuations associated with our purchase of raw materials.

Net income adjusted for non-cash charges to operations (including depreciation, amortization, stock-based compensation, excess tax benefit from stock-based compensation, deferred income taxes, goodwill and other intangible asset charges, write-down of equity investments, the gain on settlement of the SGM liability and other charges) decreased cash flow by \$34 million in 2016 relative to 2015.

Cash provided by operating activities in 2015 increased \$370.1 million relative to 2014. This increase was driven by the following factors:

Working capital (comprised of trade accounts receivable, inventory, accounts payable and accrued liabilities) generated cash of \$57 million in 2015, while it consumed cash of \$215 million in 2014. This fluctuation was mainly driven by lower inventory purchases in the 2015 period, since certain raw material inventory had been built up at the preceding year-end to take advantage of favorable pricing.

Prepaid expenses and other current assets generated cash of \$118 million in 2015, while they consumed cash of \$7 million in 2014. This \$125 million fluctuation was mainly driven by our hedging activities, which favorably impacted cash flow by \$55 million in 2015 versus an unfavorable impact of \$78 million in 2014, due principally to market gains and losses on our commodity futures contracts. Our cash receipts typically increase when futures market prices are increasing.

2015 cash flow was favorably impacted by approximately \$30 million from the timing of tax payments in 2015 compared to 2014.

**Pension and Post-Retirement Activity.**

We recorded net periodic benefit costs of \$72.8 million, \$66.8 million and \$37.3 million in 2016, 2015 and 2014, respectively, relating to our benefit plans (including our defined benefit and other post retirement plans). The main drivers of fluctuations in expense from year to year are assumptions in formulating our long-term estimates, including discount rates used to value plan obligations, expected returns on plan assets, the service and interest costs and the amortization of actuarial gains and losses.

The funded status of our qualified defined benefit pension plans is dependent upon many factors, including returns on invested assets, the level of market interest rates and the level of funding. We contribute cash to our plans at our discretion, subject to applicable regulations and minimum contribution requirements. Cash contributions to our pension and post retirement plans totaled \$41.7 million, \$53.3 million and \$53.1 million in 2016, 2015 and 2014, respectively.

**Investing activities**

Our principal uses of cash for investment purposes relate to purchases of property, plant and equipment and capitalized software, purchases of short-term investments and acquisitions of businesses, partially offset by proceeds from sales of property, plant and equipment and short-term investments. We used cash of \$595.5 million for investing activities in 2016 compared to \$477.2 million in 2015, with the increase driven by additional business acquisition activity. We used cash of \$862.6 million for investing activities in 2014, which was primarily driven by additional business acquisition activity and purchases of short-term investments.

Primary investing activities include the following:

Capital spending. Capital expenditures, including capitalized software, primarily to support capacity expansion, innovation and cost savings, were \$269.5 million in 2016, \$356.8 million in 2015 and \$370.8 million in 2014. The reduction in 2016 was largely due to completion

of the Malaysia plant construction early in the year. Our 2015 and 2014 expenditures included approximately \$80 million and \$115 million, respectively, relating to the Malaysia plant construction. Capitalized software additions were primarily related to ongoing enhancements of our information systems. We expect 2017 capital expenditures, including capitalized software, to approximate \$270 million to \$290 million.

**Acquisitions and divestitures.** In 2016, we spent \$285.4 million to acquire Ripple Brand Collective, LLC. In 2015, we spent \$218.7 million to acquire Krave, partially offset by net cash received of \$32 million from the sale of Mauna Loa. In 2014, we spent \$396.3 million to acquire three businesses, including \$379.7 million for SGM and \$26.6 million for Allan Candy, partially offset by net cash received of \$10.0 million relating to the acquisition of an additional 5.9% interest in Lotte Shanghai Foods Co., Ltd., a joint venture established in 2007 in China, whereby cash acquired in the transaction exceeded the \$5.6 million paid for the controlling interest. See Note 2 to the Consolidated Financial Statements for additional information regarding our recent acquisitions.

**Investments in partnerships qualifying for tax credits.** We make investments in partnership entities that in turn make equity investments in projects eligible to receive federal historic and energy tax credits. We invested approximately \$13.5 million more in projects qualifying for tax credits in 2016 compared to 2015.

**Short-term investments.** We had no short-term investment activity in 2016. In 2015, we received proceeds of \$95 million from the sale of short-term investments, which had been purchased in 2014 for approximately \$97 million.

#### Financing activities

Our cash flow from financing activities generally relates to the use of cash for purchases of our Common Stock and payment of dividends, offset by net borrowing activity and proceeds from the exercise of stock options. We used cash of \$434.4 million for financing activities in 2016 compared to \$755.2 million in 2015, with the decrease due mainly to higher proceeds from the issuance of long-term borrowings, partially offset by the purchase of the remaining 20% of the outstanding shares of SGM and higher dividend payments in 2016. We used cash of \$719.3 million for financing activities in 2014, primarily to fund dividend payments and share repurchases.

The majority of our financing activity was attributed to the following:

**Short-term borrowings, net.** In addition to utilizing cash on hand, we use short-term borrowings (commercial paper and bank borrowings) to fund seasonal working capital requirements and ongoing business needs. In 2016, we generated cash flow of \$275.6 million through short-term commercial paper borrowings, partially offset by payments in short-term foreign borrowings. In 2015, we generated cash flow of \$10.7 million as a result of higher borrowings at certain of our international businesses. In 2014, we generated additional cash flow from the issuance of \$55.0 million in commercial paper as well as incremental borrowings at certain international locations in support of sales growth.

**Long-term debt borrowings and repayments.** In 2016, we used \$500 million to repay long-term debt. Additionally, in 2016, we issued \$500 million of 2.30% Notes due in 2026 and \$300 million of 3.375% Notes due in 2046. In 2015, we used \$355 million to repay long-term debt, including \$100.2 million to repurchase \$71.6 million of our long-term debt as part of a cash tender offer. Additionally, in 2015, we issued \$300 million of 1.60% Notes due in 2018 and \$300 million of 3.20% Notes due in 2025. We had no repayment or issuance activity in 2014.

Share repurchases. We repurchase shares of Common Stock to offset the dilutive impact of treasury shares issued under our equity compensation plans. The value of these share repurchases in a given period varies based on the volume of stock options exercised and our market price. In addition, we periodically repurchase shares of Common Stock pursuant to Board-authorized programs intended to drive additional stockholder value. We used cash for total share repurchases of \$592.6 million in 2016, compared to \$582.5 million in 2015. This included purchases pursuant to authorized programs of \$420.2 million to purchase 4.6 million shares in 2016 and \$402.5 million to purchase 4.2 million shares in 2015. We used cash for total share repurchases of \$576.8 million in 2014, which included purchases pursuant to authorized programs of \$202.3 million to purchase 2.1 million shares. As of December 31, 2016, approximately \$100 million remained available under the \$500 million share repurchase authorization approved by the Board in January 2016.

Dividend payments. Total dividend payments to holders of our Common Stock and Class B Common Stock were \$499.5 million in 2016, \$476.1 million in 2015 and \$440.4 million in 2014. Dividends per share of Common Stock increased 7.4% to \$2.402 per share in 2016 compared to \$2.236 per share in 2015, while dividends per share of Class B Common Stock increased 7.5% in 2016.

Proceeds from the exercise of stock options, including tax benefits. We received \$124.8 million from employee exercises of stock options, including excess tax benefits, in 2016, as compared to \$97.6 million in 2015 and \$175.8 million in 2014. Variances are driven primarily by the number of shares exercised and the share price at the date of grant.

Other. In February 2016, we used \$35.8 million to purchase the remaining 20% of the outstanding shares of SGM. In September 2015, we acquired the remaining 49% interest in Hershey do Brasil Ltda. under a cooperative agreement with Bauducco for approximately \$38.3 million. Additionally, in December 2015, we paid \$10.0 million in contingent consideration to the shareholders of Krave.

#### Liquidity and Capital Resources

At December 31, 2016, our cash and cash equivalents totaled \$297.0 million. At December 31, 2015, our cash and cash equivalents totaled \$346.5 million. Our cash and cash equivalents at the end of 2016 declined \$49.5 million compared to the 2015 year-end balance as a result of the net uses of cash outlined in the previous discussion.

Approximately two-thirds of the balance of our cash and cash equivalents at December 31, 2016 was held by subsidiaries domiciled outside of the United States. If these amounts held outside of the United States were to be repatriated, under current law they would be subject to U.S. federal income taxes, less applicable foreign tax credits. However, our intent is to permanently reinvest these funds outside of the United States. The cash that our foreign subsidiaries hold for indefinite reinvestment is expected to be used to finance foreign operations and investments. We believe we have sufficient liquidity to satisfy our cash needs, including our cash needs in the United States.

We maintain debt levels we consider prudent based on our cash flow, interest coverage ratio and percentage of debt to capital. We use debt financing to lower our overall cost of capital which increases our return on stockholders' equity. Our total debt was \$3.0 billion at December 31, 2016 and \$2.4 billion at December 31, 2015. Our total debt increased in 2016 mainly due to the additional debt issued mid-year to repay commercial paper that had been used to fund the Ripple Brand Collective, LLC acquisition in April 2016.

As a source of short-term financing, we maintain a \$1.0 billion unsecured revolving credit facility, with an option to increase borrowings by an additional \$400 million with the consent of the lenders. As of December 31, 2016, the termination date of this agreement is November 2020. We may use these funds for general corporate purposes, including commercial paper backstop and business acquisitions. As of December 31, 2016, we had \$526 million of available capacity under the agreement. The unsecured revolving credit agreement contains certain financial and other covenants, customary representations, warranties and events of default. We were in compliance with all covenants as of December 31, 2016.

In addition to the revolving credit facility, we maintain lines of credit in various currencies with domestic and international commercial banks. As of December 31, 2016, we had available capacity of \$345.4 million under these lines of credit.

Furthermore, we have a current shelf registration statement filed with the SEC that allows for the issuance of an indeterminate amount of debt securities. Proceeds from the debt issuances and any other offerings under the current registration statement may be used for general corporate requirements, including reducing existing borrowings, financing capital additions and funding contributions to our pension plans, future business acquisitions and working capital requirements.

Our ability to obtain debt financing at comparable risk-based interest rates is partly a function of our existing cashflow-to-debt and debt-to-capitalization levels as well as our current credit standing.

We believe that our existing sources of liquidity are adequate to meet anticipated funding needs at comparable risk-based interest rates for the foreseeable future. Acquisition spending and/or share repurchases could potentially increase our debt. Operating cash flow and access to capital markets are expected to satisfy our various cash flow requirements, including acquisitions and capital expenditures.

#### Equity Structure

We have two classes of stock outstanding – Common Stock and Class B Stock. Holders of the Common Stock and the Class B Stock generally vote together without regard to class on matters submitted to stockholders, including the election of directors. Holders of the Common Stock have 1 vote per share. Holders of the Class B Stock have 10 votes per share. Holders of the Common Stock, voting separately as a class, are entitled to elect one-sixth of our Board. With respect to dividend rights, holders of the Common Stock are entitled to cash dividends 10% higher than those declared and paid on the Class B Stock.

Hershey Trust Company, as trustee for the trust established by Milton S. and Catherine S. Hershey that has as its sole beneficiary Milton Hershey School (such trust, the "Milton Hershey School Trust"), maintains voting control over The Hershey Company. In addition, a representative of Hershey Trust Company currently serves as a member of the Company's Board. In performing his responsibilities on the Company's Board, this representative may from time to time exercise influence with regard to the ongoing business decisions of our Board or management. Hershey Trust Company, as trustee for the Milton Hershey School Trust, in its role as controlling stockholder of the Company, has indicated it intends to retain its controlling interest in The Hershey Company. The Company's Board, and not the Hershey Trust Company board, is solely responsible and accountable for the Company's management and performance.

Pennsylvania law requires that the Office of Attorney General be provided advance notice of any transaction that would result in Hershey Trust Company, as trustee for the Milton

Hershey School Trust, no longer having voting control of the Company. The law provides specific statutory authority for the Attorney General to intercede and petition the court having jurisdiction over Hershey Trust Company, as trustee for the Milton Hershey School Trust, to stop such a transaction if the Attorney General can prove that the transaction is unnecessary for the future economic viability of the Company and is inconsistent with investment and management considerations under fiduciary obligations. This legislation makes it more difficult for a third party to acquire a majority of our outstanding voting stock and thereby may delay or prevent a change in control of the Company.

#### Guarantees and Other Off-Balance Sheet Arrangements

We do not have guarantees or other off-balance sheet financing arrangements, including variable interest entities, that we believe could have a material impact on our financial condition or liquidity.

#### Contractual Obligations

The following table summarizes our contractual obligations at December 31, 2016:

In entering into contractual obligations, we have assumed the risk that might arise from the possible inability of counterparties to meet the terms of their contracts. We mitigate this risk by performing financial assessments prior to contract execution, conducting periodic evaluations of counterparty performance and maintaining a diverse portfolio of qualified counterparties. Our risk is limited to replacing the contracts at prevailing market rates. We do not expect any significant losses resulting from counterparty defaults.

#### Asset Retirement Obligations

We have a number of facilities that contain varying amounts of asbestos in certain locations within the facilities. Our asbestos management program is compliant with current applicable regulations, which require that we handle or dispose of asbestos in a specified manner if such facilities undergo major renovations or are demolished. We do not have sufficient information to estimate the fair value of any asset retirement obligations related to these facilities. We cannot specify the settlement date or range of potential settlement dates and, therefore, sufficient information is not available to apply an expected present value technique. We expect to maintain the facilities with repairs and maintenance activities that would not involve or require the removal of significant quantities of asbestos.

#### Income Tax Obligations

Liabilities for unrecognized income tax benefits are excluded from the table above as we are unable to reasonably predict the ultimate amount or timing of a settlement of these potential liabilities. See Note 8 to the Consolidated Financial Statements for more information.

#### Recent Accounting Pronouncements

Information on recently issued accounting standards is included in Note 1 to the Consolidated Financial Statements.

#### CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements requires management to use judgment and make estimates and assumptions.

We believe that our most critical accounting policies and estimates relate to the following:

- Accrued Liabilities for Trade Promotion Activities
- Pension and Other Post-Retirement Benefits Plans
- Goodwill and Other Intangible Assets
- Income Taxes

Management has discussed the development, selection and disclosure of critical accounting policies and estimates with the Audit Committee of our Board. While we base estimates and assumptions on our knowledge of current events and actions we may undertake in the future, actual results may ultimately differ from these estimates and assumptions. Other significant accounting policies are outlined in Note 1 to the Consolidated Financial Statements.

#### Accrued Liabilities for Trade Promotion Activities

We promote our products with advertising, trade promotions and consumer incentives. These programs include, but are not limited to, discounts, coupons, rebates, in-store display incentives and volume-based incentives. We expense advertising costs and other direct marketing expenses as incurred. We recognize the costs of trade promotion and consumer incentive activities as a reduction to net sales along with a corresponding accrued liability based on estimates at the time of revenue recognition. These estimates are based on our analysis of the programs offered, historical trends, expectations regarding customer and consumer participation, sales and payment trends and our experience with payment patterns associated with similar programs offered in the past.

Our trade promotional costs totaled \$1,157.4 million, \$1,122.3 million and \$1,125.5 million in 2016, 2015 and 2014, respectively. The estimated costs of these programs are reasonably likely to change in the future due to changes in trends with regard to customer and consumer participation, particularly for new programs and for programs related to the introduction of new products. Differences between estimated expense and actual program performance are recognized as a change in estimate in a subsequent period and are normally not significant. Over the three-year period ended December 31, 2016, actual promotional costs have not deviated from the estimated amount for a given year by more than 3%.

#### Pension and Other Post-Retirement Benefits Plans

We sponsor various defined benefit pension plans. The primary plans are The Hershey Company Retirement Plan and The Hershey Company Retirement Plan for Hourly Employees, which are cash balance plans that provide pension benefits for most U.S. employees hired prior to January 1, 2007. We also sponsor two primary other postemployment benefit (“OPEB”) plans, consisting of a health care plan and life insurance plan for retirees. The health care plan is contributory, with participants’ contributions adjusted annually, and the life insurance plan is noncontributory.

For accounting purposes, the defined benefit pension and OPEB plans require assumptions to estimate the projected and accumulated benefit obligations, including the following variables: discount rate; expected salary increases; certain employee-related factors, such as turnover, retirement age and mortality; expected return on assets; and health care cost trend rates. These and other assumptions affect the annual expense and obligations recognized for the underlying plans. Our assumptions reflect our historical experiences and management's best judgment regarding future expectations. Our related accounting policies, accounting balances and plan assumptions are discussed in Note 9 to the Consolidated Financial Statements.

#### Pension Plans

Changes in certain assumptions could significantly affect pension expense and benefit obligations, particularly the estimated long-term rate of return on plan assets and the discount rates used to calculate such obligations:

Long-term rate of return on plan assets. The expected long-term rate of return is evaluated on an annual basis. We consider a number of factors when setting assumptions with respect to the long-term rate of return, including current and expected asset allocation and



historical and expected returns on the plan asset categories. Actual asset allocations are regularly reviewed and periodically rebalanced to the targeted allocations when considered appropriate. Investment gains or losses represent the difference between the expected return estimated using the long-term rate of return and the actual return realized. For 2017, we reduced the expected return on plan assets assumption to 5.8% from the 6.1% assumption used during 2016, reflecting lower expected long-term returns due to slowing growth in developed and emerging markets. The historical average return (compounded annually) over the 20 years prior to December 31, 2016 was approximately 6.5%.

As of December 31, 2016, our primary plans had cumulative unrecognized investment and actuarial losses of approximately \$418 million. We amortize the unrecognized net actuarial gains and losses in excess of the corridor amount, which is the greater of 10% of a respective plan's projected benefit obligation or the fair market value of plan assets. These unrecognized net losses may increase future pension expense if not offset by (i) actual investment returns that exceed the expected long-term rate of investment returns, (ii) other factors, including reduced pension liabilities arising from higher discount rates used to calculate pension obligations or (iii) other actuarial gains when actual plan experience is favorable as compared to the assumed experience. A 100 basis point decrease or increase in the long-term rate of return on pension assets would correspondingly increase or decrease annual net periodic pension benefit expense by approximately \$10 million.

**Discount rate.** The discount rate used to determine the present value of our future pension obligation at December 31, 2016 was based on a yield curve constructed from a portfolio of high-quality corporate debt securities for which the timing and amount of cash flows approximate the estimated benefit payments of the plans. The plans' expected cash flows are then discounted by the resulting year-by-year spot rates. A 100 basis point decline in the weighted-average pension discount rate would increase annual net periodic pension benefit expense by approximately \$7 million and the December 31, 2016 pension liability would increase by approximately \$97 million.

Pension expense for defined benefit pension plans is estimated to approximate \$35 million in 2017. Pension expense beyond 2017 will depend on future investment performance, our contributions to the pension trusts, changes in discount rates and various other factors related to the covered employees in the plans.

#### Other Post-Employment Benefit Plans

Changes in significant assumptions could affect consolidated expense and benefit obligations, particularly the discount rates used to calculate such obligations and the healthcare cost trend rate:

**Discount rate.** The determination of the discount rate used to calculate the benefit obligations of the OPEB plans is discussed in the pension plans section above. If the discount rate assumption for these plans was reduced by 100 basis points, the impact to the OPEB plans consolidated expense would not be material and the increase in the December 31, 2016 benefit liability would be approximately \$27 million.

**Healthcare cost trend rate.** The healthcare cost trend rate is based on a combination of inputs including our recent claims history and insights from external advisers regarding recent developments in the healthcare marketplace, as well as projections of future trends in the marketplace. See Note 9 to the Consolidated Financial Statements for disclosure of the effects of a one percentage point change in the healthcare cost trend rate.

#### Goodwill and Other Intangible Assets

Goodwill and indefinite-lived intangible assets are not amortized, but are evaluated for impairment annually or more often if indicators of a potential impairment are present. Our annual impairment tests are conducted at the beginning of the fourth quarter.

We test goodwill for impairment by either performing a qualitative assessment or using a two-step quantitative process. If we choose to perform a qualitative assessment, we evaluate economic, industry and company-specific factors as an initial step in assessing the fair value of the related reporting unit. If we determine that it is more likely than not that the fair value of the reporting unit is less than its carrying value, the two-step process is then performed. Otherwise, no further testing is required. For those reporting units tested using the two-step process, we first compare the fair value of each reporting unit with the carrying amount of the reporting unit, including goodwill. If the estimated fair value of the reporting unit is less than the carrying amount of the reporting unit, we complete a second step to determine the amount of the goodwill impairment that we should record. In the second step, we determine an implied fair value of the reporting unit's goodwill by allocating the reporting unit's fair value to all of its assets and liabilities other than goodwill (including any unrecognized intangible assets). We compare the resulting implied fair value of the goodwill to the carrying amount and record an impairment charge for the difference. We test individual indefinite-lived intangible assets by comparing the estimated fair value with the book values of each asset.

We determine the fair value of our reporting units and indefinite-lived intangible assets using an income approach. Under the income approach, we calculate the fair value of our reporting units and indefinite-lived intangible assets based on the present value of estimated future cash flows. Considerable management judgment is necessary to evaluate the impact of operating and macroeconomic changes and to estimate the future cash flows used to measure fair value. Our estimates of future cash flows consider past performance, current and anticipated market conditions and internal projections and operating plans which incorporate estimates for sales growth and profitability, and cash flows associated with taxes and capital spending. Additional assumptions include forecasted growth rates, estimated discount rates, which may be risk-adjusted for the operating market of the reporting unit, and estimated royalty rates that would be charged for comparable branded licenses. We believe such assumptions also reflect current and anticipated market conditions and are consistent with those that would be used by other marketplace participants for similar valuation purposes. Such assumptions are subject to change due to changing economic and competitive conditions.

We also have intangible assets, consisting primarily of certain trademarks, customer-related intangible assets and patents obtained through business acquisitions, that are expected to have determinable useful lives. The costs of finite-lived intangible assets are amortized to expense over their estimated lives. Our estimates of the useful lives of finite-lived intangible assets consider judgments regarding the future effects of obsolescence, demand, competition and other economic factors. We conduct impairment tests when events or changes in circumstances indicate that the carrying value of these finite-lived assets may not be recoverable. Undiscounted cash flow analyses are used to determine if an impairment exists. If an impairment is determined to exist, the loss is calculated based on the estimated fair value of the assets.

At December 31, 2016, the net book value of our goodwill totaled \$812.3 million and related to five reporting units. As it relates to our annual testing performed at the beginning of the fourth quarter, no additional goodwill impairment was indicated, and the percentage of excess fair value over carrying value was at least 100% for each of our tested reporting units.

In 2015, we recorded a \$280.8 million impairment charge resulting from our interim reassessment of the valuation of the SGM business, coupled with the write-down of goodwill attributed to the China chocolate business in connection with the SGM acquisition. As a result of declining performance levels and our post-acquisition assessment, we determined that GAAP required an interim impairment test of the SGM reporting unit. We performed the first step of this test as of July 5, 2015 using an income approach based on our estimates of future performance scenarios for the business. The results of this test indicated that the fair value of the reporting unit was less than the carrying amount as of the measurement date, suggesting that a goodwill impairment was probable, which required us to perform a second step analysis to confirm that an impairment existed and to determine the amount of the impairment based on our reassessed value of the reporting unit. Although preliminary, as a result of this reassessment, in the second quarter of 2015 we recorded an estimated \$249.8 million non-cash goodwill impairment charge, representing a write-down of all of the goodwill related to the SGM reporting unit as of July 5, 2015. During the third quarter, we increased the value of acquired goodwill by \$16.6 million, with the corresponding offset principally represented by the establishment of additional opening balance sheet liabilities for additional commitments and contingencies that were identified through our post-acquisition assessment. We also finalized the impairment test of the goodwill relating to the SGM reporting unit, which resulted in a write-off of this additional goodwill in the third quarter, for a total impairment of \$266.4 million. We also tested the other long-lived assets of SGM for recoverability by comparing the sum of the undiscounted cash flows to the carrying value of the asset group, and no impairment was indicated.

In connection with the 2014 SGM acquisition, we had assigned approximately \$15 million of goodwill to our existing China chocolate business, as this reporting unit was expected to benefit from acquisition synergies relating to the sale of Golden Monkey-branded product through its Tier 1 and hypermarket distributor networks. As the net sales and earnings of our China business continued to be adversely impacted by macroeconomic challenges and changing consumer shopping behavior through the third quarter of 2015, we determined that an interim impairment test of the goodwill in this reporting unit was also required. We performed the first step of this test in the third quarter of 2015 using an income approach based on our estimates of future performance scenarios for the business. The results of this test suggested that a goodwill impairment was probable, and the conclusions of the second step analysis resulted in a write-down of \$14.4 million, representing the full value of goodwill attributed to this reporting unit as of October 4, 2015. We also tested the other long-lived assets of the China asset group for recoverability by comparing the sum of the undiscounted cash flows to the carrying value of the asset group, and no impairment was indicated.

During our 2014 annual testing, the fair value of our India reporting unit approximated its carrying value. As a result and given the sensitivity of the India impairment analysis to changes in the underlying assumptions, we performed a step two analysis which indicated a goodwill impairment of \$11.4 million. In addition, our 2014 annual test of indefinite-lived intangible assets resulted in a \$4.5 million pre-tax write-down of a trademark, also associated with the India business. Also in 2014, in connection with the anticipated sale of our Mauna Loa business (as discussed in Note 2 to the Consolidated Financial Statements), during the third and fourth quarters of 2014, we recorded estimated impairment charges totaling \$18.5 million to write-down goodwill and an indefinite-lived trademark intangible asset, based on the valuation of these assets as implied by the agreed-upon sales price.

## Income Taxes

We base our deferred income taxes, accrued income taxes and provision for income taxes upon income, statutory tax rates, the legal structure of our Company, interpretation of tax laws and tax planning opportunities available to us in the various jurisdictions in which we operate. We file income tax returns in the U.S. federal jurisdiction and various state and foreign jurisdictions. We are regularly audited by federal, state and foreign tax authorities, but a number of years may elapse before an uncertain tax position, for which we have unrecognized tax benefits, is audited and finally resolved. From time to time, these audits result in assessments of additional tax. We maintain reserves for such assessments.

We apply a more-likely-than-not threshold to the recognition and derecognition of uncertain tax positions. Accordingly, we recognize the amount of tax benefit that has a greater than 50% likelihood of being ultimately realized upon settlement. Future changes in judgments and estimates related to the expected ultimate resolution of uncertain tax positions will affect income in the quarter of such change. While it is often difficult to predict the final outcome or the timing of resolution of any particular uncertain tax position, we believe that our unrecognized tax benefits reflect the most likely outcome. Accrued interest and penalties related to unrecognized tax benefits are included in income tax expense. We adjust these unrecognized tax benefits, as well as the related interest, in light of changing facts and circumstances, such as receiving audit assessments or clearing of an item for which a reserve has been established. Settlement of any particular position could require the use of cash. Favorable resolution would be recognized as a reduction to our effective income tax rate in the period of resolution.

We believe it is more likely than not that the results of future operations will generate sufficient taxable income to realize the deferred tax assets, net of valuation allowances. Our valuation allowances are primarily related to U.S. capital loss carryforwards and various foreign jurisdictions' net operating loss carryforwards and other deferred tax assets for which we do not expect to realize a benefit.

*LA-Z-BOY, Co., 2017, Male CEO*

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

We have prepared this Management's Discussion and Analysis as an aid to understanding our financial results. It should be read in conjunction with the accompanying Consolidated Financial Statements and related Notes to Consolidated Financial Statements. We begin with an introduction to our key businesses and then provide discussions of our results of operations, liquidity and capital resources, and critical accounting policies. It is important to note that our fiscal year 2017 and fiscal year 2015 included 52 weeks, whereas fiscal year 2016 included 53 weeks. The additional week in fiscal year 2016 was included in our fourth quarter.

This Management's Discussion and Analysis reflects results for only our continuing operations, unless otherwise noted. During fiscal 2014, we marketed for sale our youth furniture business, Lea Industries, a division of La-Z-Boy Casegoods, Inc. (formerly known as La-Z-Boy Greensboro, Inc.). We were unable to find a buyer for the Lea Industries business, and consequently we ceased its operations and liquidated all of its assets, consisting mostly of inventory, during fiscal 2015. In the accompanying financial statements, we reported the operating results of Lea Industries as discontinued operations for all periods presented. For the

fiscal year ended April 25, 2015, we recorded a pre-tax loss of \$6.0 million (\$3.8 million after tax) in discontinued operations related to Lea Industries. We previously reported the results of Lea Industries as a component of our Casegoods segment.

In fiscal 2015, we also recorded \$4.2 million of pre-tax income (\$2.7 million after tax) in discontinued operations related to the Continued Dumping and Subsidy Offset Act of 2000 ("CDSOA"). Before the CDSOA was revised in 2007, it provided that duties collected on wooden bedroom furniture imported from China were to be distributed to domestic producers that supported the antidumping petition that resulted in the duties. Of the \$4.2 million pre-tax income we received, \$3.8 million related to our previously owned subsidiary, American Furniture Company, Incorporated. We sold this subsidiary in fiscal 2007 and reported it as discontinued operations at that time. When we sold the assets of American Furniture Company, Incorporated our contract provided that we would receive a portion of any such duties to which that entity was entitled. The remainder of the CDSOA pre-tax income reported in discontinued operations related to Lea Industries.

## Introduction

### Our Business

We manufacture, market, import, export, distribute, and retail upholstery furniture products. In addition, we import, distribute, and retail accessories and casegoods (wood) furniture products. We are the leading global producer of reclining chairs and the second-largest manufacturer/distributor of residential furniture in the United States. The La-Z-Boy Furniture Galleries® stores retail network is the third-largest retailer of single-branded furniture in the United States. We have seven major North American manufacturing locations and six regional distribution centers in the United States to support our speed-to-market and customization strategy.

We sell our products, primarily in the United States and Canada, to furniture retailers and directly to consumers through stores that we own and operate. The centerpiece of our retail distribution strategy is our network of 347 La-Z-Boy Furniture Galleries® stores and 557 Comfort Studio® locations, each dedicated to marketing our La-Z-Boy branded products. We consider this dedicated space to be "branded outlets" or "proprietary." We own 143 of the La-Z-Boy Furniture Galleries® stores. The remainder of the La-Z-Boy Furniture Galleries® stores, as well as all 557 Comfort Studio® locations, are independently owned and operated. La-Z-Boy Furniture Galleries® stores help consumers furnish their homes by combining the style, comfort, and quality of La-Z-Boy furniture with our available design services. La-Z-Boy Comfort Studio® locations are defined spaces within larger independent retailers that are dedicated to displaying and selling La-Z-Boy branded products. Our other brands, which include England, Kincaid, American Drew, and Hammary, enjoy distribution through many of the same outlets, with approximately half of Hammary's sales originating through the La-Z-Boy Furniture Galleries® store network. Kincaid and England have their own dedicated proprietary in-store programs with 527 outlets and over 1.7 million square feet of proprietary floor space. In total, our proprietary floor space includes approximately 9.7 million square feet.

During fiscal 2017, we acquired the La-Z-Boy wholesale business in the United Kingdom and Ireland. We sell products in the United Kingdom, Ireland and about 60 other countries outside of North America.

Our goal is to deliver value to our shareholders with improved sales and earnings over the long term through executing our strategic initiatives. The foundation of our strategic initiatives is

driving profitable sales growth in all areas of our business, but most importantly in our flagship La-Z-Boy brand. We are striving for this growth in four ways:

We are expanding our branded distribution channels by executing our 4-4-5 store growth initiative, through which we plan to expand the La-Z-Boy Furniture Galleries® stores network to 400 stores averaging \$4 million in annual sales per store, over the five-year period that began with fiscal 2014.

Through this initiative, we intend not only to increase the number of stores but also to improve their quality, including upgrading old format stores to our new concept design through remodels and relocations. At the end of fiscal 2017, less than seven percent of the La-Z Boy Furniture Galleries® stores in the network were in the old format.

With improved store performance we believe the network may deliver our targeted economic value over time with fewer stores. We now expect the build-out of our store network to extend beyond five years.

In addition, we plan to increase our La-Z-Boy Comfort Studio® locations, our store-within-a-store format, as another avenue to expand our branded distribution channels, with a target of 600 La-Z-Boy Comfort Studio® locations.

We expect these initiatives to generate growth in our Retail segment through an increased company-owned store count, and to generate growth in our wholesale Upholstery segment as our proprietary distribution network expands.

We are growing the size of our company-owned retail business by acquiring La-Z-Boy Furniture Galleries® stores that are owned by our independent dealers, primarily in markets that can be serviced through our regional distribution centers, where we see opportunity for growth, or where we believe there are opportunities for further market penetration.

We are striving to increase our market share with the growth of sales through our multi-channel distribution network. In addition to the over 900 branded outlets dedicated to selling La-Z-Boy product (La-Z-Boy Furniture Galleries® stores and La-Z-Boy Comfort Studio® locations), approximately 1,900 other dealers sell La-Z-Boy products, providing us the benefit of multi-channel distribution. These outlets include some of the best known names in the industry, such as Art Van, Nebraska Furniture Mart, and Slumberland. Additionally, our other brands, including England, American Drew, Hammery, and Kincaid, enjoy distribution through many of the same outlets. We believe there is significant growth potential for our brands through these retail channels.

We are also striving to increase our market share in stationary upholstered furniture through a combination of our Live Life Comfortably® marketing campaign, featuring Brooke Shields as our brand ambassador, and our innovative and on-trend product. We continue to invest in this campaign, aimed at changing the image of our brand and widening La-Z-Boy's appeal among a broader consumer demographic. We are focused on expanding our digital marketing and ecommerce capabilities to drive traffic across our multiple digital and physical properties. Across our digital properties, we are driving change to improve the user experience, with a specific focus on the ease by which customers browse through our broad assortment, customize products to their liking and find stores/services to make a purchase. While we are known for our iconic recliners, they account for less than half of our sales in units and dollars, and we believe we have the potential to expand sales of our other products. Integral to our Live Life Comfortably® campaign is our Urban Attitudes® collection of smaller-scale stationary furniture targeted at a more style-conscious demographic, younger consumers, and people who live in smaller spaces in urban locations. Stationary upholstery furniture is a significant share of the

industry's total upholstery furniture sales, and we believe that over time we can capture a larger share of demand for these products.

We continue to believe that executing our integrated strategies will drive long-term profitable sales growth that, when combined with our efficient operating platform, will continue to deliver results and returns to our shareholders. During fiscal 2017, weaker demand throughout the home furnishings sector and the extra week in fiscal 2016 contributed to the slight decline in our net sales, but due to our efficient operating platform, we were able to grow our operating margin and deliver an increase in earnings per share.

Our reportable operating segments are the Upholstery segment, the Casegoods segment, and the Retail segment.

**Upholstery Segment.** Our Upholstery segment is our largest business and consists primarily of two operating units: La-Z-Boy, our largest operating unit, and our England subsidiary. The Upholstery segment also includes our international businesses, including the La-Z-Boy wholesale business in the United Kingdom and Ireland acquired during fiscal 2017. Our Upholstery segment manufactures and imports upholstered furniture such as recliners and motion furniture, sofas, loveseats, chairs, sectionals, modulars, ottomans and sleeper sofas. The Upholstery segment sells directly to La-Z-Boy Furniture Galleries® stores, operators of La-Z-Boy Comfort Studio® locations and England Custom Comfort Center locations, major dealers, and a wide cross-section of other independent retailers.

**Casegoods Segment.** Our Casegoods segment is an importer, marketer, and distributor of casegoods/wood furniture such as bedroom sets, dining room sets, entertainment centers and occasional pieces, and also manufactures some coordinated upholstered furniture. The Casegoods segment consists of three brands: American Drew, Hammary, and Kincaid. The Casegoods segment sells directly to major dealers, as well as La-Z-Boy Furniture Galleries® stores, and a wide cross-section of other independent retailers.

**Retail Segment.** Our Retail segment consists of 143 company-owned La-Z-Boy Furniture Galleries® stores. The Retail segment primarily sells upholstered furniture, in addition to some casegoods and other accessories, to the end consumer through these stores.

#### Results of Operations

Fiscal Year 2017, Fiscal Year 2016, and Fiscal Year 2015

La-Z-Boy Incorporated

#### Sales

Our consolidated sales decreased \$5.3 million in fiscal 2017 compared with fiscal 2016, following an increase of \$100.0 million in fiscal 2016 compared with fiscal 2015. As a reminder, fiscal 2016 contained 53 weeks, while fiscal 2017 and fiscal 2015 contained 52 weeks. The additional week in fiscal 2016 resulted in approximately \$29 million of additional sales based on the average weekly sales for the year.

Sales were essentially flat in fiscal 2017 compared with fiscal 2016, due to lower sales in our Upholstery and Casegoods segments which were offset by higher sales in our Retail segment. The sales decline in our Upholstery and Casegoods segments were mostly due to fiscal 2017 including only 52 weeks while fiscal 2016 included 53 weeks. The sales increase in our Retail segment was driven by the sales from our new and acquired stores, partially offset by lower sales from stores that had been open a minimum of 12 months, and the impact of fiscal 2017 including one less week than fiscal 2016.

Sales were higher in fiscal 2016 compared with the prior year, driven by increased sales in our Upholstery and Retail segments. Our Upholstery segment sales increase was driven by

stronger unit volume and the additional week in fiscal 2016. Our Retail segment sales increase was due to the sales from our new and acquired stores and the additional week in fiscal 2016. These improvements were partially offset by a decline in our Casegoods segment sales in fiscal 2016 compared with the prior year, due to lower volume, which was somewhat offset by the additional week in fiscal 2016.

#### Operating Margin

Our operating margin increased 0.6 percentage points in fiscal 2017 compared with the prior year, following an increase of 0.8 percentage points in fiscal 2016 compared with the prior year.

Our gross margin increased 1.7 percentage points during fiscal 2017 compared with fiscal 2016, following an increase of 2.8 percentage points in fiscal 2016 compared with fiscal 2015.

Our gross margin improved 0.9 percentage points in both fiscal 2017 and fiscal 2016 compared with each of the prior years, due to changes in our consolidated sales mix. Our consolidated sales mix changed due to the growth of our Retail segment, which has a higher gross margin than our wholesale segments.

Our Upholstery segment gross margin improved in both fiscal 2017 and fiscal 2016 compared with each of the prior years. Fiscal 2017 and fiscal 2016 gross margin improved due to favorable changes in our product mix, as well as improved efficiencies in our supply chain, including procurement, manufacturing operations, and logistics. Additionally, each of fiscal 2017, fiscal 2016 and fiscal 2015 included the benefit of favorable legal settlements, which provided a benefit of 0.2, 0.3, and 0.4 percentage points, respectively.

Our Retail segment gross margin improved in both fiscal 2017 and fiscal 2016 compared with each of the prior years due to an increased percentage of custom orders and design services, which generate a higher gross margin than sales of stock units.

Our Casegoods segment gross margin improved in both fiscal 2017 and fiscal 2016 compared with each of the prior years. Fiscal 2017 gross margin improved due to lower promotional activity related to discontinued product and lower freight expense on imported product. Fiscal 2016 gross margin improved due to our transition to an all-import model for our wood furniture and the consolidation of our casegoods operations.

Our selling, general, and administrative ("SG&A") expense as a percentage of sales increased 1.1 percentage points during fiscal 2017 compared with fiscal 2016, following an increase of 2.0 percentage points in fiscal 2016 compared with fiscal 2015.

Our SG&A expense as a percentage of sales increased 1.2 percentage points in both fiscal 2017 and fiscal 2016 compared with each of the prior years due to the growth of our Retail segment, which has a higher level of SG&A expense as a percentage of sales than our wholesale segments.

Advertising expense as a percentage of sales was 0.8 percentage points and 0.2 percentage points higher during fiscal 2017 and fiscal 2016, respectively, as we strategically increased spending in our Live Life Comfortably® marketing campaign and on promotional marketing to support our retail stores and enhance our share of voice in selected markets.

In addition, a portion of the increase in our SG&A expense as a percentage of sales in fiscal 2017 was the result of the fixed nature of many of our Retail segment's costs (primarily occupancy and administrative costs) in relation to the decline in sales from stores that had been open a minimum of 12 months.

Professional fees and legal costs were 0.7 percentage points lower as a percentage of sales during fiscal 2017 compared with fiscal 2016, but were 0.5 percentage points higher as a



percentage of sales during fiscal 2016 compared with fiscal 2015. We incurred higher legal costs in fiscal 2016 related to a legal dispute over a contract that the other party contends requires us to pay royalties on certain power units. The legal matter required fewer resources in fiscal 2017 as we awaited a court ruling on our affirmative defenses. In the third quarter of fiscal 2017 the court ruled against us on our affirmative defenses and we subsequently appealed the judgment entered against us.

The comparison of SG&A expense in fiscal 2016 with fiscal 2015 was affected by an increase of 0.4 percentage points in costs associated with our new world headquarters, primarily depreciation expense. In addition, incentive compensation costs were 0.3 percentage points higher during fiscal 2016 compared with fiscal 2015, primarily due to better consolidated financial performance against our incentive-based targets compared with fiscal 2015. Also affecting the SG&A expenses for fiscal 2016 compared with fiscal 2015 was warranty expense that was 0.2 percentage points higher as a percentage of sales, primarily due to higher replacement part costs and labor costs from our more complex product lines. Additionally, our warranty expense was higher during fiscal 2016 due to favorable accrual adjustments during fiscal 2015 which reflected a change in the prior estimates of our product warranty liability during that time period.

We explain these items further when we discuss each segment's results later in this Management's Discussion and Analysis.

#### Upholstery Segment

##### Sales

Our Upholstery segment's sales decreased \$24.4 million in fiscal 2017 compared with fiscal 2016, following an increase of \$64.0 million in fiscal 2016 compared with fiscal 2015. The additional week in fiscal 2016 resulted in approximately \$23 million of additional sales based on the average weekly sales for the year.

The sales decline in fiscal 2017 when compared with the prior year was mostly due to fiscal 2017 including only 52 weeks while fiscal 2016 included 53 weeks.

Lower unit volume drove a 2.4% decrease in sales in fiscal 2017 when compared with fiscal 2016. We believe the decreased unit volume during fiscal 2017 reflected weaker demand throughout the home furnishings sector.

In addition, higher promotional activity in fiscal 2017 resulted in a 0.5% decrease in sales compared with fiscal 2016. The higher promotional activity was due to our strategic decision to discount product to drive sales against the weaker demand, and in connection with our phasing out certain frames and fabrics.

These items were partially offset by favorable changes in our product mix which resulted in a 0.7% increase in sales in fiscal 2017 compared with the prior year. Our product mix shifted to more motion units and more units with power in fiscal 2017, compared with the prior year. Motion units have a higher average selling price than stationary units, and units with power have a higher average selling price than units without power.

Lastly, fiscal 2017 included the benefit of four months of sales from our recently-acquired La-Z-Boy wholesale business in the United Kingdom and Ireland, which contributed \$8.9 million of sales in fiscal 2017.

The sales increase in fiscal 2016 when compared with fiscal 2015 was due to several factors.

Higher unit volume drove a 4.3% increase in sales in fiscal 2016 when compared with fiscal 2015. We believe the increased unit volume during fiscal 2016 was a result of our Live

Life Comfortably® marketing campaign, the strength of our stationary product introductions, and our improved product value and styling.

Favorable changes in our product mix in fiscal 2016 resulted in a 1.1% increase in sales compared with the prior year. Our product mix in fiscal 2016 shifted to more motion units and more units with power, compared with the prior year.

#### Operating Margin

Our Upholstery segment's operating margin increased 1.3 percentage points in fiscal 2017 compared with the prior year, following an increase of 0.5 percentage points in fiscal 2016 compared with the prior year.

The segment's gross margin increased 0.7 percentage points during fiscal 2017 compared with fiscal 2016, following an increase of 1.9 percentage points during fiscal 2016 compared with fiscal 2015.

Changes in our product mix resulted in an improvement of 0.7 percentage points in fiscal 2017 compared with fiscal 2016. The improvement was primarily due to a shift to more motion units with power, as well as a shift to more recliners in fiscal 2017 compared with the prior year.

Improved efficiencies in our supply chain, including procurement, manufacturing operations and logistics, resulted in an improvement of 0.5 percentage points and 1.8 percentage points in the segment's gross margin during fiscal 2017 and fiscal 2016, respectively, compared with each of the prior years.

Higher promotional activity related to our strategic decision to discount product to drive sales against the weaker demand in the home furnishings sector, and in connection with our phasing out certain frames and fabric, resulted in a reduction of 0.3 percentage points in the segment's gross margin during fiscal 2017 compared with the prior year.

Favorable legal settlements provided a benefit of 0.2, 0.3, and 0.5 percentage points in the segment's gross margin during fiscal 2017, fiscal 2016, and fiscal 2015, respectively.

The segment's SG&A expense as a percentage of sales decreased 0.6 percentage points during fiscal 2017 compared with fiscal 2016, following an increase of 1.4 percentage points during fiscal 2016 compared with fiscal 2015.

Professional fees and legal costs were 0.9 percentage points lower as a percent of sales during fiscal 2017 compared with fiscal 2016, but were 1.0 percentage point higher as a percentage of sales during fiscal 2016 compared with fiscal 2015. We incurred higher legal costs in fiscal 2016 related to a legal dispute over a contract that the other party contends requires us to pay royalties on certain power units. The legal matter required fewer resources in fiscal 2017 as we awaited a court ruling on our affirmative defenses. In third quarter of fiscal 2017, the court ruled against us on our affirmative defenses and we subsequently appealed the judgment entered against us.

Advertising expense was 0.2 percentage points higher as a percentage of sales during fiscal 2017 compared with fiscal 2016, as we strategically increased spending on our Live Life Comfortably® marketing campaign.

Warranty expense was 0.3 percentage points higher as a percentage of sales during fiscal 2016 compared with fiscal 2015. Our warranty expense was higher primarily due to higher replacement part costs and labor costs from our more complex product lines. Additionally, our warranty expense was higher during fiscal 2016 due to favorable accrual adjustments during fiscal 2015 which reflected a change in the prior estimates of our product warranty liability during that time period.

#### Casegoods Segment

## Sales

Our Casegoods segment's sales decreased \$2.3 million in fiscal 2017 compared with fiscal 2016, following a decrease of \$7.2 million in fiscal 2016 compared with fiscal 2015. The additional week in fiscal 2016 resulted in approximately \$2 million of additional sales based on the average weekly sales for the year.

The segment's sales decrease in fiscal 2017 was mostly due to fiscal 2017 including only 52 weeks while fiscal 2016 included 53 weeks, in addition to a decline in unit volume. We believe the lower volume resulted from weaker demand throughout the home furnishings sector, which has been more prominent for casegoods product than for other product categories. The volume decline was somewhat offset by lower promotional activity on discontinued product.

The segment's sales decrease in fiscal 2016 was due to eliminating our hospitality product line when we ceased domestic manufacturing of our wood furniture. The elimination of this product line resulted in \$3.7 million lower sales in fiscal 2016 compared with fiscal 2015. In addition, as we have shifted our product line to more transitional and casual styles over the last few years, we have been selling through older product lines. Higher promotional activity related to these older product lines during fiscal 2015 resulted in higher sales during that period.

## Operating Margin

Our Casegoods segment's operating margin increased 1.1 percentage points in fiscal 2017 compared with the prior year, following an increase of 1.7 percentage points in fiscal 2016 compared with the prior year.

The segment's gross margin increased 1.4 percentage points during fiscal 2017 compared with fiscal 2016, following an increase of 0.9 percentage points during fiscal 2016 compared with fiscal 2015.

During fiscal 2017, the segment's gross margin increased due to lower promotional activity related to discontinued product and lower freight expense on imported product.

During fiscal 2016, the transition to an all-import model for our wood furniture and the consolidation of our casegoods operations, as well as less discounting due to lower promotional activity in fiscal 2016, drove the improved gross margin for the segment.

The segment's SG&A expense as a percentage of sales increased 0.3 percentage points during fiscal 2017 compared with fiscal 2016, following a decrease of 0.8 percentage points during fiscal 2016 compared with fiscal 2015.

During fiscal 2017, the increased SG&A expense was primarily due to our inability to absorb fixed SG&A costs on the lower sales volume.

During fiscal 2016, the decreased SG&A expense was mainly due to lower incentive compensation resulting from lower financial performance of the segment against the incentive-based targets compared with our financial performance in fiscal 2015 against the prior year targets. Also, we decreased our SG&A expense through the consolidation of our casegoods operations into one corporate office and the elimination of redundant expenses.

## Retail Segment

### Sales

Our Retail segment's sales increased \$40.8 million in fiscal 2017 compared with fiscal 2016, following an increase of \$68.5 million in fiscal 2016 compared with fiscal 2015. The additional week in fiscal 2016 resulted in approximately \$8 million of additional sales based on the average weekly sales for the year.

In fiscal 2017, the segment's sales increased \$55.8 million from our acquired stores and \$10.8 million from our new stores. These increases were somewhat offset by a \$25.8 million

decrease in sales from stores that had been open a minimum of 12 months, a decline of 7.2% of which about 2% relates to the extra week. The decrease in sales from these stores was primarily driven by lower store traffic, but an increase in our average ticket, resulting from increases in design services and custom orders, lessened the impact of the lower traffic.

In fiscal 2016, the segment's sales increase was due to our acquired stores, which added \$22.4 million in sales for the segment in fiscal 2016. Additionally, sales from stores that had been open for a minimum of 12 months increased by \$14.0 million, or 7.5% of which about 2% relates to the extra week. The increased volume was primarily a result of an increase in average ticket resulting from higher custom orders, increased design services, and a shift to more powered units. The remainder of the sales increase came from our new stores.

#### Operating Margin

Our Retail segment's operating margin decreased 2.1 percentage points in fiscal 2017 compared with the prior year, following an increase of 3.0 percentage points in fiscal 2016 compared with the prior year.

The segment's gross margin increased 0.1 percentage point during fiscal 2017 compared with fiscal 2016, following an increase of 1.3 percentage points in fiscal 2016 compared with fiscal 2015.

During fiscal 2017 and fiscal 2016, a higher percentage of custom orders and increased design services drove the increase in gross margin compared with the prior years. Additionally, during fiscal 2016, a shift to more powered units increased the segment's gross margin compared with fiscal 2015.

The segment's SG&A expense as a percentage of sales increased 2.2 percentage points during fiscal 2017 compared with fiscal 2016, following a decrease of 1.7 percentage points in fiscal 2016 compared with fiscal 2015.

SG&A expenses as a percentage of sales were higher in fiscal 2017 compared with fiscal 2016, due to a 1.2 percentage point increase in advertising expense, as we strategically increased spending on our Live Life Comfortably® marketing campaign and on promotional marketing to enhance our share of voice in selected markets. The remainder of the increase in SG&A expense as a percentage of sales was the result of the fixed nature of many of our costs (primarily occupancy and administrative costs) in relation to the decline in sales from stores that had been open a minimum of 12 months.

SG&A expense in fiscal 2016 was lower than in fiscal 2015 as a percentage of sales, driven by our sales volume increase in fiscal 2016 from stores that had been open for a minimum of 12 months, which allowed us to leverage our fixed SG&A expenses (primarily occupancy and administrative costs) as a percentage of sales in fiscal 2016 compared with fiscal 2015. This impact was partially offset because we increased advertising spending by 0.4 percentage points as a percentage of sales on our Live Life Comfortably® marketing campaign and on promotional marketing to support our retail stores and enhance our share of voice in selected markets.

#### Corporate and Other

##### Sales

Corporate and Other sales increased in fiscal 2017 and fiscal 2016 compared with the prior years due to intercompany commission revenue charged to our reportable segments by our global trading company in Hong Kong. Operations of our global trading company were just beginning in early fiscal 2016 and resulted in lower commissions charged during fiscal 2016 and no commissions charged during fiscal 2015.

Eliminations increased in both fiscal 2017 and fiscal 2016 compared with the prior years due to higher sales from our Upholstery and Casegoods segments to our Retail segment, mainly due to our new stores and store acquisitions. The elimination of the intercompany commission revenue of our global trading company in Hong Kong also contributed to the increase in eliminations in both fiscal years.

#### Operating Margin

Our Corporate and Other operating loss was \$1.6 million lower in fiscal 2017 compared with fiscal 2016, due to lower net expense associated with our global trading company in Hong Kong. Net expenses of our global trading company were lower in fiscal 2017 compared with fiscal 2016 due to the increased intercompany commission revenue charged to our reportable segments.

Our Corporate and Other operating loss was \$8.0 million higher in fiscal 2016 compared with fiscal 2015, primarily due to higher incentive compensation costs of \$2.2 million, as well as higher costs associated with our global trading company in Hong Kong and increased depreciation expense for our new world headquarters.

#### Interest Expense

Interest expense was \$0.6 million higher in fiscal 2017 compared with fiscal 2016. As a result of the judgment entered against us in a legal dispute over whether we owe royalties on certain power units, we recognized \$0.5 million of interest expense during fiscal 2017. Interest expense was flat in fiscal 2016 compared with fiscal 2015.

#### Other Income (Expense)

Other income (expense) was \$2.2 million lower in fiscal 2017 compared with fiscal 2016, due to lower foreign currency exchange rate gains realized during fiscal 2017 than in fiscal 2016.

Other income (expense) was \$1.5 million higher in fiscal 2016 compared with fiscal 2015, due to higher foreign currency exchange rate gains realized during fiscal 2016 than in fiscal 2015.

#### Income from Continued Dumping and Subsidy Offset Act

The Continued Dumping and Subsidy Offset Act of 2000 provided for distribution of duties collected by U.S. Customs and Border Protection from antidumping cases to domestic producers that supported the antidumping petition related to wooden bedroom furniture imported from China. We received pre-tax distributions of \$0.3 million and \$0.1 million during fiscal 2017 and fiscal 2016, respectively. We received pre-tax distributions of \$1.2 million related to continuing operations and \$4.2 million related to discontinued operations during fiscal 2015.

#### Income Taxes

Our effective tax rate for continuing operations was 33.5% for fiscal 2017, 35.3% for fiscal 2016, and 35.0% for fiscal 2015.

Impacting our effective tax rate for fiscal 2017 was a net tax benefit of \$1.4 million primarily from the release of valuation allowances relating to certain U.S. state deferred tax assets and state income tax credits. Absent discrete adjustments, the effective tax rate for continuing operations in fiscal 2017 would have been 34.6%.

Impacting our effective tax rate for fiscal 2016 was a net tax benefit of \$0.3 million for the release of valuation allowances relating to certain U.S. state deferred tax assets. Absent discrete adjustments, the effective tax rate for continuing operations in fiscal 2016 would have been 35.6%.

Impacting our effective tax rate for fiscal 2015 was a net tax benefit of \$0.4 million for the release of valuation allowances relating to certain U.S. state deferred tax assets. Absent

discrete adjustments, the effective tax rate for continuing operations in fiscal 2015 would have been 35.4%.

#### Liquidity and Capital Resources

Our sources of liquidity include cash and equivalents, short-term and long-term investments, cash from operations, and amounts available under our credit facility. We believe these sources remain adequate to meet our short-term and long-term liquidity requirements, finance our long-term growth plans, and fulfill other cash requirements for day-to-day operations, dividends to shareholders, and capital expenditures. We had cash and equivalents of \$141.9 million at April 29, 2017, compared with \$112.4 million at April 30, 2016. In addition, we had investments to enhance our returns on cash of \$33.1 million at April 29, 2017, compared with \$33.6 million at April 30, 2016.

We maintain a revolving credit facility secured primarily by all of our accounts receivable, inventory, and cash deposit and securities accounts. Availability under the agreement fluctuates according to a borrowing base calculated on eligible accounts receivable and inventory. The credit agreement includes affirmative and negative covenants that apply under certain circumstances, including a fixed-charge coverage ratio requirement that applies when excess availability under the line is less than certain thresholds. At April 29, 2017, we were not subject to the fixed-charge coverage ratio requirement, had no borrowings outstanding under the agreement, and had excess availability of \$141.9 million of the \$150.0 million credit commitment.

Capital expenditures for fiscal 2017 were \$20.3 million compared with \$24.7 million for fiscal 2016. We believe capital expenditures will be in the range of \$50 to \$55 million for all of fiscal 2018. We started construction on our new Innovation Center and other upgrades to our largest manufacturing campus in Dayton, Tennessee in the fourth quarter of fiscal 2017, and we expect that construction will continue into fiscal 2020. We currently estimate that we will incur approximately \$14 million related to the new Innovation Center in fiscal 2018. Additionally, we currently anticipate increased capital expenditures in fiscal 2018 related to other facility and manufacturing equipment upgrades.

Our board of directors has sole authority to determine if and when we will declare future dividends and on what terms. We expect the board to continue declaring regular quarterly cash dividends for the foreseeable future, but it may discontinue doing so at any time.

We believe our cash flows from operations, present cash and equivalents balance of \$141.9 million, short and long-term investments to enhance returns on cash of \$33.1 million, and current excess availability under our credit facility of \$141.9 million, will be sufficient to fund our business needs, including fiscal 2018 contractual obligations of \$159.2 million as presented in our contractual obligations table. Included in our cash and cash equivalents at April 29, 2017, is \$51.3 million held by foreign subsidiaries for which we have determined the amounts to be permanently reinvested. Included in that \$51.3 million is cash that we transferred to one of our foreign subsidiaries in anticipation of our payment, due in fiscal 2018, for the acquisition of the La-Z-Boy wholesale business in the United Kingdom and Ireland.

The following table illustrates the main components of our cash flows:

#### Operating Activities

During fiscal 2017, net cash provided by operating activities was \$146.2 million. Our cash provided by operating activities was primarily attributable to net income generated during fiscal 2017 and a \$12.5 million reduction in inventory. Our ability to improve our inventory

efficiency and productivity more than offset an increase in finished goods inventory during fiscal 2017.

During fiscal 2016, net cash provided by operating activities was \$112.4 million. Our cash provided by operating activities was primarily attributable to net income generated during fiscal 2016 and cash collections of accounts receivable of \$10.7 million, driven by the continued improvement in the financial health of our customer base, especially our independent La-Z-Boy Furniture Galleries® dealers. Somewhat offsetting these items were cash used to fund increases in inventories of \$14.6 million and a contribution to our pension plan of \$7.0 million. Our inventories were higher in fiscal 2016 primarily due to higher raw materials inventory, mainly leather and fabric sets, to improve our service levels to our customers.

During fiscal 2015, net cash provided by operating activities was \$86.8 million. Our cash provided by operating activities was primarily attributable to net income generated during fiscal 2015. Partly offsetting net income was cash used to fund increases in inventories and to settle incentive compensation awards. The \$7.6 million increase in inventories in fiscal 2015 was primarily due to higher raw materials inventory in our Upholstery segment as we positioned our inventory levels to meet our customer demands at that time.

#### Investing Activities

During fiscal 2017, net cash used for investing activities was \$65.3 million, which included \$35.9 million to fund the acquisition of retail stores, \$20.3 million for capital expenditures, and \$9.8 million for net investment increases. Capital expenditures during the period primarily related to spending on manufacturing machinery and equipment, our continued ERP system implementation, and construction of our new Innovation Center.

During fiscal 2016, net cash used for investing activities was \$36.6 million, which included \$23.3 million to fund the acquisition of retail stores, and \$24.7 million for capital expenditures, which was somewhat offset by net investment decreases of \$7.7 million. Capital expenditures during the period primarily related to spending on manufacturing machinery and equipment, our continued ERP system implementation, our e-commerce web site, and the relocation of one of our regional distribution centers. Additionally, the above uses of cash were partially offset by proceeds from the sale of assets, including assets previously held for sale, as well as a reduction in restricted cash, which secures our outstanding letters of credit, of \$3.7 million.

During fiscal 2015, net cash used for investing activities was \$66.7 million, which included \$70.3 million for capital expenditures. Capital expenditures during the period primarily related to spending on our new world headquarters, as well as spending on new stores and manufacturing machinery and equipment. In addition, we invested \$6.6 million of cash in fiscal 2015, primarily to purchase life insurance contracts related to our executive deferred compensation plan and our performance compensation retirement plan. Partly offsetting these items were proceeds from the sale of assets, including assets previously held for sale, as well as a reduction in restricted cash, which secures our outstanding letters of credit, of \$12.0 million.

#### Financing Activities

During fiscal 2017, net cash used for financing activities was \$51.6 million, including \$36.0 million used to purchase our common stock and \$20.7 million paid to our shareholders in quarterly dividends.

During fiscal 2016, net cash used for financing activities was \$61.0 million, including \$44.1 million used to purchase our common stock and \$18.1 million paid to our shareholders in quarterly dividends.

During fiscal 2015, net cash used for financing activities was \$71.2 million, including \$51.9 million used to purchase our common stock and \$14.5 million paid to our shareholders in quarterly dividends. Additionally, we used \$7.6 million of cash to pay down debt.

Our board of directors has authorized the purchase of company stock. As of April 29, 2017, 2.7 million shares remained available for purchase pursuant to this authorization. The authorization has no expiration date. We purchased 1.4 million shares during fiscal 2017 for a total of \$36.0 million. In June of 2017, the board of directors authorized an additional six million shares that will be added to this authorization and with the cash flows we anticipate generating in fiscal 2018, we expect to continue being opportunistic in purchasing company stock.

Other

The following table summarizes our contractual obligations of the types specified:

Our consolidated balance sheet at the end of fiscal 2017 reflected a \$0.9 million net liability for uncertain income tax positions. We do not expect that the net liability for uncertain income tax positions will significantly change within the next 12 months. We will either pay or release the liability for uncertain income tax positions as tax audits are completed or settled, statutes of limitation expire or other new information becomes available.

Continuing compliance with existing federal, state and local statutes addressing protection of the environment is not expected to have a significant effect upon our capital expenditures, earnings, competitive position or liquidity.

Business Outlook

We are optimistic about the opportunities before us. Given the strength of the La-Z-Boy brand, we believe the company is solidly positioned in the marketplace with a core demographic that will continue to expand. Investments in our digital platforms will provide for additional growth opportunities as we will be able to effectively leverage those initiatives to expose more people to the brand as well as to continue to make other strategic investments in our business to drive long-term sales and earnings growth. During the summer months, however, the furniture industry typically experiences weaker demand, and the majority of our plants shut down for one week of vacation and maintenance in July, during the first quarter. Accordingly, the first quarter is usually the company's weakest in sales and earnings.

Critical Accounting Policies

We prepare our consolidated financial statements in conformity with U.S. generally accepted accounting principles. In some cases, these principles require management to make difficult and subjective judgments regarding uncertainties and, as a result, such estimates and assumptions may significantly impact our financial results and disclosures. We base our estimates on currently known facts and circumstances, prior experience and other assumptions we believe to be reasonable. We use our best judgment in valuing these estimates and may, as warranted, use external advice. Actual results could differ from these estimates, assumptions, and judgments and these differences could be significant. We make frequent comparisons throughout the year of actual experience to our assumptions to reduce the likelihood of significant adjustments. We record adjustments when we know such differences. The following critical accounting policies affect our consolidated financial statements.

Revenue Recognition and Related Allowances

Substantially all of our shipping agreements with third-party carriers transfer the risk of loss to our customers upon shipment. Accordingly, our shipments using third-party carriers are generally recognized as revenue when product is shipped. For product shipped on our company-



owned trucks, we recognize revenue when the product is delivered. This revenue includes amounts we billed to customers for shipping. At the time we recognize revenue, we make provisions for estimated product returns and warranties, as well as other incentives that we may offer to customers. We also recognize revenue for amounts we receive from our customers in connection with our shared advertising cost arrangement. We import certain products from foreign ports, some of which are shipped directly to our domestic customers. In those cases, we do not recognize revenue until title passes to our customer, which normally occurs after the goods pass through U.S. Customs.

Incentives that we offer to our customers include cash discounts and other sales incentive programs. We record estimated cash discounts and other sales incentives as reductions of revenues when we recognize the revenue.

Trade accounts receivable arise from our sale of products on trade credit terms. Our management team reviews all significant accounts quarterly as to their past due balances and the collectability of the outstanding trade accounts receivable for possible write off. It is our policy to write off the accounts receivable against the allowance account when we deem the receivable to be uncollectible. Additionally, we review orders from dealers that are significantly past due, and we ship product only when our ability to collect payment for the new sales is reasonably assured.

Our allowance for credit losses reflects our best estimate of probable incurred losses inherent in the accounts receivable balance. We determine the allowance based on known troubled accounts, historical experience and other currently available evidence.

#### Long-Lived Assets

We review long-lived assets for impairment whenever events or changes in circumstances indicate that we may not be able to recover the carrying amount of an asset or asset group. Using either quoted market prices or an analysis of undiscounted projected future cash flows by asset groups, we determine whether there is any indicator of impairment requiring us to further assess the fair value of our long-lived assets. Our asset groups consist of our operating units in our Upholstery segment (La-Z-Boy and England), our Casegoods segment, and each of our retail stores.

#### Intangible Assets and Goodwill

We test intangibles and goodwill for impairment on an annual basis in the fourth quarter of each fiscal year, and more frequently if events or changes in circumstances indicate that an asset might be impaired. Indefinite-lived intangible assets include our American Drew trade name, and the reacquired right to own and operate La-Z-Boy Furniture Galleries® stores in markets we have acquired. Amortizable intangible assets include the reacquired right to sell La-Z-Boy branded product in the United Kingdom and Ireland and other intangible assets related to the acquisition of the La-Z-Boy wholesale business in the United Kingdom and Ireland, including acquired customer relationships. We establish the fair value of our trade name and reacquired rights based upon the relief from royalty method. We establish the fair value of our other amortizable intangible assets based on the multi-period excess earnings method, a variant of the income approach, and also the relief from royalty method. Our goodwill relates to the acquisition of La-Z-Boy Furniture Galleries® stores in various geographic markets and the La-Z-Boy wholesale business in the United Kingdom and Ireland. The reporting units for goodwill arising from retail acquisitions are the geographic markets the acquired stores become part of upon acquisition, because the operations of the acquired stores benefit these geographic markets. The reporting unit for goodwill arising from the acquisition of the La-Z-Boy wholesale business

in the United Kingdom and Ireland is that business. We establish the fair value for the reporting unit based on the discounted cash flows to determine if the fair value of our goodwill exceeds its carrying value.

#### Other Loss Reserves

We have various other loss exposures arising from the ordinary course of business, including inventory obsolescence, health insurance, litigation, environmental claims, insured and self-insured workers' compensation, restructuring charges, and product liabilities. Establishing loss reserves requires us to use estimates and management's judgment with respect to risk and ultimate liability. We use legal counsel or other experts, including actuaries as appropriate, to assist us in developing estimates. Due to the uncertainties and potential changes in facts and circumstances, additional charges related to these reserves could be required in the future.

We have various excess loss coverages for health insurance, auto, product liability and workers' compensation liabilities. Our deductibles generally do not exceed \$1.5 million.

#### Income Taxes

We use the asset and liability method to account for income taxes. We recognize deferred tax assets and liabilities based on the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. We measure deferred tax assets and liabilities using enacted tax rates in effect for the year in which we expect to recover or settle those temporary differences. When we record deferred tax assets, we are required to estimate, based on forecasts of taxable earnings in the relevant tax jurisdiction, whether we are more likely than not to recover on them. In making judgments about realizing the value of our deferred tax assets, we consider historic and projected future operating results, the eligible carry-forward period, tax law changes and other relevant considerations.

#### Pensions

We maintain a defined benefit pension plan for eligible factory hourly employees at our La-Z-Boy operating unit. The plan does not allow new participants, but active participants continue to earn service credits. Annual net periodic expense and benefit liabilities under the plan are determined on an actuarial basis using various assumptions and estimates including discount rates, long-term rates of return, estimated remaining years of service, and estimated life expectancy. Each year, we compare the more significant assumptions used to our actual experience, and we adjust the assumptions if warranted.

We evaluate our pension plan discount rate assumption annually. The discount rate is based on a single rate developed after matching a pool of high-quality bond payments to the plan's expected future benefit payments. We used a discount rate of 4.1% at April 29, 2017 and April 30, 2016, compared with a rate of 4.2% at April 25, 2015. We used the same methodology for determining the discount rate in fiscal 2017, fiscal 2016, and fiscal 2015.

We fund pension benefits through deposits with trustees and satisfy, at a minimum, the applicable funding regulations.

In addition to evaluating the discount rate we use to determine our pension obligation, each year we evaluate our assumption as to our expected return on plan assets, taking into account the trust's asset allocation, investment strategy, and returns expected to be earned over the life of the plan. The rate of return assumption was 4.5% at April 29, 2017 and April 30, 2016. The expected rate of return assumption as of April 29, 2017, will be used to determine pension expense for fiscal 2018.

We are planning to make a discretionary contribution of approximately \$2 million to our defined benefit pension plan in fiscal 2018, although no contribution is required. After considering all relevant assumptions, we expect that the plan's fiscal 2018 pension expense will be approximately \$4.2 million, compared with \$4.0 million in fiscal 2017. A 25 basis point change in our discount rate or expected return on plan assets would not have a material impact on our results of operations.

#### Product Warranties

We account for product warranties by accruing an estimated liability when we recognize revenue on the sale of warranted product. We estimate future warranty claims based on claim experience and any additional anticipated future costs on previously sold product. We incorporate repair costs in our liability estimates, including materials, labor, and overhead amounts necessary to perform repairs, and any costs associated with delivering repaired product to our customers and consumers. We use considerable judgment in making our estimates. We record differences between our estimated and actual costs when the differences are known.

#### Stock-Based Compensation

We measure stock-based compensation cost for equity-based awards on the grant date based on the awards' fair value, and recognize expense over the vesting period. We measure stock-based compensation cost for liability-based awards on the grant date based on the awards' fair value, and recognize expense over the vesting period. We remeasure the liability for these awards and adjust their fair value at the end of each reporting period until paid. We recognize compensation cost for stock-based awards that vest based on performance conditions ratably over the vesting periods when the vesting of such awards becomes probable. Determining the probability of award vesting requires judgment, including assumptions about future operating performance. While the assumptions we use to calculate and account for stock-based compensation awards represent management's best estimates, these estimates involve inherent uncertainties and the application of our management's best judgment. As a result, if we revise our assumptions and estimates, our stock-based compensation expense could be materially different in the future.

We estimate the fair value of each option grant using a Black-Scholes option-pricing model. We estimate expected volatility based on the historic volatility of our common shares. We estimate the average expected life using the contractual term of the stock option and expected employee exercise and post-vesting employment termination trends. We base the risk-free rate on U.S. Treasury issues with a term equal to the expected life assumed at the date of grant. We estimate forfeitures at the date of grant based on historic experience.

We estimate the fair value of each performance award grant that vests based on a market condition using a Monte Carlo valuation model. The Monte Carlo model incorporates more complex variables than closed-form models such as the Black-Scholes option valuation model used for option grants. The Monte Carlo valuation model simulates a distribution of stock prices to yield an expected distribution of stock prices over the remaining performance period. The stock-paths are simulated using volatilities calculated with historical information using data from a look-back period that is equal to the vesting period. The model assumes a zero-coupon, risk-free interest rate with a term equal to the vesting period. The simulations are repeated many times and the mean of the discounted values is calculated as the grant date fair value for the award. The final payout of the award as calculated by the model is then discounted back to the grant date using the risk-free interest rate.

Both the Monte Carlo and Black-Scholes methodologies are based, in part, on inputs for which there are little or no observable market data, requiring us to develop our own assumptions. Inherent in both of these models are assumptions related to expected stock-price volatility, expected life, risk-free interest rate, and dividend yield.

#### Recent Accounting Pronouncements

The following is a discussion of the recent accounting pronouncements issued by the Financial Accounting Standards Board ("FASB") that we are currently assessing and which we believe could have a significant impact on our financial statements or related disclosures.

In May 2014, the FASB issued a new accounting standard that requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The new standard supersedes virtually all existing authoritative accounting guidance on revenue recognition and requires additional disclosures and greater use of estimates and judgments. During July 2015, the FASB deferred the effective date of the revenue recognition standard by one year, thus making the new accounting standard effective for our fiscal 2019. We are currently reviewing our contracts and other revenue streams, gathering documentation, and developing our new accounting policy related to this standard. At this time, we believe we will ultimately choose the modified retrospective approach to implementing the new standard when it becomes effective for our fiscal 2019, but we are still assessing the overall impact this standard will have on our consolidated financial statements and financial statement disclosures.

In February 2016, the FASB issued a new accounting standard requiring all operating leases that a lessee enters into to be recorded on their balance sheet. Under this new standard, the lessee is required to record an asset for the right to use the underlying asset for the lease term and a corresponding liability for the contractual lease payments. This standard is effective for our fiscal 2020. We are currently reviewing our leases and gathering the necessary information and tools to adopt this standard when it becomes effective for our fiscal 2020. We anticipate that adoption of this standard will have a significant impact on our consolidated balance sheet as we have a significant number of operating leases.

In March 2016, the FASB issued a new accounting standard focused on simplifying the accounting for share-based payments. The standard includes changes to the accounting for income taxes related to share-based payments as well as changes to the presentation of these tax impacts on the statement of cash flows. We will adopt this standard in the first quarter of our fiscal 2018. Any increased volatility in our consolidated statement of income as a result of applying the provisions of this standard will be dependent on future vesting activity and volatility in our stock price. We plan to continue to estimate expected forfeitures.

In June 2016, the FASB issued a new accounting standard that amends current guidance on other-than-temporary impairments of available-for-sale debt securities. This amended standard requires the use of an allowance to record estimated credit losses on these assets when the fair value is below the amortized cost of the asset. This standard also removes the evaluation of the length of time that a security has been in a loss position to avoid recording a credit loss. We are required to adopt this standard for our fiscal 2021 and apply it through a cumulative-effect adjustment to retained earnings. We are still assessing the impact this standard will have on our consolidated financial statements and related disclosures.

In October 2016, the FASB issued a new accounting standard that requires entities to recognize the income tax consequences of an intra-entity transfer of assets other than inventory when the transfer occurs. This standard will be applicable for our fiscal 2019. We are still

assessing the impact this standard will have on our consolidated financial statements and related disclosures.

In January 2017, the FASB issued a new accounting standard clarifying the definition of a business with the objective of adding guidance to evaluating whether a transaction should be accounted for as an acquisition. This standard will be applicable for our fiscal 2019. We are still assessing the impact this standard will have on our consolidated financial statements and related disclosures.

In January 2017, the FASB issued a new accounting standard simplifying the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. An entity should now perform its annual or interim goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. This standard will be applicable for our fiscal 2021. We are still assessing the impact this standard will have on our consolidated financial statements and related disclosures.