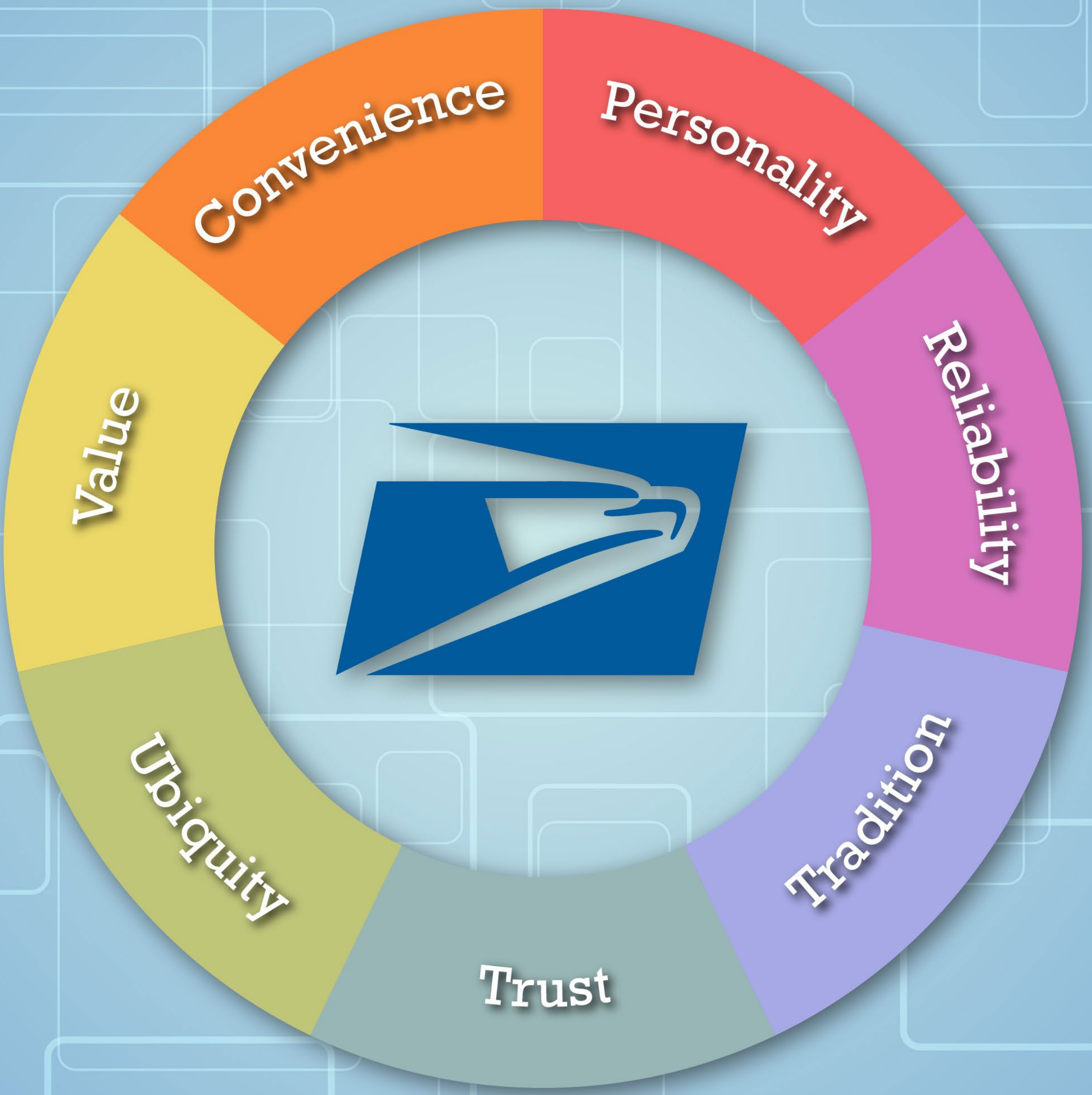
OFFICE OF
INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

The Value of the U.S. Postal Service Brand



RARC Report

Report Number
RARC-WP-15-005

January 28, 2015

OFFICE OF INSPECTOR GENERAL
UNITED STATES POSTAL SERVICE

Executive Summary

A corporate brand consists largely of intangible qualities that customers associate with and expect from a particular company. It is a critical strategic and financial asset. To get maximum financial value out of a brand, it should be measured and managed on a consistent basis.

To date, there has been no brand valuation of the U.S. Postal Service, although brand valuation is a management tool increasingly used by many successful firms.[1] The U.S. Postal Service Office of Inspector General (OIG) worked with Premier Quantitative Consulting (PQC), experts in brand valuation, to develop a quantitative model and baseline estimate of the Postal Service's brand value.[2] Based on extensive research and analysis, PQC conservatively estimates that the Postal Service brand value was $3.6 billion in fiscal year 2013.[3] That is, the Postal Service realized $3.6 billion in financial benefits because of its brand.[4] PQC arrived at this number by using the residual income method — a rigorous and professionally-accepted valuation methodology, which is explained in detail in the attached white paper. The PQC

Highlights

Brand valuation is an important and increasingly used management tool.

The Postal Service's brand value is $3.6 billion, based on research and modelling performed by experts PQC for the OIG.

This estimate is far lower than similar estimates for UPS, DHL, and FedEx, which run in the $9-$43 billion range.

PQC asserts that there is still untapped financial value in the Postal Service brand.

In order for the brand to achieve its maximum value, it should be measured over time, using a consistent methodology.

The PQC baseline brand valuation model is transparent and replicable.

1 "Brand valuation is often conducted at the request of senior management to provide guidance on the strategic use of corporate resources." David Haigh, *Brand Valuation: A Guide to Current Best Practice*, quoted in *Kellogg on Branding*, John Wiley, Hoboken, NJ. 2005, p. 246. To the OIG's knowledge, no similar attempt at a foundational study of the U.S. Postal Service brand value has been made.

2 The Excel model is appended to the PQC white paper.

3 Of course, the Postal Service's value to its customers and to the country goes far beyond a point estimate of brand value. See, for example, U.S. Postal Service Office of Inspector General, *The Postal Service's Role as Infrastructure*, Report No. RARC-WP-15-003, December 15, 2014, https://www.uspsoig.gov/sites/default/files/document-library-files/2014/rarc-wp-15-003.pdf; *What America Wants and Needs from the Postal Service*, Report No. RARC-WP-14-009, February 18, 2014, https://www.uspsoig.gov/sites/default/files/document-library-files/2014/rarc-wp-14-009_1.pdf; *100 Years of Parcel Post,* Report No. RARC-WP-14-004, December 20, 2013, https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-14-004.pdf; and *The Untold Story of the ZIP Code*, Report No. RARC-WP-13-006, April 1, 2013, https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-13-006.pdf.

4 From a different perspective, if the firm did not possess the brand, it would forgo the $3.6 billion in financial benefits.

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Changing the PQC model's assumptions would likely increase the estimate of Postal Service brand value, because PQC's assumptions are very conservative.

model is transparent, replicable, and available to anyone who wants to enter different numbers or use different assumptions.[5]

The Postal Service $3.6 billion valuation is significantly lower than the brand values estimated for companies that compete primarily in package services, including DHL, FedEx, and UPS. Brand valuations for these companies range from about $9 billion to $43 billion.[6] "This difference is not surprising," PQC states, "given the emphasis and level of expenditures placed on advertising and marketing by these firms. Over the years they have consistently invested in their brands and developed strong brand equity, consciously following a strategy designed to make consumers aware of and loyal to these brands."[7] Moreover, the financial condition of the Postal Service, including high profiled "doomsday scenarios," have adversely affected its brand.[8]

There are several other key points to keep in mind:

- The PQC estimate is a brand valuation estimate, not a corporate valuation estimate.
  - Brand valuation is the formal valuation of a broad scope of elements surrounding a brand that include name, logo, and other verbal and visual elements, as well as intangible aspects such as a promise, personality, or emotion that consumers associate with an entity when purchasing products or services.[9] Brand valuation can be a valuable management tool, especially when the same approach and methodology are used over time.[10]
  - Corporate valuation may be conducted for many different reasons, including, but not limited to, strategic planning, analysis of a potential merger or acquisition, and potential financing purposes.
- Sub-brands that fall under the corporate or umbrella brand are not included in the $3.6 billion estimate. If sub-brands, especially those of competitive products such as Priority Mail, were included, the total brand valuation estimate would be higher.[11]
- Sensitivity analyses in the PQC model explore how different assumptions can affect the estimate. Changing the assumptions would likely increase the estimate of brand value. Fluctuations in the assumed discount rate can produce the most dramatic changes in valuations.
- Estimates include the impact of the Universal Service Obligation (USO) and the price cap constraint, which both lower brand value. The postal monopoly increases brand value.
- Brand attributes are underlying components of the brand that are inter-related and, thus, cannot be valued independently, but they should be recognized in brand strategies and brand health surveys.[12] See Tabs A and B.

While acknowledging recent Postal Service brand efforts, PQC's work suggests ways that the Postal Service could create more value for customers and for the Postal Service itself through enhancing brand activities. These include

- Utilize good news. The Postal Service's public relations strategies must truthfully relate negative news, but not at the expense of excluding positive news and countering misleading attacks on the brand. Continuous negative messages can undercut the value of the brand.

5 The method involves capitalization of the Postal Service's residual net annual operating income after deducting return on tangible and other identifiable intangible assets (delivery system and network). See Appendix C of PQC white paper and the Excel model for details.
6 See PQC white paper, pp. 9 and 39.
7 PQC, "Valuation of the Postal Service Brand," p.9. PQC notes that the Postal Service also partners with these companies to provide last mile service in delivering packages to addresses that companies like UPS and FedEx are unable to serve." Footnote, p. 9.
8 PQC white paper, p. 27 and OIG analysis, based on multiple interviews of postal executives across functions conducted by PQC and the OIG in July and August 2014.
9 PQC white paper, p. 17. For a thorough discussion of brand valuation, see Gabriela Salinas, *The International Brand Valuation Manual*, (Chichester, England: Wiley, 2009), and J.N. Kapferer, *The New Strategic Brand Management*, (Philadelphia: Kogan Page, 2012), Chapter 18.
10 This consistency is necessary regardless of which professionally accepted brand valuation approach and specific methods are used. Although their approaches may all fall within International Organization for Standardization (ISO) standards for brand valuation, different valuation firms estimate very different brand values for a particular company.
11 In discussions with PQC, the firm notes that a portion — but not all — of the sub-brand value is included in the corporate brand valuation. Further, if they had broken out the sub-brands separately, they would have used a different set of data, and likely, a different brand valuation methodology. See PQC white paper, p. 30, footnote 38.
12 The Postal Service recently relaunched research on brand health after several years' hiatus. According to multiple interviews of postal executives across functions conducted by PQC and the OIG in July and August 2014, this Postal Service brand health data is proprietary, and the extent to which it is used by senior management outside of Marketing is unclear.

Building additional brand value and equity will require a management commitment to the brand across the organization.

- Effectively manage licensing activity to increase brand awareness as well as grow licensing revenue. Assure that active trademarks and other intellectual property are fully utilized.
- Engage employees at all levels directly in the brand through enhanced training and communication. Encourage all employees to represent the brand positively, both on and off the job. They are the true "face of the brand." See Tab C.
- Use the brand constructively and consistently. In addition to the positive public relations strategies discussed above, increased marketing activities and advertising are historically effective.

The ultimate goal of this study is to highlight ways to protect the brand and build brand equity, which represents the cumulative effect of consumers' associations and perceptions of a brand over time.[13] Postal Service strategies to protect the brand should include countermeasures to correct inaccuracies when the organization and its financial condition are described in misleading ways.

Building additional brand value and equity will require a management commitment to the brand across the organization, along with consistent strategies to maximize, measure, and monitor its value and the cumulative benefits that accrue from it.

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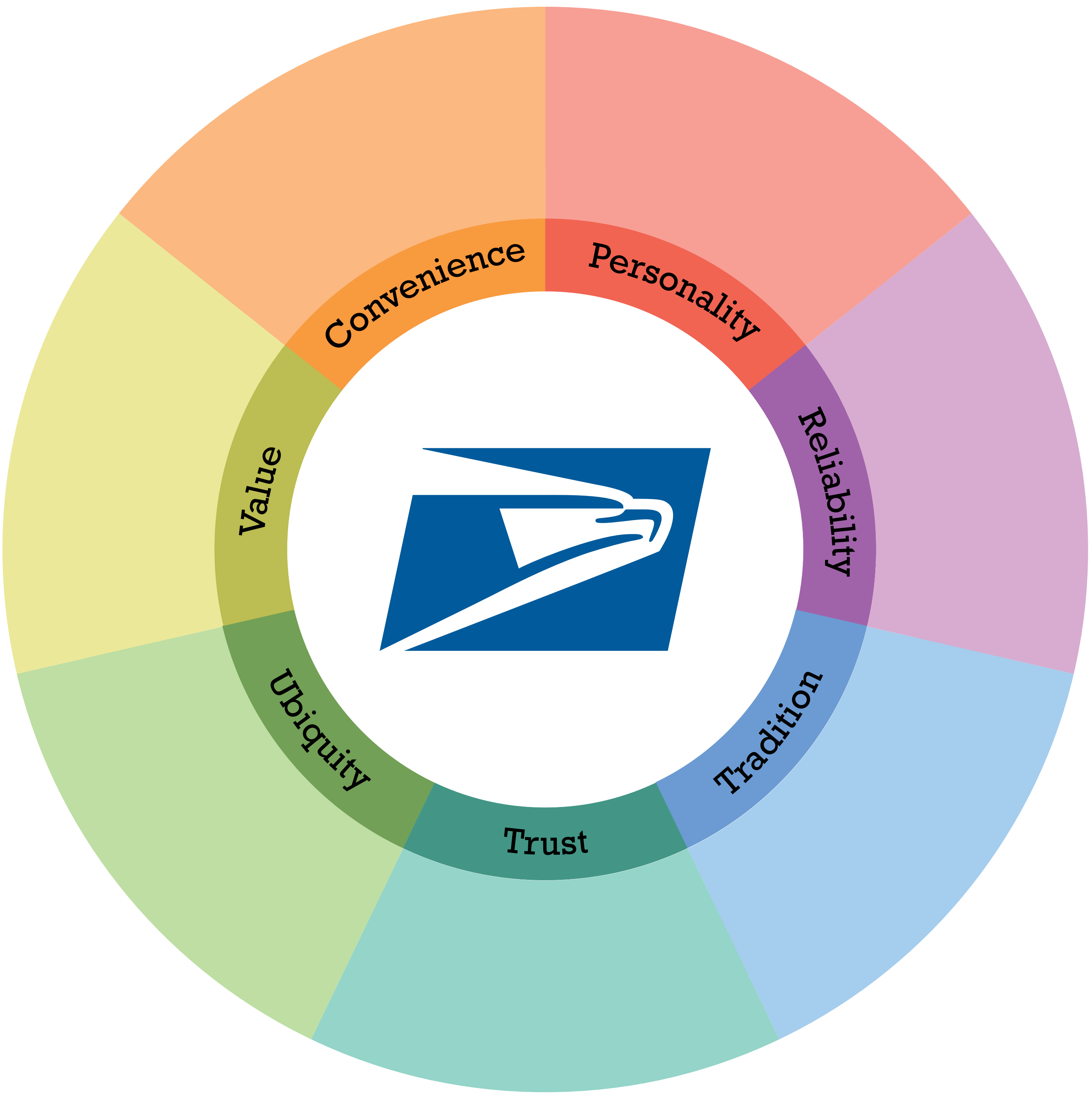
13 Brand value represents an estimate of the value of the brand at a specific point in time. Firms with strong brand equity will tend to have a high brand value, and vice versa. See PQC white paper, p. 20.

Tab A: U.S. Postal Service Brand Attribute Wheel

Hover over each attribute to reveal PQC definitions.



Source: Premier Quantitative Consulting.

Note: PQC characterizes Technology/Innovation as an aspirational brand attribute of the Postal Service, e.g., one that has not yet been realized. See PQC white paper, pp. 27-28.

Tab B: OIG Independent Brand Attribute Research

- The attached report from OIG contractor Premier Quantitative Consulting (PQC) posits seven key Postal Service brand attributes or underlying components of the brand. (See Tab A for details.)

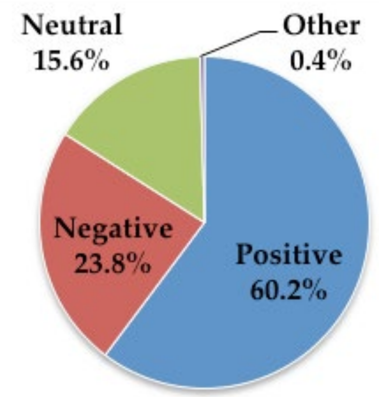
- The OIG independently compared key brand attributes suggested by PQC with results of a statistically valid survey, based on a representative sample of 5,000 Americans conducted by InfoTrends, Inc. for the OIG.

- Of the total surveyed, approximately 4,500 people had home-access to the Internet and responded to an Internet survey. To balance the group, InfoTrends conducted 500 phone interviews of people without Internet access at home. Among other questions, respondents were asked how they would describe the Postal Service in one word. No multiple choice options were provided.[1]

Remarkably, 75 percent of the words from Internet respondents could be mapped directly to the seven brand attributes that PQC described. The top three attributes based on Internet responses were Reliability, Tradition, and Personality.[2] (Current perceptions of key brand attributes may be positive or negative. For example, “Reliable” and “Unreliable” are both included in the Reliability attribute.[3])

THE MAJORITY OF RESPONDENTS TO THE OIG-COMMISSIONED INFOTRENDS SURVEY HAD A POSITIVE PERCEPTION OF THE U.S. POSTAL SERVICE

OIG independently compared key brand attributes from PQC with results of a statistically valid survey, based on a representative sample of 5,000 Americans conducted by InfoTrends, Inc. for the OIG. In the combined Internet and phone groups, 60.2 percent of responses were positive, 23.8 percent were negative, and about 16 percent were neutral or words that could not be classified.



N = 5000
Source: OIG Analysis, October 2014.

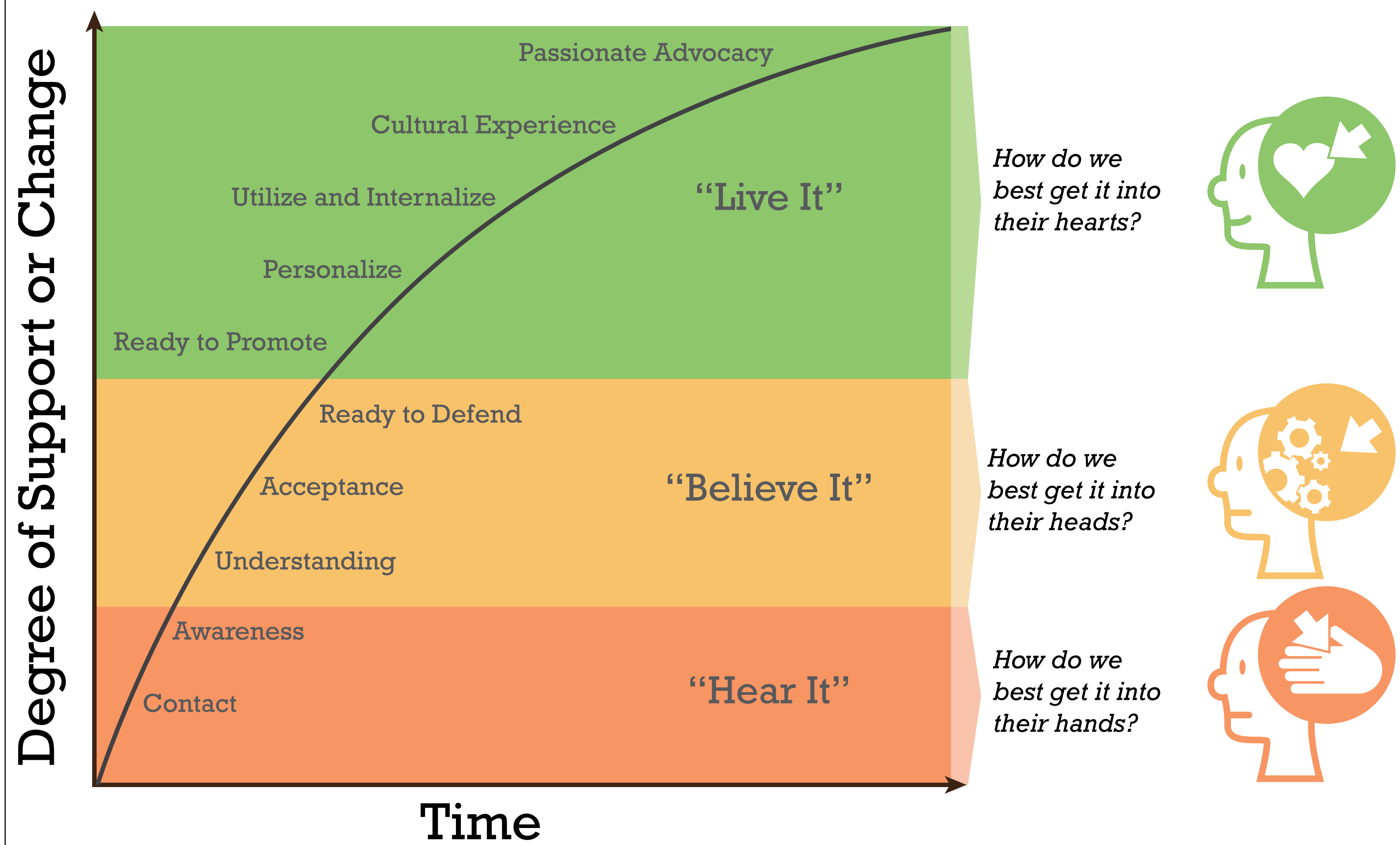
1 This survey was initially designed for a different, but related, study, with the one open-ended question included.
2 Based on InfoTrends survey response data and OIG analysis.
3 Less than 1 percent of all respondents characterized the Postal Service as “unreliable.” Among the most negative words, the most frequently mentioned were “slow” or “outdated.”

Tab C: The Importance of Employee Engagement

Employees at all levels of an organization are integral to brand success.

The Postal Service has a large and diverse workforce, which is widely acknowledged as both the face of the brand and integral to the brand itself.

Brand Assimilation



Source: Kellogg, "Brand Assimilation," in *Kellogg On Branding*, eds. Alice M. Tybout and Tim Calkins (Hoboken, NJ: John Wiley & Sons), p. 234.

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Valuation

Premier Quantitative Consulting, Inc.

White Paper

Valuation of the United States Postal Service Brand

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Prepared for the United States Postal Service Office of Inspector General

January 28, 2015

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Executive Summary

The United States Postal Service ("the Postal Service") is one of the largest and most visible government organizations in the world. It provides a fundamental service to the American people at reasonable prices and has performed this service since the founding of our country. Despite the Postal Service's recent difficult financial times, which have been widely publicized, research and brand valuation modelling demonstrate that it owns an important and valuable asset that may not yet be fully optimized: its corporate brand. A point estimate of the value of the Postal Service corporate brand using a widely-accepted brand valuation methodology – and not including associated sub-brands – is $3.63 billion, using FY2013 financial data.

The Postal Service's adherence to the Universal Service Obligation ("USO") reinforces the visible brand presence the Postal Service has for every American. The USO encompasses many different dimensions and is inherent in the mission of the Postal Service: to provide the American public with trusted, affordable, universal service. The USO is an important obligation that differentiates the Postal Service and its brand from its competitors.

The $3.63 billion value is significantly lower than the brand values that consultancies such as Interbrand, Millward Brown and Brand Finance have estimated for Postal Service competitors such as UPS, DHL and FedEx", which are in the $8.9 to $42.7 billion range.[1] This is not surprising, given the emphasis and level of expenditures placed on advertising and marketing by these other firms. Over the years they have consistently invested in their brands and developed strong brand equity, consciously following a strategy designed to make consumers aware of and loyal to these brands.

Understanding not only the significant value that the corporate brand possesses, but also the drivers of brand value, including critical brand attributes, are key insights that can be used in the future to develop and implement strategic initiatives. Programs

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[1] Interbrand computes a 2013 brand value of $13.8 billion for UPS. Available at http://www.bestglobalbrands.com/previous-years/2013. Millward Brown computes 2013 brand values of $42.7 billion, $13.7 billion and $8.9 billion for UPS, FedEx and DHL, respectively. Available at http://www.millwardbrown.com/brandz/2013/Top100/Docs/2013_BrandZ_Top100_Report.pdf. BrandFinance computes 2013 brand values of $16.6 billion, $10.6 billion and $9.1 billion for UPS, FedEx and DHL, respectively. Available at http://brandirectory.com/league_tables/table/global-500-2013. The Postal Service brand value estimate is lower than each competitor brand value estimate, particularly with respect to the Millward Brown and Brand Finance brand value estimates for UPS, FedEx and DHL. We note that these companies are not effectively competing with the Postal Service in all operational areas, but principally in the package delivery sector. Furthermore, these companies also partner with the Postal Service, where the Postal Service leverages its vast delivery network to provide last mile service in delivering packages to addresses that companies like UPS and FedEx are unable to serve.

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building on brand attributes can both enhance customer experiences and perceptions of the Postal Service and help the Postal Service grow its business. The analysis and results presented in this White Paper relate solely to the Postal Service corporate brand value, which is different from an overall financial corporate valuation.

The organization's significant visible presence, daily interaction with customers, and emphasis on quality service support the proposition that the Postal Service has a recognized, trusted and valuable brand. The positive brand values derived from our model contrast with the significant financial losses incurred by the Postal Service. In recent years, the Postal Service has lost billions of dollars; on paper, its liabilities exceed its assets by almost $40 billion.[2] However, this measure found on the Postal Service's balance sheet does not account for various so-called intangible assets.[3]

Among the more important intangible assets owned by the Postal Service, in addition to its vast network, are its corporate brand and associated sub-brands. Consumers associate a brand with a product or service through visual representations of that brand. The brand also represents a specific promise, personality or emotion that consumers associate with it. Strong brands excel at delivering the benefits consumers desire. Thus, possessing a strong brand provides financial benefits (e.g., higher revenue and profit) and enhances the financial value of a firm.

The Postal Service corporate brand value depends upon leveraging critical brand attributes that help create customer preference and influence purchasing decisions. Over the past fifteen years, the Postal Service has waxed and waned in its emphasis on branding, publicly describing what it believed were the organization's key brand attributes in its 2001 Strategic Plan, but in later strategic plans, deemphasizing its focus on brand development and strategy. Over the past four to five years, the Postal Service has worked to define its core brand values and its "brand essence." Initially, the brand essence was designed to inform consumers about what the Postal Service brand stands for as part of its key function of connecting senders and recipients. The Postal Service now has implemented various tools to measure consumer perceptions, advertising effectiveness and competitive activity with the goal of guiding brand strategy.

This paper identifies and discusses the critical attributes of the Postal Service corporate brand, which are *trust, reliability, ubiquity, convenience, tradition, value, personality*, along with one aspirational attribute: *innovation*. Consumers associate these attributes with the Postal Service brand, attributes which help to differentiate the Postal Service

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[2] United States Postal Service 2013 Form 10-K, p. 22.
[3] An intangible asset refers to nonphysical assets such as franchises, trademarks, brands, patents, copyrights, goodwill and contracts that grant rights and privileges and thus have value to the owner.

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from its competitors, thus adding value. Recognizing how these attributes create and enhance value is important to understanding how the Postal Service may better leverage its brand and build brand equity in the future.

For example, the *trust* attribute conveys to consumers that the Postal Service will ensure the security, privacy and safety of their personal information, including the sanctity of the mail. This is a critical consumer need met only by the Postal Service, which helps differentiate it from competitors. In much the same way, the *reliability* and *ubiquity* attributes indicate to consumers that the Postal Service will deliver six days a week to almost 153 million city, rural, Post Office box and highway delivery points regardless of conditions.[4] The *ubiquity* attribute also expresses the importance of the social value of the Postal Service either through personal bonds with letter carriers or the use of the neighborhood post office as a community gathering center. The *convenience* attribute personifies the fact that the Postal Service is available to all consumers and offers simple and easy to use products and services such as the forever stamp and the flat-rate box.

The other critical attributes such as *value*, *tradition* and *personality* convey similar positive perceptions about the Postal Service brand, including affordability and a long history of delivering the mail by a knowledgeable and likeable workforce. The workforce provides a public face of the brand, more so than in most organizations. This asset should be recognized and further developed in brand and business planning.

Currently, the Postal Service recognizes the importance of adopting new technology in a rapidly changing communications environment and aspires to have consumers associate the Postal Service as being a leader in innovation. Building on already established, positive key attributes in its digital strategies may help the Postal Service to realize this goal.

The Postal Service may desire to increase its focus on using its brand as a revenue-generating opportunity through greater licensing of the brand with third parties. This increased licensing effort also has the benefit of increasing brand awareness and could help drive the demand for other associated services. The future potential to leverage the brand and enhance brand equity could also serve as a basis for seeking action on various Postal Service reforms. A strategic focus on the key brand attributes could also help drive new marketing initiatives to spread awareness of what the Postal Service does right as the Postal Service moves forward in an era of continuing uncertainty and change.

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[4] United States Postal Service 2013 Annual Report to Congress, p. 1.

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Introduction

On paper, the United States Postal Service ("the Postal Service") would appear to be in serious financial trouble, with its liabilities exceeding its assets, financial losses accumulating each year for the last several years and a decline in revenue from key segments (e.g., First-Class Mail) due to the increase in electronic means of communication. Yet the Postal Service possesses other assets not shown on its balance sheet which add significant value to its operations. These assets also create social value that is typically not measured on paper or by a balance sheet. One such asset is the Postal Service corporate brand.

We were asked to value the Postal Service corporate brand by the Office of Inspector General (OIG) in order to both (1) set a baseline for brand value, using a recognized and repeatable methodology; and (2) serve as a tool to assist the OIG and Postal Service management in developing strategies to provide financial benefits through the protection and enhancement of the Postal Service brand.[5] This White Paper presents the analyses and results for the Postal Service corporate brand. These analyses and results relate solely to the estimation of the Postal Service corporate brand value, as opposed to an overall company or organization value. Determining a brand value is a distinct discipline performed for a different purpose when compared to an overall corporate financial valuation.

The Postal Service's significant visible presence, daily interaction with customers and emphasis on quality service support the proposition that it has a recognized, trusted and valuable brand. Recently, the Postal Service has renewed its emphasis on how an effective use of the brand can enhance the Postal Service's market position. Nevertheless, little attention has been paid to the value of the Postal Service brand, including the drivers of brand value and how the brand might be positioned more effectively to enhance its value. This White Paper, together with the appendices, presents the results of our study. These include the identification of the critical attributes of the brand and estimates of the value of the Postal Service brand, using a recognized methodology with extensive sensitivity analyses to confirm the robustness of the model we developed.

The Postal Service is one of the largest and most visible government organizations in the world, tasked to provide a fundamental service to the American people at fair and equitable rates.[6] Indeed, the Postal Service is responsible for delivering 40 percent of the world's mail.[7] The historic role of the Postal Service dates back to the nation's

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[5] Based on discussions with representatives from the Office of Inspector General, this paper focuses only on the Postal Service corporate brand, which encompasses brand characteristics that are not product-specific (e.g., Priority Mail) or channel-specific (e.g., usps.com) but encompass the overall brand.
[6] 39 U.S. Code §101.
[7] "Size and scope," available at https://about.usps.com/who-we-are/postal-facts/size-scope.htm.

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founding. Over the past few decades, the Postal Service has both emphasized and deemphasized the relevance and importance of its brand.

The Postal Service has recently undergone considerable operational changes driven by a changing communications industry. The advent of the use of email and other electronic means for communicating information has led to a significant decline in First-Class Mail and other mail volume. This trend is expected to continue in the future. In addition, macroeconomic shocks such as the Great Recession in 2008 and 2009 affected the financial performance of both the Postal Service and other businesses. Finally, regulatory issues such as the requirement to prefund certain retiree health benefits per the Postal Accountability and Enhancement Act of 2006 ("PAEA") have also created burdens on the Postal Service and contributed to significant financial losses over the last several years.

Since 2009, the Postal Service has lost $7.8 billion on a cash basis and incurred an additional $30.4 billion in unfunded liabilities and non-cash accruals and adjustments.[8] Review of the Postal Service's balance sheet would suggest an entity that has no equity value, at least on an accounting basis, but the Postal Service has equity value not captured on its balance sheet. This value is due to various intangible assets that do not appear on its balance sheet, but represent valuable assets owned by the Postal Service. Such intangible assets include the Postal Service brands and trademarks, and its delivery network, including its workforce in place. Given the existence of these assets and the financial difficulties faced by the Postal Service, it is important to understand the value of these intangible assets as well as how they might be better utilized.

The Postal Service's adherence to the Universal Service Obligation ("USO") reinforces the visible presence that the Postal Service has for every American. Although the USO is not explicitly defined in a statutory sense,[9] it encompasses many different dimensions and is inherent in the mission of the Postal Service: to provide the American public with trusted, affordable, universal service.[10] One industry observer and author characterized the USO as follows:

> Almost every person in every corner of the country can, at reasonable cost and with reasonable effort, send a letter or document or parcel to almost everyone

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[8] United States Postal Service 2013 Form 10-K, United States Postal Service 2012 Form 10-K, United States Postal Service 2011 Form 10-K, and PQC, Inc. calculations.

[9] Title 39 of the U.S. Code, which represents the permanent code of postal laws, never uses the term "universal service."

[10] In a 2008 report, the Postal Regulatory Commission identified seven attributes of the USO. These included geographic scope, range of products, access to postal facilities, delivery frequency, prices/affordability, quality of service and users' rights. Postal Regulatory Commission, Report on Universal Postal Service and the Postal Monopoly, December 2008, p. 4.

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> else in every other corner of the country and expect the letter, document, or parcel to arrive within a reasonable period of time and almost complete security.[11]

While consumers might not explicitly recognize the USO or what it means, it is an important obligation that differentiates the Postal Service and its brand from its competitors. The Postal Service also enjoys a statutory monopoly for certain aspects of its business which also serves to differentiate the Postal Service. The postal monopoly includes both the Private Express Statutes ("PES") and the mailbox access rule. The PES provides the Postal Service with a monopoly on the carriage and delivery of letters, while the mailbox monopoly gives the Postal Service the exclusive right to deposit mail in private mailboxes. These features have a significant influence on the perception and value of the Postal Service brand.

The rest of this paper provides an overview of the concepts underlying brand equity and brand value, followed by a brief overview of recent efforts to identify and invest in the Postal Service brand and our identification of the current critical attributes of the corporate brand. Then we discuss possible approaches to valuing the corporate brand and present our valuation using a residual income approach. We also include appendices which provide a glossary of technical terms used in the paper (Appendix A), our brand attribute matrix (Appendix B) and a more detailed technical discussion of our brand valuation model (Appendix C).

Brand Equity and Brand Value

A brand is a name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors.[12] As a result, the brand is the visual or tangible representation of a firm, product or service that consumers associate with the provision of products and services by the firm. The brand also possesses intangible aspects, such as a specific promise, personality or emotion that consumers associate with an entity when purchasing products or services.

The Postal Service corporate brand includes different elements, such as the solar eagle logo, trade dress (e.g., distinct uniforms of carriers or the postal trucks) and names (e.g., United States Postal Service). These elements convey information to consumers, allowing them to assign responsibility to the Postal Service for providing delivery of

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[11] Campbell, James L. Jr. "Universal Service Obligation: History and Development of Laws Relating to the Provision of Universal Postal Services," George Mason University, November 2008.
[12] Kotler, Philip and Kevin Lane Keller, *Marketing Management*, *12th edition*. New Jersey: Pearson Prentice Hall; 2006, p. G1.

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products and services. For example, the unique postal carrier uniforms distinguish and differentiate the Postal Service from others and serve as a signal to consumers that the Postal Service is delivering their mail.

Consumers rely on past experiences and marketing information to learn about brands. Through this process, consumers will determine which brands satisfy their needs and which ones do not. Purchasing decisions then become linked to specific brands. Strong brands excel at delivering the benefits consumers actually desire and consumers are more likely to purchase from strongly branded firms that satisfy their requirements. As a result, possessing a strong brand provides financial benefits (e.g., higher revenue and profit) and will enhance the financial value of the firm.

Brand equity arises as a result of consumers' preference for one brand over another and their continued repeat purchases based on these preferences. This consumer behavior adds value to the firm. This value may be reflected in how consumers think, feel and act with respect to the brand, as well as the prices, market share and profitability that the brand commands for the firm.[13]

Figure 1 illustrates how brand attributes drive brand awareness, brand loyalty and brand associations.[14] Each of these elements can provide a formidable competitive advantage if consumers view the branded product or services more favorably when the brand is identified. As a result, strong brand awareness, loyalty and associations help create and sustain brand equity.

[13] Ibid, p. 276.
[14] Figure 1 is an adaptation of David Aaker's model of brand equity. See Aaker, David A. *Strategic Market Management*, 8th edition. Hoboken, New Jersey: John Wiley & Sons, Inc.; 2008, p. 158.

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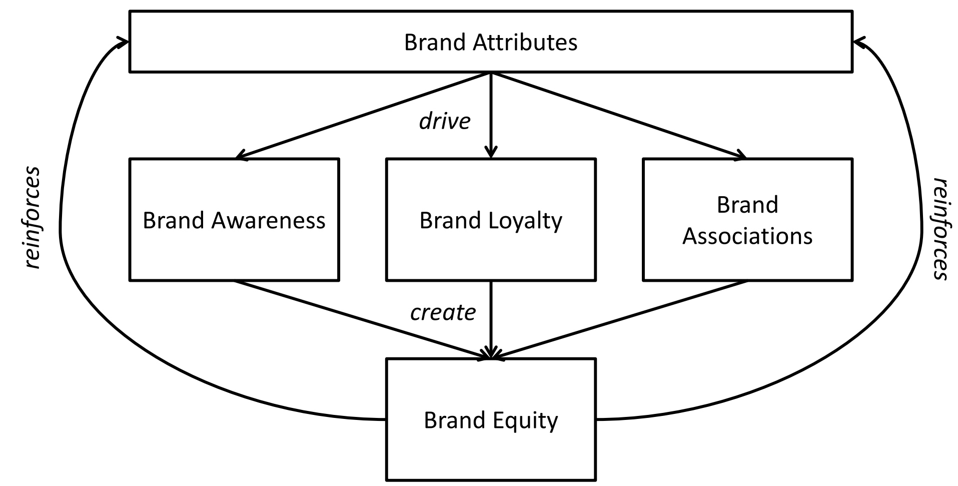
Figure 1: Illustration of a Brand Equity Model



Brand awareness serves to differentiate brands based on consumers' general knowledge and familiarity of a brand. For example, the Postal Service is ubiquitous and known across the U.S., given its long history and tradition. Furthermore, the Postal Service is the only major communication logistics provider that seeks to serve the entire populace. As a result, the Postal Service enjoys significant brand awareness among consumers, differentiating it from competitors.

Brand loyalty describes the degree to which a consumer consistently purchases the same brand within a product or service class. For the Postal Service, brand loyalty can be an enduring asset, if the existing customer base is satisfied and unlikely to switch to alternative brands or services. An existing base of loyal customers provides enormous sustainable competitive advantages. These advantages can include lower marketing costs and an image of the brand as an accepted, successful, enduring product that will include service and product improvements.[15]

Brand associations include all brand-related thoughts, feelings, perceptions, images, experiences, beliefs and attitudes that become linked to the brand. The Postal Service's product or service attributes are the associations and descriptive features that provide the consumer a reason to use the Postal Service. For example, a unique bond between a Postal Service consumer and the local letter carrier might create emotional or personal brand associations in consumers' minds related to the nature of services provided by the Postal Service employee.

[15] Aaker, David A., *Strategic Market Management*, 8th edition, p. 160.

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In order to generate and sustain brand equity, brands must possess strong, favorable and unique brand attributes. The strongest brand attributes are the ones that create the competitive differences in consumer perceptions, preferences and behavior which influence customer decision-making and generate profits for the brand owner.

Finally, brand value is distinguishable from brand equity. While brand equity represents the cumulative effect of consumers' associations and perceptions of a brand over time, brand value represents an estimate of the value of the brand at a specific point in time. Firms with strong brand equity will tend to have a high brand value, and vice versa.

Recent History of Postal Service Brand Investment

Developing a list of critical brand attributes and estimating a brand value requires an understanding of the recent history of the Postal Service's investment in its brand and the resulting perception in the marketplace. Although the Postal Service has a long branding history, we focus on more recent developments that coincide with a changing marketplace (e.g., rise of the internet and electronic diversion) as this is most relevant to the present brand valuation and defining current brand attributes.

In the early part of the 2000s, the Postal Service was focused on brand building and development, noting:

> The value of the mail, and the Postal Service, as a channel or link between senders and recipients is influenced by the emotional attachments, or "mail moments," experienced by customers as they receive mail that helps them or interests them. The experience of customers, as mailers and recipients in both business and consumer roles, with the Postal Service as an organization and with services provided by the Postal Service, is the "brand," or relationship that adds value to the link the Postal Service provides between senders and recipients.[16]

The 2001 Strategic Plan listed critical attributes (at that time) that served as the basis for considering the Postal Service brand as a strategic asset. These critical brand attributes included:

- Tradition: Familiarity, Awareness, Knowledge
- Trust: Image, Confidence, Security
- Scope: Relevance of products and services to customer needs
- Reliability: Service Performance and Quality
- Affordability: Direct (postage) and indirect costs of doing business

[16] United States Postal Service, Five-Year Strategic Plan, FY2001-2005, p. 5.

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By 2007, the Postal Service had enjoyed several years of continued profitability, and focused on a new brand positioning statement: "Today's Mail," where the emphasis was on relating the benefits of mail to contemporary lifestyles and business needs or highlighting the ubiquity of the first and last mile concept. The 2007 update to the five-year strategic plan described that service is the "heart of the Postal Service brand" and, as a result, the Postal Service concentrated on leveraging service to increase competitiveness and profitability.[17] However, as noted above, the Postal Service began incurring considerable losses, to the sum of $46 billion over seven years through 2013. A decline in mail volume and revenue, coupled with requirements from the PAEA, contributed to the significant losses. In April 2013, the Postal Service updated the most recent five-year plan to focus on cost control and efficiency, but in contrast to prior strategic plans, there was very little, if any, focus on brand development and strategy.[18]

Despite the absence of any publicly-conveyed information on brand development and brand strategy in its most recent five-year plan, the Postal Service Executive Leadership Team, Corporate Communications, and others continued with internal brand development. In 2011, the Postal Service worked with a public relations firm to help develop and refine a brand essence.[19] The draft brand essence focused on core values of the Postal Service including "relentless," "simple," "secure" and "personal." The essence was built around informing consumers about what the Postal Service brand stands for when executing the Postal Service function of connecting senders and receivers.

Over the past several years, the Postal Service has been active in rolling out a variety of marketing campaigns and branding activities, including the following examples. In 2010, the Postal Service rolled out the "If it fits, it ships" marketing campaign related to the use of flat-rate boxes for shipping. The campaign conveyed the simplicity and ease of use in Postal Service products compared to alternatives. In 2013, the company rebranded the traditional "Express Mail" as "Priority Mail Express" and updated the branding design of postal service supplies (e.g., boxes). In early 2014, the Postal Service engaged in a marketing campaign with Sony Pictures using Spider-Man. The focus of the cross-promotional campaign was to increase awareness among consumers about the speed and reliability of the Postal Service Priority Mail Service, thereby increasing brand awareness.[20] Despite varying opinions as to the merit or efficacy of these brand efforts, these brand initiatives represent a commitment to branding by the Postal Service.

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[17] United States Postal Service, Strategic Transformation Plan 2006-2010, 2007 Update, p. 29.
[18] United States Postal Service, Five-Year Business Plan, April 2013 (dated April 16, 2013).
[19] PQC – OIG interviews with postal executives across multiple functions at Postal Service conducted in July and August, 2014.
[20] "Priority Mail Gets Amazing Endorsement from Spider-Man," United States Postal Service national news release, March 17, 2014, available at http://about.usps.com/news/national-releases/2014/pr14_018.htm.

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The Postal Service also employs a recently re-established internal “Brand Health Tracker” that measures key attributes and metrics related to the overall corporate brand. The tracker monitors consumer perceptions, competitors, advertising effectiveness and overall brand health. One objective of the brand health tracker is to provide a baseline of brand health to help management direct and guide brand strategy. In addition to the brand health tracker, the Postal Service continues to focus on consumer insights and conducts regular focus groups and surveys. As part of the overall brand assessment effort, the Postal Service obtains feedback on the current state of consumer perceptions, including assessments of potential brand attributes including ease of use, convenience, security, reliability, quality and competency of the workforce, depth of products and services, innovation and value.

Postal Service Critical Brand Attributes

We identified seven critical attributes that are drivers of brand value and one additional aspirational attribute associated with the Postal Service corporate brand. Appendix B includes a summary of these brand attributes, listing each of the brand attributes in descending rank order based on our opinion of the impact each attribute has on brand equity. We follow a similar approach in this section. These attributes are an important input into our analysis of the value of the corporate brand, although we make no attempt to assign value to specific attributes as that would be difficult, if not impossible, due to their interrelated nature.

1. Trust

Trust is a critical attribute of the Postal Service corporate brand. The Trust attribute conveys to the consumer that the Postal Service will ensure the security, privacy and safety of consumers’ personal information. Trust also incorporates the consumer belief that the Postal Service protects the sanctity of the mail. Consumers’ trust is embodied in the expectation and belief that the information sent between senders and receivers is safe and secure. These are critical needs that the Postal Service meets on daily basis. The Postal Service actively promotes and reinforces the Trust brand attribute to the American public as indicated below:

> For more than two centuries, the Postal Service has maintained a brand that customers, suppliers and employees trust to protect the privacy and security of their information, whether it is their mail or electronically stored data maintained in a computer database.[21]

[21] United States Postal Service 2013 Annual Report to Congress, p. 68.

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Implicit in trust is an inherent assumption that the Postal Service will continue to exist into the foreseeable future. Currently, the concept of trust permeates much of the organization's communications to the public.[22] Consumers consider the Postal Service the most trusted government agency with respect to security and privacy.[23] These consumer perceptions help to differentiate the Postal Service from competitors in a positive way, which in turn enhances brand equity.

2. Reliability

The Reliability attribute conveys to the consumer that the Postal Service provides reliable, dependable and prompt services and products. Consumers require that the mail they send and receive will reach the appropriate destination point in a timely fashion when using the Postal Service. The following quote embodies why reliability is a critical brand attribute:

> For more than 235 years, the Postal Service has lived by its unofficial creed: 'Neither snow nor rain nor heat nor gloom of night stays these couriers from the swift completion of their appointed rounds.'[24]

The Postal Service recognizes the importance of providing a reliable, dependable and prompt service to the American public. This includes educating and informing customers (both consumers and businesses) to overcome any consumer perceptions that Postal Service products and services are not reliable. The Postal Service also promotes reliability through close monitoring and managing of internal metrics, further dispelling the myth that Postal Service mail delivery is not reliable.[25] The organization continually works to improve reliability gaps. Recent initiatives to further satisfy consumer and business needs involve more accurate delivery times on packages and the consideration of Sunday package delivery. Initiatives designed to strengthen the consumer perception of reliability differentiate the Postal Service from alternatives, thereby enhancing brand equity and creating added value.

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[22] An example includes the Postal Service mission statement, which explicitly references "trusted" service.
[23] In the most recently available Ponemon Institute study on companies and privacy, the Postal Service was rated as the fifth most trusted company and the most trusted government agency in the consumer-based survey and study. Ponemon Institute, "2012 Most Trusted Companies for Privacy," January 28, 2013, p. 5.
[24] United States Postal Service 2013 Annual Report to Congress, p. 1.
[25] "We, The Postal Service… Who We Are, What We Do, How We Operate," Publication 99, April 2014, p. 1.

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3. Ubiquity

The Ubiquity brand attribute promises the consumer that the Postal Service will deliver from coast to coast and beyond, connecting all senders and receivers. Consumers expect that the Postal Service will follow a dedicated commitment to fulfilling the requirements set forth in the USO. Even if they would not recognize the public policy term "USO," Americans implicitly know what it represents. As a result, the USO provides the Postal Service with a competitive advantage and is an important part of the Postal Service strategy. The ability of the Postal Service and only the Postal Service to send and deliver mail to all consumers in the country pursuant to the USO enhances the value of the brand by differentiating it in a positive way from all others.

The Ubiquity attribute also expresses the importance of the social value of the Postal Service to consumers. For example, the physical location of a post office in a rural area can be an important community center, particularly for individuals without access to a wide range of consumer goods nearby. Consumers hold favorable perceptions about the ubiquity of the Postal Service, captured by favorable sentiment towards their local post office and local carriers. There is significant and vocal opposition from residents when the Postal Service considers closing a local post office. Furthermore, the public often enjoy unique bonds with local letter carriers, who provide a constant and ubiquitous presence in American neighborhoods. Despite the benefits of the USO, there is also a considerable cost associated with the USO, one that can potentially detract from the brand. The following quote illustrates the Ubiquity attribute:

> The Postal Service is the only delivery service that reaches every address in the nation: 152,920,433 residences, businesses and Post Office Boxes. No single operation in the world comes close to matching this level of connectivity.[26]

4. Convenience

The Convenience brand attribute exemplifies the consumer perception that the Postal Service remains accessible to all consumers and offers simple and easy to use products and services. The following quote captures why convenience is a critical brand attribute:

> The history of the United States Postal Service is rooted in a single, great principle: that every person in the United States – no matter who, no matter where – has the right to equal access to secure, efficient, and affordable mail service.[27]

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[26] United States Postal Service 2013 Annual Report to Congress, p. 1.
[27] "Delivering the Mail and More," https://about.usps.com/who-we-are/postal-history/delivering-mail.htm.

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Like the Ubiquity attribute, the USO also embodies the Convenience brand attribute. The USO encompasses the expectation that the Postal Service will not only provide services to all Americans, but will also ensure that all Americans have access to these services. Furthermore, consumers not only require accessibility to postal products and services, but also demand simplicity and ease of use when choosing Postal Service products and services. The Forever stamp and flat-rate boxes are examples which convey to consumers the Convenience brand attribute. The flat-rate box is simple and easy to use, facilitating consumer decision making. Branded flat-rate boxes, coupled with the simple and straightforward “If it fits, it ships” marketing tagline, satisfy many consumers’ needs and convey the brand attribute of convenience to consumers.

With respect to the Convenience attribute, the Postal Service brand offers convenience to customers through its wide accessibility of services and simplicity of product offerings. For more complicated service, the Postal Service offers extensive customer support through its network of Post Offices and online presence. Making it easy for consumers to utilize its products and services enhances brand equity and encourages consumers to choose the Postal Service over others.

5. Tradition

The Tradition brand attribute incorporates the consumer recognition of the legacy built around the long history of the Postal Service. The longevity of the Postal Service generates and sustains a tremendous awareness among the public. People recognize that the Postal Service is the government agency entrusted to “bind the nation together” through the delivery of mail, a role it has performed for over 235 years.[28] As a result, there is significant nostalgia associated with the Postal Service. The following quote summarizes the importance and relevance of the Postal Service tradition:

> Three weeks after the battles of Lexington and Concord, the Second Continental Congress met in Philadelphia in May 1775 to plan for the defense of the colonies against British aggression. The conveyance of letters and intelligence was essential to the cause of liberty.[29]

Tradition is a critical attribute due to the significant brand awareness and brand loyalty generated over an extended history. The Postal Service brand has significant recall and familiarity among consumers. In particular, the older generations represent a loyal base of customers. By enhancing consumer loyalty to the brand, the Postal Service creates an emotional attachment to the brand which provides the Postal Service with a

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[28] 39 U.S. Code §101(a).
[29] “We, The Postal Service… Who We Are, What We Do, How We Operate,” Publication 99, April 2014, p. 3.

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competitive advantage. This emotional attachment transcends age groups and is not restricted to the senior citizen population.[30]

6. Value

The Postal Service offers a wide range of products and services designed to meet consumer needs at affordable prices. The Value brand attribute reflects this consumer need and similar to other attributes, the Value attribute also arises from consumer perceptions driven by the Postal Service provision of universal service. Specifically, the Postal Service states:

> The United States Postal Service (Postal Service) provides a variety of classes of mail service without undue discrimination among its many customers. This means that, within each class of mail, prices do not unreasonably vary by customer for the service provided. This fulfills the Postal Service's legal mandate to offer universal service at a fair price.[31]

One of the most visible signals of the Value attribute is the Postal Service "Forever" stamp. Consumers recognize that they are able to send a First-class letter to anywhere or anyone in America for one flat rate.

More recent challenges include convincing consumers that the Postal Service represents a good value when compared to alternatives. For example, electronic diversion of mail has contributed to a reduction in the amount of First-Class mail sent and received by the public. As a result, while consumers might change purchasing decisions based on whether alternative communication means satisfy needs better than the Postal Service. Nevertheless, consumers tend to view the Postal Service as a good value, providing affordable products and services which enhance brand equity.

7. Personality

The Personality attribute conveys to the public that the Postal Service employs a workforce that is knowledgeable and likeable. The workforce is particularly important, given that a number of consumer perceptions about the Postal Service brand arise from

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[30] For example, Millennials or Digital Natives (persons generally born after 1980) still have a strong attachment to the emotional connection and utility of physical mail. Parcels drive Digital Natives' interest in and anticipation of mail. United States Postal Service Office of Inspector General, "Enhancing Mail for Digital Natives," Report Number RARC-WP-14-001, November 18, 2013, https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-14-001_enhancing_mail_for_digital_natives.pdf

[31] United States Postal Service 2013 Form 10-K, p. 80.

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consumer experiences with Postal Service employees. The Postal Service stresses the importance of the workforce to the overall organization in its external communications:

> Getting the Job Done. The Postal Service depends on an astonishing network of people and technology to collect, transport, process and deliver the nation's mail. We take pride in our ability to get the job done.[32]

Positive experiences with local carriers and clerks increase customer loyalty and perceptions of the quality of the brand. This provides a competitive advantage and builds brand equity. In contrast, brand equity suffers when consumers have negative experiences or are exposed to negative events which influence consumer perception of the Postal Service brand. Unhappy or discontented employees can also diminish brand value, especially in a service organization that interfaces with the public so frequently.

Negative news can pose a significant risk to the Postal Service's brand equity. For example, stories about Postal Service employees throwing away packages or discarding mail lead to public backlash against the Postal Service.[33] While these might be isolated incidents, the rapid exchange of digital information and news in the internet era can quickly lead to a particular news story or video going viral on social networks. The result is an erosion of the Postal Service brand value and brand equity from a consumer perspective. Negative news or projections of lack of cash or bankruptcy can impact mailers' future plans and speed migration to digital or other alternatives. While Public Relations strategies should, of course, be truthful, postal management should recognize that public relations strategies that repeatedly stress negative cash flow or other "doomsday" scenarios can easily dilute brand equity and put key brand attributes at risk.

8. Technology/Innovation (aspirational attribute)

Technology and Innovation represent an aspirational brand attribute for the Postal Service. Currently, some consumers do not perceive the Postal Service as an innovative organization. Instead, these consumers believe that the Postal Service is old or outdated. As a result, the Postal Service faces a challenge in changing consumer perception and behavior regarding technology and innovation. The Postal Service seeks to improve services and capability by employing the latest technology to adapt to the changing needs of customers in the digital age. According to one account:

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[32] United States Postal Service 2013 Annual Report to Congress, p. 14.
[33] See "Video of Birmingham postal worker throwing packages into a ravine leads to resignation," http://www.al.com/news/birmingham/index.ssf/2014/07/video_of_birmingham_postal_wor.html, or "Delivery Dump: Postal Worker Caught on Cam Throwing Mail in Dumpster," http://cw33.com/2014/08/08/delivery-dump-postal-worker-caught-on-cam-throwing-mail-in-dumpster/.

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> The Postal Service finds itself struggling to innovate in a rapidly changing communications market. Yet, stakeholders agree that innovation is necessary to transform the Postal Service into a 21st century provider. The Postal Service has indicated a willingness to try new things, as allowed under the current law, but the time it takes new ideas to become a product or service is often too long in this fast-changing market.[34]

One issue is that the innovative changes implemented by the Postal Service are often outside the consumers' purview. Consider the Postal Service investment in optical character recognition technology, which is well known in the industry for supporting mail processing but may be little known outside the industry. The Postal Service is the world leader in optical character recognition technology with machines reading nearly 98 percent of all hand-addressed letter mail and 99.5 percent of machine-printed mail.[35] This investment and technology has tremendous merit, but it is most likely overlooked by the majority of the American public.

While the Postal Service has made significant strides toward increasing the adoption of innovation and technology in existing operations, the public has yet to link technology and innovation with the Postal Service brand. As a result, the existing consumer perceptions limit the brand equity built through technology adoption and implementation.

Brand Valuation Model and Point Estimate[36]

There are three commonly-accepted approaches to valuation, including brand valuation. These include the cost approach, the market approach and the income approach. The cost approach typically involves a value derived from examining the historical or replacement cost for a particular asset. In brand valuation, the cost approach might involve capitalizing historical marketing expenditures to determine brand value.

The market approach examines market transactions for similar brand assets compared to the subject asset. For example, one might value the Postal Service brand based on market transactions of companies engaged in similar activities such as FedEx or UPS. One would develop a market multiple or transaction multiple to apply to the subject brand data and determine value based on this multiple.

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[34] "The Innovation Unit Dilemma," November 11, 2013, available at https://www.uspsoig.gov/blog/innovation-unit-dilemma.
[35] "Innovative technologies – Systems at work," https://about.usps.com/who-we-are/postal-facts/innovative-technologies.htm.
[36] Appendix C contains a description of the different methods we considered, including a technical discussion of our selection and use of the residual income approach.

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The income approach typically looks at the present value of the income, cash flows or cost savings actually or hypothetically resulting from use of the brand asset(s). We find methods that follow the income approach are the most reliable methods to determine brand values, but these methods may still yield widely varying results and require subjective assumptions.[37]

We selected the residual income (or the excess earnings) method to estimate the value of the Postal Service corporate brand. The goal of this method is to isolate the cash flow or income that is solely attributable to the intangible asset (in this case the Postal Service brand) under study.

We accomplish this by following a three-step process where we:

1. Normalize the financial data to account for financial anomalies created by either regulatory or operating constraints.

2. Deduct returns associated with identifiable tangible and intangible assets to isolate the brand-specific cash flow.

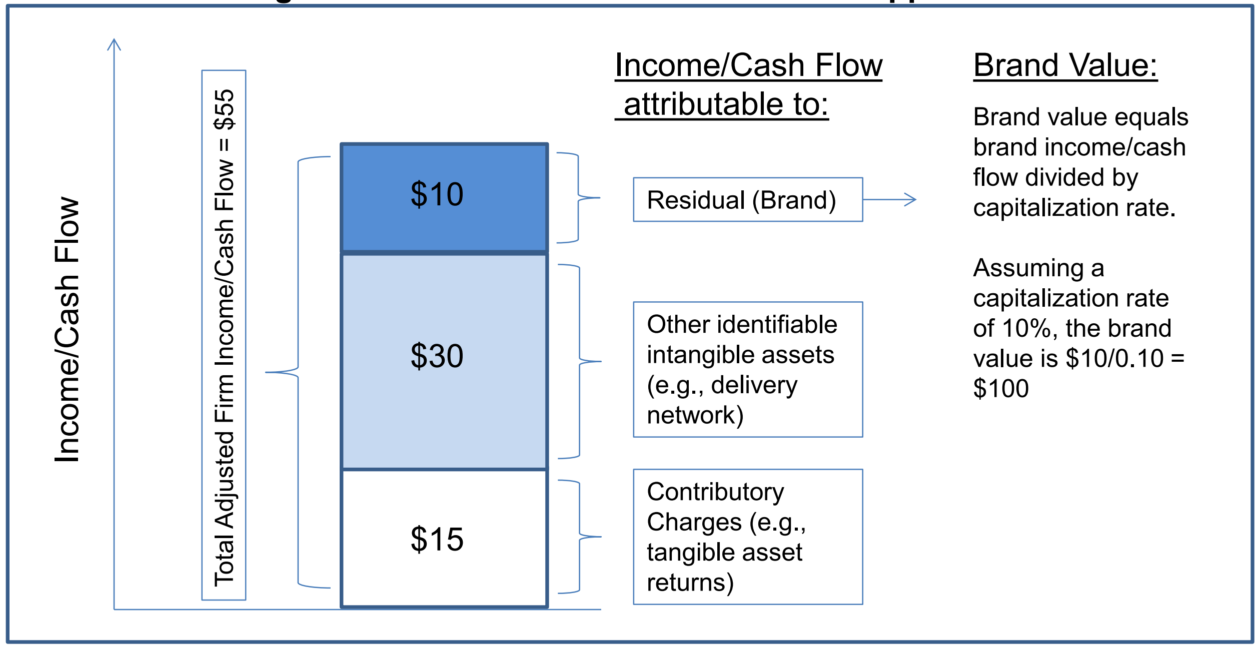
3. Compute the brand value by capitalizing the brand-specific cash flow using an appropriate rate.

We then run sensitivity analyses to test the effect of key assumptions on the model and its result.

Figure 2 presents an illustrative view of the residual income approach using a single period of cash flow or income. In this illustrative example, the firm has $55 of income or cash, of which $15 is attributable to contributory charges (e.g., return on tangible assets) and $30 attributable to non-brand related intangible assets. The residual income or cash flow of $10 is attributable to the brand. To determine brand value, we capitalize this residual cash flow using an appropriate capitalization rate. In the hypothetical example of Figure 2, using a capitalization rate of 10 percent yields a brand value of $100.

[37] One only needs to examine the results from various commercial methods available to determine brand values. For example Interbrand, Millward Brown and Brand Finance are three consultancies that provide brand values using variants of the income approach, yet the differences from these groups is often striking. Consider the brand value of McDonald's in 2009. Interbrand, Millward Brown and Brand Finance determined brand values of $32.3 billion, $66.6 billion and $20.0 billion, respectively, a difference of over 100% between the high and low value.

Figure 2: Illustration of Residual Income Approach



Recognizing that no method is perfect, the advantage of the residual income approach is that it allows us to look at the integrated operations of the Postal Service and determine a corporate brand value after deducting appropriate returns for other tangible and intangible assets. The disadvantage involves normalizing the Postal Service's financial statements for various items and identifying the distinct tangible and intangible assets.

Because our focus is on the corporate brand, we can take a "top down" approach using public financial data from the Postal Service. This results in a method that is transparent, easily reproducible and updatable using public information.[38] It is important to recognize that different methods, data and assumptions will yield different results, and brand valuation is inherently subjective. However, given our focus on the corporate brand, our desire to rely exclusively on public data, and the ability to test various assumptions via sensitivity analyses, we believe that this method provides the most reasonable results.

Residual Income Method Applied to the U.S. Postal Service Brand

Applying the residual income method, our point estimate of the U.S. Postal Service brand value is $3.63 billion. We used FY2013 financial data as it reflects the most

[38] This method is appropriate for a corporate brand valuation. It should be noted that we may have selected another method if evaluating sub-brands.

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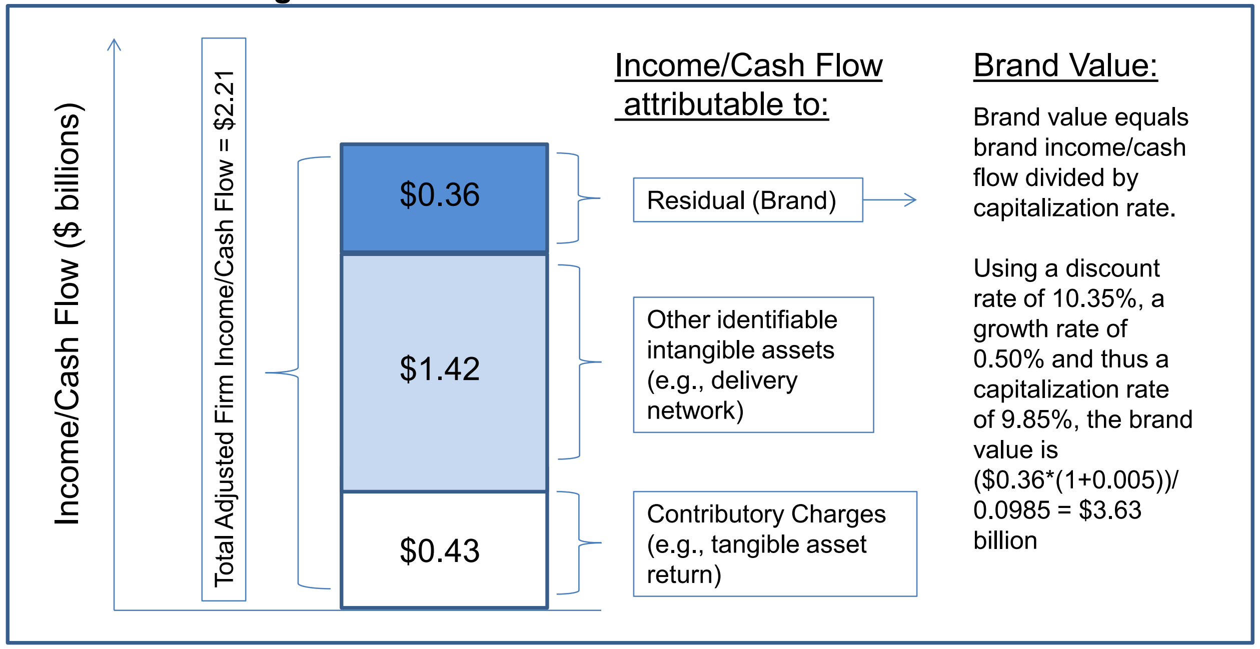
recent data available.[39] Figure 3, below, illustrates how we derived the point estimate. It is followed by an explanation of the assumptions, with more detail in Appendix C.

Figure 3: Estimation of Postal Service Brand Value



We relied on financial data published in the Postal Service's Securities and Exchange Commission ("SEC") Form 10-K as the starting basis for developing our normalized income and cash flow statement.[40] These data are shown in Table 1, below.

[39] We investigated using a multi-year average of historical financial data, but determined that the FY2013 data were the most relevant indicators of current and future operations when determining the value of the Postal Service corporate brand. We understand that results for FY2014 are trending consistently with FY2013 but such data are not yet available to us.
[40] We satisfied ourselves regarding the accuracy of these data by comparing with other sources of financial data, including the Public Cost and Revenue Analysis published by the Postal Service as well the National Trial Balance data filed with the Postal Regulatory Commission.

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Table 1: Income Statement for United States Postal Service
($ millions)

		FY2013
Operating Revenue	(a)	$67,318
Operating Expenses		
Compensation and benefits	(b)	$46,708
Retiree health benefits	(c)	$8,450
Workers' compensation	(d)	$1,061
Transportation	(e)	$6,735
Other	(f)	$9,174
Total Operating Expenses	(g) = (b)+(c)+(d)+(e)+(f)	$72,128
Operating Income	(h) = (a)-(g)	($4,810)
Interest and investment income	(i)	$24
Interest expense	(j)	($191)
Net income	(k) = (h)+(i)+(j)	($4,977)

Source: United States Postal Service, SEC Form-10K, FY2013.

The Postal Service operates under various constraints and limitations that contribute to the significant losses it has incurred over the past three years. These constraints and limitations affect its financial condition in a generally adverse way that is different than if the Postal Service were operating in a normal, competitive market. We therefore make some adjustments, which are detailed below.[41]

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[41] The Postal Service is also subject to price caps enacted under the PAEA. Under the postal price cap, price increases for each class of market dominant mail are limited by the change in the Consumer Price Index. In computing the point estimate for the brand value, we have not made any adjustments to reflect a relaxation or change in the existing price cap structure. However, a 2013 United States Postal Service Office of Inspector General (USPS OIG) study entitled "Revisiting the CPI-Only Price Cap Formula" (USPS OIG Report Number RARC-WP-13-007, April 12, 2013, https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-13-007.pdf) investigated the additional revenue the Postal Service might gain by using a different price cap structure. This paper, coupled with the results of another USPS OIG white paper ("Analysis of Postal Price Elasticities" USPS OIG Report Number RARC-WP-13-008, May 1, 2013, https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-13-008.pdf) indicate that there are opportunities to increase revenue in the existing operations. Although we do not change the price cap constraint, we ran a sensitivity analysis assuming a 1.51 percent increase in Postal Service revenue in FY2013 given the hybrid approach recommended in the price cap white paper. The 1.51 percent figure is very conservative. Other studies, such as "Implications of Declining Mail Volumes on the Financial Sustainability of the Postal Service" from George Mason University School of Public Policy have suggested the adjustment to achieve a break-even status would be 2 percent. See https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-10-006_0.pdf.

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They fall into three main categories:

- Adjustments for the USO
- Letter and Mailbox Monopoly
- Deduction of accrued expenses that the Postal Service acknowledges as costs that are legally-mandated but not under its control.

The most significant of these constraints is the USO, which is offset to a limited extent by its letter and mailbox monopoly. In order to normalize the income and cash flows, we deducted the costs (or forgone profit) associated with the USO net of the combined monopolies.

We relied on the estimates of the foregone profit and value of the combined monopoly developed by the Postal Regulatory Commission, which are updated and published annually.[42] Table 2 shows the cost of the USO netted against the value of the monopoly.[43] Over the past three years, the net cost ranged from $3.2 to $3.7 billion with

[42] U.S. Postal Regulatory Commission, *Annual Report to the President and Congress,* Fiscal Year 2013, chapter IV, January 2014.

[43] The 2008 PRC report (United States Postal Regulatory Commission Report on Universal Postal Service and the Postal Monopoly, December 29, 2008), along with the appendices, illustrates the specific methodologies used to compute the profit impact of relaxing the USO constraint (the “cost of the USO”) and removing the monopoly protections (the “value of the monopoly”). The USO and monopoly computations are distinct computations, which employ different methodologies. Both computations focus on the profit impact (including both changes in revenue and cost) from relaxing these constraints. As a result, it is theoretically possible that both computations could include the same revenue impact which could lead to double-counting. For most USO components, the potential is either non-existent or the result would be de minimis.

However, one area of the USO calculation that has the potential for double counting is the change in delivery frequency (from six to five days), which would cause a reduction in revenue. Similarly, a relaxation of the monopoly would reduce Postal Service revenue in markets in which competitors would enter. This revenue reduction could also be part of the revenue reduction modeled with the reduction in delivery service, thus leading to some double counting. For example, the PRC relied on an estimate of foregone revenue of $0.58 billion in 2007 as a result of moving from six day to five day delivery in the USO computation. The overall cost of this USO element was $1.93 billion, which included $2.51 billion in cost savings less the $0.58 billion in foregone revenue, all calculated while holding the monopoly in place. The potential for double counting exists if some (or all) of the $0.58 billion in foregone revenue is also assumed in the monopoly calculation (e.g., attributable to revenue loss in contestable markets).

Given the inability to isolate the specific level of potential double-counting due to the different methodologies used to compute the cost of the USO and the value of the monopoly, we assumed for the purposes of the model that there was no double counting. To help gauge the potential scope of this issue on brand value, we included a sensitivity analysis later in the report that assumes full double counting (e.g., the $0.58 billion should not be included in the value of the monopoly since it is subsumed in the cost of the USO).

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an average cost of $3.5 billion. We adjusted the income statement to remove $3.21 billion for FY2012, which were the most recent data available.

Table 2: Value of USO and Postal Service Monopoly
($ billions)

PRC Estimates of the Cost of the USO					
FY2007	**FY2008**	**FY2009**	**FY2010**	**FY2011**	**FY2012**
$4.414	$4.799	$4.915	$5.220	$5.397	$5.014
PRC Estimates of Value of the Postal Monopoly					
FY2007	**FY2008**	**FY2009**	**FY2010**	**FY2011**	**FY2012**
$3.480	$2.960	$2.110	$1.550	$1.660	$1.800
PRC Estimate of the Cost of the USO Less the Value of the Monopoly					
FY2007	**FY2008**	**FY2009**	**FY2010**	**FY2011**	**FY2012**
$0.934	$1.839	$2.805	$3.670	$3.737	$3.214

Source: United States Postal Service Annual Report to the President and Congress, Fiscal Year 2013, Table IV-4 (p. 31) and Table IV-5 (p. 32); and United States Postal Regulatory Commission Report on Universal Postal Service and the Postal Monopoly, December 29, 2008, Table 1 (p. 120) and Table 5 (p. 144).

We also removed the accrued expenses that the Postal Service acknowledges as costs that are not under its control but are legally-mandated. These included the pre-funding of retirement health benefits, accounting changes to the workers' compensation expenses, and also deferred revenue associated with Forever stamps. The Postal Service presents an alternative set of financial results in its annual report with these expenses removed.[44] Table 3 shows the normalized financial statement for FY2013.

[44] We agree that a better view of the cash financial performance of the Postal Service for evaluating its brand value would exclude these expenses and revenues that were not actually paid or received.

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Table 3: Normalized Income Statement for United States Postal Service
($ billions)

		FY2013
Revenue	(a)	$67.32
Expenses	(b)	$72.30
Operating Income	(c) = (a) - (b)	($4.98)
Back out RHB funding obligation (not paid)	(d)	$5.60
Deferred revenue adjustment	(e)	($1.32)
Long term workers' compensation adjustment	(f)	($0.31)
Adjustment for Net Value of USO	(g)	$3.21
Adjusted Operating Income	(h) = (c)+(d)+(e)+(f)+(g)	$2.21

Source: United States Postal Service, SEC Form-10K, FY2013 and PQC, Inc. calculations.

We computed a return on tangible contributory assets, including physical assets such as buildings, equipment and property, utilized the book value of the physical assets taken from the Postal Service balance sheet[45] and assigned a return based on the market cost of funding these assets.[46] These contributory asset returns represent approximately 20 percent of the total adjusted income, with the residual income reflecting the amount contributed by the Postal Service's intangible assets.

Two valuable intangible assets owned by the Postal Service comprise the residual income after deducting returns for the contributory assets. These include the brand[47] and the delivery system and network, including the workforce in place.[48]

Our research and analysis showed that the value of the delivery network clearly exceeds the value of the brand based on any reasonable measure.[49] We utilized a profit

[45] We used the book value of net property and equipment less land. We obtained these values from p. 76 of the United States Postal Service FY2013 Form 10-K. As discussed in the technical appendix, we used a mid-year average of the September 30, 2013 and September 30, 2012 values.
[46] This is different than the Postal Service's actual interest cost on its debt since it is limited on the amount of debt it can hold. We developed a proxy cost of debt for the Postal Service based on a market measure of debt which we use here as the appropriate return on the physical contributory assets. Use of the Postal Service's actual interest cost would understate the return, since it could not borrow enough to fund all of these assets.
[47] The brand is the visual representation of the Postal Service that consumers associate with its provision of products and services. The brand also possesses intangible aspects, such as a specific promise, personality or emotion that consumers associate with the Postal Service.
[48] The delivery network includes the vast, ubiquitous infrastructure established over the years to meet the USO and includes such elements as the skill and competence of the carriers and post office workers, the Zip code, the "first mile, last mile" connectivity and the intrinsic value created by the physical assets operating as a network.

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split approach[50] to split the residual income between the brand intangible and the other intangible assets, allocating 80 percent of the residual income to the delivery system and network intangible and 20 percent of the residual income to the brand. This is based on our analysis and research as well as quantitative measures of the effort and emphasis placed on each by the Postal Service in recent years, where it is assumed that such effort reflects the relative value of each.[51]

Once we isolated the cash flow stream that we deemed attributable to the brand, we capitalized it using an appropriate capitalization rate. The capitalization rate is the discount rate less the long-term growth rate for the brand-related cash flows. The discount rate represents the required rate of return for an investment in the Postal Service corporate brand. The discount rate is not a measure of the investor (e.g., the Postal Service) but a measure of the investment (brand), which includes the risk associated with receiving expected cash flows generated by the subject investment.[52]

As discussed above, the Postal Service corporate brand is an intangible asset. Intangible assets are generally riskier and less liquid relative to net working capital and fixed assets, necessitating a higher rate of return. A number of different methods exist to compute discount rates applicable in the valuation of intangible assets such as brands.[53] We selected the build-up method. The build-up method includes a risk-free rate and incremental risk premiums specific to the intangible asset under investigation.

We used the risk-free rate given by the most recent monthly yield on the 30-year Treasury bond, as reported by the Federal Reserve in Statistical Release H.15. As of August 2014, this rate was 3.20 percent. We subsequently included two incremental risk premia to add to this risk-free rate. In combination, these risk premia reflect that an

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[49] For example, a recent OIG white paper has estimated that the value of the Zip Code to the Postal Service, which we consider a relatively small part of the delivery network intangible, exceeds $2 billion. See Office of Inspector General, U.S. Postal Service, *The Untold Story of the Zip Code*, April 1, 2013, RARC-WP-13-006, https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-13-006.pdf.
[50] The profit split approach is an accepted method for allocating the value of intangible assets and a variant of this approach used here is an accepted method utilized by the Internal Revenue Service in valuing intangible assets.
[51] We also performed several sensitivity analyses that examine the impact of changing the split of income between the delivery network and brand, as discussed later in this report.
[52] As a result, the discount rate does not represent the overall cost of capital of the Postal Service (or any market participant for that matter), but rather represents the required rate of return for an investment solely in the corporate brand.
[53] Additional methods include the Capital Asset Pricing Model (CAPM), the Weighted Average Cost of Capital (WACC), price/earnings multiples and arbitrage pricing theory. For a complete discussion of these methods (and others), please see Pratt, Shannon P. and Roger J. Grabowski, *Cost of Capital, 5th Ed*. Hoboken: Wiley, 2014, p. 1311.

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investment in the Postal Service corporate brand carries additional risk compared to investing in a 30-year treasury bond.

- The first risk premium captures the additional risk an investor expects when weighing different investment options that are riskier than a government bond. We estimated this premium at 5.85 percent.[54] However, this additional risk premium compensates an investor for the market risk associated with foregoing alternative investments and does not necessarily consider investment-specific risks.

- The second risk premium reflects the magnitude of the additional risk associated with the Postal Service corporate brand compared to an average brand. We included an additional 1.30 percent risk premium to capture the required rate of return a hypothetical investor would expect for a specific investment in the Postal Service corporate brand. We determined this premium based on our comprehensive review of the Postal Service brand history, critical brand attributes and risks currently facing brand development.

The sum of the risk-free rate (3.20 percent) and the two incremental risk premia (5.85 percent and 1.30 percent) equals the total required rate of return a hypothetical investor would expect when investing in the Postal Service corporate brand. This is the discount rate: 10.35 percent.

In order to convert the discount rate to a capitalization rate, we deducted an estimated long-term growth rate for the brand-specific cash flows. We determined the long-term growth rate by considering different forecasts for key Postal Service financial variables, including revenue and profit. After a review of forecast data, we elected to use a 0.50 percent long-term growth rate.[55] Our capitalization rate was 9.85 percent, representing the 10.35 percent discount rate less a 0.50 percent long-term growth rate.

We applied the capitalization rate to the brand-related residual income to compute a value for the brand.

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[54] We based this measure on our review of commonly-used market risk premiums in determining the rates of return for investments that included additional risk when compared to a government bond. We discuss are use of market risk premiums in greater detail in our discount rate discussion in Appendix C and footnote 69.

[55] See footnote 18. We reviewed the forecast elements contained in The United States Postal Service, Five-Year Business Plan, April 2013 (dated April 16, 2013).

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Table 4 summarizes how we derived the brand valuation estimate of $3.63 billion.

Table 4: Postal Service Brand Valuation Model
($ billions)

		FY2013
Revenue	(a)	$67.32
Expenses	(b)	$72.30
Operating Income	(c) = (a) - (b)	($4.98)
Adjustment for Net Value of USO	(d)	$3.21
Back out RHB funding obligation (not paid)	(e)	$5.60
Deferred revenue adjustment	(f)	($1.32)
Long term workers' compensation adjustment	(g)	($0.31)
Adjusted Operating Income	(h) = (c)+(d)+(e)+(f)+(g)	$2.21
Return on Tangible Assets:		
Physical assets (equipment, real estate, etc.)	(i)	$0.43
Income Attributable to intangible assets	(j) = (h)-(i)	$1.78
Return on other identifiable intangible assets:		
Delivery network and associated IP (80% of intangible asset income)	(k) = (0.8)*(j)	$1.42
Residual Income Attributable to brand value	(l) = (j)-(k)	$0.36
Discount rate	(m)	10.35%
Long-term growth rate	(n)	0.50%
Capitalization rate	(o) = (m) - (n)	9.85%
Value of the brand	**(p) = [(l)*(1+(n))]/(o)**	**$3.63**

Testing Alternate Assumptions

As part of our model development, we performed a series of sensitivity analyses to test the impact on brand value by changing certain assumptions in our model from the baseline. In creating the baseline model for Postal Service brand valuation, we rely on certain assumptions such as the brand risk adjustment, life of the brand and future growth rate. Changes in these elements have a relatively minor impact on the brand value, whereas the split of the residual income between the brand and other intangibles, as well as use of a discount rate reflecting no risk have a more significant impact.

Table 5 presents a summary of the sensitivity analyses, including the resulting brand value based upon each change. The sensitivity analyses help to confirm the robustness

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and reliability of the model. We discuss the specific sensitivity analyses in greater detail in Appendix C.

Table 5: Results of Sensitivity Analyses
($ billions)

Sensitivity	Brand Value
1. Include accrued liabilities in income statement	No value
2. 10% of residual income apportioned to brand value	$1.82
3. 33% of residual income apportioned to brand value	$5.99
4. Price cap sensitivity leading to revenue increase of 1.51%	$5.71
5. Low discount rate sensitivity (using risk-free rate of 3.20%)	$13.25
6. Higher return on contributory assets	$3.05
7. Zero future growth rate	$3.44
8. Higher future growth rate (2.40 percent)	$4.59
9. 20 year finite life for the brand	$3.06
10. Adjust for delivery frequency foregone revenue in net cost of USO	$4.82
Best Estimate	**$3.63**
Range of Values	**$1.82 - $13.25**

Finally, it is important to note that the range of brand values for the Postal Service, a government agency, is significantly lower than the brand values that consultancies such as Interbrand, Millward Brown and Brand Finance have estimated for competitors such as UPS, DHL and FedEx, which are in the $8.9 to $42.7 billion range.[56] This is not surprising, given the difference in corporate missions and the emphasis and level of expenditures placed on advertising and marketing by these other firms. Over the years they have consistently invested in their brands and developed strong brand equity, consciously following a strategy designed to make consumers aware of and loyal to these brands. These competitors have developed strong brand attributes which have

[56] Interbrand computes a 2013 brand value of $13.8 billion for UPS. Available at http://www.bestglobalbrands.com/previous-years/2013. Millward Brown computes 2013 brand values of $42.7 billion, $13.7 billion and $8.9 billion for UPS, FedEx and DHL, respectively. Available at http://www.millwardbrown.com/brandz/2013/Top100/Docs/2013_BrandZ_Top100_Report.pdf. BrandFinance computes 2013 brand values of $16.6 billion, $10.6 billion and $9.1 billion for UPS, FedEx and DHL, respectively. Available at http://brandirectory.com/league_tables/table/global-500-2013. The Postal Service brand value estimate is lower than each competitor brand value estimate, particularly with respect to the Millward Brown and Brand Finance brand value estimates for UPS, FedEx and DHL.

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successfully created competitive differences among consumer perceptions, and which generate additional profits for the brand owner.[57]

Conclusion

Despite the Postal Service's recent difficult financial times, it owns an important and valuable asset: its corporate brand as well as associated sub-brands. While over the years, the Postal Service has waxed and waned in placing emphasis on its corporate brand, it is clear that its brand has significant value and more effort could be placed on building brand equity and consumer associations with the brand. In recent years, the Postal Service has placed greater emphasis on increasing brand awareness, investing in branding activities and measuring consumer perceptions. Despite varying opinions as to the merit or efficacy of these efforts, these brand initiatives represent a commitment to branding by the Postal Service and the development of a basic marketing strategy relating to branding.

Consideration should be given to using the results of this paper in building a branding strategy that could achieve various objectives in the future. This could include an examination of strategies supported by our findings that provide insight into various brand strategies on how to protect and enhance the Postal Service brand. For example, the Postal Service could increase its focus on using its brand as a revenue generating opportunity through greater licensing of the brand with third parties. This effort also has the benefit of increasing brand awareness, which the Postal Service can leverage to drive the demand for other associated services.

The findings can also facilitate specific strategic recommendations, including assessment of the potential business and financial impacts over time. For example, the future potential to leverage the brand and enhance brand equity could serve as a basis for developing and enacting Postal Service reforms. Leveraging the brand equity and brand value can be a valuable tool in helping the Postal Service address the current financial situation by driving revenue and profitability.

A strategic focus on the key brand attributes and increased employee engagement with the brand would support positive new marketing initiatives to maintain and build additional brand equity, generating increased financial value for the Postal Service. This strategic focus on brand attributes would also help consumers understand and appreciate the unique benefits they enjoy from the Postal Service.

[57] We note that these companies are not effectively competing with the Postal Service in all operational areas, but principally in the package delivery sector. Furthermore, these companies also partner with the Postal Service, where the Postal Service leverages its vast delivery network to provide last mile service in delivering packages to addresses that companies like UPS and FedEx are unable to serve.

Executive Summary
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Valuation
Brand Valuation Model

Appendix A: Glossary of Terms

Balance Sheet	A financial statement that compiles a company's assets, liabilities, and shareholder's equity at a given point in time.
Beta	A measure of volatility or risk in comparison to a standard market index.
Brand	A name, term, sign, symbol, or design, or a combination of them, intended to identify the goods or services of one seller or group of sellers and to differentiate them from those of competitors.
Brand Associations	All brand-related thoughts, feelings, perceptions, images, experiences, beliefs, attitudes and so on that become linked to the brand.
Brand Attributes	Descriptive features that characterize a branded product or service – what a consumer thinks the branded product or service has and what is involved with its purchase and consumption.
Brand Awareness	A marketing concept that enables marketers to quantify levels and trends in consumer knowledge and awareness of a brand's existence. At the aggregate (brand) level, it refers to the proportion of consumers who know of the brand (familiarity/recall).
Brand Equity	Represents the added value endowed by branding products and services. This value may be reflected in how consumers think, feel, and act with respect to the brand, as well as the prices, market share and profitability that the brand commands for the firm.
Brand Identity	The unique set of associations and attributes that represent what the brand stands for and promises to consumers.
Brand Loyalty	The situation in which a consumer generally buys the same manufacturer-originated product or service repeatedly over time rather than buying from multiple suppliers within the category. The degree to which a consumer consistently purchases the same brand within a product class.
Brand Value	An estimation of the total financial value of the brand.
Branding	The process of creating a brand (e.g., name, symbol or design) that identifies and differentiates a product from other products.
Branding Strategy	The number and nature of common and distinctive brand elements applied to the different products sold by the brand owner. The attempt to increase or strengthen brand awareness, brand loyalty or brand associations through concerted marketing efforts.
Capitalization Rate	The discount rate less a long-term growth rate.
Cash versus Accrual	A distinction between entries on financial statements pertaining to either the actual expenditure or receipt of cash to fulfill obligations (cash-based) or the recording of items that as of yet have not actually been paid or received (accrual-based).

Contributory Asset Charges	A charge to reflect the fair return on or return of contributory assets used in the generation of cash flows associated with the intangible asset being valued.
Contributory Assets	Any tangible or intangible assets used in the generation of the cash flows associated with the intangible asset being valued.
Cost Approach	A general valuation technique used to determine the value of an individual asset by quantifying the amount of funds required to replace the future service capability of the asset.
Discount Rate	A measure of the expected rate of return for a particular investment, based on the risks with the investment and the alternatives available to an investor.
Income Approach	A general methodology used to determine the value of a business, ownership interest, security or intangible asset that converts anticipated future income to present value.
Income Statement	A statement that measures a company's financial performance over a given accounting period. Income statements include summaries of revenues and expenses from operating and non-operating activities.
Intangible Assets	Nonphysical assets such as franchises, trademarks, patents, copyrights, goodwill, equities, mineral rights, securities and contracts (as distinguished from physical assets) that grant rights and privileges and have value for the owner.
Market Approach	A general valuation methodology used to determine the value of a business, ownership interest, security, or intangible asset by comparing the subject to similar businesses, ownership interests, securities, or intangible assets that have been sold.
Relief from Royalty Method	A method that estimates the value of an intangible asset by reference to the value of the hypothetical royalty payments that are saved through owning the asset, as compared with licensing it from a third party.
Residual Income Method	A specific way of determining the value of an asset, determined by capitalizing the excess earnings associated with the asset.

Appendix B: Brand Attribute Matrix

The matrix lists brand attributes in descending rank order based on our opinion of the current impact each attribute has on brand equity.

Brand Attribute	Descriptors	Supporting Quotation	How the Brand Attribute Affects Brand Equity
Trust	Ensures the *security*, *privacy* and *safety* of consumers' personal information; protects the *sanctity* of the mail.	"For more than two centuries, the Postal Service has maintained a brand that customers, suppliers and employees trust to protect the privacy and security of their information, whether it is their mail or electronically stored data maintained in a computer database." USPS 2013 Annual Report to Congress, p. 68.	Trust satisfies a significant consumer need concerning the privacy and security of information transmitted between senders and receivers. Consumers consider the USPS the most trusted government agency with respect to security and privacy, which enhances brand equity.
Reliability	Provides *reliable*, *dependable* and *prompt* services and products.	"For more than 235 years, the Postal Service has lived by its unofficial creed: 'Neither snow nor rain nor heat nor gloom of night stays these couriers from the swift completion of their appointed rounds.'" USPS 2013 Annual Report to Congress, p. 1.	The USPS promotes reliability through monitoring and follow-up of internal metrics, dispelling the myth that USPS mail delivery is not reliable. The organization continually works to improve reliability gaps. Consumers expect and depend on the reliability and promptness of the mail service, which builds brand equity.
Ubiquity	*Delivers* from coast to coast connecting senders and receivers; follows a *dedicated commitment* to fulfill the requirements set forth in the Universal Service Obligation (USO).	"The Postal Service is the only delivery service that reaches every address in the nation: 152,920,433 residences, businesses and Post Office Boxes. No single operation in the world comes close to matching this level of connectivity." USPS 2013 Annual Report to Congress, p. 1.	The ability of the USPS and only the USPS to send and deliver mail to all consumers in the country pursuant to the USO and the mailbox monopoly enhances the value of the brand by differentiating it in a positive way from all others.
Convenience	Remains *accessible* to all consumers and offers *simple* and *easy to use* products and services.	"The history of the United States Postal Service is rooted in a single, great principle: that every person in the United States – no matter who, no matter where – has the right to equal access to secure, efficient, and affordable mail service." http://about.usps.com/who-we-are/postal-history/delivering-mail.htm.	The USPS brand offers convenience to customers through its wide accessibility of services and simplicity of product offerings. Making it easy for consumers to utilize its products and services enhances brand equity and encourages consumers to choose the USPS over others.

Brand Attribute	Descriptors	Supporting Quotation	How the Brand Attribute Affects Brand Equity
Tradition	Maintains a *legacy* built around a long *history*; *longevity* generates and sustains tremendous *awareness* among the public.	"Three weeks after the battles of Lexington and Concord, the Second Continental Congress met in Philadelphia in May 1775 to plan for the defense of the colonies against British aggression. The conveyance of letters and intelligence was essential to the cause of liberty." We, The Postal Service…Who We Are, What We Do, How We Operate, April 2014, p. 3.	The tradition and history of the USPS enhance consumer loyalty to the brand and help create an emotional attachment to the brand.
Value	Offers a wide range of *affordable products and services* designed to meet consumer needs.	"The United States Postal Service (Postal Service) provides a variety of classes of mail service without undue discrimination among its many customers. This means that, within each class of mail, prices do not unreasonably vary by customer for the service provided. This fulfills the Postal Service's legal mandate to offer universal service at a fair price." USPS 2013 Form 10-K, p. 80.	Consumers view the USPS as a good value, providing affordable products and services. This enhances brand equity.
Personality	Employs a workforce that is *knowledgeable* and *likeable.*	"Getting the Job Done. The Postal Service depends on an astonishing network of people and technology to collect, transport, process and deliver the nation's mail. We take pride in our ability to get the job done." USPS 2013 Annual Report to Congress, p. 14.	Positive experiences with local carriers and clerks increase customer loyalty and perceptions of the quality of the brand. In contrast, brand equity suffers when consumers have negative experiences or are exposed to negative events that influence consumer perception of the USPS brand. Negative news can pose a significant risk to USPS brand equity.
Technology/ Innovation** ***aspirational attribute*	Seeks to improve services and capability by employing the latest technology to adapt to the changing needs of customers in the digital age.	The USPS 2013 Business Plan includes "identifying and building innovative capabilities that enable future revenue growth opportunities," 2013 update to 2012 Five-Year Business Plan.	The USPS has made significant strides towards increasing the adoption of innovation and technology in existing operations. Yet, the public does not typically view the USPS as an innovative or high-tech entity. As a result, the existing consumer perceptions limit the brand equity built through technology adoption and implementation.

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Appendix C: Detailed Description of Residual Income Approach

Brand Valuation Methodologies

There are three commonly-accepted approaches to brand valuation: the cost approach, the market approach and the income approach. A variety of different methods fall within the scope of each general approach, and each method may be appropriate under certain circumstances. Brand valuation typically relies on income approaches as being the most reliable methods; however, in some circumstances, the market approach may be appropriate. Valuation experts often use multiple methods and/or sensitivity analyses to test the reliability of the selected method. In this case, we have applied several sensitivity analyses to evaluate our baseline results, using a residual income approach. Before describing our approach in detail, we discuss the valuation methods we considered and the reasons why we selected the residual income approach.

The cost approach typically involves a value derived from examining the historical or replacement cost for a particular asset. With respect to brand value, this might involve capitalizing historical marketing expenditures to determine brand value. However, we do not believe the cost approach is appropriate for brand valuations, given that costs are often poor predictors of value.

The market approach looks at market transactions for similar brand assets compared to the subject asset. For example, one might value the Postal Service brand based on market transactions of companies engaged in similar activities such as FedEx or UPS. One would develop a market multiple or transaction multiple to apply to the subject brand data and determine value based on this multiple. Like the cost approach, we do not believe the market approach is appropriate for most brand valuations, given the lack of appropriate market data.

The income approach typically looks at the present value of the income, cash flows or cost savings actually or hypothetically resulting from use of the brand asset(s). We find methods that follow the income approach are the most reliable methods to determine brand values, but these methods may still yield widely varying results and require subjective assumptions. There are several challenges that permeate many of the income approach methods. These include recognition that the Postal Service is not a publicly-traded enterprise, so certain income variables (e.g., discount rates, market capitalization and stock prices) are not readily observable using Postal Service data.

Income-Based Methods

There are several generally recognized income-based methods used to value brands. Each method involves assessing the financial benefits the brand contributes to the operating performance of the subject entity. In addition, there is often theoretical overlap between some of the different methods. For example, some methods include elements of a standard “excess earnings” approach, while a number of others incorporate the long-range forecast of financial variables to estimate the present value of cash flows. In addition, there are several commercial methods which apply various income-based approaches to determining brand values. Consultants such as BrandFinance, Millward Brown and Interbrand publish annual estimates of brand values for large, publicly traded corporations based on different variants of the income method. However, these values can vary widely, even for the same brand. Given the proprietary nature of these commercial models, the consultants do not offer sufficient detail on their methods to provide an understanding of how the values are derived. In order to use a transparent, reproducible model that uses publicly-available data, we reject these commercial-based methods.

We considered the following income-based valuation methods:

- Price premium
- Volume premium
- Traditional Discounted Cash Flow (“DCF”)
- Profit split
- Option value
- Residual income
- Relief from royalty

Price Premium

Price premium methods involve assessing the financial benefits accrued to a brand owner due to the premium that the owner can charge based on the brand, compared to other products that sell without the brand. One example is using a revenue premium, calculated as the incremental difference of brand revenues over private label revenues. The price premium method is not appropriate for the Postal Service brand, given the lack of private label alternatives for the specific products and services offered by the Postal Service. As a result, there are too many hurdles to overcome in determining what the appropriate “base” revenue or cash flow would be to compute the incremental financial benefit derived from the brand.

Volume Premium

Similar to the price premium, the volume premium method looks at the incremental sales that occur as a result of the brand compared to private label products. As with the price premium method, we do not believe this is an appropriate method because of the difficulty in determining the incremental volume attributable to the brand.

Traditional DCF Approach

A traditional DCF approach looks at historical and forecasted financial data to determine the identifiable income stream attributable to the brand. Public financial data, however, do not provide data that isolate the cash flows associated solely with the brand attributes for the Postal Service corporate brand. As a result, we did not pursue the traditional DCF approach.

Profit Split

Profit split methods typically involve decomposition of financial data based on the value or cost contributions from specific asset classes. The goal is to isolate the profit attributable to the brand assets, as opposed to other Postal Service assets. The profit split approach focuses on developing a value allocation using historical costs. As we discuss in the residual income approach, we utilize an element of the profit split method in our method as a basis for allocating income between various classes of intangible assets.

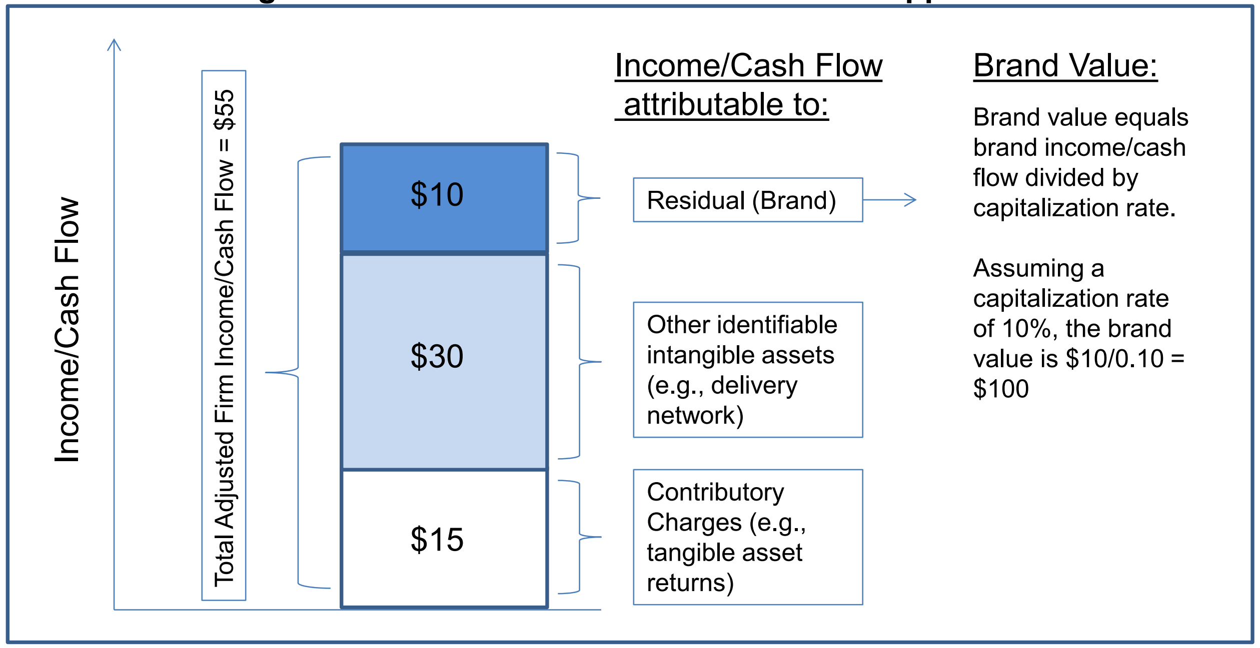
Option Value

The flexibility inherent in a brand marketing strategy and the ability to model brand strategy as a series of discrete steps in the future lends support to using a real options approach to value the Postal Service brand. The principal concept involves modeling the brand portfolio (and overall brand equity), similar to corporate real options over the brand equity life cycle. As a result, the Postal Service has the right to leverage its existing brand at various points in time pending market uncertainty. The typical brand equity investment decision is staged; thus, decisions can be made over time similar to the traditional treatment of financial options. While this approach may be used to value brands, in this case the lack of public data and the inability to model the strategic branding process life cycle prevents us from using this method.

Residual Income

The residual income (or the excess earnings) method determines the value of a brand by analyzing financial data and identifying the different components of the cash flow stream by asset. The goal is to isolate the cash flow or income that is attributable to the intangible asset (in this case, the Postal Service brand) under study. Typically the intangible assets are used in conjunction with various other tangible and intangible assets such as labor, equipment, property, facilities and workforce, and an appropriate return on these assets must first be computed and subtracted from the cash flow stream. Once these returns (also known as contributory asset charges) are subtracted from the cash flow stream, an analyst will compute the returns or cash flow components for other identifiable intangible assets besides the brand. After deducting or removing the cash flow streams attributable to other intangible assets, the remaining cash flow (or residual income) is assumed to reflect the cash flow that is attributable to the intangible asset (i.e., brand) under consideration. After isolating the cash flow stream for the subject intangible asset, one must assign a rate of return to this stream, discounting or capitalizing it over an appropriate time period to yield a value for the brand. Figure C-1 presents an illustrative view of the residual income approach using a single period of cash flow or income. In this illustrative example, the firm has $55 of income or cash, of which $15 is attributable to contributory charges (e.g., return on tangible assets) and $30 attributable to non-brand related intangible assets. The residual income or cash flow of $10 is attributable to the brand. To determine brand value, we capitalize this residual cash flow using an appropriate capitalization rate. In the hypothetical example of Figure 2, using a capitalization rate of 10 percent yields a brand value of $100.

Figure C-1: Illustration of Residual Income Approach



The advantage of this approach is that it allows us to look at the integrated operations of the Postal Service and determine a corporate brand value after deducting appropriate returns for other tangible and intangible assets. The disadvantage involves normalizing the Postal Service's financial statements for various items and identifying the distinct tangible and intangible assets. Because our focus is on the corporate brand, we can take a "top down" approach, using public financial data from the Postal Service. Once the cash flows are normalized for extraordinary and non-cash items, we then are able to estimate the income or cash flow attributable to various other tangible and intangible assets employed by the Postal Service, using public data, leaving the residual income attributable to the brand. We subsequently capitalize this residual income to determine a value for the brand.

Relief from Royalty

The relief from royalty method typically values the intangible asset by examining the cost savings associated with owning the right, as opposed to licensing the right to use the intangible, i.e., the brand. The method is contingent upon accurately estimating the licensing fee or royalty rate that should accrue to the ownership right of the intangible and usually relies on comparable licensing transactions either engaged in by the entity under study or by third parties. The cost-savings are subsequently capitalized or discounted to present value to determine the overall intangible asset value. Although the Postal Service licenses certain elements of the corporate brand, it has failed to do so aggressively and does not appear to license to outside third parties all of the elements of the corporate brand. Therefore, one cannot use these transactions to determine the full value of the corporate brand. The lack of comparable license transactions places a significant limitation on the use of this method and would at most establish a deeply discounted floor value for the brand.

Recognizing that no method is perfect, we selected the residual income method to value the Postal Service corporate brand. It is important to recognize that different methods, data and assumptions will yield different results, and brand valuation is inherently subjective. However, given our focus on the corporate brand, our desire to rely exclusively on public data, and the ability to test various assumptions via sensitivity analyses, we believe that this method provides the most realistic and reasonable results. The other major competing method, relief from royalty, will not provide an accurate measure of the value of the corporate brand as a whole because there are no transactions in which the entire bundle of brand attributes are being licensed. Therefore the value that would be determined from this method would understate the true value of the corporate brand.

Application of the Residual Income Method to Estimate the Postal Service Brand Value

The residual income method includes the following steps:

1. Develop Normalized Financial Statements
2. Compute Contributory Asset Charges
3. Allocate Residual Profit Among Categories of Intangible Assets
4. Determine the Useful Life of the Brand
5. Estimate the Discount Rate and Capitalization Rate
6. Compute the Brand Value

Develop Normalized Financial Statements

The residual income method begins with an income statement or cash flow statement for the Postal Service as a whole. We have relied on financial data published in the Postal Service's Securities and Exchange Commission ("SEC") Form 10-K and Annual Report as the starting basis for our financial analysis. We also evaluated other data published by the Postal Service, including the Public Cost and Revenue Analysis report, the annual Integrated Financial Plan and the Cost Segments and Components report. We satisfied ourselves with the consistency of the data among these reports and elected to rely on the data contained in the Form 10-K and Annual Report as being the most transparent and readily available data.

Next, we had to determine the appropriate time period to rely on the financial data. We examined Fiscal Year ("FY") 2013 data as well as data for FY2012 and FY2011 in an attempt to obtain not only the current audited data but also to assess recent trends. We also reviewed FY2014 budget data, but elected not to use these data, as they present a relatively similar, although somewhat more promising outlook compared with historical data. More importantly, the FY2014 budget data do not reflect actual results, although we understand that FY2014 results are consistent with the budget data as well as FY2013 results.

Valuation experts differ over whether historical averages are preferred relative to a single year "snapshot." In this case, we developed our estimates of brand value using FY2013 data only, as it reflects the most recent data indicative of current operations and future expectations. Table C-1 presents the Postal Service raw financial data before making any adjustments.

Table C-1
Income Statement for United States Postal Service
($ millions)

		FY2013
Operating Revenue	(a)	$67,318
Operating Expenses		
Compensation and benefits	(b)	$46,708
Retiree health benefits	(c)	$8,450
Workers' compensation	(d)	$1,061
Transportation	(e)	$6,735
Other	(f)	$9,174
Total Operating Expenses	(g) = (b)+(c)+(d)+(e)+(f)	$72,128
Operating Income	(h) = (a)-(g)	($4,810)
Interest and investment income	(i)	$24
Interest expense	(j)	($191)
Net income	(k) = (h)+(i)+(j)	($4,977)

Source: United States Postal Service, SEC Form-10K, FY2011-2013.

Table C-2 presents an overview of our brand valuation model. Rows (a) through (c) incorporate the FY2013 net income data from Table C-1.[58]

[58] The expenses total in Table C-2 includes the operating expenses from Table C-1 plus the interest and investment income and interest expense.

Table C-2: Postal Service Brand Valuation Model
($ billions)

		FY2013
Revenue	(a)	$67.32
Expenses	(b)	$72.30
Operating Income	(c) = (a) - (b)	($4.98)
Adjustment for Net Value of USO	(d)	$3.21
Back out RHB funding obligation (not paid)	(e)	$5.60
Deferred revenue adjustment	(f)	($1.32)
Long term workers' compensation adjustment	(g)	($0.31)
Adjusted Operating Income	(h) = (c)+(d)+(e)+(f)+(g)	$2.21
Return on Tangible Assets:		
Physical assets (equipment, real estate, etc.)	(i)	$0.43
Income Attributable to intangible assets	(j) = (h)-(i)	$1.78
Return on other identifiable intangible assets:		
Delivery network and associated IP (80% of intangible asset income)	(k) = (0.8)*(j)	$1.42
Residual Income Attributable to brand value	(l) = (j)-(k)	$0.36
Discount rate	(m)	10.35%
Long-term growth rate	(n)	0.50%
Capitalization rate	(o) = (m) - (n)	9.85%
Value of the brand	**(p) = [(l)*(1+(n))]/(o)**	**$3.63**

The Postal Service operates under various constraints and limitations that contribute to the significant losses it has incurred over the past three years. These constraints and limitations affect its financial condition in a generally adverse way that is different than if the Postal Service were operating in a normal, competitive market. Our approach to brand valuation assumes an economic model of profit maximization (or cost minimization), which does not fit the existing business model of the Postal Service. Therefore certain adjustments to the financial data must be made in order to place the Postal Service's financial position on a basis that allows one to measure directly its brand value.[59]

[59] The Postal Service is also subject to price caps enacted under the PAEA. Under the postal price cap, price increases for each class of market dominant mail are limited by the change in the Consumer Price Index. In computing the point estimate for the brand value, we have not made any adjustments to reflect a relaxation or change in the existing price cap structure. However, a 2013 United States Postal Service Office of Inspector General (USPS OIG) study entitled "Revisiting the CPI-Only Price Cap Formula" (USPS OIG Report Number RARC-WP-13-007, April 12, 2013) investigated the additional revenue the Postal Service might gain by using a different price cap structure. This paper, coupled with the results of another USPS OIG white paper ("Analysis of Postal Price Elasticities" USPS OIG Report Number RARC-WP-13-008, May 1, 2013) indicate that there are opportunities to increase revenue in the existing operations. Although we do not change the price cap constraint, we ran a sensitivity analysis assuming a

The most significant of these constraints is the universal service obligation ("USO"). The concept underlying this adjustment is that there is a cost associated with the mandate that the Postal Service must provide universal service, and no entity operating in a competitive market would in fact provide such service while operating under other restraints on pricing, etc. Therefore, in assessing the appropriate financial starting point for analyzing the brand value of the Postal Service, it is appropriate to strip out the costs (or foregone profit) associated with the USO.

A number of studies have evaluated the cost of the USO for European postal services, but it is only recently that work has been done to analyze the USO for the Postal Service. This work commenced in 2007 with the passage of the Postal Accountability and Enhancement Act of 2006 ("PAEA"), which required the Postal Regulatory Commission ("PRC") to submit a report to the President and Congress on universal postal service and the postal monopoly in December 2008. As a result, both the Postal Service and the PRC commissioned studies to value what each believed to be were the various components of the USO.[60] The Postal Service and its consultant, IBM, came to a different conclusion than the PRC and its consultant, George Mason University ("GMU"), both with regard to the components of the USO as well as the value of these components including the total cost of the USO. Since 2008, the PRC has continued to update its set of values for the USO in its annual report to the President and Congress.

The December 2008 PRC report included an estimate of the cost of the USO, as well as an evaluation of the IBM study and other estimates GMU provided to the PRC. Each group used similar methodologies in that their objective was to calculate the foregone profit resulting from the USO. There was a wide disparity in the calculated values, with the PRC value at the low end and the IBM/Postal Service value at the high end. Over the years, the PRC has updated its values and in FY2013, it calculated a lost profit from the USO of slightly over $5 billion as shown in Table C-3.

In addition to the cost associated with the USO, the Postal Service also enjoys a monopoly for some of the services it provides. These include the letter monopoly and the mailbox monopoly. The Postal Service is the only authorized carrier for letter mail under 12.5 ounces and catalogs under 24 pages (the letter monopoly). The mailbox monopoly simply bars those other than the Postal Service from placing anything in a mailbox. In the case of this "combined" monopoly, the Postal Service benefits by earning higher profits than if it did not have this monopoly, and thus the value of this monopoly should also be subtracted from the financial statements. We have relied on the PRC estimates of the foregone profit and value of the combined monopoly, which

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1.51 percent increase in Postal Service revenue in FY2013 given the hybrid approach recommended in the price cap working paper.

[60] United States Postal Service, *Report on Universal Postal Service and the Postal Monopoly*, October 2008; Postal Regulatory Commission, *Report on Universal Postal Service and the Postal Monopoly*, December 19, 2008.

are updated and published annually.[61] Table C-3 shows the cost of the USO netted against the value of the monopoly.[62] It ranged from $3.2 to $3.7 billion in recent years and averaged $3.5 billion over the last three years. Our first adjustment, therefore, is to adjust the income statement to remove $3.21 billion for FY2012, which represents the most recently available data.

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[61] U.S. Postal Regulatory Commission, *Annual Report to the President and Congress,* Fiscal Year 2013, chapter IV, January 2014.

[62] The 2008 PRC report (United States Postal Regulatory Commission Report on Universal Postal Service and the Postal Monopoly, December 29, 2008), along with the appendices, illustrates the specific methodologies used to compute the profit impact of relaxing the USO constraint (the “cost of the USO”) and removing the monopoly protections (the “value of the monopoly”). The USO and monopoly computations are distinct computations, which employ different methodologies. Both computations focus on the profit impact (including both changes in revenue and cost) from relaxing these constraints. As a result, it is theoretically possible that both computations could include the same revenue impact which could lead to double-counting. For most USO components, the potential is either non-existent or the result would be de minimis.

However, one area of the USO calculation that has the potential for double counting is the change in delivery frequency (from six to five days), which would cause a reduction in revenue. Similarly, a relaxation of the monopoly would reduce Postal Service revenue in markets in which competitors would enter. This revenue reduction could also be part of the revenue reduction modeled with the reduction in delivery service, thus leading to some double counting. For example, the PRC relied on an estimate of foregone revenue of $0.58 billion in 2007 as a result of moving from six day to five day delivery in the USO computation. The overall cost of this USO element was $1.93 billion, which included $2.51 billion in cost savings less the $0.58 billion in foregone revenue, all calculated while holding the monopoly in place. The potential for double counting exists if some (or all) of the $0.58 billion in foregone revenue is also assumed in the monopoly calculation (e.g., attributable to revenue loss in contestable markets).

Given the inability to isolate the specific level of potential double-counting due to the different methodologies used to compute the cost of the USO and the value of the monopoly, we assumed for the purposes of the model that there was no double counting. To help gauge the potential scope of this issue on brand value, we included a sensitivity analysis later in the report that assumes full double counting (e.g., the $0.58 billion should not be included in the value of the monopoly since it is subsumed in the cost of the USO).

Table C-3
Value of USO and Postal Service Monopoly
($ billions)

PRC Estimates of the Cost of the USO					
FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
$4.414	$4.799	$4.915	$5.220	$5.397	$5.014
PRC Estimates of Value of the Postal Monopoly					
FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
$3.480	$2.960	$2.110	$1.550	$1.660	$1.800
PRC Estimate of the Cost of the USO Less the Value of the Monopoly					
FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
$0.934	$1.839	$2.805	$3.670	$3.737	$3.214

Source: United States Postal Service Annual Report to the President and Congress, Fiscal Year 2013, Table IV-4 (p. 31) and Table IV-5 (p. 32); and United States Postal Regulatory Commission Report on Universal Postal Service and the Postal Monopoly, December 29, 2008, Table 1 (p. 120) and Table 5 (p. 144).

The next adjustment involves assessing costs that were not actually paid, but appear on the Postal Service financial statements. The most significant of these are the portion of the Postal Service's pre-funding of retiree health benefits that was not actually funded each year, but carried on the income statement as an accrued expense. In reality, this reflects a non-cash expense that is not actually paid by the Postal Service, but Congress has been mandated that it be shown on the Postal Service's books. In its 2013 Annual Report, the Postal Service states:

> [O]ur current period results are also impacted by items that are not under our control or that are unusual and are not reflective of our normal operations. These items include the annual legally-mandated PSRHBF [Postal Service Retirement Health Benefit Fund] prefunding expense, fluctuations in workers' compensation expense due to discount (interest) rates, and significant changes in accounting estimates. Because these items are not typical, we believe that analyzing operating results without the impact of certain of these charges provides a more meaningful insight into current operations.[63]

The Postal Service presents an alternative set of financial results in its annual report with these expenses removed. These include the legally-mandated PSRHBF expenses as well as adjustments for the long-term portion of workers compensation insurance and other accounting estimates. We agree that a better view of the cash financial performance of the Postal Service for evaluating its brand value excludes these expenses that were not actually paid and revenues that were not recognized. Thus we

[63] United States Postal Service, 2013 Annual Report and Form 10-K, p. 21.

make similar adjustments to the Postal Service income statement for long term workers' compensation and changes in accounting estimates (deferred revenue related to Forever stamps). Table C-4 shows the normalized financial statement for FY2013, where row (d) captures the USO adjustment and rows (e) through (g) illustrate the additional adjusted expenses. Based on these adjustments, there is positive cash flow for FY2013.

Table C-4
Normalized Income Statement for United States Postal Service
($ billions)

		FY2013
Revenue	(a)	$67.32
Expenses	(b)	$72.30
Operating Income	(c) = (a) - (b)	($4.98)
Adjustment for Net Value of USO	(d)	$3.21
Back out RHB funding obligation (not paid)	(e)	$5.60
Deferred revenue adjustment	(f)	($1.32)
Long term workers' compensation adjustment	(g)	($0.31)
Adjusted Operating Income	(h) = (c)+(d)+(e)+(f)+(g)	$2.21

Source: United States Postal Service, SEC Form-10K, FY2013 and PQC, Inc. calculations.

Contributory Asset Charges

Once we have a reasonable estimate of the total Postal Service operating income on an adjusted basis, the next step is to identify the assets that are employed in conjunction with the corporate brand. Typically, intangible assets such as the corporate brand can generate income only when used in combination with other tangible or intangible assets. For example, the brand would have little value were it not for the efforts of the Postal Service post offices, trucks and other facilities that are used to physically collect and deliver the mail. These physical or tangible assets, therefore, require a return (or profit) for their use based on their value in their next best alternative (so-called "opportunity cost"). This return is then deducted from the adjusted operating income as the next step to deriving the residual income that is solely attributable to the brand. These are sometimes termed contributory asset charges because they reflect a required return for those assets that contribute to the use and value of the intangible asset under scrutiny, i.e., the corporate brand.

The so-called contributory assets include physical assets such as buildings, equipment, and property. We utilized the book value of the physical assets taken from the Postal Service balance sheet, and assigned a return based on the market cost of funding these assets, which is a reasonable proxy for their use in their next best alternative. The book value of physical assets is the FY 2013 mid-year average of the net total property and equipment less land values.[64] Net property and equipment values were $17,512 million as of September 30, 2013 and $18,863 million as of September 30, 2012. We subsequently deducted land values of $2,895 million as of September 30, 2013 and $2,919 million as of September 30, 2012. The resulting net property and equipment less land values were $14,617 million and $15,944 million as of September 30, 2013 and September 30, 2012, respectively.[65] The average of these values is $15,281 million, which represents the FY 2013 mid-year average of physical asset balances used to compute the contributory asset charge. We subsequently applied our contributory return to the mid-year average value.

We developed this return based on our estimate of the market value of debt to the Postal Service. This is different from the Postal Service's actual interest cost on its debt since the Postal Service is constrained by the amount of debt it can hold. Thus use of the Postal Service's actual interest cost would understate the return since it could not borrow enough to fund all of these assets.

We use the latest monthly yield on Moody's Baa industrial bonds, which was 4.69 percent for August 2014 as reflective of the market cost of debt for the Postal Service. We used the Moody's Baa industrial yield to incorporate the additional risk associated with the current financial situation for the Postal Service and its brand, as opposed to selecting a risk-free Treasury bond rate or its own debt costs. We subsequently adjusted this value to a post-tax value, using an implied 40 percent tax rate to give an after-tax cost of debt of 2.81 percent. This figure was used as the market-based return on the Postal Service's physical assets.

Table C-5 shows the return on these contributory assets, which represent approximately 20 percent of the total adjusted income.

[64] We obtained the land, property and plant values from p. 76 of the United States Postal Service FY2013 Form 10-K. Given that balance sheet data are period statements and include values as of a specific date (e.g., September 30), we computed the mid-year average of the FY 2012 and FY 2013 balance sheet values to represent the average balance in effect throughout FY 2013. This provides greater comparability to the income statement data, which capture cumulative results over the entirety of FY 2013.
[65] For example, $17,512 million less $2,895 million equals $14,617 million for September 30, 2013 and $18,863 million less $2,919 million equals $15,944 million for September 30, 2012.

Table C-5
Contributory Asset Charges
($ billions)

		FY2013
Net physical assets (buildings, equipment, leasehold improvements)	(a)	$15.28
Rate of return	(b)	2.81%
Annual return	(c) = (a)*(b)	$0.43
Total Contributory Asset Charges	(d)= (c)	$0.43

Allocate Residual Profit among Categories of Intangible Assets

Next we identify the intangible assets owned and employed by the Postal Service so that we may separate the income stream that is allocated to the corporate brand versus other intangible assets. Our research and analysis led us to identify two major intangible assets owned and utilized by the Postal Service. These include the corporate brand and the delivery system and network. The delivery network includes the vast, ubiquitous infrastructure established over the years to meet the USO, and includes such elements as the skill and competence of the carriers and post office workers, the Zip code, the “first mile, last mile” connectivity, and the intrinsic value created by the physical assets operating as a network.[66] The brand is the visual representation of the Postal Service that consumers associate with its provision of products and services. The brand also possesses intangible aspects, such as a specific promise, personality, or emotion that consumers associate with the Postal Service. It is clear that the value of the delivery network exceeds the value of the brand based on any reasonable measure, although to our knowledge no one has attempted to measure the value of the delivery network in its entirety.[67]

We utilize a profit split approach[68] to split the residual income between the brand intangible and the other intangible assets. To do this we assume that the level of investment in support of these assets is a good proxy for the split of value. We found that annual cash outlays for the delivery network in 2012 and 2013 were in the range of $700 - $800 million whereas marketing and advertising expenditures ranged from $125 to

[66] We include the workforce in place as part of the delivery network intangible asset.
[67] The OIG has estimated that the value of the Zip Code to the Postal Service which we consider a relatively small part of the delivery network intangible exceeds $2 billion. See Office of Inspector General, U.S. Postal Service, *The Untold Story of the Zip Code*, April 1, 2013, RARC-WP-13-006, https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-13-006.pdf. We also analyzed the income the Postal Service receives from providing first mile, last mile service to competitors such as UPS and FedEx.
[68] As noted above, the profit split approach is an accepted method for allocating the value of intangible assets and a variant of this approach used here is an accepted method utilized by the Internal Revenue Service in valuing intangible assets.

$140 million.[69] This suggests that investments in the delivery network are four times as great as marketing (brand) investments and would serve as the basis for a 80%/20% split of the residual intangible value between the delivery network and the brand.

We also evaluated investments in major capital projects and compared that level of spending to the marketing spend which yielded a lower split of approximately 65 percent to the delivery network and 35 percent to the brand intangible.[70] We believe the former figure is a more realistic view of the actual split of value, given the major investments made over time in the delivery network as well as our general research and analysis suggesting the significant intangible value associated with the Postal Service's delivery network.[71] Therefore, we allocate 80 percent of the residual income to the delivery system and network intangible and 20 percent of the residual income to the brand.

Determine the Useful Life of the Brand

Once we have isolated the cash flow stream that we deem is attributable to the brand, we must determine the useful life of the brand so we know what time period over which the income stream should be capitalized. The Postal Service brand has been in existence for over 200 years, and during that time, consumers have recognized the brand and the Postal Service has invested in the brand both directly via marketing and advertising, as well as indirectly in other items such as technology that enhance brand equity. While the value of the brand may have increased and declined over the years, there is no reason to believe that the brand itself will cease to exist or cease to have value in the future. Therefore we have assumed that the brand has an infinite life and thus should be capitalized.[72]

Estimate the Discount Rate and Capitalization Rate

The residual income method computes the Postal Service corporate brand value by capitalizing the brand-related cash flow by an appropriate capitalization rate. The capitalization rate is the discount rate less the long-term growth rate for the brand-related cash flows. The discount rate represents the required rate of return for an investment in the Postal Service corporate brand. The discount rate is not a measure of the investor (e.g., the Postal Service) but a measure of the investment (brand), which includes the risk associated with receiving expected cash flows generated by the subject investment.

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[69] The United States Postal Service, 2014 Integrated Financial Plan, p. 6 (capital cash outlays) and the 2013 United States Postal Service Form 10-K, p. 88 (annual advertising expenses).
[70] The 2013 United States Postal Service Form 10-K, p. 47 indicates capital commitments on "major projects" of $0.2 billion in 2013 and $0.3 billion in 2012. Comparing these amounts to the annual advertising expenses implies a profit split of approximately 65 percent to the delivery network and 35 percent to the brand.
[71] The higher profit split also recognizes the contribution of the workforce and any implied return that might be attributable to the workforce, which is an integral component of the overall delivery network.
[72] We do recognize that there currently are some risks or threats to the brand and we account for these in our discount rate analysis.

In a fair market valuation of a brand, the discount rate is a market-driven, forward-looking measure of the expected rate of return a willing buyer and willing seller would reach based on the analysis of the risks inherent in the specific brand investment. As a result, the discount rate does not represent the overall cost of capital of the Postal Service (or any market participant for that matter), but rather represents the required rate of return for an investment solely in the corporate brand.

The Postal Service corporate brand is an intangible asset. Intangible assets are generally riskier and less liquid relative to net working capital and fixed assets, necessitating a higher rate of return. A number of different methods exist to compute discount rates applicable in the valuation of intangible assets such as brands.[73] We selected the build-up method. The build-up method includes a risk-free rate and incremental risk premiums specific to intangible asset under investigation.

We used the risk-free rate given by the most recent monthly yield on the 30-year Treasury bond, as reported by the Federal Reserve in Statistical Release H.15. As of August 2014, this rate was 3.20 percent. We subsequently included two incremental risk premia to add to this risk-free rate. In combination, these risk premia reflect that an investment in the Postal Service corporate brand carries additional risk compared to investing in a 30-year treasury bond.

The first risk premium captures the additional risk an investor expects when weighing different investment options that are riskier than a government bond. We used a market risk premium of 5.85 percent to capture the additional return required for investing in a riskier asset (e.g., a stock or a brand).[74] However, this additional risk premium compensates an investor for the market risk associated with foregoing alternative investments and does not necessarily consider investment-specific risks.

We included an additional 1.30 percent risk premium to capture the required rate of return an investor would expect for a specific investment in the Postal Service corporate brand. We determined this premium based on our comprehensive review of the Postal Service brand history, critical brand attributes and risks currently facing brand development. We followed a methodology similar to BrandFinance's use of a "BrandBeta," which captures the incremental risk associated with a particular brand based on brand attributes. In our method, we evaluated different elements of the Postal Service brand (e.g., time in market, marketing spend, brand awareness, emotional connection) and determined that the Postal Service brand is riskier than the

[73] Additional methods include the Capital Asset Pricing Model (CAPM), the Weighted Average Cost of Capital (WACC), price/earnings multiples and arbitrage pricing theory. For a complete discussion of these methods (and others), please see Pratt, Shannon P. and Roger J. Grabowski, *Cost of Capital, 5th Ed.* Hoboken: Wiley, 2014, p. 1311.
[74] We determined the 5.85 percent by averaging the market risk premiums reported in Ibbotson Associates Stocks, Bonds, Bills and Inflation (6.70 percent) and the amount computed by NYU Professor Aswath Damodaran (5.0 percent), available at http://people.stern.nyu.edu/adamodar/.

average brand. The 1.30 percent additional risk premium reflects the magnitude of the additional risk associated with the Postal Service corporate brand compared to an average brand.

The sum of the risk-free rate (3.20 percent) and the two incremental risk premia (5.85 percent and 1.30 percent) equals the total required rate of return an investor would expect when investing in the Postal Service corporate brand. This amount is 10.35 percent and is the discount rate.

In order to convert the discount rate to a capitalization rate, we deducted an estimated long-term growth rate for the brand-specific cash flows. We determined the long-term growth rate by considering different forecasts for key Postal Service financial variables, including revenue and profit. Overall, recent forecasts indicate a relatively stagnate (e.g., zero growth) Postal Service revenue, where a continued decline in First-Class Mail revenue is partially offset by a growing packaging segment. Profit forecasts were more variable than revenue forecasts, depending on which assumptions one chooses to employ concerning future expense reductions currently sought (but not achieved) by the Postal Service. After a review of forecast data, we elected to use a conservative 0.50 percent long-term growth rate. Our capitalization rate was 9.85 percent, representing the 10.35 percent discount rate less a 0.50 percent long-term growth rate. Table C-6 summarizes our discount rate and capitalization rate.

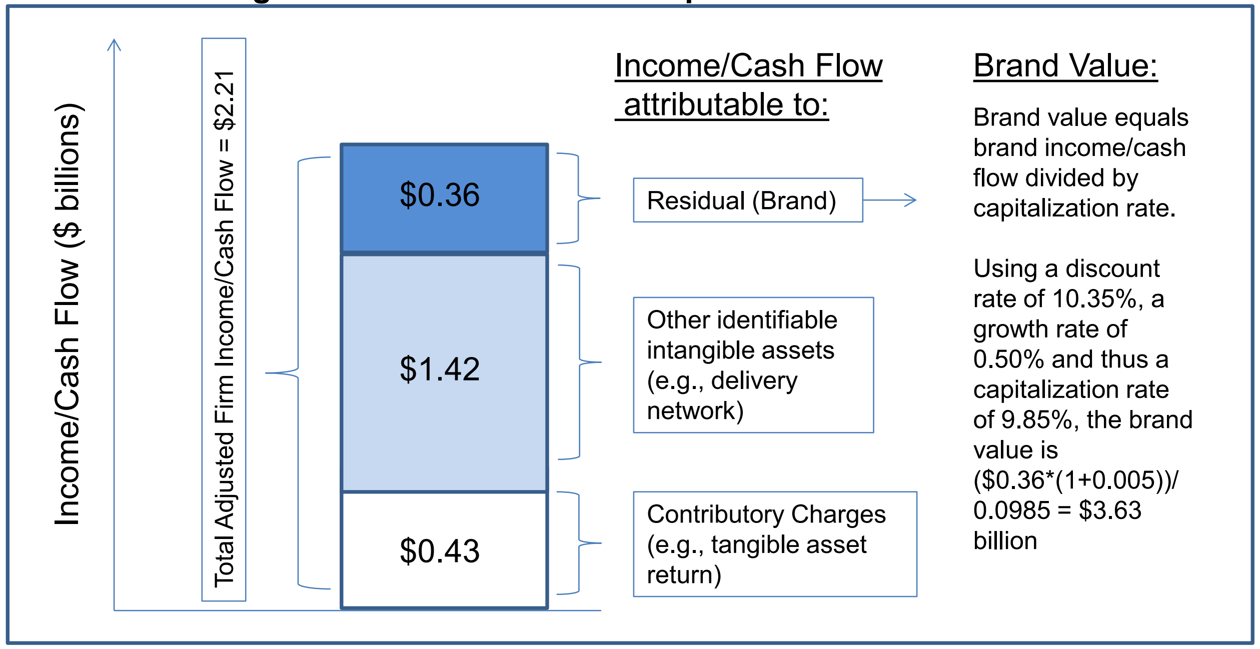
Table C-6: Discount Rate and Capitalization Rate

Risk Free Rate	(a)	3.20%
Market Risk Premium	(b)	5.85%
Postal Service Brand Risk Premium	(c)	1.30%
Total Expected Rate of Return (Discount Rate)	(d) = (a) + (b) + (c)	10.35%
Long-term Growth Rate	(e)	0.50%
Capitalization Rate	(f) = (d) - (e)	9.85%

Compute the Brand Value

Once we have derived the capitalization rate, we apply it to the brand residual income to compute a value for the brand. Figure C-2 illustrates this process, where we determined a Postal Service corporate brand value of $3.63 billion.

Figure C-2: Postal Service Corporate Brand Valuation



Sensitivity Analyses

We also performed a series of sensitivity analyses to test the impact of changing various assumptions in our model on the results. Table C-7 summarizes these analyses. In performing our sensitivity analyses, we attempted to alter each of the major assumptions that form the basis for the brand model to see how sensitive the results were to changing these assumptions. So for example, our first test was to use the raw financial data without any normalizing adjustments. Not surprisingly, we obtain no value for the brand because as was shown in Table C-1, the Postal Service produced losses in each of the years we examined. While this would suggest no value to the corporate brand, our research, analysis and other work clearly showed there was considerable value to the brand, which provides additional confirmation to the need for these normalizing adjustments.

We also tested the sensitivity of the results to changing the split of the residual income between the intangible assets. This causes a fairly significant shift in the brand value of between $1.8 billion where only 10 percent is attributed to the brand to as much as $6 billion where 33 percent is allocated to the brand. As noted above, we believe our estimate of the 80/20 percent split is the most reasonable, but it must be kept in mind that the model is quite sensitive to this assumption.

We tested the sensitivity of assuming a 1.51 percent increase in revenue as a proxy for relaxing the price caps that are currently in place. We relied upon prior research into price elasticity and price caps for our 1.51 percent assumption.[75] Incorporating this assumption increased the brand value by $2.07 billion.

Next we evaluated the use of a risk free discount rate, which is much lower than the market-based discount and capitalization rate we used. Not surprisingly, the low capitalization rate derived from the use of a risk-free discount rate produces a much higher value for the corporate brand, approximately $13.25 billion. However as discussed above, this discount rate fails to account for any risk associated with an investment in the Postal Service corporate brand and therefore we do not believe that using this discount rate provides a reliable measure of the brand value. We include this sensitivity to illustrate the impact a significant change in the discount rate has on brand value.

We tested changing the return on the tangible (contributory) assets and found that the model was not very sensitive to a change in this assumption. We subsequently tested two different changes to the growth rate. The first was using an assumed zero percent growth rate to reflect a long-term outlook of relative stagnation in brand-related cash flows. Alternatively, we also tested a long-term growth rate of 2.40 percent, which would reflect a more optimistic view of future brand cash flow.[76] The difference in brand value from our baseline point estimate ranged between a 5 percent decline (zero growth) and a 26 percent increase (higher growth rate).

We also evaluated whether the assumption of an infinite life of the brand had a big impact, and substituted a 20 year life. Although the value declined as would be expected, it only declined about 16 percent, which is not a major change given the range of values being computed.

Finally, we examined the impact of assuming a level of double counting of foregone revenue in the PRC's estimate of the cost of the USO and value of the monopoly. In this sensitivity analysis, we assumed that the full amount of the foregone revenue attributable to going from a 6-day delivery to 5-day delivery in FY2007 ($0.58 billion) was captured in the cost of the USO and double counted in the value of the monopoly. As a result, for each year, we increased the net cost of the USO by $0.58 billion in each year.[77] The result was a 33 percent increase in the brand value.

[75] "Revisiting the CPI-Only Price Cap Formula," USPS OIG Report Number RARC-WP-13-007, April 12, 2013, https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-13-007.pdf. See also George Mason School of Public Policy's white paper, "Implications of Declining Mail Volumes for the Financial Sustainability of the Postal Service" at https://www.uspsoig.gov/sites/default/files/document-library-files/2013/rarc-wp-10-006_0.pdf.
[76] We used 2.4 percent as a proxy for long-term Gross Domestic Product (GDP) growth.
[77] We only had available data for the FY2007 foregone revenue in going from a 6-day delivery to a 5-day delivery. As a result, we made the conservative assumption that this amount would remain constant over time and applied this value in each subsequent year.

Table C-7
Results of Sensitivity Analyses
($ billions)

Sensitivity	Brand Value
1. Include accrued liabilities in income statement	No value
2. 10% of residual income apportioned to brand value	$1.82
3. 33% of residual income apportioned to brand value	$5.99
4. Price cap sensitivity leading to revenue increase of 1.51%	$5.71
5. Low discount rate sensitivity (using risk-free rate of 3.20%)	$13.25
6. Higher return on contributory assets	$3.05
7. Zero future growth rate	$3.44
8. Higher future growth rate (2.40 percent)	$4.59
9. 20 year finite life for the brand	$3.06
10. Adjust for delivery frequency foregone revenue in net cost of USO	$4.82
Best Estimate	**$3.63**
Range of Values	**$1.82 - $13.25**

Brand Valuation Model

To review the model supporting *The Value of the U.S. Postal Service Brand* (RARC-WP-15-005), see

https://www.uspsoig.gov/sites/default/files/USPS-OIG-PQC-USPS-Brand-Valuation-Model.xlsx.

Executive Summary

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