What is the Value of the Postal Service?

By
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Bachelor of Arts, Economics, University of Maryland, 2008
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SUBMITTED TO THE MIT SLOAN SCHOOL OF MANAGEMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF BUSINESS ADMINISTRATION
AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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Abstract

The United States Postal Service (USPS or Postal Service) has a storied history that predates the constitution and founding of America. Through war, economic boom and bust, the industrial revolution, and technological innovation, the USPS has evolved its operations and remains a beacon for consistency that binds Americans together. As the world adopted electronic technology as its primary means of communication, USPS experienced precipitous declines in mail volume. Large institutions have turned to electronic alternatives for consumer outreach and the share of the population who has never entered a Post Office or mailed a letter is growing. Has the Postal Service finally met its match in electronic diversion? How long until mail volume becomes too low to justify the Postal Service's universal service obligation? Will package delivery alone sustain a ubiquitous government mandated shipper? These questions are not new and will not go away for the foreseeable future. With 640,000 current employees, the USPS remains a vital part of the economy with the promise of job stability and enriched benefits still intact. If losing the Postal Service is not a sustainable option for the economy, and most certainly for either political party, what is the way forward?

This thesis will provide a framework to analyze the value of the Postal Service through a variety of lenses. It will highlight the value that the Postal Service has provided for the United States historically and examine its more recent history through a financial microscope. A wide-angle overview of regulations and mandates that shape the USPS's financial condition sets the stage. I then turn to a brief review of the core financial valuation concepts that underpin the analysis. An assessment of the value of balanced scorecards in a corporate setting provides the foundation for key metric recommendations. I end with a proposed scorecard intended for public consumption that captures the value of the Postal Service.

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What a year.

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Disclaimer

The views expressed in this thesis are those of the author and do not reflect the official views, policies or positions of the United States Postal Service.

No official United States Postal Service approval is expressed or implied.

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Chapter 1: Introduction

The Postal Service has been adapting to changes in consumer demand and technological advancements for 245 years. As an organization which predates the Declaration of Independence, it has served as a connective fiber for the United States since its inception. The onset of the digital age has eroded mail volume and thrust the Postal Service into relying more and more on e-commerce and package delivery to fund operations. It is more critical than ever to understand the underlying value of the Postal Service, through both financial and non-financial lenses, to help identify potential strategies that would enable the organization to profitably adapt as its product mix continues to shift, without losing sight of how it has contributed historically to American society.

As an independent agency of the executive branch of the federal government, the Postal Service is ordained by Title 39 of the United States Government Code to "Provide postal services to bind the Nation together through the personal, educational, literary, and business correspondence of the people. It shall provide prompt, reliable, and efficient services to patrons in all areas and shall render postal services to all communities. The costs of establishing and maintaining the Postal Service shall not be apportioned to impair the overall value of such service to the people" (Public Law 91-375 – August 12, 1970 §1001). The Constitution of the United States established the Postal Service as foundational to our country.

It is clear that the Postal Service was seen as indispensable to our founders and the early colonists. Most recently, during the COVID-19 pandemic of 2020, the public seemed to echo that sentiment, (AP News 2020) calling on the government to provide financial relief to the Postal Service, enabling it to continue to provide critically needed mail and package deliveries containing information about best practices for safe interaction and much needed protective supplies. For the duration of 2020, the Postal Service performed admirably in this regard while also accepting, processing, and delivering mail-in ballots, on-time, to be counted in the presidential election. Despite the clear evidence of its criticality, the financial realities of postal operations must be digested concurrently. In fiscal year 2020, the Postal Service reported a $9.2 billion loss. There has been no better time to discuss the value of the Postal Service.

Methods

This thesis draws on my own professional experience at the Postal Service over the last decade, working in a variety of roles within Human Resources, Finance, and the Chief Information Office. I recognize as a quantitative data-driven person with an economics and finance background, I typically start analyzing a problem with data and financials. However, for the purposes of this study, I decided to approach the topic with a desire to not only view the Postal Service through a financial lens, but also to guide people to see the far-reaching social impacts that the Postal service has had throughout its history. Much of the media focuses on the financial performance of the postal service, and despite years of negative press and congressional inaction (McIntyre, 2020), the Postal Service did what is inherent to its name – served the American public, however it needed to be served.

I began my exploration with the question of how best to convey elements of the value delivered by the USPS, both financial and non-financial. I started by establishing the definition of value. I then researched the history of the postal service, seeking instances where it provided non-financial value to the American public. I continued with publicly available financial statements from the postal service as well as statistics on its operations. To address the question of how best to represent these varied measures in an integrated perspective, I then researched ways to transform what I gleaned into easily understood metrics. The right presentation, I reasoned, would enable broad adoption through simplicity. The resulting scorecard is intended not just for postal management, but for the general public, to help better convey the totality of the value being delivered.

Statute requires the Postal Service to operate like a business without relying on earmarked funding from taxpayers, placing financial measures at the center. All firms wrestle with the question of how to represent finances along with other metrics. I examined key themes from the research on the purpose of the firm in order to identify a variety of metrics that could address the questions I had uncovered and produced a proposed scorecard that should be responsive to a broad range of stakeholders. This is a bold goal, and it is important to view this thesis as a starting point for a living universal scorecard for the Postal Service, designed to spur refinements. It is likely that I have not captured all that is needed to best convey the value of the Postal Service, and that these metrics will need to evolve over time. The evolution of the scorecard is its greatest feature as it allows for priorities to change with consumer preference over time. My aim in this study is to propose a framework for tracking performance that both the American public and Postal leadership would use and find beneficial. Its current form provides relevant financial information and how the Postal Service connects the country, and attempts to lead from the front through innovation.

Chapter 2: What is Value?

Value is defined as both "the monetary worth of something" and "a fair return or equivalent in goods, services, or money for something exchanged" ("Value," 2021). The United States Postal Service has provided service to the public in exchange for remunerations for over 200 years. Value is also defined as "relative worth, utility, or importance" and "something (such a principle or quality) intrinsically valuable or desirable" ("Value," 2021). The sources of value are not equally important to all consumers. Any attempt to represent the value of a given set of services would need to capture both financial and non-financial measures—perhaps nowhere is this more important than in the US Postal Service. Today we look to the quasi-government agency as needing to both cover its costs and provide essential—and fairly-priced—public services to US citizens. In recent decades, renewed calls for businesses to make non-financial contributions to the society in which they operate have led to new forms of reporting. The confluence of financial and non-financial reporting comes into particularly sharp focus for organizations like the USPS. I will explore how the Postal Service has been providing value throughout history.

The Early History and Quick Evolution of the USPS

It is not a stretch to claim that the Postal Service helped to create the geographic and political infrastructure of the United States in its infancy, forming the foundation of its status as a global power. The idea of a national communication network predates the Constitution. While the founding fathers met to discuss independence, an intricate postal communication system had already been established. Before we had phones or the internet, the only way to maintain connection among each other was through the mail: "Making sure that the mail was delivered as quickly and dependably as possible was critical to the colonies' survival. That's why three months after the battles of Lexington and Concord, the Continental Congress turned to Benjamin Franklin to establish a national post service as the first Postmaster General" (Kiger, 2020). Today, the communication systems built and upheld by the postal service remain an integral part of everyday life. Despite the evolution of communication to digital platforms, print mail in the form of letters and advertisements still have a significant presence in American lives. "The Continental Congress turn[ed] Constitutional Post into the Post Office of the United States, whose operations became the first – and for many citizens, the most consequential – function of the new government itself" (Chotiner, 2020). Whether it's a personal note for a birthday or a small business promoting their livelihood, a vehicle to facilitate print communication began as a necessary part of the establishment of the United States and has become an invaluable tool in its growth. Further cementing its essentiality to the development of the democracy of the United States, some used the reliability of the service for political gain. For example, "In 1792, James Madison devised a Robin Hood scheme whereby high-priced postage for letters, then sent mostly by businessmen and lawyers, subsidized the delivery of cheap, uncensored newspapers. This policy helped spark America's lively, disputatious political culture and made it a communications superpower with remarkable speed" (Chotiner, 2020). Because of the unparalleled speed and ease of delivering news, the USPS quickly became an integral part of the democratic power of the United States, earning worldwide attention.

In 1831, Frenchman Alexis de Tocqueville witnessed firsthand the power of the postal system by riding in a mail coach. He reported on "the system's efficiency… In forming the Post Office, the Founding Fathers had wanted a service that would bind together the scattered populous of the new United States… Over the course of two centuries, the department would drive the expansion of roads and transit, strengthen the nation's connections with its rural communities, and brave all conditions to bring packages to citizens' front doors" (Upholt, 2020). According to de Tocqueville, the postal service not only encouraged the physical expansion of the new nation, but it also fueled the rise of the core American value of democratic participation. Seeing how Americans used the mail to deliver news concerning current events and political progress, de Tocqueville was "absolutely stupefied by how well-informed Americans were about public affairs, and how pervasive the Post Office system was. This was at a time we had already had five times more post offices than France and two times more than Great Britain. We were still wet behind the ears as a country. So this was a decision that they made that really created the United States as a global information and communication superpower" (Chotiner, 2020). The far-reaching efforts of the USPS contributed to the United States as a country competing for a presence among long-established nations overseas. Even as the nascent Postal Service led the world in its reach and presence, it began to encounter financial challenges that limited its own growth. As a result, in the 1840s, the nation decided to invest in its Post Office. "This decision was critical for the expansion of the US territories; in order to continue the nation's successful communications. A wave of laws between 1845 and 1851 dismantled the Post Office's private rivals by establishing the agency's monopoly over letter-carrying… Congress also set aside an annual appropriation in 1851 to support what it knew would be an operation in the red" (Upholt, 2020). Despite the potential financial ramifications, the importance of the postal service outweighed the consequences of a lack of support for the postal system. Because of how much and how quickly it aided in the establishment and expansion of the United States as a unified nation, the creation of the Postal Service contributed to significant elements necessary to the foundation of the country.

The Postal Service in Times of Crisis

Services offered by the Postal Service have continued to unify the country and bolster the ties between its citizens. Rural Free Delivery (RFD) service began in the United States in 1896 to deliver mail directly to farm families. Before RFD, rural inhabitants had to pick up mail themselves at sometimes distant post offices or pay private express companies for delivery. In 1913 the RFD system was supplemented by Parcel Post. The mail-order houses boomed as a consequence; but, more important, rural families were no longer isolated from contemporary thought and fashion in 20th-century America ("Rural Free Delivery," 2018). The Postal Service was also able to provide connections to its people abroad. In 1942 Armed Forces serving overseas were able to mail letters for free: “One specific wartime demand was the efficient and expeditious delivery of mail to US forces serving around the country and overseas… An unprecedented amount of mail was moved about during the war with Army post offices, fleet post offices and US post offices flooded with mail. Each year of the war, the number of pieces of mail increased. In 1945, 2.5 billion pieces went through the Army Postal Service and 8 million pieces through Navy post offices. To bring mail service to those serving worldwide, the military postal system required a global network and innovative practice” (Guise, 2019). In times of war, there is nothing more valuable to the human spirit than connection, and the Postal Service has continued to serve as an important vehicle for communication.

Similarly, in times of distress, the Postal Service offers support and stability. The unique ability of the Postal Service to interface with every citizen allows for efficient solutions to national crises. A 2020 report, *The U.S. Postal Service and Emergency Response: A History of Delivering for the American Public,* highlights some of these specific moments throughout history.

> After the Soviet Union launched a sudden invasion of Afghanistan in late December 1979, President Carter responded in several ways, one of which was to reinstate draft registration. However, at that time, the Selective Service System (SSS) had only 98 employees. The government needed some way to reach millions of young men in every community across the nation. With its unmatched physical network, the Postal Service was an ideal solution. Working with the SSS, the Postal Service prepared every post office in the country for a visit between July 21 and August 2, 1980, by a total of 4 million men. Postal clerks checked the registrations for clarity and completeness, confirmed identities, and forwarded the completed forms to SSS headquarters. The Postal Service’s nationwide network allowed the federal government to respond to this emergency quickly and efficiently (p. 6)

While it is clear as to why the Postal Service was an integral piece of the nation's evolution, examples such as these only further support how pervasive this system has become in personal communications and nationwide outreach.

The Postal Service's immediate responses to natural disasters within the United States showcases its flexibility and resilience. The federal government steps in to respond to all manner of disasters, with the USPS leading the way in the immediate aftermath of a wide range of events. In fact, the Postal Service is a vital part of our federal emergency response structure. With its nationwide physical network, delivery to all addresses six days a week, and its comprehensive address database, the Postal Service is uniquely positioned to help communities in need. Postal employees and the postal network have been a key part of emergency response for hundreds of years. U.S. mail carriers emerged as heroes in the recovery after the 2017 hurricane in Puerto Rico:

> With the Puerto Rico power grid shredded by Hurricane Maria, the U.S. Postal Service has taken the place of cellphone service at the forefront of island communications. Mail carriers gather information on sick and elderly residents in far-flung parts where hospitals have closed. Data is fed into the Federal Emergency Management Agency disaster relief office in San Juan so medical attention can be provided. Restoration of the power grid is months away and many rural roads are blocked by mudslides, sink holes and downed trees and telephone poles. Since the start of the month the Postal Service has nonetheless been delivering letters and care packages to family members desperate for news. One resident said the return of the mail service was comforting, a sign of a return to normalcy (Bronstein, 2017).

Perhaps the most recent crisis to highlight would be the COVID-19 pandemic. The Postal Service has continued to offer essential services to the American people during this time. Because the federal government's response to the COVID-19 pandemic centered on an approach that included providing care to the whole country, much coordination between federal departments and agencies was key in its response. The Postal Service, being connected to every person and business in the country, aided in delivering essential information and supplies. Not only did the USPS handle the dissemination of national health mailers and economic stimulus payments, but it also assisted with other parts of the federal response to COVID-19, including the following:

- Donating N95 Masks. According to postal management, as part of an agreement with FEMA, HHS, and DHS, the Postal Service donated 500,000 N95 masks in late March 2020. These masks went to states in the Northeast, primarily New York, which at that time was the epicenter of the pandemic in the United States.
- Distributing Personal Protective Equipment (PPE). Working with FEMA, HHS, and other agencies, the Postal Service has distributed, stored, labeled, and delivered PPE like N95 and surgical masks. These vital supplies went to federal, state, local, and tribal agencies, as well as other organizations involved in the response to COVID-19. (*The U.S. Postal Service and Emergency Response: A History of Delivering for the American Public* 2020, p. 12).

In addition to medical supplies, the Postal Service provided a steady source of connection for people who were abruptly separated when the pandemic began and shelter in place orders were in effect nationwide. Receiving mail provides necessary connection and comfort to many people during difficult times. Because many families were unable to physically see each other for an extended period of time, the Postal Service helped to provide a more personal sense of communication that was compromised when everyone was connecting through technological devices. In April 2020, a month into the pandemic, in a "survey conducted by the Postal Service, 62 percent of respondents said that getting a card or letter in the mail helped them feel more connected while they were social distancing. And 42 percent said they relied more on mail due to social distancing. Mail is especially important for those who lack Internet access or are high-risk and socially isolated during the pandemic, like nursing home residents" (*The U.S. Postal Service and Emergency Response: A History of Delivering for the American Public,* 2020, p. 12).

The Postal Service and its employees also aid and assist people directly:

> Every year, hundreds of postal employees are recognized as heroes, sometimes risking their own lives to save others in their community. In 1901, John J. Comisky, a New

> Jersey letter carrier walking his route, saw a 12-year-old boy struggling for his life in the Passaic River. Comisky jumped into the river, brought the boy to shore, then continued delivering mail in his dripping-wet uniform. In 1922, Henry Druckman, a Brooklyn letter carrier, saved the life of a toddler who fell from a second-story window by running across a street and catching the boy in his mailbag. In 1927, Charles M. Taylor, a railway mail clerk in St. Louis, pulled six women and children from a wrecked, submerged Pullman car. In 1928, Paul F. Collins, an airmail pilot, tightly circled his plane around a burning house late in the evening of February 10, until the plane's buzzing sounds woke up the family of eight inside, who escaped the fire. In 1938, James R. Fox, a Kansas letter carrier, saved an 83-year-old woman from her burning house after an oil stove set it on fire. In 1982, the National Association of Letter Carriers and the Postal Service formalized a long tradition of postal employees watching out for their customers by establishing the Carrier Alert Program. Customers could register for the program, and letter carriers would report any suspicious incidents or accumulations of mail that might indicate the customer was unable to collect his or her mail because of illness or injury. In 2012, Audrey Pollard, a postal clerk in New York, met the British man whose life she saved eight years earlier through the bone marrow donation program. Since 1997, the Postal Service has recruited more than 58,000 employees and family members to register as potential donors. More than 80 have become donors, helping to save the lives of critically ill patients worldwide (*The United States Postal Service: An American History 1775-2006* 2020, p. 85).

More than conducting simple mail delivery, postal employees also affect the lives of Americans on a deeply personal level. The Postal Service has been instrumental in forging and sustaining a national network of communication and connection among the people.

Innovations Create Foundation for Modern-Day Mail

Innovations by the Postal Service helped to build and strengthen industries in the country. In particular, Airmail helped build the aviation industry. Almost as soon as airplanes began taking flight, the Postal Service saw a partnership with this new mode of transportation. As early as 1911, airmail was flown daily during a gathering of an international aviation meet. Following that, "the years between 1911 and 1916 were a period of experimentation with the airmail. Experimental flights at fairs, carnivals, and air meets were authorized. These years allowed interest in the concept to develop in the minds of the people. They also allowed the Post Office to experiment with little expense on their part" (Thiessen, 2002, p. 13). Without these initial trials, advances would not have been made in furthering the field of transportation and mail distribution. For example, College Park Airport in Maryland acted as an airmail depot from 1918 to 1921. “These years proved the viability of airmail and allowed experimentation and expansion. The Post Office would concentrate on transcontinental air routes from New York to San Francisco and a series of rotating beacons would be deployed across the country to make night flight possible. Radio navigational aids were still in the future. Airmail eventually became transcontinental: By 1927, airmail routes were contracted out to private companies. Commercial aviation got its wings through the pioneering spirit of the airmail and its pilots” (Thiessen, 2002, p. 14).

The Post Office Department also created opportunities to further innovations within the institution itself, and one of the most obvious and useful innovations has been the creation of the ZIP code in 1963. This innovative feature “helped postal employees manually sort mail by consolidating regional, city, and state information into five easy-to-read numbers. Previously, clerks had to memorize the names and locations of thousands of Post Offices in order to sort mail to the right hub. The code also enabled computerized presorting of mail by business mailers, who could then bundle and deposit mail presorted by sectional center, which speeded delivery by eliminating multiple handlings. The new code also paved the way for further development of automated mail processing” (*The United States Postal Service: An American History 1775-2006* 2020, p. 57). The Post Office Department also initiated projects and awarded contracts to develop a number of machines and technologies, including letter sorters, facer-cancelers, automatic address readers, parcel sorters, advanced tray conveyors, flat sorters, and letter mail coding and stamp-tagging techniques (*The United States Postal Service: An American History 1775-2006* 2020, p. 59). It is difficult to imagine the Postal Service as an entity other than what it is today, but these innovations and advancements truly laid the foundation of the modern-day mail system.

Contributions to Social Change

The Postal Service has also contributed to social change throughout its history. Over the course of the nation's development, employment opportunities for members of minority groups such as women and African Americans have been more limited than for others, yet the Postal Service has led the way in providing opportunities for members of these groups to prosper professionally. For example, women were able to serve as Postmasters before they even had voting rights. Similarly, African Americans worked as Postmasters, clerks, and carriers in the 1860s—immediately following emancipation laws and one hundred years before the Civil Rights Era:

> The Postal Service has been at the forefront for providing steady employment for often marginalized groups many years before it was widely accepted. More recently, "…Many Americans — men and women of all geographic, ethnic, and racial backgrounds — have made the Postal Service what it is today. Women served as Postmasters in the United States more than a century before they won the right to vote. African Americans worked as Postmasters, clerks, and carriers beginning in the 1860s — one hundred years before the Civil Rights Era opened up widespread opportunity in the American workplace. In the 20th century, postal employment helped launch many African Americans into the middle class. The benefits of postal employment rippled out to the community at large, as black postal employees not only often served as leaders in their communities, but also frequently helped lead the struggle for civil rights. "In the early 21st century, the Postal Service continued to stand out as a leader in building a diverse workforce (*The United States Postal Service: An American History 1775-2006* 2020, p. 86)

In 2015, Megan Brennan became the 74th Postmaster General of the United States and the first woman to take the office. In Brennan's introduction letter to *The United States Postal Service: An American History*, she states: "As America's economy and society have evolved, so too has the Postal Service progressed, both meeting and reflecting the nation's changing needs" (2020). The Postal Service remains on the forefront of social change and advancement. From the beginning, the Postal Service has quickly recognized that pioneering new ways of business can increase its production and therefore, its value. From teaming up with a new mode of transportation, to creating its own organizational system, to hiring a diverse group of employees, the USPS has seen and continues to see the benefits of valuing its growth and innovation. Today, 240 some years later the Postal Service continues both internally and externally to promote the original intent of the Post Office Department which is to; "Bind the Nation and Enable Commerce." Perhaps the inscription on the former Washington, D.C., Post Office, now home of the Smithsonian's National Postal Museum describes it best:

> Messenger of Sympathy and Love
> Servant of Parted Friends
> Consoler of the Lonely
> Bond of the Scattered Family
> Enlarger of the Common Life
> Carrier of News and Knowledge
> Instrument of Trade and Industry
> Promoter of Mutual Acquaintance
> Of Peace and of Goodwill
> Among Men and Nations (*The United States Postal Service: An American History 1775-2006* 2020, p. 129)

Chapter 3: The Postal Service by The Numbers

Operating statistics offer a more systematic perspective of the value that the USPS provides to the country. To make sense of operational measures, it is useful to look at the data over time to understand how performance has shifted and to track the changing demands its users place on the service. This examination will ground us in its most recent history and help provide context for our ultimate goal of a balanced postal scorecard. The next section briefly reviews the key operating statistics of volume, delivery points, and workforce, connecting their relevance to the potential value created by each, augmenting the non-monetary value discussion from the previous chapter.

Volume and Revenue

The Postal Service derives the majority of its Total Revenue from delivered mail. In recent years, ecommerce has skyrocketed, and the USPS has benefited from increased package volume to help offset revenue losses in its mail categories. While volume has been decreasing, we still see a significant amount of first-class mail, the most profitable USPS product. The following section highlights trends in the volume profile of USPS over the last decade. Of particular focus should be the precipitous decline in mail and the growth in package volumes and the implications this might have on the Postal Service's future.

Table 1: USPS Historical Volume and Revenue

VOLUME										
(Millions)	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Volume										
First Class	73,521	68,674	65,754	63,603	62,599	61,240	58,747	56,712	54,936	52,624
Marketing	83,582	79,496	80,806	80,311	80,030	80,885	78,329	77,270	75,653	64,143
Shipping and Packages	3,258	3,501	3,715	4,015	4,539	5,159	5,748	6,149	6,165	7,323
International	-	926	902	899	913	1,005	1,003	941	855	729
Periodicals	7,077	6,741	6,359	6,045	5,838	5,586	5,301	4,994	4,635	4,006
Other	496	497	686	502	402	467	363	336	318	346
Total	**167,934**	**159,835**	**158,222**	**155,375**	**154,321**	**154,342**	**149,491**	**146,402**	**142,562**	**129,171**
Mail	164,676	156,334	154,507	151,360	149,782	149,183	143,743	140,253	136,397	121,848
Packages	3,258	3,501	3,715	4,015	4,539	5,159	5,748	6,149	6,165	7,323
Operating Revenue										
First Class	$ 32,179	$ 28,856	$ 28,110	$ 28,335	$ 28,412	$ 27,508	$ 25,637	$ 24,948	$ 24,431	$ 23,778
Marketing	$ 17,738	$ 16,428	$ 16,915	$ 17,428	$ 17,646	$ 17,622	$ 16,626	$ 16,512	$ 16,359	$ 13,909
Shipping and Packages	$ 10,688	$ 11,592	$ 12,597	$ 13,743	$ 15,061	$ 17,427	$ 19,481	$ 21,467	$ 22,783	$ 28,537
International	$ -	$ 2,816	$ 3,016	$ 3,024	$ 2,702	$ 2,674	$ 2,723	$ 2,630	$ 2,474	$ 2,400
Periodicals	$ 1,821	$ 1,731	$ 1,658	$ 1,625	$ 1,589	$ 1,507	$ 1,375	$ 1,277	$ 1,194	$ 1,024
Other	$ 3,285	$ 3,656	$ 3,583	$ 3,609	$ 3,380	$ 3,630	$ 3,751	$ 3,788	$ 3,895	$ 3,475
Total	**$ 65,711**	**$ 65,079**	**$ 65,879**	**$ 67,764**	**$ 68,790**	**$ 70,368**	**$ 69,593**	**$ 70,622**	**$ 71,136**	**$ 73,123**
Mail	$ 55,023	$ 53,487	$ 53,282	$ 54,021	$ 53,729	$ 52,941	$ 50,112	$ 49,155	$ 48,353	$ 44,586
Packages	$ 10,688	$ 11,592	$ 12,597	$ 13,743	$ 15,061	$ 17,427	$ 19,481	$ 21,467	$ 22,783	$ 28,537
Revenue Per Piece										
Mail	$ 0.33	$ 0.34	$ 0.34	$ 0.36	$ 0.36	$ 0.35	$ 0.35	$ 0.35	$ 0.35	$ 0.37
Packages	$ 3.28	$ 3.31	$ 3.39	$ 3.42	$ 3.32	$ 3.38	$ 3.39	$ 3.49	$ 3.70	$ 3.90

Source: FY2011-FY2020 Annual Reports to Congress

The USPS has various classes of mail governed by different pricing rules, and each provides value to different segments of the US population. This section is intended to provide a very brief background of the Postal Service's products while highlighting the way each brings value.

First-Class Mail

First-Class Mail includes cards, letters and flats. Prices for First-Class Mail, the most profitable service category, are the same regardless of the distance the mail travels. Because First-Class Mail is classified by law as Market-Dominant, price increases are currently generally subject to a price cap based on the Consumer Price Index for All Urban Consumers ("CPI-U").

From letters wishing a happy birthday to wedding invitations and holidays, First-Class Mail is still used to connect people. Anecdotal evidence suggests that many people prefer receiving hard-copy mail versus electronic mail. According to a 2009 study by Bangor University, the brain responds more favorably to physical materials versus digital (Dooley, 2016).

Marketing Mail

USPS Marketing Mail generally consists of advertising, newsletters, catalogs, small marketing parcels and other printed matter not required to be processed and delivered as First-Class Mail or Periodicals. Marketing Mail price increases are generally capped at the rate of inflation because they are classified by law as Market-Dominant.

Marketing Mail follows First-Class Mail when it comes to consumer preference. Not only does Marketing Mail provide an avenue for small and large business to directly reach consumers in specific locations, but there is evidence that consumers respond more often to physical mail advertisements. Canada Post sponsored a study to look at the differences between physical and digital mail and found the following: “Direct mail requires 21% less cognitive effort to process than digital media (5.15 vs. 6.37), suggesting that it is both easier to understand and more memorable. Post-exposure memory tests validated what the cognitive load test revealed about direct mail's memory encoding capabilities" (Dooley, 2016). When asked to cite the brand (company name) of an advertisement they had just seen, recall was 70% higher among participants who were exposed to a direct mail piece (75%) than a digital ad (44%)" (Newman, 2012).

Shipping and Packages

The Shipping and Packages business consists of competitive services that can be priced to reflect current market conditions, although prices are subject to review by the Postal Regulatory Commission for legal compliance. These include Priority Mail, Priority Mail Express, Parcel Select, Parcel Return, First-Class Package Services - Retail and First-Class Package Services - Commercial. Shipping and Packages also includes Bound Printed Matter and Media and Library Mail; however, these are considered Market-Dominant services and are therefore subject to price caps.

As the Postal Service evolves with consumer preferences, this product segment has become increasingly more important to its business model. The Postal Service delivers packages from business to consumers, and is also leveraged by other shippers to complete last-mile deliveries. Companies like UPS, FedEx, and Amazon contract with the Postal Service to deliver packages when they have exceeded capacity or when they do not have sufficient density to justify a delivery. While there is much debate around the profitability or appropriateness of these arrangements that lie beyond the scope of the present study, it is a fact that the Postal Service provides services to segments of the population that private sector carriers have decided not to at this time. The value of doing so, I argue, should be reflected in the Postal Service's presentation of its performance.

International Mail

The Postal Service's International Mail category includes several services that enable customers, both domestic and abroad, to send international mail, including postcards, envelopes, flats and packages, with either standard or express delivery options. The growth of e-Commerce marketplaces such as Alibaba, Amazon, E-Bay, ETSY, etc.…has created an ability for sellers and buyers to connect worldwide. USPS in partnering with other Global Posts, now delivers almost a billion packages purchased by American consumers from sellers in Asia, but also, to a more limited extent, from sellers in rural communities in Africa and South America. Just as USPS allowed America to prosper over the centuries, they are now enabling low-income countries to share in the new global e-commerce economy by providing access to the vast US market.

Periodicals

Periodicals, also presented as a mail class and a Market-Dominant service category, includes services designed for newspapers, magazines and other periodical publications whose primary purpose is providing publications to subscribers or other users. Periodicals revenues and volumes have been in decline for more than a decade as trends in hard-copy reading behavior and shifts of advertising away from print have decreased this business. Small-town America is challenged to keep the local newspapers alive and continuing to connect the citizens with the issues of the day. USPS is being looked at to support this vital communication channel for these areas, possibly through Tax-payer funded subsidies.

Other

Other services revenue includes ancillary services such as Certified Mail, PO Box services, and Return Receipt services. Also included in this category are money orders, passport services, signature-on-delivery services, insurance, and our own internal mail, which generates no revenue and has volume that can vary significantly from year to year.

Each of these classes of mail connects people. First-class mail, while in continued decline, still constituted over 50 billion pieces in 2020, or 159 pieces annually for every person in the United States. In 2020, Marketing Mail was hit hardest by the pandemic, dropping over 11 billion pieces or approximately 15%. As in-person interactions become more prevalent, this class is expected to increase, but returning to pre-pandemic levels is a tall order. Shipping and Packages saw strong performance in fiscal year 2020, as the pandemic contributed to an increase of nearly 19% over the prior year. Just how much of this volume increase is permanent is yet to be determined.

In fiscal year 2020, the Postal Service's volume accounted for 368 pieces of mail and 22 packages delivered to every single adult and child in the US, on average. For reference, in fiscal year 2011, these numbers were 529 and 10, for mail and packages respectively. Subsequent analysis will reflect volume data summarized at the highest level, creating two broad categories of product; packages, comprised of shipping and packages volume, and mail, including all other classes of mail.

Revenue trends from the various classes of mail naturally follow volume. Mail revenue declined 7.8% in fiscal year 2020, compared to the prior year. Fiscal year 2020 package revenue increased $5.8 billion, or 25.3% over 2019. It is this exchange of mail for package revenue that is concerning, as packages cost more to process and deliver, and thus mail is comparatively more profitable on a percentage basis relative to its costs. Whether this shift in product mix is permanent or the Postal Service will see more mail and less packages in 2021 and beyond is a subject for debate. The value of the Postal Service is inexorably linked to whether or not this volume profile shift is secular or cyclical.

Delivery Points

The Postal Service is mandated by Congress to deliver to every household and business, six days per week. The following chart shows the number of delivery points, or the final destination of a letter or package represented by a mail box, porch, etc., by year from 2011 to 2020. Over this period, the Postal Service added a remarkable total--nearly 9.9 million--new delivery points: 6.5 million to rural areas and 3.7 million in cities.

Table 2: USPS Historical Delivery Points

DELIVERY POINTS	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Residential										
City	80,792,112	81,040,591	81,297,883	81,650,586	82,020,625	82,411,214	82,855,611	83,279,977	83,739,561	84,233,373
Rural	39,067,740	39,449,400	40,111,620	40,750,668	41,378,300	42,065,134	42,805,252	43,591,733	44,425,454	45,320,604
PO Box	15,891,349	15,994,508	15,882,717	15,858,668	15,894,358	15,926,420	15,954,141	15,960,945	15,985,189	16,015,289
Highway Contract	2,639,061	2,678,508	2,736,005	2,774,213	2,827,085	2,880,500	2,924,386	2,959,424	3,001,015	3,050,749
Total Residential	**138,390,262**	**139,163,007**	**140,028,225**	**141,034,135**	**142,120,368**	**143,283,268**	**144,539,390**	**145,792,079**	**147,151,219**	**148,620,015**
Business										
City	7,487,332	7,525,979	7,554,231	7,592,773	7,633,285	7,664,927	7,690,284	7,709,827	7,734,259	7,789,025
Rural	1,468,861	1,493,644	1,524,741	1,554,422	1,584,916	1,614,185	1,639,505	1,673,267	1,707,145	1,736,436
PO Box	4,072,664	3,889,964	3,738,314	3,634,467	3,535,563	3,452,198	3,379,418	3,301,930	3,226,893	3,146,028
Highway Contract	72,872	73,957	74,922	76,179	77,696	79,602	80,079	81,153	81,796	82,648
Total Business	**13,101,729**	**12,983,544**	**12,892,208**	**12,857,841**	**12,831,460**	**12,810,912**	**12,789,286**	**12,766,177**	**12,750,093**	**12,754,137**
Combined										
City	88,279,444	88,566,570	88,852,114	89,243,359	89,653,910	90,076,141	90,545,895	90,989,804	91,473,820	92,022,398
Rural	40,536,601	40,943,044	41,636,361	42,305,090	42,963,216	43,679,319	44,444,757	45,265,000	46,132,599	47,057,040
PO Box	19,964,013	19,884,472	19,621,031	19,493,135	19,429,921	19,378,618	19,333,559	19,262,875	19,212,082	19,161,317
Highway Contract	2,711,933	2,752,465	2,810,927	2,850,392	2,904,781	2,960,102	3,004,465	3,040,577	3,082,811	3,133,397
Total Delivery Points	**151,491,991**	**152,146,551**	**152,920,433**	**153,891,976**	**154,951,828**	**156,094,180**	**157,328,676**	**158,558,256**	**159,901,312**	**161,374,152**

Source: FY2011-FY2020 Annual Reports to Congress

The increasing number of delivery points, universal service obligation, and volume realities create a conundrum for the Postal Service. On one hand, the delivery network can be viewed as its most valuable asset. The sheer breadth of its delivery operation is incomparable and would be difficult, if not impossible, to replicate. Touching each household and business on a daily basis is a competitive advantage that no other entity experiences. Yet, each delivery point costs money to service and although we have seen an increase in revenue per delivery point over the last decade, costs have risen as well. The Postal Service lost approximately $56 on average for each delivery point it serviced in fiscal year 2020. Filling this gap is, of course, a key concern for the leaders, members, and supporters of the Postal Service. Would each household and business have been willing to write a check (or electronically transfer) $56 on January 1, 2021 to cover the losses incurred in 2020?

Observers have generated a range of creative ideas about the additional services that the Postal Service could provide with its carriers. Is it too much of a leap to envision a postal carrier doing a wellness check for local governments or ensuring people have adequate protective equipment in the event a viral pandemic takes place? Perhaps the countless miles traveled by carriers each day could be leveraged to provide real-time road condition information to autonomous vehicles. All of these discussions seek to create and deliver value out of an existing asset, or at the very least to cover the costs of doing business.

Complement

The Postal Service is a labor-intensive organization. In order to fulfill its universal service obligation, it must have sufficient carriers to complete routes that service 161.3 million delivery points each day. To transport and process millions of pieces of mail each day, the Postal Service has a ubiquitous network staffed by full-time and part-time employees. The next chart shows the trend in complement, or number or people, at the USPS over the last decade.

Table 3: USPS Historical Complement

COMPLEMENT	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Employees										
Career	557,251	528,458	491,017	488,300	491,863	508,908	503,103	497,157	496,934	495,941
Non-career	88,699	100,570	126,697	129,577	129,974	130,881	141,021	137,290	136,174	148,092
Total Employees	**645,950**	**629,028**	**617,714**	**617,877**	**621,837**	**639,789**	**644,124**	**634,447**	**633,108**	**644,033**

Source: FY2011-FY2020 Annual Reports to Congress

As you can see, the total number of employees has reduced slightly since 2011, dropping by approximately 1,900 (-0.3%). Career employees, or those who generally work a full-time schedule, have decreased by over 61,000, while non-career employees, or those who are not guaranteed a full-time schedule, increased over 59,000. The exchange of non-career employees at lower wage rates for career employees has been a key contributor to keeping labor costs flat for the last 10 years. As you might recall, overall volume has declined nearly 39 billion pieces over this same timeframe, but package volume is driving a higher number of employees per piece.

The Postal Service workforce creates value each and every day by connecting communities through the delivery of mail and packages and is the central cog of a $1.6 trillion mailing industry that employs 7.3 million people (*Top Thirteen Things You Should Know About the U.S. Postal Service* 2020). The total number of Postal employees is comparable to the number of people serving in the Army, Navy, and Air Force combined. The sheer breadth and scope of this workforce creates opportunities for employees to assist in times of need. There are many examples that occur each year where the value of having a vast workforce and frequent touchpoints manifests in a humanitarian way. One can imagine the vast scope for the Postal Service to create value for communities by leveraging its vast workforce to deliver services and address needs in ways that extend beyond mail and package delivery.

Chapter 4: Recent Financial History of the USPS

The Postal Service, like any company operating to make a profit, is focused on its financial bottom line. To examine recent Postal financial trends, I look at the three core financial statements from published 10-K reports for fiscal years 2011 through 2020. Although not a publicly traded company, the Postal Service produces 10-K reports in keeping with the requirements of the U.S. Securities and Exchange Commission. These reports provide a comprehensive view of a company's financial performance and depict key elements of the context related to unique circumstances in its operations. After examining these financial figures, I summarize the statements by linking their common elements through a process called articulation. Finally, we gain an understanding of how well the USPS is performing financially according to common financial ratios and review proposed frameworks to continually evaluate the USPS through a financial lens.

Income Statement

The Income Statement is used to report financial results of operating activities over a period of time, often quarterly or annually. The Postal Service labels its income statement section as "Statements of Operations" in its 10-K reports. The following chart captures the last decade of USPS performance through the lens of its annual Income Statements.

Table 4: USPS Historical Income Statement

INCOME STATEMENT										
(Dollars in $millions)	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Operating Revenue	$ 65,711	$ 65,223	$ 67,318	$ 67,764	$ 68,790	$ 71,429	$ 69,593	$ 70,622	$ 71,136	$ 73,123
Other Revenue				$ 66	$ 138	$ 69	$ 43	$ 38	$ 18	$ 10
Total Revenue	**$ 65,711**	**$ 65,223**	**$ 67,318**	**$ 67,830**	**$ 68,928**	**$ 71,498**	**$ 69,636**	**$ 70,660**	**$ 71,154**	**$ 73,133**
Operating Expenses										
Compensation and Benefits	$ 48,310	$ 47,689	$ 46,708	$ 46,000	$ 47,519	$ 48,689	$ 49,108	$ 50,004	$ 47,519	$ 48,730
Unfunded Retirement Benefits							$ 2,658	$ 2,398	$ 6,197	$ 6,964
Retiree Health Benefits	$ 2,441	$ 13,729	$ 8,450	$ 8,685	$ 8,811	$ 9,105	$ 4,260	$ 4,481	$ 4,564	$ 4,660
Workers' Compensation	$ 3,672	$ 3,729	$ 1,061	$ 2,554	$ 1,760	$ 2,682	$ (797)	$ 4	$ 3,504	$ 2,903
Transportation	$ 6,389	$ 6,630	$ 6,735	$ 6,586	$ 6,579	$ 6,992	$ 7,238	$ 7,861	$ 8,184	$ 8,814
Other	$ 9,822	$ 9,187	$ 9,174	$ 9,353	$ 9,157	$ 9,431	$ 9,743	$ 9,697	$ 9,911	$ 10,116
Total Operating Expenses	**$ 70,634**	**$ 80,964**	**$ 72,128**	**$ 73,178**	**$ 73,826**	**$ 76,899**	**$ 72,210**	**$ 74,445**	**$ 79,879**	**$ 82,187**
Loss From Operations	**$ (4,923)**	**$ (15,741)**	**$ (4,810)**	**$ (5,348)**	**$ (4,898)**	**$ (5,401)**	**$ (2,574)**	**$ (3,785)**	**$ (8,725)**	**$ (9,054)**
Interest and Investment Income	$ 28	$ 25	$ 24	$ 24	$ 23	$ 32	$ 58	$ 123	$ 152	$ 92
Interest Expense	$ (172)	$ (190)	$ (191)	$ (184)	$ (185)	$ (222)	$ (226)	$ (251)	$ (240)	$ (214)
Net Loss	**$ (5,067)**	**$ (15,906)**	**$ (4,977)**	**$ (5,508)**	**$ (5,060)**	**$ (5,591)**	**$ (2,742)**	**$ (3,913)**	**$ (8,813)**	**$ (9,176)**

Source: USPS Form 10-K 2011-2020

Income Statements begin with Revenue and subtract Expenses to arrive at a company's Net Income or Loss. The Postal Service has experienced accounting losses of $66.8 billion for the period 2011 to 2020. In fact, the Postal Service has seen Revenue growth of 1.2% per annum over the last decade, but its Operating Expenses grew 1.7% per year over the same period. This is not sustainable for the Postal Service or any other business that aims to cover its costs of operation. Taking a closer look at the key drivers of Operating Expense, we can see that Compensation and Benefits has remained relatively flat, growing at 0.1% over the ten-year period. Transportation expenses have increased 38%, or roughly 3.6% per year.

The largest growth by far has been in expenses for Retiree Health Benefits. For the last 10 years, the Postal Service has expensed $69.2 billion for this line item, which prefunds the health benefits of current employees in retirement. From the 2017 10-K report, "The PAEA established the Postal Service Retiree Health Benefits Fund ("PSRHBF") in 2006. In accordance with applicable law, we are required to fully prefund retiree health benefits. Such a requirement to fully prefund retiree health benefits is not imposed on most other federal entities or private sector businesses that offer such benefits." Without such a mandate, the Postal Service would have realized significantly lower expenses during this period. The report goes on to say, "In 2017, the PSRHBF began funding the Postal Service's share of retiree health benefit premiums, and we were to begin paying the "normal costs" of retiree health benefits (i.e., the present value of the estimated retiree health benefits attributable to active employees' current year of service) into the PSRHBF, as well as an amortization payment of our unfunded liability. For the year ended September 30, 2017, the amounts billed for normal costs and amortizations were $3.3 billion and $955 million, respectively. We did not make these 2017 payments in order to preserve liquidity and to ensure that our ability to fulfill our primary universal service mission was not placed at undue risk." Taking a simple average of the last four years of Retiree Health Benefits Normal Cost expense and comparing to the prior six years, the Postal Service could have potentially saved over $4.0 billion per year by simply being treated as any other Government agency. This nearly $27 billion in accounting savings could have changed the financial narrative of the Postal Service's performance reflected in its Income Statement. However, even if this were reality, the Postal Service would still have accumulated losses upwards of $39.8 billion since 2011.

Reviewing the Income Statement in more depth reveals interesting insights relative to other American companies. With Total Revenue of $73.1 billion in 2020, the Postal Service would rank 44th on a list of largest companies by revenue in the United States, exceeding the likes of Lowe's, Facebook Inc., PepsiCo, and FedEx. Compensation and Benefits, including legacy retirement and workers' compensation expenses, made up 77% of Total Operating Expenses in fiscal year 2020. While COVID-19 certainly impacted growth in all expense categories, its Total Revenue also benefited. In fact, Total Revenue grew 2.8% in 2020 when compared to 2019, while Compensation and Benefits costs excluding legacy benefits increased only 2.5%. Transportation costs increased 7.7% in 2020, and when compared to the 3.6% CAGR from the last decade, it seems clear the nationwide pandemic put upward cost pressure on this category.

It is clear after reviewing their Income Statement that the USPS is facing challenging business conditions. Revenue is growing modestly but being outpaced by significant increases in legacy benefits and Transportation costs. Next, we will examine the evolution of the Balance Sheet at the USPS.

Balance Sheet

A company's Balance Sheet gives a snapshot of its financial position at a specific point in time. The following data is pulled from USPS 10-K reports and show its assets, liabilities and investment activities on September 30th of each fiscal year, from 2011 through 2020.

Table 5: USPS Historical Balance Sheet

BALANCE SHEET										
(Dollars in $millions)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Current Assets										
Cash and Cash Equivalents	$ 1,488	$ 2,319	$ 2,326	$ 4,906	$ 6,634	$ 8,077	$ 10,513	$ 10,061	$ 8,795	$ 14,358
Restricted Cash			$ 312	$ 246	$ 233	$ 253	$ 291	$ 275	$ 366	$ 354
Receivables:										
Foreign Countries	$ 669	$ 509	$ 618							
U.S. Government	$ 154	$ 142	$ 118							
Other	$ 255	$ 308	$ 302							
Receivables Before Allowances	$ 1,078	$ 959	$ 1,038	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Less: Allowance for Doubtful Accounts	$ 37	$ 41	$ 54							
Total Receivables, Net	$ 1,041	$ 918	$ 984	$ 930	$ 930	$ 1,042	$ 1,127	$ 1,094	$ 1,461	$ 1,359
Supplies, Advances, and Prepayments	$ 120	$ 126	$ 122	$ 122	$ 118	$ 140	$ 134	$ 153	$ 178	$ 224
Total Current Assets	**$ 2,649**	**$ 3,363**	**$ 3,744**	**$ 6,204**	**$ 7,915**	**$ 9,512**	**$ 12,065**	**$ 11,583**	**$ 10,800**	**$ 16,295**
Property and Equipment, at Cost										
Buildings	$ 24,263	$ 24,452	$ 24,452							
Equipment	$ 20,409	$ 20,143	$ 19,629							
Land	$ 2,952	$ 2,919	$ 2,895							
Leasehold Improvements	$ 1,112	$ 1,208	$ 1,290							
Subtotal	$ 48,736	$ 48,722	$ 48,266	$ 16,338	$ 15,686	$ 15,296	$ 14,891	$ 14,616	$ 14,352	$ 14,567
Less Allowances for Depreciation and Amortization	$ 29,023	$ 30,187	$ 31,156							
Subtotal	$ 19,713	$ 18,535	$ 17,110	$ 16,338	$ 15,686	$ 15,296	$ 14,891	$ 14,616	$ 14,352	$ 14,567
Construction in Progress	$ 624	$ 328	$ 402							
Total Property and Equipment, at Cost	**$ 20,337**	**$ 18,863**	**$ 17,512**	**$ 16,338**	**$ 15,686**	**$ 15,296**	**$ 14,891**	**$ 14,616**	**$ 14,352**	**$ 14,567**
Operating Lease Right-of-use assets										$ 4,488
Other Assets - Pricipally Revenue Foregone Receivable	$ 427	$ 385	$ 385	$ 420	$ 413	$ 411	$ 438	$ 489	$ 481	$ 554
Total Assets	**$ 23,413**	**$ 22,611**	**$ 21,641**	**$ 22,962**	**$ 24,014**	**$ 25,219**	**$ 27,394**	**$ 26,688**	**$ 25,633**	**$ 35,904**
Current Liabilities										
Compensation and Benefits	$ 2,338	$ 1,856	$ 1,529	$ 1,506	$ 1,899	$ 2,669	$ 2,397	$ 2,234	$ 2,571	$ 2,788
Unfunded Retirement Benefits							$ 3,153	$ 5,551	$ 8,385	$ 11,583
Retiree Health Benefits	$ 7	$ 11,205	$ 16,766	$ 22,417	$ 28,100	$ 33,900	$ 38,160	$ 42,641	$ 47,205	$ 51,865
Workers' Compensation	$ 1,255	$ 1,337	$ 1,322	$ 1,320	$ 1,401	$ 1,427	$ 1,513	$ 1,383	$ 1,359	$ 1,320
Payables and Accrued Expenses:										
Trade Payables and Accrued Expenses	$ 1,041	$ 1,159	$ 1,237							
Foreign Countries	$ 652	$ 583	$ 564							
U.S. Government	$ 119	$ 93	$ 112							
Total Payables and Accrued Expenses	$ 1,812	$ 1,835	$ 1,913	$ 2,023	$ 1,853	$ 1,892	$ 1,930	$ 2,217	$ 2,228	$ 2,328
Deferred Revenue-Prepaid Postage	$ 3,497	$ 4,014	$ 2,993	$ 3,064	$ 3,304	$ 2,253	$ 2,168	$ 2,066	$ 2,225	$ 2,489
Operating Lease Liabilities										$ 1,206
Customer Deposit Accounts	$ 1,386	$ 1,210	$ 1,229	$ 1,191	$ 1,201	$ 1,246	$ 1,196	$ 1,198	$ 1,119	$ 1,260
Outstanding Postal Money Orders	$ 688	$ 677	$ 671							
Prepaid Box Rent and Other Deferred Revenue	$ 502	$ 475	$ 460							
Other Current Liabilities				$ 1,221	$ 1,053	$ 1,128	$ 1,210	$ 1,180	$ 1,190	$ 1,336
Debt	$ 7,500	$ 9,500	$ 9,800	$ 9,800	$ 10,100	$ 10,100	$ 10,100	$ 11,000	$ -	$ 3,000
Total Current Liabilities	**$ 18,985**	**$ 32,109**	**$ 36,683**	**$ 42,542**	**$ 48,911**	**$ 54,615**	**$ 61,827**	**$ 69,470**	**$ 66,282**	**$ 79,175**
Noncurrent Liabilities										
Workers' Compensation Costs	$ 13,887	$ 16,230	$ 15,918	$ 17,102	$ 17,410	$ 18,612	$ 16,397	$ 15,026	$ 17,170	$ 18,754
Operating Lease Liabilities										$ 3,425
Employees' Accumulated Leave	$ 2,082	$ 1,855	$ 1,982	$ 1,982	$ 1,951	$ 1,926	$ 1,918	$ 1,906	$ 2,064	$ 2,201
Deferred Approrpiation and Other Revenue	$ 326	$ 194	$ 159							
Long-term Portion Capital Lease Obligations	$ 460	$ 410	$ 354							
Deferred Gains on Sales of Property	$ 345	$ 313	$ 308							
Contingent Liabilities and Other	$ 768	$ 846	$ 860							
Other NonCurrent Liabilities				$ 1,467	$ 1,233	$ 1,148	$ 1,076	$ 723	$ 649	$ 2,057
Debt	$ 5,500	$ 5,500	$ 5,200	$ 5,200	$ 4,900	$ 4,900	$ 4,900	$ 2,200	$ 11,000	$ 11,000
Total Noncurrent Liabilities	**$ 23,368**	**$ 25,348**	**$ 24,781**	**$ 25,751**	**$ 25,494**	**$ 26,586**	**$ 24,291**	**$ 19,855**	**$ 30,883**	**$ 37,437**
Total Liabilities	**$ 42,353**	**$ 57,457**	**$ 61,464**	**$ 68,293**	**$ 74,405**	**$ 81,201**	**$ 86,118**	**$ 89,325**	**$ 97,165**	**$116,612**

Source: USPS Form 10-K 2011-2020

As with balance sheets available for any company that is required to report financials under Generally Accepted Accounting Principles (GAAP), the Postal Service's assets equal its liabilities in aggregate, but only after accounting for its annual net deficiency. From 2011 to 2020, the Postal Service's net deficiency has increased over $60 billion, and exceeded $80 billion on September 30, 2020. In a traditional sense, this type of deficit would be untenable for any company. We will use these Balance Sheet figures to calculate various financial ratios later in this chapter.

Statement of Cash Flows

Much like the Income Statement, a company's statement of cash flows spans a period of time. Many financial experts will say that this is the most important financial report, given that having cash on-hand to adapt to operational and market realities is critical for a company's success. The following chart captures net cash flows of the Postal Service for each fiscal year from 2011-2020.

Table 6: USPS Historical Statements of Cash Flows

STATEMENT OF CASH FLOWS

(Dollars in $millions)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cash Flows from Operating Activities:										
Net Loss	$ (5,067)	$(15,906)	$ (4,977)	$ (5,508)	$ (5,060)	$ (5,591)	$ (2,742)	$ (3,913)	$ (8,813)	$ (9,176)
Adjustments to reconcile net loss:										
Depreciation and Amortization	$ 2,313	$ 2,075	$ 1,901	$ 1,843	$ 1,769	$ 1,740	$ 1,677	$ 1,669	$ 1,697	$ 1,706
Loss (gain) on disposals of ppe, net	$ 6	$ (5)	$ (53)	$ 43	$ (59)	$ (11)	$ (7)	$ (31)	$ (9)	$ 5
Lease Expense										$ (124)
(Increase) decrease in other assets	$ (25)	$ 17	$ -	$ (35)	$ 7	$ 2	$ (27)	$ (51)	$ 8	$ (73)
Increase in noncurrent workers' comp	$ 2,413	$ 2,343	$ (312)	$ 1,184	$ 308	$ 1,202	$ (2,215)	$ (1,371)	$ 2,144	$ 1,584
(Decrease) increase in emplyees' accumulated leave	$ (6)	$ (175)	$ 127							
Decrease in noncurrent deferred appropriations and other revenue	$ (3)	$ (3)	$ 13	$ (5)	$ (8)	$ (40)	$ (94)	$ (4)	$ (9)	$ (5)
Net Lease Liabilities										$ 247
(Increase) decrease in other noncurrent liabilities	$ 520	$ 78	$ 14	$ (53)	$ (215)	$ (122)	$ 61	$ (322)	$ 108	$ 1,463
Changes in current assets and liabilities										
Receivables, net	$ 53	$ 108	$ (66)	$ 54	$ -	$ (112)	$ (85)	$ 28	$ (367)	$ 102
Supplies, advances and prepayments	$ (6)	$ (6)	$ 4							
Compemsation and Benefits	$ (586)	$ (534)	$ (327)							
Other Assets					$ 4	$ (22)	$ 6	$ (19)	$ (25)	$ (46)
Retiree Health Benefits	$ 7	$ 11,198	$ 5,561	$ 5,651	$ 5,683	$ 5,800	$ 4,260	$ 4,481	$ 4,564	$ 4,660
Unfunded Retirement Benefits							$ 2,658	$ 2,398	$ 2,678	$ 3,198
Workers' Compensation	$ 140	$ 82	$ (15)							
Payables and Accrued Expenses	$ (182)	$ 23	$ 78	$ 1	$ 306	$ 935	$ 383	$ 1	$ 401	$ 566
Customers Deposit Accounts	$ (43)	$ (176)	$ 19							
Deferred Revenue-Prepaid Postage	$ 913	$ 517	$ (1,021)	$ 139	$ 144	$ (1,045)	$ (52)	$ (99)	$ 88	$ 262
Outstanding Postal Money Orders	$ 49	$ (11)	$ (6)							
Prepaid Box Rent and Other Deferred Revenue	$ (2)	$ (57)	$ (5)							
Net Cash Provided by (Used in) Operating Activities	**$ 494**	**$ (432)**	**$ 935**	**$ 3,314**	**$ 2,879**	**$ 2,736**	**$ 3,823**	**$ 2,767**	**$ 2,465**	**$ 4,369**
Cash Flows from Investing Activities:										
Change in Restricted Cash Requirements			$ (79)	$ 66	$ 13	$ (20)				
Purchase of Property and Equipment	$ (1,190)	$ (705)	$ (667)	$ (781)	$ (1,222)	$ (1,428)	$ (1,344)	$ (1,409)	$ (1,419)	$ (1,810)
Proceeds from Deferred Building Sale	$ 48	$ 40	$ -							
Proceeds from Sales of Property and Equipment	$ 89	$ 108	$ 158	$ 129	$ 120	$ 206	$ 58	$ 32	$ 27	$ 32
Net Cash Used in Investing Activities	**$ (1,053)**	**$ (557)**	**$ (588)**	**$ (586)**	**$ (1,089)**	**$ (1,242)**	**$ (1,286)**	**$ (1,377)**	**$ (1,392)**	**$ (1,778)**
Cash Flows from Financing Activities:										
Issuance of Notes Payable	$ 5,800	$ 5,300	$ 5,500	$ 5,800	$ 5,800	$ 7,600	$ 29,800	$ 69,000	$ 31,800	$ 3,400
Payments on Notes Payable	$ (4,600)	$ (4,100)	$ (5,500)	$ (5,800)	$ (5,800)	$ (7,600)	$(29,800)	$(70,800)	$(30,000)	$ (400)
Net Change in Revolving Credit Line	$ (200)	$ 800	$ -						$ (4,000)	
Changes in Capital Lease Obligations and Other					$ (62)	$ (51)	$ (63)	$ (58)	$ (48)	$ (40)
Payments on Capital Lease Obligations, Net	$ (51)	$ (51)	$ (59)	$ (58)						
U.S. Government Appropriations - Expensed	$ (63)	$ (129)	$ (48)	$ (90)						
Net Cash Provided by Financing Activities	**$ 886**	**$ 1,820**	**$ (107)**	**$ (148)**	**$ (62)**	**$ (51)**	**$ (63)**	**$ (1,858)**	**$ (2,248)**	**$ 2,960**
Net (Decrease) Increase in Cash and Cash Equivalents	$ 327	$ 831	$ 240	$ 2,580	$ 1,728	$ 1,443	$ 2,474	$ (468)	$ (1,175)	$ 5,551
Cash and Cash Equivalents at Beginning of Year	$ 1,161	$ 1,488	$ 2,086	$ 2,326	$ 4,906	$ 6,634	$ 8,330	$ 10,804	$ 10,336	$ 9,161
Cash and Cash Equivalents at End of Year	**$ 1,488**	**$ 2,319**	**$ 2,326**	**$ 4,906**	**$ 6,634**	**$ 8,077**	**$ 10,804**	**$ 10,336**	**$ 9,161**	**$ 14,712**
Supplemental Cash Flow Disclosures:										
Interest Paid	$ 178	$ 188	$ 190	$ 184	$ 179	$ 188	$ 214	$ 248	$ 217	$ 208

Source: USPS Form 10-K 2011-2020

You might ask, how does the Postal Service have over $80 billion in net deficiency while also accumulating over $14 billion in cash on hand? It carries losses from year-to-year, specifically for the legacy benefits funds discussed in the Income Statement section. And while

$14.7 billion seems like a sizeable sum, we will see why, relative to its costs of operations, it is extraordinarily low for a company of the Postal Service's size.

Summarizing the Statements

This section will combine the three statements into one digestible summary, and begin to crystalize the Postal Service's value from a purely financial perspective through key ratios derived from its financial reports. We start with a condensed balance sheet summary from September 30, 2019, or the start of fiscal year 2020, and walk to the ending balance sheet from fiscal year 2020.

Table 7: Articulation of USPS Financials

BALANCE SHEET SEPTEMBER 30 2019	
Assets	
Cash	$ 9,161
Noncash Assets	$ 16,472
Total Assets	$ 25,633
Liabilities and Net Deficiency	
Liabilities	$ 97,165
Net Deficiency	$(71,532)
Total Liabilities and Net Deficiency	$ 25,633
STARTING POINT SEPTEMBER 30 2019	

STATEMENT OF CASH FLOWS FISCAL YEAR ENDED SEPTEMEBER 30 2020		
Operating Cash Flows	$	4,369
Investing Cash Flows	$	(1,778)
Financing Cash Flows	$	2,960
Increase (Decrease) in Cash	$	5,551
Cash, September 30, 2019	$	9,161
Cash, September 30, 2020	$	14,712

INCOME STATEMENT FISCAL YEAR ENDED SEPTEMEBER 30 2020		
Revenue	$	73,133
Expenses	$	82,309
Net Income	$	(9,176)

STATEMENT OF NET DEFICIENCY FISCAL YEAR ENDED SEPTEMEBER 30 2020		
Net Deficiency, September 30, 2019	$	(71,532)
Net Income (Loss)	$	(9,176)
Net Deficiency, September 30, 2020	$	(80,708)
POSTAL SERVICE OPERATIONS FISCAL YEAR ENDED SEPTEMEBER 30 2020		

BALANCE SHEET SEPTEMBER 30 2020	
Assets	
Cash	$ 14,712
Noncash Assets	$ 21,192
Total Assets	$ 35,904
Liabilities and Net Deficiency	
Liabilities	$116,612
Net Deficiency	$ (80,708)
Total Liabilities and Net Deficiency	$ 35,904
ENDING POINT SEPTEMBER 30 2020	

Source: Author's Adaptation of USPS Financial Statements

This approach to displaying the Postal Service's finances provides a simple, yet thorough way of following the money from one financial statement to the next, from one year to the next. The information is foundational to evaluating the financial performance of the USPS and thus will be foundational to any USPS scorecard. The articulation of financial statements can be used to quickly distill whether or not the Postal Service met its financial obligations in any fiscal year while highlighting if it has made progress to reduce its debt. One might ask, what are the financial goals of the Postal Service? Are they to cover its costs or to maximize profit? The answers to these questions would be different depending on the year you asked them and the next section will highlight the evolution of fiscal mandates and the current marching orders.

Chapter 5: From Post Office Department to United States Postal Service

Congress has rarely made substantive changes to the Postal Service. The method of delivery may have evolved with technology, but its core mission of delivering products has remained intact for centuries. However, one change occurred to its business model that fundamentally shifted how its finances were to be evaluated. According to the Postal Service, "On July 1, 1971, the Post Office Department was transformed into the United States Postal Service when it became an independent establishment of the executive branch of the U.S. government. A postal career service was established and political appointments to Postal Service jobs were prohibited, a framework that still stands today" (Najduch, 2017). While 1971's Postal Reorganization Act (PRA) was monumental for a variety of reasons, it is important to highlight the business expectations established by this act. As described in a pre-hearing brief of interest arbitration proceedings between the Postal Service and one of its larger unions in 2016, Postal counsel summarizes the PRA as follows:

> From 1970 on, the clear import of postal reorganization was to establish a United States Postal Service different from the old Post Office Department and unlike other federal agencies: a Postal Service operating under sound business principles comparable to a private enterprise, supported by revenue generated by providing quality service at fair prices, and employing a workforce at market-based compensation levels. *See* H.R. Rep. No. 91-1104, at 2, 5, 6, 11-12 (expressing the House's intent to enable the Postal Service to operate in a 'businesslike' manner). Moreover, Congress removed itself from the arduous and politically-charged tasks of setting postal rates and establishing postal

> wages. A separate Postal Rate Commission was established to review proposed changes in postal prices and to ensure that the Postal Service was operating on a responsible and sound fiscal basis, was not overcharging the American public, and had sufficient funds to fulfill its mission. 39 U.S.C. §§ 3601, 3621 (2005). As for postal wages and other terms of employment, Congress applied to the Postal Service an employee and labor relations model largely distinct from the rest of the federal government and substantially patterned after labor relations in the private sector. 39 U.S.C. §§ 1202-1206, 1209 (*Pre-Hearing Brief to the Interest Arbitration Panel in the Matter of: United States Postal Service and American Postal Workers Union, AFL-CIO* 2016, pp. 2-3).

The Postal Service was given the charge to operate as a business, with rates reviewed by the Postal Regulatory Commission (PRC) to achieve a balance between covering its costs and offering affordable products. This was a simple approach to financial viability in that the Postal Service was always going to cover its costs through rates. This framework lasted for over 35 years until the Postal Accountability and Enhancement Act (PAEA) was signed into law in 2006 by George W. Bush. Along with establishing the legacy benefit pre-funding requirement discussed in a prior section, the approach to rate setting was also changed, effectively creating a government organization that was required to turn a profit with its operations, as the USPS could no longer pass-through its costs to customers. Postal counsel continued:

> The PAEA divides postal products and services into two broad categories: "market-dominant products" and "competitive products." Market-dominant products include First-Class Mail, Standard Mail, Periodicals, and certain Package Services like Bound Printed Matter: products with respect to which the Postal Service has either a legal or a de facto monopoly. Competitive products include Priority Mail Express, Priority Mail, Parcel Select, and certain other parcel services: products for which the Postal Service has significant competition from private competitors. Currently, market-dominant products account for about 98% of total postal volume and 76% of total postal revenues.
> Prices for each class of market-dominant products are capped at the rate of consumer inflation as measured by the Consumer Price Index for All Urban Consumers (CPI). 39 U.S.C. § 3622(d)(1)(A), (2)(A). Prices for competitive products are subject, in effect, to a price floor. Each product's revenues must cover 100% of its attributable costs, and competitive products must collectively cover an "appropriate share" of institutional costs. 39 U.S.C. § 3633(a)(2)-(3). Essentially, the Postal Service must price competitive products high enough so as not to lose money and, therefore, avoid cross-subsidization from the market-dominant side. The market itself limits price increases for these intensely competitive products. Thus, while the Postal Service theoretically has more latitude to increase competitive product prices than market-dominant product prices,

> market conditions constrain the ability of competitive products to sustain the Postal Service's balance sheet. (Library of Congress, 2016).

This shift from pass-through rate setting to a bifurcation of rates between capped and competitive created an environment where the Postal Service had to respond to challenges relative to its operations and customer demand without the flexibility to charge rates sufficient to cover its costs. People unfamiliar with this history might be unaware of its implications. Perhaps it would best to recall the pertinent piece of the United States Government Code to aid in interpretation: "The costs of establishing and maintaining the Postal Service shall not be apportioned to impair the overall value of such service to the people" (Public Law 91-375 - August 12, 1970 §1001). This provision at its core suggests that the USPS was created to serve the American public and should be given every opportunity to do so. Whether you believe that the Postal Service should operate fully as a business or government-run agency, the most basic expectation is that it should cover its costs. Nevertheless, the PAEA is the latest piece of legislation governing the USPS and without further congressional action, the Postal Service must abide by its provisions.

Drafters of the PAEA may have foreseen issues with its rate-making arrangement, specifically the price cap on market dominant products. The act contains a provision requiring the PRC to review this mechanism ten years after the date of enactment, where the original rate-making objectives will be considered to ensure they were sufficiently met. Of particular issue was an objective outlined in the PAEA that established rates, "To assure adequate revenues, including retained earnings, to maintain financial stability" (Library of Congress, 2016). The construct of financial stability was debated throughout the review process and the next section will dive deeper into one interpretation of financial stability, and provide a framework for ongoing evaluation of the Postal Service's financial health, leveraging the financial statements from prior sections.

Chapter 6: Financial Stability

It is easier to contextualize the interpretation of financial stability now that PRC has ruled that the mechanics of setting rates outlined in the PAEA did not meet their stated objectives. A summary of the PRC's intent to modify the price cap for market dominant products in consideration of financial stability from its Order on November 30, 2020, follows:

> The first mechanism, designed to address consequences of mail density declines, modifies the price cap to provide additional rate adjustment authority equal to the uncontrollable density-driven portion of increases in average cost-per-piece, as calculated under the Commission's formula.
> The second mechanism, designed to address the Postal Service's retirement amortization payments that are outside of its control, modifies the price cap to provide additional Market Dominant rate adjustment authority equal to the percentage by which total revenue would need to increase (necessarily assuming an equal increase levied on Competitive products) to provide sufficient revenue for the Postal Service to meet its required retirement obligation payments, as calculated under the Commission's formula (*Order Adopting Final Rules For The System Of Regulating Rates And Classes For Market Dominant Products* 2020).

Notwithstanding the intent of these mechanisms to, in effect, revert back to the rate-making process prior to PAEA where costs were passed through to consumers through price increases, the construct of financial stability is important to consider. Prior to the review in December of 2016, the PRC defined financial stability as the Postal Service being financially solvent and able to respond to changes in its environment, while meeting its statutory obligations. The following ratios were selected by the PRC to better determine how well the Postal Service was doing financially.

Table 8: PRC Metrics of USPS Financial Stability

Exhibit 8: PRC Metrics of USPS Financial Stability – 12/2016	
Short-term	Operating Profit: Operational Revenue – Operational Expenses
Medium-term	Economic Profit: Total Revenue – (Variable Cost + Fixed Cost)
Long-term	Solvency: Total Assets / Total Liabilities

Source: Defining Financial Stability: Evercore 2017, p. 18

Table 9: PRC Measures of USPS Financial Condition

Exhibit 9: PRC Measures of USPS Financial Condition	
Overall Financial Health	▪ PRC presents three key financial ratios to analyze the Postal Service's overall financial health: – Debt to Assets Ratio: Total Debt ÷ Total Assets – Fixed Assets to Net Worth Ratio: Fixed Assets ÷ Net Worth – Current Liability Ratio: Current Liabilities ÷ Total Liabilities
Solvency	▪ PRC presents the following three liquidity-related ratios to assess the solvency of the USPS: – Current Ratio: Current Assets ÷ Current Liabilities – Quick Ratio: Liquid Assets ÷ Current Liabilities – Cash Ratio: Cash and Cash-Related Instruments ÷ Current Liabilities
Long-term Financial Viability	▪ To assess the long-term financial viability of the USPS, PRC uses the Altman Z-score, which examines the likelihood that a company may file for bankruptcy. The Z-score is a weighted linear combination of five common ratios: (i) Working Capital ÷ Total Assets, (ii) Retained Earnings ÷ Total Assets, (iii) EBIT ÷ Total Assets, (iv) Market Value of Equity ÷ Book Value of Total Liabilities, and (v) Sales ÷ Total Assets

Source: Defining Financial Stability: Evercore 2017, p. 19

In support of the 2016 review, the Postal Service asked investment banking advisory firm Evercore to determine an appropriate definition of financial stability to help inform the discussion surrounding appropriate rate setting. After conducting a study on comparable entities, qualitative benchmarks, and general principles of financial stability, Evercore defined financial stability as seen in the next graphic.

Table 10: Financial Stability Defined

Exhibit 2: Definition of Financial Stability

The USPS's revenues and retained earnings shall be sufficient to allow the Postal Service to fund the following cash needs in each fiscal year:

- Operating expenses
- Statutorily mandated payments, including all post-retirement benefits (e.g., PSRHBF pre-funding), to the extent not already included on the income statement
- Principal and interest on funded debt, as well as other liabilities as they come due
- A prudent level of capital investment (e.g., in real estate, machinery and equipment, etc.) required to maintain the efficiency of and preserve the long-term viability of the Postal Service

Financial stability also encompasses the Postal Service's ability to support an appropriate balance-sheet, including sufficient liquidity to protect against the risks of both normal and cyclical cash-flow fluctuations:

- Appropriate level of debt capacity and other long-term liabilities to fund any unexpected short-term losses and capital expenditure needs that cannot be funded with current year cash flow
- Appropriate level of cash reserves and other sources of liquidity

10 EVERCORE

Source: Defining Financial Stability: Evercore 2017, p. 10

While the PRC seems to indirectly adopt many of the elements of Evercore's definition of financial stability with its most recent ruling, targets relative to the overall financial health of the Postal Service encompassing all three of its key financial statements seems to be lacking. These omissions put the Postal Service in a precarious situation when considering capital investment needed for future productivity gains and financial runway to address any unforeseen economic hardship. In essence, the PRC has given the Postal Service authority to adjust rates for the $56 gap per delivery point discussed previously. Evercore's report suggests that other factors be considered for the long-term health of the agency, but conceded simply covering its costs is sufficient to be financially stable.

Evercore also defined financial stability metrics and targets derived from its benchmarking of comparable entities. These financial metrics provide a glimpse into the value of the Postal Service from a purely financial perspective. A summary of these metrics and performance in 2016 can be found below.

Table 11: USPS Financial Stability Targets

Exhibit 4: Proposed USPS Financial Stability Targets

Category	Metric	2016 Actual	Proposed Target	Benchmarking Comps Range	Benchmarking Comps Mean	Benchmarking Comps Median
Profitability	EBT Margin[(1)]	(8%)	6%	3% - 11%	5%	4%
Leverage	Total Debt / EBITDA[(2)]	(4.1x)	1.0x - 2.5x	0.7x - 2.3x	1.6x	1.7x
Leverage	Adjusted Total Liabilities / Total Assets[(3)]	126%	85%	63% - 104%	83%	83%
Liquidity	Theoretical Liquidity Days of Opex[(4)]	39	240	161 - 689	352	239

Note: See Exhibit 14 for the rationale for including / excluding certain Benchmarking Comparables from the range used for each metric

(1) Global Postal Organizations and Federal Utilities serve as comparable entities to establish target EBT margins
(2) Global Postal Organizations serve as comparable entities to establish target Debt / EBITDA ratio
(3) Global Postal Organizations serve as comparable entities to establish target Adjusted Total Liabilities / Adjusted Total Assets ratio
(4) Global Postal Organizations and Federal Utilities serve as comparable entities to establish target Theoretical Days of Opex

Source: Defining Financial Stability: Evercore 2017, p. 12

The correct formulation of such metrics and targets—such as Evercore's proposed financial ratios for assessing profitability—entails questions that the Postal Service and its stakeholders continue to debate. Yet such measures of leverage and liquidity provide an invaluable view of the Postal Service's financial performance and could inform its decision making. In 2016, the Postal Service was woefully underperforming Evercore's proposed financial targets and sought complete rate-making autonomy for all of its products. Adding these ratios to the articulation of its financial statements will help enhance the financial elements of any USPS scorecard. These metrics could help policy makers understand if legislation is effective or if changes are needed to right the ship.

Chapter 7: Keeping Score

Now that we have laid the foundation for financial and non-financial value and discussed the Postal Service's current business model, we can start to explore the scorecard concept. What do experts say about keeping score? According to the famed scientist William Thompson, Lord Kelvin, "If you cannot measure it, you cannot improve it." This statement bodes well for the Postal Service and its abundance of data. When analyzing any element of the Postal Service's business, we should seek to create metrics that can be evaluated with a goal of continuous improvement in keeping with Kelvin's advice. Of course, there are limits to the amount of data that will be helpful, and inundating people with a never-ending list of ratios might be counterproductive. Sociologist William Bruce Cameron once noted that, "Not everything that counts can be counted, and not everything that can be counted, counts" (Cullis, 2017). So how do we determine what counts and, thus, what should be measured?

Given that the USPS provides a public service and is self-funded, it is important that any scorecard be comprehensive, and respond to both internal and external stakeholders. In 1992, management researchers Kaplan and Norton argued that businesses should craft a balanced scorecard to track the metrics that would be most useful for organizations to manage in order to improve performance. The right set of measures that would give managers a "fast but comprehensive view of the business" could equip decision makers to select the options that would best improve the firm's performance (Kaplan & Norton, 2014). While executives recognized the need to improve upon operational indicators, Kaplan and Norton were responding to their observation that many felt pressure to show short-term improvements in their company's financial performance. And although improvements in operations tend to lead to better financial performance, these could take time to materialize and it was sometimes difficult to explain to shareholders why a process improvement initiative might negatively impact financial performance today, but have positive returns down the line. Shareholders of a company depend on management to make money for them, period. Capturing financial and non-financial metrics within a company's scorecard might mitigate these reservations. As for the Postal Service, its stakeholders do not own shares, but rather receive a consistent, reliable service. Naturally the payoff of this service varies in its utility from individual to individual, but overall measures seek to capture the collective impact of its services. Any scorecard should seek to speak to all individuals through its metrics. The USPS does not receive taxpayer dollars and operates entirely through the fees it charges for its products. As we have seen, it has delivered value to its citizens for the last 245 years. Yet our examination of its recent financials depicts how its performance might appear to the eyes of a "shareholder," revealing problems in the operations of the Postal Service. It is precisely this tension that this thesis set out to examine.

In his famous doctrine of 1970, Milton Friedman wrestled with similar combatants when he penned, "The Social Responsibility of Business is to Increase its Profits." Although not a perfect parallel, Friedman discussed the difficulties with expecting executives to consider anything but financial performance when making decisions for the company. When juxtaposed with the evolution of the Postal Service's legislative history – rates set by costs vs. de facto profit maximization – and its quasi-government status, you begin to see just how applicable Friedman's concept of Shareholder Theory could be.

Shareholder Theory is quite simply explained as the responsibility of executives to respond to its shareholders. Friedman states:

> In a free-enterprise, private-property system, a corporate executive is an employee of the owners of the business. He has direct responsibility to his employers. That responsibility is to conduct the business in accordance with their desires, which generally will be to make as much money as possible while conforming to the basic rules of the society, both those embodied in law and those embodied in ethical custom. Of course, in some cases his employers may have a different objective. A group of persons might establish a corporation for an eleemosynary purpose—for example, a hospital or school. The manager of such a corporation will not have money profit as his objective but the rendering of certain services. (Friedman, 1970, p. 1).

These statements do not seem controversial in hindsight. Much like a congressman or woman represents their constituents, so to do executives at a company. It is not surprising that many people's general interests overwhelmingly align with their financial interests. When someone buys a share of a company in the stock market, whether directly through a broker or through a retirement account, e.g., 401-K or TSP, their expectation is to receive a return on that invested capital over time. If this were not the case, we would not have capital inflows into companies and public ownership. You may find a segment of the population that is willing to donate their earnings today to a company without an expectation of return, e.g., non-profit or philanthropic donations. Friedman highlights this issue when saying, "In most of these cases, what is in effect involved is some stockholders trying to get other stockholders (or customers or employees) to contribute against their will to 'social' causes favored by the activists." He highlights the reality that the majority of people who own a company seek for it to produce a return on investment in the form of profit and pass that profit back to the people.

As you can see, many elements of the Friedman doctrine can be applied to the Postal Service. The struggle between prioritizing profits over social responsibility is a burden that was placed at the feet of USPS leadership with the enactment of PAEA. A subsequent decline in mail volume and challenging operational realities have forced executives to make decisions as if they were publicly traded and running the #44 company on the fortune 500. Is this how it should be? Well, what is the alternative? We have seen how critically necessary the Postal Service is to the population during times of disaster and pandemic. Do we disregard these realities because its revenues do not cover its costs? Do we allow it the autonomy to fully operate as a business, or do we send a bill to taxpayers each year?

Friedman argued that the burden of social responsibilities falls on the shoulders of the people a company serves. The people decide whether they would like a company to pursue less than profit-maximizing endeavors in search of public good, and the executives execute the people's preferences. To enhance this point, Friedman highlighted the costs imposed on affected parties when executives choose to pursue alternative endeavors. He states, "Insofar as his actions in accord with his ‘social responsibility’ reduce returns to stock holders, he is spending their money. Insofar as his actions raise the price to customers, he is spending the customers’ money. Insofar as his actions lower the wages of some employees, he is spending their money” (Friedman, 1970, p. 2). This captures the Postal Service’s dilemma beautifully because it is a ubiquitous operation. The actions that USPS executives take impact the entire country. If a decision is made to deliver in its current state, losing money each year, the returns to the American public are growing net deficiency. If the Postal Service raises rates for its products, those same people pay more for its services. If the Postal Service reduces costs commensurate with its revenues, its own employees suffer directly. It seems there is no good choice when faced with these options.

Going a step further, Friedman admonishes thrusting social responsibility onto executives of a company, and suggests that the only rational reason to pursue socially responsible, i.e., non-profit-maximizing, ends would be for the personal gain of the executive. He goes on to say, “If our institutions, and the attitudes of the public make it in their self-interest to cloak their actions in this way, I cannot summon much indignation to denounce them” (Friedman, 1970, p. 5). Indeed, whether 1970 or 2021, it seems society as a whole has been grappling with the purpose of the firm under capitalism. Perhaps the most prescient statement in his essay, Friedman acknowledges, “In the present climate of opinion, with its widespread aversion to ‘capitalism,’ ‘profits,’ the ‘soulless corporation’ and so on, this is one way for a corporation to generate goodwill as a by-product of expenditures that are entirely justified in its own self-interest” (Friedman, 1970, p. 5).

The good news for all stakeholders involved is that Milton Friedman was not advocating for profit carte blanche, but rather making a far more nuanced argument about the role of the people who make the rules and the companies who adhere to them. It is the responsibility of the people to elect leaders who establish the guidelines that the Postal Service must operate under. And what better example than a quasi-government, quasi-profit, and quasi-purpose company to show how establishing proper incentives can strike a balance between being socially responsible and profitable. Just as the PAEA shifted the goalposts on profitability and social good, so to can future legislation. While Friedman may have been more inclined to support a playing field that reflected private sector boundaries, he would not have criticized leadership for pursuing socially responsible means if that was their lawful mandate. Perhaps we need a clearer picture of the key elements of value to address the tensions we have been exploring. An effective balanced scorecard would help stakeholders to better weigh the competing claims of financial and societal performance.

Chapter 8: The Balanced Scorecard

To establish the individual elements of the scorecard we can recall Kaplan and Norton and attempt to solve how the Postal Service can ensure it is serving the needs of all its stakeholders, within the current framework of rules set out by congress. It is worth exploring whether a change in leadership or wholesale operational and structural disruptions might be less effective than simply being even more transparent about its own achievements. Postal leadership works to accommodate customer demands while delivering on its universal service obligation. How might Kaplan and Norton devise a scorecard that elucidates key areas of Postal performance, reflecting all angles of value that we have been exploring?

A balanced scorecard should answer four foundational questions for any company and its leadership. How do customers see us? What must we excel at? Can we continue to improve and create value? How do we look to shareholders? A result of a year's worth of research of 12 companies, the balanced scorecard was developed to look retroactively at a company's performance using a financial lens, and prospectively through operational metrics that will drive future performance. This approach to metrics tabulation is especially useful because a balanced scorecard limits the scope, and quantity, of measures. A balanced scorecard that does not focus its response to the four key questions posed above does not achieve its intended purpose. Balanced scorecards can fail for another reason: management may be unable to take concerted action in response to the metrics it tracks. While the intended audience of the scorecard is internal management, transparency for all stakeholders provides a level of accountability that I argue is desirable within the Postal context. A useful scorecard derived from this thesis must make choices on what is most important to Postal stakeholders and the long-term success of the Postal Service. For this reason, I will deviate slightly from the suggestions made by Kaplan and Norton, instead choosing to establish a scorecard that is focused on external stakeholders, i.e., the American public. I will replace one section with a more socially responsive set of metrics. In a sense, the following sections "Postalize" the approach championed by Kaplan and Norton, with a special focus on external stakeholders.

The first place to start when looking to establish a balanced scorecard of any company is its purpose or mission. Without understanding what a company intends to do, you will have a hard time establishing a framework to evaluate what they do. Interestingly enough, the United States Postal Service did not have a formal mission statement until recently. On April 1st, 2020, the USPS Board of Governors adopted the following mission statement:

- To serve the American people and, through the universal service obligation, bind our nation together by maintaining and operating our unique, vital and resilient infrastructure.
- To provide trusted, safe and secure communications and services between our government and the American people, businesses and their customers and the American people with each other.

- To serve all areas of our nation, making full use of evolving technologies.

And went further to describe how they plan to carry out that mission:

- Remain an integral part of the United States government, providing all Americans with universal and open access to our unrivaled delivery and storefront network.
- Maintain and enhance our reputation and role as a trusted face of the federal government in every community and provide all levels of government with access to our network and services.
- Provide frequent, reliable, safe and secure delivery of mail, packages and other communications to all Americans.
- Use technology, innovation and, where appropriate, private-sector partnerships to optimize and adapt our network, operations and business model to meet the changing needs of our customers and delivery recipients, while maintaining our core mission.
- Operate in a modern, efficient and effective manner that allows us to minimize what we charge for our services, consistent with meeting, in a fair way, our obligations to our current and retired employees and other stakeholders.
- Remain an employer of choice, able to attract, retain and develop high-quality employees that possess the skills necessary to excel in a rapidly changing business environment. (*FY2020 Annual Report to Congress* 2020, p. 12)

These goals provide direction for implementing the mission and offer a useful lens for examining the potential value of a balanced scorecard.

The USPS currently tracks its progress toward this mission by establishing a number of metrics that align to four areas of focus: High-Quality Service, Excellent Customer Experiences, Safe Workplace and Engaged Workforce, and Financial Health. These categories provide a starting point for the refined version of a scorecard I develop here. According to the Postal Service’s fiscal year 2020 annual report, its targets and Corporate-wide Performance Outcomes are captured in the following graphic. This table gives us an opportunity to see the current priorities of Postal Management and how a new scorecard might augment what is currently being measured. As the scorecard produced from this thesis will be more externally facing, it is likely the current metrics will remain for internal purposes.

Table 12: USPS Performance Targets

FY 2020-FY 2021 Targets and FY 2017–FY 2020 Actuals for Corporate-wide Performance Outcomes

Corporate Performance Outcome	Measure	FY 2021 Target	FY 2020 Actual	FY 2020 Target	FY 2019 Actual	FY 2018 Actual	FY 2017 Actual
High-Quality Service[1]	Single-Piece First-Class Mail						
	Two-day	TBD[6]	91.47	96.50	92.05	93.78	94.72
	Three-to-five-day	TBD[6]	78.83	95.25	80.88	82.48	85.57
	Presort First-Class Mail						
	Overnight	TBD[6]	94.72	96.80	95.46	96.00	96.46
	Two-day	TBD[6]	92.77	96.50	94.10	94.92	95.58
	Three-to-five-day	TBD[6]	89.89	95.25	91.95	91.96	93.16
	First-Class Mail Letter and Flat Composite (FCLF)[2]	TBD[6]	89.73	96.00	91.36[10]	92.07	93.29
	Marketing Mail and Periodicals Composite	TBD[6]	88.38	91.80	88.73[10]	89.26	91.44
	Market Dominant Composite[3,4,5]	TBD[6]	89.00	NA	89.86	89.66	91.53
Excellent Customer Experiences	Customer Experience Composite Index[7]	76.90	72.40	75.73	69.04	67.47	88.30
Safe Workplace and Engaged Workforce	Total Accident Rate	13.75	13.09	15.00	14.19	15.09	15.43
	Engagement Survey Response Rate[8]	51%	33%	51%	38%	42%	46%
Financial Health[9]	Controllable Income (Loss, $ in billions)	(5.60)	(3.75)	(4.00)	(3.42)	(1.95)	(0.81)
	Deliveries per Total Work Hours, Percent Change	NA	0.90	1.50	(0.60)	(0.50)	(0.50)

Source: *FY2020 Annual Report to Congress* 2020, p. 33

This set of metrics captures the essential requirement of the USPS to provide exceptional service to its customers, the American public. It also highlights the importance of tracking workplace safety and sentiment, while also providing a snapshot of how the Postal Service is performing financially. Leveraging the balanced scorecard by Kaplan and Norton could enhance its current corporate performance framework by incorporating more elements of its mission statement. Using the balanced scorecard approach "brings together, in a single management report, many of the company's seemingly disparate elements of a company's competitive agenda" (Kaplan & Norton, 2014), and guards against suboptimization, because it enables the reader to consider all aspects of the business succinctly. My proposed USPS Balanced Public Scorecard discussed in subsequent sections will borrow concepts from the existing corporate targets and outcomes table, but provide an alternative view with an eye for public consumption.

Customer Perspective: How Do Customers See Us?

It is fitting that Kaplan and Norton started with this perspective as it seems to speak directly to the mission of the Postal Service - to serve the American people - and sets the stage for the three remaining perspectives. It is imperative that the metrics established by the balanced scorecard are responsive to the needs of customers, showing data that is relevant to them and their expectations. The paper goes on to classify customers' concerns into the four categories of time, quality, performance and service, and cost. These four categories actually underpin the metrics contained within all four perspectives, but are most closely aligned with the customer segment.

When combining the stated mission of the Postal Service, existing metrics that are responsive to the customer, and the recommended tenets from Kaplan and Norton, the USPS customer perspective begins to take shape. The foundation of any service-related company is adhering to the promises made to the customer. Typically, this involves delivering a product or service within a specific time frame or at a precise moment. The Postal Service established a new service performance metric for its Market Dominant products, i.e., mail that is subject to the CPI price cap discussed previously, in 2020. While it is important to have the underlying service performance details for the various time-based products in their current scorecard, the American public might be more responsive to this distilled Market Dominant Composite metric. I recommend that this metric be the first in the customer perspective segment of the USPS Balanced Public Scorecard as it captures the on-time delivery of mail products. This will give the American public comfort in knowing how often the Postal Service delivers on its expected delivery times. Naturally, a customer might expect a similar metric for USPS Competitive products, i.e., generally packages that are priced at the discretion of the Postal Service, subject to competition and cost coverage requirements. As it stands today, the Postal Service is not required to publish its performance for Competitive products. Over 40% of the Postal Service's revenue comes from the delivery of package products–and this share has been increasing each year. Presenting this information could help frame the value of the Postal Service, even if it is not mandated to do so.

It would be useful to see what the Postal Service's closest competitors report relative to on-time package delivery performance in order to help establish a benchmark metric for the quasi-government agency. Unfortunately, none of the dominant players in the package delivery segment readily publish on-time delivery data. Independent companies do attempt to track this information and publish it as deemed necessary to help inform the public. One such company, $hipMatrix, provides software to thousands of shippers, "To manage visibility, customer experience and shipping operations. The data is based on millions of actual parcels shipped from over 100,000 shipping locations across the country" (ShipMatrix, Inc. 2021). A $hipMatrix report from December 23, 2020 shows aggregate on-time delivery statistics for FedEx (95.2%), UPS (96.3%), and USPS (93.6%) (Moriarty, 2020). The American public generally receives their packages from the USPS as it would any private sector shipper. The rates customers pay are set competitively by the Postal Service, subject to competitive forces in the broader delivery market. Revealing on-time delivery information could allow the Postal Service to set a new market standard for its competitors, and the agency should feel it an obligation to inform the public of its competitive on-time service performance.

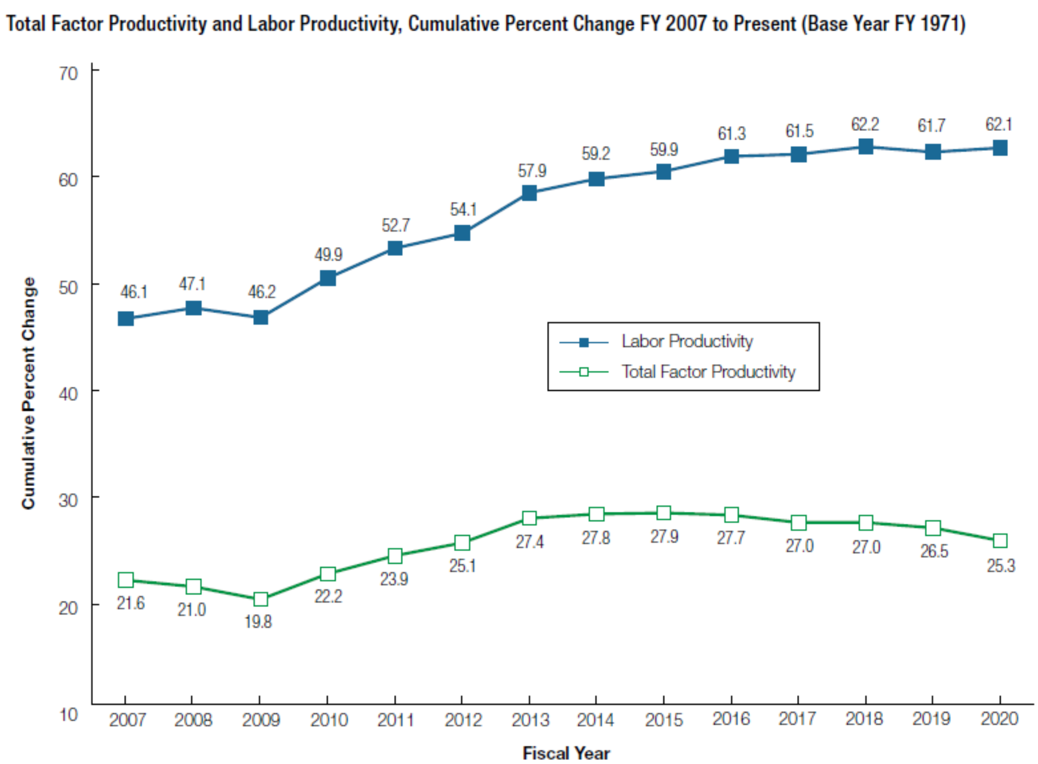
The Pew Research Center conducts surveys to capture public perception of government agencies, and the United States Postal Service consistently ranks as the nation's most trusted. This was especially true during the COVID-19 pandemic and confirmed by Pew through a survey conducted in March when the pandemic was starting to negatively impact the American way of life. In that survey, 91% of respondents had a favorable view of the Postal Service, (*Public Holds Broadly Favorable Views of Many Federal Agencies, Including CDC and HHS* 2020, p. 5) far and away the highest favorable rating among government agencies. While relying on a third party for standardized metrics is less than ideal, how the Postal Service compares to the broader federal government is critical to understanding public sentiment. I recommend that the Postal Service work with the Pew Research Center to develop a structured cadence for this poll, providing a continuous glimpse into the agency through the eyes of the American people and include this metric on the USPS Balanced Public Scorecard.

One remaining element to be addressed by the balanced scorecard from the perspective of the customer is the price the Postal Service charges for its products and services. Similar to service performance, there are plenty of data available to report the current price level and evolution of prices for postal products. Since not all customers pay the same rates, i.e., some receive discounts for volume etc., reporting revenue per piece for mail and packages can capture the weighted average price for these products. Chapter 3 highlighted a number of operating statistics including volume and revenue by product type. Using these data, we can calculate average revenue per piece, or the weighted price charged to all customer types for the broader categories of mail and packages. In 2020, the Postal Service received $0.37 per mail piece and $3.90 per package. This represents an average increase of 3.2% and 5.4% from the prior year for mail and packages respectively.

Total Factor Productivity

One metric that has been consistently tracked by the Postal Service and attempts to measure how efficiently the Postal Service uses its resources is Total Factor Productivity (TFP). According to the FY20 Annual report, “An increase in TFP indicates that the ratio of work completed to the resources used is increasing, and the organization is operating more efficiently." This metric takes into account the distribution of mail and package volume, the number of delivery points, and a variety of other factors in its calculation. Similarly, Labor Productivity helps highlight the amount of workload per one unit of labor, with an increase indicating that labor is more productive. The chart below from the annual report shows TFP and Labor Productivity since 2007.

Table 13: Total Factor Productivity and Labor Productivity



Source: *FY2020 Annual Report to Congress* 2020, p. 53

As you can see, while TFP has been declining slightly over the last few years, Labor Productivity has been steadily increasing. This suggests that the Postal Service is getting more from each individual worker, and other areas of the business are causing a drop off in productivity. The Postal Service mentions that inefficient air mail operations were a key driver in the drop in TFP of which COVID-19 was a contributing factor. The Postal Service should continue reporting TFP and Labor Productivity in the USPS Balanced Public Scorecard.

Financial Perspective: How Do We Look to Shareholders?

The Postal Service has a recent financial record that is difficult to defend. It is hindered by onerous regulations, unrealistic expectations and a challenging product market, while management lacks the authority to make changes to its business model. We have seen net losses continue to mount despite shared sacrifice from its employees and customers. In order to ensure a viable postal service for years to come, metrics that reflect its financial performance must be incorporated. The company used in Kaplan and Norton's paper described its financial goals as, "To survive, to succeed, and to prosper. Survival was measured by cash flow, success by quarterly sales growth and operating income by division, and prosperity by increased market share by segment and return on equity" (Kaplan & Norton, 2014). We have seen the theme of financial survival before.

It is important to note that there are countless financial ratios and metrics that can be used in this section. The purpose of the balanced scorecard is to select the few metrics that convey the most information about the status of the company in the three domains of surviving, succeeding and prospering. Fortunately, the financials of the Postal Service have been discussed and debated ad nauseum and finance has not changed at its core since antiquity; You must have enough cash to run the business and enough capital to invest for its future. You must also recognize your mission to deliver value to your customers. The Postal Service must focus its efforts on initiatives that give it net income, free cash flow, and assets that exceed its liabilities. The financial section of the scorecard will start with the articulation of the Postal Service's key financial statements and then include ratios that provide a glimpse into its profitability, leverage and liquidity.

The first financial metric is Earnings Before Tax (EBT) Margin as referenced previously in Evercore's analysis. EBT Margin is calculated by adding tax expense to net income and dividing by total revenue. This profitability metric is suitable as it, "Smooths out differences in the timing of cash flows from year to year, which is appropriate for a framework that seeks to improve cash flows over a long period of time" (*Defining Financial Stability: Evercore* 2017, p. 35). If any effort is made by the public to compare the financial performance of the Postal Service to a private entity, EBT Margin will help in that endeavor as it removes the effect of taxes. Put simply, EBT Margin tells you how much a company earns relative to its revenue. The Postal Service has been strained financially in recent years and EBT Margin reflects this reality. In 2016 and 2017, EBT Margin for the Postal Service was -8.1% and -4.3% respectively. The EBT Margin in 2020 was -12.8%, capturing the significant increase in financial losses over the years despite management's best efforts.

The next financial metric on the balanced scorecard attempts to interpret leverage, or the ability of the Postal Service to meet its financial obligations through examination of its capital structure. The Postal Service has historically had limited debt capacity, but recent legislation related to the COVID-19 pandemic will potentially increase its borrowing cap. It is important for the American public to know not only amount of debt carried by the USPS, but also the impact that any increase in debt might have on earnings. The Debt to Assets ratio is calculated by dividing Total Liabilities by Total Assets. In 2020, the Postal Service's Debt to Assets ratio was 3.25, a decline from the prior year when it was 3.79. Put differently, the Postal Service has $3.25 of debt for every $1 in assets. In conjunction with EBT Margin, you can surmise that Postal

Service does not have sufficient capital to cover its losses, and is on an unsustainable path without some form of fiscal relief.

Liquidity metrics attempt to convey the ability of a firm to cover its near-term expense needs. Not having enough cash on hand is worrisome and nearly all financial literature put cash reserves at the top of a company's to-do list. The Postal Service is unique as it does not fulfill its legacy benefit obligations, books a financial loss, and yet has grown its cash balance in recent years. At the end of fiscal year 2020, The Postal Service had $14.7 billion cash and cash equivalents according to its cash flow statement. To arrive at a cash metric that might be easier to interpret than a typical financial ratio, we will divide total expenses in a given fiscal year by 365 days, and use this number to calculate a hypothetical number of Days Until Cash Exhausted (DUCE). In fiscal year 2020, the Postal Service's DUCE metric was 65 days. The Postal Service had enough cash on hand at the end of fiscal year 2020 to fund its fiscal year 2020 operations for 65 days, without additional revenue. While in isolation this might seem like a simple metric, DUCE can signal how close the Postal Service is to running out of cash in the event of a catastrophic economic shock.

Understanding the Postal Service's ever-expanding delivery point obligations is also important as its financials are often scrutinized without context of its universal service obligation. The last few financial metrics will combine delivery points with revenue and costs to arrive at a financial Delta per Delivery Point (DPDP). Mentioned in Chapter 3, the DPDP will show whether or not the postal service is making or losing money for each delivery point. In fiscal year 2020, revenue per delivery point was $453, while costs were $509, on average. The DPDP for fiscal year 2020 was -$56, a 2.7% deficiency increase over the prior year.

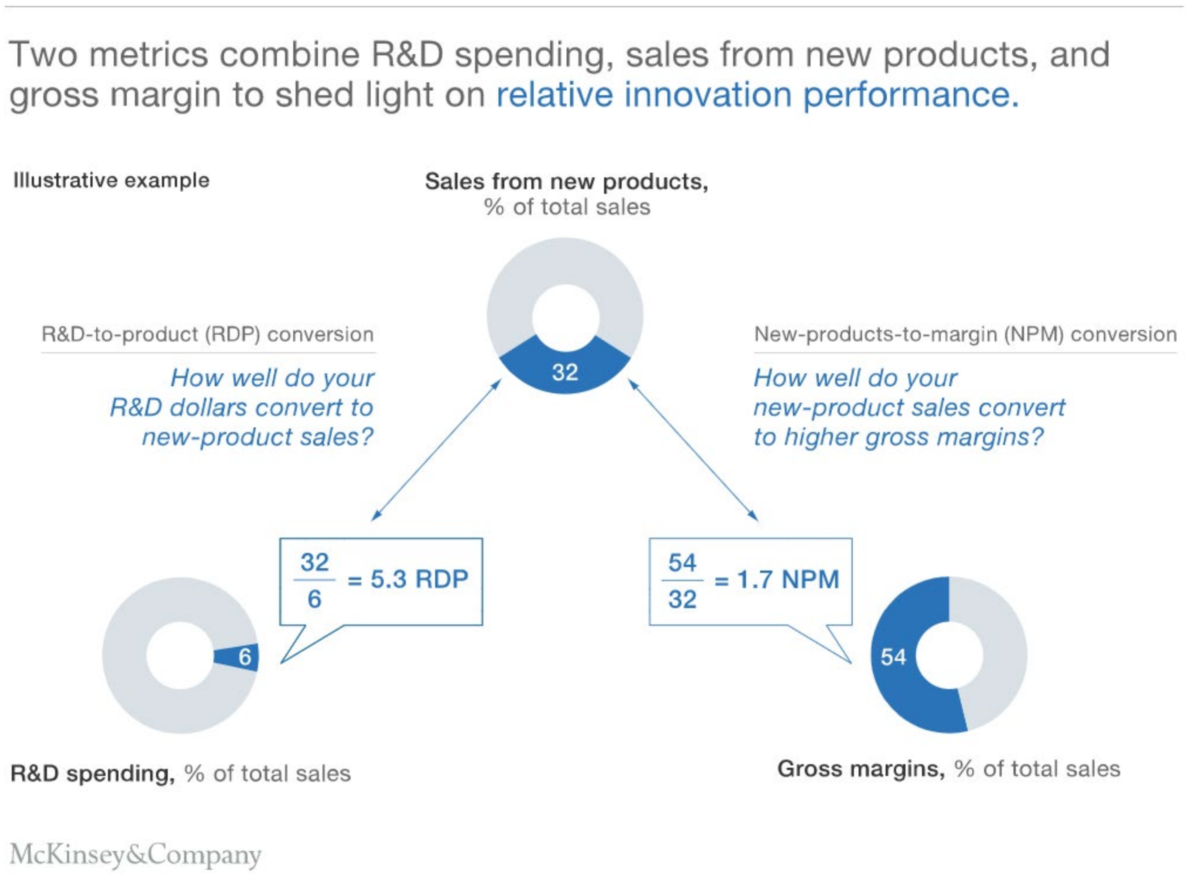
Innovation and Learning Perspective: Can We Continue to Improve and Create Value?

If anything has been established by the preceding sections it is the recognition that the United States Postal Service has consistently evolved with America. In some respects, it has been a difficult evolution, but the second chapter highlights never-ending perseverance. While to its critics the Postal Service's mail service may seem less and less relevant to the American consumer and the downward trajectory of some of its metrics may even be seen as a death spiral, such a picture is incomplete. Being responsive to society and adapting to customer needs can spur innovation that would enable the Postal Service to continue to improve, innovate, and remain relevant. The Postal Service has a history of creating new products and services while expanding on their existing portfolio. For instance, in response to email eroding first-class mail communication, the USPS introduced Informed Delivery. According to their website you can, "Digitally preview your mail and manage your packages scheduled to arrive soon! Informed Delivery allows you to view greyscale images of the exterior, address side of letter-sized mail pieces and track packages in one convenient location" (*Informed Delivery® by USPS®* 2021). This is evidence of a direct response to public sentiment and evolution with technology. Over 40 million postal customers now use Informed Delivery, suggesting the relevance of this digital innovation in a key product segment.

Kaplan and Norton tie innovation to plain survival when they state, "Only through the ability to launch new products, create more value for customers, and improve operating efficiencies continually can a company penetrate new markets and increase revenues and margins- in short, grow and thereby increase shareholder value." Obviously, the Postal Service competes with its rivals as a firm, and it also enjoys a protected status thanks to its unique presence and role in the nation, but there is little debate that innovation is foundational to success. The question now is what metrics specifically drive a culture of innovation and promote its use and adoption for the greatest good across Postal operations. What is the next Informed Delivery? How can operations be automated sensibly to leverage new robotics technology? What new products and services can be offered through leveraging the existing infrastructure of the USPS, for the greater good of America? And most relevant to the balanced scorecard, what metrics capture the pace of innovation to help inform the American public and internal leadership of how well the USPS is responding to the evolution of the country?

The Postal Service puts the need for continued innovation at the center of its mission statement and its strategic initiatives. Specifically, it promises to accelerate innovation to maximize technology infrastructure and to create mailing customer value and increase profitability. Measuring these promises is difficult, but industry observers have identified metrics that could help link the two by comparing innovation performance with research and development spending (Aase et al, 2018). The Postal Service must consider two key metrics when measuring innovation performance relative to research and development spending. These two metrics are a derivative of research and development (R&D) spending, sales from new products, and gross margin of those new product sales. The R&D-to-product (RDP) conversion metric measures how well your R&D dollars convert to new-product sales. To calculate RDP, you first establish what percentage of total sales are due to new products, then divide that number by R&D spending as a % of total sales. The New-products-to-margin (NPM) metrics measures how well your new-product sales convert to higher gross margins. To calculate NPM, you capture gross margin as a percentage of total sales and divide by percentage of total sales due to new products. An illustrative example of these metrics can be found in the following image.

Table 14: Research and Development Metrics



Source: (Aase et al, 2018)

A key feature of these metrics is that they can be easily benchmarked against companies in a similar industry if data is obtainable. The Postal Service should establish these metrics and report them in the balanced scorecard to ensure transparency in their performance to deliver innovation to the American public. As these metrics would require thoughtful classification of R&D expenses and associated revenues that does not currently exists, the recommendation is to start tracking the necessary underlying financial data in this manner.

It would be useful for the Postal Service to also benchmark R&D spending broadly, beyond these more specific metrics, to better understand how their financial position is potentially hindering their competitiveness through innovation. The RDP metric uses R&D spending for its calculation and this component should be further leveraged. While the level of R&D spend is germane to the company, its industry, and available capital, highlighting the magnitude can be another way for the American public to understand how it might expect the USPS to respond to the evolution of their preferences. As this data is not currently captured exhaustively in its financial systems, my recommendation is for the USPS to begin explicitly tracking R&D spend in each of its functions. Once established, the Postal Service should conduct a benchmarking exercise to determine if the level of R&D investment is appropriate for its size and scope, and if the return is aligned with industry expectations and global posts.

Internal Business Perspective: What Must We Excel At?

Kaplan and Norton connected the need to establish internal metrics that help drive positive movement in the metrics established by the prior three perspectives. These metrics would be derived by functional experts and help senior management tie actions to impact A performance scorecard does not tell leaders and managers what to do, of course. Instead, it is designed to direct attention at aspects of the organization's performance that its decision-makers are tasked with managing. While refining the scorecard is an important next step, the steps that USPS management takes to improve or maintain the metrics are the purview of strategy and operations. Actions to increase revenue or reduce costs can come in a variety of shapes and sizes, and speculating on the Postal Service's preference for rate hikes or consolidations is not prudent at this time. It is recommended that in addition to adopting the scorecard developed by this thesis, Postal Management develop a list of operational metrics that complete the traditional balanced scorecard, focusing on "the business processes that have the greatest impact on customer satisfaction" (Kaplan & Norton, 2014). In addition to quantitative metrics, Kaplan and

Norton suggest that companies, "Attempt to identify and measure their company's core competencies, [and] the critical technologies needed to ensure continued market leadership" (2014). The Postal Service has signaled that it desires to heed this suggestion with its updated mission statement, specifically stating that they will use technology and innovation to meet the needs of customers. It will be key moving forward to specifically identify the technologies being adopted and the requisite metrics that will be impacted by those technologies.

Social Perspective: How Conscious are We?

In light of the ideas we've been exploring from thought leaders from Friedman to Kaplan and Norton, it is worth exploring a set of metrics that seem to be increasingly relevant in today's society. At the foundation of this perspective is the thought that a company can better position itself for long-term success by recognizing environmental, social, and governance (ESG) impact. My overall recommendation is for the Postal Service to establish relevant ESG metrics and to include them as a core component of the balanced scorecard. In effect, this social perspective would replace the Internal Perspective in Kaplan and Norton's version and fits nicely with the more public intent of the overall scorecard.

ESG metrics are becoming more prevalent in the investment community as public sentiment and media reporting have championed their utility. Many firms are looking to establish metrics that offer a window into their corporate culture. MSCI is one company whose mission is to provide a standardized way to evaluate companies on their ESG performance. While their core competency is investing, they operate multi-nationally and have established a broadly defined rating system for ESG reporting. On corporate responsibility, MSCI states, "We are powered by the belief that ROI also means return on community, sustainability and the future that we all share. Healthy economies stimulate job creation, encourage infrastructure development and generate the returns necessary to improve living standards for everyone, everywhere" (*Corporate Responsibility: Better Investments for a Better World* n.d.). The following graphic from MSCI shows how ESG metrics and reporting have evolved over the last 30 years. This timeline highlights the incremental progress made in the ESG metrics space over time and how these scores are being broadly adopted by large institutions in the financial industry.

Table 15: ESG Metrics Timeline

Source: *MSCI ESG Indexes* n.d.

Continuing with the theme of financial and non-financial value, MSCI provides ratings of index fund holdings according to their proprietary ESG score calculator. The underlying calculations are robust and weighted to produce an overall score on a scale from CCC to AAA. While engaging in a full-scale ESG rating exercise according to MSCI's methodology is beyond the scope of this thesis, selecting metrics that are incorporated in each broad component of the MSCI ratings will provide a foundation for future ESG discussions.

The underlying environmental components of the ESG score measure "index constituents' management of and exposure to key environmental risks and opportunities" (*Corporate Responsibility: Better Investments for a Better World* n.d.). One example of an environmental metric is Carbon Intensity, or the weighted average Scope 1 and Scope 2 carbon emissions intensity. Social factors within the ESG score measure, "Index constituents' management of and exposure to key social risks and opportunities," such as a gender pay gap factor and total recordable injury rate. Governance factors measure, "Index constituents' management of and exposure to key governance risks," such as board diversity. While these pillars and underlying calculations are meant to respond to an EU Delegated Act that requires their reporting, they can serve as a framework to build a transparent ESG section of the Postal Service scorecard.

The United States Postal Service commits significant resources to its sustainability operation as it is critical to consider its environmental impact given the ubiquitous nature of the universal service obligation. The Postal Service publishes an Annual Sustainability Report that highlights performance toward a variety of sustainability goals. The Chief Sustainability Officer is responsible for overseeing this critical function and describes the Postal Service's vision, "To be a sustainability leader by encouraging a culture of conservation" (*USPS Celebrates Earth Day 2021* 2021). The Postal Service calls out emissions metrics similar to those suggested by MSCI, including Scope 1 — direct emissions from sources including owned vehicles and building heating — and Scope 2 emissions — purchased electricity and steam. They also set goals for Energy Intensity, which includes electric usage and heating fuel usage. An Executive Order established in 2018 set forth, "Energy and environmental performance goals, based on statutory requirements, for [federal] agencies with respect to management of facilities, vehicles and operations." Although the Postal Service is not required to comply with this order, it voluntarily chooses to do so and is the impetus for the sustainability report. It is my recommendation that the Scorecard include existing Scope 1, Scope 2, and Energy Intensity metrics to help fulfill the environmental portion of the ESG metrics.

In accordance with the social aspect of the ESG score outlined by MSCI, the Postal Service should provide the Total Accident Rate from its current corporate-wide report on the new Scorecard. This will highlight the steps the Postal Service is taking to ensure a safe work environment for its workforce. For Governance, the Postal Service should acknowledge the current gender distribution of its Board and Executive Leadership Team, following the guidance from the MSCI framework. The Postal Service should explore best practices within the private sector and determine an appropriate distribution goal it seeks for adequate gender representation. This particular issue has been a topic of recent discussion as the Postal Service currently has all male Board members. According to MSCI, the number of companies MSCI tracks in the United States which had three or more women board members was 56.2% in 2019. The number of companies with one or two women board members was 42.8%. The Postal Service has a significant hill to climb to reach comparable numbers. According to a Harvard Law report, the number of S&P 500 companies with no female board members is less than 1% (Connley, 2020).

The USPS Balanced Public Scorecard is intended to have broad appeal and be easily understood. It is important to reiterate that this scorecard is an amalgamation of metrics that might change as priorities of the customer and Postal Service evolve. The table below summarizes the elements I have been discussing.

Table 16: USPS Balanced Public Scorecard

USPS Balanced Public Scorecard

Financial Perspective

Goals	Measures
Profitability Metric	EBT Margin
Leverage Metric	Debt to Assets ratio
Liquidity Metric	Days Until Cash Exhausted (DUCE)
Sufficient revenue	Revenue per Delivery Point (RpDP)
Manage costs	Cost per Delivery Point (CpDP)
Financial transparency	Delta per Delivery Point (RpDP - CpDP = DpDP)

Customer Perspective

Goals	Measures
On-Time Delivery	Market Dominant Composite score
	Package Delivery Composite score
Responsible Pricing	Weighted average mail revenue per piece
	Weighted average package revenue per piece
Public Favorability	% survey respondents with favorable view
Efficient Operations	Total Factor Productivity

Social Perspective

Goals	Measures
Environmental	Scope 1 and Scope 2 Emissions
	Energy Intensity
Social	Total accident rate
Governance	Gender distribution of Board members

Innovation and Learning Perspective

Goals	Measures
Sales from new products	Percent of sales from new products
R&D Conversion	New product % of sales / R&D spending % of sales (RDP)
R&D Margin	Gross margin % of sales / % of sales from new products (NPM)
Research and Development Focus	Total R&D spending industry benchmark

Source: Author

Postal management must take great care to consult all areas of the business when establishing these metrics, but also limit the total number of metrics in each category. This initial version is meant to capture the metrics I feel are most relevant, based on my research and my experience at the Postal Service over the last decade. Because this scorecard is meant to serve internal and external stakeholders, it is critical that customers are brought in to help evaluate the relevance of each metric and work with internal stakeholders to help the scorecard evolve. Most importantly, the results of these metrics should improve over time as management responds to the transparency of scorecard evaluation. Furthermore, if internal stakeholders would like to adopt the scorecard for their own functional area, the metrics can change, but the four key perspectives should remain. The proposed USPS Balanced Public Scorecard is a framework that can adapt as needed, while ushering in an era of external stakeholder accountability.

Chapter 9: What Does It All Mean

My original idea for this thesis was to investigate the value of the Postal Service through financial and non-financial lenses. The response to COVID-19 showed us that there is overwhelming support for the Postal Service as a public service, regardless of the negative press it might get in "normal" times regarding its financial performance. Put simply, I wanted to humanize the Postal Service through simple metrics that would resonate with everyone – those with no background in finance and little to no understanding of the Postal Service. This idea can be traced back to when I first joined the Postal Service in 2010 as a labor economist and solved the Postal Service's financial challenges quite quickly, at least in my mind, using nothing but an Excel workbook. All we had to do was match our workforce to our workload, target a certain average wage and benefits package, and seek to operate profitable post office locations. Solving for X, i.e., closing the profit / loss gap, was an exercise in simple mathematics. After all, the Postal Service is a labor-intensive organization. There are two main variables – the quantity of employees and the price that you pay for those employees. In order to reduce costs, you reduce the quantity of employees or the average price of those employees. Put another way, if you give wage increases, you must either hire lower wage employees when needed to offset those additional costs, or reduce the quantity of employees hired. As workload declined, retirements offered an opportunity to address that simple equation without necessarily harming existing employees. Problem solved! If only it were that easy. Over the last ten years I have developed a great appreciation for the complexities of the Postal Service, from collective bargaining agreements to constitutional mandates, and how these variables impact optimal solutioning.

Postal Service employees are people whom the public relies on to receive critical supplies and communication. Profitability, while a mandate, is but a means to achieve the core mission of the Postal Service – to serve. Yes, letter mail has declined and people are increasingly shifting to electronic communications, but the Postal Service has always adapted to the needs of the American people, and it will do so again by serving as an efficient public-option for package delivery. It must once again transform its operations and the public seem to welcome the idea of this transition given the consistently favorable approval rating. The employees that work for the Postal Service are not entries in a cell, but rather critical components of the national economy and communities they serve. Congress must look at the Postal Service through both financial and non-financial lenses, and strike an appropriate balance between the two when crafting policy.

My proposed USPS Balanced Public Scorecard is designed to provide a glimpse into all aspects of the Postal Service – financial performance, customer service performance, progress toward innovation, and social impact. It can be used by Postal management to ensure it is thinking holistically about financial and non-financial elements of the business and operations. It can be used by Congress as primer for performance in these areas and to judge impact of any changes in law. It can be used by the American public to better understand the value provided to the nation and the steps being taken to ensure that all parties are doing their part to achieve a responsible Postal Service. A refined version of the USPS Balanced Public Scorecard should be maintained as a living and breathing document, adapting its elements to be most responsive to its stakeholders. Postal Management might review portions of the scorecard quarterly to understand progress toward specific goals. They might also link underlying business unit's metrics to the broader metrics of the scorecard. Metrics might be added or subtracted from the scorecard as deemed necessary. Establishing the scorecard is most critical to advance the conversation regarding the Postal Service from financial to financial and non-financial. Only then can we know our true value and adapt our thinking accordingly.

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