



**OFFICE OF
INSPECTOR GENERAL**
UNITED STATES POSTAL SERVICE

Revenue Opportunities for Innovative Mail Services

White Paper

Report Number
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January 20, 2015





OFFICE OF INSPECTOR GENERAL

UNITED STATES POSTAL SERVICE

Executive Summary

In this review, we examined domestic, foreign, and emergent markets for innovative mail services that could offer diversification and revenue opportunities for the Postal Service.

The U.S. Postal Service's business and operations are significantly affected by competition and substitute products provided by electronic and digital communication. In fiscal year (FY) 2013, it recorded a net loss of \$5 billion and continues to face serious challenges. Legal limitations imposed on the Postal Service impact its ability to adapt to changes in the marketplace. Unlike a private-sector business, the Postal Service is limited by law from entering new nonpostal areas. Proposed legislation could give the Postal Service more authority to capitalize on its existing infrastructure by offering nonpostal products and help improve its financial position. In this paper we studied revenue opportunities related to nonpostal products, as well as postal products and ancillary services¹, which are allowed by current legislation.

The U.S. Postal Service Office of Inspector General (OIG) has analyzed innovative areas, such as 3D printing, non-bank financial services and virtual Post Office boxes in recent reviews. In this review, we examined domestic, foreign, and emergent markets for innovative mail services that could offer diversification and revenue opportunities for the Postal Service. Specifically, we studied four innovative areas that may offer additional revenue opportunities for the Postal Service: international mail forwarding, continuity shipping, digital printing and private locked bags. Similar organizations have implemented objectives that target emergent and foreign markets. UPS expects that, eventually, 95 percent of consumers will be outside the U.S. and expansion in emergent markets is their number one priority. Similarly, Deutsche Post DHL aims to become the biggest provider of cross-border eCommerce² services on the most important international trade lanes. In FY 2013, the Postal Service invested in new products and services, including digital solutions that can enhance the value of mail for both sender and receiver.

¹ Ancillary services are optional or additional services applicable to a mail class or product for a fee, for example, Collect on Delivery, Signature Confirmation, and Registered Mail.

² Electronic commerce is activity related to buying and selling goods and services over the Internet.

International Mail Forwarding

The international mail forwarding (IMF) industry is growing, with a current U.S. market of over \$1 billion from service and shipping revenue. This growth is fueled by an increase in travel, global commerce, and international companies seeking to do business in the U.S. IMF provides a U.S. based address, from which packages or mail can be collected, discarded, held, consolidated, digitally scanned, or shipped anywhere in the world, based on customer preference. IMF services range from basic redirection of mail to premium features, such as warehousing, consolidation, and commercial invoicing. The Postal Service's share of international shipping has declined from ■ percent in ■ to about ■ percent in ■. An IMF service presents an opportunity for the Postal Service to increase international shipping volume, revenue, and market share.

Given its reputation as a secure and trustworthy organization and experience in international transport and delivery, the Postal Service could reach a rapid growth rate in the IMF market in 2 to 3 years. If it set up one processing center as a pilot test, it could generate about \$2.2 million³ in revenue over 2 years, using a low-demand assumption of 100,000 shipments in the first year and 115,000 shipments (15 percent volume growth) in the second year. After considering expenses, the Postal Service could see a net profit of about \$55,000. If the IMF implementation is successful, the Postal Service could expand service to multiple locations.

Continuity Shipping

Continuity shipping is an established and growing segment of the retail industry and an integral part of the eCommerce fulfillment world. It facilitates the automated shipment and return of merchandise. Consumer products such as cosmetics, pet supplies, baby items, healthcare, beer, and wine are suitable for this type of service. The continuity shipping market represents about 2.5 percent of total U.S. online revenues, or about \$7.6 billion in 2014 from service and shipping revenue.⁴ The Postal Service is in a strategic position to offer continuity shipping services given its trusted brand, expansive facilities and transportation networks, and experience in the parcel business.

The Postal Service can enter this market, either by acquiring the necessary skills internally or through a partnership. It could begin by offering competitively-priced, basic fulfillment services, while developing expertise in other eCommerce supply chain areas such as logistics, warehousing, inventory management, product shipping, and traceability. Excess facility space could be converted into warehousing and fulfillment space. In 2 years, the Postal Service could generate about \$164 million⁵ in revenue given a low-demand assumption.⁶ After considering expenses, the Postal Service could see a net profit of about \$5.7 million.

Digital Printing

The printing industry is declining due to the growth of digital media. However, there are opportunities for the Postal Service to save costs and generate revenue by expanding its digital printing capability at its National Print Center (NPC) in-plant facility⁷ in Topeka, KS. Digital printing represents \$5.2 billion of the \$79 billion commercial printing industry.⁸ Currently, the Postal Service prints small to medium-size jobs at the NPC and outsources printing when it is unable to meet the demand.

3 Sum of gross sales for year 1 (\$1 million) and year 2 (\$1.15 million), rounded. Given a high-demand assumption, the Postal Service could generate over \$15.4 million in the same timeframe. [See Appendix A.](#)

4 The total U.S. online retail revenue is estimated to be about \$304 billion in 2014.

5 Sum of gross sales from year 1 (\$58 million) and year 2 (\$106 million). [See Appendix B.](#)

6 Given a high-demand assumption, the Postal Service could generate over \$245 million in the same timeframe.

7 An in-plant is an in-house printing and reproduction department that serves the needs of its parent organization.

8 Commercial printing profits from selling printing services. The focus of an in-plant printing strategy is not profits.

We analyzed a retail and central printing establishment and estimated the Postal Service would need significant volume to break even.⁹ However, there are opportunities for the Postal Service to expand its current in-plant facility, which is comparable to a central printing configuration, to increase its workload and offer more specialized services. Leveraging its current printing expertise, equipment, and facility, the Postal Service could handle some work it outsources and generate revenue by offering insource printing options to customers. Insource printing is a common practice at in-plants and can include printing services for hospitals, universities, or non-profit organizations. This could potentially save on outsourcing costs and increase mail volume. Over a 2-year period, the Postal Service could reduce its outsourced printing expense by \$9.9 million.¹⁰ These savings could be invested in other options such as upgrading or purchasing printing equipment. Increased volume would enable the Postal Service to lower the overall cost to the organization by spreading its fixed cost. With over 5,000 square feet available to add additional printing technology, the Postal Service has the internal expertise and capacity for more volume.

Private Locked Bags

A private locked bag (PLB) is a container (for example a bag, tray, or tub) that can be locked using more security methods than the standard lock/key mechanism. The potential market for PLBs could include medical and financial service customers, government, mail service providers, and a host of other industries. We examined the opportunity for the Postal Service to expand its services and generate revenue through delivery of PLBs.

Of the U.S. businesses we surveyed,¹¹ most showed little interest in a PLB service. PLBs' greatest competition comes from courier services, which offer security and prompt delivery of packages, medical supplies, bulk materials, and documents to recipients, usually within 24 hours.¹² Couriers represent a large portion of a premium delivery service, making up \$85.5 billion of the calendar year 2013 industry revenue with an annual growth rate of 1.8 percent. Due to the time sensitivity and physical nature of items delivered by couriers, the Postal Service may not be able to process these same items in the regular mailstream. In some cases, a PLB delivery service would also compete directly with Postal Service premium services, such as Registered Mail™, that offer similar accountability and security features. Courier service and customized secure logistics could provide a more lucrative area for the Postal Service to pursue. However, a more detailed analysis should be performed to determine the feasibility of Postal Service expansion into these areas.

9 In a retail configuration, retail printers, such as FedEx Office and the UPS Store, have multiple retail stores to serve local and regional customers base. In a central printing configuration, central production printers have one or only a few large-volume print locations with higher-end equipment and technology, handling large print quantities at faster speeds.

10 \$9.9 million (\$4.96 million annually, times 2 years).

11 Law firms, banking and financial institutions, insurance market, medical, bio-medical, and pharmaceutical industries, colleges and universities, and residential.

12 Couriers are establishments that are primarily engaged in delivery services between urban centers using a network of air and surface transportation systems.



January 20, 2015

MEMORANDUM FOR: GARY C. REBLIN
VICE PRESIDENT, NEW PRODUCTS AND INNOVATION

RANDY S. MISKANIC
VICE PRESIDENT, SECURE DIGITAL SOLUTIONS

CYNTHIA SANCHEZ-HERNANDEZ
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VICE PRESIDENT, GLOBAL BUSINESS

SUSAN M. BROWNELL
VICE PRESIDENT, SUPPLY MANAGEMENT

A rectangular box containing a handwritten signature in black ink. The signature appears to be "John E. Cihota". There is a small black dot in the top right corner of the box.

FROM: John E. Cihota
Deputy Assistant Inspector General
for Finance and Supply Management

SUBJECT: Revenue Opportunities for Innovative Mail Services
(Report Number FT-WP-15-002)

Attached are the results of our review of Revenue Opportunities for Innovative Mail Services (Project Number 14BG009FT000). Our objective was to examine domestic, foreign, and emergent markets for innovative mail services to determine whether they offer diversification and revenue opportunities for the U.S. Postal Service.

We appreciate the cooperation and courtesies provided by your staff. If you have any questions or need additional information, please contact Lorie Nelson, director, Finance, or me at 703-248-2100. Thank you in advance for your time and consideration.

Attachment

cc: Corporate Audit and Response Management

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Observations

Introduction

Over the past 7 years, the U.S. Postal Service lost billions of dollars and continues to face serious financial challenges. Its financial difficulties are largely due to decreases in mail volumes brought on by accelerated shifts to electronic communication alternatives. A wide variety of media compete for the same types of transactions and communications that historically were facilitated by hard-copy mail. Transactional mail, such as the presentment and payment of bills, has been eroded by competition from electronic media and online services. Additionally, unlike a private-sector business, the Postal Service is limited by law from entering new nonpostal areas.

The Postal Accountability and Enhancement Act of 2006 (Postal Act of 2006) requires the Postal Service to seek permission before creating products, introducing services, and adjusting prices. The definition of “postal” limits the Postal Service to the activities related to processing and transporting hard-copy mail. The only exceptions are the 27 nonpostal products it offered before the enactment of the Postal Act of 2006.¹³ This limits the Postal Service’s ability to adapt to changes in the marketplace.¹⁴ In this paper we studied revenue opportunities related to nonpostal products, as well as postal products and ancillary services,¹⁵ which are allowed by current legislation.

Although mail remains an important line of business for postal organizations, it is no longer the largest revenue source for most of them. Between 2011 and 2012, non-mail revenue outweighed mail revenue for postal organizations around the world. Mail revenue decreased to 48 percent, while non-mail revenue increased to 52 percent. Postal organizations are rapidly transforming into hybrid organizations that provide a range of business and innovative offerings such as parcels, logistics, banking, insurance, eCommerce, digital businesses, and using mobile devices to create value for existing products and services. Product and service diversification are the preferred diversification route for high performers. Norway Post offers simplified customs clearance for its parcels, while Finland Post offers cold storage logistics for groceries. Deutsche Post DHL also has a specialized service that protects temperature-sensitive pharmaceutical products. To be profitable, posts must continue to diversify and pursue eCommerce, since diversification is the “new normal.”

Since the introduction of eCommerce and electronic communication, eRetail sales, B2B, and B2C¹⁶ transactions are some of the main drivers of online business. As of calendar year (CY) 2012, eCommerce¹⁷ represented 11 percent, or \$35.8 billion of the \$325 billion in global retail sales. eCommerce facilitates the use of technological advances to ensure online stores, monetary transactions, and product delivery run smoothly. The worldwide expansion of the Internet has been key to transforming online trade and store transactions.

¹³ Includes nonpostal products such as passport photo services, sale of advertising to support change-of-address processing, and others.

¹⁴ The proposed *Postal Reform Act of 2014* (S. 1486) requires a comprehensive strategy for improving the net financial position of the Postal Service. Postal reform would expand upon the Postal Service’s current authorities to offer nonpostal products in ways that would allow it to better its financial position and capitalize on its own infrastructure. This would include new postal and nonpostal services through innovation.

¹⁵ Ancillary services are optional or additional services applicable to a mail class or product for a fee, for example, Collect on Delivery, Signature Confirmation, and Registered Mail.

¹⁶ B2B – Business to Business; B2C – Business to Consumer.

¹⁷ Electronic commerce is activity related to buying and selling goods and services over the Internet.

This report has not yet been reviewed for release under FOIA or the Privacy Act. Distribution should be limited to those within the Postal Service with a need to know.

High performers are also taking advantage of their brand and expertise to create a bigger role in enabling eCommerce. They are developing eCommerce platforms and web services that integrate with eRetail websites and eCommerce payment and fulfillment platforms. Several successful posts have developed eCommerce logistics networks that expand far beyond their core postal businesses and national boundaries. Australia Post offers an innovative payment solution called PostPay. This solution builds on the post's brand to offer a confirmed delivery and payment solution. Through recent acquisitions, Singapore Post is able to offer services such as sea freight, freight forwarding, warehousing, and fulfillment capabilities across six countries.¹⁸

The Postal Service Delivering Results, Innovation, Value and Efficiency initiatives help improve its business strategy and achieve its major goals. In fiscal year (FY) 2013, the Postal Service implemented several initiatives that focus on customer experience, service, and finances. For example, the Postal Service gave postage discounts to businesses that use digital technology in their marketing campaigns. Under this initiative, businesses received a 2 percent discount on postage for commercial Standard Mail and First-Class Mail letters and flats that included a mobile barcode that could be read or scanned by a mobile device. It is also developing a system that will help users establish digital identities to ensure customers can conduct secure digital communications and business transactions.

The U.S. Postal Service Office of Inspector General (OIG) has analyzed various innovative areas, including 3D printing, hybrid mail, non-bank financial services, virtual Post Office boxes, eMailbox/eLockbox, and package delivery growth through shipments of beer and wine.¹⁹ In this paper, we focus on international mail forwarding (IMF); continuity shipping; digital printing; and private locked bags (PLB). We examined domestic, foreign, and emergent markets for innovative mail services that could offer diversification and revenue opportunities for the Postal Service. The OIG contracted with a subject matter expert in market research, feasibility studies, and financial forecasting. The contractor interviewed industry experts and researched leading organizations. We evaluated the contractor's estimates, assumptions, projections, and opinions and found them to be reasonable.

18 *Achieving High Performance in the Postal Industry*, Accenture Research and Insights 2014.

19 [If it Prints, it Ships: 3D Printing and the Postal Service](#) (Report Number RARC-WP-14-011, dated July 7, 2014). [Hybrid Mail Efforts](#) (Report Number SM-MA-13-004, dated February 12, 2013). [Providing Non-Bank Financial Services for the Underserved](#) (Report Number RARC-WP-14-007, dated January 27, 2014). [Virtual Post Office Boxes](#) (Report Number MS-WP-13-002, dated April 17, 2013). [eMailbox and eLockbox: Opportunities for the Postal Service](#) (Report Number RARC-WP-12-003, dated November 14, 2011). [Package Delivery Growth](#) (Report Number MS-AR-12-003, dated May 4, 2012).

Based on U.S. online purchase sites, there are over 2 million potential IMF customers. It is estimated that the IMF market is over \$1 billion currently.

International Mail Forwarding

IMF services are becoming more prevalent due to the increase in travel, global commerce, and international companies seeking to do business in the U.S. IMF demand is expected to grow exponentially, particularly as eRetailers such as Amazon and eBay increase their international presence and foreign buyers become increasingly interested in U.S. goods and services.

IMF allows foreign customers to manage their U.S. mail remotely. IMF companies assign foreign customers a U.S. mailing address and offer a variety of services for mail shipped to that address. When a customer's mail²⁰ arrives at the assigned U.S. address, the IMF company captures a digital image of the mailpieces and loads it into the customer's account. The IMF company sends an electronic message to notify the customer of incoming mail. The customer can decide whether the forwarding company should discard the mail, hold it, open it and digitally scan its contents, or consolidate it with other mail to be shipped to the customer's international location.

The international shipping industry is growing about 8 percent annually, from \$2 billion in CY 1990 to \$12 billion as of CY 2013. Based on U.S. online purchase sites, there are over 2 million potential IMF customers. It is estimated that the market for IMF service in the U.S. is over \$1 billion currently. There are an increasing number²¹ of U.S. companies providing this service. Gross margins²² in this industry exceed 40 percent in most organizations, and the payback period for up-front investments is usually between 3 to 5 years.²³ IMF services range from basic redirection of mail to premium features, such as warehousing, consolidation, and commercial invoicing. Companies earn revenue on set-up fees, membership fees, and fees for customized services such as package consolidation, repackaging, and temporary storage of goods.

As an example, one leading IMF company, which began operations in 1997, processes 50,000 shipments per week from a single site. In CY 2013, it earned \$100 million in revenue with 200,000 customers worldwide. Although it took this company over a decade to reach its current volume, its growth exceeded 150 percent in 3 years, from \$26 million in revenue in 2009 to \$67 million in 2012. This is one indicator that IMF is in a strong growth stage. We anticipate the Postal Service, given its reputation as a trusted supplier, could reach a rapid growth rate in as few as 2 to 3 years using a similar model.

Assuming the Postal Service set up one processing center or international gateway as a pilot test, it could anticipate a positive return on investment after 2 years even if it processes only a small percentage (4 percent or 2,000 shipments weekly) of the 50,000 shipments that one leading IMF company processes in a week. This is a conservative estimate of what the Postal Service could achieve by gradually entering the IMF market. It could compete with established companies by offering more attractive pricing. For example, the leading IMF company charges customers about \$30 per shipment. Pending a price analysis and approval from the Postal Regulatory Commission (PRC),²⁴ the Postal Service could gain market share rapidly if it competitively priced IMF services. For example, a low-price strategy of \$10 per shipment for basic service and high price of \$20 per shipment for advance services could position the Postal Service to capture market share and compete with established firms with existing systems, connections, and customers already in place.

²⁰ Examples of mail include package, letters, advertising mail, and magazines.

²¹ We identified at least 50 companies providing this service.

²² Gross margin is revenue less the cost of service divided by revenue. It is used to assess the financial condition of a firm by revealing the proportion of money left over after accounting for the cost of goods or services.

²³ Organizations use various assumptions in calculating gross margin and the percentage reflected here may not be indicative of the Postal Service.

²⁴ The Postal Act of 2006 granted the PRC the authority to review rate changes. It requires the PRC to develop and maintain regulations for a modern system of rate regulation in part to prevent cross-subsidization or other anti-competitive postal practices.



International Mail Forwarding Demand and Sales Forecast

- Roll over the year for a conservative estimate of volume, revenue, and profits for one IMF site over ten years.

Volume	Revenue	Profits	Assuming the Postal Service set up one processing center or international gateway as a pilot test, it could anticipate a positive return on investment after 2 years. If the Postal Service processed only 115,000 shipments annually, at an average service price of \$10 per shipment, it could generate gross revenue of \$1.15 million and earn a net profit of \$66,000.
400,000	\$4,000,000	\$2,000,000	
300,000	\$3,000,000	\$1,500,000	
200,000	\$2,000,000	\$1,000,000	
100,000	\$1,000,000	\$500,000	
0	\$0	\$0	

Our analysis shows that when demand goes above the break-even volume of about 100,000 shipments annually, revenue accelerates considerably.²⁵ Assuming 100,000 shipments in the first year and a gradual increase to 115,000 shipments in the second year, one IMF site could generate about \$2.2 million²⁶ in revenue for the first 2 years combined. See Table 1 for IMF shipment and revenue under a low-demand assumption.

Table 1: Low-Demand IMF Assumption

Year	Low-Demand (shipments)	Price per Unit	Gross Sales (Revenue)
1	100,000	\$10	\$1,000,000
2	115,000	\$10	\$1,150,000
TOTAL			\$2,150,000

Source: Contractor analysis.

Using a more favorable assumption, where demand is high and the service fee is \$20 per shipment, we estimate the Postal Service could yield over \$15.4 million of revenue in the same amount of time.²⁷ See Table 2 for IMF shipment and revenue under a high-demand assumption.

²⁵ Given a multi-year probability and sensitivity analyses of costs and pricing, we determined it would take over 100,000 items annually at about \$10 per item, or \$1 million per year, to cover all costs (one-time and recurring cost).

²⁶ Assuming a low-demand, gross sales (revenue) are estimated at \$1 million in the first year and \$1.2 million the second year. Total revenue for 2 years would be \$2.2 million (rounded).

²⁷ Assuming a high-demand, gross sales are estimated at \$6.7 million in the first year and \$8.7 million in the second year. Total revenue for 2 years would be \$15.4 million.

Table 2: High-Demand IMF Assumption

Year	High-Demand (shipments)	Price per Unit	Gross Sales (Revenue)
1	335,000	\$20	\$6,700,000
2	435,500	\$20	\$8,710,000
TOTAL			\$15,410,000

Source: Contractor analysis.

In both the low and high-demand assumptions, projected revenue would be offset by operations, personnel, and logistics expenses. The Postal Service must also make capital investments for facility, equipment, and technology that could be annualized over 10 years. All of these expenses would offset revenue, resulting in losses of \$10,867 in Year 1 and \$66,315 in profits in Year 2. We consider the net profit (increased revenue) of \$55,448 as monetary impact. [See Appendix A](#) for IMF revenue and expense analysis for 10 years. After successful implementation at one site, the Postal Service could expand IMF service in multiple locations.

The Postal Service's expertise and existing communication and information technology systems, such as the Change of Address Reporting System (COARS),²⁸ Customs Pre-Advisory System (CPAS),²⁹ and Global Business Dispatch System (GBS/DIS),³⁰ could be valuable in establishing an IMF service. Additionally, as of FY 2013, the Postal Service had 280 million square feet of excess space at mail processing facilities and post offices nationwide. These facilities could temporarily store customer goods, a feature of the mail forwarding operation. Leveraging these features and existing transportation system (accounts for over half of total logistics costs) could lower start-up costs and ease the Postal Service's entry in the IMF market.

The Postal Service could initially focus on foreign buyers and merchants, as they are driving IMF growth.

- Foreign buyers are consumers who purchase U.S. merchandise and need IMF service for various reasons, such as the ability to shop with U.S. merchants who do not ship internationally, flexibility of payment options in absence of a U.S. credit card, and benefits of lower shipping costs. They may accumulate purchases and have the IMF company consolidate and ship the purchases to a foreign location.
- Foreign merchants consist of retailers who sell goods to U.S. customers and need forwarding services to handle and store product returns. When U.S. customers return items to the IMF address, retailers can direct the forwarding company on how to handle the returned item. Options include shipping the item back to the retailer or repackaging it and sending it to another customer.

The Postal Service processes about 60 million domestic returns annually. We estimate international returns could be about 5 percent of that figure, or 3 million shipments per year.

²⁸ COARS consists of a central database for retrieval of Change of Address (COA) form images and a web-based server application that provides intranet access to the COA image, if available, and the results.

²⁹ CPAS advises customs of what is arriving in advance.

³⁰ GBS/DIS is a web-based Postal Service application that shares dispatching information with internal Postal Service systems, foreign posts, and transportation providers, and provides operational analysis and planning reports.

Due to the predictable and repetitive nature of its processes, continuity shipping presents many advantages, such as convenience for customers and steady revenue streams for sellers and continuity shipping providers.

While there are advantages and opportunities for the Postal Service in implementing IMF services, there are several challenges and limitations as well. For example, the Postal Service's share of international shipping has gradually declined from █ percent in █ to about █ percent in █. It faces stiff competition from well-established companies, has minimal presence overseas and inadequate international tracking,³¹ and may have to rely heavily on foreign posts. Additionally, the initial investment in equipment and technology is estimated at \$2.1 million for one facility.³² The Postal Service's key resources and capabilities identified in this study can be a basis for developing a competitive advantage and contributing to a successful IMF program.

Continuity Shipping

Continuity shipping is an established and growing segment of the retail industry and an integral part of the eCommerce fulfillment world. A continuity shipping program, commonly referred to as auto ship, auto-fill, or subscription commerce, is a service where a consumer agrees to receive merchandise automatically at regular intervals until the buyer cancels the shipments.³³ Many of the sellers³⁴ offering products through continuity services use third-party service providers to perform fulfillment, logistics, and shipping activities, including warehousing, inventory control, fulfillment of customer orders, packing, and shipping.

Due to the predictable and repetitive nature of its processes, continuity shipping presents many advantages, such as convenience for customers and steady revenue streams for sellers and continuity shipping providers. The Postal Service could use its existing and excess facility space as warehousing and fulfillment centers and strategically establish continuity shipping services at five critical business locations³⁵ that, combined, represent close to 90 percent of the U.S. population. Consumer products such as cosmetics, pet supplies, baby items, healthcare, beer, and wine are suitable merchandise for this type of service.

We estimate total sales for continuity shipping orders nationwide to be about 2.5 percent of total U.S. online revenues, or close to \$7.6 billion in CY 2014.³⁶ Based on available industry data, this market is growing and will likely continue to expand in the next 5 to 10 years at a rate of 30 to 40 percent annually. This growth is due to repeat online customers transitioning to new subscription eCommerce services. There is potential for the Postal Service to successfully enter this market, assuming the right training or partnerships to handle logistics services. A technology partnership, in which the Postal Service shares resources with existing order fulfillment companies to create a national network of providers, could position it to compete among eCommerce giants.

As a starting point, the Postal Service could offer low-price, basic fulfillment services where it can leverage its existing transport and delivery infrastructure. Some examples of basic fulfillment services are warehousing, logistics, consolidation, order fulfillment, and shipping. As it gains expertise and experience, the Postal Service could expand in advanced service areas such as inventory management and processing of returned goods. Because of its size and experience as a parcel shipper, the Postal Service could arrange to provide continuity fulfillment and logistics services for selected major and medium-sized eRetailers.³⁷

31 Currently, the Postal Service tracks priority mail express international and priority mail international for certain destinations. The Postal Service does not track priority mail international flat rate envelopes or priority mail international small flat rate boxes.

32 We estimate equipment and technology at about \$2.1 million for a single facility. This includes \$0.6 million in equipment costs and \$1.5 million in software costs.

33 The Federal Trade Commission implemented strict requirements that any club or service offering a negative option plan must clearly indicate minimum purchase obligations, cancellation procedures, the frequency with which members must reject shipments, and how to eventually cancel a membership when they enroll new members.

34 Continuity shipping sellers include Target (household goods), CVS (health care), and Scholastic (books).

35 These five critical business locations are Los Angeles, CA; Chicago, IL; Atlanta, GA; Dallas, TX; and Northern New Jersey.

36 The total U.S. online retail revenue is projected to be \$304 billion in 2014. However, not all online retail sales require physical delivery. Items such as music and videos do not require physical delivery and, therefore, were removed from our calculation of 2.5 percent, or \$7.6 billion.

37 Examples of major eRetailers are Apple, Staples, Wal-Mart, and Sears; examples of medium-sized eRetailers are Vitacost.com Inc., Hayneedle Inc., and Scholastic Inc.

Initially, the Postal Service can enter the fulfillment portion of the continuity shipping market, which represents about \$833 million of industry revenue in the first year. Based on a conservative estimate, the Postal Service could capture 7 to 11 percent of the target market upon entry and, as it gains experience and qualifications, it could acquire 25 to 29 percent of the target market in 10 years. An initial low-price, basic service that targets a large number of medium-sized players could give the Postal Service an opportunity to build the necessary fulfillment capabilities and expertise. We project the Postal Service could generate \$2.1 billion in revenue over 10 years.³⁸ See Appendix B for continuity shipping revenue and market share over 10 years. In the first 2 years, the Postal Service could generate \$164.4 million³⁹ in revenue given a low-demand assumption. Alternatively, the Postal Service could yield over \$245 million⁴⁰ in revenue given a high-demand assumption in the same amount of time.⁴¹ In both the low and high-demand assumptions, facility, equipment, labor, shipping, and other expenses estimated at about \$158.7 million, would offset revenue. We consider the net profit (increased revenue) of \$5.7 million as monetary impact. See Table 3 for key continuity shipping projections and analysis of revenue and expenses over 10 years.

Table 3: Continuity Shipping Key Projections



Continuity Shipping Key Projections

- Roll over the year for a conservative estimate of volume, revenue, and estimated share of Continuity Shipping over ten years.

Yearly Volume (Number of Shipments)		Yearly Revenue		Estimated Share of Continuity Shipping		The Postal Service could acquire 25 to 29 percent of the target market in 10 years, and potentially generate \$2.1 billion in gross revenue and earn a net profit of \$224.3 million.
Low (millions)	High (millions)	Low	High	Low (percent)	High (percent)	

Source: Contractor analysis.

38 We added several escalation factors to calculate volume and revenue after the first year. For example, by year 5, we assume the Postal Service will be able to address a bigger portion of the market. We also assume a steady price increase for services. Finally, we gradually increased the Postal Service's relative market share gains.

39 Sum of years 1 and 2 under low-volume assumption.

40 Sum of years 1 and 2 under high-volume assumption.

41 As shown in Table 1, given the low-demand assumption, revenue is estimated at \$58 million in the first year and \$106 million in the second year. Total revenue for 2 years would be \$164 million. In the high-demand assumption, revenue is estimated at \$92 million in year 1 and \$153 million in year 2. Total revenue for 2 years would be \$245 million.

In-plant printing is an in-house reproduction department that serves the printing needs of its parent organization.

Fifty-three percent of in-plant facilities insource print jobs from external organizations.

While there are tremendous advantages and opportunities for the Postal Service to pursue a continuity shipping service strategy, several challenges exist. These challenges include competitive reaction to market entry, labor costs, and extensive capital investment required to convert facilities to distribution centers for continuity shipping services. Based on eCommerce and fulfillment industry data, capital investments including facilities, equipment, and technology could cost about \$10 million for a single facility.⁴² The Postal Service could show profits in the first year if it annualized the initial capital investment. Given the internal and external rationalizations identified in our analysis, there is potential for the Postal Service to succeed in this market.

Digital Printing

An in-plant is an in-house printing and reproduction department that serves the needs of its parent organization. Fifty-three percent of in-plant facilities insource print jobs for external organizations, meaning they extend printing services to outside printers. There are opportunities for the Postal Service to save costs and generate revenue by expanding its digital printing capability in its in-plant facility.⁴³ The Postal Service's in-plant printing is done at the National Print Center (NPC).⁴⁴ It also outsources some of its print work to multiple contractors. Optimizing its current in-plant printing capabilities could allow the Postal Service to handle some work it outsources. It could also generate revenue by offering insource printing options to customers, potentially saving outsourcing costs and increasing mail volume.⁴⁵

In CY 2013, U.S. commercial printing revenue industry-wide was about \$79 billion and it is expected to decline at an average annual rate of 1.8 percent to about \$69.9 billion in CY 2017.⁴⁶ Commercial printers processed about 4.5 trillion printed pages, at an average price of 1.8 cents per page. The industry is struggling partly due to electronic media and digital media replacing paper products. There are many small firms in this industry and low-level market share concentration, with the top four companies accounting for less than 20 percent of total revenue.

Although printing industry revenue is declining, revenue from digital printing is on the rise. Digital printing in the U.S. represented 6.6 percent, or \$5.2 billion, of commercial printing revenues in CY 2013. This increase is primarily due to a shift in volume from offset to digital printing, an increase in variable data printing⁴⁷ on digital equipment, and customers' need for faster service and quicker turnarounds. Depending on the type of printer configuration, digital printing can generate revenue of about 3.3 to 11 cents per printed page.

42 This includes \$6 million in equipment costs, \$1 million in software costs, and \$3 million in facilities' improvements. These numbers are based on eCommerce distribution/fulfillment industry figures and research that show approximate investments for automating and equipping fulfillment centers.

43 Federal law requires that all federal printing be performed by the Government Printing Office (GPO). However, the Postal Service is excluded from these laws, with some exceptions.

44 The Postal Service completed a three-phase project in FY 2013 to move the Postal Service Automated Redirection System printing from the National Customer Service Center in Memphis, TN, and its printing operations from San Mateo, CA, and Eagan, MN, to the NPC in Topeka, KS.

45 The State of Oregon reported that approximately 60 percent of all jobs its in-plant produces find their way into the mailstream, with 2.3 million pieces of mail sent out each month. *In-plant Graphics 2011*.

46 Commercial printing profits from selling printing services. The focus of an in-plant printing strategy is not on profits.

47 Variable data printing uses database-driven print files for the mass personalization of printed materials.

Though most in-plants handle both offset⁴⁸ and digital printing,⁴⁹ nearly a third are fully digital. Digital printing is displacing offset printing, and data center integration⁵⁰ is becoming a motivating factor for keeping in-plants. Digital printing produces efficient, low-cost digital images, eliminating the mechanical steps of traditional offset printing. In digital printing, an image is sent directly to the printer using digital files such as portable document formats and those from graphic software. This eliminates the need for a printing plate, which saves time and money and allows for printing on demand.

We analyzed two digital printing configurations and estimated the Postal Service would need significant volumes to break even.

- In a retail configuration, retail printers, such as the UPS Store and FedEx Office, have multiple retail stores to serve the local and regional customer base. The overall retail printing revenue is about \$1.2 billion. We estimated overall retail printing revenue to be three times as large as FedEx Services', a subset of retail stores, with annual revenue of \$0.4 billion in 2013. For a retail configuration, the Postal Service would need to generate at least \$400,000 in annual sales at each retail outlet. That is equivalent to about 3.6 million impressions⁵¹ per year, at an average price⁵² of approximately 11 cents per impression.⁵³ See Appendix C for volume and revenue projections for a retail configuration.
- In a central printing configuration, central production printers have one or only a few high-volume print locations with higher end equipment and technology handling a high number of print quantities and substrates⁵⁴ at faster speeds. The digital printing portion accounts for about \$4 billion⁵⁵ in revenues. Assuming a central printing configuration, the Postal Service would need to initially process a higher volume of about 50 million impressions a year at one production center, which is equivalent to about \$1.7 million in annual sales. See Appendix D for volume and revenue projections for a central printing configuration. The difference in volume between a retail configuration and central printing configuration is due to the lower price per impression (about 3.3 cents)⁵⁶ necessary to compete in the marketplace. See Figure 1 for sales forecasts of a retail and central printing configuration.

48 Traditional offset printing is performed by burning print images onto a plate, which is then transferred (offset) from the plate to a rubber blanket and then to the printing surface.

49 Modern printing methods such as laser and ink-jet printing are known as digital printing.

50 Merger of the in-plant and data center (information technology) since the skills required to run data center printing equipment and in-plant printing equipment are increasingly similar.

51 Impressions refer to the number of images or individual copies produced in a print run, or the number of times a page passes through the printing process.

52 Average of black/white and color.

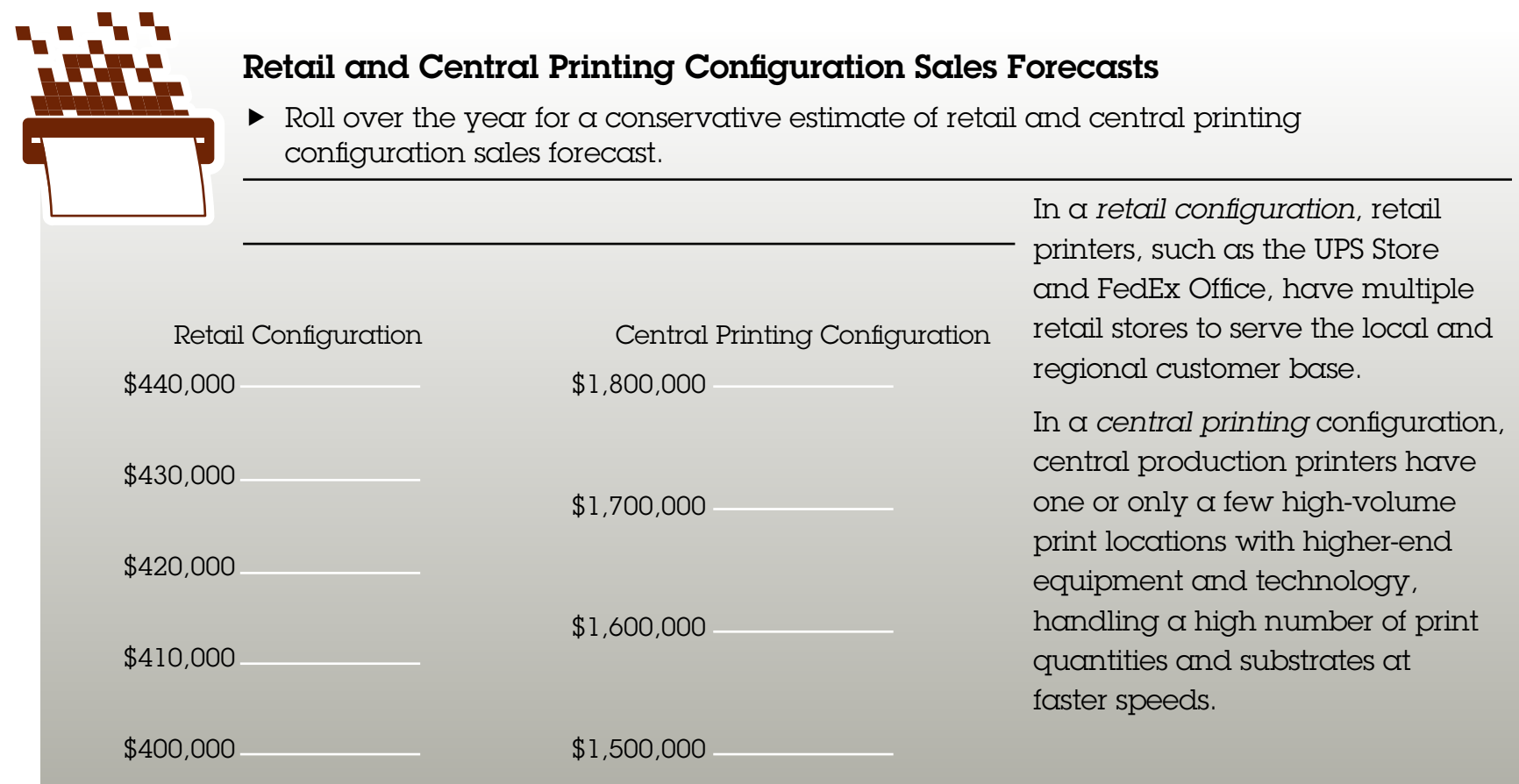
53 Online printers frequently charge lower prices than 11 cents per impression, depending on specifications. The price is illustrative of a volume/price model that would result in breaking even. Higher prices would require fewer impressions; lower prices would require more impressions to achieve the break-even scenario.

54 Substrates include special papers, unique sizes, wood, cloth, metal, leather, rough paper, and plastic.

55 Central printing configuration industry is about \$4 billion (\$5.2 billion digital printing portion of the total commercial printing market minus \$1.2 billion from the retail segment).

56 Represents price per unit at break-even point. See Appendix D.

Figure 1: Retail and Central Printing Configuration Sales Forecasts



Source: Contractor analysis.

The graph shows that a retail outlet would need to generate at least \$400 thousand in sales, equivalent to about 70,000 pages per week (for example, 3.6 million per year) at an average price (B&W and color) of 11 cents per impression to break even. The central printing outlet would need a much higher starting volume (close to 1 million impressions per week or 50 million per year), to break even because of the lower price (about 3.3 cents per impression) that it can command in the marketplace.

The Postal Service NPC in-plant operation is comparable to a central printing configuration and could be expanded to handle some of its outsourced printing. The NPC supports small to medium-size print jobs including, but not limited to, offset and digital printing, with digital printing representing the highest productivity hours. Printing is outsourced if the NPC does not have the capability or capacity to meet the demand.⁵⁷

⁵⁷ The NPC printing equipment includes the following: IBM 4100 digital printers (five); Xerox Nuvera 120 and 288; Xerox iGEN3; Didde Web Press; Nipson Varypress (two); and offset presses (two).

The Postal Service spent over \$107.3 million on outsourced printing in FY 2013.⁵⁸ It is unlikely it could print items with monetary value, such as stamps and money orders. However, the Postal Service is positioned to print some items it currently outsources, such as placards, unstamped postcards and envelopes. The total of these and other outsourced items is over \$49.6 million. [See Appendix E](#) for the Postal Service printing expenses. Although a more detailed feasibility study should be performed, if the Postal Service used the NPC to process just 10 percent, or about \$4.96 million, of the items that can be insourced, the savings could be invested in other options such as equipment upgrades and added staff. Over a 2-year period, the Postal Service could reduce outsourced printing by \$9.9 million, which we consider as monetary impact.

By offering insource printing to external organizations, the Postal Service could generate revenue and potentially increase mail volume from the same customers. Insource printing is a common practice at in-plants and can include printing services for hospitals, universities, or non-profit organizations. More government in-plants are now offering services such as wide-format inkjet printing,⁵⁹ scanning for archival, and variable data printing. Online job submission capabilities are more prevalent as well, with 59 percent of government in-plants now offering this service versus just 47 percent 4 years ago.

Additionally, opportunities exist for the Postal Service to enhance its online capabilities for digital printing orders and leverage its new message maker service.⁶⁰ The quantity and variety of print formats the Postal Service can perform in house will dictate whether expansion of the NPC is feasible. Increased volume would enable the Postal Service to lower the overall cost to the organization by spreading its fixed cost. With over 5,000 square feet available to add additional printing technology, the Postal Service has the internal expertise and capacity for more volume.

One of the most significant barriers to entry in the printing industry is the capital investment in either offset or digital printing presses. Capital equipment can range from about \$250,000 for printing on a small scale to about \$2 million for large-scale printing. A retail configuration may not be advantageous for the Postal Service given the initial start-up requirements. However, the Postal Service's existing in-plant facility is an advantage and could allow it to insource more digital transactions through existing equipment, handle some work it outsources, and potentially increase mail volume.

58 Not inclusive of GPO printing of \$100,000 - \$150,000 annually; printing services contracted under other functions, such as Marketing (for example, message maker application); and stamp support spend or licensing and retail, supplies and overhead.

59 Wide format printers are used to print banners, posters, and general signage.

60 Retail online program, that offers 36 products that can be printed at the NPC.

As of 2013, courier service revenue was about \$85.5 billion, with an annual growth rate of about 1.8 percent. Courier service represents a large portion of a specialized premium delivery service with swift delivery times, which are optional for everyday mail service.

Private Locked Bags

We examined the opportunity for the Postal Service to expand and generate revenue through delivery of private locked bags (PLB).⁶¹ Currently, the Postal Service offers Business Mail Pickup (Caller Service), whereby a customer collects mail at a Post Office call window or loading dock during office hours.⁶² As of May 2014, the Postal Service had about 76,000 Caller Service customers. In FY 2013, the Postal Service generated \$93.6 million in revenue for both the 6- and 12-month Caller Service.

Caller Service differs from PLB delivery service, as Caller Service recipients collect their mail directly from the Post Office. Mail sent to a PLB address could be secured in a bag with a lock and delivered directly to the recipient on a regular mail route. PLBs could offer confidential options to customers with high volumes of mail or who require special handling of sensitive documents, small parcels, and similar proprietary items. This would include an accountability of the PLB contents as the item travels to the recipient, by requiring a review of the items and signatures of the handlers, including the recipient. The potential market for PLBs could include medical and financial services customers, government, mail service providers, and a host of other industries. However, as a PLB provider, the Postal Service would be competing with courier services⁶³ or its own premium services.

Couriers represent a large portion of specialized premium delivery service. Couriers differ from ordinary mail services by features such as security, tracking, signature, specialization of express services, and swift delivery. Courier service also offers prompt delivery of packages, medical supplies, bulk materials, and documents to recipients, usually within 24 hours. Some of these features are optional for everyday mail services. As a premium service, couriers are usually more expensive than standard mail services. Most couriers that offer a secure, tracked and traced pouch service, charge premium overnight rates for each piece by weight and shape, with a surcharge for dimensional weight. As of CY 2013, domestic courier service revenue was about \$85.5 billion, with an annual growth rate of about 1.8 percent. The large players include UPS and FedEx.

FedEx and UPS market their services by offering highly customized features and solutions designed for the customer. This may include custom pickup and delivery time, end-to-end secure supply chains, dedicated vehicles, designated pickup or delivery individuals, and refrigerated or insulated containers. FedEx and UPS also offer additional fee-based security options.

Some industries rely heavily on courier services, with some critically dependent on expedited same-day or less than 24-hour delivery time. These industries include biomedical labs and analysis centers, manufacturing industries, financial institutions for daily document exchange between branches or processing centers, law firms for delivery of confidential documents on very strict deadlines, and pharmaceutical distributors for transportation of medications to hospitals and nursing homes daily. Due to the time factor and physical nature of these items, the Postal Service may not be able to process them in the regular mailstream.

In addition to competition from couriers, the PLB delivery service would compete directly with the Postal Service premium services, including Registered Mail™. Registered Mail provides premium handling and maximum security for domestic and international letters including First-Class and Priority Mail, from the point of acceptance to delivery. The Postal Service also offers restricted delivery or signature required services, which businesses can use to limit who receives the item, or require a signature of acceptance from the addressee or representative upon delivery.

⁶¹ Bag = container (could be a bag, tray, or tub); Locked = beyond standard lock/key mechanism.

⁶² Caller service provides premium service for a fee to any customer requiring more than free carrier service or more than the largest installed box size.

⁶³ Couriers are establishments that primarily engage in delivery services between urban centers using a network of air and surface transportation systems.

In FY 2013 Registered Mail revenue was \$35.5 million; it has declined about 21.6 percent since FY 2011. Similarly, Registered Mail volume declined 16.7 percent during the same period.⁶⁴ If 10 percent of the businesses⁶⁵ that use special services such as Registered Mail added weekly PLB service, this could generate about \$1.7 million in annual revenue. However, PLB revenue would either offset or represent a shift in Registered Mail revenue.⁶⁶ Of the U.S. businesses we surveyed,⁶⁷ most showed little interest in a PLB service. The main reasons for this lack of interest included increased usage of electronic signatures by the legal environment and government, declining need for secure document transactions, and availability of quick and customized secure delivery products.

The concept of PLB has been adopted, with some variations,⁶⁸ by several overseas posts. In foreign countries where posts offer the equivalent of PLB services, address systems are generally poor and Post Office pickup is the norm. In these countries, private bags provide a practical means of delivering larger daily volumes of mail. Additionally, a PLB product would not offer some of the attributes that are sought after by domestic courier and customized logistics customers, namely expedient delivery of sensitive documents or parcels. Therefore, PLB service does not appear to provide revenue growth opportunities for the Postal Service. Courier service and customized secure logistics could be more lucrative for the Postal Service. However, a more detailed feasibility analysis should be performed to determine the potential of this offering.

Conclusion

In FY 2013, the Postal Service made great strides in speeding the pace of innovation and improving its competitive position. We identified additional potential revenue opportunities and alternatives for the Postal Service including:

International Mail Forwarding Opportunities

- Establish IMF service by leveraging existing communication and information technology systems such as COARS, CPAS, and GBS/DIS.
- Compete in a market that is growing by \$1 billion annually and has gross margins of over 40 percent.
- Generate an estimated \$1 million in revenue the first year with just one IMF site or about \$2.2 million in 2 years, with a net profit of \$55,448 after considering start-up costs.

Continuity Shipping Opportunities

- Generate an estimated \$58 million in revenue the first year with five business critical locations or about \$164 million in 2 years, with a net profit of \$5.7 million after considering start-up costs.
- Optimize facilities space and distribution, delivery, and transportation networks to offer low-cost solutions and initially gain 7 to 11 percent of market share and capture 25 to 29 percent of the continuity shipping market in 10 years.

⁶⁴ FY 2011 Registered Mail pieces were 2,688,000; FY 2013 Registered Mail pieces were 2,238,000, representing a 16.7 percent decline.

⁶⁵ 10 percent of the 32,823 (3,300 rounded), businesses using Registered Mail.

⁶⁶ \$1.7 million equals (52 weeks times 2 PLB bags per week times \$5/bag times 3,300 business users).

⁶⁷ Law firms, banking and financial institutions, the insurance market, the medical, bio-medical and pharmaceutical industries, colleges and universities, and residential.

⁶⁸ Examples of variations include: 1) Hong Kong Post offers a PLB that is used for correspondence and is locked by the user or agent at the Post. The annual service fee is \$340. 2) Australia Post locked bag is available to mailers whose incoming mail exceeds size limits of a Post Office Box. 3) POS Malaysia offers a service whereby incoming mail is collected in a locked bag that the customer picks up from the post office.

- Develop expertise in basic fulfillment services to later capture market share in advanced fulfillment services, such as inventory management and processing of returned goods.

Digital Printing Opportunities

- Optimize current in-plant printing operations to eliminate \$9.9 million of its \$49.6 million in outsourced printing costs.
- Expand in-plant operations to generate revenue on insource printing from external organizations, such as hospitals, universities, or non-profit organizations.
- Increase mail volume revenue by promoting mailing services to the same insourced printing customers.

Private Locked Bag Alternatives

- Determine feasibility of offering courier services, given an \$85.5 billion industry and annual growth rate of 1.8 percent.
- Increase mail volume revenue by offering courier service as a specialized delivery service and premium-fee option to customers.
- Generate additional revenue by diversifying and expanding in the customized secure logistics market.

These innovative opportunities and alternative options could result in global benefits for the Postal Service such as:

- Increased focus on international and global initiatives in emergent markets.
- Diversified products, services, and market ventures, whether launched in-house or through partnerships with external providers.
- Optimized operations and technology.
- Enhanced products and services, while promoting new and innovative areas.

Through innovation, reinvention, and transformation, the Postal Service has the opportunity to diversify and become a serious contender in the international market and eCommerce revolution.

We discussed our monetary impact for IMF, continuity shipping, and digital printing with management on December 17, 2014. Management generally agreed with our monetary impact calculations and analysis for IMF and continuity shipping but disagreed with our monetary impact regarding digital printing. Specifically, management did not believe we should include savings related to printing self-service kiosk labels and pressure sensitive labels at the NPC. Based on the complexity and specialized equipment needs, the Postal Service stated the NPC would be unlikely to print these labels. We adjusted the FY 2013 printing expenses for indirect costs and did not include costs associated with printing service contracts for other functions and other ancillary printing services. Therefore, we believe the estimate is conservative at only 10 percent of the adjusted FY 2013 printing expenses, and it remains feasible that some aspects of printing these labels could be performed by the NPC.

Appendices

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Appendix A: International Mail Forwarding Revenue and Expense Analysis

LOW	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Total Volume	100,000	115,000	132,250	152,088	174,901	201,136	231,306	266,002	305,902	351,788
Price/Unit	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10	\$10
Gross Sales	\$1,000,000	\$1,150,000	\$1,322,500	\$1,520,875	\$1,749,006	\$2,011,357	\$2,313,061	\$2,660,020	\$3,059,023	\$3,517,876
Total Expenses	\$1,010,867	\$1,083,685	\$1,108,049	\$1,144,297	\$1,194,026	\$1,250,697	\$1,313,441	\$1,379,785	\$1,453,822	\$1,544,339
Profit	\$(10,867)	\$66,315	\$214,451	\$376,578	\$554,980	\$760,660	\$999,619	\$1,280,235	\$1,605,201	\$1,973,537
Estimate of Cash Flows	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Profit	\$(10,867)	\$66,315	\$214,451	\$376,578	\$554,980	\$760,660	\$999,619	\$1,280,235	\$1,605,201	\$1,973,537
Depreciation	\$121,408	\$151,118	\$128,564	\$113,631	\$107,401	\$102,747	\$98,128	\$90,305	\$82,500	\$82,500
Principle	\$64,575	\$69,095	\$73,932	\$79,107	\$84,645	\$90,570	\$96,910	\$103,694	\$110,952	\$118,719
Cash Flow	\$45,966	\$148,337	\$269,082	\$411,102	\$577,736	\$772,837	\$1,000,837	\$1,266,846	\$1,576,748	\$1,937,318

HIGH	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Total Volume	335,000	435,500	566,150	735,995	956,794	1,243,832	1,616,981	2,102,075	2,732,698	3,552,507
Price/Unit	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20
Gross Sales	\$6,700,000	\$8,710,000	\$11,323,000	\$14,719,900	\$19,135,870	\$24,876,631	\$32,339,620	\$42,041,506	\$54,653,958	\$71,050,146
Total Expenses	\$3,561,537	\$4,518,356	\$5,691,598	\$7,219,300	\$9,203,519	\$11,767,615	\$15,078,701	\$19,351,563	\$24,871,324	\$32,010,326
Profit	\$3,138,464	\$4,191,644	\$5,631,402	\$7,500,600	\$9,932,351	\$13,109,016	\$17,260,919	\$22,689,943	\$29,782,634	\$39,039,819
Estimate of Cash Flows	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Profit	\$3,138,464	\$4,191,644	\$5,631,402	\$7,500,600	\$9,932,351	\$13,109,016	\$17,260,919	\$22,689,943	\$29,782,634	\$39,039,819
Depreciation	\$121,408	\$151,118	\$128,564	\$113,631	\$107,401	\$102,747	\$98,128	\$90,305	\$82,500	\$82,500
Principle	\$64,575	\$69,095	\$73,932	\$79,107	\$84,645	\$90,570	\$96,910	\$103,694	\$110,952	\$118,719
Cash Flow	\$3,195,296	\$4,273,666	\$5,686,034	\$7,535,124	\$9,955,107	\$13,121,192	\$17,262,137	\$22,676,554	\$29,754,182	\$39,003,600

Source: Contractor analysis.

For year 1, under the low-demand assumption, gross sales (revenue) of \$1 million (100,000 shipments at \$10 service fee per shipment) almost cover the total expenses (break-even point). Once sales exceed \$1 million (as shown in years 2 through 10, or shown under the high volume assumption), profits increase considerably.

Appendix B: Continuity Shipping Revenue and Market Share

PROJECTIONS	2015 Year 1	2016 Year 2	2019 Year 5	2024 Year 10
Total Online Retail (US)	\$347,000,000,000	\$393,000,000,000	\$536,000,000,000	\$770,000,000,000
Continuity Shipping (CS) share	4%	5%	8%	13%
Continuity Shipping market value	\$13,880,000,000	\$19,650,000,000	\$42,880,000,000	\$100,100,000,000
CS fulfillment service portion	12%	12%	12%	12%
CS fulfillment service market value	\$1,665,600,000	\$2,358,000,000	\$5,145,600,000	\$12,012,000,000
USPS accessible fulfillment portion	50%	50%	60%	60%
USPS accessible fulfillment market	\$832,800,000	\$1,179,000,000	\$3,087,360,000	\$7,207,200,000
USPS market share (low)	7%	9%	15%	25%
USPS market share (high)	11%	13%	19%	29%
USPS price (low)	\$9	\$10	\$13	\$18
USPS price (high)	\$13	\$14	\$17	\$22
USPS price (avg)	\$11	\$12	\$15	\$20
LOW DEMAND				
USPS Volumes	5,299,636	8,842,500	30,873,600	90,090,000
USPS Revenues	\$58,295,996	\$106,110,000	\$463,104,000	\$1,801,800,000
Expenses				
Facilities (5)	\$(3,000,000)	\$(3,000,000)	\$(3,000,000)	\$(3,000,000)
Equipment	\$(2,000,000)	\$(2,000,000)	\$(2,000,000)	\$(2,000,000)
Employees	\$(24,000,000)	\$(43,200,000)	\$(120,000,000)	\$(622,080,000)
In/Out Shipping	\$(21,198,544)	\$(44,212,500)	\$(246,988,800)	\$(900,900,000)
Capital Investment (annualized)*	\$(8,029,044)	\$(8,029,044)	\$(8,029,044)	\$(88,029,044)
Profit/Loss	\$68,408	\$5,668,456	\$83,086,156	\$185,790,956
HIGH DEMAND				
USPS Volumes	8,328,000	12,772,500	39,106,560	104,504,400
USPS Revenues	\$91,608,000	\$153,270,000	\$586,598,400	\$2,090,088,000
Expenses				
Facilities (5)	\$(4,000,000)	\$(4,000,000)	\$(4,000,000)	\$(4,000,000)
Equipment	\$(3,000,000)	\$(3,000,000)	\$(3,000,000)	\$(3,000,000)
Employees	\$(36,000,000)	\$(64,800,000)	\$(168,000,000)	\$(725,760,000)
In/Out Shipping	\$(33,312,000)	\$(63,862,500)	\$(312,852,480)	\$(1,045,044,000)
Capital Investment (annualized)*	\$(8,029,044)	\$(8,029,044)	\$(8,029,044)	\$(88,029,044)
Profit/Loss	\$7,266,956	\$9,578,456	\$90,716,876	\$224,254,956

Source: Contractor and OIG analysis.

*Annualized – capital investment is amortized based on initial investment amount and considers salvage value, repairs, and interest.

The initial capital investment for five facilities is about \$50 million (\$35 million for equipment and technology and \$15 million for facility improvements) amortized⁶⁹ over 10 years. The estimated upgrade in year 10 is \$80 million (\$50 million for equipment and technology and \$30 million for facility improvement) and this amount is not amortized.

69 Amortized – Process of spreading expenses over a period of time rather than taking the entire amount in the period the expense occurred.

Appendix C: Retail Configuration Projections

Retail Breakeven	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Volume*	3,640,000	3,676,400	3,713,164	3,750,296	3,787,799	3,825,677	3,863,933	3,902,573	3,941,598	3,981,014
Price/Unit	\$0.11	\$0.11	\$0.11	\$0.11	\$0.11	\$0.11	\$0.11	\$0.11	\$0.11	\$0.11
Gross Sales	\$400,400	\$404,404	\$408,448	\$412,533	\$416,658	\$420,824	\$425,033	\$429,283	\$433,576	\$437,912
Total Expenses	\$403,950	\$418,671	\$403,807	\$401,383	\$401,252	\$401,027	\$397,351	\$393,550	\$394,064	\$351,620
Profit/(Loss)	(\$3,550)	(\$14,267)	\$4,641	\$11,149	\$15,406	\$19,797	\$27,682	\$35,733	\$39,512	\$86,292

Retail High	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Volume*	6,000,000	6,180,000	6,365,400	6,556,362	6,753,053	6,955,644	7,164,314	7,379,243	7,600,620	7,828,639
Price/Unit	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25	\$0.25
Gross Sales	\$1,500,000	\$1,545,000	\$1,591,350	\$1,639,091	\$1,688,263	\$1,738,911	\$1,791,078	\$1,844,811	\$1,900,155	\$1,957,160
Total Expenses	\$949,500	\$835,822	\$837,470	\$852,095	\$869,565	\$887,512	\$902,595	\$918,159	\$938,663	\$916,852
Profit	\$550,500	\$709,178	\$753,880	\$786,996	\$818,698	\$851,399	\$888,483	\$926,651	\$961,492	\$1,040,307

Source: Contractor analysis.
*Impressions

Appendix D: Central Printing Configuration Projections

Central Breakeven	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Volume*	50,000,000	50,500,000	51,005,000	51,515,050	52,030,201	52,550,503	53,076,008	53,606,768	54,142,835	54,684,264
Price/Unit	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03	\$0.03
Gross Sales	\$1,650,000	\$1,666,500	\$1,683,165	\$1,699,997	\$1,716,997	\$1,734,167	\$1,751,508	\$1,769,023	\$1,786,714	\$1,804,581
Total Expenses	\$1,640,514	\$1,688,983	\$1,668,533	\$1,679,396	\$1,691,872	\$1,704,396	\$1,713,703	\$1,722,987	\$1,740,004	\$1,542,914
Profit/(Loss)	\$9,487	\$(22,483)	\$14,632	\$20,600	\$25,124	\$29,771	\$37,805	\$46,036	\$46,710	\$261,666

Central High	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Volume*	150,000,000	154,500,000	159,135,000	163,909,050	168,826,322	173,891,111	179,107,844	184,481,080	190,015,512	195,715,978
Price/Unit	\$0.08	\$0.08	\$0.08	\$0.08	\$0.08	\$0.08	\$0.08	\$0.08	\$0.08	\$0.08
Gross Sales	\$11,250,000	\$11,587,500	\$11,935,125	\$12,293,179	\$12,661,974	\$13,041,833	\$13,433,088	\$13,836,081	\$14,251,163	\$14,678,698
Total Expenses	\$6,377,827	\$6,059,639	\$6,178,918	\$6,333,789	\$6,494,678	\$6,660,156	\$6,827,096	\$6,998,829	\$7,183,260	\$7,158,699
Profit	\$4,872,173	\$5,527,861	\$5,756,207	\$5,959,390	\$6,167,296	\$6,381,677	\$6,605,993	\$6,837,251	\$7,067,903	\$7,520,000

Source: Contractor analysis.
*Impressions

Appendix E: Fiscal Year 2013 Postal Service Outsourced Printing Expense

*Total Printing Expense	\$107,348,406
Items Unlikely to be Processed by NPC	
Money Orders	\$4,623,866
Stamp Stock	\$45,334,090
Stamped Postcards/ Envelopes	\$7,675,403
Stamp By Mail Printing	\$100,407
Total: Unlikely NPC Items	\$57,733,766
Items Likely to be Processed by NPC	
Digital Scanning	\$2,737,496
Self-Service Kiosk Labels	\$6,674,556
Pressure Sensitive Labels	\$29,645,463
HQ Training & Fulfillment	\$736,059
Miscellaneous Print & Topeka Support	\$5,121,066
IMPAC Credit Card (District Spend)	\$4,700,000
Total: Likely NPC Items	\$49,614,640
Total Savings On Printing Expense	\$9,922,928

Source: Contractor and OIG analysis.

*Not inclusive of GPO printing of \$100,000 - \$150,000 annually; printing services contracted under other functions, such as Marketing (for example, Message Maker application); and stamp support spend or licensing and retail.



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