BCG

Projecting U.S. Mail Volumes to 2020

March 2, 2010

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Between October and December of 2009, The Boston Consulting Group investigated trends affecting future postal volumes in the U.S., with the objective of projecting U.S. mail volumes through 2020. This narrative is meant to serve as a companion piece to the March 2, 2010 public presentation

Executive Summary of Findings

The U.S. Postal Service will experience profound declines in its volumes of mail and its net income over the next decade under its current business model, presenting a grave threat to its viability. Massive structural changes are required to avoid this outcome.

We forecast U.S. postal volumes to decrease from 177B pieces in 2009 to around 150B pieces in 2020 under business-as-usual assumptions. Notably, volumes will *not* revisit the high-water-mark of 213B pieces in 2006 – on the contrary, the trajectory for the next 10 years is one of steady decline, which will not reverse even as the current recession abates. Expressing the decline in terms of pieces per delivery point highlights the challenge: we project pieces per household per day to fall from *four* pieces today to *three* in 2020 – driven by decreasing volumes delivered to an increasing number of addresses. We also project a rapid mix shift from very lucrative First-Class Mail to less-profitable Standard Mail. The volume decline and the mix shift, coupled with an increasing cost base, will cause profits to experience steep, unrelenting declines. Starting with the 2009 loss of $4B, we expect a steady string of increasing losses, culminating with an approximately $15B loss in 2020 (based on USPS and McKinsey cost forecasts).

These declining volumes are unlikely to reverse. First-Class Mail is succumbing to the online diversion of bills, invoices, statements, and payments. Senders are aggressively attacking the cost of paper transactions – both for sending mail and processing responses. More Consumers will move online when key barriers, like security concerns, are removed. Senders hear these concerns and are actively addressing them. Standard Mail, largely ad-driven, will benefit from high marketing ROI relative to broadcast and newsprint. Yet Standard Mail will also lose share to, e.g., context-based search ads and mobile ads. What the U.S. is experiencing is not unique: many internet-enabled countries in Europe and Asia have been experiencing declines in mail volumes for years due to online alternatives.

Our findings are based on an in-depth study of Sender and Consumer perspectives about mail and its alternatives for key market segments. This approach has been proven in work with other posts, and it is particularly applicable in times of economic and technological upheaval – when traditional long-term econometric approaches, such as that used by the USPS, break down. Our projection is sensitive to a number of assumptions, most importantly the strength of the economy. We assume that the economy reverts to trendline economic growth in 2012. However, if growth differs by +/-1% annually, 2020 volumes will also differ by roughly +/-10B pieces. This range provides a measure of the uncertainty in the forecast. *It also demonstrates that robust economic growth will not salvage declining volumes.* Our forecast also excludes the impact of potential events, e.g., a terror attack, "Do Not Mail" legislation, or prolonged marginal growth, like Japan's "Lost Decade." Although the likelihood of any specific event is small, the full list of potential downside events is long, and the USPS will require significant cost flexibility to manage the declines that will accompany any of these events.

The USPS will require significant structural changes to avoid staggering losses in the coming decade. The magnitude of these losses will require a combination of robust cost reduction actions, including changes in delivery model, including days of delivery and service standards; changes in network, including closing branches and integrating post activities into other retailers' footprints; and changes in labor cost structure. Other countries facing similar declines are taking dramatic steps to preserve the viability of their national postal systems. Lesser solutions will fall short: price increases will drive volume away, and business diversification alone will not offset a $15B annual loss. If structural changes are unpalatable to the American people, then the Postal Service will require taxpayer support to offset its losses. Under the current volume trajectory, and with current policies, a financially viable Postal Service is not possible.

This document details the work conducted by The Boston Consulting Group, Inc., on behalf of the United States Postal Service between October and December of 2009. The narrative is organized into five sections:

I. Objectives and Approach
II. Results
III. Implications

This narrative is meant to support the March 2, 2010 public presentation of results.

I. Objectives and Approach

Objectives

The USPS has experienced several years of sharply declining mail volumes, revenues, and net income, resulting in an acute need for a long-term market forecast for U.S. mail. The Boston Consulting Group (BCG) has been asked to develop this forecast using methodologies proven with its other clients globally, including many in the postal sector. The objective of this effort is to project volumes of all types of U.S. mail out to 2020 under a set of business-as-usual assumptions. We refer to this as the "Base Case" forecast.

The Base Case assumptions are simple:

- Exclude all cost and revenue enhancement activities not currently in the budget beyond 2009
- Assume no changes to USPS oversight framework
- Assume reversion to long-term economic growth as the current downturn subsides
- Assume no major economic or other disruptions
- Assume no actions taken by the USPS or others in response to the trajectory identified in the projection

This effort is part of a wider set of analyses underway now to assess potential changes to the current business model. The Base Case thus provides the foundation against which new cost and revenue actions can be compared.

Our Base Case forecast provides a view of volume and revenue for all USPS classes on a year-by-year basis from fiscal years 2010 to 2020. In addition, the forecast includes sensitivities of the volume estimate to key drivers impacting mail volumes. The scope of the Base Case projection includes all types of mail – anything that the USPS collects or delivers. Revenue sources not tied to mail, such as Post Office boxes, are not in scope – these revenue sources are small relative to those tied to mail, and we simply assume trendline growth for these line items in any financial projections.

Approach

Historically, the USPS has developed 10-year projections using econometric techniques. In our experience, these techniques break down during periods of economic upheaval, such as the current economic downturn – it is very difficult to project the future from the past if past trends are not static. We thus apply a different approach based on understanding trajectories of *segments* of mail with common behaviors. This forecasting technique has been proven in our work with other posts globally and is well-suited to understanding how the very fluid environment confronting the USPS now impacts future volumes.

The methodology we apply centers on understanding how volumes will evolve for *behavioral* segments of mail. Our methodology consists of several key steps:

1. *Segment* total postal volume into components with common behaviors
2. Develop a *best estimate view* of the trajectory for each segment based on perspectives on mail and its alternatives from Senders and Receivers
3. Incorporate *industry research* perspectives for each segment, where possible
4. Create an *aggregate view* of volume from all segments, and project economic impact

In addition, we incorporate global benchmarks from other global posts where mail volumes are influenced by the same drivers we see in the United States. Finally, we incorporate a number of assumptions about the trajectory of the economy as a whole.

Segmentation. The USPS divides mail into broad classes: First-Class Mail, Standard Mail, Periodicals, and Packages. Broadly speaking, 90% of this volume is initiated by businesses and 10% is initiated by consumers. We segment the USPS classes of mail into behavioral classes based on the USPS Household Diary Study. This segmentation enables us to broadly categorize First-Class Mail and Standard Mail into *Transaction Mail* and *Advertising (Ad) Mail.* We also segment packages into subcomponents.

Transaction Mail consists of Business and Consumer-initiated mail that is generally sent for account-related purposes. This includes bills and invoices; general business-to-consumer mail, such as term and condition (T&C) updates; bank statements; payments; and a few lesser categories. Transaction Mail is all First-Class Mail and can be quite lucrative for the USPS – for example, consumer-to-business payments, which consisted of ~9B pieces in 2009, is machine-readable business reply mail and carries a 44-cent stamp.

Ad Mail is made up of First-Class and Standard Mail letters; flyers, such as large-format coupon circulars; large envelopes; postcards; magazines; newsletters, and the like. Apart from First-Class ad letters, Ad Mail is all Standard Mail, and is less profitable for the USPS.

This high-level distinction is useful because it links the underlying dynamics of the mail to Senders' intents. Transaction Mail is most directly threatened by online diversion, while Ad Mail is roughly correlated with overall advertising activity, which in turn tracks GDP. However, within each of these two broad groups, segments experience unique dynamics. For example, consumer-to-business payments have been faster to migrate online than business-to-consumer bills because consumers prefer to receive paper bills for a variety of reasons – even those that prefer to pay online. This trend has held thus far and we expect it to persist, even as the overall migration of both segments to online channels increases.

Best estimate views. The segmentation enables us to model the interplay of Sender and Receiver preferences that will impact the usage of mail over the next decade. To gather Sender perspectives, we conducted over 50 deep interviews with a selection of the USPS' largest customers. These are Senders that represent in aggregate ~14% of total USPS revenue and as a customer segment, 90% of USPS revenue. Our sample represented major industry verticals: Mail Service Providers (MSPs), which represent roughly half of the USPS business-initiated revenue; finance, including credit card companies; telecommunication providers; publishers; direct mailers; catalog publishers; and so on. The individuals interviewed were selected by the USPS and were chosen because they were recognized as decision-makers within their companies' overall communications strategies.

The interview questions focused on the future use of mail and its alternatives. We explored the barriers to diverting more communications away from mail; these include e.g., Sender perceptions of consumer concerns about security, ease of use, as well as Senders' cost, ease of implementation, brand representation, etc. For Ad Mail, we also explored ROI and consumer impact vs. alternative marketing channels. We then asked which of these barriers are most important to Senders, when they see these barriers disappearing, and why. We also asked more broadly how they see their mail volumes evolving. We find that Senders, particularly the largest USPS customers, paint a dark picture about future mail volumes over the next decade, many plan to aggressively move significant volumes of mail to other channels.

The Consumer discovery work paralleled the Sender interviews. We conducted two Consumer surveys: an internet-based survey to develop a view on the 74% of households with internet access, and a phone-based survey for the other 26%. The samples were selected to be representative of the demographic profile of the U.S. at large. In addition, the internet sample was tailored to match internet usage (in terms of hours per day) based on benchmarks from Nielsen Media Research and Pew's "Internet & American Life" study. This approach ensured that our internet sample was not overweighted with heavy internet users, who may show a bias toward online diversion.

The Consumer questions explored views of mail and alternatives for both Transaction and Ad Mail. Consumers were asked to rank the importance of key attributes: security, access to historical statements, ease of use, relevance, etc. – these questions paralleled the barriers explored in the Sender interviews. We then asked Consumers how their use of alternatives to mail would change if these barriers were addressed by Senders. Thus we were able to create a linkage between Consumer concerns about alternatives to mail and the actions Senders are planning to address these concerns, as discussed in the interviews. The confluence of these two inputs enables a granular, segment-by-segment view of future mail volumes that we consolidate to project total mail out to 2020.

Industry research. We employed a number of external studies to corroborate the findings from the Sender and Consumer studies. These sources included

- Forrester
- Celent
- Winterberry

- The Federal Reserve
- Veronis Suhler Stevenson
- Magna
- McCann

We also leveraged BCG expertise for major industry verticals (e.g., financial services, telecommunications, media, and retail). For Transaction Mail, this research largely corroborates the Sender feedback we collected – though without the richness, qualification, and color that is obtained by talking with Senders directly. For Ad Mail, the external research tends to be somewhat less conclusive.

Aggregate view. We combined the projections for the segments into an aggregate view of First-Class Mail, Standard Mail, Periodicals, and Packages. We then used the USPS models to project financial impact: revenue, using business-as-usual pricing assumptions; cost; net income; and cashflows.

Global benchmarks. We conducted a benchmarking analysis of key global peers for the U.S. One trend seen globally is that broadband access is driving erosion of mail volumes. We tracked broadband penetration in all markets to develop a view of the future state of mail in the U.S. as suggested by broadband penetration. Most advanced countries fall into two general groupings based on broadband penetration: leaders or followers. When we look at the trajectories for mail volumes for these two groups, the broadband leaders tend to show a 2% faster decline than the followers. The U.S. falls directly between these two groups. We then selected a benchmark country from among the broadband leaders to represent a potential worst case future state for the U.S. market.

Other assumptions. Embedded in our projections are several assumptions about the evolution of the economy. Interviews with Senders suggest a general consensus that the impact of the current recession is reflected in the *current* mail volumes and that for Ad Mail segments in particular, a bottom in mail is forming as 2009 comes to a close. The Sender consensus points to a return to historical long-term economic growth taking place in the 2012-2013 timeframe. The Sender feedback has some spread, but we take the consensus perspective as our baseline for the next few years. Then, for the longer term – looking out from 2012 to 2020 – we *assume* that economic growth will revert to the historical rate (2.3% YoY real growth) once the rebound in 2012-2013 is established. Obviously, the volumes we predict are sensitive to underlying assumptions about the economy – departures from historical growth will perturb the projections. A significant departure from trendline growth, like Japan's "Lost Decade" of 0.3% real growth (1990-1999), will profoundly affect volumes. We examine these sensitivities as well.

II. Results

Volume projection

The projections show a decline in volume to roughly 150B pieces in 2020 from 177B pieces in 2009. This represents a 15% decline vs. 2009 and a 30% decline from the 2006 peak of 213B pieces. We also break these projections out by First-Class Mail and Standard Mail. For First-Class Mail, we see a decline to 50B pieces in 2020 from 84B pieces in 2009, a 35% fall. For Standard Mail, we see modest expansion to 86B pieces in 2020 from 83B pieces in 2009. Although the Standard Mail experiences a slight lift in absolute volume in 2020, on a per-household basis this represents a decline, as the number of delivery points is expected to be ~10% higher in 2020. Although selected segments of portal volume, such as packages, will see growth, this will be far too small to offset the sharply declining aggregate profitability. The volume projections are shown in Figure 1.

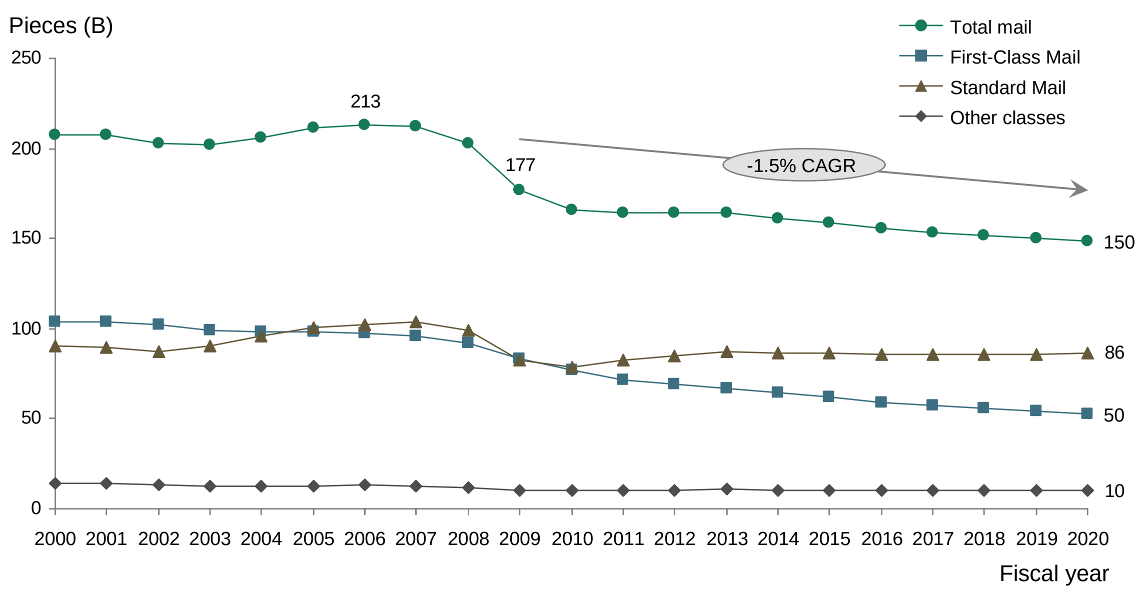

Figure 1: *Projected volumes for U.S. Mail, all major classes*

Figure 1 shows different trajectories First-Class Mail and Standard Mail between 2009 and 2020. We expect First-Class Mail to continue its ongoing trend of long-term decline, while Standard Mail will experience some rebound in the next few years – closing perhaps a third of the gap vs. the 2006 peak but never recovering the volume highs of the 2005-2007 era.

Key Drivers

The Sender feedback speaks to the factors driving the erosion of mail volume. For Transaction Mail, Senders across all industry verticals are acutely concerned about the cost of sending mail – and the cost of processing mailed responses. Senders are piloting and implementing a diverse array of tools to move volume from physical mail. Senders in credit card, banking, and other finance verticals are offering credits for moving online, running sweepstakes, and offering gift cards. They donate to consumers' charities – "green"-themed or not. One major payments player is forcing all business customers online, with a high hurdle to opt out. A top three retail bank defaults all new customers online – with a multi-step process to move offline. A top three telecom eliminates remittance envelopes from paper bills once a single payment is made online. Utilities are smoothing monthly variations to encourage autopay. These are actions being taken now.

In our conversations, many Senders also signal openness to a more heavy-handed approach in the future, such as fees for paper correspondence. A few Senders are experimenting with this now, but most have concerns about customer pushback - though they indicate a readiness to follow the market if it chooses that path. This dynamic echoes that seen in the airline industry, where the market has quickly adopted consumer fees once considered unimaginable – fuel surcharges, luggage surcharges, and fees to purchase tickets by phone. In the latter case, the justification is that there is an online channel for ticket purchases – not unlike online alternatives to paper correspondence.

In the longer term, Senders are eager to be first to market with new technologies that will potentially differentiate themselves in the eyes of lucrative, tech-savvy consumers. Mobile will emerge as a key platform in the next decade – and one that also eliminates mail. Banks see consumer appetite for instant statements of account balances, and they are testing mobile solutions now; mobile will eventually break the 30-day statement paradigm. We see mobile as a lesser threat to mail than online channels in the next decade, but these will also contribute to erosion of key segments of mail.

Senders also recognize that Consumers have legitimate concerns about moving from mail correspondence, and they are taking steps to address these concerns. Our Consumer survey indicates that many consumers are concerned about online security, the ability to recall past statements, or to have an alert that a bill is due. We see these pieces disappearing because Senders are addressing these concerns. Taken together, the energy that Senders exert on these measures indicates their belief that considerable potential for online diversion remains.

Finally, players outside of the traditional Sender-Consumer relationship will also contribute to erosion of Transaction Mail volume. Consolidators, both third parties and Consumers' banks, will play an increasing role in the bill and invoice presentment and payment process. In the long term, we see consolidators, particularly Consumers' banks, taking significant share of the consumer-to-business payments diverted online. Also, hybrid mail players, such as Zumbox and Earth Class Mail, will also capture share, although we believe that the loss to these players will be small in the 2020 timeframe.

Standard Mail is driven by a number of offsetting factors, the net impact of which is a slight (3B piece) increase in 2020 – a projection that is essentially flat. This is the net impact of factors both increasing and decreasing Standard Mail. Lift will come from an increase in GDP and households; share capture from newspapers; and improved targeting for letters and flyers, which enables Ad Mail letters to take share from other, less effective channels. A number of factors will erode these volumes as well, for example, loss of ad spend to online channels, e.g., search; replacement of flyer coupons by mobile couponing; and smarter targeting, which we see *reducing* volumes for catalogs. Our bottoms-up analysis suggests that Ad Mail will be ~12% of total ad spend in 2020, vs. ~11% in 2009, in line with top-down industry projections.

Package volume growth provides a bright spot over the next decade. We see that broad category increasing by approximately 40% in volume (an additional 1B pieces) between 2009 and 2020, driven by overall growth in business-to-consumer e-Commerce. Products that are competitive with commercial offerings will enjoy significant (44%) growth due to strong growth in e-Commerce (we assume for the Base Case that USPS maintains its current share). Nonetheless, the associated net income growth is too small to impact the long-term trend of declining profitability of postal products in aggregate.

Other potential outcomes

We conducted a sensitivity analysis to assess the impact of uncertainties in key assumptions – ideally, we would like to identify scenarios that mitigate the declines we project. GDP growth is the most important assumption, which we assume will resume recent trendline behavior (2.3% real growth) in the next few years and maintain that trajectory out to 2020. GDP growth drives ad spend and thus Standard Mail. We find that sustained 3.3% GDP growth increases 2020 Standard Mail volumes by 8B pieces and has little effect on First-Class Mail (indeed, First-Class Mail *declined* 1% YoY during the 2002-2006 period despite ~3% real GDP growth during the same period). Thus a sustained period of unusually high economic growth is insufficient to lift total mail volumes 10% above the current projection – and certainly not enough to offset the economic losses driven sustained long-term declines and a shift from First-Class Mail. In addition, household broadband penetration in 2020 is projected to be 85%, and this impacts online diversion, particularly for First-Class Mail. A change of projected 2020 penetration of +/-5% impacts First-Class Mail by ~+/- 5B pieces – again, insufficient to have a material impact on the overall declining trend. These outcomes are illustrated in Figure 2, along with a sample of key assumptions that would have to change to yield the outcomes.

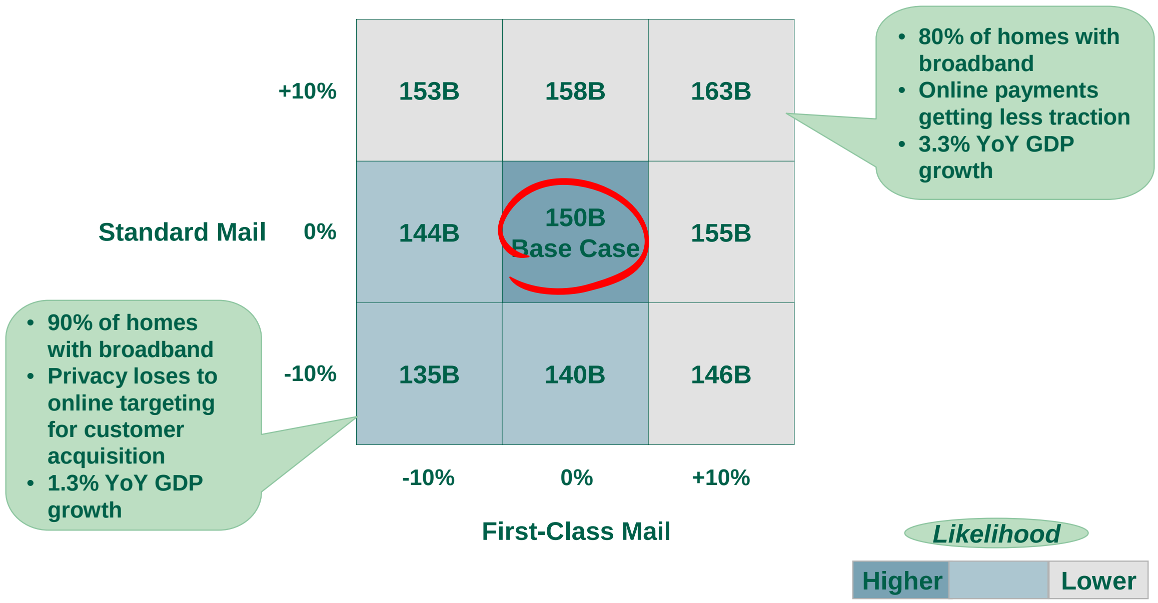

Figure 2: *Sample of sensitivities surrounding 150B piece Base Case projection*

Unfortunately, there are a number of scenarios under which mail volumes are at risk from falling well *below* the 150B projection in 2020 – and even the range illustrated in Figure 2. A sustained period of zero economic growth, like Japan's "Lost Decade," will reduce volumes by an *additional* 20B pieces in 2020. In addition, our benchmarking of mail trends in highly internet-enabled countries suggests that if online diversion achieves the worst-case penetration seen in the EU, the 2020 projection will fall below 120B pieces – this outcome would require strong consensus from Senders and Consumers to move significant volumes of Transaction Mail and Ad Mail online. Other potential factors would also suppress volumes, for example, a mail-based terror threat, national "Do Not Mail" legislation, and relaxed SEC regulation for dissemination of financial documents (e.g., "Online access is delivery"). Of course, there are some external events, such as a massive internet security breach, that may boost the projection. However, the list of threats is far longer than the list of potentially beneficial events. Although the likelihood of any specific event is small, there are many potential mail-reducing scenarios which can increase the risk that the 2020 volume will fall below the Base Case value of 150B pieces. To manage the impact of any of these events, the USPS will require much greater cost flexibility than it enjoys right now.

III. Implications

Impact on USPS economics

The Base Case volume projection of a decline to 150B pieces in 2020 has significant consequences for the economics of the USPS. Under business as usual assumptions, nominal revenue will rise slightly from $68B in 2009 to $69B in 2020. However, this represents a decline in *real* revenue since prices, which are tied to inflation, are projected to increase faster than this rate. The projected losses under the Base Case are unambiguously severe: we project increasing losses growing year after year that are caused by sharply declining volumes on an increasing cost base, coupled with a mix shift away from highly-profitable First-Class Mail.

		Year			
		2000	2009	2020	'09-'20 change (%)
Average pieces per delivery point per delivery day	Total Mail	4.9	3.8	2.8	-26
	First-Class Mail	2.5	1.8	1.0	-44
	Standard Mail	2.1	1.8	1.6	-11
			- 44%		
Real (inflation-adjusted) revenue per delivery point per delivery day (current $)	Total Mail	1.8	1.4	1.0	-29
	First-Class Mail	1.0	0.7	0.4	-43
	Standard Mail	0.4	0.4	0.3	-25

Table 1: *Base Case projection of pieces per delivery point and revenue per delivery point per delivery day*

A per-delivery point analysis further highlights the challenges confronting the USPS. Pieces delivered daily per delivery point are projected to fall from four/day now to three/day in 2020. This is driven by the 15% volume decline coupled with a 13% increase in delivery points by 2020. The *real* revenue per delivery point is expected to fall 30% by 2020. This simple math, spread across the millions of delivery points in the U.S., will compel profound structural changes to the USPS business model to maintain its viability. This is shown in Table 1.

Potential responses

Under the Base Case scenario, the USPS will experience mounting losses that will quickly threaten its viability. Posts in other markets, which are confronted with similar challenges, have taken a variety of mitigating actions to address volume, revenue, and cost – in fact, the magnitude of the decline compels them to take many actions simultaneously. Because of the enormity of the decline, however, the USPS has few options. Price increases will drive volume away. Revenue enhancements from mail-related businesses will not offset the staggering losses that will build year after year. Diversification demonstrated with success by foreign posts, such as retail finance, will take years to build and must contend with deeply entrenched commercial incumbents with years of experience in a fiercely competitive marketplace. For the USPS, structural changes to reduce the cost base in parallel with volume declines offer the only path forward. In a sense, the enormity of the decline simplifies the decisions confronting the USPS - only a few structural changes can enable the USPS to restore viability: changing the delivery model by reducing delivery frequency or changing delivery standards; pruning the extensive retail branch network, and potentially moving operations into existing retailers' networks; increasing prices at a rate above that of inflation; and reducing the labor cost structure. The size of the decline will likely require the USPS implement some combination of *all* of these actions.

Conclusion

Our objective was to forecast volumes and economic impacts out to 2020 under business-as-usual assumptions. We segmented total postal volumes into groups with common behaviors and gathered Sender and Consumer input about mail and its alternatives for each segment. We projected volumes for each segment, and aggregated the segment projections to forecast a total decline to roughly 150B pieces in 2020 from 177B in 2009. This outcome is relatively insensitive to variations in key drivers such as GDP growth. For the U.S. Postal Service, the *economic* impact of this decline is severe: our volume forecast points to a sequence of increasing annual losses leading to a roughly $15B loss in 2020. This outcome is driven by declining volumes, a marked shift away from the highly profitable First-Class Mail, all atop a relentlessly increasing cost base. This trajectory is clearly unsustainable, and absent extensive taxpayer support, deep structural changes in the USPS business model are required to avoid this outcome.