Projecting US Mail volumes to 2020
Final Report – Detail

March 2, 2010
Objectives and approach
Objectives of BCG's assignment

BCG was asked to develop base case projections of mail volumes to 2020

Base Case is a business-as-usual scenario with the following assumptions

- No new revenue or cost saving initiatives beyond those already in the current USPS plan
- No legislative or regulatory changes
- Economy returns to historical long-term growth rate in two to three years
- No major economic or other disruptions

Base Case forecast incorporates extensive, recent independent research

- Interviews, surveys, BCG expertise, benchmarks from other countries, and commercial research
Approach

Segmented mail into components with common behaviors

- First-Class Mail: invoices, statements, ad mail, payments
- Standard Mail: letters, flyers, catalogs
- Other categories: magazines, packages, etc

Interviewed and surveyed Senders and Consumers

- 50+ Senders interviewed for views on future use of mail
- Average USPS revenue of $200M for sample, and representation from all major industry segments
- 3,000+ Consumers were surveyed by phone and by internet on perception of online alternatives to mail

Incorporated broad set of industry data and research

- Forrester, Celent, Winterberry, Federal Reserve, etc
- BCG industry experience in multiple markets

Leveraged global benchmarks

- Developed countries with high broadband penetration
- Also, selected US peer for direct comparison

Projected revenues

- Leveraged USPS business-as-usual price assumptions
Mail was classified into segments with similar characteristics and market behaviors

<table>
<thead>
<tr>
<th>First-Class Mail</th>
<th>Standard Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bills and invoices</td>
<td>Standard Mail ad letters</td>
</tr>
<tr>
<td>General B2C mail</td>
<td>Flyers</td>
</tr>
<tr>
<td>Bank statements</td>
<td>Catalogs</td>
</tr>
<tr>
<td>C2B / B2B payments</td>
<td>Postcards</td>
</tr>
<tr>
<td>First-Class ad letters</td>
<td>Large envelopes</td>
</tr>
</tbody>
</table>

The Boston Consulting Group
Volume forecasts were created by segment

<table>
<thead>
<tr>
<th>Sender: Consumer Volume</th>
<th>Business volume</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Class Mail Volume (47%)</td>
<td>Standard Mail Volume (46%)</td>
<td>2009 Total 177 B (100%)</td>
</tr>
<tr>
<td>C2C pmts 9 B (5%)</td>
<td>Bills / Invoices 22 B (12%)</td>
<td>Standard Mail Ad Letters 32 B (18%)</td>
</tr>
<tr>
<td>Misc C2B 4 B (2%)</td>
<td>General B2C Mail 14 B (8%)</td>
<td>Flyers 24 B (14%)</td>
</tr>
<tr>
<td>C2B pmts 9 B (5%)</td>
<td>Bank Statements 8 B (5%)</td>
<td>Catalogs 12 B (7%)</td>
</tr>
<tr>
<td>B2B/B2C Payments 6 B (3%)</td>
<td>First-Class Ad Letters 11 B (7%)</td>
<td>Large Envelopes 5 B (3%)</td>
</tr>
<tr>
<td>General B2B Mail 4 B (2%)</td>
<td></td>
<td>Newsletters 5 B (3%)</td>
</tr>
<tr>
<td>First-Class Ad Letters 11 B (7%)</td>
<td></td>
<td>Postcards 3 B (2%)</td>
</tr>
</tbody>
</table>

Note: segments do not sum to 177B pieces due to rounding.
Source: BCG analysis
Results
2020 projections were then developed by aggregating segments into major mail classes

**Forecast**

<table>
<thead>
<tr>
<th>All Mail</th>
<th>Volume to fall to approx. 150B pieces from 177B in 2009 (-1.5% CAGR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-Class</td>
<td>Volume to fall to approx. 50B pieces from 84B in 2009 (-4% CAGR)</td>
</tr>
<tr>
<td>Standard</td>
<td>Volume to remain roughly flat at 85B pieces (+0.4% CAGR)</td>
</tr>
<tr>
<td>Packages</td>
<td>A bright spot with projected 1B piece gain (+3% CAGR) – but not offsetting loss in core business</td>
</tr>
<tr>
<td>Other metrics</td>
<td>Daily pieces per delivery point to fall from four to three</td>
</tr>
<tr>
<td></td>
<td>Real revenue per delivery point expected to fall ~30%</td>
</tr>
</tbody>
</table>

**Key drivers**

- Sharp decline in First-Class Mail
- Flat trajectory for Standard Mail
- Increasing online diversion driven by increased consumer acceptance
- Online diversion of retention mail
- Some share gain from newspapers
- e-Commerce, including returns
- Declining mail volumes
- Growth in delivery points
- Declining pieces per delivery point
- Mix shift from First-Class to Standard

Source: BCG analysis
We project a volume decline of at least 15% by 2020 vs. 2009

2020 projection represents 30% decline off of 2006 peak

1. Sender view
Source: BCG analysis
## Multiple drivers impacting volumes in coming decade

<table>
<thead>
<tr>
<th>First-Class Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic growth in number of households</td>
</tr>
<tr>
<td>Growth in economy</td>
</tr>
<tr>
<td>Increase in online presentment and bill pay</td>
</tr>
<tr>
<td>Increased usage of autopay</td>
</tr>
<tr>
<td>Extension in billing cycles</td>
</tr>
<tr>
<td>Increase in mobile presentment</td>
</tr>
<tr>
<td>Diversion to emerging hybrid mail options</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Mail</th>
</tr>
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<tbody>
<tr>
<td>Organic growth in number of households</td>
</tr>
<tr>
<td>Growth in economy</td>
</tr>
<tr>
<td>Share capture from newspaper</td>
</tr>
<tr>
<td>Shift to online alternatives to acquisition mail (search ads, banner ads)</td>
</tr>
<tr>
<td>Shift to online alternatives for retention mail (e.g., email to existing customers)</td>
</tr>
<tr>
<td>Increased diversion to private carrier delivery</td>
</tr>
<tr>
<td>Diversion to emerging hybrid mail options</td>
</tr>
</tbody>
</table>

**Positive trend for USPS**

**Negative trend for USPS**
2020 forecast sees ongoing decline in First-Class Mail

-4% annual decline\(^1\)

\(53 \text{ (-37\%)}\)
\(44 \text{ (-47\%)}\)

Sender perspective
Consumer perspective
Worst-case benchmark (from EU)

\(1.\) Sender view
Source: BCG analysis
2020 forecast sees roughly flat volumes in Standard Mail vs. 2009

Recovery will not revisit pre-crisis levels

1. Sender view
Source: BCG analysis
Most mail segments will decline by 2020

First-Class Mail Volume (35%)
- Bills / invoices 12 B (8%) 44%
- General B2C mail 11 B (7%) 24%
- Bank statements 4 B (3%) 47%
- B2B/C pmts 2 B (1%) 46%
- C2B payments 4 B (3%) 24%
- First-Class Ad Letters 8 B (5%) 30%

Standard Mail Volume (57%)
- Standard Mail Ad Letters 38 B (26%) 18%
- Flyers 26 B (18%) 10%
- Catalogs 9 B (6%) 29%
- Large Envelopes 4 B (3%) 14%
- Newsletters 4 B (3%) 26%
- Postcards 3 B (2%) 12%

2020 Total 150 B (100%)
- Magazines 7 B (5%)
- Packages 4 B (3%)

Sender outlook for 2020
- % +1% or more
- % 0% to -24%
- % -25% to -60%

Note: based on Sender view. Segments do not sum to 150B pieces due to rounding.
Source: BCG analysis
## Senders tell us that they see their use of mail declining sharply

<table>
<thead>
<tr>
<th>Representative quote</th>
<th>Representative source</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;We are planning to suppress 100% of First Class transaction mail by 2020, and are sure that other telecom companies are moving in the same direction&quot;</td>
<td>Top five Telecom</td>
</tr>
<tr>
<td>&quot;We do not see a rebound, we expect annual declines out to 2020 of 5-7% per year&quot;</td>
<td>Top five Check Printer</td>
</tr>
<tr>
<td>&quot;The goal shifted from how well I can use the mail to how much mail can I push out of the system&quot;</td>
<td>Top five Credit Card Mail Service Provider</td>
</tr>
<tr>
<td>&quot;Even if the economy recovers, we might get 50% of all marketing mail back. The rest is gone&quot;</td>
<td>Top five Financial Services Firm</td>
</tr>
<tr>
<td>&quot;Utilities see no value in sending bills to customers and are offering to average the bill out over 12 months to attract consumers to sign up for recurring payments&quot;</td>
<td>Top five Mail Service Provider</td>
</tr>
</tbody>
</table>
Benchmarks from other global posts
What US is experiencing is not unique—other posts all seeing erosion of volumes as well.

Other posts have varying levels of broadband penetration …

… defining a range in terms of mail volume erosion.

Findings reinforced by about a dozen internet-enabled countries in sample.

Source: OECD; Annual reports and interim reports local posts; Universal Postal Union; 2008–2013 Forrester estimates; TIA 2009 ITC Market review and Forecast
Mail trends in broadband-enabled countries points to impact of broadband penetration

Total mail CAGR as function of 2008 broadband penetration

Mail volume average annual growth for each country, 00-08

Note: Mail volumes for Japan and South Korea only available until 2007; trend lines and $R^2$ based on data from all countries except South Korea
Source: OECD, Forrester, ComScore, UPU; Annual Accounts local postal companies
Implications
2020 real revenue per delivery point will decline almost 50% from 2000

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2009</th>
<th>2020</th>
<th>'09-'20 change (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Mail</strong></td>
<td>4.9</td>
<td>3.8</td>
<td>2.8</td>
<td>-26</td>
</tr>
<tr>
<td><strong>First-Class Mail</strong></td>
<td>2.5</td>
<td>1.8</td>
<td>1.0</td>
<td>-44</td>
</tr>
<tr>
<td><strong>Standard Mail</strong></td>
<td>2.1</td>
<td>1.8</td>
<td>1.6</td>
<td>-11</td>
</tr>
</tbody>
</table>

- **Average pieces per delivery point per delivery day**

- **Real (inflation-adjusted) revenue per delivery point per day (current $)**

Note: based on Sender view
Source: BCG analysis
All reasonable scenarios suggest volume will continue to decline

<table>
<thead>
<tr>
<th></th>
<th>First-Class Mail</th>
<th>Standard Mail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-10%</td>
<td>0%</td>
</tr>
<tr>
<td></td>
<td>135B</td>
<td>144B</td>
</tr>
<tr>
<td></td>
<td>140B</td>
<td>150B (Base Case)</td>
</tr>
<tr>
<td></td>
<td>146B</td>
<td>155B</td>
</tr>
<tr>
<td>+10%</td>
<td>153B</td>
<td>163B</td>
</tr>
</tbody>
</table>

- 80% of homes with broadband
- Online payments getting less traction
- 3.3% YoY GDP growth

- 90% of homes with broadband
- Privacy loses to online targeting for customer acquisition
- 1.3% YoY GDP growth

Note: based on Sender view
Source: BCG analysis
Of course, other events can significantly impact volumes

<table>
<thead>
<tr>
<th>External</th>
<th>USPS-specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catastrophic internet security failure</td>
<td>Downstream printing/increased workshare</td>
</tr>
<tr>
<td>Significant changes to US health care</td>
<td>Larger share of Ad Mail leads to greater swings in profits</td>
</tr>
<tr>
<td>National sustainability (&quot;green&quot;) initiative</td>
<td>Reduction in monopolies</td>
</tr>
<tr>
<td>Prolonged high fuel prices</td>
<td>Mail-borne terror attack</td>
</tr>
<tr>
<td>Protracted recovery from current economic conditions – like Japan's &quot;Lost Decade&quot;</td>
<td>Do not mail list – opt-in or opt-out</td>
</tr>
<tr>
<td>Economy recovers, but quasi-periodic recession returns in 8 years</td>
<td>Regulation/legislation</td>
</tr>
<tr>
<td>Relaxed SEC regulations around investor communications (e.g., &quot;Access is delivery&quot;)</td>
<td></td>
</tr>
<tr>
<td>9/11-type event</td>
<td></td>
</tr>
</tbody>
</table>

Must build significant labor flexibility on top of cost reductions
**Structural changes required for USPS**

Revenue and cost interventions implemented by other posts

<table>
<thead>
<tr>
<th>Conventional cost and revenue enhancements are minimal requirements</th>
<th>Typical revenue / volume enhancements</th>
<th>Typical cost reduction steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing enhancements</td>
<td>Efficiency improvements to processes and routes</td>
<td></td>
</tr>
<tr>
<td>Sales and marketing</td>
<td>Further automation: sequencing, printing, etc</td>
<td></td>
</tr>
</tbody>
</table>
  - Key account management
  - Improved product bundling
| Product development | Network consolidation |
  - B2C parcel proposition
  - Value chain extensions (print, DM)
  - Intelligent Mail, Hybrid mail
| Diversification steps used elsewhere | Generic cost reductions |
  - Financial/Insurance Services
  - Logistics (B2B CEP, LTL, 3PL, reverse)
  - (e-) Government services
  - Information logistics (CRM, secure email)
| Structural cost changes | Structural changes are required to close the gap |
  - Delivery model
    - Frequency: 5 or 3 per week
    - Relaxing service standards/days to delivery
  - Delivery points and time
  - Integrate Post office network into retailers to lower costs & release cash from assets
  - Lower labor costs to reflect market conditions (Non Career, Part-time, Outsourcing)

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**Profit from diversification likely to be too limited and too late to compensate**

**Given the magnitude of the gap, structural cost changes are unavoidable**

The Boston Consulting Group
Some posts are pursuing these structural changes now

### Implemented distribution changes

- **Canada**: Reduction from 6 to 5 delivery days (1960s in urban areas, 1982 in rural areas)
- **Australia**: Reduction from 6 to 5 delivery days (1975); in rural areas delivery frequency can be between two and four times depending on cost and community need.
- **Belgium**: Reduction from 6 to 5 delivery days
- **Greece**: Reduction from 5 to 3.5 delivery days in rural areas
- **Slovenia**: Reduction from 6 to 5 delivery days in rural areas
- **Spain**: Reduced scope of delivery, no delivery in remote homes more than 250m from the main roads
- **Denmark**: Reduced frequency of delivery of non time critical class mail on alternate days

### Changes under consideration

- **France**: Considered moving from T+1 to T+2 delivery
  - According to La Poste, T+1 has a high environmental impact and does not respond to strong demand, particularly by companies
- **Netherlands**: Considered reducing number of delivery days from 6 to 5\(^2\) and announced Dec 09 that its goal is to move to a 3 day delivery model\(^3\)
  - Will close the last post office mid 2010 and fully integrate retail access into retailers
  - Continue to shift to more part time labor
- **Germany**: Deutsche Post proposed in December 2008 to reduce delivery days from 6 to 5
  - Proposal rejected by German authorities

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1. Some households will get non time-critical mail on Mondays, Wednesdays and Fridays while others will get their non time-critical mail on Tuesdays, Thursdays and Saturdays;
2. As part of its Masterplan II announced in 2006;
3. Statement from TNT CEO Peter Bakker during Vision 2015 announcement on December 3, 2009

The path forward

In the immediate term, there may be some revenue opportunities that offset some of the losses projected here.

However, long-term viability requires a mix of structural changes to address high fixed costs; these may include changes to:

- Delivery model, e.g., frequency, standards
- Branch network
- Labor model

Other posts are taking similar actions in response to declining volumes.

These actions are profound changes to the business model – restoring viability through these steps will require both internal alignment and external buy-in.
Appendix: Selected backup materials for key segments – Sender view
Bill and invoice volume expected to fall 44%
Mail Rebound from recession offset by continued diversion

Source: BCG analysis, customer interviews, USPS RPW Report, USPS Household Diary Survey, USPS volume tracking data
B2C Correspondence expected to fall 24%

Source: BCG analysis, customer interviews, USPS RPW Report, USPS Household Diary Survey, USPS volume tracking data
Bank Statement volume expected to fall 47%

Volume (B)

Impact of drivers (Sender view)

Source: BCG analysis, customer interviews, USPS RPW Report, USPS Household Diary Survey, USPS volume tracking data
B2B/C2B Payment volume expected to fall 52%

Impact of drivers (Sender view)

Volume of B2B and C2B payments (B)

- Mail rebound
- Organic growth
- Autopay / change in reporting cycle
- Online payment (direct)
- Online payment (consolidator)
- Mobile/ATM payment

2020: B2B payments 6.8, C2B payments 3.6

Source: BCG analysis, customer interviews, USPS RPW Report, USPS Household Diary Survey, USPS volume tracking data
First-Class Mail ad letter volume to fall 30%
Mail rebound offset by migration to Standard Mail

Impact of drivers (Sender view)

Volume (B)

2009  Mail rebound  Organic growth  Improved targeting  Shift to Standard\(^1\)  Online  Email  2020

11.4  1.4  1.2  0.7  3.2  3.2  0.4  8.0

1. Shift to Standard Mail indicates migration of advertisements from First-Class Mail to Standard Mail
Source: BCG analysis, customer interviews, USPS RPW reports 2009, USPS Household Diary Survey 2008
Standard Mail ad letter volume to increase 18%
Some volume capture from First-Class Mail

Impact of drivers (Sender view)

- Mail rebound: 32.1
- Organic growth: 8.4
- Shift from First Class: 3.2
- Improved targeting: 2.0
- Online\(^1\): 10.3
- Email: 1.5
- Content addressable TV: 1.1
- 2020: 38.0

1.Online channel includes paid search and banner ads
Source: BCG analysis, customer interviews, USPS RPW reports 2009, USPS Household Diary Survey 2008
Flyer volume expected to increase about 10%
Some influx of volume captured from newspaper ads

Impact of drivers (Sender view)

Volume (B)

- 2009 Mail rebound
- Organic growth
- Gain from newspaper
- Private carrier delivery (PCD)
- Online
- Mobile
- Email
- 2020

23.7 4.8 6.2 4.0 2.0 4.4 3.5 2.6 26.2

1. Online channel includes paid search, website search and banners
Mail Rebound marked low confidence due to uncertainty in recovery time and not uncertainty in magnitude of recovery
Source: BCG analysis, customer interviews, USPS RPW reports 2009, USPS Household Diary Survey 2008
Catalog volume expected to fall about 29%
Mail Rebound from recession offset by smarter targeting

Impact of drivers (Sender view)

Volume (B)

2009  Mail rebound  Organic growth  Online  Improved targeting  Mobile  Content addressable TV  2020

12.6  1.0  2.3  2.2  2.9  1.4  0.4  8.9

1. Online channel includes paid search, website search and banners
Source: BCG analysis, customer interviews, USPS RPW reports 2009, USPS Household Diary Survey 2008
Appendix: Selected backup materials for key segments – Consumer view
Consumers expect volume of mailed bills to fall
Decline will be greater as online financial services improve

Consumers expect a 30% drop in bill volume

But if these improvements are made in online services

Bill receipt could decline ~45%

Transmitters indicate high likelihood improvements will occur in the next ten years, including improvements to security

Score indicates the percent of respondents who indicated that the improvement would lead them to significantly shift towards online services instead of paper bills

Source: Consumer Internet-based research, 11/09, n=1736; BCG analysis; Sender research, 11/09

1. Harvey balls based on score. 27-32: ¼, 33-38: ½, 39-45: ¾, 46-52: 1. Score indicates the percent of respondents who indicated that the improvement would lead them to significantly shift towards online services instead of paper bills
Consumers expect volume of statements to fall
Decline will be greater as online financial services improve

Consumers expect ~30% drop in statements

But if these improvements are made in online services

Statement receipt could decline ~40%

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Score¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvements in security</td>
<td></td>
</tr>
<tr>
<td>Provision of a long and free archive of statements</td>
<td></td>
</tr>
<tr>
<td>Ease of enrolling to receive online statements</td>
<td></td>
</tr>
<tr>
<td>Ease of accessing online statements</td>
<td></td>
</tr>
<tr>
<td>Small fee instituted to receive paper statements</td>
<td></td>
</tr>
<tr>
<td>Features to make statement analysis easier</td>
<td></td>
</tr>
<tr>
<td>Ability to view multiple statements at one site</td>
<td></td>
</tr>
</tbody>
</table>

Senders indicate high likelihood improvements will occur in the next ten years, including improvements to security

¹. Harvey balls based on score. 27-32: ¼, 33-38: ½, 39-45: ¾, 46-52: 1. Score indicates the percent of respondents who indicated that that improvement would lead them to significantly shift towards online services instead of paper statements. Source: Consumer internet-based research, 11/09, n=1736; BCG analysis; Sender research, 11/09.
Consumers expect to mail fewer payments
Decline will be greater as online financial services improve

Consumers expect ~25% drop in payments

But if these improvements are made in online services
Payments could decline ~40%

Senders indicate high likelihood improvements will occur in the next ten years, including improvements to security

1. Harvey balls based on score. 27-32: ¼, 33-38: ½, 39-45: ¾, 46-52: 1. Score indicates the percent of respondents who indicated that that improvement would lead them to significantly shift towards online services instead of paper payments
Source: Consumer Internet-based research, 11/09; BCG analysis; Sender research, 11/09
Consumers expect volume of ad letters to fall
Decline will be greater as online advertising improves

Consumers expect a ~20% drop in ad letters

But if these improvements are made in online advertising

Ad letters could decline ~40%

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Score¹</th>
<th>Remaining of '09 values (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception that online ads are secure genuine</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Perception that online ads do not collect information about consumers</td>
<td></td>
<td>81</td>
</tr>
<tr>
<td>Provision of promotional discounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relevance of online ads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informative value of online ads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of use of online ads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to inform consumers of new products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention value of online ads</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability of online ads to provide solicitations from charities consumers have worked with</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Senders indicate many of these improvements will be made in the next 10 years

¹ Harvey balls based on score. 7-20: ¼, 21-34: ½, 35-49: ¾, 50-63: 1. Score indicates the percent of respondents who indicated that that improvement would lead them to more strongly favor

Source: Consumer internet-based research, 11/09, n=1328; BCG analysis; Sender research, 11/09
Consumers expect volume of flyers to fall
Decline will be greater as online advertising improves

Consumers expect a ~15% drop in flyers

But if these improvements are made in online advertising

Flyers could decline ~40%

<table>
<thead>
<tr>
<th>Improvement</th>
<th>Score¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provision of promotional discounts from online ads</td>
<td></td>
</tr>
<tr>
<td>Informative value about local stores</td>
<td></td>
</tr>
<tr>
<td>Perception that online ads do not collect information about consumers</td>
<td></td>
</tr>
<tr>
<td>Relevance of online ads</td>
<td></td>
</tr>
<tr>
<td>Online ads’ ability to allow consumers to compare products</td>
<td></td>
</tr>
<tr>
<td>Informative value of online ads</td>
<td></td>
</tr>
<tr>
<td>Online ads’ ability to inform consumers of new products</td>
<td></td>
</tr>
<tr>
<td>Attention value of online ads</td>
<td></td>
</tr>
<tr>
<td>How fun online ads are to read</td>
<td></td>
</tr>
</tbody>
</table>

Senders indicate many of these improvements will be made in the next 10 years

1. Harvey balls based on score. 7-20: ¼, 21-34: ½, 35-49: ¾, 50-63: 1. Score indicates the percent of respondents who indicated that that improvement would lead them to significantly shift towards online ads instead of flyers

Source: Consumer internet-based research, 11/09, n=1328; BCG analysis; Sender research, 11/2009
Consumers expect volume of catalogs to fall
Decline will be greater as online advertising improves

<table>
<thead>
<tr>
<th>Consumers expect a ~20% drop in catalogs</th>
<th>But if these improvements are made in online advertising</th>
<th>Catalogs could decline ~40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remaining of '09 values (%)</td>
<td>Improvement</td>
<td>Score¹</td>
</tr>
<tr>
<td>100</td>
<td>Perception that online ads do not collect information about consumers</td>
<td>1</td>
</tr>
<tr>
<td>83</td>
<td>Provision of promotional discounts from online ads</td>
<td>½</td>
</tr>
<tr>
<td></td>
<td>Relevance of online ads</td>
<td>¾</td>
</tr>
<tr>
<td></td>
<td>Online ads’ ability to allow consumers to compare products</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Informative value of online ads</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Attention value of online ads</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>How fun online ads are to read</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Online ads’ ability to inform consumers of new products</td>
<td>8</td>
</tr>
<tr>
<td>2009</td>
<td>Remaining of '09 values (%)</td>
<td>100</td>
</tr>
<tr>
<td>2020</td>
<td>Remaining of '09 values (%)</td>
<td>61</td>
</tr>
</tbody>
</table>

Senders indicate many of these improvements will be made in the next 10 years

1. Harvey balls based on score. 7-20: ¼, 21-34: ½, 35-49: ¾, 50-63: 1. Score indicates the percent of respondents who indicated that that improvement would lead them to significantly shift towards online ads instead of catalogs.

Source: Consumer internet-based research, 11/09, n=1328; BCG analysis; Sender research, 11/09
Years of experience online drives Consumer receptivity for conducting transactions online

Source: BCG analysis; Consumer internet-based research, 11/09, n=1736