

## U.S. Internet

### 2013 Top Picks and Key Themes; Facebook, eBay, Priceline, and Pandora Our Best Ideas

**We remain positive on the Internet sector in 2013 as we expect continued strong top-line growth driven by secular tailwinds in eCommerce and Online Travel, and improving monetization of mobile advertising.** Stock price performance across our Internet coverage universe in 2012 (+20% vs. +12% for the S&P 500) was varied with Online Travel +44%, eCommerce +46%, and Local +30%, while Online Advertising lagged at -0.5%. We believe 2012 sub-sector performance was largely dependent on the early impact of the shift to mobile. **In 2013—the second year of real mobile Internet impact in our view—we think stock performance will be more company-specific and impacts of the desktop slowdown will come more into focus. We also expect mobile advertising to begin to capture a meaningful share of ad dollars and that is reflected in our top large-cap pick Facebook and top small-cap pick Pandora.**

- **Facebook: Overweight, \$35 PT.** We believe it still very early in Facebook's mobile advertising trajectory, and marketer feedback on mobile and News Feed ads is now more positive. We expect continued ad growth acceleration at least through 1Q13, and possibly into 2Q/3Q. The Facebook Exchange and Custom Audiences should also drive improvements in desktop yield in 2013. We do not believe Facebook shares are well-owned, and S&P 500 inclusion could come in late 2013 or 1H14.
- **eBay: Overweight, \$56 PT.** We believe Marketplaces GMV could accelerate over the next couple quarters as eBay continues to benefit from strong user growth, increased inventory from large retailers, mobile, and improved site design. Mobile should remain a key driver for both Marketplaces and Payments, helping to maintain stable Merchant Services TPV growth.
- **Priceline: Overweight, \$740 PT.** We expect Priceline's strong International bookings growth to continue in 2013 as the company steps up investment and benefits from a somewhat more stable macro environment. We think continued European hotel share gains, and bigger contribution from high-growth LatAm and APAC could help Priceline stabilize or perhaps even accelerate International bookings in 2013.
- **Pandora: Overweight, \$14 PT.** We remain positive on Pandora as: 1) usage continues to grow faster than 50% and Pandora has 7.2% share of U.S. radio; 2) radio buy-side platform integration should be a material catalyst in 2013; and 3) Pandora's salesforce continues to ramp.
- **Key Internet themes we're focused on for 2013:** 1) the ongoing platform battle across AAPL (covered by J.P. Morgan IT Hardware analyst Mark Moskowitz), AMZN, FB, and GOOG, with GOOG at the center; 2) online ad growth reaching 25% of U.S. ad spend, driven by mobile; 3) real-time bidding (RTB) gaining display share; 4) the mobile web vs. apps debate; 5) impact of the desktop slowdown; and 6) increasing competition in online travel.

#### Internet

##### **Doug Anmuth** AC

(1-212) 622-6571

douglas.anmuth@jpmorgan.com

##### **Kaizad Gotla, CFA**

(1-212) 622-6436

kaizad.gotla@jpmorgan.com

##### **Bo Nam**

(1-212) 622-5032

bo.nam@jpmorgan.com

J.P. Morgan Securities LLC

See page 32 for analyst certification and important disclosures.

J.P. Morgan does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

## Table of Contents

<b>Top Picks for 2013.....</b>	<b>3</b>
<b>Facebook: Overweight, \$35 PT.....</b>	<b>3</b>
<b>eBay: Overweight, \$56 PT.....</b>	<b>7</b>
<b>Priceline: Overweight, \$740 PT .....</b>	<b>9</b>
<b>Pandora: Overweight, \$14 PT .....</b>	<b>11</b>
<b>Key Internet Trends in 2013.....</b>	<b>15</b>
<b>Google at The Center of The Platform Battle .....</b>	<b>15</b>
<b>Online Advertising to Approach 25% of U.S. Ad Spending, With Growth Driven by Mobile.....</b>	<b>18</b>
<b>RTB More Critical As Desktop Search Slows .....</b>	<b>22</b>
<b>Mobile Web vs. Apps Debate Continues .....</b>	<b>24</b>
<b>Desktop Slowdown Impact.....</b>	<b>27</b>
<b>Increasing Competition in Online Travel.....</b>	<b>30</b>

## Top Picks for 2013

### Facebook: Overweight, \$35 PT

#### Why We Think It Outperforms in 2013

##### **Advertising revenue should accelerate for the next couple quarters**

Facebook posted a strong acceleration in ad revenue growth in 3Q12 and we expect continued acceleration at least through 1Q13, and possibly into 2Q/3Q. We remain positive on the company's ability to monetize mobile going forward based on positive feedback on News Feed ads and the differentiation of Facebook's mobile offering in the market relative to its desktop product. We believe this distinction is important as Facebook has some discretion in directing certain campaigns across formats and will likely push the highest-quality ads toward the Mobile News Feed, especially those that point to strong mobile sites. We are modeling ad revenue growth of 49% in 4Q12 and 52% in 1Q13, up from 36% Y/Y growth in 3Q12. We currently project 38% ad revenue growth for 2013.

##### **It's early in the mobile trajectory**

We are optimistic on mobile ad formats including Sponsored Stories, Promoted Posts, App-Install Ads, and others as our checks continue to suggest that mobile ads have higher CTRs and significantly higher eCPMs relative to desktop. Advertisers such as Samsung, Pepsi, and others have indicated strong ROI from their Mobile News Feed spending. And Facebook has stated that overall News Feed ads are generating 8x the engagement of Desktop Right Rail ads and have 10x greater ad recall.

Strong mobile growth should be driven by increases in mobile users, visit frequency, and ad load (impressions per user visit), along with greater advertiser demand and sophistication. Early on we believe News Feed ads have been adopted more quickly by U.S. advertisers, but international mobile ad load should increase over time. We project mobile ad revenue of \$2.37B in 2013—growth of 332% in the first full year of mobile—representing 39% of total advertising. For 2014 we project \$4.0B of mobile advertising, up 71% Y/Y and accounting for 53% of total advertising, surpassing desktop.

##### **Desktop yield improvement potential**

Even though Desktop impressions will decline, we think there's significant room for Facebook to improve pricing or yield of its Marketplace/Right Rail ads through re-targeting using the Facebook Ad Exchange (FBX) and Custom Audiences. Facebook's Desktop Right Rail ads are likely at CPMs below \$0.40 in the U.S. and our checks suggest that industry CPMs for re-targeting are closer to \$2.00, a significant gap that we would expect to tighten over time.

FBX enables real-time bidding driven by advertisers' cookie-based data rather than simply targeting through broad demographics or interests. We believe the incorporation of third-party data into Facebook's ad platform is material as it enables ads to be targeted based on purchase intent. FBX ads currently appear only on the Desktop Right Rail, but we believe they could be incorporated into the News Feed

over time given their high ROI and demand from advertisers. Data from Triggit indicates the FBX had 4x higher click-through rates and 2x higher conversion rates than other ad exchanges, yielding cost per acquisition (CPA) that was 4-6x lower than other ad exchanges. And we believe FBX still accounts for less than 10% of Right Rail impressions, suggesting significant headroom going forward. FBX also moves Facebook further down the marketing funnel, we believe making Facebook more competitive with Google's Ad Exchange today and ultimately with Google search as well.

Custom Audiences enables advertisers to find their offline customers on Facebook and create ads specifically catered towards them. This can help increase ad relevancy and conversion, driving higher levels of ROI and eventually increasing spending on Facebook.

#### **Facebook still not well-owned in our view**

Facebook shares have appreciated +40% since the November 14, 2012 lock-up expiration compared to a +9% move in the S&P 500. We recognize that both share price and sentiment have improved dramatically over the past 2+ months, but we still do not think Facebook shares are currently well-owned given the speed of the move around the lock-up expiration. And some skepticism around mobile sustainability, ad loads, and advertiser ROI remains. Additionally, given comparable IPO precedents such as GOOG, V, MA, and YHOO, we would expect Facebook to be included in the S&P 500 late in 2013 or in the first half of 2014, roughly 18-24 months after the listing. Based on current estimates from Min Moon of J.P. Morgan Global Equity Derivatives & Quantitative Strategies team, we believe current buyer demand likely would be ~110M shares, or roughly 2x the average volume of the last 15 days. Note that anticipated demand would increase as more shares come out of the lock-up.

#### **\$35 PT and Overweight rating**

Our \$35 price target is based on ~16.5x our 2014 EBITDA estimate of \$4.5B. Our price target multiple is toward the lower end of the range of a group of high-growth Internet comps such as LinkedIn (25.5x) and Amazon (16x). We believe the company deserves a premium to most Internet peers including Google, Tencent, Baidu, and Priceline based on its high growth potential, strong network effects, and accelerating ad revenue. However, we would still expect Facebook to be at a discount to LinkedIn given the latter's significantly higher growth rate, subscription-based revenue characteristics, transparent model, and early track record of beating numbers.

### **What Could Go Wrong**

#### **Over-monetization could hurt the user experience**

We believe Facebook's most valuable asset is its user base and we expect the company to continue to take a user-first approach. However, we also acknowledge that the company has pushed mobile monetization sooner and harder than we expected 9 months ago. We recognize that the News Feed is becoming more crowded, but we believe it is only impacting the user experience on the margin and high-quality, social ads tend to blend in more as content. We believe Facebook is still carefully gating ads and likely showing more of them to users who seem more willing to engage/click on them. Facebook has recently experienced user pushback around Instagram policies and the company will also have to tread lightly with monetization early on for that site as well.

### **Marketers could take time to catch on to new ad formats**

Most Facebook News Feed ad formats are fundamentally different than what marketers have been doing across the web. Twitter has helped pave the way somewhat with Promoted Tweets, but most News Feed ads are word-of-mouth at scale. We think there's some education process involved for marketers to understand the right way to use paid News Feed ads in conjunction with earned media on Facebook, and also how to make a social ad most compelling. Early News Feed traction has clearly been strong and we believe Facebook's sales force is focused on working with marketers. Additionally, marketers are also realizing that there is branding and awareness value in Facebook ads and that users don't necessarily have to click through to drive returns. We also expect Facebook to benefit from step-ups in their allocation of 2013 marketer budgets.

### **Desktop decline could be steeper than we think**

While Facebook's Web MAUs continue to grow—driven by hybrid Web and Mobile users—Web-only users are down 5% Y/Y. Similarly, we estimate total Facebook ad impressions slow to 23% growth in 2012, from 41% in 2011, and decline 4% in 2013 due to the shift toward mobile. Our bottom-up advertising analysis suggests that total Desktop ad revenue will decline 4% in 2013 as strong Desktop News Feed growth somewhat offsets Desktop Right Rail declines. However, a faster shift toward mobile and/or slower improvement in desktop yields through FBX could lead to steeper desktop ad declines.

### **Tougher comps into back half**

We talked above about our belief that advertising revenue would reaccelerate in early 2013, and part of that is driven by easier Y/Y comps. Recall that Facebook only lightly rolled out Desktop News Feed ads in early 2012 and Mobile News Feed ads really didn't start until June 2012. The back half of 2013 will have tougher comps and investors will be looking for sustainability of mobile strength along with signs of additional revenue drivers.

## **What to Watch For**

### **Traction of new ad formats and tools**

As noted above, we believe FBX and Custom Audiences will enable Facebook to leverage 3rd-party data and improve ad targeting. We'll be looking for FBX penetration to gradually increase from what we believe is a sub-10% level and for FBX ads to likely move into the News Feed. Early feedback on App Install ads has also been positive with AdParlor indicating that recent App-Install ads have CTRs several times higher than that of ads on the Desktop Right Rail.

### **Margin direction**

We believe Facebook is much more of a top-line story and the company will continue to invest in growth opportunities going forward. However, we recently raised our EBITDA and margin estimates for 4Q (\$974M, 60.0%), 2013 (\$3.67B, 54.9%), and 2014 (\$4.5B, 54.7%). While we still expect EBITDA margins to decline from 57.0% in 2012 to 54.9% in 2013 and 54.7% in 2014 due to continued investments and the lack of growth in higher-margin Payments, we expect strong Advertising revenue growth to somewhat offset these headwinds. We expect the company to continue to aggressively invest in R&D (+55% Y/Y in 2013) to drive

new users and advertising products, as well as hiring sales and marketing talent to educate advertisers on Facebook's various ad products and their efficacy.

#### **If Gifts can be a driver of commerce on Facebook**

We view Facebook Gifts as a low-risk, additive way to further test eCommerce on the Facebook platform, but we do not expect it to have a meaningful impact in the near term. If 10% of U.S. users purchased \$20 gifts 4 times per year in 2013—optimistic assumptions in our view—we estimate it would drive \$100M of revenue for Facebook, albeit at high margins. We are not currently forecasting any incremental revenue from Facebook Gifts in our estimates given the very early-stage nature of the platform, the somewhat limited product selection, and the intense competition in the broader eCommerce space.

#### **Whether Payments can grow**

We remain well below the Street on Payments revenue for 2013 and 2014 as we expect Payments to remain pressured by the usage mix-shift to Mobile where Apple and Google (not Facebook) manage payments, along with Zynga's ongoing challenges. We expect Facebook Payments revenue from Zynga to continue to decline in 2013, though we're modeling Payments revenue from other game publishers to modestly increase. We model Payments revenue to decline 14% in 2013 and 9% in 2014, and we are not factoring in expansion of Payments beyond Games.

## eBay: Overweight, \$56 PT

### Why We Think It Outperforms in 2013

#### **Marketplace GMV should accelerate near-term**

We believe Marketplace GMV could accelerate over the next couple quarters as eBay continues to benefit from strong user growth, increased inventory from large retailers, mobile, and improved site design. We look for overall FX-neutral ex-vehicles GMV to accelerate to 16% growth in 4Q—17% in the U.S.—with potential to grow faster in the first half of 2013. We also believe eBay GMV can grow at or above reported comScore eCommerce growth numbers, with Fixed Price already taking share.

#### **Stable Payments Merchant Services growth**

Payments Merchant Services growth was stable at 26% in 3Q12 and we expect it to remain in the mid-20s (%) range in 2013. We believe PayPal continues to benefit from broader merchant adoption. Mobile should also remain a strong driver of Payments, including through incremental PayPal Mobile Express Checkout purchases. We view eBay's complete value proposition to traditional retailers across Marketplace, Payments, and GSI as compelling and we believe it should yield deeper PayPal penetration over time.

#### **3-year outlook for Payments margins should move higher**

We believe Payments has opportunity for greater leverage going forward driven by lower processing costs, improved loss rates, and operating efficiencies. During 2012 Payments margins reached the 25-26% range provided in the current 3-year outlook through 2013. We would expect the company to raise that range at its Investor Day in late March. We currently project 60bps of Payments margin expansion in 2013 to 25.5%.

#### **Mobile remains a key growth driver**

We believe eBay is extremely well-positioned in mobile across both Marketplace and Payments, each of which are expected to do \$10B of mobile volume in 2012. On the Marketplace side, eBay has been innovative with mobile apps, creating a seamless buying and selling experience that we believe has reinvigorated the business and also attracted a younger demographic. Downloads of eBay apps total well over 100M and eBay Mobile apps currently add an average of 2.4M listings per week. Mobile touches nearly one in every three purchases on eBay, and recent early January app updates for both the iPhone and the iPad will enhance the mobile experience.

#### **\$56 PT and Overweight rating**

Our \$56 price target is based on 16x 2014E PF EPS of \$3.47. We believe EBAY shares should trade at a premium to the S&P 500, which currently trades at ~12x, as eBay is one of the few companies in the S&P 500 growing at a ~20% 2011-14E CAGR. Our PT multiple implies a ~0.8 P/E to growth (PEG) ratio on our 2011-2014 EPS CAGR forecast of 20%.

## What Could Go Wrong

### **Merchant Services growth could decelerate**

We think the Marketplace is a bigger driver of the stock in 1H13 than Payments, but investors will still be looking for merchant services growth to hold in the mid-20s (%) range. PayPal remains the higher growth, higher multiple segment of the business.

### **PayPal POS product needs a better consumer value proposition**

It's still early for POS and we do not expect Payments to show any real numbers here until 2H13. With Home Depot as the initial anchor retailer and ~20 more added late in 2012, POS should get a significant lift in distribution around May through the deal with Discovery. Still, we believe there is relatively little friction at retail checkout today with a credit card and consumers will have to see greater benefits to adopt POS. We look for deeper integration with the PayPal wallet and perhaps more incentives or targeted offers for consumers.

## What to Watch For

### **Multiple Marketplaces levers in 2013**

We think eBay's recent underlying Marketplaces metrics bode well for growth heading into 2013. Marketplaces user growth has accelerated for three straight quarters and grew 10% Y/Y in 3Q12, the fastest growth since 2007. Sold items growth has been 19-20% the last 2 quarters and eBay has successfully shifted sales toward Top Rated Sellers. Top Rated Sellers now account for 36% of U.S. GMV, and that GMV grew 24% Y/Y in 3Q. Beyond these strong underlying metrics and shifting more sales toward high-quality sellers, eBay should benefit in 2013 from the new site re-design, better leveraging of data, and new search technology.

### **Further blurring of the line between eCommerce and traditional retail**

eBay's go-to-market strategy for big retailers has been that the company can offer liquidation and volume sales through Marketplaces, online and offline payments capabilities through PayPal and BillMeLater, fulfillment through GSI, and even commerce technology through x.commerce. And eBay would be able to partner with retailers across these areas without competing with them. As the lines between online and offline commerce continue to fade, we think eBay is well positioned. Red Laser and eBay Now are just a couple examples of how eBay is bringing online and offline retail closer together.

## Priceline: Overweight, \$740 PT

### Why We Think It Outperforms in 2013

#### **Strong bookings growth to continue**

We expect Priceline's strong bookings growth to continue in 2013 driven by Booking.com, Agoda, and Rentalcars.com. We currently project 2013 FX-neutral bookings growth of 22% and International FX-neutral bookings growth of 26%, though both are likely conservative as Priceline pushes harder on growth at some expense to margins and benefits from a somewhat more stable European macro environment.

#### **Room for further European hotel share gains**

Priceline's 3Q12 hotel room night growth of 36% suggests continued online share gains and Booking.com had more than 260k hotels as of January 1, 2013. Room night and hotel property growth are decelerating, but based on our adjusted EuroStat data we estimate Booking.com has only a ~10% share of total European hotels as of 2012. We think greater inventory, even more intense focus on marketing and traffic generation, and possible integration into the Kayak booking path should all help drive European strength.

#### **Secular growth opportunities in LatAm and APAC**

We continue to believe Priceline is well-positioned in emerging online travel markets including LatAm and APAC. With Europe roughly 80% of Priceline's International bookings, we believe LatAm and APAC make up most of the rest and each of these geographies has less than 20% online travel penetration. These international markets are far more competitive than Europe was in Booking.com's early days, but we believe their growth remains in the high-double-digit range and Priceline's various brands have operated successfully on an independent basis. We note, however, that enabling Booking.com CEO Darren Huston to now oversee inter-brand relations, best practices, supplier relationships, and strategy, among other International facets, is likely an indicator of Priceline's efforts to push greater emerging business growth.

#### **Kayak potential**

Priceline's acquisition of Kayak is set to close in late 1Q13. We continue to think the strategic rationale for the deal is centered on Kayak's booking path potential in hotels and International, along with traffic diversification. Kayak could help the Priceline brand and Booking.com in the U.S., but we believe the deal is more about international expansion. Kayak's booking path now accounts for 11% of the company's total revenue and Kayak has 39% share of clicks in the hotel bookings path. We think Priceline can help increase those metrics and drive more bookings to Priceline Group brands.

#### **\$740 PT and Overweight rating**

Our \$740 price target is based on 16.5x 2014E PF EPS of \$44.91. We believe a 16.5x 2014 PF EPS multiple is reasonable given a 25% 2011-14E EPS CAGR, and we expect Priceline to trade at a premium to its OTA peers (11-13x) given its higher growth profile. We expect Priceline to continue to gain share in the International hotel market, with potential to stabilize or possibly even accelerate International FX-neutral bookings growth in 2013.

## What Could Go Wrong

### Margin compression could be greater than expected

After several years of strong International bookings growth accompanied by EBITDA margin expansion, Priceline's financial profile now looks a bit different. International FX-neutral bookings growth decelerated to 41% in 3Q12—still a very strong number on a big base—and EBITDA margins declined 270bps Y/Y. That Priceline's growth would slow is not a surprise as it approaches \$30B in gross bookings and 200M hotel room nights annually. Priceline's traffic mix-shift is also moving more toward paid sources, especially in emerging International markets where the company has lower search and marketing efficiency. Given Expedia's ability to tighten the bookings and hotel room night gap with Priceline recently, we look for Priceline to increase its investment to stabilize growth going forward. We expect Priceline to spend more aggressively on marketing, and the acquisition of Kayak likely reflects a step-up in investment philosophy. We think the Street expects some modest margin compression in 2013, but more than a few hundred basis points of compression could be more concerning.

### Expedia could continue to close the gap

Expedia's operational performance has significantly improved and platform benefits are driving material improvement to bookings and conversion rates. Expedia's organic FX-neutral International bookings growth in 3Q12 was around 27%, tightening the gap with Priceline. Priceline continues to gain overall share, but not as much as it was before, even if Expedia's gains are coming more at the expense of 2nd and 3rd tier travel players. We continue to think Expedia's growth rate will be an important metric for Priceline shares in 2013.

## What to Watch For

### Bookings growth and margin trade-off

With the growth gap between Priceline and Expedia tightening and Priceline at more than 2x Expedia's margin, we look for Priceline to ramp investment in 2013. Our model currently calls for 22% International FX-neutral bookings growth and flattish margins in 2013, but we see risk that growth could be higher and margins lower.

With renewed focus on investment, Priceline could stabilize or possibly even accelerate bookings growth, a bookings/margin trade-off we believe the Street would be pleased to see.

### Booking.com in the U.S.

We look for Booking.com to become more aggressive in the U.S. market in 2013. We think Booking has invested more in U.S. hotel inventory along with search in the top 10 markets until now, but brand recognition likely remains low. Expedia's push with ETP could also make Booking more active in the U.S. as its agency-based model could disrupt the merchant status quo.

## Pandora: Overweight, \$14 PT

### Why We Think It Outperforms in 2013

#### Usage growth remains strong and radio share should increase

Despite having more than 175M registered users, 67M active users, and total quarterly hours approaching 4B, Pandora's usage continues to grow above 50% Y/Y. While we expect decelerating growth in hours in FY2014 to 32%—which is likely conservative—Pandora's share of total U.S. radio listening should continue to increase from the 7.2% level in January. That tells us 2 things: 1) despite the considerable headlines around Spotify, iHeartRadio, and others, Pandora's growth has remained very strong; and 2) meaningful and increasing share of U.S. radio, along with a fundamentally better way of targeting ads to consumers, means radio advertisers will no longer be able to ignore Pandora.

#### Radio buy-side platform integration is a catalyst

Pandora should be integrated into one of the major radio buying systems by the end of January and the other likely by late February or early March. We continue to believe that platform integration will remove meaningful friction from the local buying process in terms of costs and administrative work, and level the playing field for Pandora versus other radio stations and networks. Given Pandora's benefits of data and targeting relative to traditional radio, we view buy-side platform integration as an important catalyst for increasing mobile sell-through rates from their current ~20-25% levels.

#### Salesforce ramp will continue

Pandora grew its sales headcount 75% in 3QFY13 and now has sales management in place in 27 of the top 40 markets and frontline sellers in 17 of those top 40 markets. Pandora's rapidly increasing radio share and the upcoming platform integrations position the company to continue to expand its salesforce at the local level. Pandora has indicated that CBS Radio may have 1,200-1,300 local sellers while Pandora has around 100. The combination of strong hours growth, increasing share, platform integration, and more feet on the street should drive greater monetization for Pandora.

#### Un-loved, under-owned

We believe sentiment around Pandora remains cautious due to the risk of competition from Apple, variable royalty costs/lack of profitability, and Pandora's grind toward improving mobile monetization. However, we think that creates opportunity as we believe Pandora is one of the best pure-plays on mobile advertising and we expect to see that in strong 2013 results.

#### \$14 PT and Overweight rating

Our December 2013 price target of \$14 is based on our DCF model, which assumes a 12% cost of capital, 4% terminal growth rate, and a 13.0x terminal EBITDA multiple. Key drivers of our DCF projection include 2012-2020 CAGRs of 30% for revenue and 96% for EBITDA. Our \$14 price target equates to 4.5x FY2014E EV/Revenue.

## What Could Go Wrong

### Apple streaming radio product could increase competition

As we've indicated multiple times in the past few months, we expect Apple to release an ad-supported streaming radio product in the upcoming months. Pandora shares moved from \$12.50 in early September to nearly \$7 in mid-November mostly on this possibility. We recognize the risks of a possible competitive service from Apple, but we believe Pandora benefits from key competitive advantages including its ubiquitous access across more than 760 CE devices, integration across more than 85 different car models, its platform-agnostic nature, and expertise in generating personalized playlists through music analysts rather than computer-based, algorithmic-driven systems.

We note that 77% of Pandora's listener hours in 3QFY13 came on mobile devices, and domestic smartphone share for the 3 months ending in November, according to comScore, was 54% for Android and 35% for Apple's iOS. Therefore, an Apple radio service limited to Apple devices and Windows-based PCs would not be accessible by more than half of the smartphone market. While it remains difficult to know to what degree Apple will support and promote an Internet radio product, we point out that there have been multiple services within iTunes that have had limited traction, such as Ping and Genius.

### Benefits of platform integration could be more gradual

We noted radio buyside platform integration as a key catalyst above. There is some question, however, around how quickly integration can translate into increasing revenue. With radio buyers already familiar with existing platforms, we believe they would understand how to allocate buys toward Pandora segments relatively soon after integration. We believe integration would essentially mean updated software and buyers may need some education around Pandora ad formats and targeting capabilities, which could take a little time. Pandora management has suggested that adoption post-integration is more likely to be gradual than a step function.

### IRFA and positioning around royalties could distract management

We are hopeful that Pandora will ultimately realize lower royalty rates both as a percentage of revenue and on a per-track basis. However, our bullish stance on Pandora is based more on improving monetization rather than the rationalization of the cost structure—that would be gravy. There will likely be a lot of noise in 2013 around rates and IRFA, including more House hearings, leading up to negotiations in 2014. We know royalty rates are important long-term and Pandora wants to be considered under the same 801(b) rate standard that governs rates for satellite radio and cable music, but it's also critical that management remains focused on ongoing operations.

## What to Watch For

### Reacceleration in reported mobile and overall ad RPMs

We look for reported mobile and overall advertising RPMs to reaccelerate in 2014 as Pandora monetizes better and laps tough comps from the one large advertiser in FY2012. We project mobile RPM to increase 17% Y/Y to \$25.98 in FY2014 compared to our estimated 7% growth in FY2013. This would be solid improvement driven by higher premium sell-through, but would still be well below web RPM levels that have been in the \$50-\$60 range.

**New CFO and return to a calendar year**

We expect Pandora to announce a new CFO in February and we believe there is high likelihood the company will return to a calendar-based year to better align with marketer budgeting patterns and reap the benefits of a seasonally strong calendar 4Q.

**Expanding distribution, especially in autos**

Pandora recently noted that it has more than 1,000 partner integrations across CE devices, autos, and auto aftermarket devices. Vehicles remain a compelling opportunity for Pandora given that more than half of all radio listening takes place in the car. Pandora is now available on ~20 top auto brands in the U.S. across more than 85 different models. Pandora's auto traction is good, but we believe it will improve more materially when Pandora service is accessed directly through the vehicle rather than integrated through a user's phone.

Figure 1: J.P. Morgan Internet Coverage Comps

(US\$, millions except per share)		Google GOOG OW	Facebook FB OW	Yahoo! YHOO N	eBay EBAY OW	Amazon AMZN OW	Netflix NFLX N	Priceline.com PCLN OW	Expedia EXPE N	TripAdvisor TRIP N	LinkedIn LNKD OW	Groupon GRPN N	Zynga ZNGA N	Pandora P OW	HomeAway AWAY OW	Bankrate RATE N	CafePress PRSS N	ReachLocal RLOC OW	QuinStreet QNST N	Trulia TRLA N	OpenTable OPEN N	Yelp YELP N
Company Symbol	JP Morgan Rating																					
Price as of 1/10/2013	\$741.48	\$31.30	\$18.99	\$53.00	\$265.34	\$98.00	\$653.62	\$62.77	\$43.49	\$118.04	\$5.19	\$2.48	\$10.86	\$22.29	\$13.35	\$5.55	\$13.78	\$6.04	\$19.71	\$52.36	\$22.19	
Shares Outstanding 2012	332	2,643	1,203	1,311	461	55	52	140	141	113	650	830	169	85	101	17	29	47	24	23	70	
Shares Outstanding 2013	337	2,643	1,105	1,311	464	59	52	139	146	115	680	855	172	87	103	18	30	44	31	23	71	
Shares Outstanding 2014	342	2,643	1,029	1,311	467	59	53	138	148	118	700	872	176	89	104	18	30	44	33	24	73	
<b>Market Capitalization</b>	<b>\$246,460</b>	<b>\$82,726</b>	<b>\$22,843</b>	<b>\$69,494</b>	<b>\$122,255</b>	<b>\$5,347</b>	<b>\$33,676</b>	<b>\$8,785</b>	<b>\$6,140</b>	<b>\$13,334</b>	<b>\$3,375</b>	<b>\$2,058</b>	<b>\$1,835</b>	<b>\$1,896</b>	<b>\$1,353</b>	<b>\$94</b>	<b>\$402</b>	<b>\$283</b>	<b>\$466</b>	<b>\$1,217</b>	<b>\$1,542</b>	
Total Enterprise Value 2012	\$204,963	\$70,691	\$6,753	\$60,763	\$111,613	\$4,966	\$30,048	\$8,196	\$5,897	\$13,034	\$2,073	\$392	\$1,756	\$1,650	\$1,453	\$35	\$303	\$285	\$373	\$1,121	\$1,444	
Total Enterprise Value 2013	\$192,501	\$67,228	\$5,463	\$57,262	\$108,061	\$5,408	\$28,622	\$7,391	\$5,870	\$13,137	\$2,189	\$461	\$1,788	\$1,596	\$1,380	\$37	\$285	\$244	\$507	\$1,071	\$1,469	
Total Enterprise Value 2014	\$177,195	\$65,146	\$5,746	\$52,401	\$103,033	\$5,395	\$26,851	\$6,094	\$5,651	\$13,192	\$2,085	\$498	\$1,801	\$1,523	\$1,298	\$31	\$250	\$225	\$527	\$1,023	\$1,463	
<b>EARNINGS PER SHARE (EPS)<sup>(1)</sup></b>																						
EPS 2012	\$39.81	\$0.56	\$1.31	\$2.36	\$2.54	\$0.89	\$31.23	\$3.30	\$1.56	\$0.70	\$0.14	\$0.02	-\$0.06	\$0.49	\$0.60	\$0.41	\$0.45	\$0.73	-\$0.36	\$1.67	-\$0.04	
EPS 2013	\$45.72	\$0.69	\$1.30	\$2.83	\$4.29	\$0.76	\$37.80	\$3.99	\$1.88	\$1.29	\$0.12	\$0.01	\$0.00	\$0.70	\$0.66	\$0.57	\$0.41	\$0.70	\$0.15	\$2.01	\$0.17	
EPS 2014	\$53.45	\$0.86	\$1.53	\$3.47	\$5.56	\$1.25	\$44.91	\$4.84	\$2.21	\$2.33	\$0.18	\$0.02	\$0.21	\$0.93	\$0.86	\$0.69	\$0.70	\$0.73	\$0.74	\$2.54	\$0.46	
<b>2011 - 2014 EPS CAGR</b>	<b>14%</b>	<b>19%</b>	<b>17%</b>	<b>20%</b>	<b>24%</b>	<b>-36%</b>	<b>24%</b>	<b>21%</b>	<b>15%</b>	<b>87%</b>	<b>NM</b>	<b>-55%</b>	<b>NM</b>	<b>22%</b>	<b>12%</b>	<b>6%</b>	<b>31%</b>	<b>-11%</b>	<b>NM</b>	<b>26%</b>	<b>NM</b>	
P/E 2012	18.6x	56.3x	14.5x	22.4x	104.4x	110.4x	20.9x	19.0x	27.8x	169.2x	36.7x	154.8x	NM	45.6x	22.4x	13.4x	30.7x	8.3x	NM	31.3x	NM	
<b>P/E 2013</b>	<b>16.2x</b>	<b>45.6x</b>	<b>14.6x</b>	<b>18.7x</b>	<b>61.8x</b>	<b>128.7x</b>	<b>17.3x</b>	<b>15.7x</b>	<b>23.1x</b>	<b>91.7x</b>	<b>44.1x</b>	<b>183.4x</b>	<b>NM</b>	<b>32.0x</b>	<b>20.1x</b>	<b>9.7x</b>	<b>33.5x</b>	<b>8.6x</b>	<b>129.1x</b>	<b>26.1x</b>	<b>127.9x</b>	
P/E-to-Growth	1.2x	2.4x	0.9x	1.0x	2.6x	NM	0.7x	0.8x	1.6x	1.1x	NA	NM	NM	1.5x	1.7x	1.7x	1.1x	NA	NA	1.0x	NA	
P/E 2014	13.9x	36.6x	12.4x	15.3x	47.7x	78.2x	14.6x	13.0x	19.7x	50.6x	29.0x	114.6x	52.7x	23.9x	15.4x	8.1x	19.6x	8.3x	26.6x	20.6x	47.7x	
<b>FREE CASH FLOW (FCF)</b>																						
FCF 2012	\$13,436	\$619	-\$894	\$2,180	\$2,722	-\$25	\$1,601	\$1,148	\$222	\$126	\$231	-\$145	-\$14	\$76	\$57	-\$9	\$23	\$43	\$1	\$45	-\$6	
FCF 2013	\$16,206	\$1,794	\$1,151	\$3,937	\$4,298	-\$57	\$1,818	\$1,225	\$257	\$165	\$88	-\$6	\$5	\$92	\$76	\$3	\$27	\$43	\$9	\$58	\$14	
FCF 2014	\$19,049	\$2,506	\$1,135	\$5,298	\$5,774	\$25	\$2,164	\$1,295	\$306	\$217	\$208	\$5	\$24	\$112	\$100	\$8	\$39	\$39	\$28	\$72	\$38	
<b>2011-2014 FCF CAGR</b>	<b>20%</b>	<b>75%</b>	<b>12%</b>	<b>32%</b>	<b>43%</b>	<b>-50%</b>	<b>19%</b>	<b>28%</b>	<b>16%</b>	<b>70%</b>	<b>-6%</b>	<b>-67%</b>	<b>NM</b>	<b>20%</b>	<b>34%</b>	<b>-13%</b>	<b>67%</b>	<b>-18%</b>	<b>NM</b>	<b>30%</b>	<b>NM</b>	
FCF/Share 2012	\$40.42	\$0.23	-\$0.74	\$1.66	\$5.91	-\$0.45	\$31.07	\$8.20	\$1.57	\$1.11	\$0.36	-\$0.17	-\$0.08	\$0.89	\$0.56	-\$0.53	\$0.78	\$0.92	\$0.03	\$1.93	-\$0.09	
FCF/Share 2013	\$48.03	\$0.68	\$1.04	\$3.00	\$9.27	-\$0.97	\$34.87	\$8.81	\$1.76	\$1.43	\$0.13	-\$0.01	\$0.03	\$1.06	\$0.74	\$0.17	\$0.90	\$0.98	\$0.30	\$2.46	\$0.19	
FCF/Share 2014	\$55.63	\$0.95	\$1.10	\$4.04	\$12.37	-\$0.43	\$41.05	\$9.39	\$2.06	\$1.85	\$0.30	-\$0.01	\$0.14	\$1.26	\$0.97	\$0.41	\$1.30	\$0.88	\$3.01	\$0.52		
Price/FCF 2012	18.3x	133.6x	NM	31.9x	44.9x	NM	21.0x	7.7x	27.7x	106.0x	14.6x	NM	25.1x	23.8x	NM	17.6x	6.6x	57.2x	27.1x	NM		
<b>Price/FCF 2013</b>	<b>15.4x</b>	<b>46.1x</b>	<b>18.2x</b>	<b>17.7x</b>	<b>28.6x</b>	<b>NM</b>	<b>18.7x</b>	<b>7.1x</b>	<b>24.7x</b>	<b>82.5x</b>	<b>40.0x</b>	<b>NM</b>	<b>384.7x</b>	<b>20.9x</b>	<b>18.0x</b>	<b>33.1x</b>	<b>15.3x</b>	<b>6.2x</b>	<b>64.8x</b>	<b>21.3x</b>	<b>114.2x</b>	
Price/FCF 2014	13.3x	33.0x	17.2x	13.1x	21.4x	226.1x	15.9x	6.7x	21.1x	63.8x	17.5x	407.4x	78.9x	17.6x	13.8x	13.5x	10.6x	6.8x	22.9x	17.4x	42.6x	
<b>FCF Yield 2012</b>	<b>5.5%</b>	<b>0.7%</b>	<b>-3.9%</b>	<b>3.1%</b>	<b>2.2%</b>	<b>-0.5%</b>	<b>4.8%</b>	<b>13.1%</b>	<b>3.6%</b>	<b>0.9%</b>	<b>6.8%</b>	<b>-7.0%</b>	<b>-0.8%</b>	<b>4.0%</b>	<b>4.2%</b>	<b>-9.5%</b>	<b>5.7%</b>	<b>15.2%</b>	<b>0.2%</b>	<b>3.7%</b>	<b>-0.4%</b>	
FCF Yield 2013	6.5%	2.2%	5.5%	5.7%	3.5%	-1.0%	5.3%	14.0%	4.0%	1.2%	2.5%	-0.3%	0.3%	4.8%	5.6%	3.0%	6.5%	16.2%	1.5%	4.7%	0.9%	
FCF Yield 2014	7.5%	3.0%	5.8%	7.6%	4.7%	0.4%	6.3%	15.0%	4.7%	1.6%	5.7%	0.2%	1.3%	5.7%	7.2%	7.4%	9.4%	14.6%	4.4%	5.8%	2.3%	
<b>EBITDA</b>																						
EBITDA 2012	\$18,755	\$2,923	\$1,625	\$4,606	\$3,644	\$140	\$1,968	\$816	\$359	\$207	\$282	\$155	-\$4	\$80	\$130	\$15	\$23	\$73	-\$3	\$70	\$4	
EBITDA 2013	\$21,750	\$3,674	\$1,668	\$5,505	\$4,975	\$128	\$2,392	\$945	\$434	\$340	\$240	\$46	\$7	\$104	\$138	\$19	\$33	\$52	\$11	\$86	\$22	
EBITDA 2014	\$25,237	\$4,512	\$1,716	\$6,449	\$6,528	\$176	\$2,893	\$1,088	\$512	\$520	\$269	\$56	\$50	\$133	\$162	\$25	\$50	\$51	\$32	\$107	\$46	
<b>2011-2014 EBITDA CAGR</b>	<b>16%</b>	<b>25%</b>	<b>1%</b>	<b>19%</b>	<b>35%</b>	<b>-28%</b>	<b>24%</b>	<b>15%</b>	<b>17%</b>	<b>74%</b>	<b>NM</b>	<b>-43%</b>	<b>198%</b>	<b>26%</b>	<b>6%</b>	<b>11%</b>	<b>47%</b>	<b>-17%</b>	<b>NM</b>	<b>24%</b>	<b>NM</b>	
EV/EBITDA 2012	10.9x	24.2x	4.2x	13.2x	30.6x	35.4x	15.3x	10.0x	16.4x	63.0x	7.3x	2.5x	NM	20.6x	11.2x	2.3x	13.0x	3.9x	NM	16.0x	324.2x	
<b>EV/EBITDA 2013</b>	<b>8.9x</b>	<b>18.3x</b>	<b>3.3x</b>	<b>10.4x</b>	<b>21.7x</b>	<b>42.2x</b>	<b>12.0x</b>	<b>7.8x</b>	<b>13.5x</b>	<b>38.6x</b>	<b>9.1x</b>	<b>9.9x</b>	<b>NM</b>	<b>15.3x</b>	<b>10.0x</b>	<b>2.0x</b>	<b>8.5x</b>	<b>4.7x</b>	<b>48.2x</b>	<b>12.5x</b>	<b>67.0x</b>	
EV/EBITDA 2014	7.0x	14.4x	2.2x	8.1x	15.8x	30.6x	9.3x	5.6x	11.0x	25.4x	7.7x	9.0x	NM	11.5x	8.0x	1.2x	5.0x	4.4x	16.2x	9.6x	31.6x	
<b>REVENUE</b>																						
Revenue 2012	\$41,450	\$5,129	\$4,461	\$14,073	\$62,635	\$3,604	\$5,242	\$3,996	\$760	\$947	\$2,326	\$1,092	\$430	\$280	\$462	\$213	\$454	\$370	\$67	\$161	\$137	
Revenue 2013	\$50,388	\$6,688	\$4,642	\$16,445	\$80,277	\$3,928	\$5,989	\$4,575	\$910	\$1,412	\$2,673	\$841	\$614	\$346	\$514	\$246	\$540	\$308	\$95	\$191	\$211	
Revenue 2014	\$56,096	\$8,243	\$4,714	\$18,952	\$99,242	\$4,457	\$6,943	\$5,153	\$1,068	\$1,919	\$2,840	\$807	\$835	\$421	\$575	\$278	\$633	\$277	\$134	\$231	\$291	
<b>2011-2014 Revenue CAGR</b>	<b>24%</b>	<b>30%</b>	<b>2%</b>	<b>18%</b>	<b>27%</b>	<b>12%</b>	<b>17%</b>	<b>14%</b>	<b>19%</b>	<b>54%</b>	<b>21%</b>	<b>-11%</b>	<b>45%</b>	<b>22%</b>	<b>11%</b>	<b>17%</b>	<b>19%</b>	<b>-12%</b>	<b>52%</b>	<b>18%</b>	<b>52%</b>	
<b>Market Cap/Revenue 2012</b>	<b>5.9x</b>	<b>16.1x</b>	<b>5.1x</b>	<b>4.9x</b>	<b>2.0x</b>	<b>1.5x</b>	<b>6.4x</b>	<b>2.2x</b>	<b>8.1x</b>	<b>14.1x</b>	<b>1.5x</b>	<b>1.9x</b>	<b>4.3x</b>	<b>6.8x</b>	<b>2.9x</b>	<b>0.4x</b>	<b>0.9x</b>	<b>0.8x</b>	<b>7.0x</b>	<b>7.5x</b>	<b>11.3x</b>	
Market Cap/Revenue 2013	5.0x	12.4x	4.5x	4.2x	1.5x	1.5x	5.7x	1.9x	7.0x	9.6x	1.3x	2.5x	3.1x	5.6x	2.7x	0.4x	0.8x	0.9x	6.4x	6.4x	7.5x	
Market Cap/Revenue 2014	4.5x	10.0x	4.1x	3.7x	1.2x	1.3x	5.0x	1.7x	6.0x	7.2x	1.3x	2.7x	2.3x	4.7x	2.4x	0.4x	0.7x	1.0x	4.8x	5.4x	5.5x	

Notes:  
1) All EPS shown are Pro Forma, to exclude the impact of stock based compensation.

2) P/E and P/FCF for Yahoo! does not adjust for Yahoo! Japan

3) Pandora's calendar year estimates are used (e.g., FY2012 equates to ~CY2011. QuinStreet's FY estimates (with a June year-end) are used).

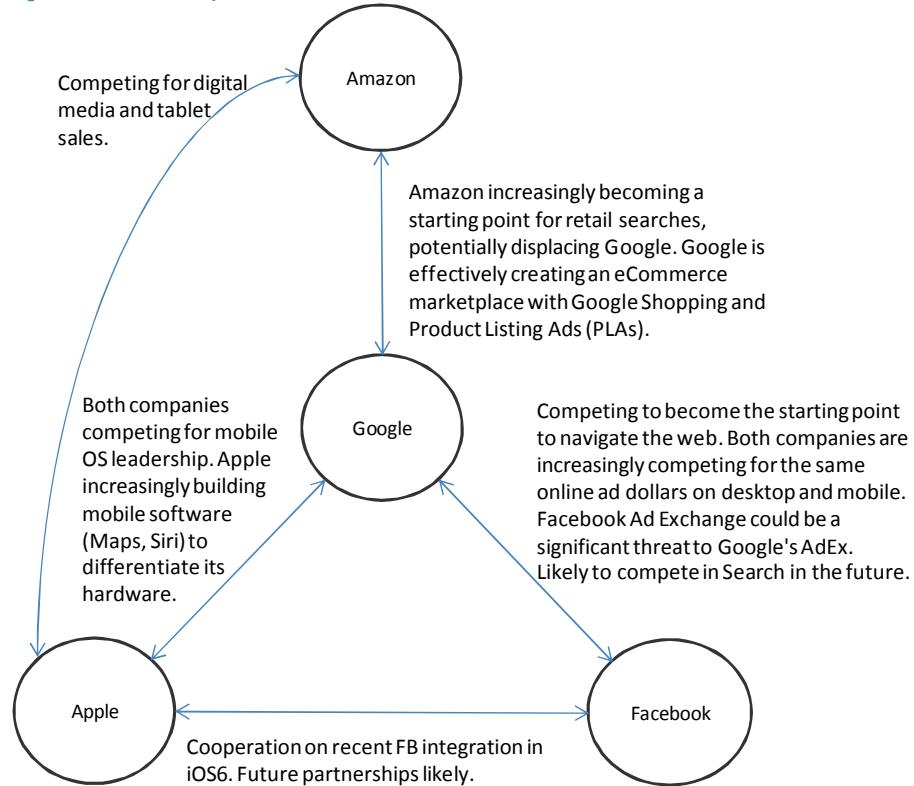
## Key Internet Trends in 2013

### Google at the Center of the Platform Battle

The ongoing platform battle between the four key Internet technology companies—Google, Apple, Amazon, and Facebook—was a key theme in 2012 and we expect competition to intensify in 2013. However, Google increasingly appears to be competing across most major web businesses—advertising, mobile software and hardware, search, eCommerce, and social. Figure 2 below highlights our view of the current competitive dynamics between the four major platform companies and potential future areas of competition/cooperation.

**Mobile:** On the mobile front, Android's share of the US smartphone market grew to 54% versus 35% for Apple's iPhone. As Android devices now offer fairly similar hardware capabilities as the iPhone—and at a lower price—we think Apple is increasingly looking to develop more proprietary software and services such as Siri and Apple Maps that will help the company distinguish its products. Apple has stumbled with its Apple Maps product to date, though we expect the company to continue to improve the product over time. There is also the ongoing possibility that Apple could replace Google as its default search provider in Safari when the contract between the two companies ends, though we don't believe that Apple has good alternatives. We believe Apple's device ecosystem (iPhone, iPad, Mac, Apple TV) is a significant advantage for the company as it looks to increase customer loyalty.

Figure 2: Web of Competition



Source: J.P. Morgan.

**Advertising:** We expect competition for users and ad dollars between Google and Facebook to increase significantly in 2013. We estimate Google's mobile ad business was at a ~\$6.0B-\$6.5B gross annual run-rate in 3Q12, making the company the largest seller of mobile advertising. However, Facebook's mobile business is growing rapidly and quickly emerging as a strong #2 player in mobile ads. We think Facebook could generate \$2.37B (+332% Y/Y) and \$4.05B (+71%) in mobile revenue in 2013 and 2014 respectively.

We believe Facebook's recent entry into real-time bidding (RTB) could make Facebook one the largest sellers of RTB inventory over time which could potentially lead to share gains from the Google Ad Exchange and the Google Display Network as well as Yahoo!'s Right Media, AOL, and other platforms. We think the Facebook Ad Exchange could help the company take share of display and potentially search ad dollars from Google. Facebook may also be looking to use the social signals from its large user base to launch a search product that could compete with Google. Facebook recently implemented a deeper integration of its services into Apple's iOS6 and we think it's likely that the two companies could find additional partnership opportunities in search, ads, and local in the future.

**eCommerce:** eCommerce represents one of the largest verticals on the web and we think Google and Amazon are increasingly competing to become the starting point for eCommerce—for users and merchants alike. Amazon's large selection, competitive prices, reviews, and shopping convenience have increasingly made it the first destination that users visit to conduct an eCommerce search, bypassing Google

in the process. According to our estimates, Amazon's GMV (Gross Merchandise Value) represented almost 25% of all US eCommerce. Meanwhile, eCommerce merchants (small and large) likely represent the largest source of Google's search ad revenue.

In 4Q12, Google officially re-launched Google Shopping as a paid product for merchants and the company is increasingly integrating Product Listing Ads (PLAs) into its regular web search results. Product Listing Ads include images and pricing information for a particular product search ("tents" for example), making Google increasingly competitive with Amazon's and eBay's third-party marketplace businesses. Both Amazon and eBay are notably absent from Google's PLAs.

## Online Advertising to Approach 25% of U.S. Ad Spending, with Growth Driven by Mobile

We expect online advertising to continue to see solid growth in 2013, driven by increasing consumer consumption of digital media through a proliferation of connected devices and rising allocations of ad budgets online. Consumers have greater touchpoints to digital media through the rapid adoption of mobile devices and tablets and higher engagement trends through social media. As consumer behavior and time spent online rapidly shifts towards mobile, we expect advertising dollars to follow. **We are projecting Internet advertising in the US to grow to \$43.5B in 2013 (+17.4% Y/Y), with half of the Y/Y dollar increase driven by mobile. Excluding mobile, we estimate online advertising would be growing 10% Y/Y. We are projecting total online advertising will be nearly 25% of U.S. ad spending in 2013.**

**Social networking and digital video to drive desktop display growth.** We believe social media is a key driver of brand advertiser spend due to its large reach and highly targetable user base. Social networking has a large impact on online engagement trends (92% reach of the total U.S. Internet audience in November) and we believe advertising dollars will follow user behavior towards areas of high consumer engagement. We expect social networks to work with advertisers to a greater degree, leveraging their scale, loyal user base, and targetability to enhance display ads. In this past holiday season, large retailers and brands such as Wal-Mart appeared to have significantly increased their ad spending on Facebook. Our checks suggest positive advertiser feedback around ads in the News Feed and FBX ads, which bode positively for overall desktop display growth. In 2012, we estimate Facebook represented ~40% of the growth in U.S. desktop display. However, in 2013, we estimate Facebook's total desktop revenues to decline 4% due to the shift to mobile.

We also believe brand advertisers are attracted to the improving content quality and branding opportunities in online videos. **While comScore data suggest flat viewers and videos in 2012, the ad load online is increasing significantly, attracting greater advertising dollars.** According to comScore, U.S. online video unique visitors, videos watched and minutes per viewer peaked in 2012 and began to decline in November as the online video ad reach of the total U.S. population began to flatten at 52.7%. However, video ads and frequency of ads per viewer continue to accelerate in growth, highlighting the increase in ad load capacity and ad viewership. We believe premium video content and increasing ad load and viewership will continue to attract advertising dollars and be a key driver of desktop display growth. **We are projecting U.S. desktop display to reach \$13B in 2013 (+10% Y/Y).**

Figure 3: Online Video Usage Flattens but Ad Load Continues to Grow

	Nov-2010	Nov-2011	Nov-2012
<b>Unique Viewers (millions)</b>	172	183	182
Y/Y Growth		6%	-1%
<b>Videos (millions)</b>	N/A	40,891	39,965
Y/Y Growth		N/A	-2%
<b>Minutes Per Viewer</b>	885	1,229	1,183
Y/Y Growth		39%	-4%
<b>Online Ad % Reach of U.S. Population</b>	48.6%	52.4%	52.7%
<b>Video Ads (millions)</b>	5,392	7,214	10,468
Y/Y Growth		34%	45%
<b>Frequency (Ads per Viewer)</b>	37	45	65
Y/Y Growth		23%	42%

Source: comScore, J.P. Morgan.

**Desktop search advertising growth to decelerate.** According to comScore, growth in total desktop search queries in the U.S. has been declining—search queries declined 4% Y/Y in 4Q12 vs. +10% Y/Y in 4Q11—and we believe desktop search advertising spend growth is likely to decelerate over the next few years due to the ongoing shift to mobile. Our analysis of Google's desktop search revenues shows relatively flattish growth, perhaps up in the low-single digits in 3Q12. Though we expect the mobile shift to continue progressing at a rapid pace, we believe the shift of search advertising dollars from desktop to mobile will occur over a longer period of time as the mobile ad market develops. **We are projecting U.S. desktop search advertising to grow 12% to \$18.7B in 2013.**

Figure 4: J.P. Morgan U.S. Online Advertising Forecast, 2007 – 2016E

	2007A	2008A	2009A	2010A*	2011A	2012E	2013E	2014E	2015E	2016E
<b>Display Advertising</b>										
Banner Ads	\$4,517	\$4,901	\$5,076	\$5,963	\$6,823	\$7,642	\$8,330	\$8,996	\$9,536	\$9,917
Y/Y growth	23%	9%	4%	17%	14%	12%	9%	8%	6%	4%
Q/Q growth										
Rich Media	\$1,675	\$1,618	\$1,541	\$1,536	\$1,301	\$1,002	\$952	\$952	\$952	\$952
Y/Y growth	65%	-3%	-5%	0%	-15%	-23%	-5%	0%	0%	0%
Q/Q growth										
Digital Video	\$324	\$734	\$997	\$1,406	\$1,809	\$2,207	\$2,692	\$3,177	\$3,685	\$4,201
Y/Y growth	155%	127%	36%	41%	29%	22%	22%	18%	16%	14%
Q/Q growth										
Sponsorship	\$636	\$387	\$383	\$729	\$1,111	\$1,022	\$1,053	\$1,074	\$1,095	\$1,117
Y/Y growth	14%	-39%	-1%	90%	52%	-8%	3%	2%	2%	2%
Q/Q growth										
<b>Total Display Advertising</b>	<b>\$7,152</b>	<b>\$7,640</b>	<b>\$7,997</b>	<b>\$9,635</b>	<b>\$11,044</b>	<b>\$11,873</b>	<b>\$13,027</b>	<b>\$14,199</b>	<b>\$15,268</b>	<b>\$16,188</b>
Y/Y growth	33%	7%	5%	20%	15%	8%	10%	9%	8%	6%
Q/Q growth										
% of total	34%	33%	35%	37%	35%	32%	30%	28%	26%	24%
% of total growth	41%	22%	-45%		25%	16%	18%	15%	13%	10%
<b>Search</b>	<b>\$8,810</b>	<b>\$10,528</b>	<b>\$10,651</b>	<b>\$11,666</b>	<b>\$14,757</b>	<b>\$16,676</b>	<b>\$18,677</b>	<b>\$20,731</b>	<b>\$22,804</b>	<b>\$24,857</b>
Y/Y growth	30%	20%	1%	10%	26%	13%	12%	11%	10%	9%
Q/Q growth										
% of total	42%	45%	47%	45%	47%	45%	43%	41%	38%	36%
% of total growth	46%	77%	-16%		54%	36%	31%	27%	25%	23%
<b>Mobile</b>	<b>N/A*</b>	<b>N/A*</b>	<b>N/A*</b>	<b>\$651</b>	<b>\$1,587</b>	<b>\$3,967</b>	<b>\$7,141</b>	<b>\$11,425</b>	<b>\$16,566</b>	<b>\$22,364</b>
Y/Y growth					N/A	144%	150%	80%	60%	45%
Q/Q growth										
% of total				3%	5%	11%	16%	22%	28%	33%
% of total growth					16%	45%	49%	56%	62%	66%
<b>Classifieds/ Auctions</b>	<b>\$3,271</b>	<b>\$3,187</b>	<b>\$2,262</b>	<b>\$2,604</b>	<b>\$2,571</b>	<b>\$2,622</b>	<b>\$2,674</b>	<b>\$2,728</b>	<b>\$2,755</b>	<b>\$2,783</b>
Y/Y growth	7%	-3%	-29%	15%	-1%	2%	2%	2%	1%	1%
Q/Q growth										
% of total	15%	14%	10%	10%	8%	7%	6%	5%	5%	4%
% of total growth	5%	-4%	118%		-1%	1%	1%	1%	0%	0%
<b>Lead Generation/ E-mail</b>	<b>\$1,972</b>	<b>\$2,093</b>	<b>\$1,752</b>	<b>\$1,484</b>	<b>\$1,777</b>	<b>\$1,866</b>	<b>\$1,941</b>	<b>\$1,999</b>	<b>\$2,039</b>	<b>\$2,080</b>
Y/Y growth	20%	6%	-16%	-15%	20%	5%	4%	3%	2%	2%
Q/Q growth										
% of total	9%	9%	8%	6%	6%	5%	4%	4%	3%	3%
% of total growth	7%	5%	43%		5%	2%	1%	1%	0%	0%

\* Note: Breakout of Mobile Advertising begins in 2010

<b>Total Online Advertising</b>	<b>\$21,206</b>	<b>\$23,448</b>	<b>\$22,661</b>	<b>\$26,041</b>	<b>\$31,736</b>	<b>\$37,004</b>	<b>\$43,459</b>	<b>\$51,082</b>	<b>\$59,433</b>	<b>\$68,271</b>
%Y/Y growth	25.6%	10.6%	-3.4%	14.9%	21.9%	16.6%	17.4%	17.5%	16.3%	14.9%
<b>Total US Advertising</b>	<b>\$206,066</b>	<b>\$193,806</b>	<b>\$162,465</b>	<b>\$169,390</b>	<b>\$172,277</b>	<b>\$176,884</b>	<b>\$176,166</b>	<b>\$182,760</b>	<b>\$184,538</b>	<b>\$194,414</b>
%Y/Y growth	0.5%	-5.9%	-16.2%	4.3%	1.7%	2.7%	-0.4%	3.7%	1.0%	5.4%
<b>Online as % of Total</b>	<b>10.3%</b>	<b>12.1%</b>	<b>13.9%</b>	<b>15.4%</b>	<b>18.4%</b>	<b>20.9%</b>	<b>24.7%</b>	<b>28.0%</b>	<b>32.2%</b>	<b>35.1%</b>
Y/Y change	2.1%	1.8%	1.8%	1.4%	3.0%	2.5%	3.7%	3.3%	4.3%	2.9%

Source: J.P. Morgan estimates; Interactive Advertising Bureau (IAB); PricewaterhouseCoopers (PwC); Magna Global Research.

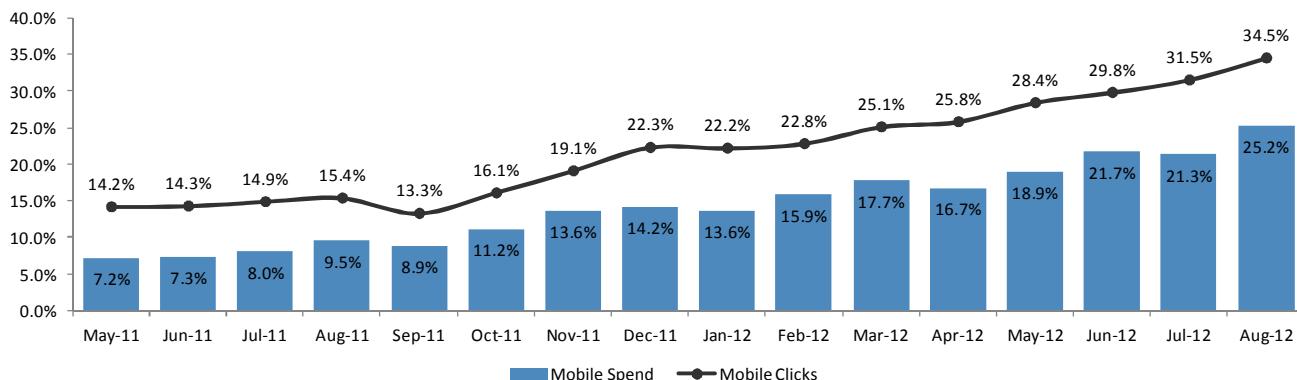
## Mobile Advertising in 2013

We view rapid adoption of connected mobile devices to be a driver of online advertising growth. Advertisers can engage consumers on mobile devices through browsers, apps, SMS, and other mobile platforms. Tablet adoption has been significantly influencing mobile trends, as it contributes to mobile user growth and offers a greater variety of mobile ad options through larger screens and usage metrics that resemble laptops more than smartphones. We expect the mobile advertising market to continue to grow, becoming a greater proportion of online advertising within the U.S. ad market. According to the IAB, U.S. mobile advertising was \$1.2B

in 1H12 (+87% Y/Y), compared to \$1.6B (+144% Y/Y) in 2011 and \$651M in 2010. **We are forecasting U.S. mobile ad revenue to grow 80% Y/Y to \$7.1B in 2013.**

**Mobile growing as a percentage of paid clicks and spend.** As shown in the Figure below, Performics reported mobile devices accounted for 34.5% of paid search clicks, 29.2% of impressions, and 25.2% of ad spend in August 2012. During the holiday season, Performics reported seeing peak levels of mobile CPCs as smartphone CPCs reach 55% of desktop CPCs while tablet CPCs have nearly bridged the gap with desktop CPCs. Going forward, we believe mobile CPCs may continue to be at a discount to desktop levels, but over time should converge as the mobile ad market continues to develop.

**Figure 5: Mobile as a Percentage of Performics Spend and Clicks**



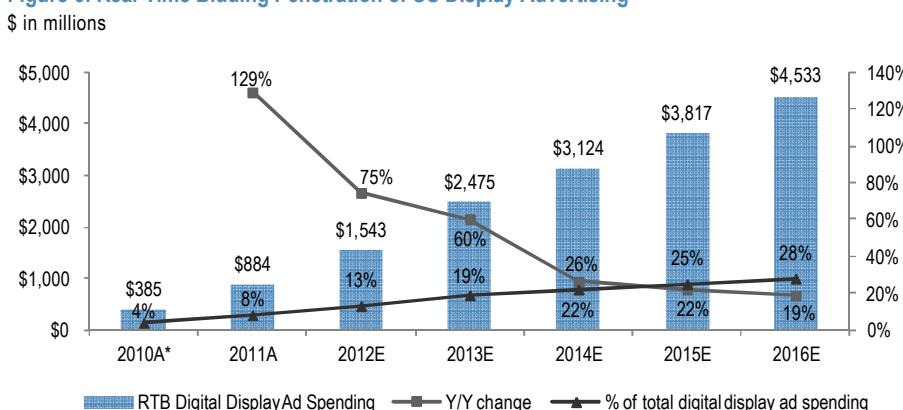
Source: Performics and J.P. Morgan estimates.

Google and Facebook are primary examples of companies that have seen usage trends clearly benefit from the ubiquity mobile provides but have also had some early mobile monetization challenges. With ~90%+ share of mobile search, Google's search model ports well to the mobile environment, in our view. However, mobile searches do not yet monetize as well as desktop searches due to lower CPCs and higher TAC rates, so incremental volume has to become a more meaningful driver over time. We estimate Google's mobile gross revenue to be around \$4.3 billion in 2013, up 87% Y/Y and accounting for ~10% of Google's total gross revenue. For Facebook, we believe mobile ad revenues can drive a re-acceleration in advertising revenue growth for at least the next two quarters. We estimate Facebook's mobile revenues to reach \$2.4B in 2013 and account for 39% of FB's advertising revenues. For additional details on Facebook, please see our January 2 note titled "*Facebook: Incrementally Positive Into 2013 Mobile Monetization.*"

## RTB More Critical as Desktop Search Slows

We expect desktop display advertising to increase 10% in 2013, driven in part by real-time bidding (RTB) or programmatic buying of display. **We believe slowing desktop search in particular is likely to serve as a catalyst for direct marketers to allocate a greater percentage of their budgets towards RTB and performance-based display.** Real-time bidding (RTB) allows advertisers to bid on specific impressions or users rather than inferring user intention through broad demographics (age, gender, etc.) or interests. According to eMarketer, nearly 13% of 2012 US online display advertising (in dollar terms) was purchased through RTB, increasing to 19% in 2013.

Figure 6: Real-Time Bidding Penetration of US Display Advertising



Source: J.P. Morgan estimates. RTB penetration % from eMarketer.

We expect RTB's strong growth in 2013 to be driven by three key factors:

**1) Facebook opening up greater ad inventory to RTB; 2) slowing desktop search inventory growth; and 3) large and growing amounts of lower-priced display that can be targeted for brand and direct response marketing on the desktop and mobile over time.**

We think Facebook's entry into RTB could make Facebook one the largest sellers of RTB inventory over time. According to our checks, **the Facebook Ad Exchange (FBX) could potentially increase industry RTB inventory by 66% within the next 6-12 months.** We think such a large influx of Facebook inventory could potentially lead to share gains from the Google Ad Exchange and the Google Display Network as well as Yahoo!'s Right Media, AOL, and other platforms. To provide some perspective, **Facebook accounted for 28% of all US desktop display ad impressions** in 2011 according to comScore making it an important new destination for RTB advertisers to specifically re-target individual users.

FBX was released out of beta in mid-September and now has at least 16 data and technology partners including AppNexus, DataXu, Kenshoo, RocketFuel, Triggit, and Turn, among others. We believe the incorporation of third-party data into Facebook's ad platform is material. For example, if a user visits an online travel site but leaves before the check-out process, that OTA can re-target the same user on

Facebook with additional messages or offers. FBX ads currently appear only on the Desktop Right Rail, but we believe they could be incorporated into the News Feed over time given their high ROI and demand from advertisers.

**Based on our industry checks, early advertiser results from employing FBX for re-targeting have been very strong.** Data from Triggit indicates the FBX had 4x higher click-through rates and 2x higher conversion rates than other ad exchanges, yielding cost per acquisition (CPA) that was 4-6x lower than other ad exchanges. As we noted above, Desktop CPMs of around \$0.40 are 1/5 of industry re-targeting CPMs which are closer to \$2. We would expect FBX eCPMs to increase over time as more advertisers utilize the platform, lifting Desktop Right Rail pricing.

**Our checks suggest FBX is now open to all geographies and there is strong demand in international markets.** We believe Facebook has been slowly ratcheting up FBX impressions in the News Feed since the mid-September launch and FBX ads now appear more noticeable. **However, we believe the FBX still accounts for less than 10% of Right Rail impressions, suggesting significant headroom going forward.**

We expect Google to continue enhancing its AdExchange and display offerings to compete with Facebook's large display ad inventory. The company has heavily invested in its display offerings over the last few years by building out technology and APIs that make it seamless for advertisers to blend their search and display campaigns. We believe an increasing number of direct marketers are looking towards display re-targeting campaigns as desktop search appears to be maturing and display inventory remains abundant. We note that many Search Engine Marketing (SEM) agencies now also offer advertiser clients display re-targeting capabilities and we expect this trend to continue to benefit RTB and display.

We think Yahoo! could also become a bigger player in RTB display as the company has significant O&O display inventory, though we believe its Right Media Exchange has lost significant share to Google over the last several years. We think a renewed focus on the business by Marissa Mayer—likely through technology acquisitions and an emphasis as a principal in ad tech—could make Yahoo! another player to watch in this space.

## Mobile Web vs. Apps Debate Continues

We expect Mobile Internet usage to continue increasing at a rapid pace as mobile devices continue to proliferate. While it's clear to most that the Mobile Internet is still at a very early growth stage in terms of usage, what's less obvious is the means by which the Mobile Internet will be consumed in 3-5 years.

At the center of this discussion is whether Mobile Internet usage or consumption will likely gravitate towards a native app or a mobile browser-based model. With the exception of a few apps such as Skype, Spotify, and productivity tools (like Microsoft Office) nearly all PC-based Internet usage occurs through the browser. However, historically lower mobile bandwidth and processing power as well as some limitations of HTML5 have led the industry to gravitate towards native mobile apps.

**We think users are likely to continue using a mix of mobile apps and mobile browser-based websites for their Mobile Internet consumption in the future, though we see the mix shifting towards the mobile web over time.** We think the determining factors are likely to be frequency of usage and system requirements with tasks such as e-mail, social-networking, chat, and games primarily accessed through native apps and most other tasks occurring through the mobile browser. **The key conclusion here is that a shift towards mobile web consumption would likely be a positive for search and Google over time as users would need to navigate an increasingly complex mobile web.**

We think there are a few reasons why mobile activity could shift more towards the mobile web over time:

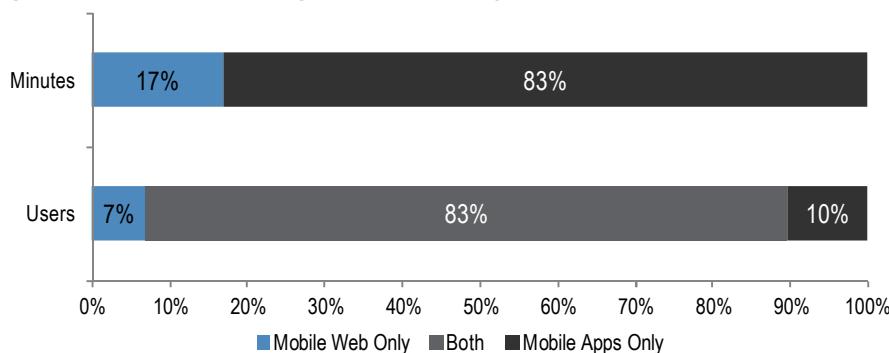
- 1) **Mobile Internet likely to become more complex.** There are ~700,000 apps in the Apple AppStore today while there are several times as many websites, ~644M according to NetCraft. While we think native apps have likely been built out for the “head” of the Mobile Internet, we think the “long tail” of the Mobile Internet is likely to be built on the mobile web. We believe this build-out of the long tail will likely continue to enhance search’s value proposition to the mobile user.
- 2) **Increasing app downloads per device likely to become challenging.** According to a Nielsen survey released in May 2012, the average user had 41 apps installed on their smartphone, up from 32 the previous year. At some point, we think the growth in new app downloads per user is likely to slow as users may struggle to manage so many applications effectively. Over time, we think users are likely to settle upon a select few apps for most of their day-to-day needs while defaulting to the mobile web for the rest of their mobile consumption. Some users may also be running up against storage capacity limits of devices.
- 3) **Mobile web development costs are lower than native apps.** We believe the vast majority (70-75% by some estimates) of businesses have yet to develop a separate mobile presence (web or mobile) though we expect this to change over time. While larger Internet companies are likely to continue supporting the development of separate, native apps for iOS and Android, we think smaller businesses and websites may prefer to develop mobile websites (as opposed to native apps) that are platform agnostic. In addition, companies may also prefer to

publish content directly to the mobile web instead of obtaining approval from the Apple AppStore or Google Play marketplaces.

While mobile web technologies (such as HTML5) continue to improve, native apps will likely continue to offer a superior user experience in the near term. Similar to desktop software, native apps can store resources locally and employ the memory and processing power of the device to perform operations quickly while also utilizing the functionality (GPS for example) of the device. Facebook's CEO, Mark Zuckerberg, recently noted that while he was optimistic about HTML5 (or the mobile web) in the long term, the company had shifted its mobile focus towards building native apps for Apple's iOS and Android.

While native apps dominate mobile usage today in terms of time spent, we note that a significant number of users continue to access mobile websites. According to comScore data shown in Figure 7 below, the vast majority of smartphone users utilize both apps and the mobile web, though mobile app usage and time spent is significantly higher than the mobile web. Additional industry data points also suggest mobile web users of many websites remains high. At an industry conference in September 2012, Mark Zuckerberg noted that Facebook had more users on a daily basis using Facebook through the mobile web than on its iOS and Android apps combined. According to Yelp, about 21M monthly users accessed Yelp through the mobile web in 3Q12 vs. 8M mobile devices per month for its apps.

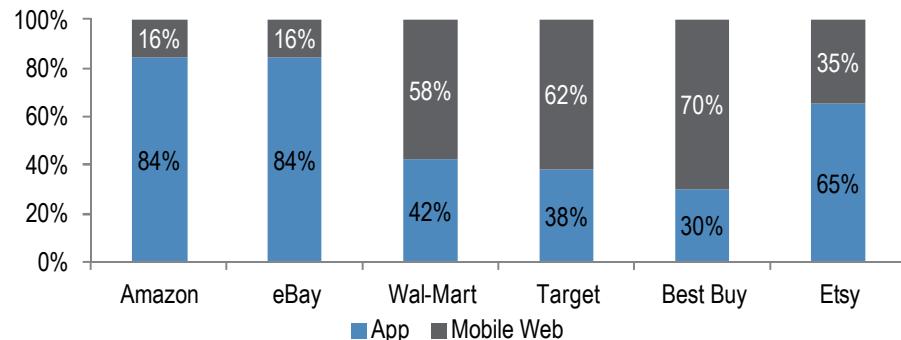
Figure 7: US Mobile Internet Usage (Smartphones Only) – September 2012



Source: comScore and J.P. Morgan estimates.

We believe certain categories such as online retail are already witnessing a significant percentage of usage from the Mobile web. As shown in Figure 8 below, even large retailers with established brands such as Wal-Mart, Best Buy, and Target have a greater percentage of their overall mobile time spent coming from their mobile websites. However, Amazon's and eBay's apps remain the dominant means by which their respective users access their mobile services. **This reinforces our view that in a fragmented vertical (such as retail), mobile users may selectively employ a few native apps while deferring to the mobile web for the remainder of their mobile consumption.** We think Amazon's and eBay's native app advantage has been a key driver of their market share increases in 2012 and we think publishers/retailers are likely to place a premium on driving app downloads given limited device real estate and user mindshare.

Figure 8: Share of Total Mobile Time Spent by Retailer (Apps vs. Mobile Web)



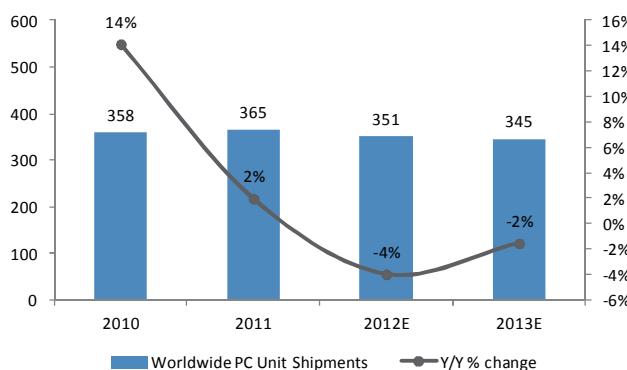
Source: comScore Mobile Metrix and J.P. Morgan. September 2012 US data.

## Desktop Slowdown Impact

There has been a lot of focus on the growth and opportunities on the mobile platform through the rapid adoption of connected mobile devices. Overall, we view increased mobile shift as a positive for the broader Internet space as we think it is net incremental to overall Internet usage and time spent, which in turn drives greater eCommerce spending and search activity. However, we are also focused on which segments are being impacted by the slowdown in desktop. While we expect shipments of smartphones and tablets to grow 34% Y/Y in 2013, PC sales are expected to continue to decline as we estimate -2% Y/Y in PC unit shipments 2013.

**Figure 9: Worldwide PC Unit Shipments**

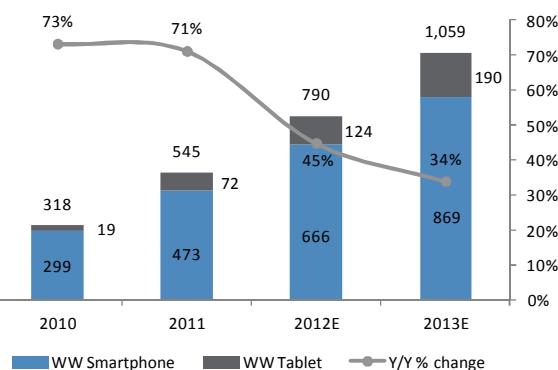
In millions



Source: J.P. Morgan estimates.

**Figure 10: Worldwide Mobile Unit Shipments**

In millions

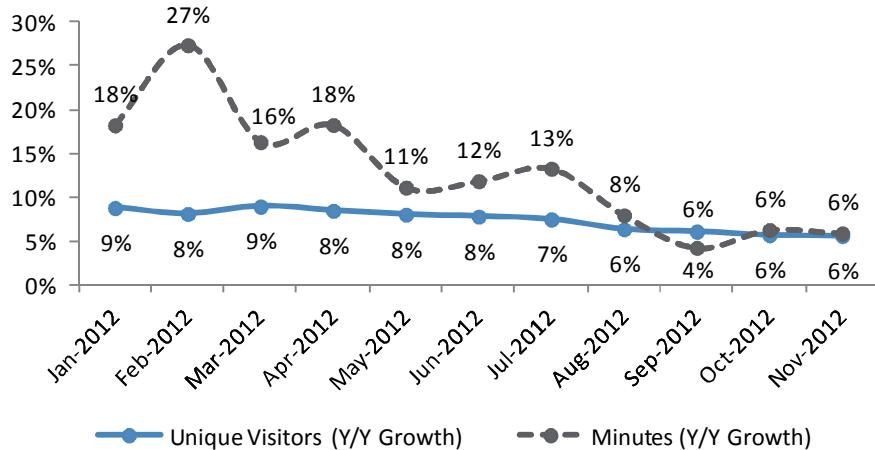


Source: J.P. Morgan estimates.

Smartphones as % of Handsets Shipped	2010	2011	2012E	2013E
18%	27%	38%	49%	

The mobile shift has naturally coincided with a deceleration in desktop Internet usage trends. According to comScore, total Internet unique visitors and minutes spent worldwide have been declining in Y/Y growth. In the section below, we look at which companies are impacted most by the decline in desktop trends.

Figure 11: Worldwide Desktop Internet Trends



Source: comScore, J.P. Morgan.

We believe the decline in desktop Internet usage will continue, with varying impacts to Internet companies. While many companies are still very reliant on desktop traffic, some companies are able to better leverage the mobile platform and potentially gain from the rapid shift to mobile devices.

## Beneficiaries

- **Local:** According to Google, ~20% of desktop searches and ~50% of mobile searches are for local information. Given the location-centric nature of local searches, we believe the mobile shift is likely to be a positive for local-focused companies in the long term, such as YELP. This increases the urgency and importance for local-focused Internet companies to have an effective mobile monetization model in place to effectively manage the transition of user behavior to connected mobile devices. We believe the increased targetability and relevancy through new ad formats such as click-to-call and location aware ads for local searches can help increase mobile ad pricing levels over time.
- **Real Estate:** The real estate market opportunity is rapidly shifting to mobile devices. Mobile works well for location-based services, especially those in which mapping plays a key role. Mobile is a major area of growth for Trulia as it represents 20%-25% of total traffic and up to ~33% on weekends. Importantly, Trulia has the unique ability to monetize its mobile ad products better than its desktop offerings. Mobile users are likely to be highly engaged and transaction ready, translating into Trulia mobile ARPU 25% higher than that for web ads, despite having only launched its mobile product in May 2012. We believe mobile will continue to be a growth driver for the online real estate industry and companies such as Trulia and Zillow, as it represents a natural fit given its location-centric business.

## Neutral

- **eCommerce:** We believe the desktop decline will likely have a net neutral impact on eCommerce companies due to differing changes in user behaviors. Declines in desktop usage can negatively impact online traffic to eCommerce retailers and SEM campaigns/product ads. On the other hand, the proliferation of connected devices enables users to search for retail items anywhere, as evidenced by the growing trend of “showrooming” in which consumers compare prices on their mobile devices while in a brick-and-mortar retailer store. We estimate mobile retail to represent ~12% of total eCommerce in the U.S. as of 4Q12 and expect it to continue to grow over time.

## Negatively Impacted

- **GOOG:** We believe Google is likely to be negatively impacted in the near term by the decline in desktop usage trends given its dominant position in search, accounting for ~67% of desktop queries as of November 2012 according to comScore. U.S. desktop search queries have also been declining, down 4% Y/Y in 4Q12 and Google desktop search queries down 2% Y/Y. This is reflected in our estimates for Google’s gross search ad revenues as our analysis suggests that desktop search is showing relatively flattish growth—perhaps up in the low-single digits as of 3Q12. While mobile still represents an enormous opportunity for Google, we believe the transition from desktop to mobile search may be less lucrative in the short term as mobile searches don’t monetize as well as desktop searches due to lower CPCs and higher TAC rates, so incremental volume has to become a more meaningful driver over time.
- **Online Travel:** The OTAs may also be negatively impacted by the decline in desktop Internet usage trends as the majority of online bookings are transacted through the desktop. Mobile is a growing contributor to bookings, but 50%-70% of mobile bookings are for reservations within 24 hours. Additionally, many of the OTAs, especially for Priceline and increasingly for Expedia, leverage SEM and paid search to drive a substantial portion of their traffic. Declining desktop trends could have negative implications on the OTAs’ ability to drive desktop traffic through paid channels. This is likely to increase the OTAs’ efforts to diversify sources of traffic and reduce reliance on Google desktop search.

## Increasing Competition in Online Travel

In 2013 we are positive on the secular online shift in the travel industry as we look for increasing OTA penetration rates in all regions of the world. **We believe there is a large global opportunity for the OTAs as they target underpenetrated international markets as new areas of growth, intensifying the competition between the OTAs in all geographies and across business models (merchant vs. agency).** We expect intensified competition particularly in Europe and the U.S. as Expedia pushes harder into Europe and Booking.com into the U.S. We also believe the OTAs will continue to pursue APAC and Latam hotel markets as new regions for growth, competing against local incumbent OTAs with dominant market shares. We think this is likely to increase M&A activity in new growth markets and increase marketing spend to support growth in both consumer demand and hotel supply in growth markets. **While we think increased competition is likely to pressure sales and marketing spend in 2013 across the OTAs, we maintain Priceline as our top pick as we believe Priceline can sustain or possibly re-accelerate international bookings growth through increased investments and sales and marketing spend.**

**Expedia executing better, likely taking share from smaller players.** Expedia has nearly completed its platform migration as it is in the final stages of upgrading the packages segment. We believe Expedia has already been seeing benefits from its platform migration with accelerating hotel room nights in all regions as of 3Q12. Given Expedia's acquisition of a majority stake in Trivago and the rollout of the ETP program, we expect Expedia to continue to invest in new growth drivers particularly in international markets. However, **we believe Expedia's gains will come primarily from the secular shift to online and from smaller players in international markets rather than at Priceline's expense as Priceline continues to show strong international bookings growth.**

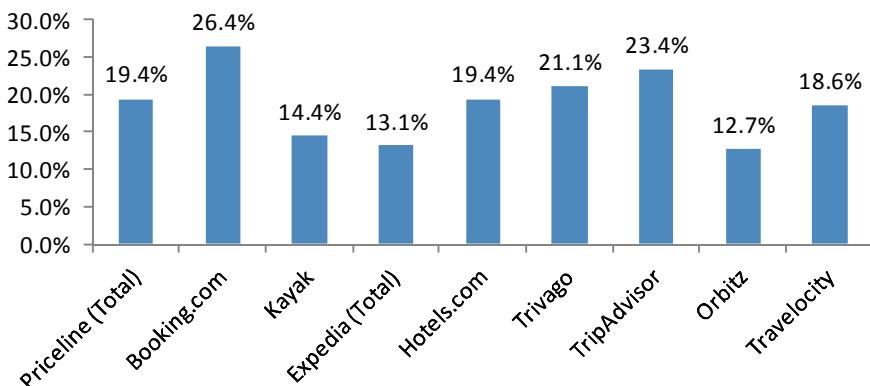
- **In the U.S.**, Priceline's domestic bookings have been negatively impacted by Expedia's Hotwire brand as well as daily deal sites over the past few quarters. However, we believe the Kayak acquisition can provide Priceline with another distribution channel for bookings through the direct booking path, particularly in the domestic market which is Kayak's largest market. Additionally, our checks indicate that Booking.com is also continuing to make inroads into the domestic hotel industry, leveraging paid search marketing strategies and international customer exposure to increase its presence in the U.S.
- **In international markets**, we believe Expedia's ETP program is likely to gain traction in markets where the agency model is prevalent, such as in Europe. With Expedia pressing harder in Europe and other international growth markets and competition in the OTA space intensifying, we believe increasing sales & marketing spend across all OTAs may become a key factor in generating bookings. Despite this, we believe Priceline's strong track record and experience in Europe will enable it to continue to drive strong bookings growth in international markets, possibly re-accelerating bookings growth, even if it is at the cost of a few basis points of margin leverage.

**Lines between OTAs and meta search starting to blur following two key acquisitions.** Following Priceline's acquisition of Kayak and Expedia's acquisition of a majority stake of Trivago, we believe the lines between the OTAs and meta search are beginning to blur. We believe these deals open up new opportunities for both Priceline and Expedia to leverage the meta search models through a direct bookings path, effectively turning Kayak and Trivago into new distribution channels for bookings, as well as realize marketing efficiencies through increased spend through owned channels. These deals also enable the OTAs to move higher up into the consumer travel booking channel, as many travel searches first begin on Google or meta search sites then progress down the funnel towards the OTAs where the transactions are made. This focus on the meta search model can also be seen in TripAdvisor's mobile browser site which displays results in a meta display format. Going forward, we believe the OTA and meta search models will continue to converge as competition continues to intensify.

**Google pushing further into travel.** In the past few weeks, there has been a noticeable increase in new features rolled out by Google in its travel products. Flight Search continues to expand its feature set through Flight Explorer and Hotel Search has been integrated into the Google SERP for hotel search terms. Additionally, Zagat and Frommers content has also been integrated into Google Local, Maps, and Hotel Finder. Following the FTC settlement last week, we believe this enables Google to be more aggressive in pushing further into various verticals, especially into travel. We think this increases Google's threat profile to the companies in the online travel vertical, particularly for online travel advertising.

If Google is able to capture a greater share of online travel traffic, whether it's through its current products or potentially a single travel offering (i.e. Google Travel), it could negatively impact the volume of traffic it sends to companies that receive a high percentage of traffic from Google organic and paid search—companies such as TripAdvisor and the OTAs. This could lead to higher sales and marketing costs to purchase Google traffic, pressuring margins across the online travel industry. Additionally, as Google's desktop traffic trends are also slowing, we believe the OTAs will increase efforts to diversify traffic away from Google to other sources, including mobile.

**Figure 12: Percentage of Incoming Online Traffic from Google – November 2012**



Source: comScore, J.P. Morgan.

**Companies Recommended in This Report** (all prices in this report as of market close on 10 January 2013)  
Apple Inc. (AAPL/\$523.51/Overweight)

**Analyst Certification:** The research analyst(s) denoted by an “AC” on the cover of this report certifies (or, where multiple research analysts are primarily responsible for this report, the research analyst denoted by an “AC” on the cover or within the document individually certifies, with respect to each security or issuer that the research analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect his or her personal views about any and all of the subject securities or issuers; and (2) no part of any of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst(s) in this report.

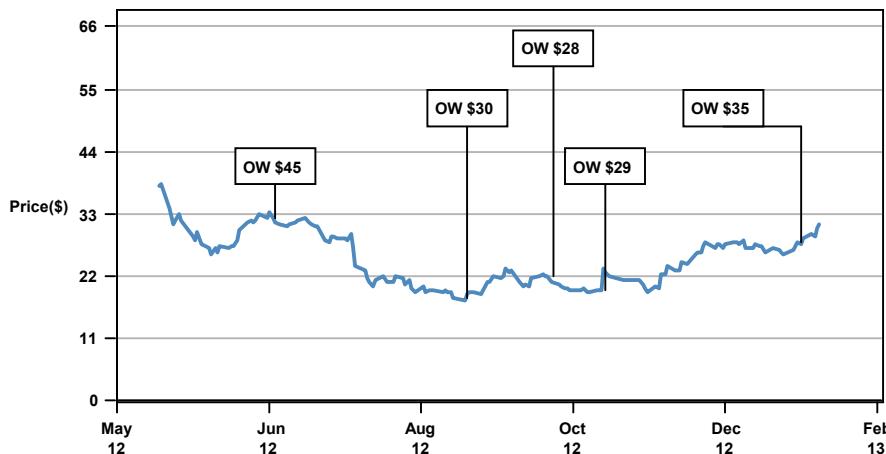
**Important Disclosures**

---

- **Market Maker:** JPMS makes a market in the stock of Facebook, Priceline.com, eBay, Inc.
- **Lead or Co-manager:** J.P. Morgan acted as lead or co-manager in a public offering of equity and/or debt securities for Facebook, Priceline.com, eBay, Inc within the past 12 months.
- **Director:** A senior employee, executive officer or director of JPMorgan Chase & Co. and/or J.P. Morgan is a director and/or officer of eBay, Inc.
- **Client:** J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as clients: Facebook, Priceline.com, eBay, Inc, Pandora Media Inc.
- **Client/Investment Banking:** J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as investment banking clients: Facebook, Priceline.com, eBay, Inc, Pandora Media Inc.
- **Client/Non-Investment Banking, Securities-Related:** J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, securities-related: Facebook, Priceline.com, eBay, Inc, Pandora Media Inc.
- **Client/Non-Securities-Related:** J.P. Morgan currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-securities-related: Facebook, Priceline.com, eBay, Inc, Pandora Media Inc.
- **Investment Banking (past 12 months):** J.P. Morgan received in the past 12 months compensation for investment banking Facebook, Priceline.com, eBay, Inc, Pandora Media Inc.
- **Investment Banking (next 3 months):** J.P. Morgan expects to receive, or intends to seek, compensation for investment banking services in the next three months from Facebook, Priceline.com, eBay, Inc, Pandora Media Inc.
- **Non-Investment Banking Compensation:** J.P. Morgan has received compensation in the past 12 months for products or services other than investment banking from Facebook, Priceline.com, eBay, Inc, Pandora Media Inc.

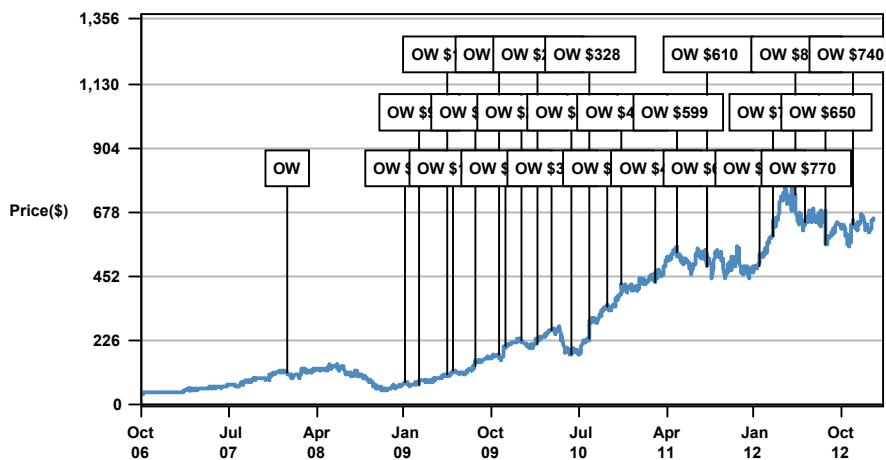
**Company-Specific Disclosures:** Important disclosures, including price charts, are available for compendium reports and all J.P. Morgan-covered companies by visiting <https://mm.jpmorgan.com/disclosures/company>, calling 1-800-477-0406, or e-mailing [research.disclosure.inquiries@jpmorgan.com](mailto:research.disclosure.inquiries@jpmorgan.com) with your request. J.P. Morgan's Strategy, Technical, and Quantitative Research teams may screen companies not covered by J.P. Morgan. For important disclosures for these companies, please call 1-800-477-0406 or e-mail [research.disclosure.inquiries@jpmorgan.com](mailto:research.disclosure.inquiries@jpmorgan.com).

Facebook (FB, FB US) Price Chart



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Initiated coverage Jun 27, 2012.

Priceline.com (PCLN, PCLN US) Price Chart



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Initiated coverage Jan 02, 2008.

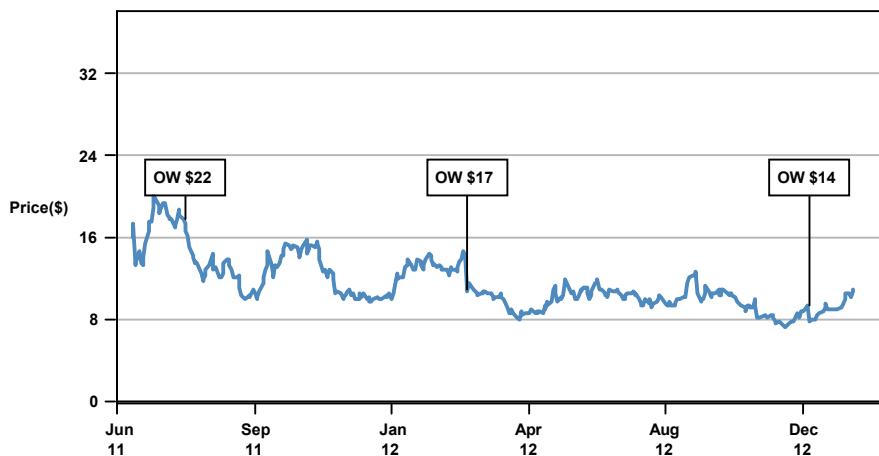
eBay, Inc (EBAY, EBAY US) Price Chart



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Break in coverage Oct 16, 2008 - Jan 05, 2009.

Date	Rating	Share Price (\$)	Price Target (\$)
16-Oct-08	N	14.97	--
05-Jan-09	N	14.77	17.00
22-Jan-09	N	11.67	14.00
23-Apr-09	N	16.62	15.00
23-Jul-09	N	19.45	19.00
20-Oct-09	N	25.06	22.50
21-Jan-10	N	24.13	24.50
22-Jul-10	N	20.94	24.00
13-Oct-10	N	24.87	25.00
20-Jan-11	N	30.78	32.00
13-Jul-11	N	32.26	38.00
13-Jan-12	N	30.62	37.00
19-Apr-12	N	40.62	41.00
06-Jun-12	N	40.94	39.00
20-Jul-12	OW	44.85	50.00
18-Oct-12	OW	50.83	56.00

Pandora Media Inc (P, P US) Price Chart



Date	Rating	Share Price (\$)	Price Target (\$)
25-Jul-11	OW	17.81	22.00
07-Mar-12	OW	10.86	17.00
05-Dec-12	OW	9.45	14.00

Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Initiated coverage Jul 25, 2011.

The chart(s) show J.P. Morgan's continuing coverage of the stocks; the current analysts may or may not have covered it over the entire period.

J.P. Morgan ratings or designations: OW = Overweight, N = Neutral, UW = Underweight, NR = Not Rated

**Explanation of Equity Research Ratings, Designations and Analyst(s) Coverage Universe:**

J.P. Morgan uses the following rating system: Overweight [Over the next six to twelve months, we expect this stock will outperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Neutral [Over the next six to twelve months, we expect this stock will perform in line with the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Underweight [Over the next six to twelve months, we expect this stock will underperform the average total return of the stocks in the analyst's (or the analyst's team's) coverage universe.] Not Rated (NR): J.P. Morgan has removed the rating and, if applicable, the price target, for this stock because of either a lack of a sufficient fundamental basis or for legal, regulatory or policy reasons. The previous rating and, if applicable, the price target, no longer should be relied upon. An NR designation is not a recommendation or a rating. In our Asia (ex-Australia) and U.K. small- and mid-cap equity research, each stock's expected total return is compared to the expected total return of a benchmark country market index, not to those analysts' coverage universe. If it does not appear in the Important Disclosures section of this report, the certifying analyst's coverage universe can be found on J.P. Morgan's research website, [www.jpmorganmarkets.com](http://www.jpmorganmarkets.com).

**Coverage Universe:** **Anmuth, Doug:** Amazon.com (AMZN), Bankrate Inc (RATE), CafePress, Inc. (PRSS), Expedia, Inc. (EXPE), Facebook (FB), Google (GOOG), Groupon (GRPN), HomeAway Inc (AWAY), LinkedIn Corp (LNKD), Netflix Inc (NFLX), Pandora Media Inc (P), Priceline.com (PCLN), QuinStreet, Inc. (QNST), ReachLocal (RLOC), TripAdvisor, Inc. (TRIP), Trulia Inc. (TRLA), Yahoo Inc (YHOO), Zynga Inc (ZNGA), eBay, Inc (EBAY)

### J.P. Morgan Equity Research Ratings Distribution, as of January 1, 2013

	Overweight (buy)	Neutral (hold)	Underweight (sell)
J.P. Morgan Global Equity Research Coverage	44%	44%	12%
IB clients*	53%	46%	34%
JPMS Equity Research Coverage	42%	49%	9%
IB clients*	71%	62%	51%

\*Percentage of investment banking clients in each rating category.

For purposes only of FINRA/NYSE ratings distribution rules, our Overweight rating falls into a buy rating category; our Neutral rating falls into a hold rating category; and our Underweight rating falls into a sell rating category. Please note that stocks with an NR designation are not included in the table above.

**Equity Valuation and Risks:** For valuation methodology and risks associated with covered companies or price targets for covered companies, please see the most recent company-specific research report at <http://www.jpmorganmarkets.com>, contact the primary analyst or your J.P. Morgan representative, or email [research.disclosure.inquiries@jpmorgan.com](mailto:research.disclosure.inquiries@jpmorgan.com).

**Equity Analysts' Compensation:** The equity research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues.

### Other Disclosures

J.P. Morgan ("JPM") is the global brand name for J.P. Morgan Securities LLC ("JPMS") and its affiliates worldwide. J.P. Morgan Cazenove is a marketing name for the U.K. investment banking businesses and EMEA cash equities and equity research businesses of JPMorgan Chase & Co. and its subsidiaries.

All research reports made available to clients are simultaneously available on our client website, J.P. Morgan Markets. Not all research content is redistributed, e-mailed or made available to third-party aggregators. For all research reports available on a particular stock, please contact your sales representative.

**Options related research:** If the information contained herein regards options related research, such information is available only to persons who have received the proper option risk disclosure documents. For a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options, please contact your J.P. Morgan Representative or visit the OCC's website at <http://www.optionsclearing.com/publications/risks/riskstoc.pdf>

### Legal Entities Disclosures

**U.S.:** JPMS is a member of NYSE, FINRA, SIPC and the NFA. JPMorgan Chase Bank, N.A. is a member of FDIC and is authorized and regulated in the UK by the Financial Services Authority. **U.K.:** J.P. Morgan Securities plc (JPMS plc) is a member of the London Stock Exchange and is authorized and regulated by the Financial Services Authority. Registered in England & Wales No. 2711006. Registered Office 25 Bank Street, London, E14 5JP. **South Africa:** J.P. Morgan Equities South Africa Proprietary Limited is a member of the Johannesburg Securities Exchange and is regulated by the Financial Services Board. **Hong Kong:** J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong. **Korea:** J.P. Morgan Securities (Far East) Ltd, Seoul Branch, is regulated by the Korea Financial Supervisory Service. **Australia:** J.P. Morgan Australia Limited (JPMAL) (ABN 52 002 888 011/AFS Licence No: 238188) is regulated by ASIC and J.P. Morgan Securities Australia Limited (JPMSAL) (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by ASIC and is a Market, Clearing and Settlement Participant of ASX Limited and CHI-X. **Taiwan:** J.P. Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. **India:** J.P. Morgan India Private Limited, having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz East, Mumbai - 400098, is a member of the National Stock Exchange of India Limited (SEBI) Registration Number - INB 230675231/INF 230675231/INE 230675231) and Bombay Stock Exchange Limited (SEBI Registration Number - INB 010675237/INF 010675237) and is regulated by Securities and Exchange Board of India. **Thailand:** JPMorgan Securities (Thailand) Limited is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission. **Indonesia:** PT J.P. Morgan Securities Indonesia is a member of the Indonesia Stock Exchange and is regulated by the BAPEPAM LK. **Philippines:** J.P. Morgan Securities Philippines Inc. is a Trading Participant of the Philippine Stock Exchange and a member of the Securities Clearing Corporation of the Philippines and the Securities Investor Protection Fund. It is regulated by the Securities and Exchange Commission. **Brazil:** Banco J.P. Morgan S.A. is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. **Mexico:** J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero is a member of the Mexican Stock Exchange and authorized to act as a broker dealer by the National Banking and Securities Exchange Commission.

**Singapore:** This material is issued and distributed in Singapore by J.P. Morgan Securities Singapore Private Limited (JPMSS) [MICA (P) 088/04/2012 and Co. Reg. No.: 199405335R] which is a member of the Singapore Exchange Securities Trading Limited and is regulated by the Monetary Authority of Singapore (MAS) and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore) which is regulated by the MAS. **Malaysia:** This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X) which is a Participating Organization of Bursa Malaysia Berhad and a holder of Capital Markets Services License issued by the Securities Commission in Malaysia. **Pakistan:** J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan. **Saudi Arabia:** J.P. Morgan Saudi Arabia Ltd. is authorized by the Capital Market Authority of the Kingdom of Saudi Arabia (CMA) to carry out dealing as an agent, arranging, advising and custody, with respect to securities business under licence number 35-07079 and its registered address is at 8th Floor, Al-Faisaliyah Tower, King Fahad

Road, P.O. Box 51907, Riyadh 11553, Kingdom of Saudi Arabia. **Dubai:** JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - Building 3, Level 7, PO Box 506551, Dubai, UAE.

#### Country and Region Specific Disclosures

**U.K. and European Economic Area (EEA):** Unless specified to the contrary, issued and approved for distribution in the U.K. and the EEA by JPMS plc. Investment research issued by JPMS plc has been prepared in accordance with JPMS plc's policies for managing conflicts of interest arising as a result of publication and distribution of investment research. Many European regulators require a firm to establish, implement and maintain such a policy. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is only available to relevant persons and will be engaged in only with relevant persons. In other EEA countries, the report has been issued to persons regarded as professional investors (or equivalent) in their home jurisdiction. **Australia:** This material is issued and distributed by JPMSAL in Australia to "wholesale clients" only. JPMSAL does not issue or distribute this material to "retail clients". The recipient of this material must not distribute it to any third party or outside Australia without the prior written consent of JPMSAL. For the purposes of this paragraph the terms "wholesale client" and "retail client" have the meanings given to them in section 761G of the Corporations Act 2001. **Germany:** This material is distributed in Germany by J.P. Morgan Securities plc, Frankfurt Branch and J.P.Morgan Chase Bank, N.A., Frankfurt Branch which are regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht. **Hong Kong:** The 1% ownership disclosure as of the previous month end satisfies the requirements under Paragraph 16.5(a) of the Hong Kong Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission. (For research published within the first ten days of the month, the disclosure may be based on the month end data from two months prior.) J.P. Morgan Broking (Hong Kong) Limited is the liquidity provider/market maker for derivative warrants, callable bull bear contracts and stock options listed on the Stock Exchange of Hong Kong Limited. An updated list can be found on HKEx website: <http://www.hkex.com.hk>. **Japan:** There is a risk that a loss may occur due to a change in the price of the shares in the case of share trading, and that a loss may occur due to the exchange rate in the case of foreign share trading. In the case of share trading, JPMorgan Securities Japan Co., Ltd., will be receiving a brokerage fee and consumption tax (shouhizei) calculated by multiplying the executed price by the commission rate which was individually agreed between JPMorgan Securities Japan Co., Ltd., and the customer in advance. **Financial Instruments Firms:** JPMorgan Securities Japan Co., Ltd., Kanto Local Finance Bureau (kinsho) No. 82 Participating Association / Japan Securities Dealers Association, The Financial Futures Association of Japan, Type II Financial Instruments Firms Association and Japan Investment Advisers Association. **Korea:** This report may have been edited or contributed to from time to time by affiliates of J.P. Morgan Securities (Far East) Ltd, Seoul Branch. **Singapore:** JPMS and/or its affiliates may have a holding in any of the securities discussed in this report; for securities where the holding is 1% or greater, the specific holding is disclosed in the Important Disclosures section above. **India:** For private circulation only, not for sale. **Pakistan:** For private circulation only, not for sale. **New Zealand:** This material is issued and distributed by JPMSAL in New Zealand only to persons whose principal business is the investment of money or who, in the course of and for the purposes of their business, habitually invest money. JPMSAL does not issue or distribute this material to members of "the public" as determined in accordance with section 3 of the Securities Act 1978. The recipient of this material must not distribute it to any third party or outside New Zealand without the prior written consent of JPMSAL. **Canada:** The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. The information contained herein is under no circumstances to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. To the extent that the information contained herein references securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, any trades in such securities must be conducted through a dealer registered in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed judgment upon these materials, the information contained herein or the merits of the securities described herein, and any representation to the contrary is an offence. **Dubai:** This report has been issued to persons regarded as professional clients as defined under the DFSA rules.

**General:** Additional information is available upon request. Information has been obtained from sources believed to be reliable but JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) do not warrant its completeness or accuracy except with respect to any disclosures relative to JPMS and/or its affiliates and the analyst's involvement with the issuer that is the subject of the research. All pricing is as of the close of market for the securities discussed, unless otherwise stated. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. The recipient of this report must make its own independent decisions regarding any securities or financial instruments mentioned herein. JPMS distributes in the U.S. research published by non-U.S. affiliates and accepts responsibility for its contents. Periodic updates may be provided on companies/industries based on company specific developments or announcements, market conditions or any other publicly available information. Clients should contact analysts and execute transactions through a J.P. Morgan subsidiary or affiliate in their home jurisdiction unless governing law permits otherwise.

"Other Disclosures" last revised January 1, 2013.

**Copyright 2013 JPMorgan Chase & Co. All rights reserved. This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan.**