

# INTERNET TRENDS D11 CONFERENCE

5 / 29 / 2013

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**KPCB**

KLEINER  
PERKINS  
CAUFIELD  
BYERS

# Outline

- **Key Internet Trends – Growth Continues**
- **Re-Imagination – Being Re-Imagined & Uploaded**
- **Mobile – Aggressive Momentum**
- **Computing – Yet Another Platform Change...**
- **Lots to Learn from China – Volume + Innovation**
- **Most Enabled Entrepreneurs Ever?**
- **So, You Want to Be a Public Company?**
- **High-Skilled Immigration – Perspective**
- **Appendix**
  - Re-Imagination is Alive & Well
  - Traditional Industries Being Re-Imagined
  - USA, Inc.

# KEY INTERNET TRENDS – GROWTH CONTINUES

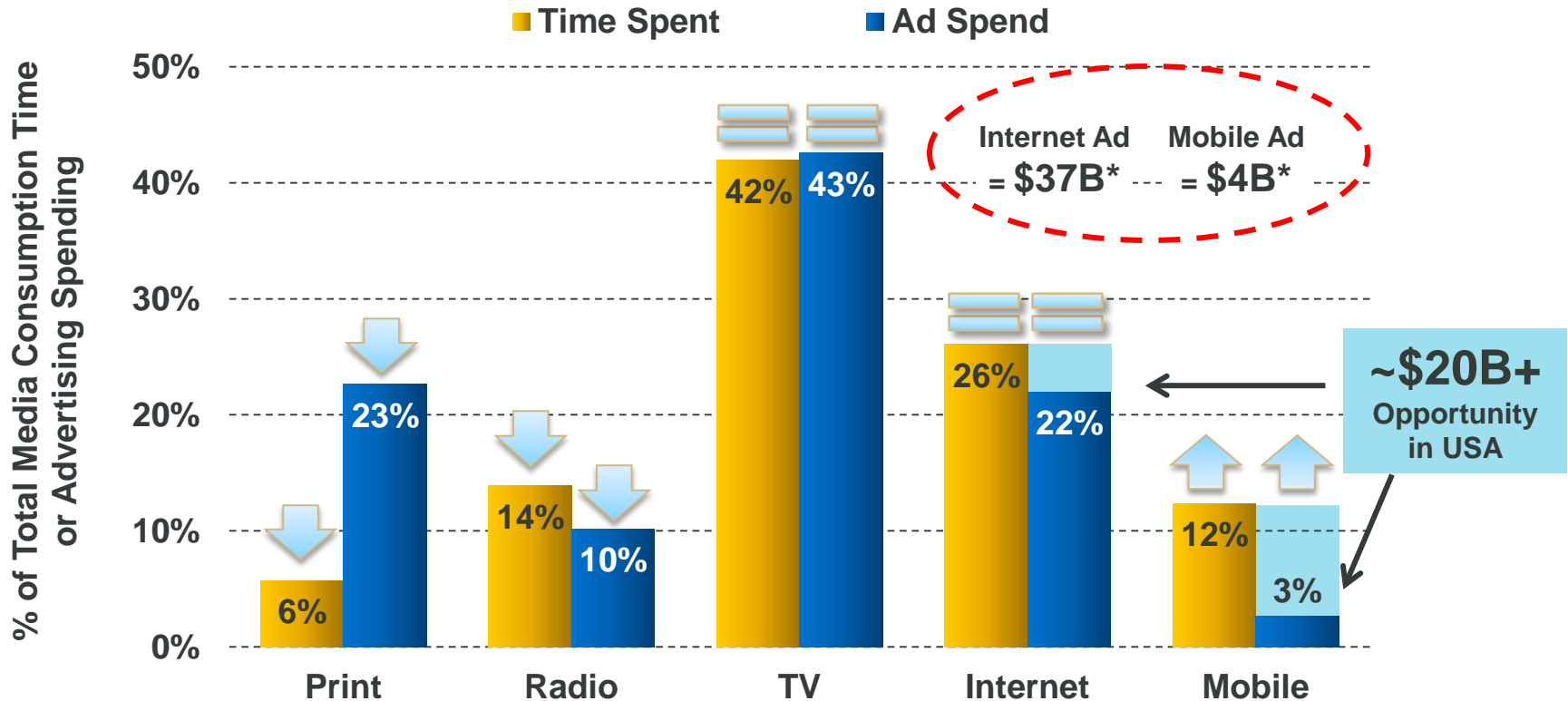
## 2.4B Global Internet Users in 2012\* – 8% Y/Y Growth\*, Driven by Emerging Markets

Rank	Country	2008-2012 Internet User Adds (MMs)	2012 Internet Users (MMs)	Y/Y Growth	Population Penetration
1	China	264	564	10%	42%
2	India	88	137	26	11
3	Indonesia	39	55	58	23
4	Iran	35	42	205	55
5	Russia	33	70	6	49
6	Nigeria	31	48	15	30
7	Philippines	28	34	32	35
8	Brazil	27	88	6	45
9	Mexico	19	42	9	37
10	USA	18	244	3	78
11	Argentina	17	28	57	68
12	Egypt	17	30	11	38
13	Colombia	14	25	39	54
14	Turkey	13	35	17	47
15	Vietnam	12	31	7	35
Top 15		654	1,473	15%	34%
World		902	2,406	8%	34%

Note: \*All data (except China) as of 6/12, 2.4B global Internet users and 8% Y/Y growth rate based on the latest available data. China Internet user data as of 12/12, per CNNIC. Source: United Nations / International Telecommunications Union, internetworldstats.com.

# Material Upside for Mobile Ad Spend vs. Mobile Usage

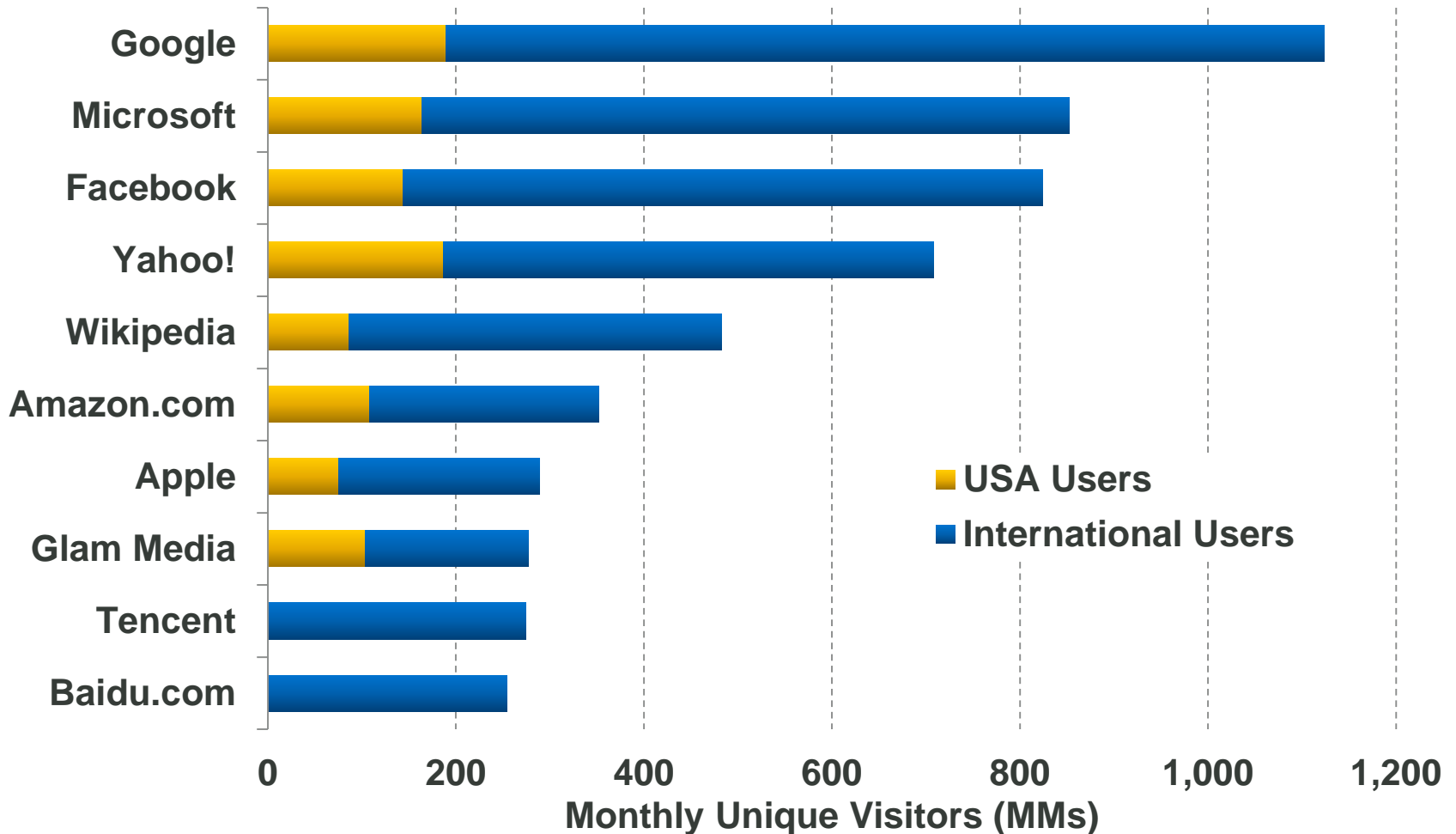
**% of Time Spent in Media vs. % of Advertising Spending, USA 2012**



Note: \*Internet advertising reached \$37B in USA in 2012 per IAB, Mobile advertising reached \$4B per eMarketer. Print includes newspaper and magazine. \$20B opportunity calculated assuming Internet and Mobile ad spend share equal their respective time spent share. Source: Time spent and ad spend share data based on eMarketer (adjusted to exclude outdoors / classified media spend), 12/12.

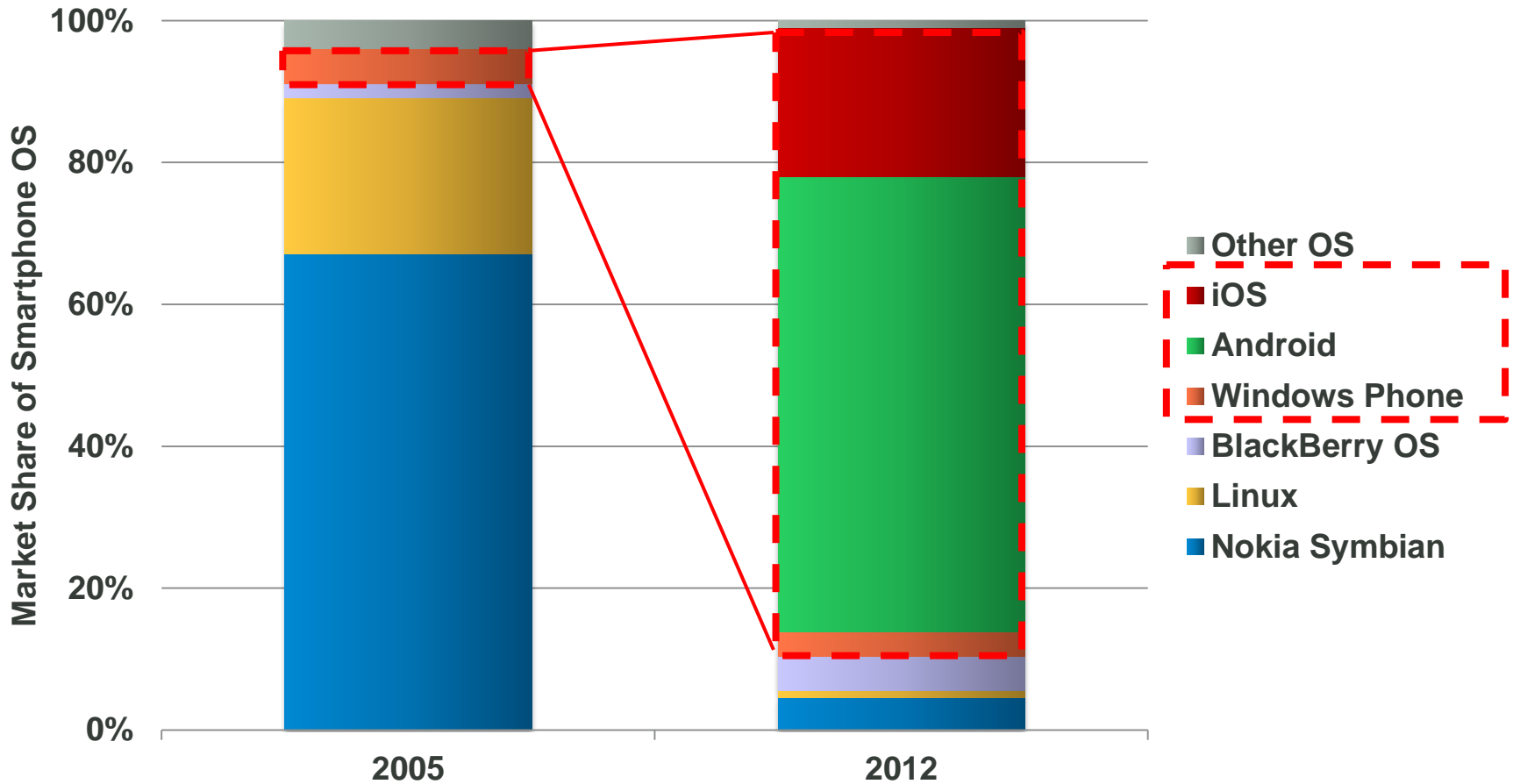
# 80% of Top Ten Global Internet Properties 'Made in USA'... 81% of Users Outside America

Top 10 Internet Properties by Global Monthly Unique Visitors, 2/13



# Global Smartphone Operating Systems 'Made in USA'... 88% Share from 5% Six Years Ago

## Global Smartphone Operating System Market Share (by Units Shipped), 2005 vs. 2012



**RE-IMAGINATION -  
BEING RE-IMAGINED & UPLOADED @  
AN ACCELERATING PACE**



# Long Ago, People Danced @ Concerts, Now They Video / Click / Share / Tweet...

**1990s**



**2010s**



# Today = *You Can Run, But You Can't Hide*

1993

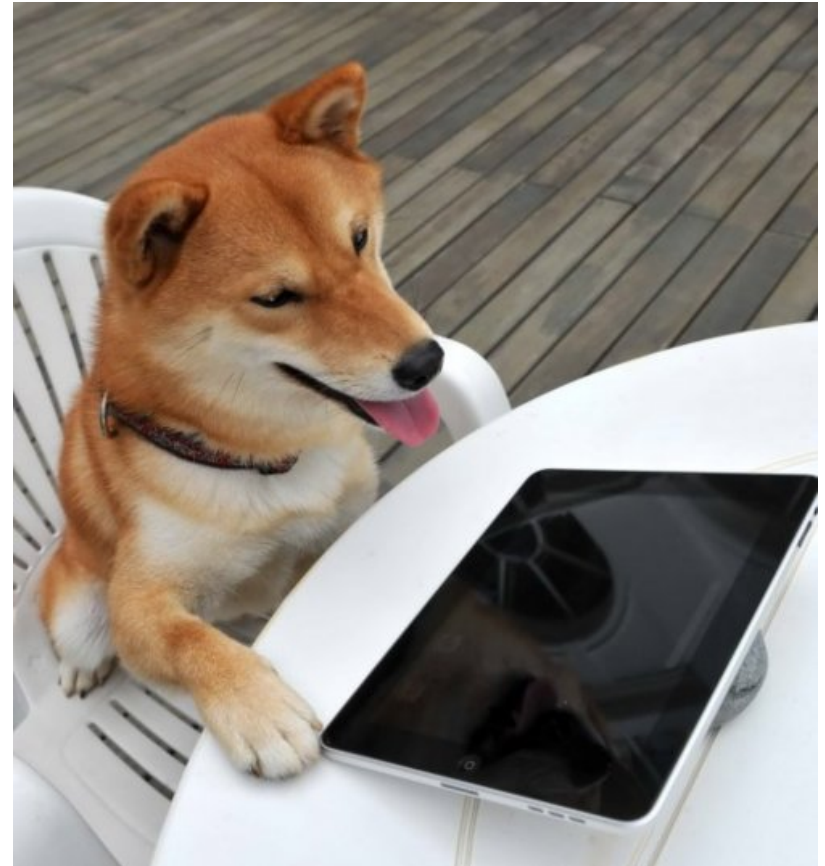
*On the Internet, nobody knows you're a dog.*



*"On the Internet, nobody knows you're a dog."*

2013

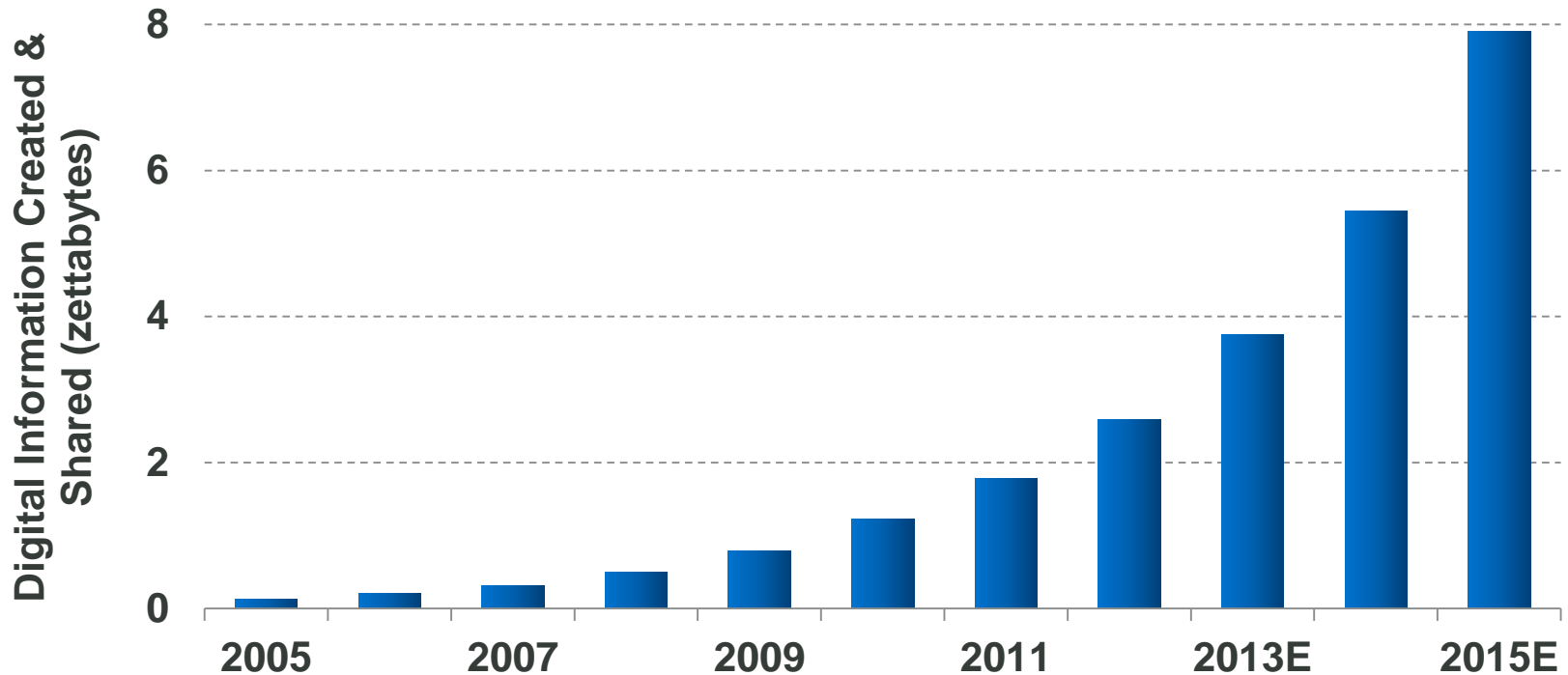
*On the Internet, everybody knows you're a dog.*



# World's Content is Increasingly Findable + Shared + Tagged - Digital Info Created + Shared up 9x in Five Years

*Amount of global digital information created & shared – from documents to pictures to tweets – grew 9x in five years to nearly 2 zettabytes\* in 2011, per IDC.*

**Global Digital Information Created & Shared, 2005 – 2015E**



# Media + Data Uploading + Sharing from Mobiles = Ramping Fast & Still Early Stage

**First**



**PHOTOS**

**Explosive Growth, But Still Early Stage**

**Now**



**VIDEO**

**Ramping Very Fast**

**Next**



**SOUND**

**Emerging**

**Next**



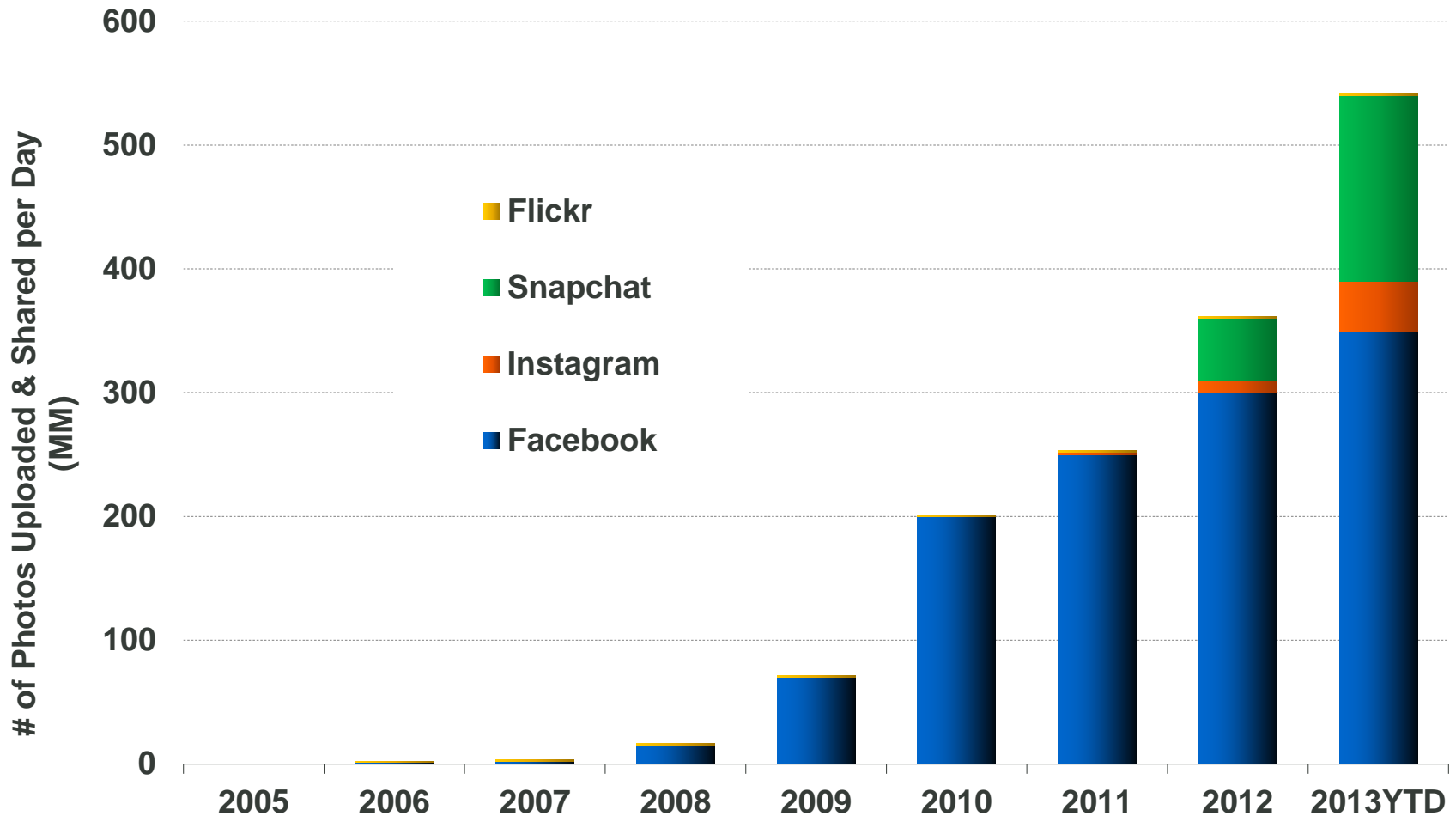
**DATA**

**Emerging**

***Photos...***

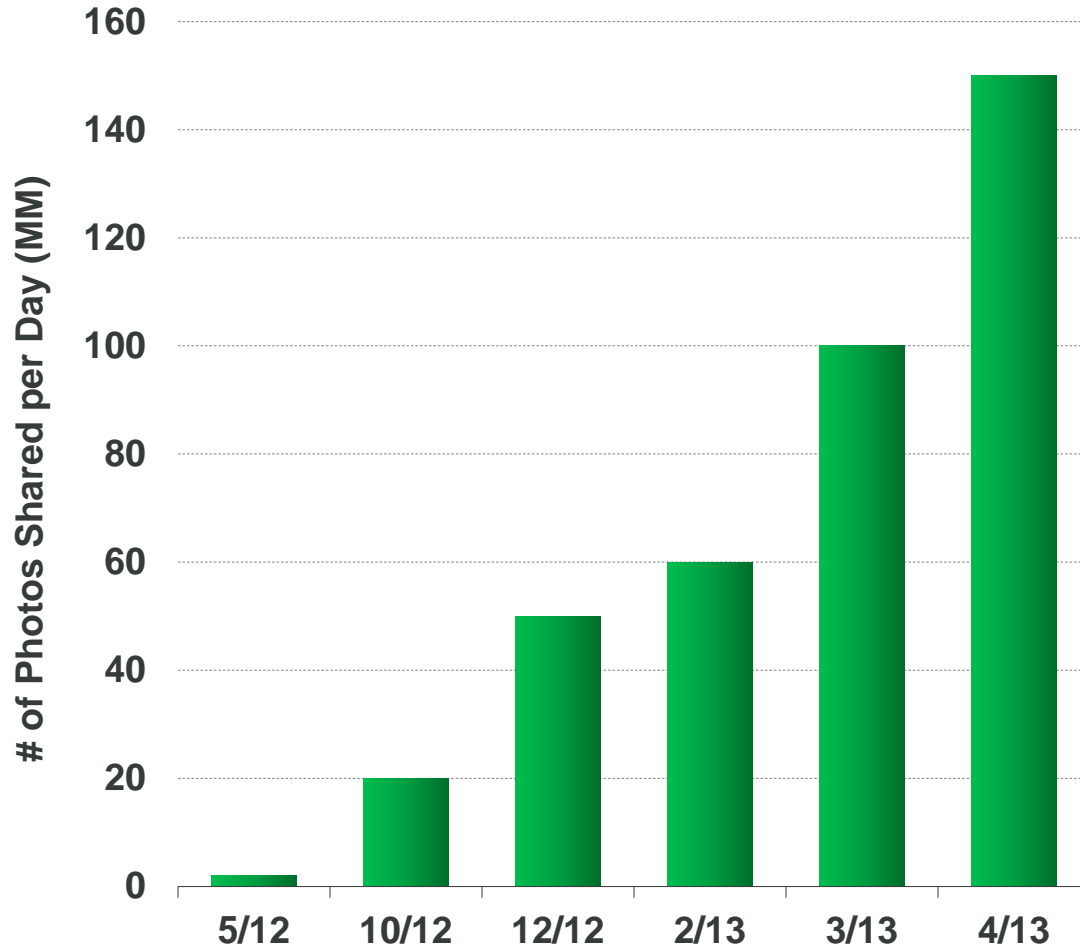
# Photos = 500MM+ Uploaded & Shared Per Day, Growth Accelerating, on Trend to Rise 2x Y/Y...

## Daily Number of Photos Uploaded & Shared on Select Platforms, 2005-2013YTD

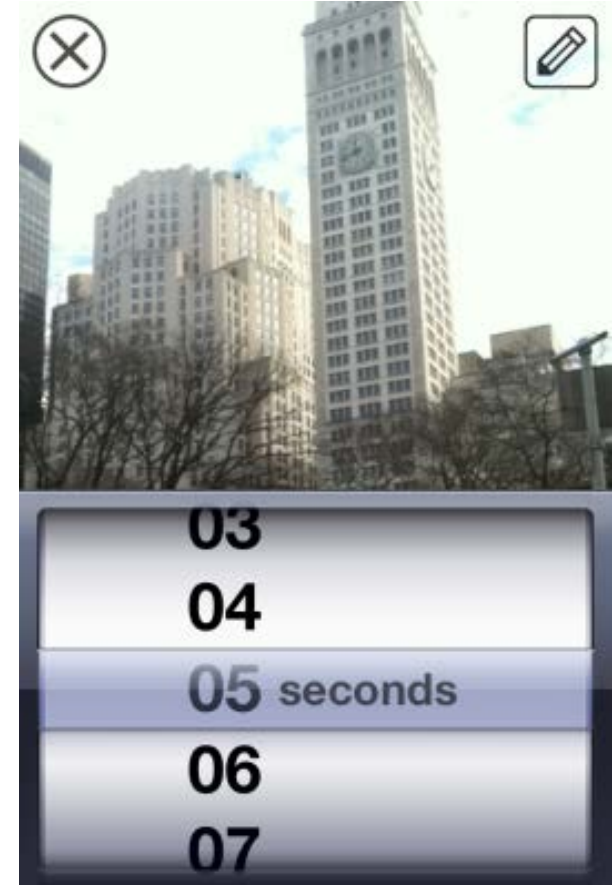


# Short-Term Sharing Exploding – Snapchat Growth From Content That Disappears, Up >2x in 2 Months

Snapchat Daily Number of 'Snaps'  
5/12 – 4/13



Choose How Long Your  
'Snap' Lives

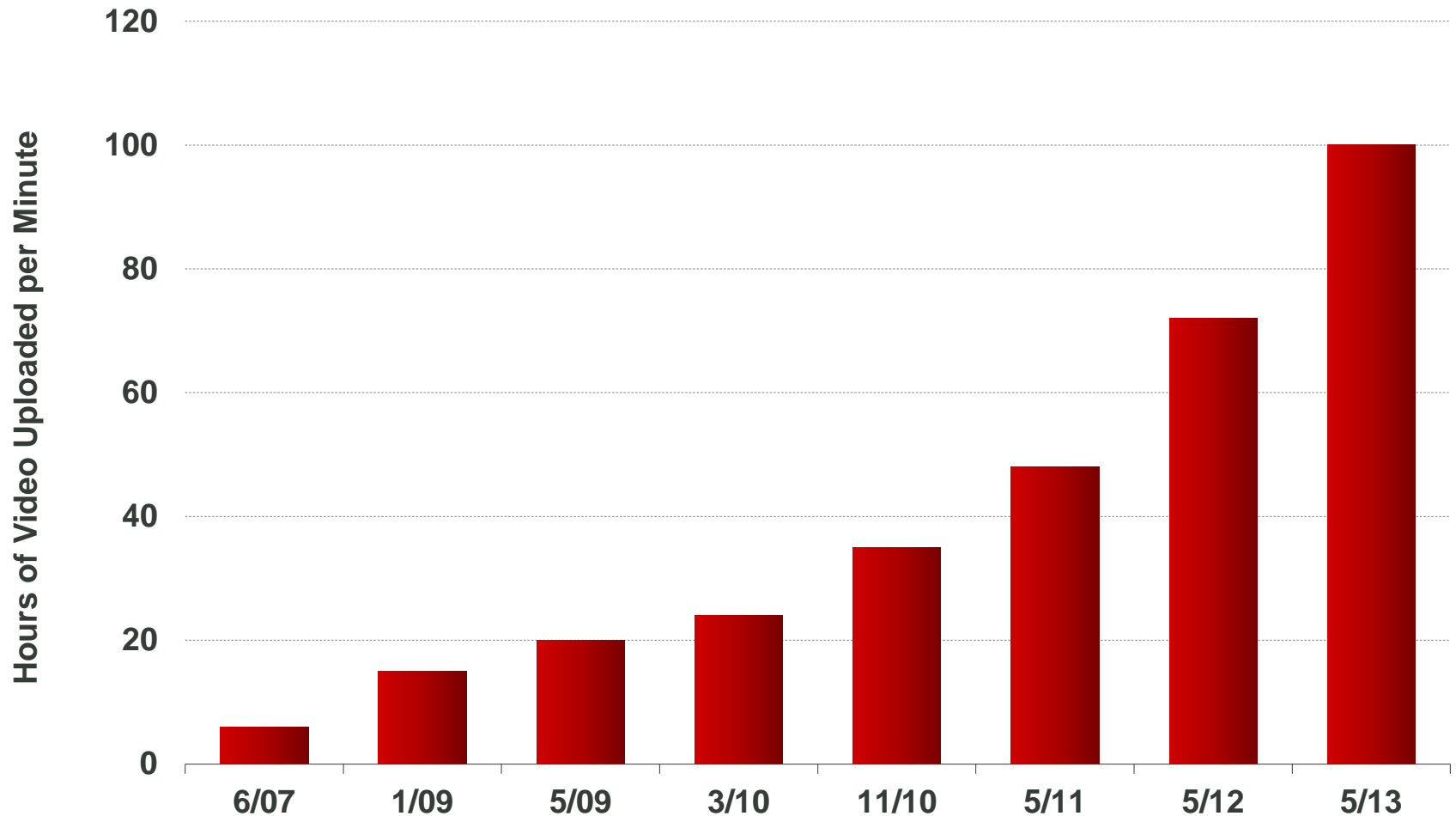


***Video...***



# Video = 100 Hours Per Minute Uploaded to YouTube, Up from ~Nada Six Years Ago

YouTube Hours of Video Uploaded per Minute, 6/07 – 5/13

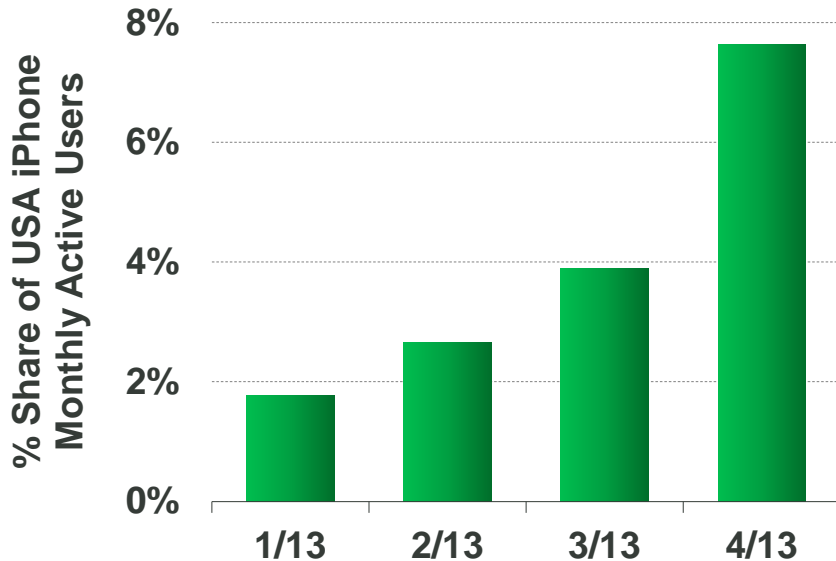


# Video (Short-Form + Persistent) = Ramping Fast

## Twitter Vine

6 Second Videos  
2x M/M Growth

Vine iOS App Monthly Active Users (MAUs)  
as % of Total USA iPhone MAUs, 1/13-4/13



## Dropcam (\$149 ASP)

More Video  
Uploaded per Minute Than YouTube



# Opt-In Video – ‘Big Brother’ Meets Big Mother?

**30% of Dropcam viewers used Talk Back to interact over past 2 weeks.**

*When I am on the road, I still join my husband in singing bedtime lullabies using Dropcam, a Wi-Fi video monitoring camera that streams to my phone and computer.*

– Randi Zuckerberg

## Parents Can See & Talk With Children While Away From Home



***Sound...***

# Sound =

Emerging as Voice Comes Back to Phones...

## SoundCloud

11 Hours of Sound  
Uploaded per Minute



## Tencent WeChat

400MM+ Users, 4x Y/Y



***Data...***

# Win-Win-Win Sharing = Growing Quickly – You Help Me, I Help You, We Help Others

## Waze

- 48MM Users, +2x Y/Y
- 1B+ Miles Driven per Month w/ Waze Open



## Jawbone UP

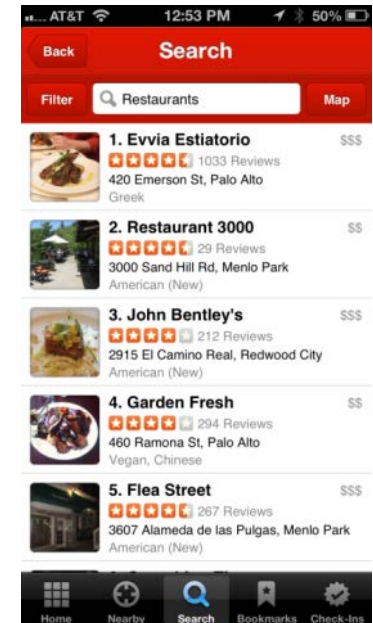
Per Day...

- Billions of Steps
- 700K+ Hours of Sleep
- 5x App Interactions per User



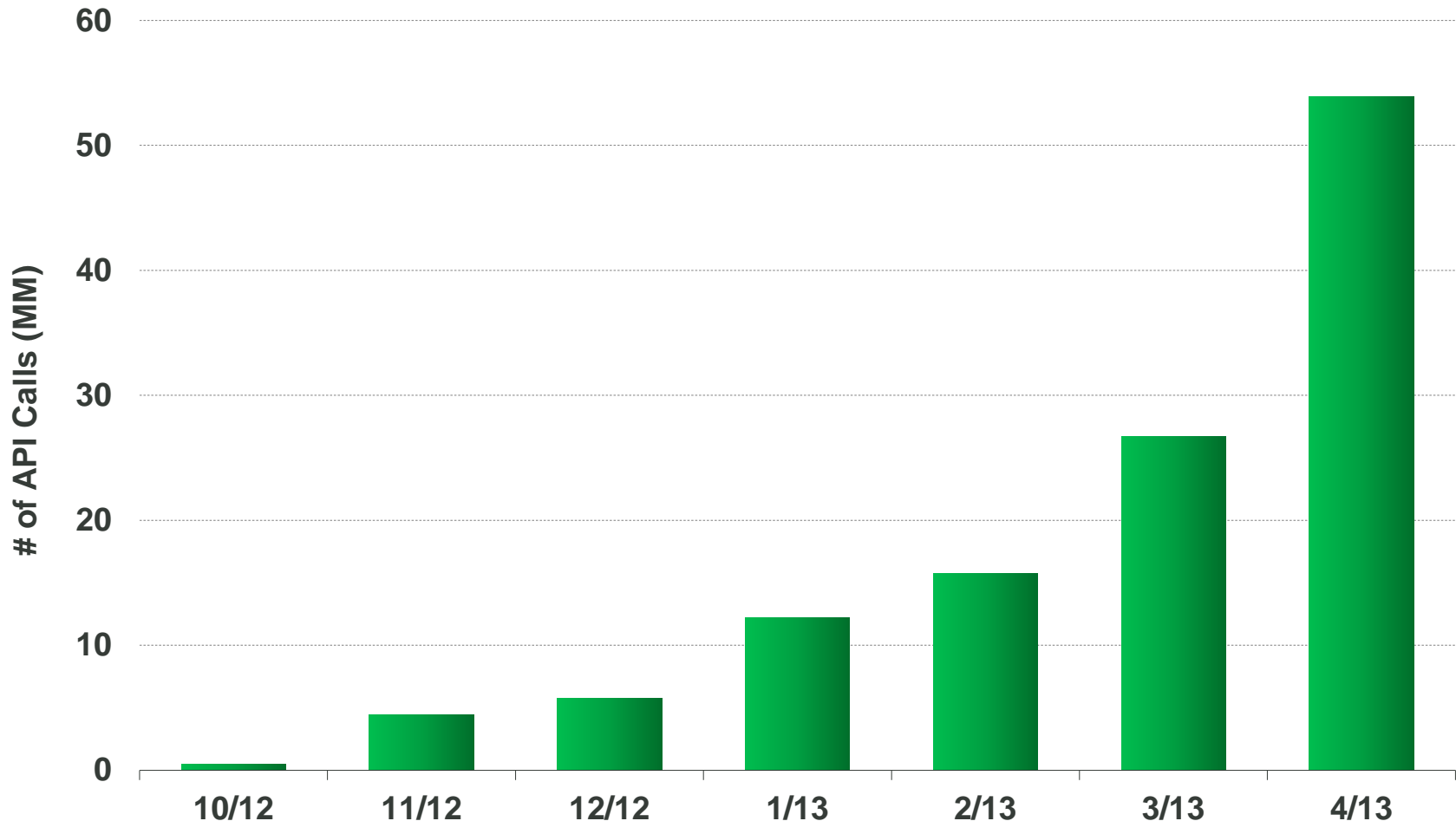
## Yelp

- 102MM Users, +43% Y/Y
- 39MM User-Generated Reviews, +42% Y/Y



# Fitness Data on Mobile + Wearable Devices = ~2x Month-on-Month Growth

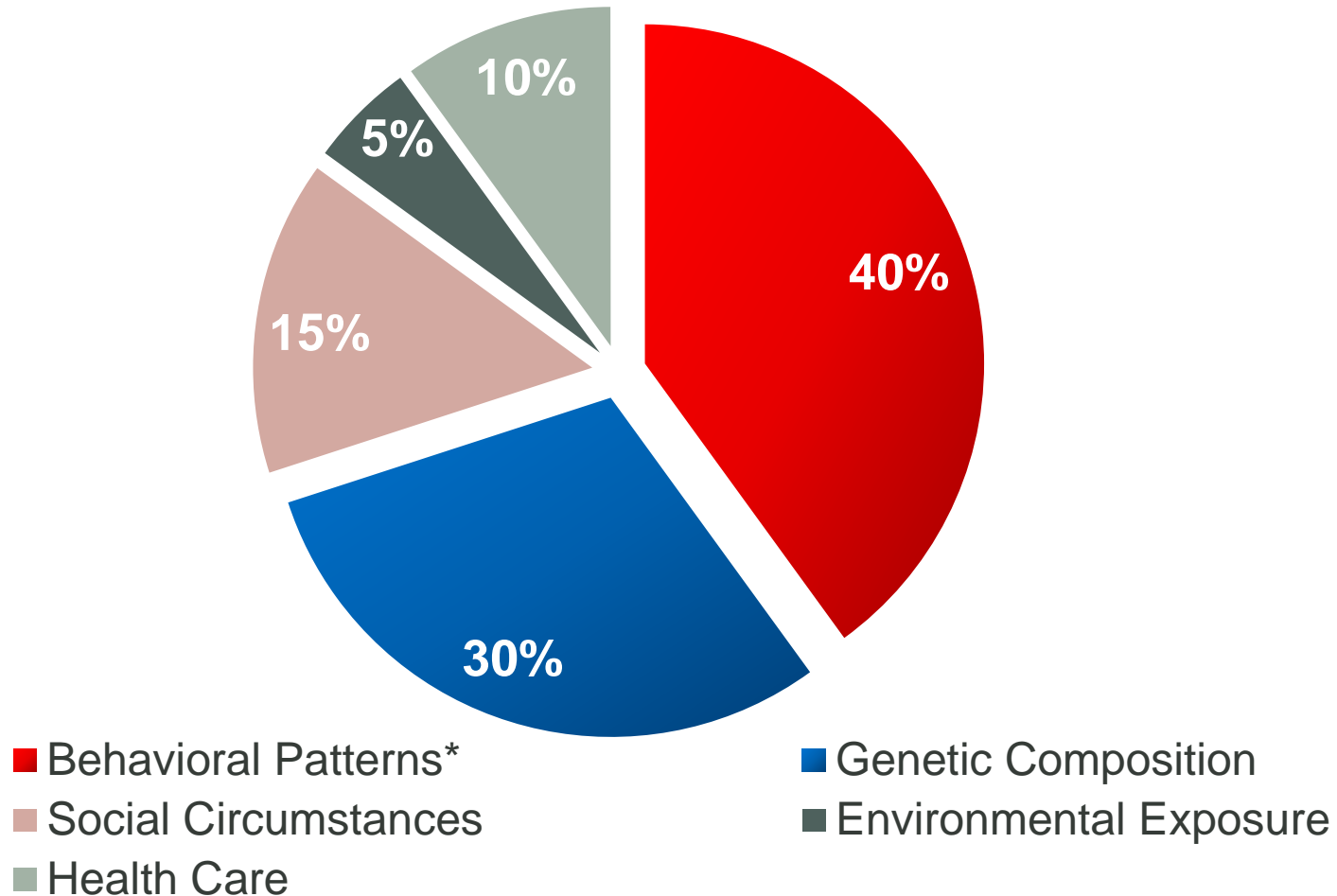
## MyFitnessPal - # of API Calls\*, 10/12 – 4/13





# Health Outcomes – Behavior (at 40%) is Biggest Driver of Premature Death

## USA Proportional Contribution to Premature Death, 2007



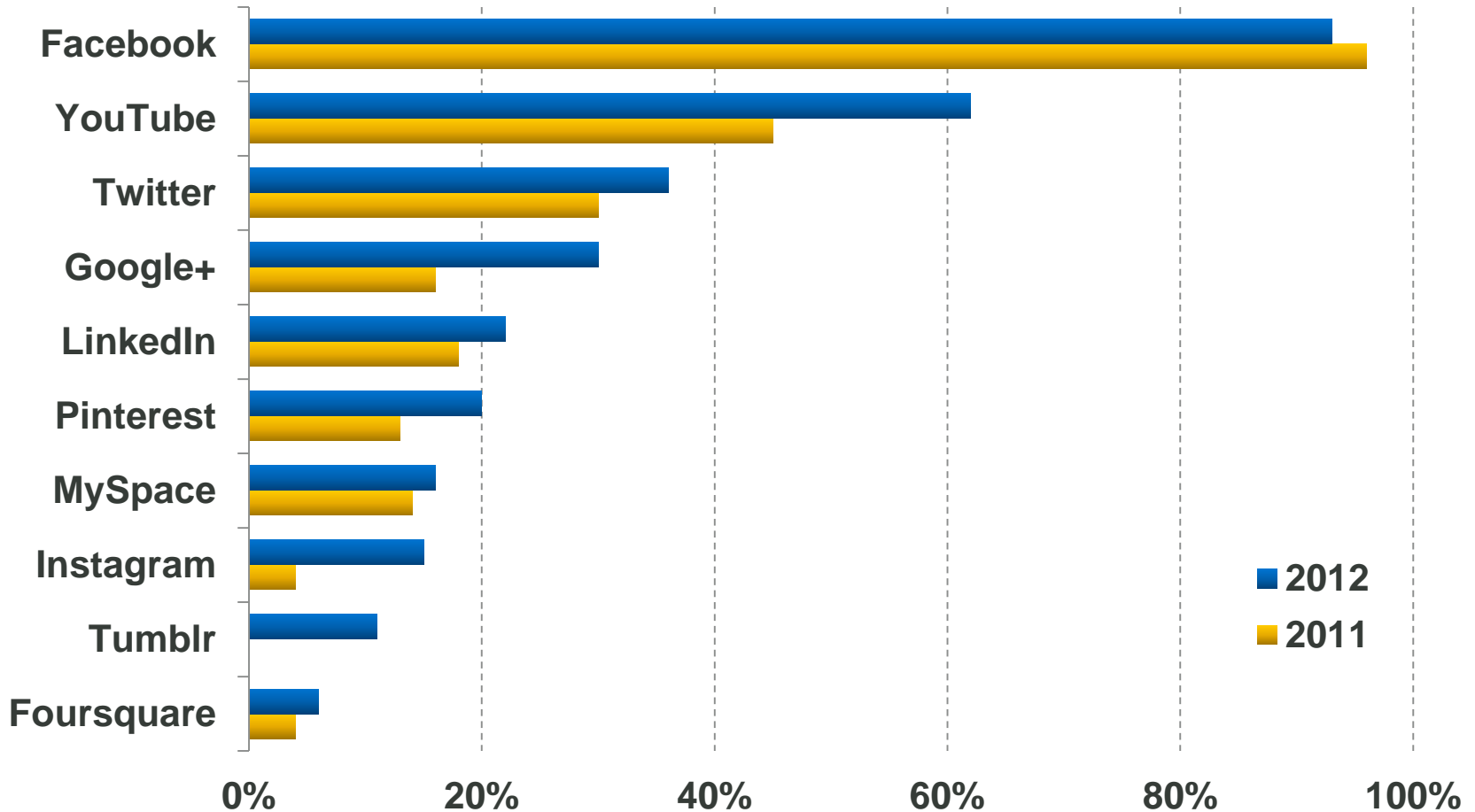
\*Smoking: 44%, Obesity & Inactivity 37%, Alcohol 9%, Other 10%.

Source: "We Can Do Better — Improving the Health of the American People" - The New England Journal of Medicine, 2007. 25

***Sharing...***

# Social Media – Facebook Leads, YouTube + Twitter + Google+ + Pinterest + Instagram + Tumblr Rising Fast

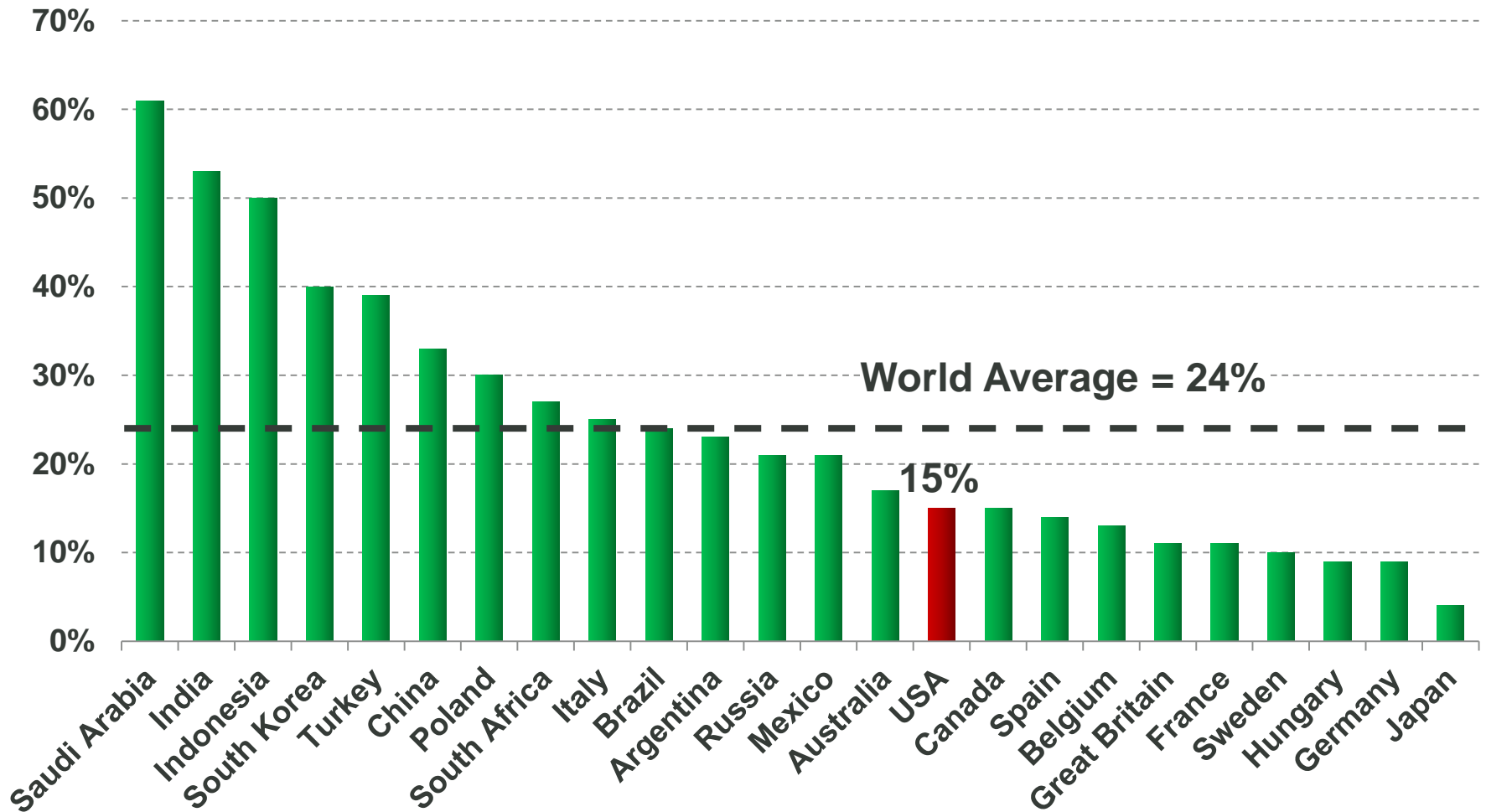
## Which of the Following Social Media Do You Use?



Source: Frank N. Magid Associates, "Facebook Fatigue - Fact or Fiction?", March 2013.  
Based on a study of 2K social media users aged 12-64 who were asked "Which of the Following Social Media Do You Use?"  
2011 Pinterest and Instagram data from 9/12 / 4/12.

# Americans = Sharing Underachievers...

% of Respondents Indicating They Share 'Everything' or 'Most Things' Online, 5/13\*



# Unprecedented Transparency in Time of Tremendous Global Uncertainty...

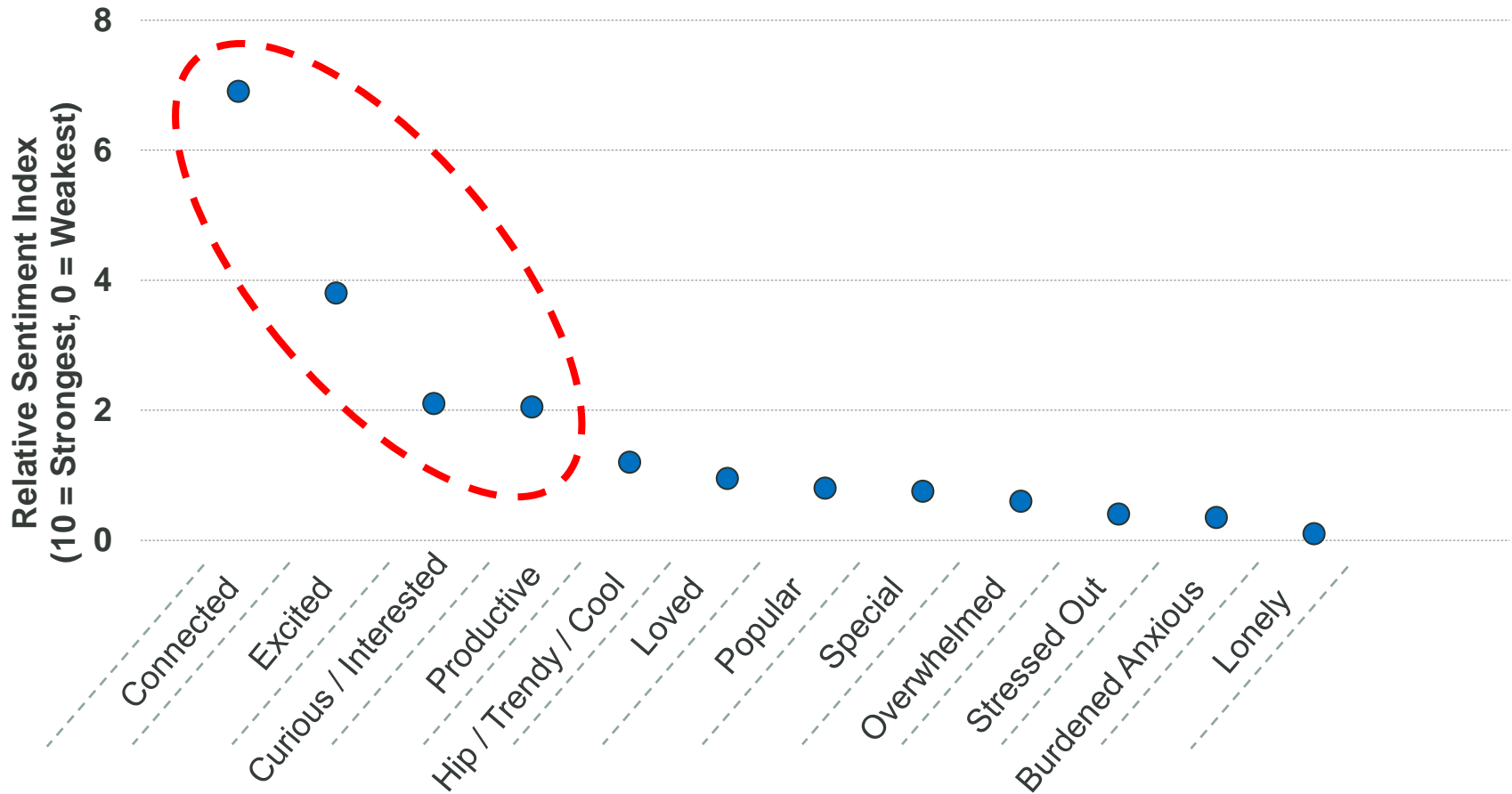
## Ramp in Always-On Connected Global Citizens

- 1.1B+ global active Facebook users...68% on mobiles...60% log in daily...with average 200+ friends... 350MM photos uploaded daily...\*
- It's hard to hide - 'truth' can be a photo or video / click—send away.
- 'Clean, well-lighted place to do business?' 'People are basically good?'
- Perhaps the world is on cusp of being safer than ever?
- There are lots of sacrifices. This is new terrain.
- Only time will tell how all this plays out...

# **MOBILE – AGGRESSIVE MOMENTUM**

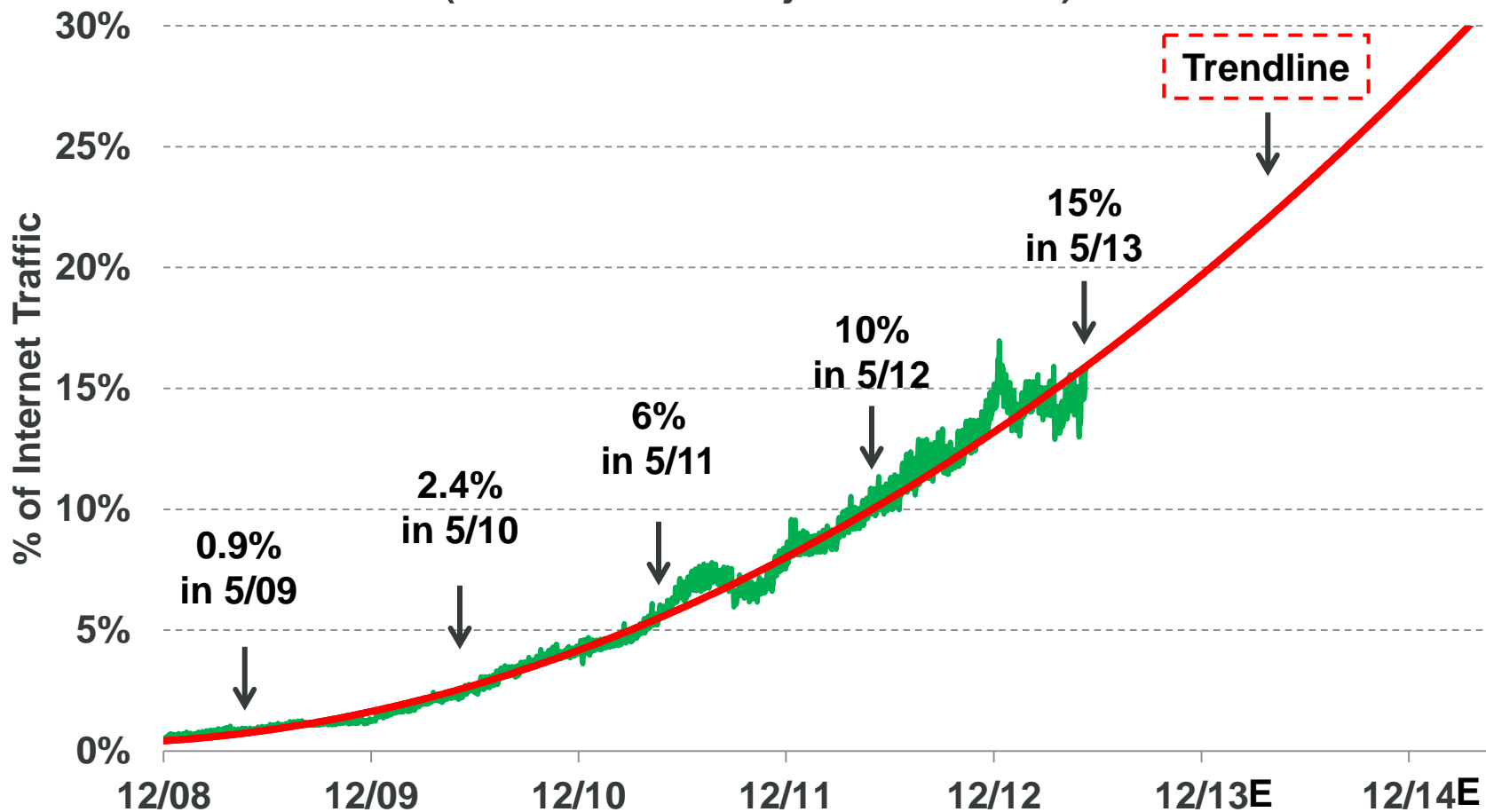
# Smartphones = Extraordinary Attributes - Connected + Excited + Curious / Interested + Productive

USA Smartphone User Relative Sentiment Index (10 = Strongest, 0 = Weakest), 3/13  
When Asked How Social and Communication Activities on Smartphones Made You Feel



# Mobile Traffic as % of Global Internet Traffic = Growing 1.5x per Year & Likely to Maintain Trajectory or Accelerate

Global Mobile Traffic as % of Total Internet Traffic, 12/08 – 5/13  
(with Trendline Projection to 5/15E)

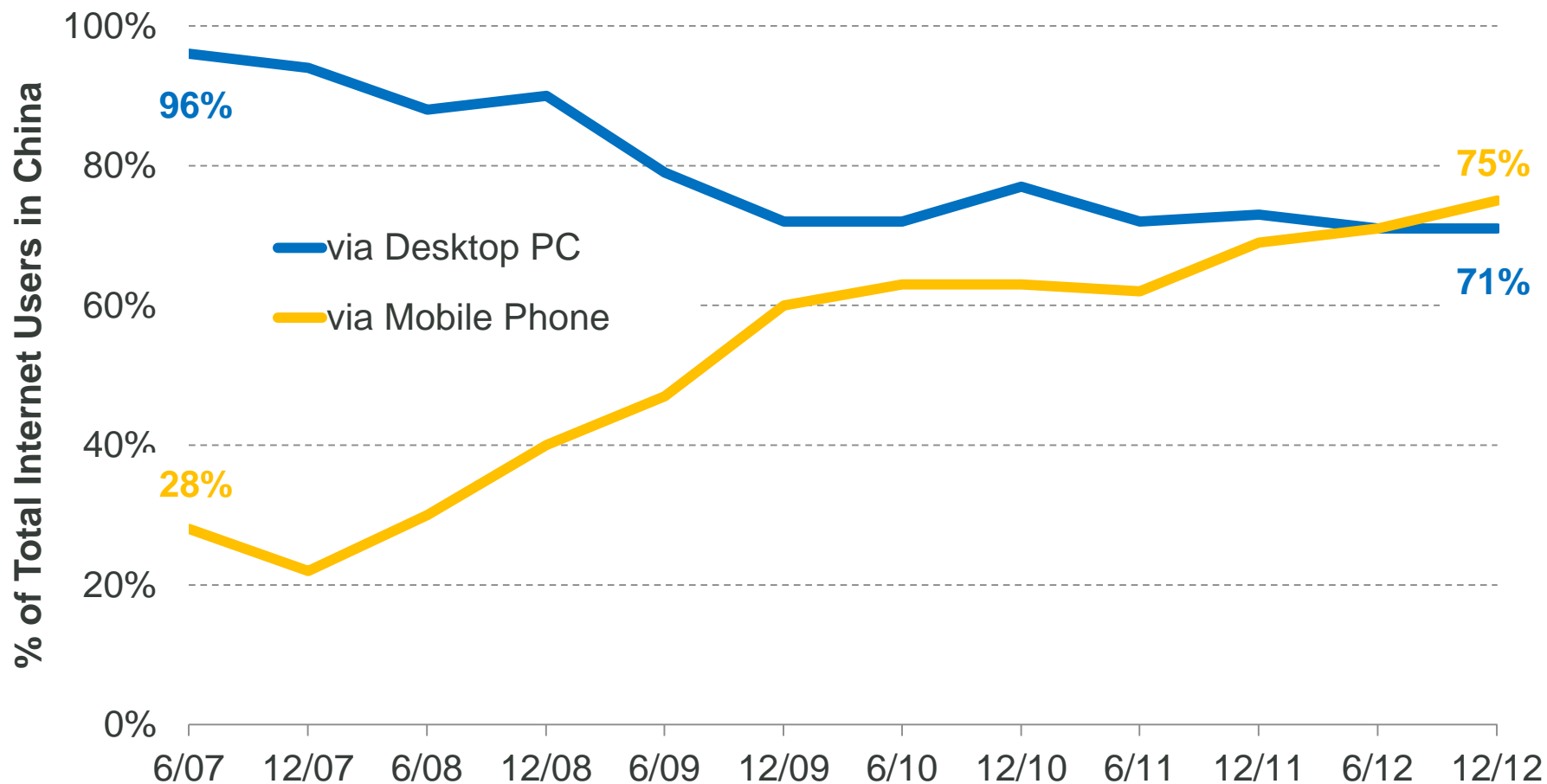




# China –

## Mobile Internet Access Surpassed PC, Q2:12

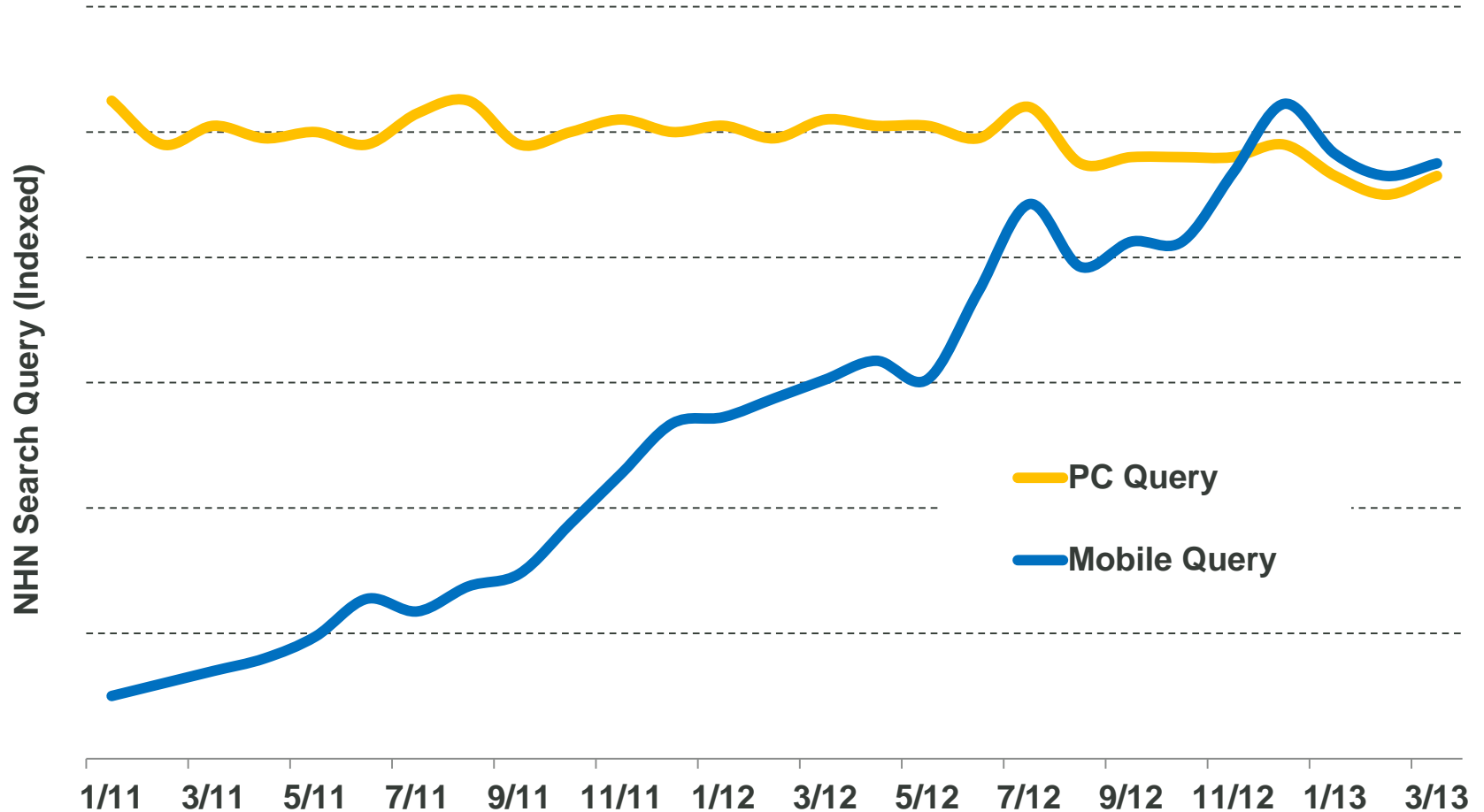
**% of Chinese Internet Users Accessing the Web via Desktop PCs vs. via Mobile Phones, 6/07 – 12/12**



# S. Korea –

## Mobile Search Queries Surpassed PC, Q4:12

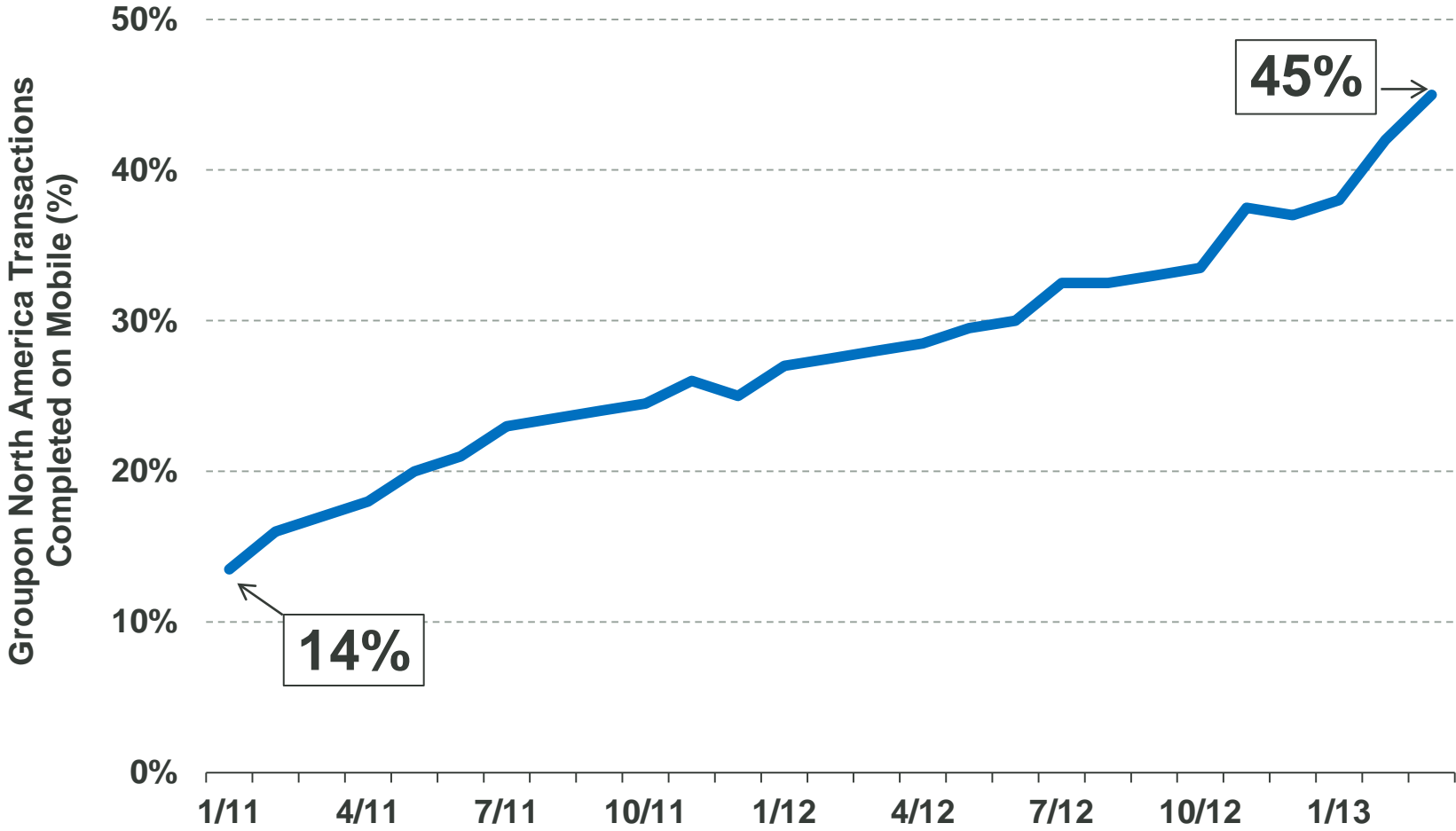
NHN Korea Search Query Trend (Indexed), PC vs. Mobile, 1/11 – 3/13



# Groupon N. America –

## 45% of Transactions on Mobile, Up from <15% Two Years Ago

**% of Groupon North America Transactions Completed on Mobile, 1/11 – 3/13**



# Facebook – Mobile Has Helped Drive Users & Revenue,

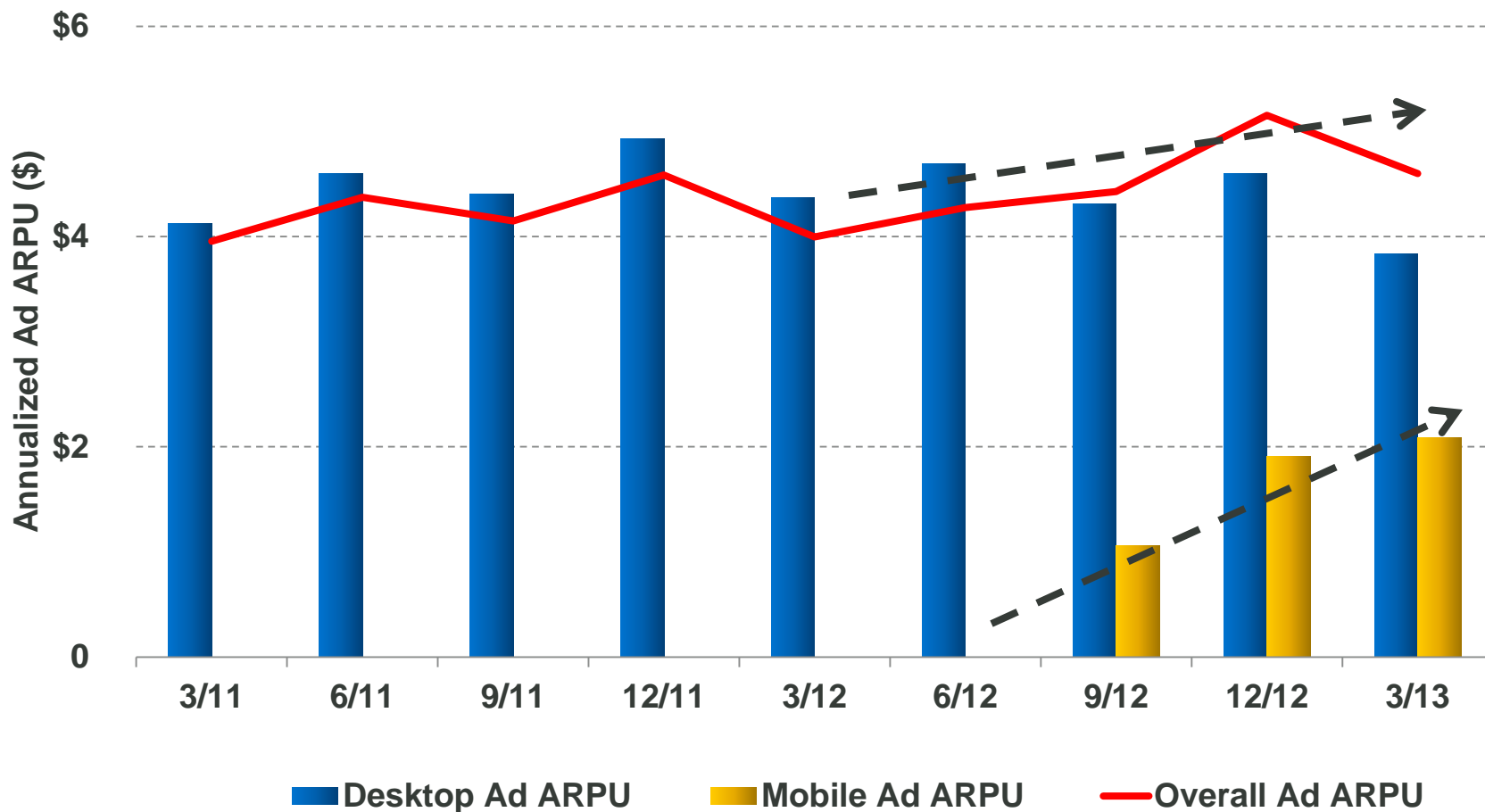
Q1 Growth = Revenue +43% Y/Y, Mobile Users +54% (to 68%), ARPU + 15%

	Q2:11	Q3:11	Q4:11	Q1:12	Q2:12	Q3:12	Q4:12	Q1:13
<b>Ad Revenue (\$MM)</b>	<b>\$776</b>	<b>\$798</b>	<b>\$943</b>	<b>\$872</b>	<b>\$992</b>	<b>\$1,086</b>	<b>\$1,329</b>	<b>\$1,245</b>
<i>Y/Y Growth</i>	83%	77%	44%	37%	28%	36%	41%	43%
<i>% from Mobile</i>	--	--	--	--	--	14%	23%	30%
<b>Mobile Active Users (MAUs) (MM)</b>	<b>325</b>	<b>376</b>	<b>432</b>	<b>488</b>	<b>543</b>	<b>604</b>	<b>680</b>	<b>751</b>
<i>Y/Y Growth</i>	110%	92%	76%	69%	67%	61%	57%	54%
<i>% of Total MAUs</i>	44%	47%	51%	54%	57%	60%	64%	68%
<b>Annualized Ad ARPU (\$)</b>	<b>\$4.37</b>	<b>\$4.15</b>	<b>\$4.59</b>	<b>\$4.00</b>	<b>\$4.28</b>	<b>\$4.43</b>	<b>\$5.15</b>	<b>\$4.60</b>
<i>Y/Y Growth</i>	18%	19%	1%	1%	(2%)	7%	12%	15%
<i>Q/Q Growth</i>	11%	(5%)	11%	(13%)	7%	4%	16%	(11%)

# Facebook =

## Rising Mobile ARPU Has Offset Declining Desktop ARPU, So Far

### Facebook Annualized Ad ARPU, Desktop vs. Mobile, 3/11-3/13



# COMPUTING – YET ANOTHER PLATFORM CHANGE...

***We Just Began to Figure Out  
Smartphones...***

# Smartphone Subscriber Growth = Remains Rapid

## 1.5B Subscribers, 31% Growth, 21% Penetration in 2013E

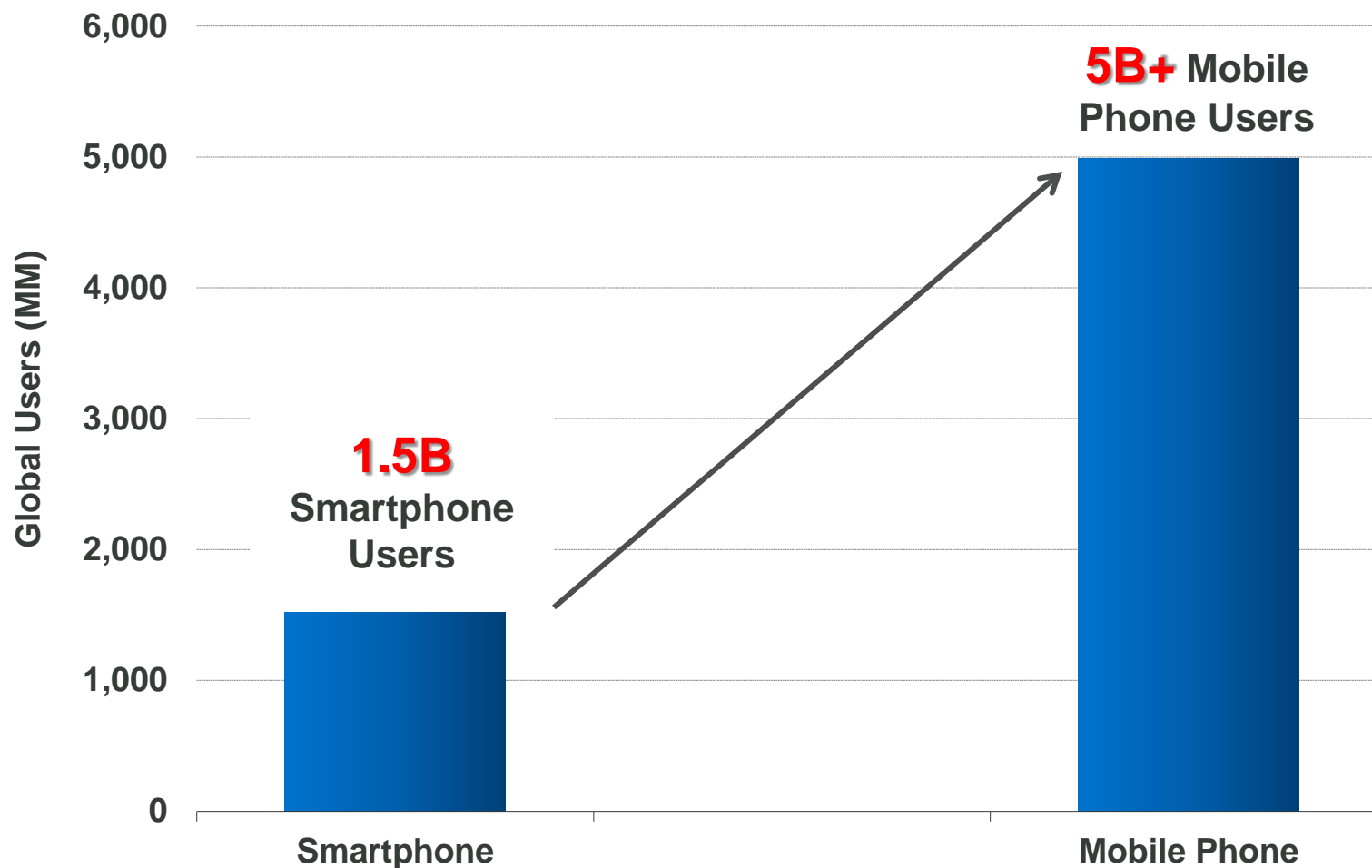
Rank	Country	2013E Smartphone Subs (MM)	Smartphone as % of Total Subs	Smartphone Sub Y/Y Growth	Rank	Country	2013E Smartphone Subs (MM)	Smartphone as % of Total Subs	Smartphone Sub Y/Y Growth
1	China	354	29%	31%	16	Spain	20	33%	14%
2	USA	219	58	28	17	Philippines	19	18	34
3	Japan*	94	76	15	18	Canada	19	63	21
4	Brazil	70	23	28	19	Thailand	18	21	30
5	India	67	6	52	20	Turkey	17	24	30
6	UK	43	53	22	21	Argentina	15	25	37
7	Korea	38	67	18	22	Malaysia	15	35	19
8	Indonesia	36	11	34	23	South Africa	14	20	26
9	France	33	46	27	24	Netherlands	12	58	27
10	Germany	32	29	29	25	Taiwan	12	37	60
11	Russia	30	12	38	26	Poland	11	20	25
12	Mexico	21	19	43	27	Iran	10	10	40
13	Saudi Arabia	21	38	36	28	Egypt	10	10	34
14	Italy	21	23	25	29	Sweden	9	60	16
15	Australia	20	60	27	30	Hong Kong	8	59	31

2013E Global Smartphone Stats:    Subscribers = 1,492MM    Penetration = 21%    Growth = 31%



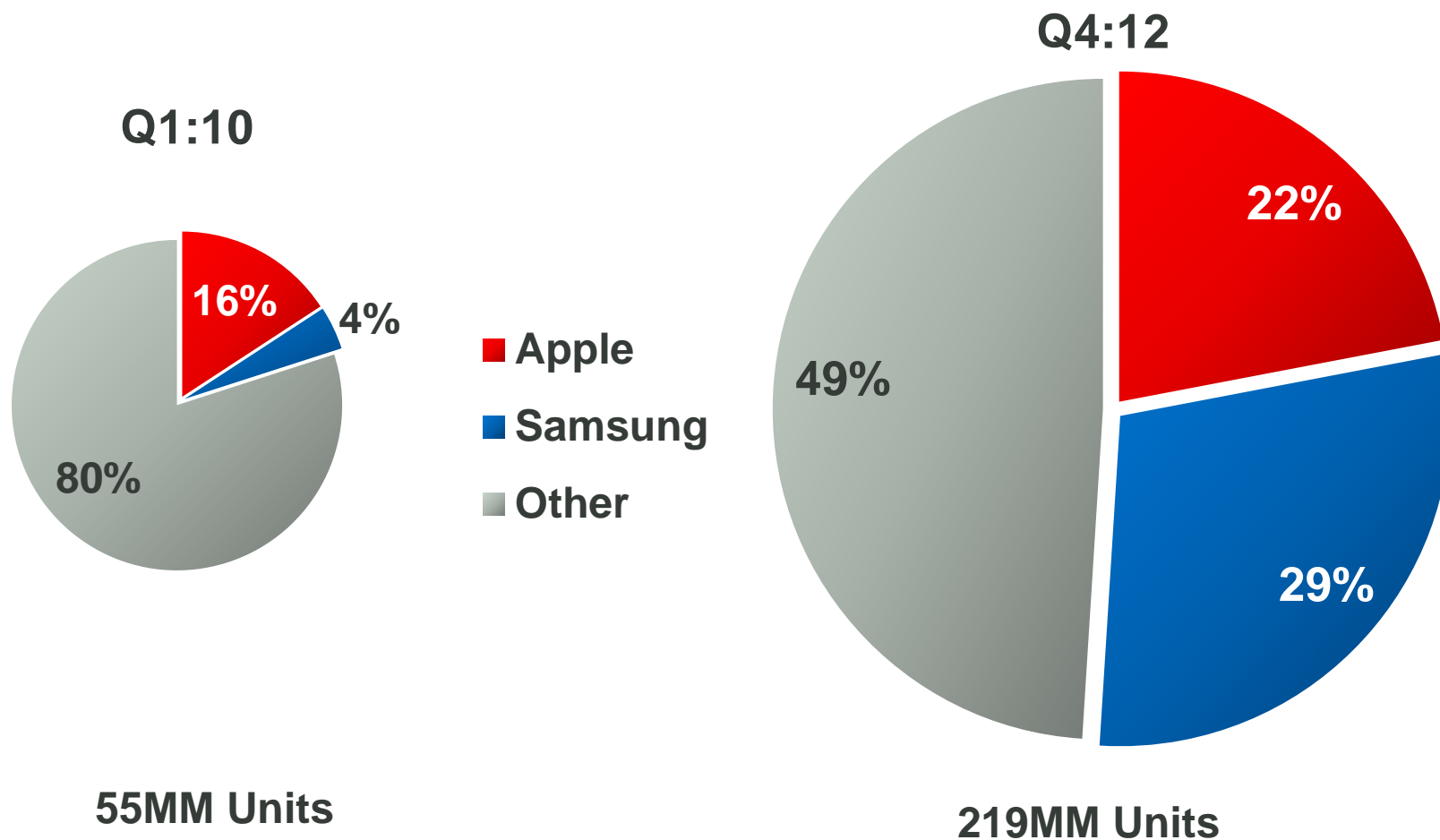
# Smartphone Usage = Still Early Stage With Tremendous (3-4x) Upside

Global Smartphone vs. Mobile Phone Users, 2013E



# Apple Growing Rapidly (1.4x Share Gain)... Samsung Up 7x Over ~2 Years

## Global Smartphone Unit Market Share

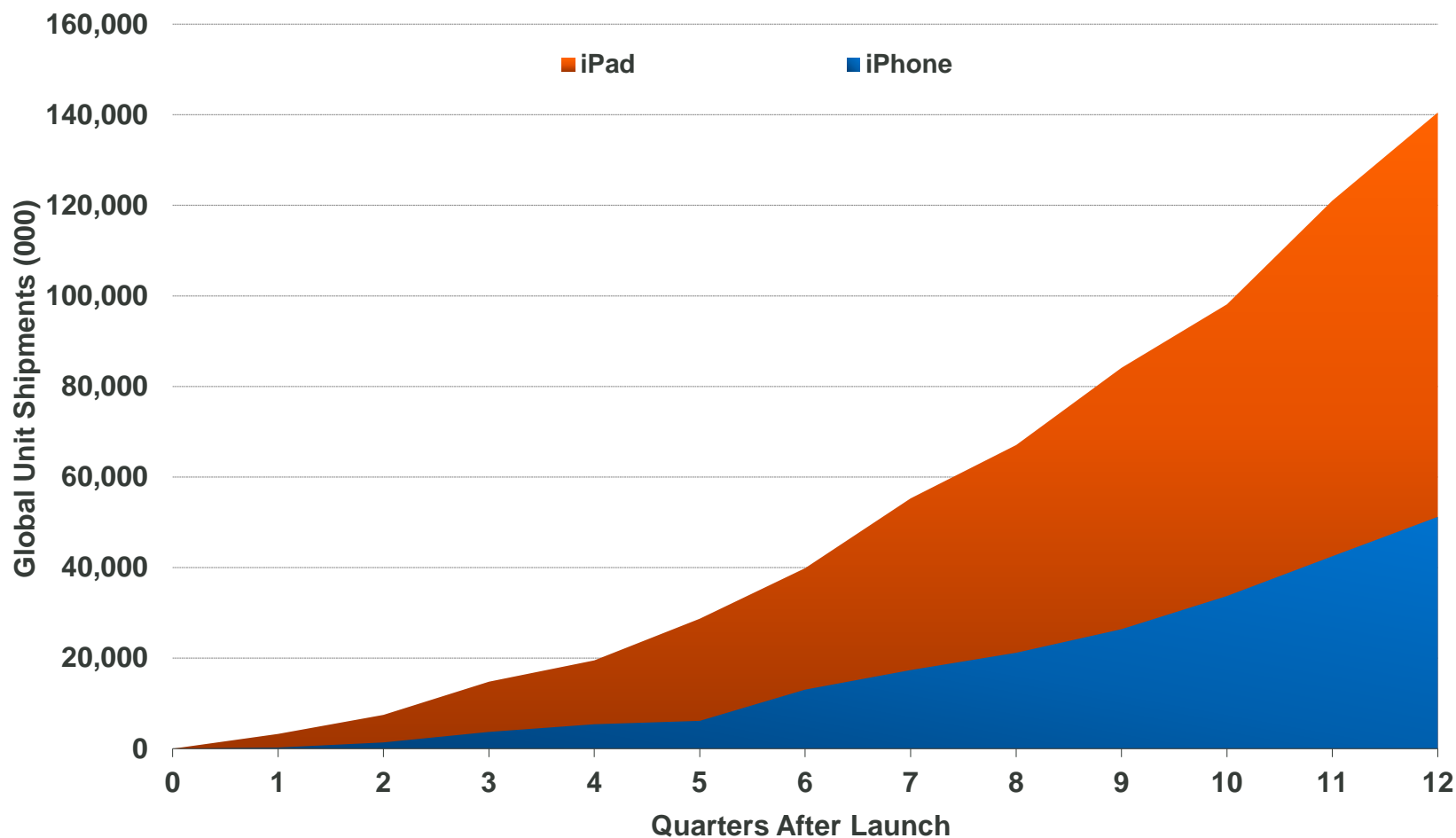


***...Then Along  
Came Tablets...***

# Tablet Growth =

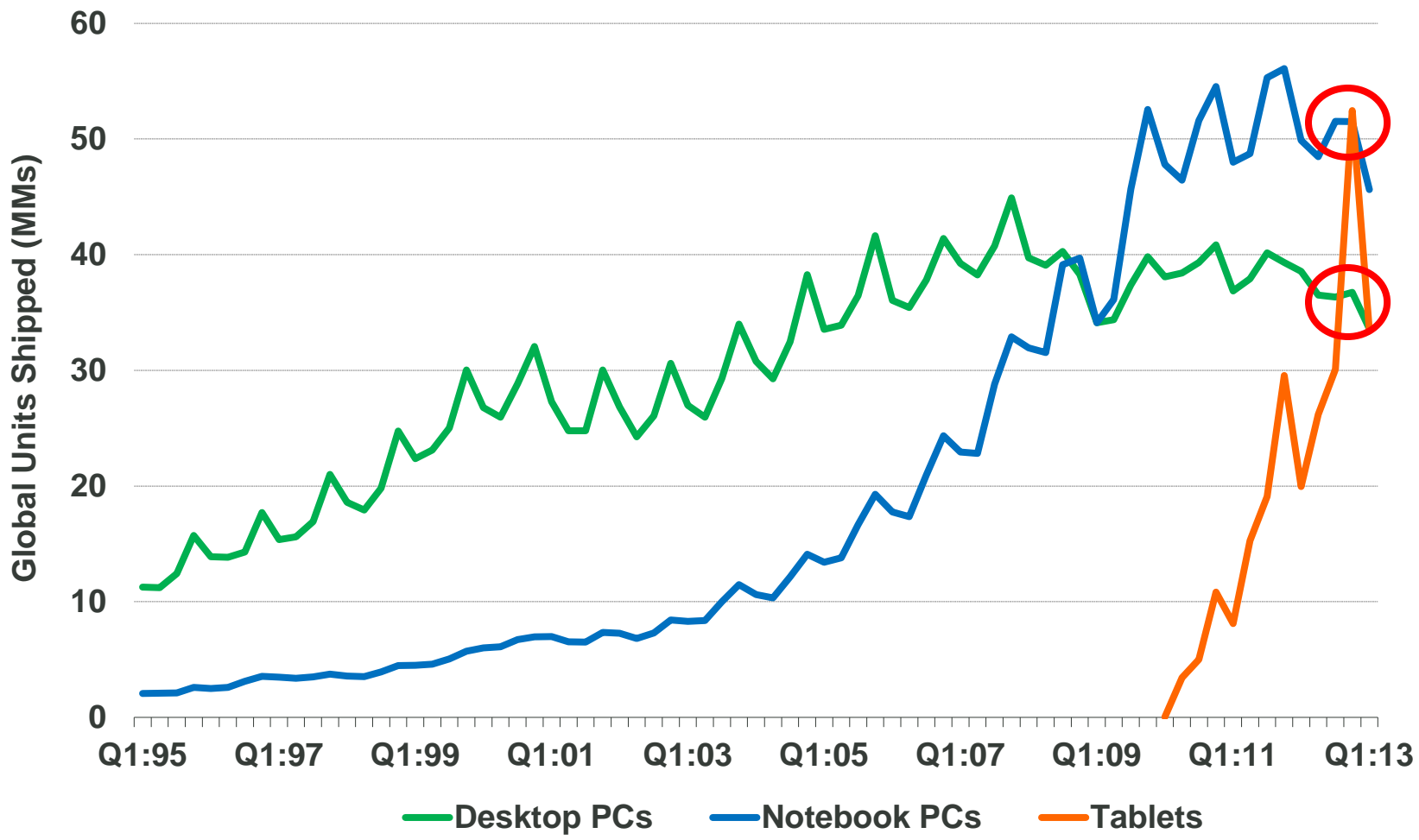
More Rapid than Smartphones, iPad = ~3x iPhone Growth

## First 12 Quarters Cumulative Unit Shipments, iPhone vs. iPad



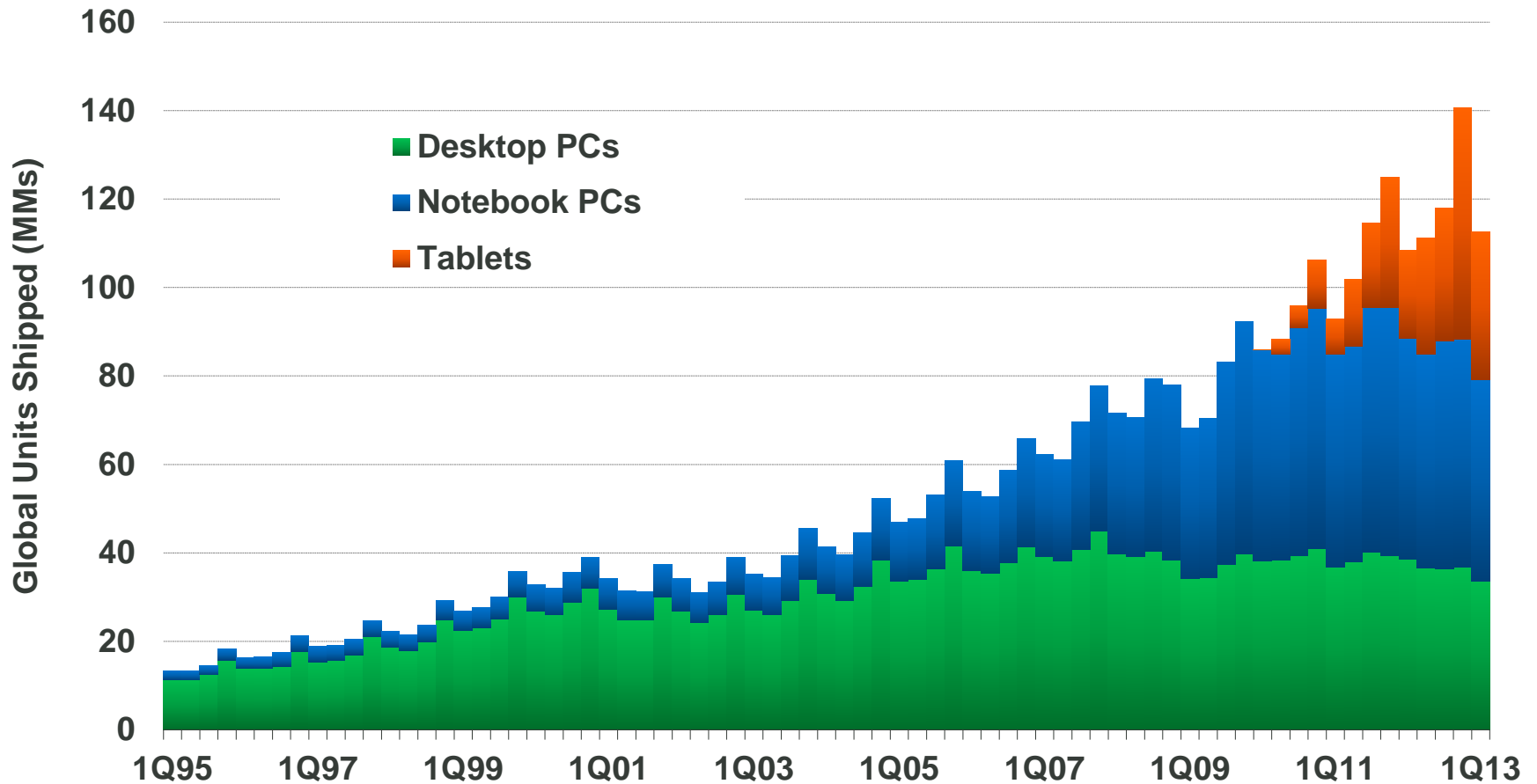
# Tablet Shipments = Surpassed Desktop PCs & Notebooks in Q4:12, < 3 Years from Intro

Global PC (Desktop / Notebook) and Tablet Shipments by Quarter  
Q1:95 – Q1:13



# Demand for Large-Screen Computing Devices is Robust, But Mix Favors Tablets, Not Notebooks & Desktops

## Global PC (Desktop / Notebook) and Tablet Shipments by Quarter Q1:1995 – Q1:2013



# Top Vendors Largely Same in Desktop & Notebook Cycles – Very Different in Tablet (& Smartphone) Cycles

**Desktop PC**  
Market Share  
**2000**

	% Share
<b>Compaq</b>	<b>13%</b>
<b>Dell</b>	<b>11%</b>
<b>HP</b>	<b>8%</b>
<b>IBM</b>	<b>7%</b>
<b>NEC</b>	<b>4%</b>
<b>Others</b>	<b>57%</b>

**Notebook PC**  
Market Share  
**2010**

	% Share
<b>HP</b>	<b>19%</b>
<b>Acer</b>	<b>17%</b>
<b>Dell</b>	<b>12%</b>
<b>Lenovo</b>	<b>10%</b>
<b>ASUS</b>	<b>8%</b>
<b>Others</b>	<b>34%</b>

**Tablet**  
Market Share  
**2012**

	% Share
<b>Apple</b>	<b>51%</b>
<b>Samsung</b>	<b>13%</b>
<b>Amazon</b>	<b>8%</b>
<b>ASUS</b>	<b>5%</b>
<b>Lenovo</b>	<b>1%</b>
<b>Others</b>	<b>20%</b>

**Smartphone**  
Market Share  
**2012**

	% Share
<b>Samsung</b>	<b>30%</b>
<b>Apple</b>	<b>19%</b>
<b>Sony</b>	<b>5%</b>
<b>ZTE</b>	<b>5%</b>
<b>BlackBerry</b>	<b>5%</b>
<b>Others</b>	<b>37%</b>

# An Unusual Pattern...

## *In Two Computing Cycles...*

- 1) Smartphones*
- 2) Tablets*

## *...Entering a Third Cycle...*

- 3) Wearables / Drivables /  
Flyables / Scannables*



# Technology Cycles – Still Early Cycle on Smartphones + Tablets, Now Wearables Coming on Strong, Faster than Typical 10-Year Cycle

## Technology Cycles Have Tended to Last Ten Years

*Mainframe  
Computing*  
1960s



*Mini  
Computing*  
1970s



*Personal  
Computing*  
1980s



*Desktop Internet  
Computing*  
1990s



*Mobile Internet  
Computing*  
2000s



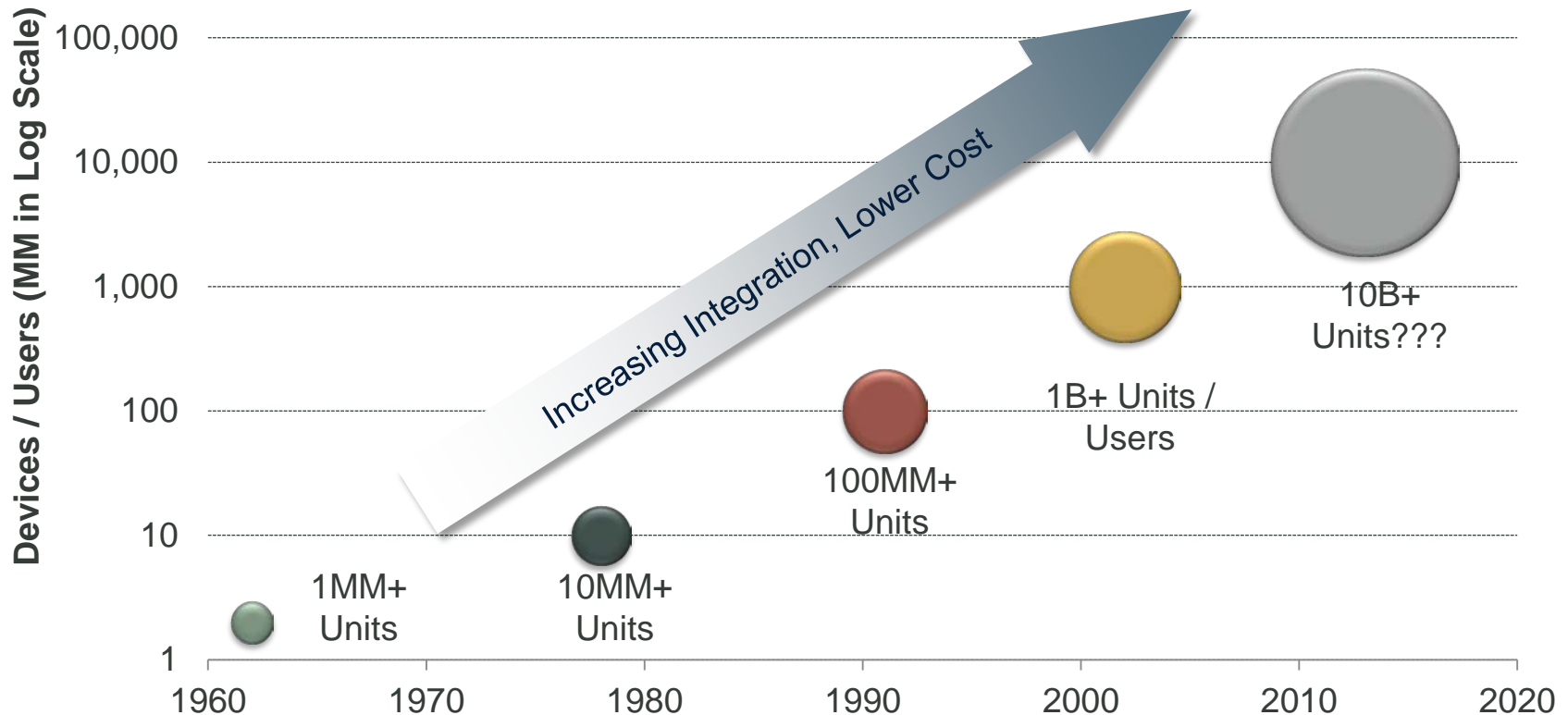
*Wearable /  
Everywhere  
Computing*  
2014+



Others?

# New Major Technology Cycles = Often Support 10x More Users & Devices, Driven by Lower Price + Improved Functionality

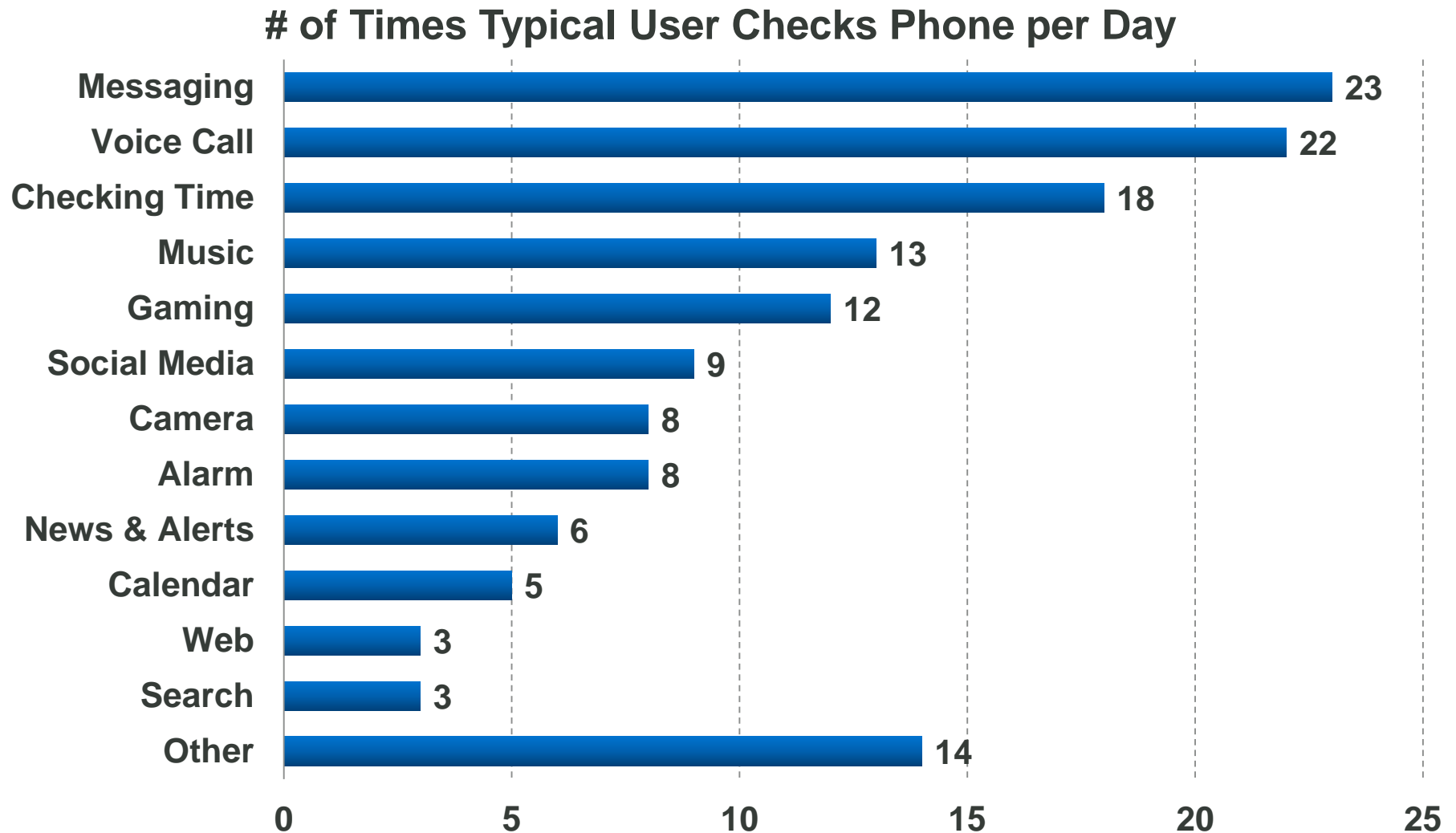
## Computing Growth Drivers Over Time, 1960 – 2020E



Note: PC installed base reached 100MM in 1993, cellphone / Internet users reached 1B in 2002 / 2005 respectively;  
Source: ITU, Morgan Stanley Research.

***...Wearables  
(with Sensors)...***

# Mobile Users Reach to Phone ~150x a Day... Could be Hands-Free with Wearables



Source: TomiAhonen Almanac 2013, [LINK](#). 'Other' includes voicemail, charging and miscellaneous activities. We cross-checked Tomi's analysis to gain context.

Our references include: 1) Motorola Mobility / Google (consumers interact with their phones more than 100x per day, mid-2012); 2) Leading 3G Carrier with Operations in Europe & Asia (smartphone users interact with mobiles ~150x per day); 3) IDC (51 blended average of social sessions per smartphone user per day in USA, 3/13...excluded services like checking time, alarm and calendar events, web browsing, gaming, using camera, listening to music, searching, using maps, charging and other activities that require checking the phone) and 4) other third parties, including app providers.

# Sensor-Enabled Wearable Attributes



# Some People Laugh at Wearables...

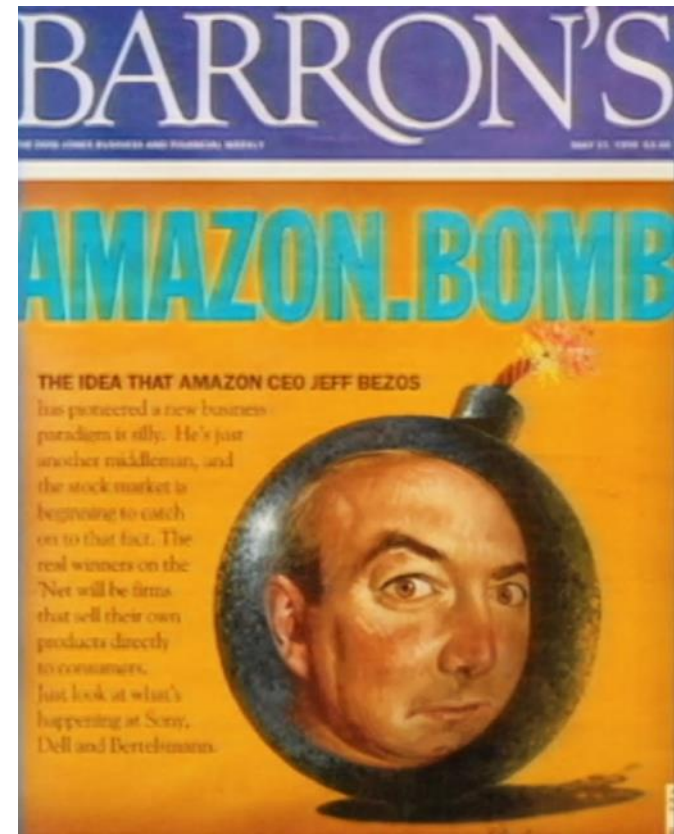
And 'SNL' Does Rule... ;)



# ...Some People Laughed at PC & Internet

***There is no reason  
anyone would want a  
computer in their home.***

- Ken Olsen  
(Founder)  
Digital Equipment  
1977



**May 1999**

***...Drivables...***

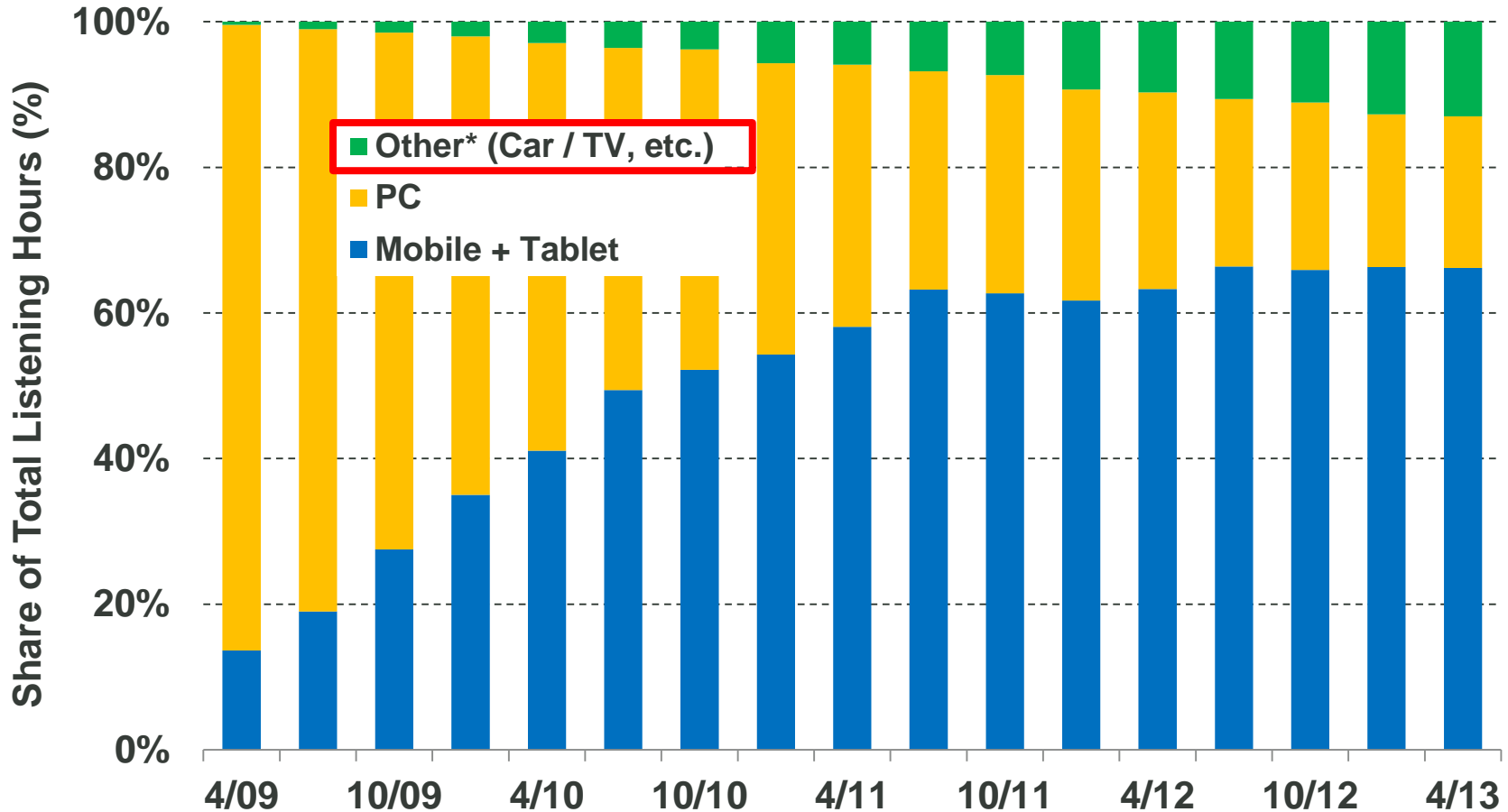


# A Car or a Computer on Four Wheels?



# Pandora Usage – Car / TV / Appliance Usage (~13% Now) to Likely Surpass PC (21%) Usage in 2 Years

Share of Pandora Quarterly Listening Hours, PC vs. Mobile + Tablet vs. Other\*, 4/09 – 4/13\*\*



***...Flyables...***

# It's a Bird, It's a Plane, It's a Mini-Drone...

## *Use Cases of Low-Cost Drones*

### **Agriculture**

**GPS-Enabled Photos Help Pinpoint Potential Crop Damage Early On**



### **Sports / Entertainment**

**Unique Angle of View Provides Insights for Training + Broadcast Audience**



### **Public Safety / Disaster Relief\***

**Providing Aerial Video Coverage / First-Aid / Other Supplies in Challenging Conditions**

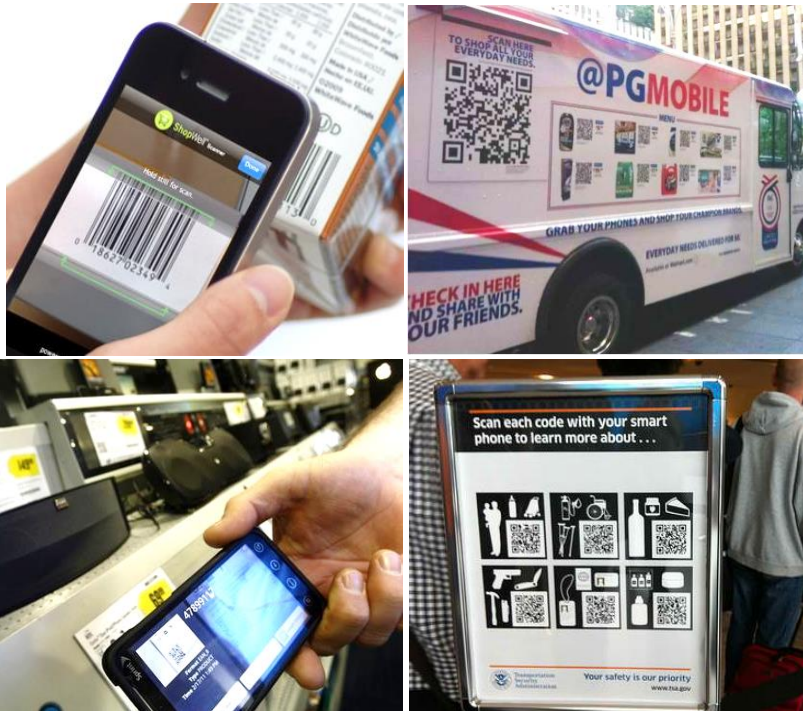


# ***Scannables – Codes / Tags + Cameras / Sensors***

# QR Codes = Scan & Be Scanned to Get Stuff...

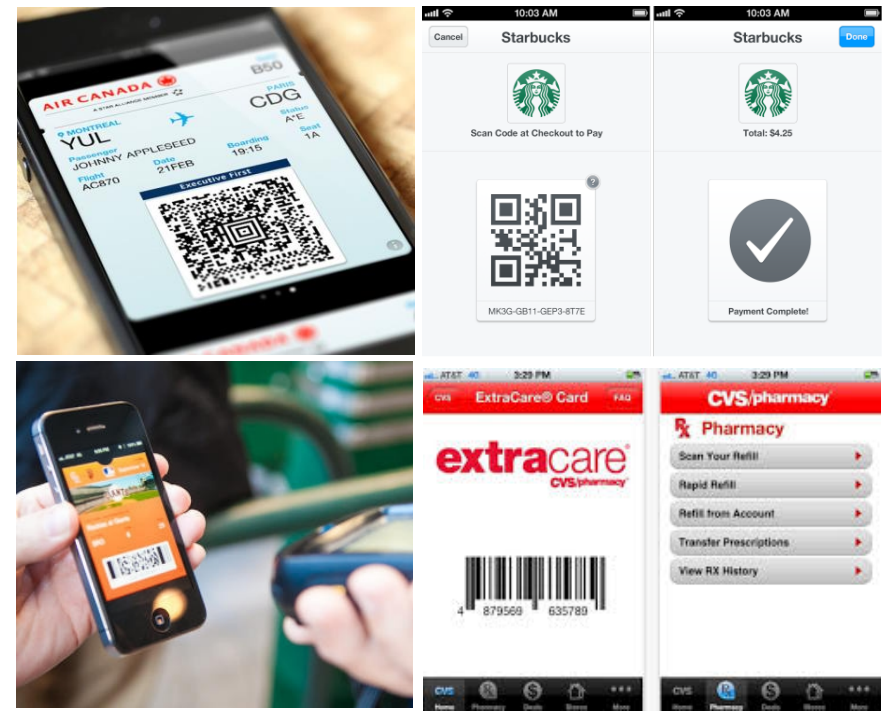
## SCAN

Quick Scan w/ Smartphone  
For Info on Nutrition / Product /  
Price...

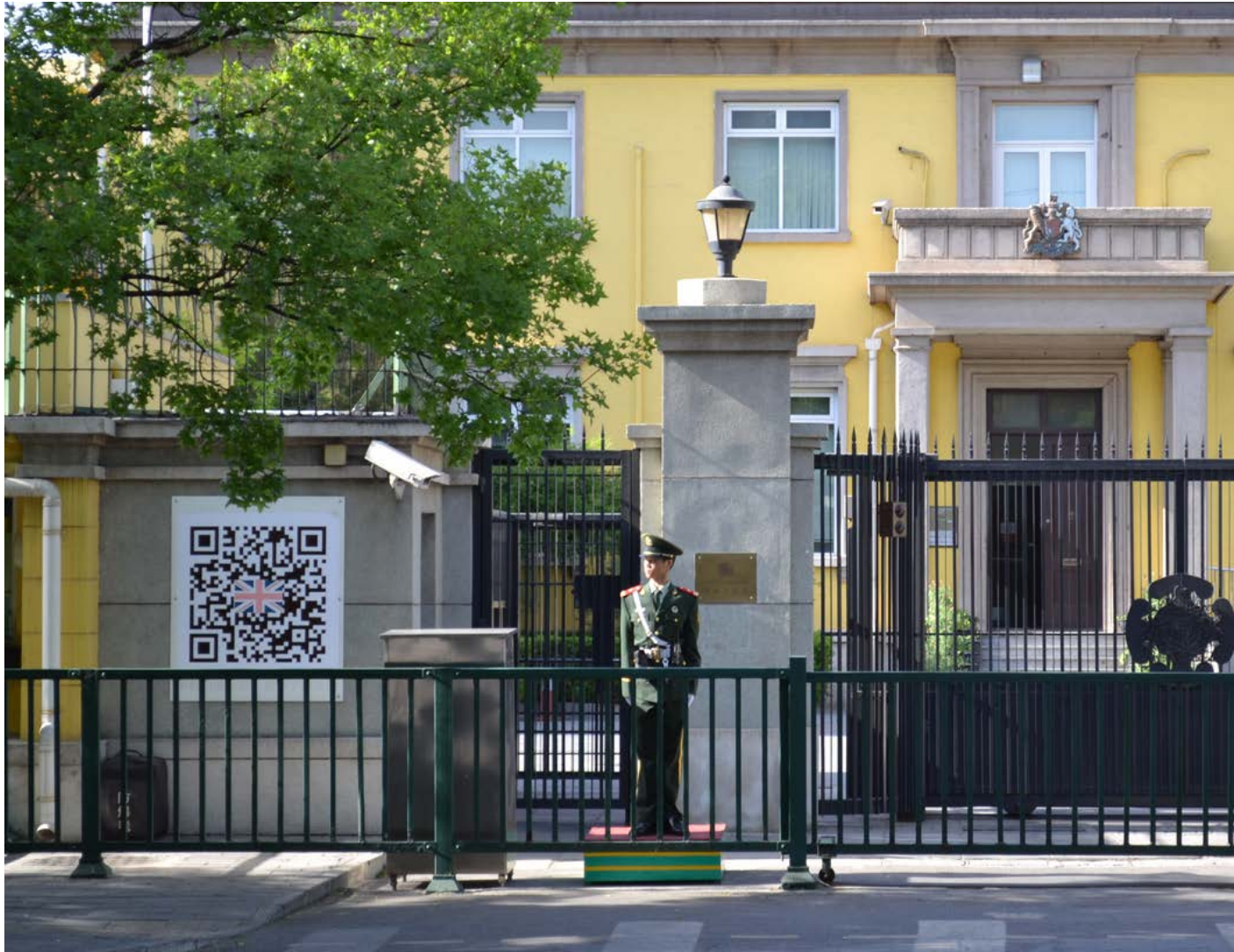


## BE SCANNED

Smartphone-Generated Codes  
For Boarding Pass / Ticket /  
Payment / Rewards...

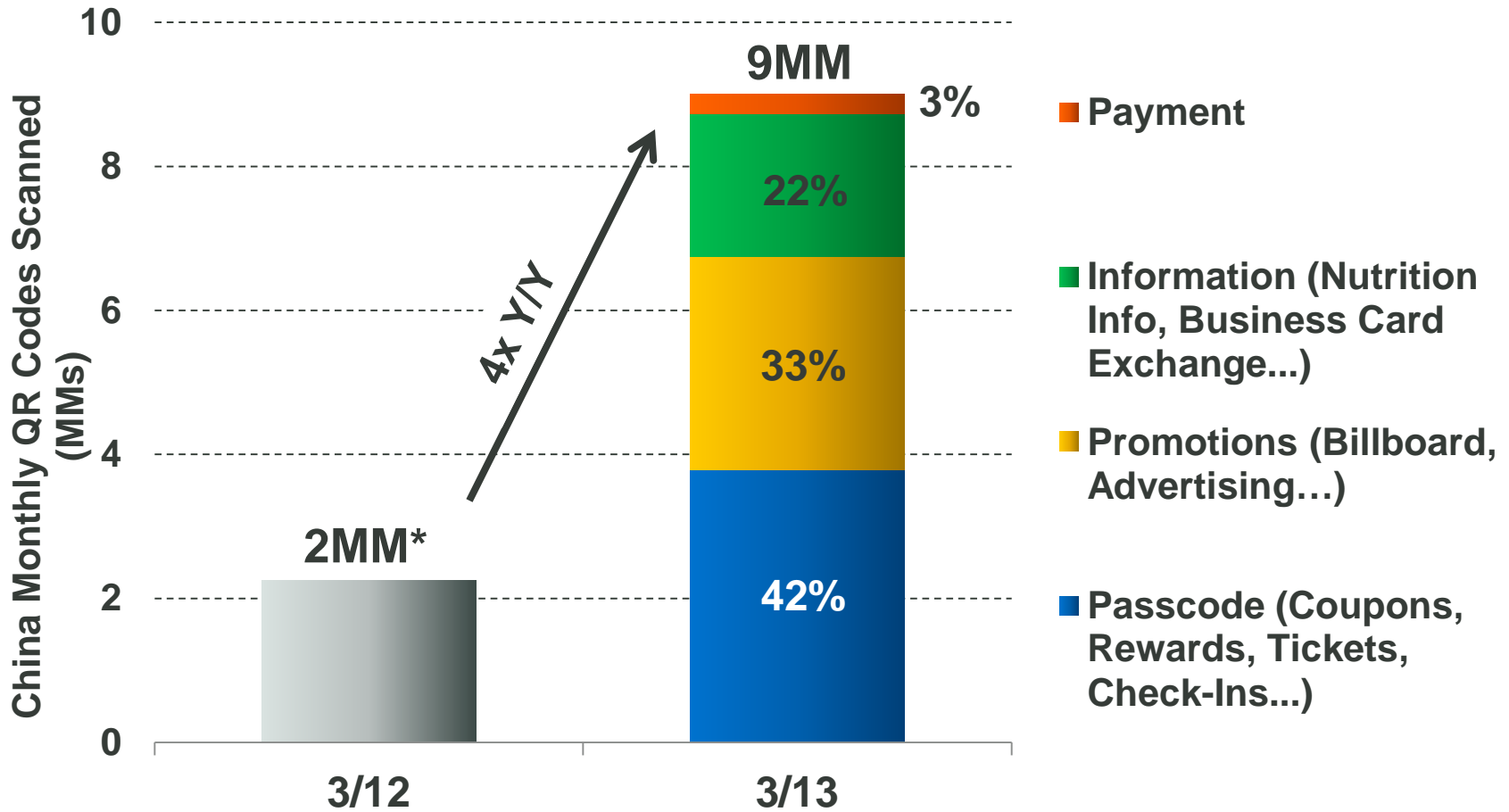


# China - Follow UK Embassy Weibo Account by Scanning QR Code Outside Embassy in Beijing



# QR Code Scanning = Up 4x Y/Y in China, Offline Businesses Driving Online Connections

## China Monthly QR Codes Scanned by Use Case, 3/12 vs. 3/13





# Tencent WeChat (400MM+ Users, +4X Y/Y, China) – Mobile Communication + Local Commerce via QR Codes

## Consumers...



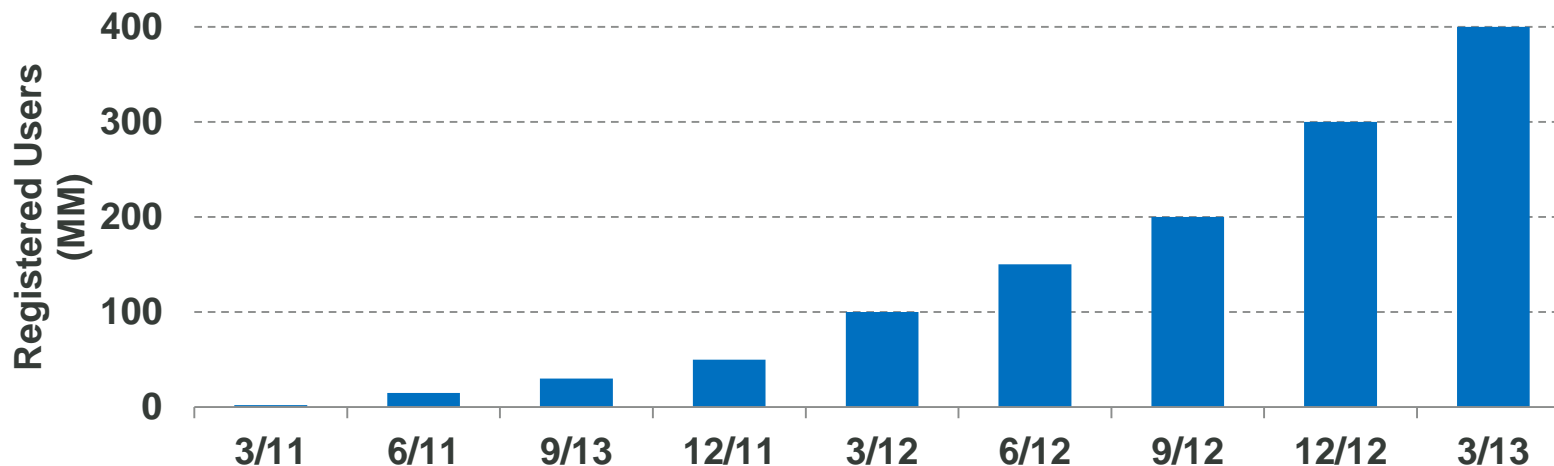
In addition to connecting w/ friends via voice / text / pictures, WeChat users can scan QR codes of merchants to stay connected and enroll in rewards programs + receive coupons.

## Businesses...



Use QR code + communication functions to manage customer acquisition and relationships. SMBs can send offers / take online orders, provide customer support via WeChat.

Tencent WeChat Registered Users, 3/11-3/13

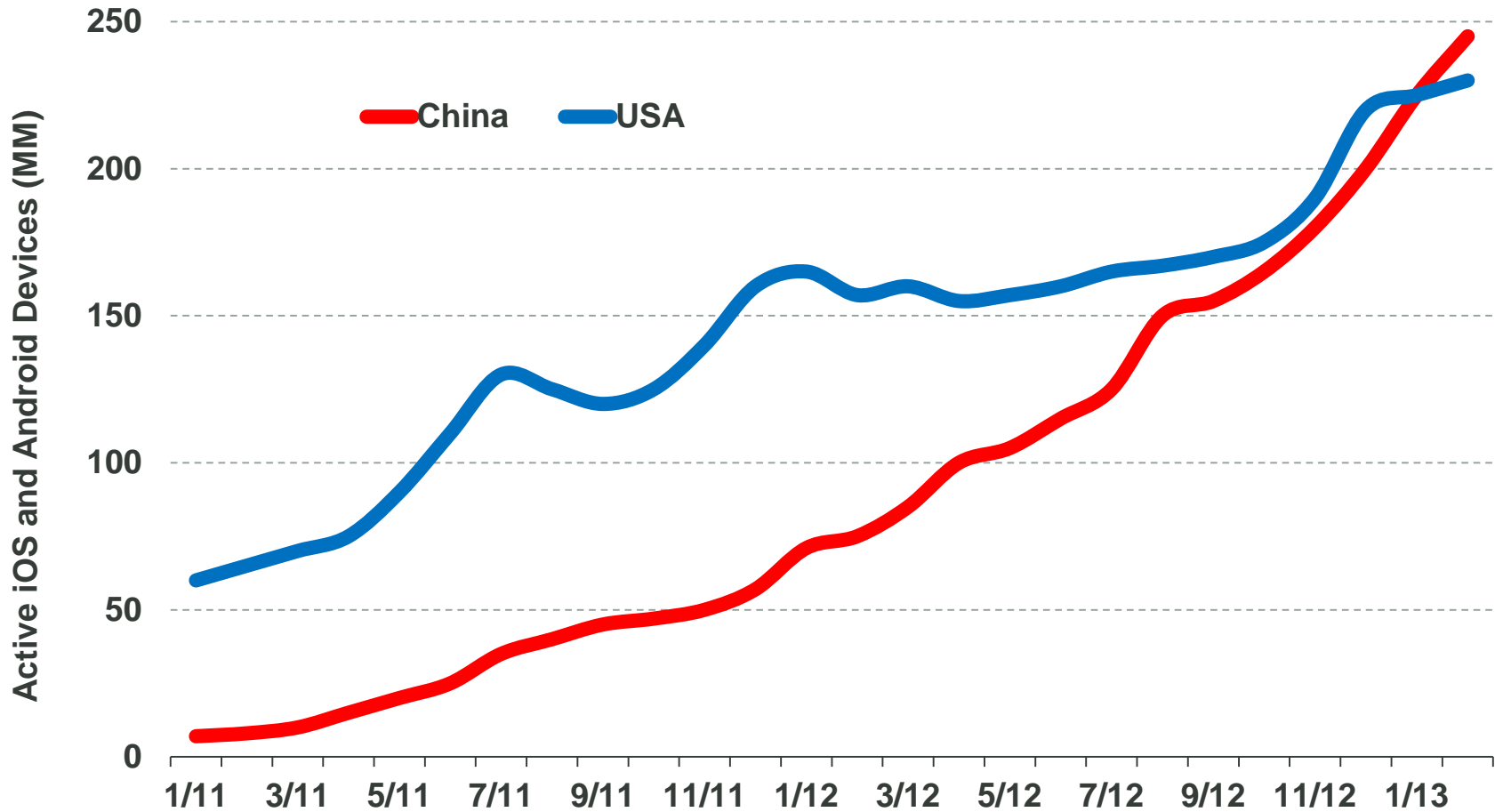


# LOTS TO LEARN FROM CHINA – VOLUME + INNOVATION

# China –

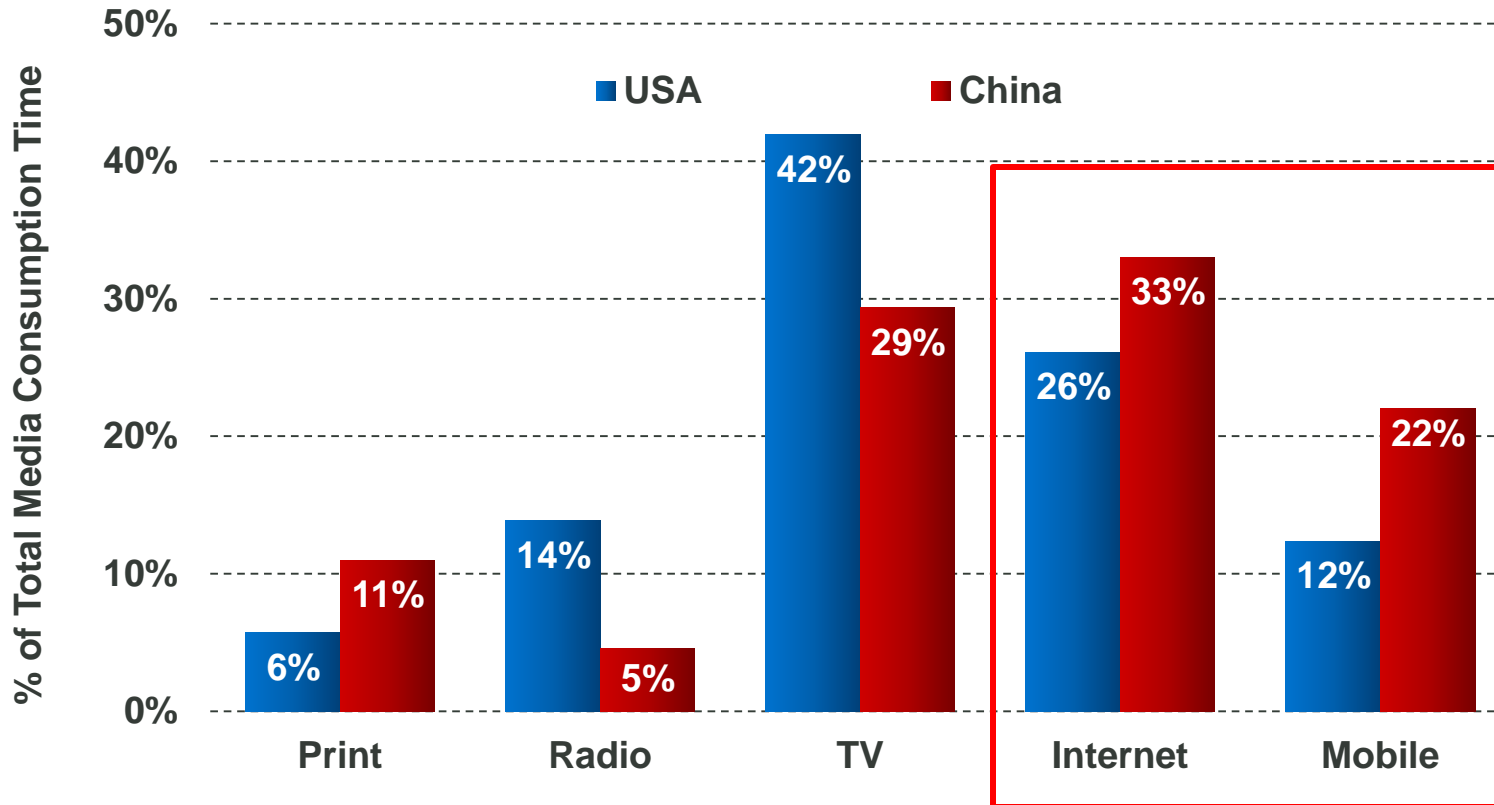
## iOS + Android Users Surpassed USA, Q1:13

Active iOS and Android Devices, USA vs. China (MM),  
1/11 – 2/13



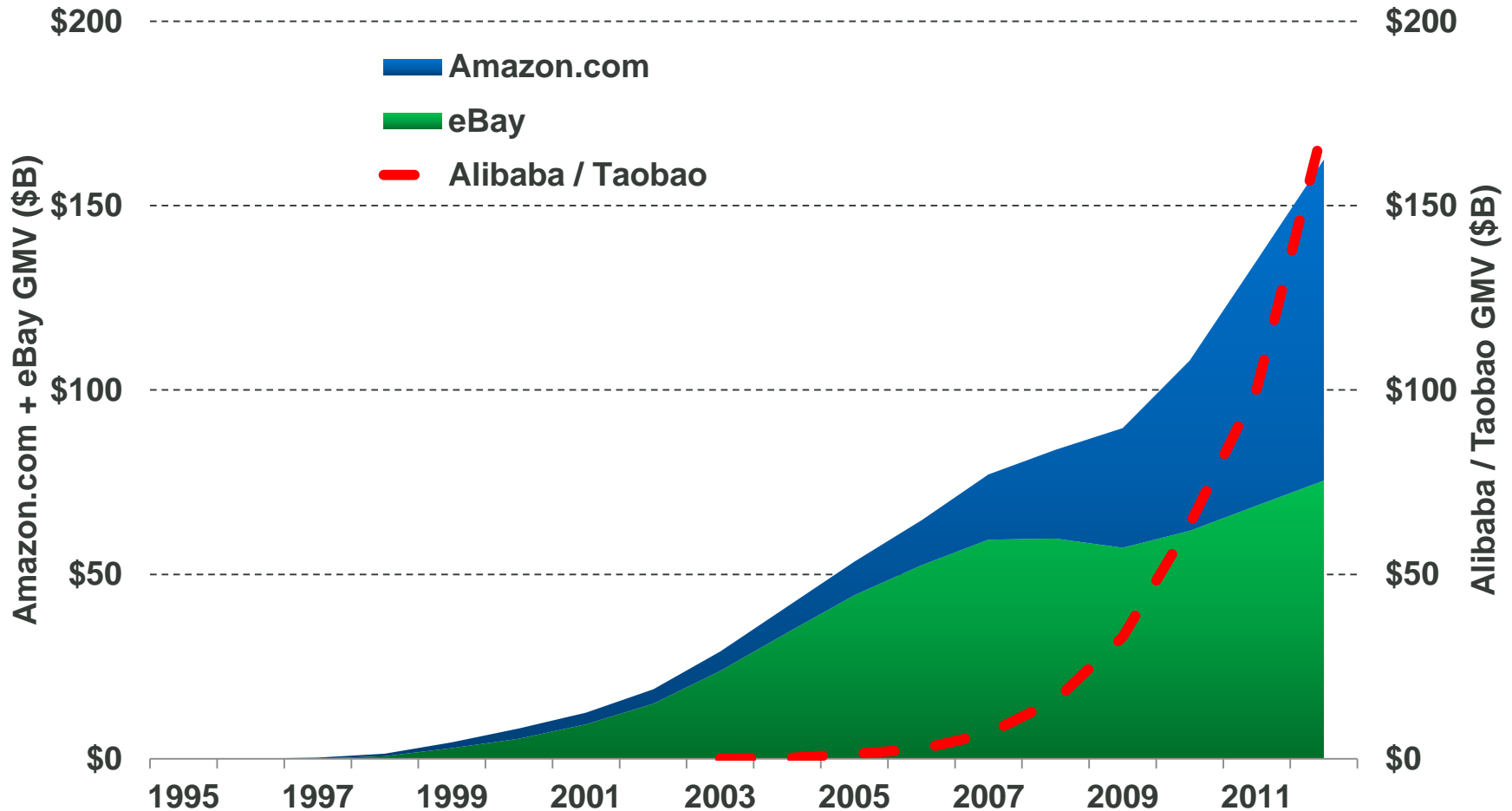
# China Leads USA in Mobile + Internet Time Spent vs. TV = China @ 55% vs. 38% in USA

## % of Time Spent in Media, USA vs. China, 2012



# Alibaba – Gross Merchandise Volume Surpassed Amazon.com + eBay, Q4:12

Gross Merchandise Value, 1995 – 2012  
Amazon.com + eBay vs. Alibaba / Taobao



# JD.com (360buy) – Same Day Delivery with Real-Time Item Tracking on Map / Mobile...Often on Bicycle

Free\* Same-Day Delivery in 25+ Cities in China / Customer Can Track Package Location on Map / Mobile Devices and Contact Delivery Person in Real Time



# Taxi Apps\* – China – Push to Talk to Driver / Bid Extra to Increase Chance of Getting Car on Your Terms

## Push to Talk

Say current location and where you're going. Your voice message will be delivered instantly to all nearby available taxis



## Bid to Win

Increase your chance of hailing a cab during peak hours by offering extras tips up front (in addition to regular fare)



## Real Time Tracking

View your taxi's location in real-time, push to talk to the driver directly to coordinate pick-up



# Sina Weibo – 530MM+ Users (+2x Y/Y) Help Push For Social Change...\$100MM Revenue Run Rate, Up From \$0 Y/Y

## Notable Events / Movements Helped by Sina Weibo

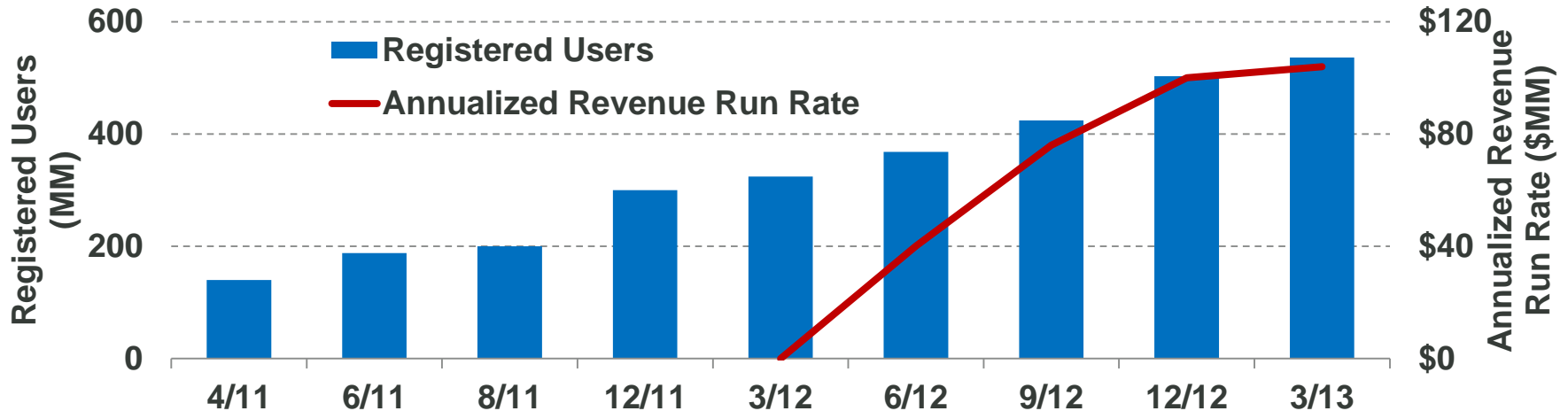


**Beijing Air Quality Campaign** – Sina Weibo users' UGC photos / polls / reposts / suggestions helped drive government adoption of daily monitoring of air quality



**Real-Time Self-Organized Emergency Relief** – Through Weibo, volunteers coordinated to pick up stranded travelers at Beijing airport during torrential downpour in 7/12

Sina Weibo Registered Users & Annualized Revenue Run Rate, 4/11-3/13

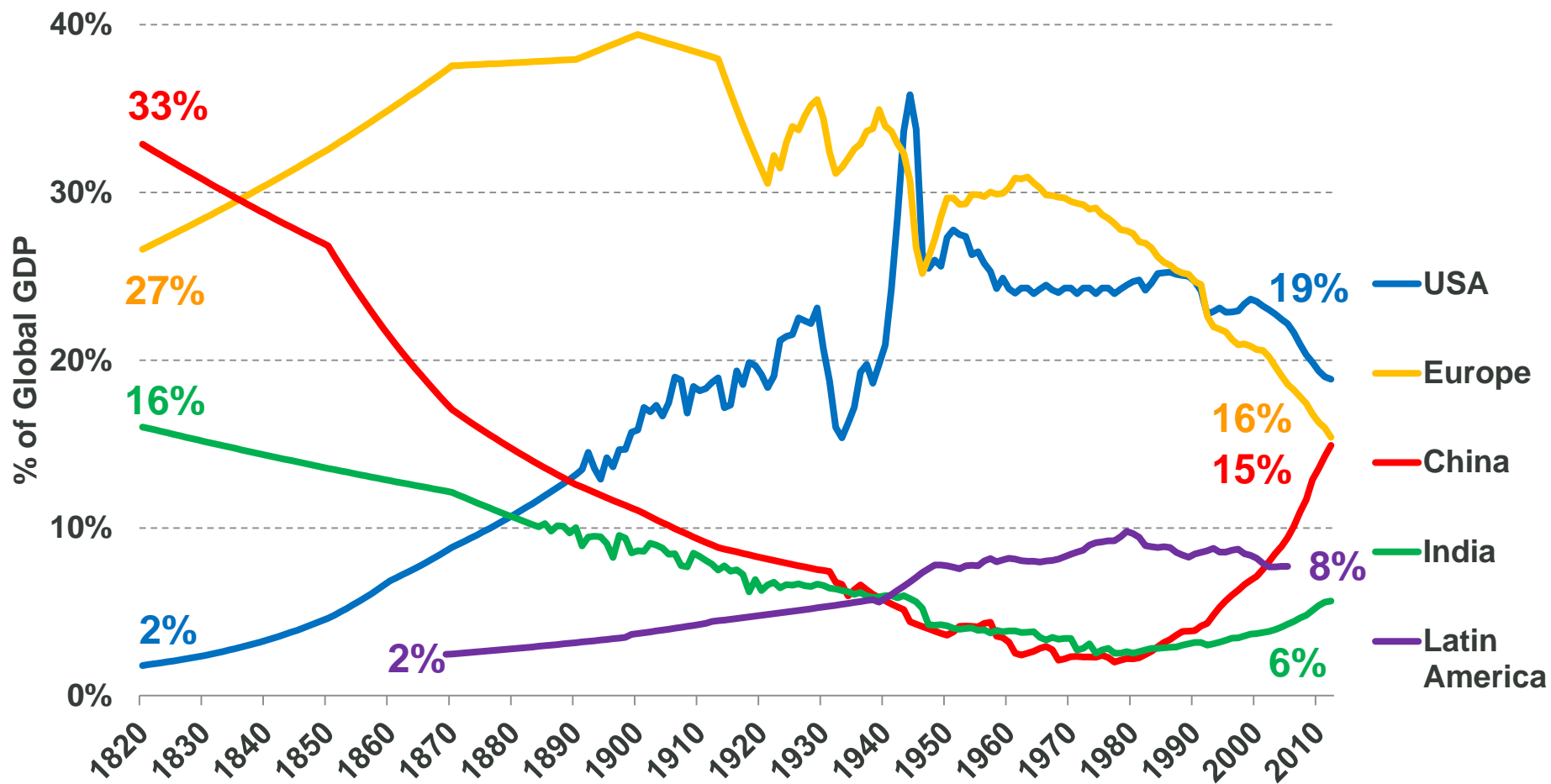




# GDP =

## China Share Gains vs. Europe & USA are Epic

### Percent of Global GDP, 1820 – 2012, USA vs. Europe vs. China vs. India vs. Latin America



**MOST ENABLED ENTREPRENEURS EVER?**

**ZERO -> 1 MILLION USERS  
IN RECORD TIME(S)**

# Is This Generation Different?

## Selective Formative Events of Past 20 Years

**September, 2001 USA Terrorist Attacks** – Destabilized sense of security

**Rise of China as Global Super Power** – Altered global competition

**Global Financial Crisis, 2008+** – Destabilized financial security

**High Unemployment Levels** – Destabilized career optimism

**Potential Fiscal Debt Challenges** – Rise in need to depend on selves

**Rise of Cheap / Available Computing** – 24x7 global access to loads of stuff including shared goods

**Rise of New ‘Geek’ Entrepreneur Heroes** – Jobs + Sergey / Larry + Zuck...

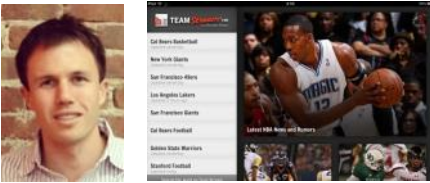
**Rise in Social Connectivity** – Ability to find / create / share / provide + get feedback

**Rise in Value of Social / Virtual vs. Financial + Physical Currency**

# Turning Passion Into Businesses...On an Epic Internet Palette

## *Sports*

David Finocchio /  
BleacherReport



## *Books*

Otis Chandler /  
Goodreads



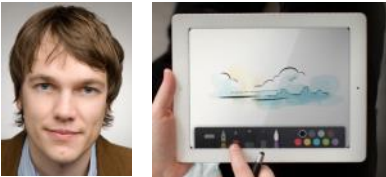
## *Music*

Daniel Ek /  
Spotify



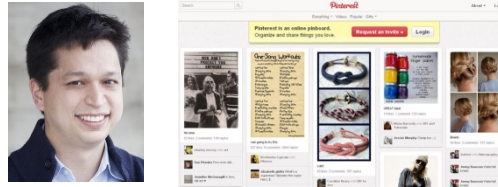
## *Art / Creativity*

Georg Petschnigg /  
Fiftythree



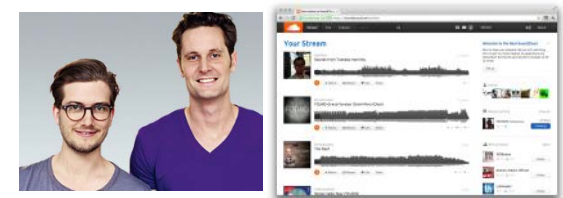
## *Design / Inspiration*

Ben Silbermann  
Pinterest



## *Sound*

Alex Ljung + Eric Wahlfors /  
SoundCloud



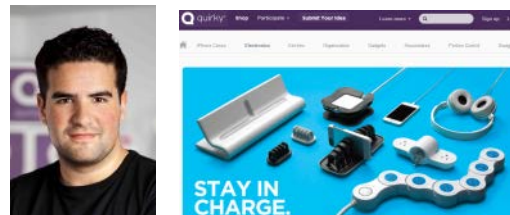
## *News & Politics*

Chris Altchek + Jake Horowitz /  
PolicyMic



## *Product Design*

Ben Kaufman  
Quirky



## *Home Decoration*

Adi Tatarko + Alon Cohen /  
Houzz

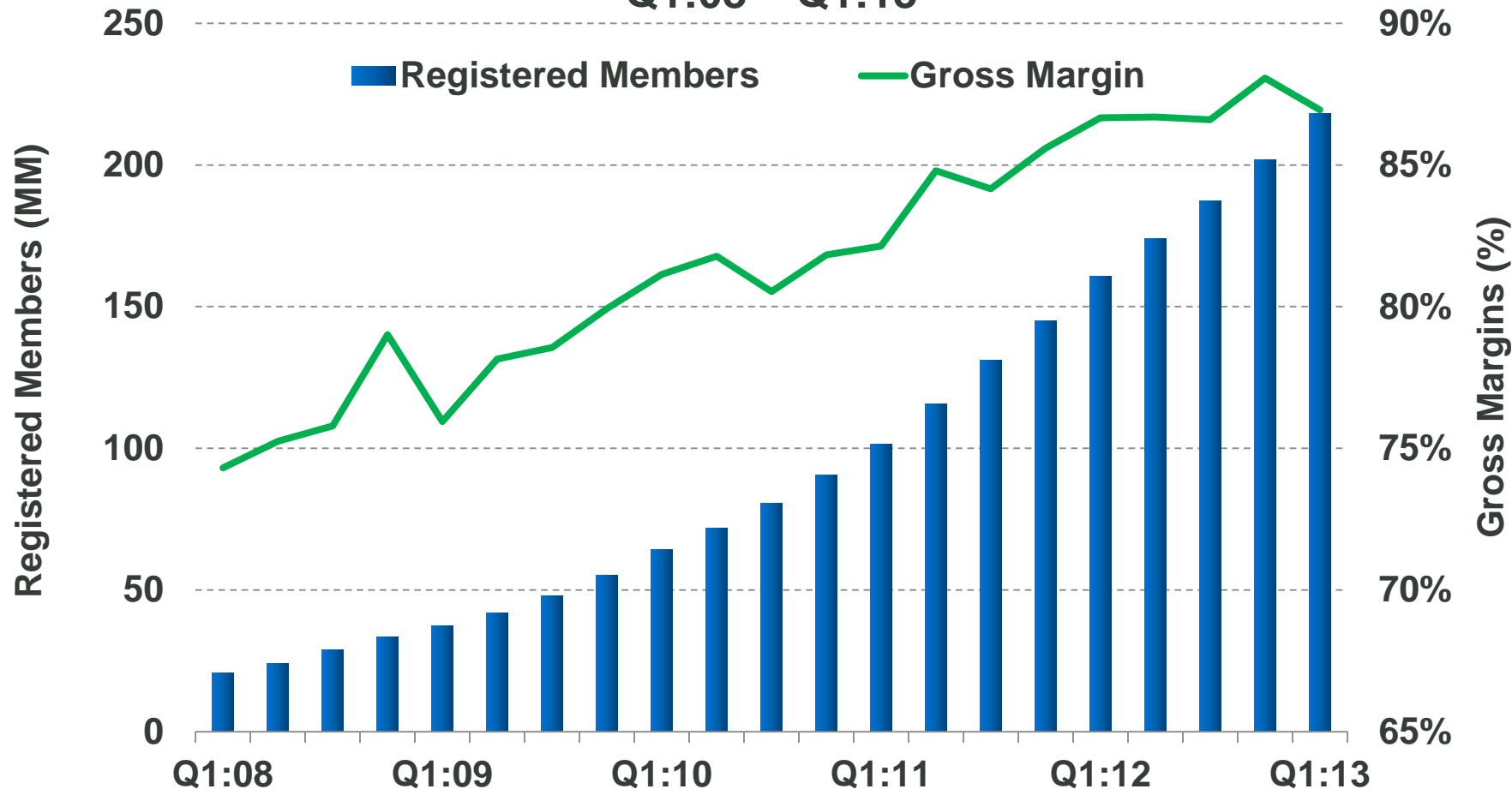


**SO, YOU WANT TO BE A PUBLIC  
COMPANY?**

# Internet IPO Standout – LinkedIn...

Registered Users = 218MM in Q1, +35% Y/Y; High Gross Margins (87%)

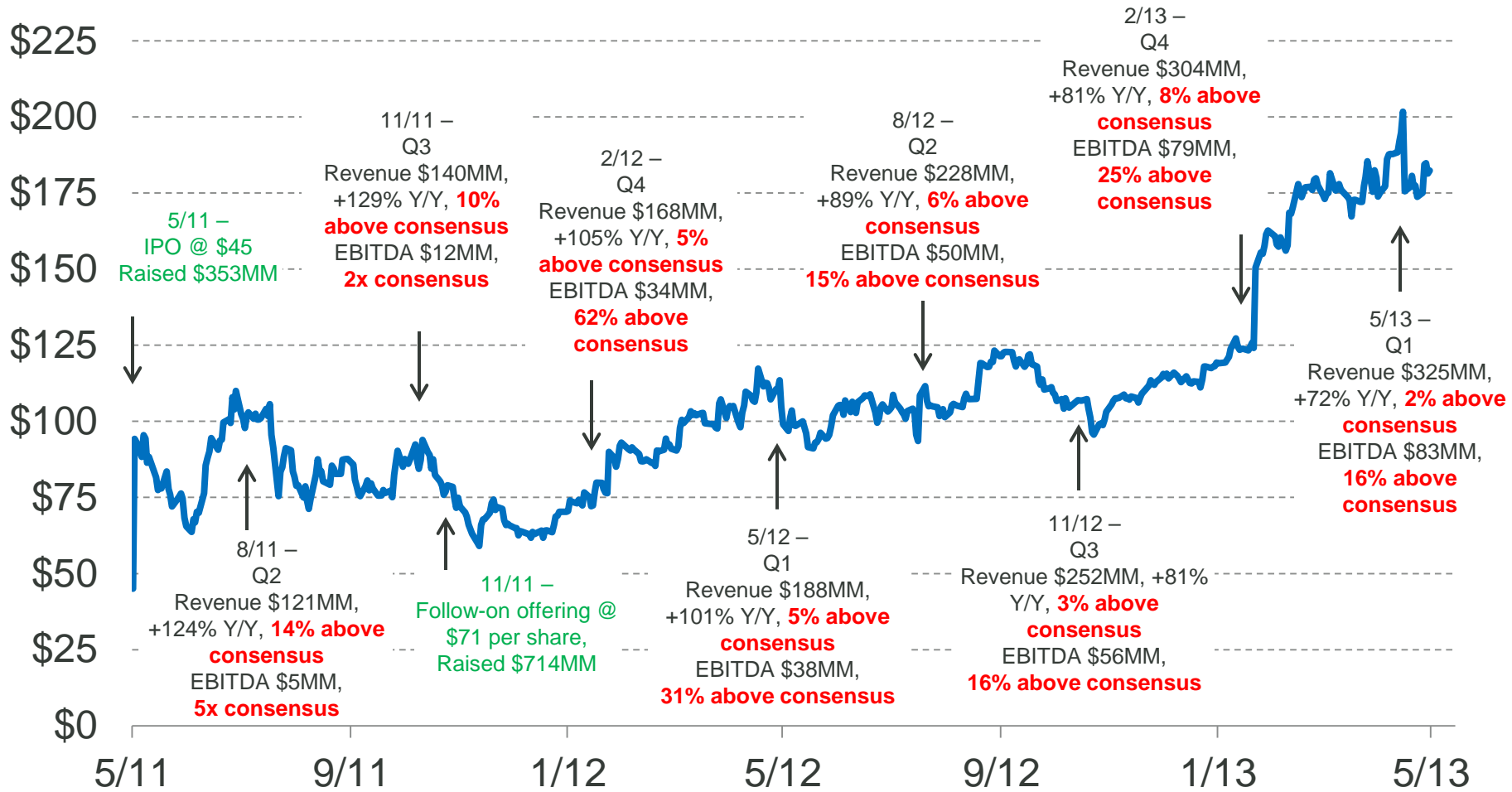
## LinkedIn Registered Members and Gross Margins, Q1:08 – Q1:13



# ...Internet IPO Standout – LinkedIn

Averaged 7% Revenue / 83% EBITDA Upside Since IPO, Shares +305%

## LinkedIn Share Daily Closing Price, 5/11-5/13



# Financial Dynamics of Internet Leaders

	<u>eCommerce</u>		<u>Communication</u>		<u>Search</u>	<u>Hardware</u>
	Amazon	eBay	Facebook	Tencent	Google	Apple
<b>Years Since Founding</b>	19	18	9	15	15	37
<b>People</b>	91K	32K	5K	24K	54K	80K
<b>Users</b>	209MM	116MM	1.1B	798MM	1.2B	500MM+
<b><u>Cumulative</u></b>						
<b>Operating Expense</b>	\$50B	\$42B	\$5B	\$5B	\$63B	\$87B
<b>R&amp;D</b>	\$15B	\$7B	\$2B	\$2B	\$26B	\$21B
<b>Capital Expenditures</b>	\$9B	\$6B	\$3B	\$2B	\$20B	\$30B
<b>Revenue</b>	\$246B	\$79B	\$12B	\$20B	\$153B	\$695B
<b>Gross Margin (%)</b>	27%	69%	72%	56%	72%	37%
<b>Free Cash Flow</b>	\$12B	\$19B	\$1B	\$7B	\$53B	\$138B
<b>Market Capitalization</b>	\$122B	\$71B	\$62B	\$73B	\$301B	\$415B

Full lifetime data for all companies not available. Company (Years of Data) as follows: Amazon (19), eBay (17), Facebook (6), Tencent (12), Google (14), Apple (37 for revenue, 26 for others). Operating expenses exclude one-time, non-recurring charges and include depreciation, amortization, stock-based compensation. Data for eBay includes Paypal. eBay users are active members of eBay marketplace. Data for Google includes DoubleClick (back to 1996). Google gross margin based on revenue net of TAC. Google user data per ComScore. Market cap. figures as of 5/21/2013. Capital expenditures for Facebook include capital leases. Apple user figures based on estimated installed base of Mac, iPad, iPhone, iPod units assuming a 4-year replacement cycle for Macs, 3-year for iPads, 2-year for iPhones and iPods. Figures are not de-duplicated.

Source: Public filings, FactSet, Morgan Stanley Research, Yahoo! Finance, ComScore.



# Market Value = Google + Amazon + eBay + Tencent + Priceline + Yahoo! + Yahoo! Japan + Salesforce.com + LinkedIn Gain Y/Y... Apple + Baidu Fall

Rank	Company	Region	2013 Market Value (\$B)	2012 Revenue (\$MM)
1	Apple	USA	\$416	\$155,971
2	Google	USA	311	49,958
3	Amazon	USA	127	61,093
4	eBay	USA	76	14,028
5	Tencent	China	74	6,957
6	Facebook	USA	73	5,089
7	Priceline	USA	42	5,261
8	Baidu	China	33	3,540
9	Yahoo!	USA	30	4,987
10	Yahoo! Japan	Japan	29	3,304
11	Salesforce.com	USA	28	3,050
12	LinkedIn	USA	22	972
13	Rakuten	Japan	17	5,558
14	Netflix	USA	14	3,609
15	Liberty Interactive	USA	12	10,054
16	NHN	Korea	12	2,121
17	Yandex	Russia	10	926
18	Tripadvisor	USA	9	763
19	Netease	China	8	1,301
20	Verisign	USA	7	874
21	Mail.ru	Russia	6	682
22	Mercadolibre	Argentina	6	374
23	Groupon	USA	5	2,334
24	Nexon	Korea	5	1,359
25	Asos	UK	4	899
Total			\$1,375	\$345,064

# **HIGH-SKILLED IMMIGRATION – PERSPECTIVE**

# ***Immigration in America & The Growing Shortage of High-Skilled Workers***

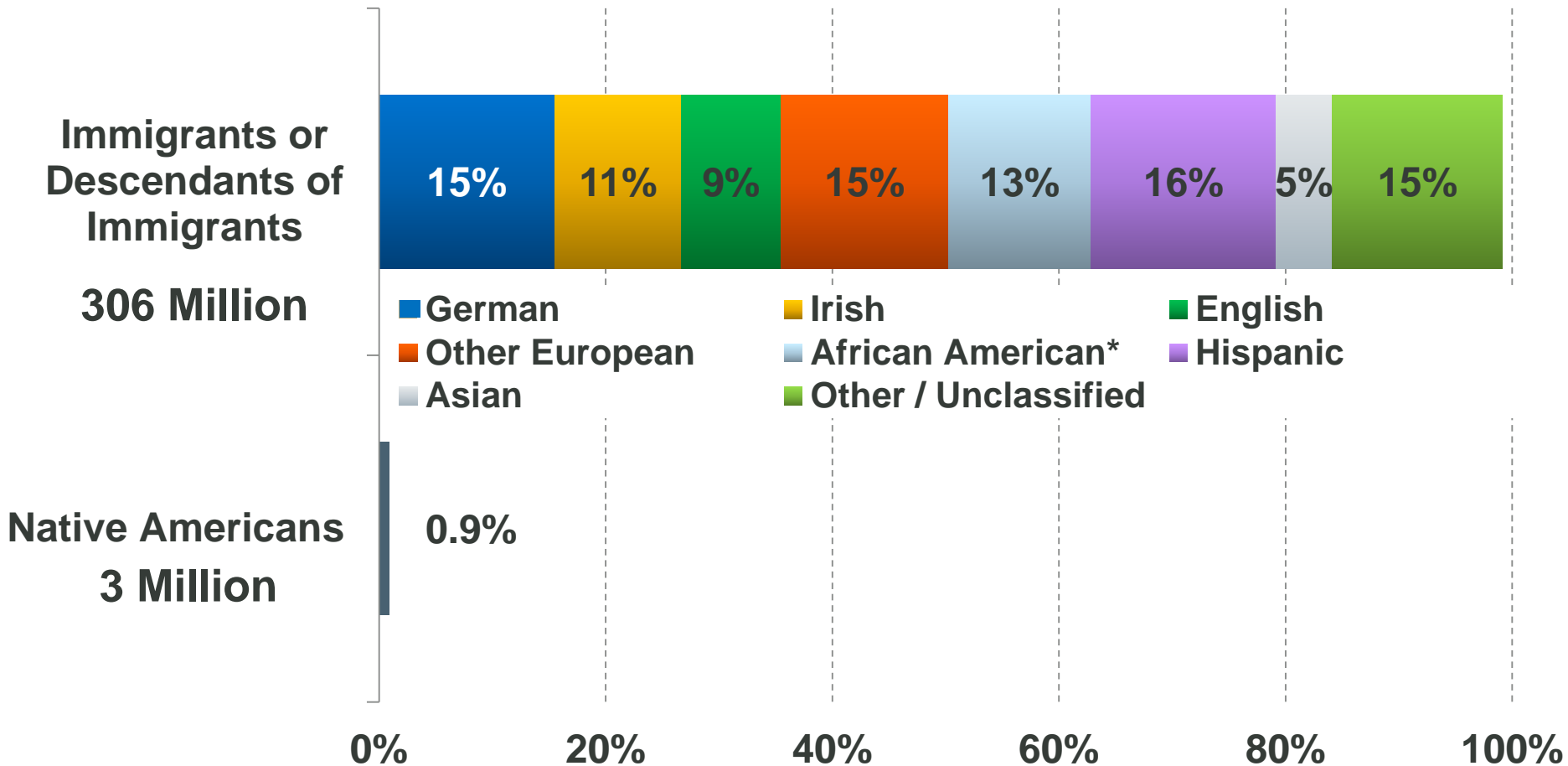
Report / Presentation Can Be Found at [www.kpcb.com/insights](http://www.kpcb.com/insights)

# Why Did We Publish a Report on High-Skilled Immigration?

- America is the global leader in the technology industry.
- Immigrants (often with STEM\* degrees) have been (and are) especially important to the vibrancy of tech companies.
- America has a shortage of high-skilled STEM workers and our tech leaders believe it's constraining their ability to compete and grow jobs in America.
- Government policy helps send many qualified foreign high-skilled workers home and constrains those that can come to America.
- Global environment for recruiting high-skilled STEM workers is likely to get much more competitive.
- Potential for immigration reform in America is very real and the future direction will likely be determined this year.
- This is a big issue for the technology industry – we encourage you to read / share / opine on the report – it can be found at [kpcb.com/insights](http://kpcb.com/insights)

# 99% Of Americans Are Immigrants Or Descendants Of Immigrants

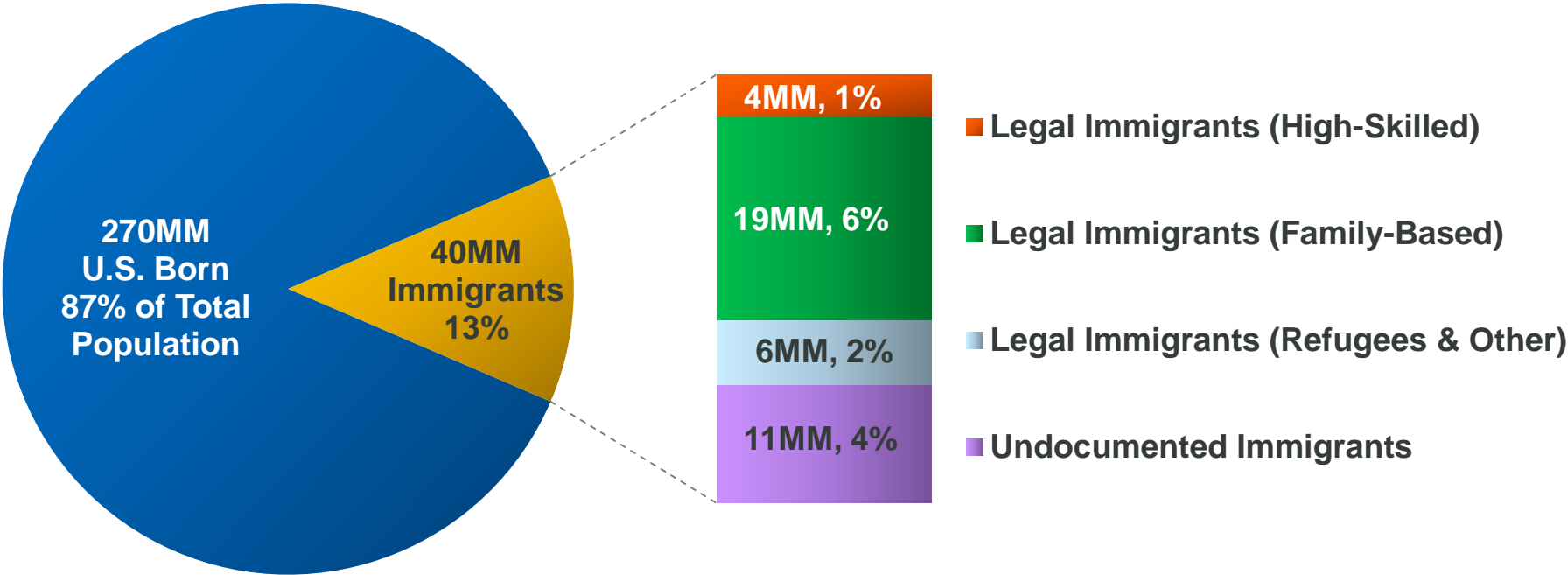
## USA Population by Ancestry, 2010 Census



Note: \*African-American total includes those who came as slaves and not as voluntary immigrants.  
Other includes North America (Canada), Australia, New Zealand, and those who have more than one ethnicity reported.  
Source: Census Bureau, 2010 data.

# High-Skilled Immigrants Are Only 1% Of Total U.S. Population

## U.S. Population at a Glance, U.S. Born vs. Immigrants by Type of Admission, 2010



Total USA Population = 310MM

Note: Number of undocumented immigrants currently residing in USA is an estimate by PEW Hispanic Center based on Census data. Precise breakdown of legal immigrants currently residing in USA by type of admission is not available and is an estimate based on Census data as well as Department of Homeland Security immigrant admission data from 1986 to 2010. Source: Census Bureau, PEW, DHS.

# 60% of Top 25 Tech Companies Founded By 1<sup>st</sup> & 2<sup>nd</sup> Generation Americans = 1.2MM Employees, 2012

## Founders / Co-Founders of Top 25 U.S. Public Tech Companies, Ranked by Market Capitalization

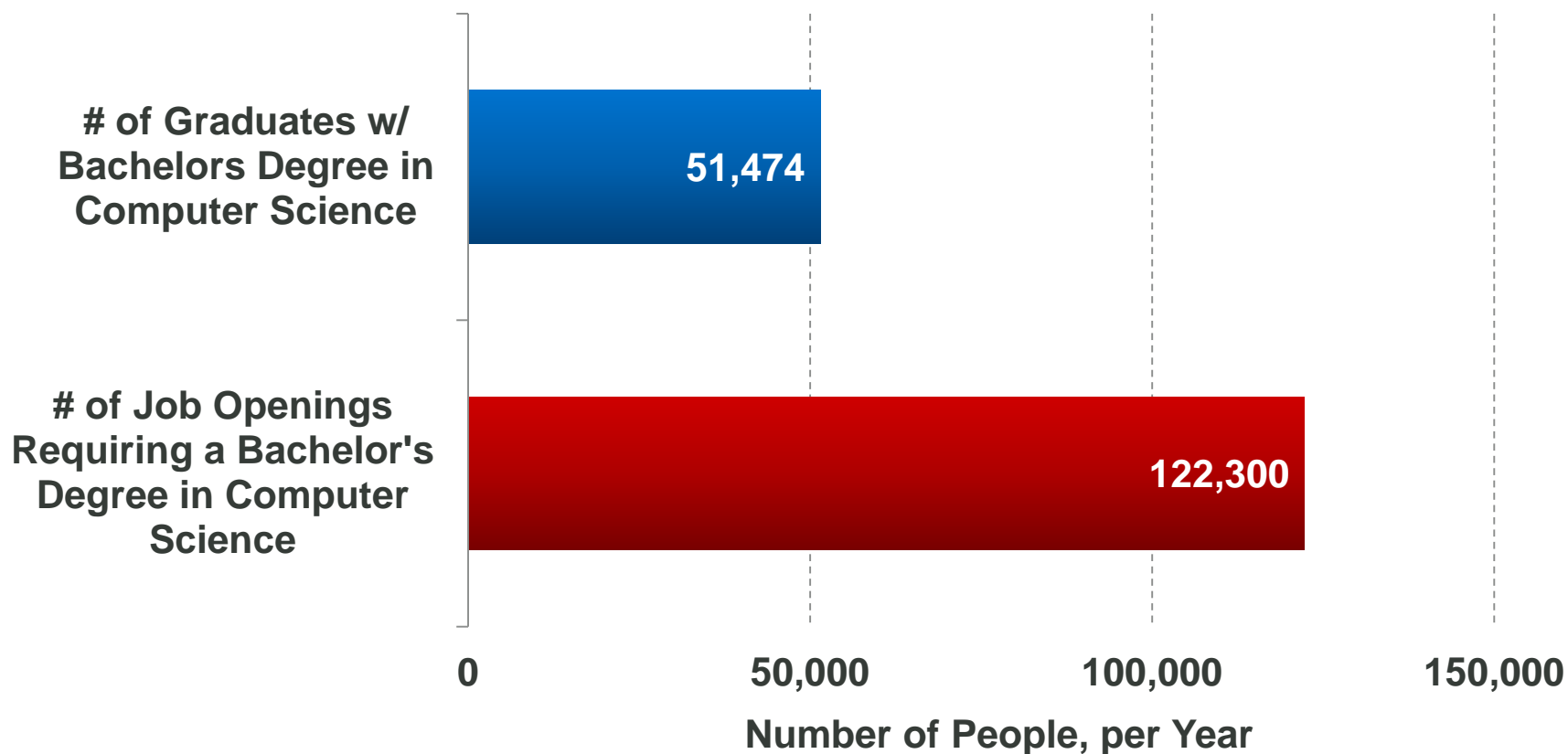
Rank	Company	Mkt Cap (\$MM)	LTM Rev (\$MM)	Employees	1st or 2nd Gen Immigrant Founder / Co-Founder	Generation
1	Apple	\$416,622	\$164,346	76,100	Steve Jobs	2nd-Gen, Syria
2	Google	268,445	49,958	53,861	Sergey Brin	1st-Gen, Russia
3	IBM	239,530	104,507	434,246	Herman Hollerith	2nd-Gen, Germany
4	Microsoft	234,828	72,764	94,000	--	--
5	Oracle	172,044	37,230	115,000	Larry Ellison / Bob Miner	2nd-Gen, Russia / 2nd-Gen, Iran
6	Amazon.com	119,011	61,093	88,400	Jeff Bezos	2nd-Gen, Cuba
7	Cisco	116,904	47,252	66,639	--	--
8	Intel	105,721	53,341	105,000	--*	--
9	Ebay	65,357	14,028	31,500	Pierre Omidyar	1st-Gen, France
10	Facebook	63,472	5,089	4,619	Eduardo Saverin	1st-Gen, Brazil
11	EMC	53,347	21,714	60,000	Roger Marino	2nd-Gen, Italy
12	Hewlett-Packard	43,118	118,397	331,800	--	--
13	Texas Instruments	38,756	12,690	34,151	Cecil Green / J. Erik Jonsson	1st-Gen, UK / 2nd-Gen, Sweden
14	VMware	35,917	4,605	13,800	Edouard Bugnion	1st-Gen, Switzerland
15	Priceline	35,583	5,261	7,000	--	--
16	Automatic Data Processing	31,274	10,945	57,000	Henry Taub	2nd-Gen, Poland
17	salesforce.com	25,840	3,050	9,800	--	--
18	Dell	25,003	56,982	111,300	--	--
19	Yahoo!	24,306	4,987	11,700	Jerry Yang	1st-Gen, Taiwan
20	Cognizant Technology	23,648	7,346	156,700	Francisco D'souza / Kumar Mahadeva	1st-Gen, India** / 1st-Gen, Sri Lanka
21	Adobe Systems	20,640	4,373	11,144	--	--
22	Broadcom	19,713	8,006	11,300	Henry Samueli	2nd-Gen, Poland
23	Intuit	19,393	4,153	8,500	--	--
24	LinkedIn	19,357	972	3,458	Konstantin Guericke / Jean-Luc Vaillant	1st-Gen, Germany / 1st-Gen, France
25	Symantec	16,916	6,839	20,500	--	--
<b>Total Founded by 1st or 2nd Gen Immigrants</b>		<b>\$1,590,800</b>	<b>\$507,516</b>	<b>1,151,835</b>		

\*Note that while Andy Grove (from Hungary) is not a co-founder of Intel, he joined as COO on the day it was incorporated.

\*\*Francisco D'souza is a person of Indian origin born in Kenya. Source: FactSet as of 3/13; "The 'New American' Fortune 500", a report by the Partnership for a New American Economy; "American Made, The Impact of Immigrant Founders & Professionals on U.S. Corporations"

# Computer Science Job Opening Forecast = 2.4x # of Computer Science Graduates

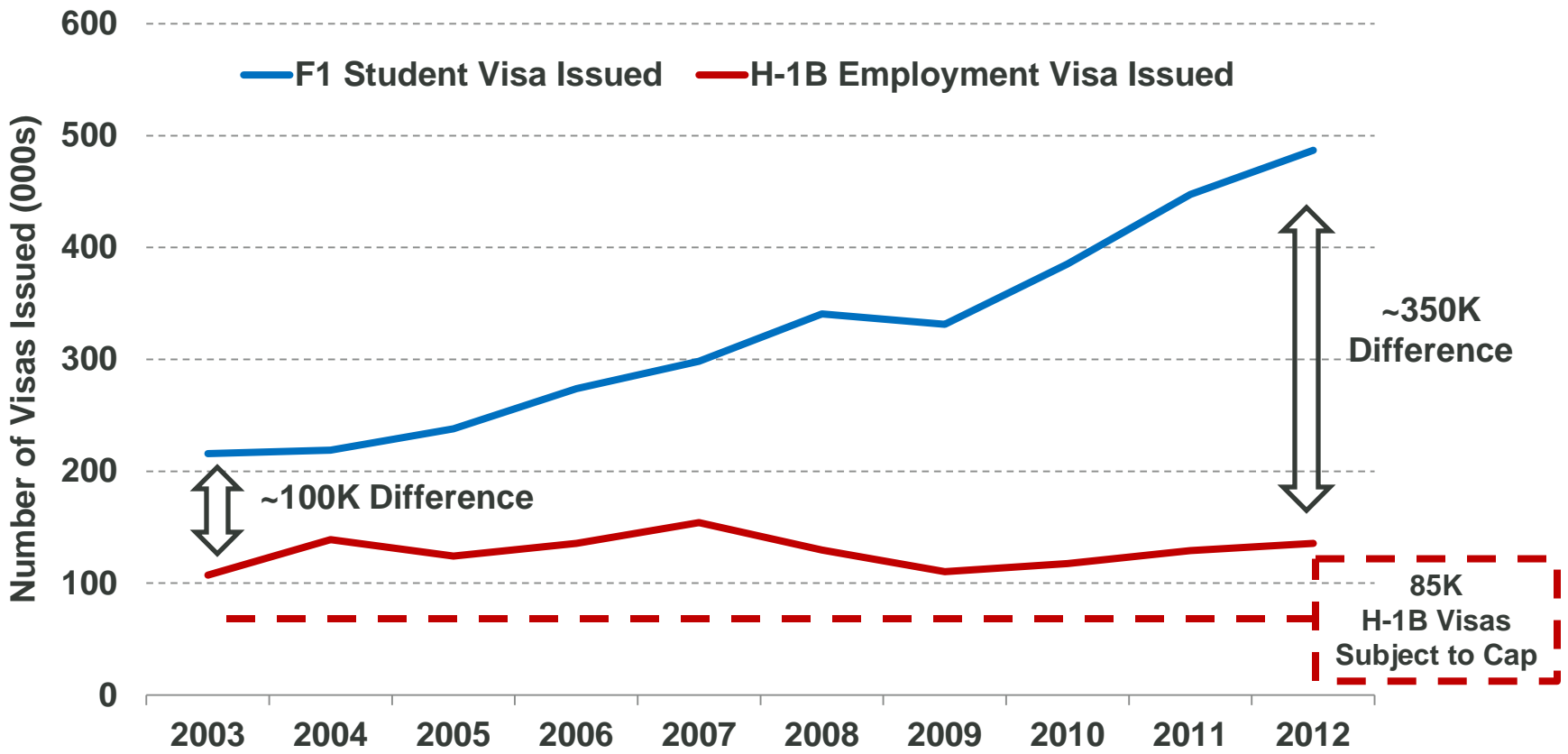
**Projected Average Annual # of Graduates w/ Bachelors Degree in Computer Science vs. # of Job Openings Requiring a Bachelors Degree in Computer Science, 2010-2020E**





# USA Sending More Qualified Foreign Students Home Post Graduation - 3.5x Rise in Student & Employment Visa Issuance Gap Over Decade

## Number of Student (F1) vs. Employment (H-1B) Visas Issued per Year, 1992 - 2012



# Startups & Big Tech Companies Can't Hire Enough Engineers

## Street View From Silicon Valley



**Five High-Tech Companies Alone – IBM, Intel, Microsoft, Oracle And Qualcomm – Have Combined 10,000 Current Openings In The United States.**

Read More @ [kpcb.com/insights](http://kpcb.com/insights)

# IMMIGRATION IN AMERICA & THE GROWING SHORTAGE OF HIGH-SKILLED WORKERS

Mary Meeker / Liang Wu  
5.29.13

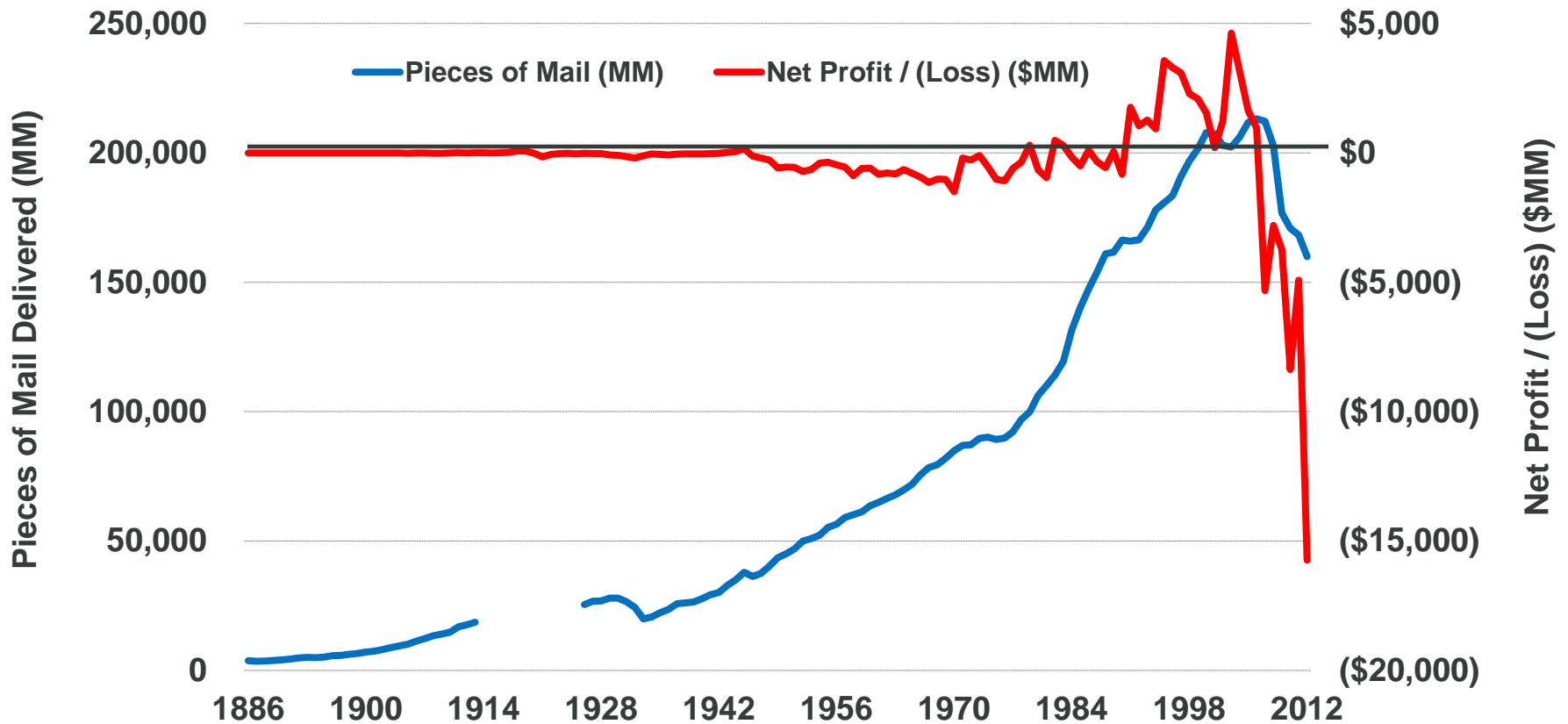
**KPCB**

# APPENDIX

# ***Traditional Industries Being Re-Imagined***

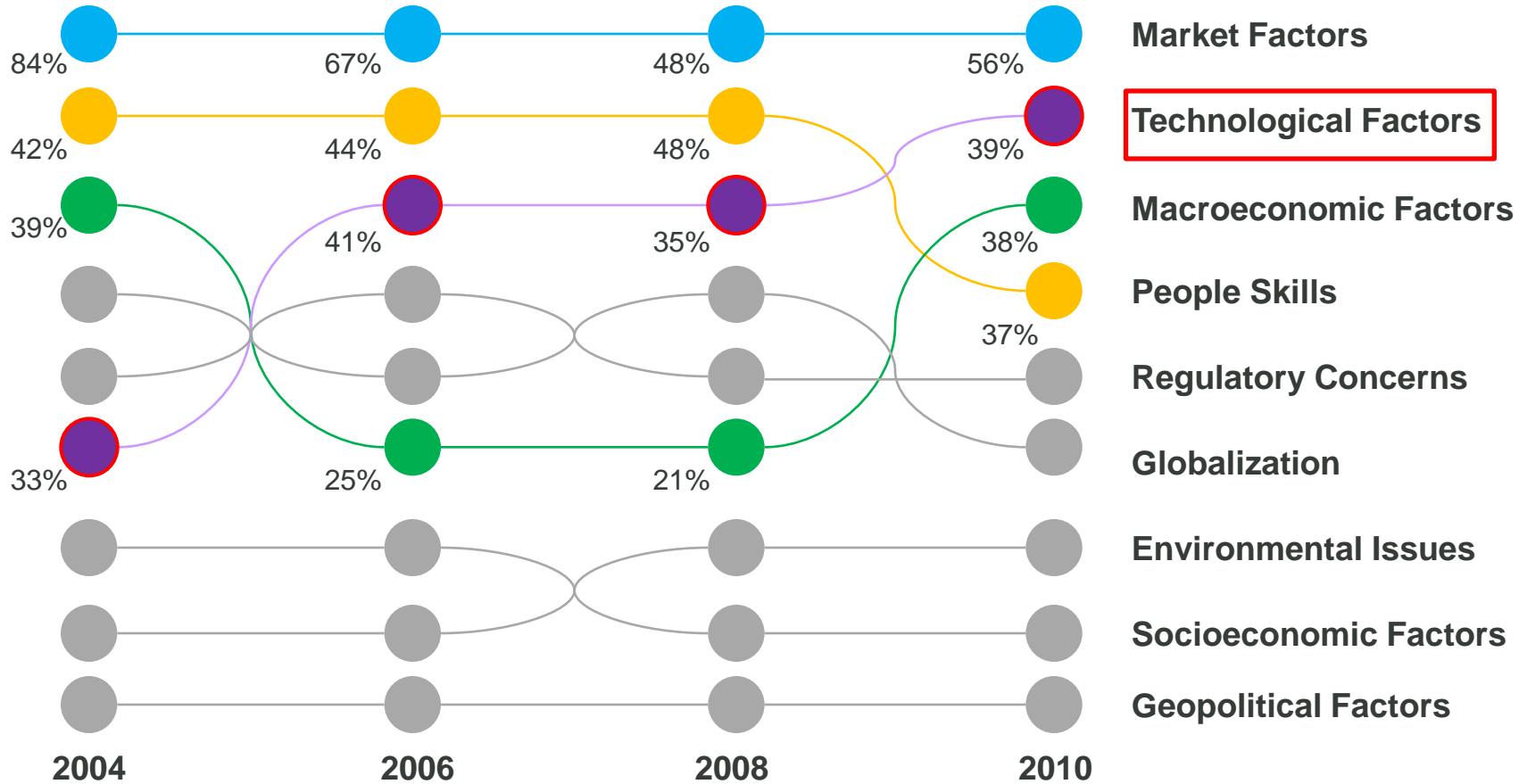
# U.S. Postal Service Mail Volume Peaked in 2006 Owing to Email Rise... Profitability Plummeted

## Pieces of Mail Delivered (MM) and Net Profit / (Loss) (\$MM) of U.S. Postal Service, 1886 - 2012



# Relative Impact of Technology on Large Organizations = #2 Concern & Rising Rapidly

**% of CEOs Who Thought The Following External Factors Would Have The Biggest Impact on Their Organizations...**



Source: IBM, "Capitalizing on Complexity: Insights from Global CEO Study", May 2010. Study consisted of face-to-face conversations with over 1,500 CEOs worldwide. Executives were asked to discuss top three external forces that will have the biggest impact on their organizations.







# Financial Services - Context

- **600MM+ credit cards** in use in USA, average American carries 3-4 credit cards in addition to check cards / loyalty cards / coupons / cash in wallet.
- **17% average credit card borrowing rate** vs. 1.8% 10-Year US Treasury bond yield\*.
- **16B paper bills sent** per year in USA.
- **4.3B bills paid** by paper check per year in USA.

Source: \*Credit Card #s per Federal Reserve Bank of Boston, Credit Card interest rate per Indexcreditcards, 10-year Treasury yield are 5/13 averages, per Dept. of Treasury. Bill data per Fiserv.



# Emerging Financial Services Metrics

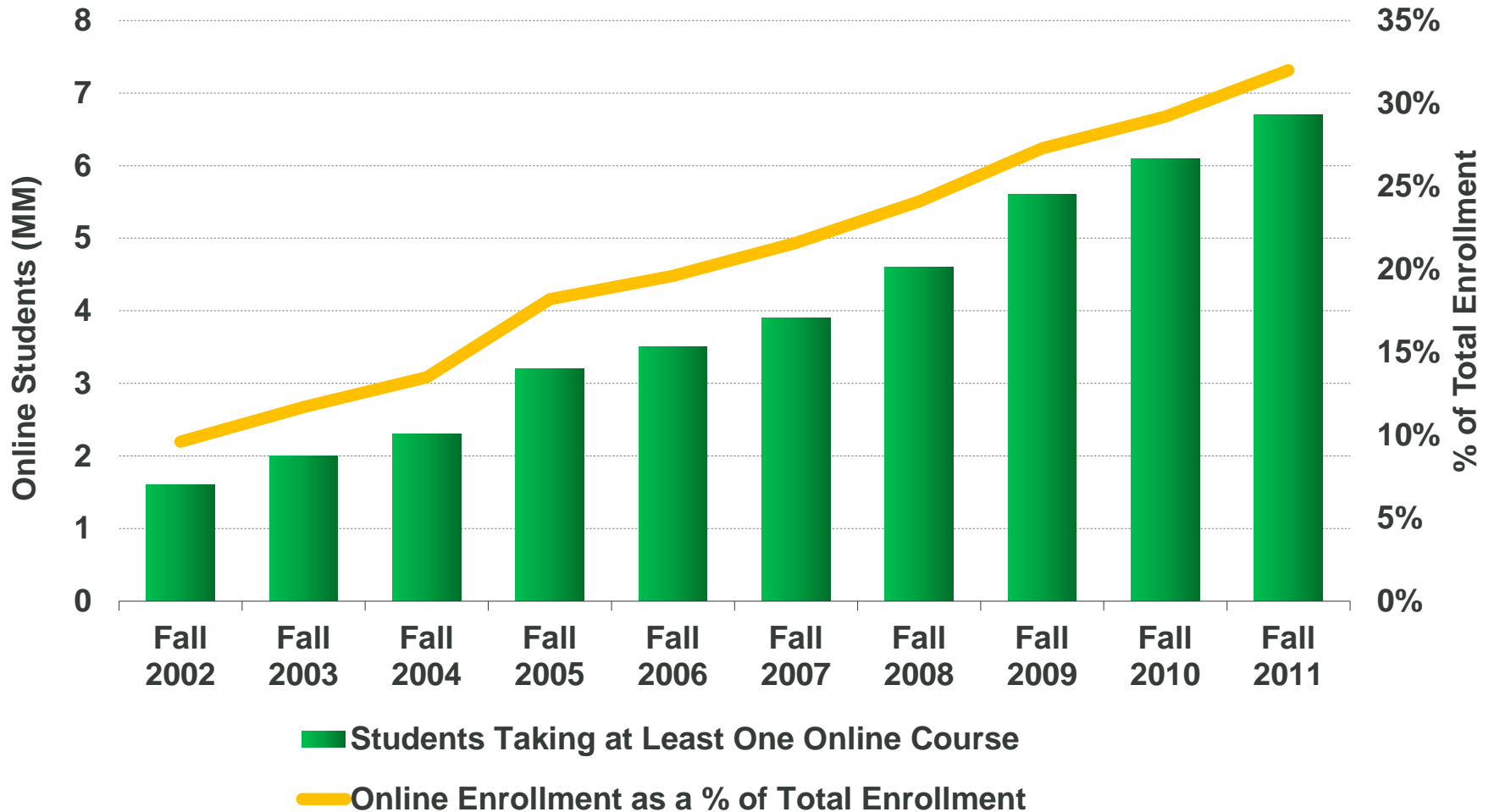
Company	Gross Volume	Y/Y Growth	# Users
 Square	<b>\$15B+</b> Gross Payment Volume Processed to Date	<b>~3x Y/Y</b>	<b>4MM+</b> Merchants
 LendingClub	<b>\$1.8B+</b> Loans Issued to Date	<b>~3x Y/Y</b>	<b>137K+</b> Loans Funded to Date
 Check <small>formerly Pageonce</small>	<b>\$500MM+</b> Gross Payment Volume of bills Per Year	<b>~17x Y/Y</b>	<b>8MM+</b> Registered Users
 bitcoin	<b>18MM+</b> Cumulative Transactions	<b>~5x Y/Y</b>	<b>11MM+</b> Bitcoins in Circulation
 Chase Mobile®  CHASE	<b>\$29B+</b> Gross Mobile Payment Volume Per Year	<b>~2.5x Y/Y</b>	<b>20MM+</b> Registered Users

# Education - Context...

- **\$1.1T+** annual spending on education in USA, **\$460B+** = post-secondary, cost of going to college up +2x (inflation adjusted) over 30 years.
- **\$914B\*\*** student loans outstanding (\$25K per graduating student), bigger than credit card (\$672B) & auto loans (\$750B).
- Student loans up **8x** over ten years.

# Online Education Growing Rapidly = 32% of Students Taking at Least One Online Course, 2011

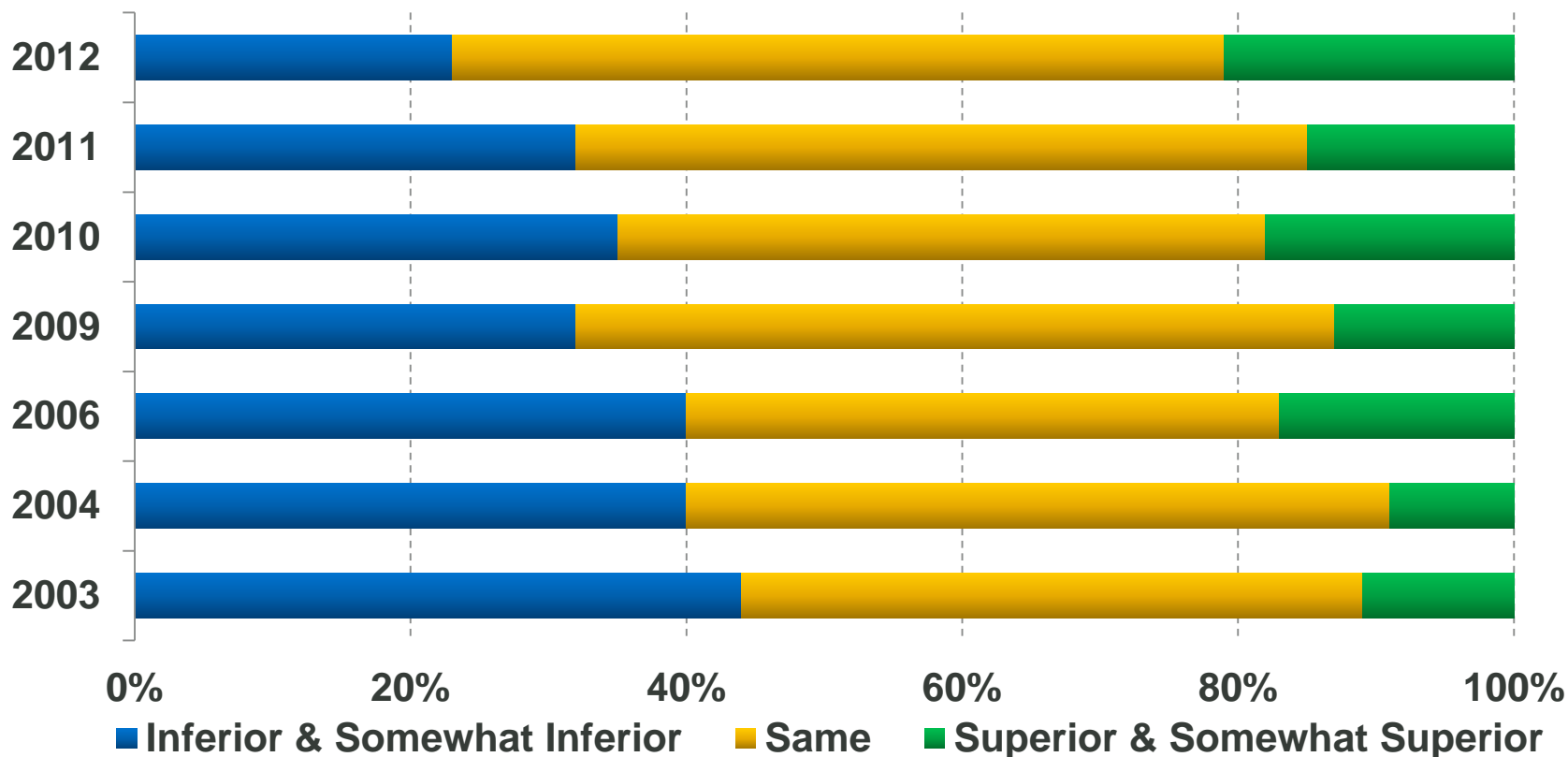
## US Online Enrollment in Degree-Granting Postsecondary Institutions & % of Total Enrollment, 2002 - 2011



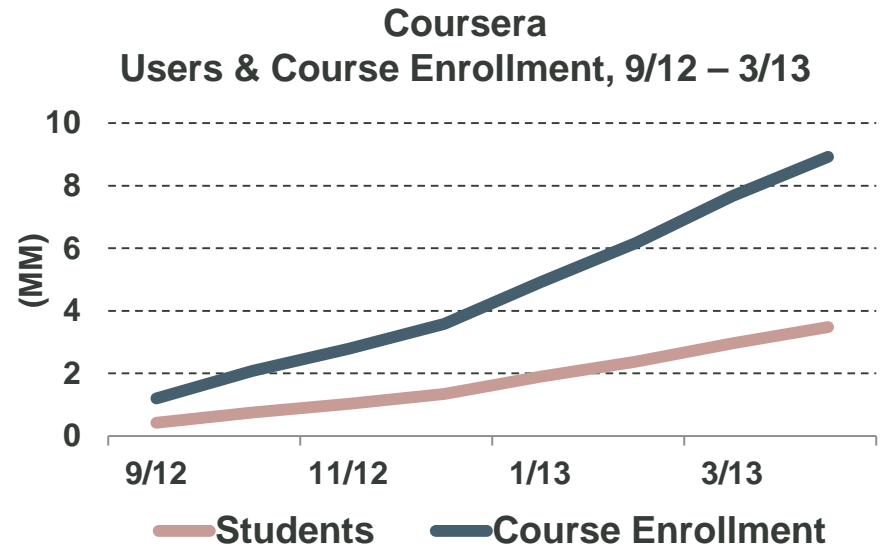
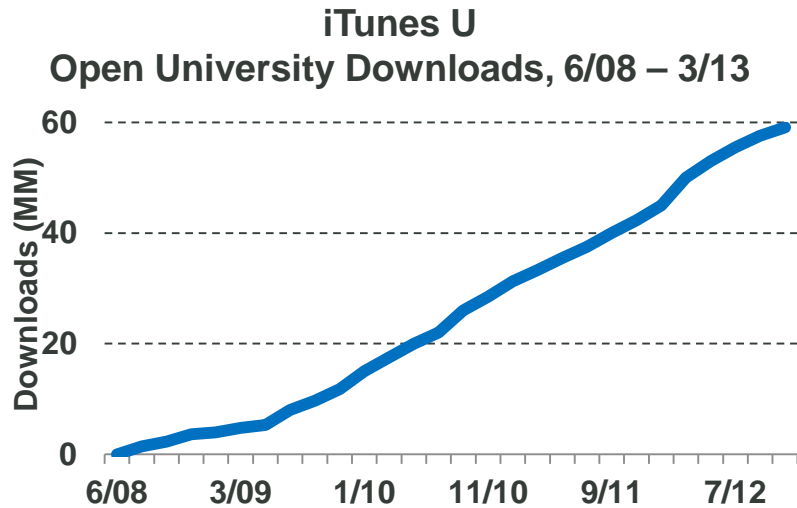
# Online Education = Quickly Becoming More Accepted

77% of academic leaders at over 2,800 US colleges perceive online education as the same or superior as compared to face-to-face education

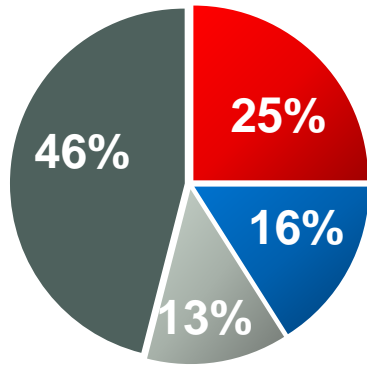
### Academic Leaders' Perceptions of Learning Outcomes in Online Education Compared to face-to-face



# Education Being Democratized = Fast Global MOOC (Massively Open Online Course) User Growth

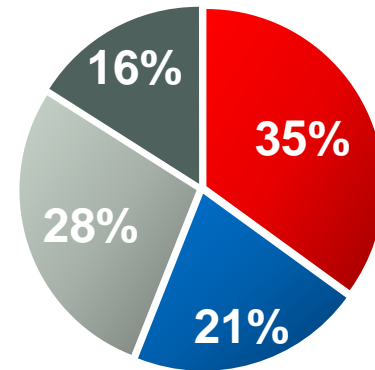


iTunes U Open University Downloads, by Region



■ United States   ■ China   ■ UK   ■ Other

Coursera Users, by Region



■ North America   ■ Asia   ■ Europe   ■ Other

# Healthcare – Context...

- **\$2.6T+** annual spend on healthcare in USA, 18% of GDP in 2010, up from 5% in 1960, and 2x OECD average.
- **~100MM** Americans (30%) of Americans considered obese in 2012, up from 15% in 1990.
- **\$147B** estimated medical costs associated with obesity in 2008, up from \$79B in 1998.

# Right Story, Great Reporting...Perhaps, Right Time



*When we debate health care policy, we seem to jump right to the issue of who should pay the bills, blowing past what should be the first question:*

*Why exactly are the bills so high?*

- Steven Brill, *Time*, March 2013

***Re-Imagination is  
Alive & Well***



# Re-Imagination of Basic Business Process...

## Building / Funding

*KickStarter*

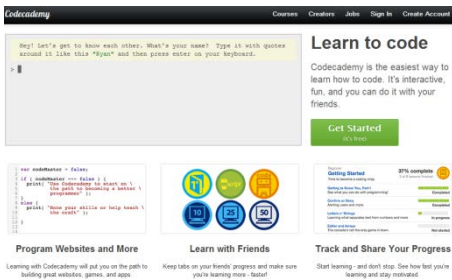
Online / Social Distribution /  
Real-Time Progress



## Education

*Codecademy*

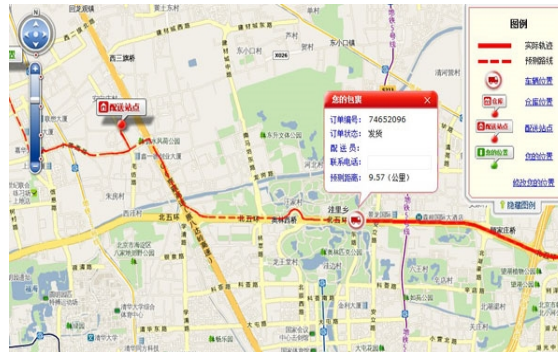
Accessible by Anyone,  
Anywhere, Anytime



## Logistics

*JD.com (360buy)*

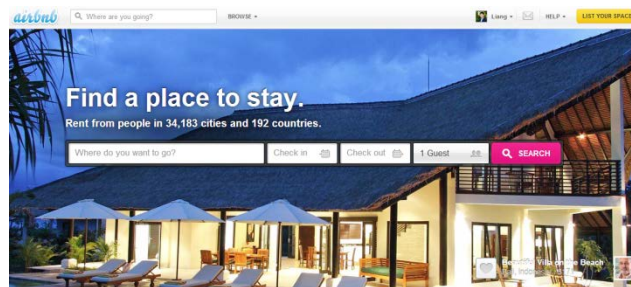
At Your Door Same-Day Delivery / Real-  
Time Tracking / Last Mile on Bikes



## Housing

*Airbnb*

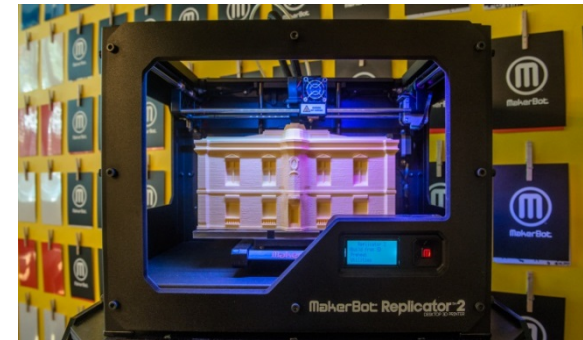
Turn Privately-Owned Properties  
into Hotel Experience



## Manufacturing

*MakerBot*

3-D Prototyping / Printing



## Transportation

*Uber*

On-Demand Transportation

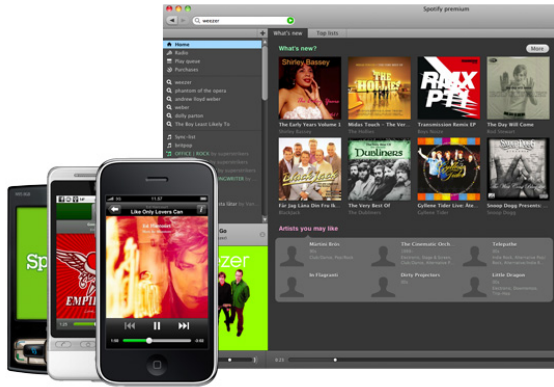


# Re-Imagination of Asset-Heavy Products / Services...

## Music

(Spotify)

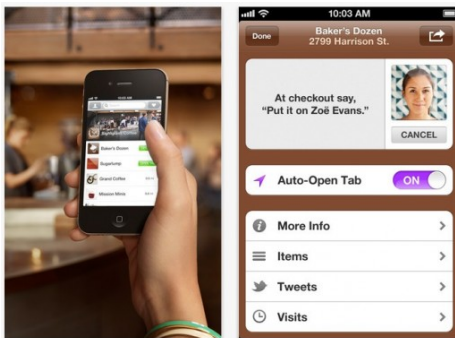
Pay for Access / Instant On-Demand Streaming on Internet-Enabled Devices



## Wallet

(Square)

Smartphone is the New Wallet



## Video

(Netflix)

On-Demand / Instant Access Anywhere



## Employment

(oDesk / eLance)

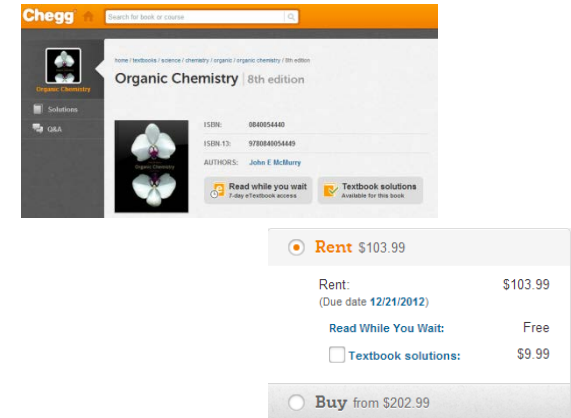
Workforce as a Service (WaaS) / On-Demand / Global



## Textbooks

(Chegg)

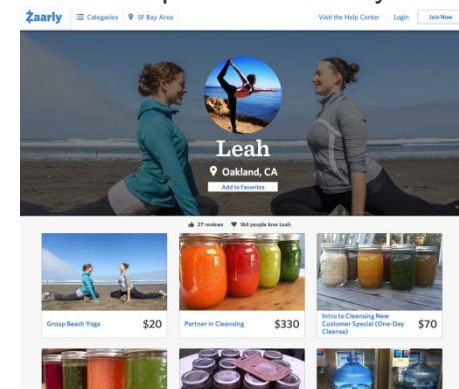
Pay For Usage Rights During Semester



## Store Fronts

(Zaarly)

Anyone Can Open / Beautifully Designed



# Re-Imagination of R&D...

## Minted

- 85K designs submitted
- 4MM monthly visitors



We love designers.

Our mission is to connect the world's best design geniuses with a community of design-savvy customers who enjoy the creation and appreciation of good design.

[submit a design](#)

**minted.** + west elm

Submit your art prints for a chance to be sold in West Elm stores across the country.

## Quirky

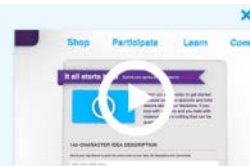
- 87K designs submitted
- 360K registered users



Welcome to the Product Evaluation (BETA)  
Help Quirky pick the world's next great product.

Thousands of Creative People around the world have submitted their ideas to be evaluated by Quirky, and now it is up to you to vote for the ones with the most potential. If you help us find a finalist, we will reward you with influence. Good luck! Our product line is in your hands.

[Watch our help video to get started](#)



**Quirky** + 

Submit your idea for an app-enabled product that will make your home smarter.

## 99Designs

- 228K designers
- 216K contests



### Launch your contest

We list your [design contest](#) in our [marketplace](#) for our community of more than 200,000 designers to see. From Berlin to Bombay, professional creatives will read your brief and begin to brainstorm ideas just for you.

# Re-Imagination of “Learning Tools” = Twitter / YouTube / Google Docs / Google / WordPress

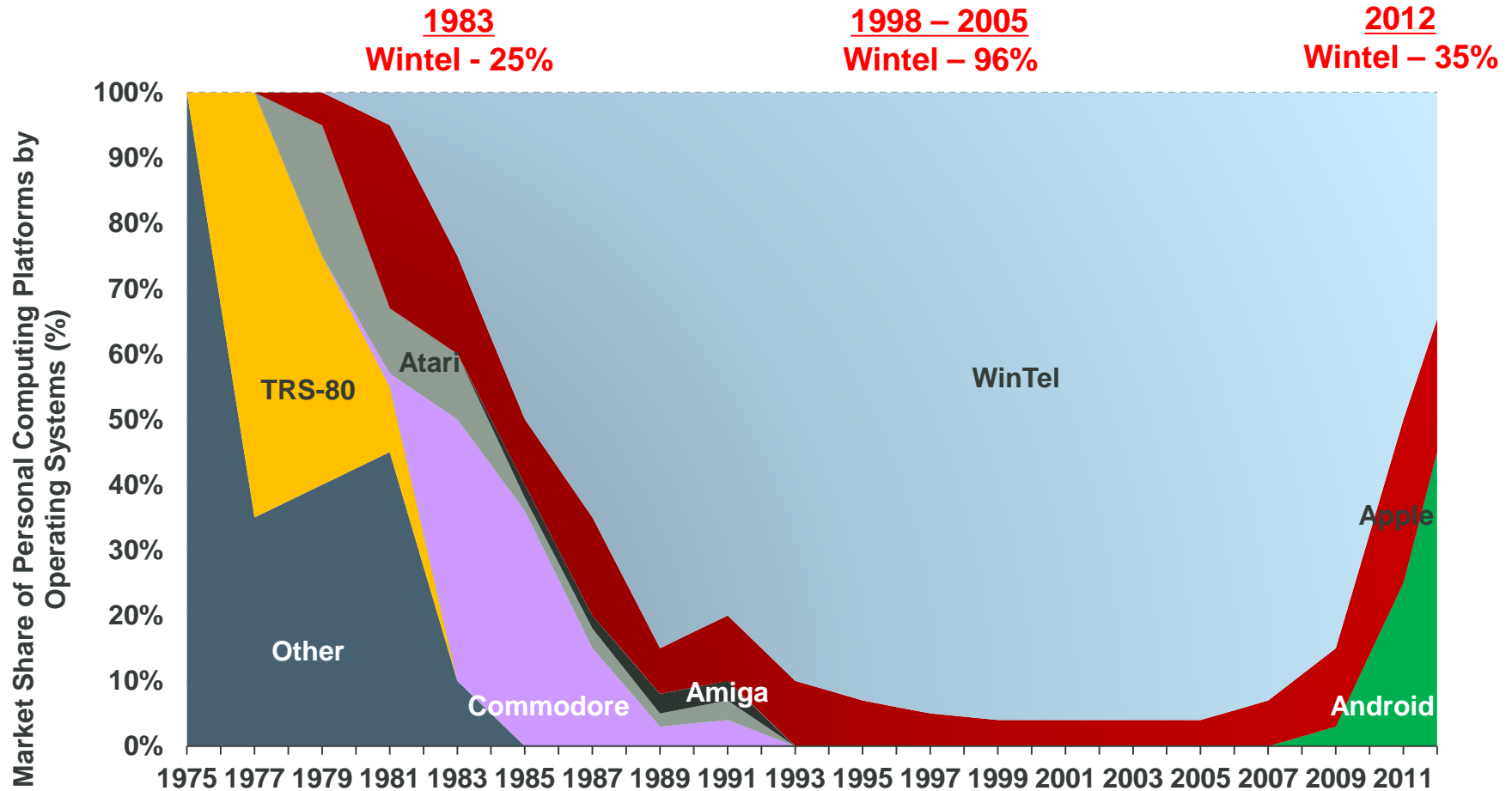
C4LPT Ranking of Top Learning Tools

- 582 learning professionals worldwide were asked to provide their top 10 tools used for learning in 2012 / 2009
- ‘Learning tool’ is defined as any tool that you could use to create or deliver learning content/solutions for others, or a tool you use for your own personal learning
- The 2012 survey compiled data from 582 learning professionals worldwide (55% working in education & 45% in non-educational organizations)

Company	2012 Rank	2009 Rank
Twitter	1	1
YouTube	2	3
Google Docs*	3	5
Google Search	4	8
WordPress	5	6
Dropbox	6	71
Skype	7	11
Powerpoint	8	13
Facebook	9	31
Wikipedia	10	17
Moodle	11	14
Evernote	12	27
Slideshare	13	7
Prezi	14	28
Blogger / BlogSpot	15	14

# Re-Imagination of Computing Operating Systems - iOS + Android = 60% Share vs. 35% for Windows

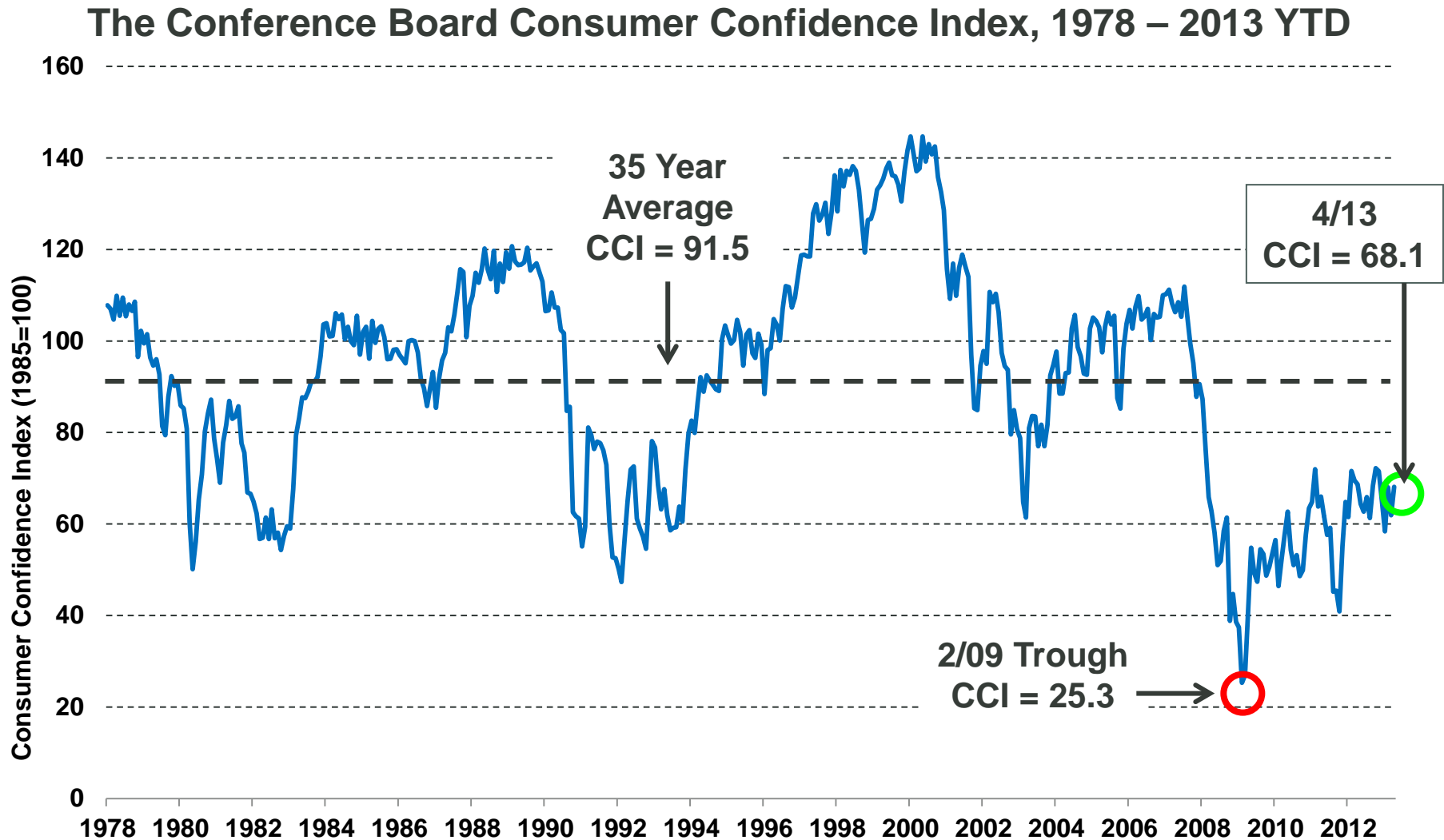
Global Market Share of Personal Computing Platforms by Operating System Shipments, 1975 – 2012



# ***USA, Inc.***

Report / Presentation Can Be Found at [www.kpcb.com/insights](http://www.kpcb.com/insights)

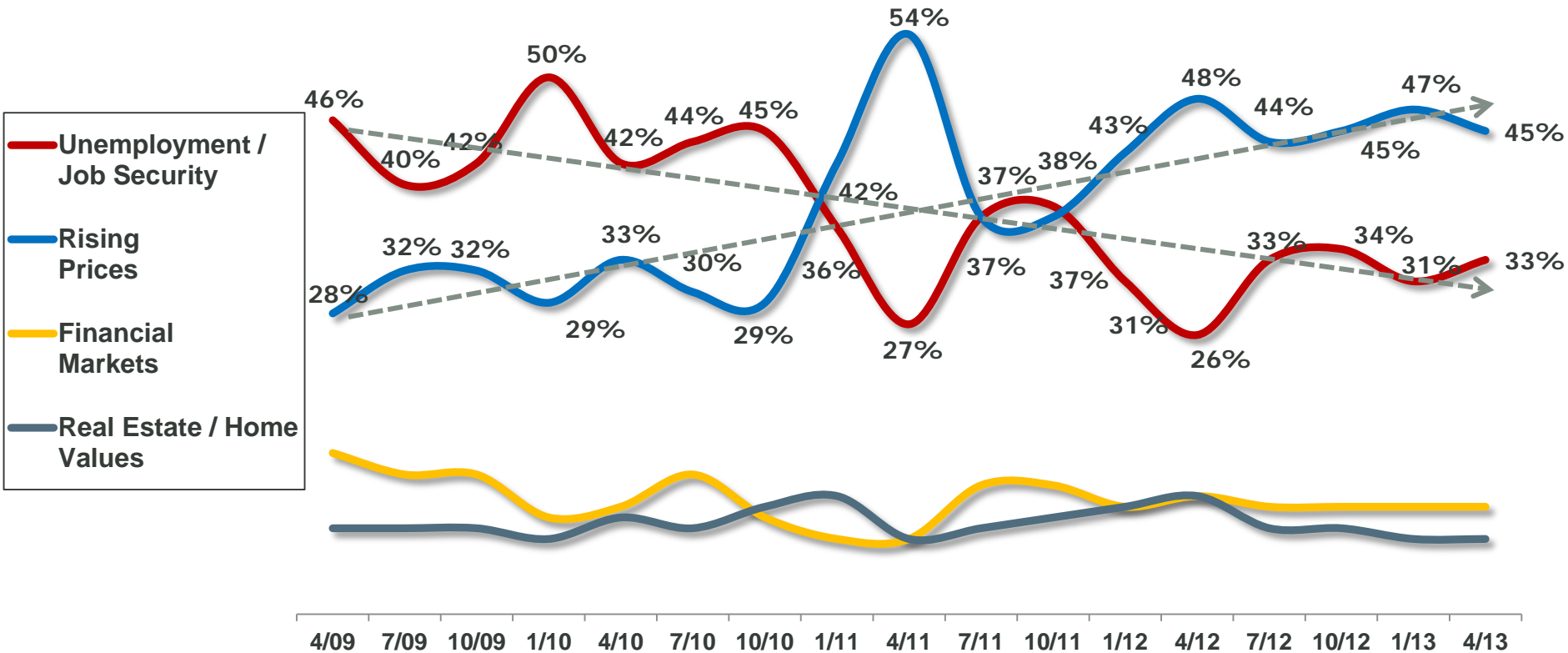
# Consumer Confidence = At Five-Year Highs, Though Still Well Below 30-Year Average



# Consumers Less Concerned About Employment, More Concerned About Rising Prices

## Percent of USA Respondents Citing Their One Most Important Issue, 4/09 – 4/13

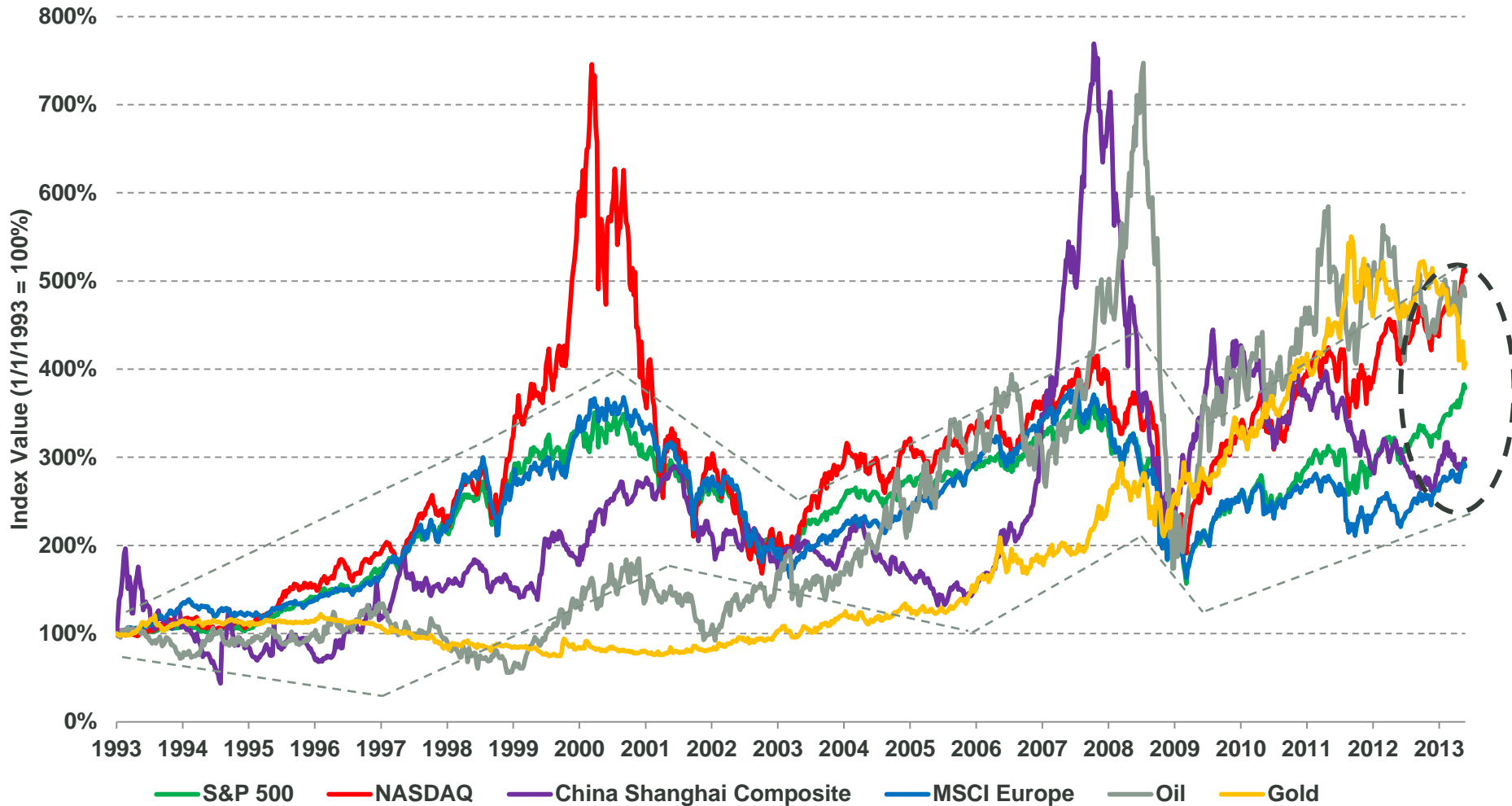
Q. Based on your current situation, which one of the following economic conditions most concerns you?





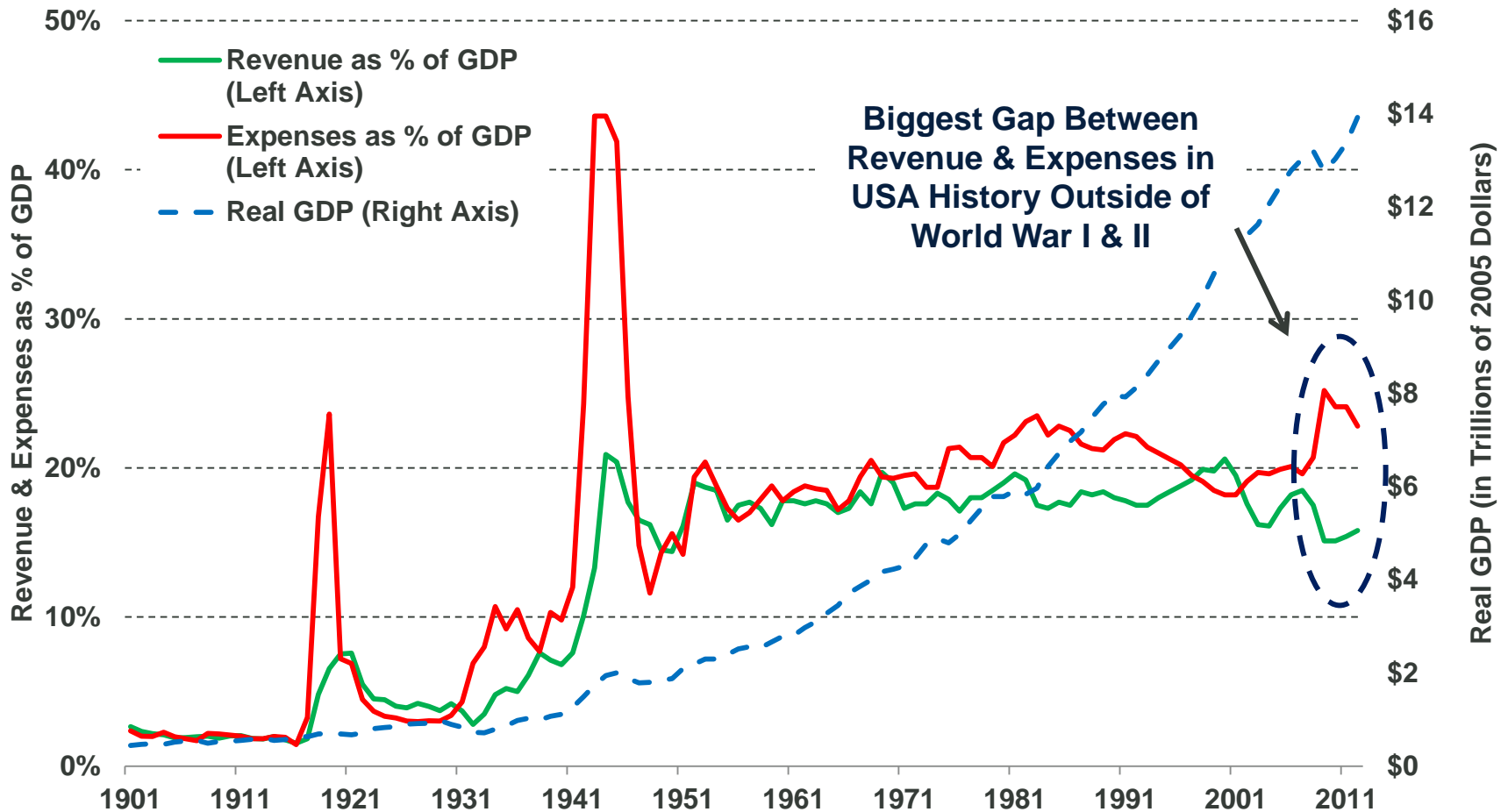
# Stock Markets = Often Leading Indicators of Economic Activity

## Stock / Commodity Markets Performance (% Change From 1/93), 1/93 – 5/13



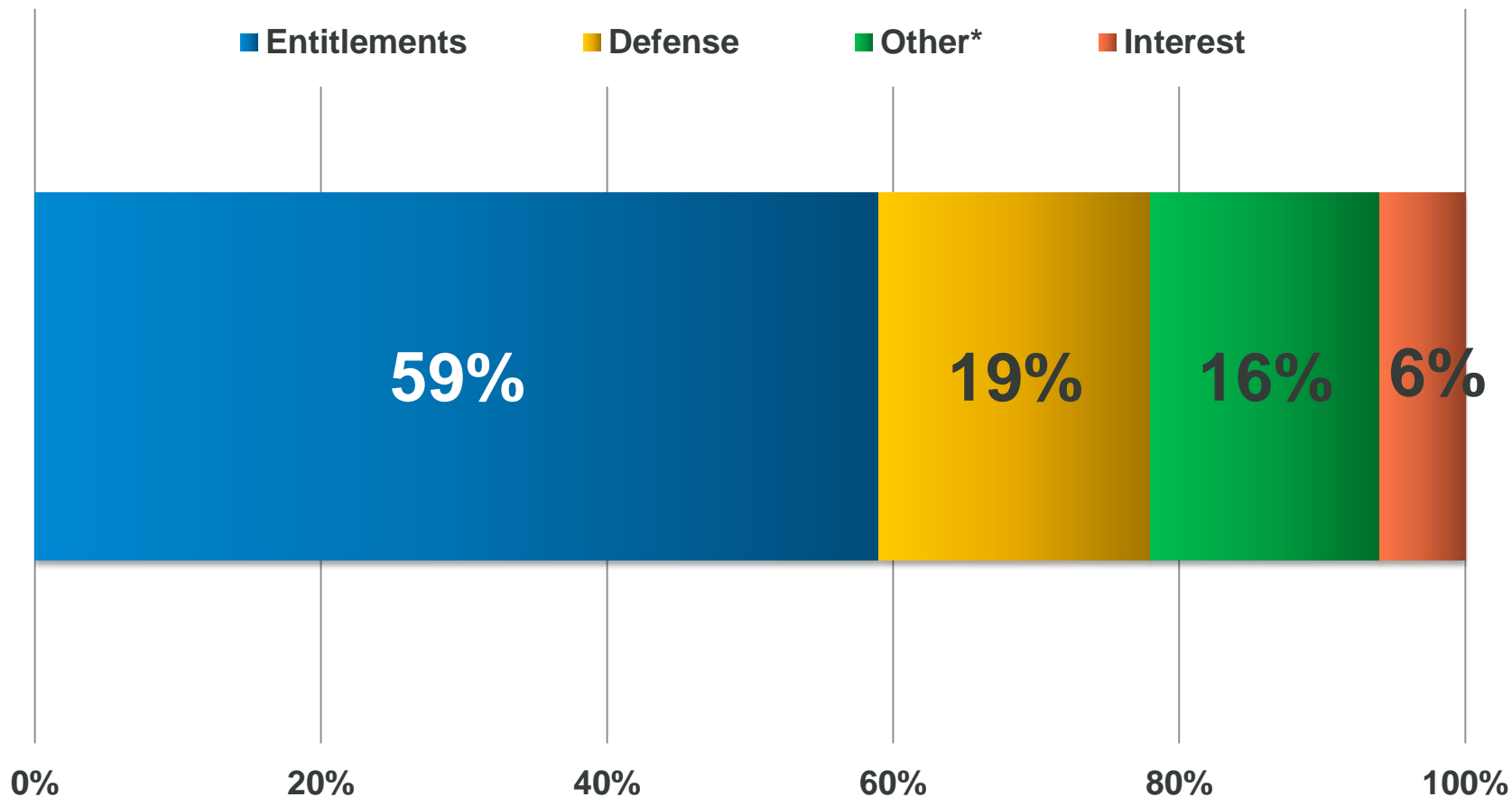
# USA, Inc. – Biggest Gap Between Revenue & Expenses in USA History Outside of World War I & II

## USA Inc. Revenue & Expenses as % of GDP, 1901 – 2012



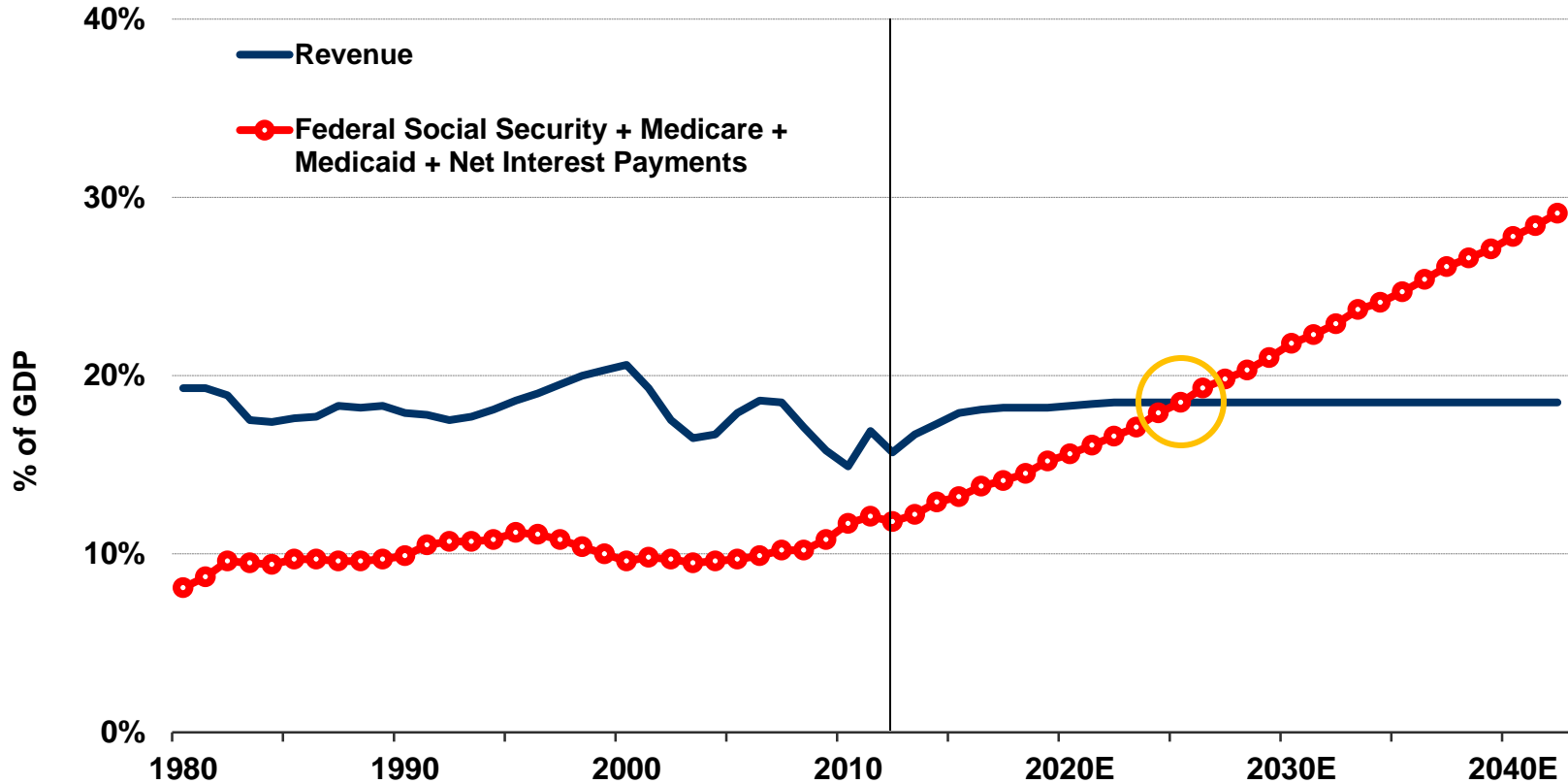
# Where Your Tax Dollars Go – Entitlements = 59%

**% of USA Federal Government Spending, 2012**



# USA Social Security + Medicare + Medicaid + Interest Payments Should Exceed Federal Revenue Within 12 Years, 35 Years Sooner than 1999 Forecast, per CBO

## Federal Social Security + Medicare + Medicaid + Interest Payments vs. Revenue as % of GDP, 1980 – 2042E



Source: Congressional Budget Office (CBO) Long-Term Budget Outlook (6/12). Data in our chart is based on CBO's 'alternative fiscal scenario' forecast, which assumes a continuation of today's underlying fiscal policy. Note that CBO also maintains an 'extended-baseline' scenario, which adheres closely to current law. The alternative fiscal scenario deviates from CBO's baseline because it incorporates some policy changes that are widely expected to occur and that policymakers have regularly made in the past.

# Disclosure

The information offered in this presentation speaks to industry trends in general, and should not be construed as providing any particular recommendations or analysis for any specific company that is mentioned in this presentation. KPCB is a venture capital firm that owns significant equity positions in certain of the companies referenced in this presentation.