INTERNET TRENDS
D11 CONFERENCE

5 / 29 / 2013

Mary Meeker / Liang Wu

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.

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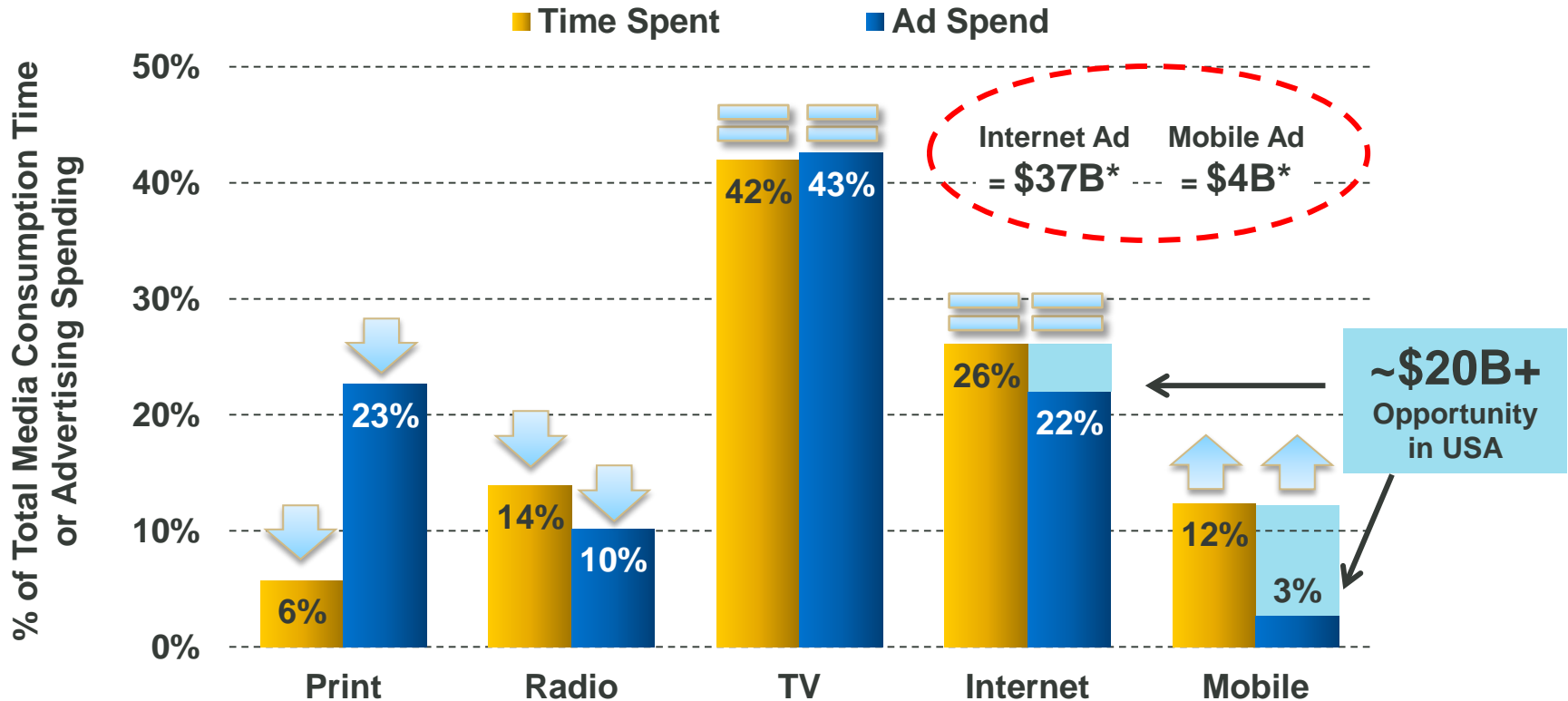# KEY INTERNET TRENDS – GROWTH CONTINUES

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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%

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Material Upside for Mobile Ad Spend vs. Mobile Usage

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

Legend: ■ Time Spent ■ Ad Spend

Y-axis: % of Total Media Consumption Time or Advertising Spending

Print: Time Spent 6%, Ad Spend 23%
Radio: Time Spent 14%, Ad Spend 10%
TV: Time Spent 42%, Ad Spend 43%
Internet: Time Spent 26%, Ad Spend 22%
Mobile: Time Spent 12%, Ad Spend 3%

Internet Ad = $37B*   Mobile Ad = $4B*
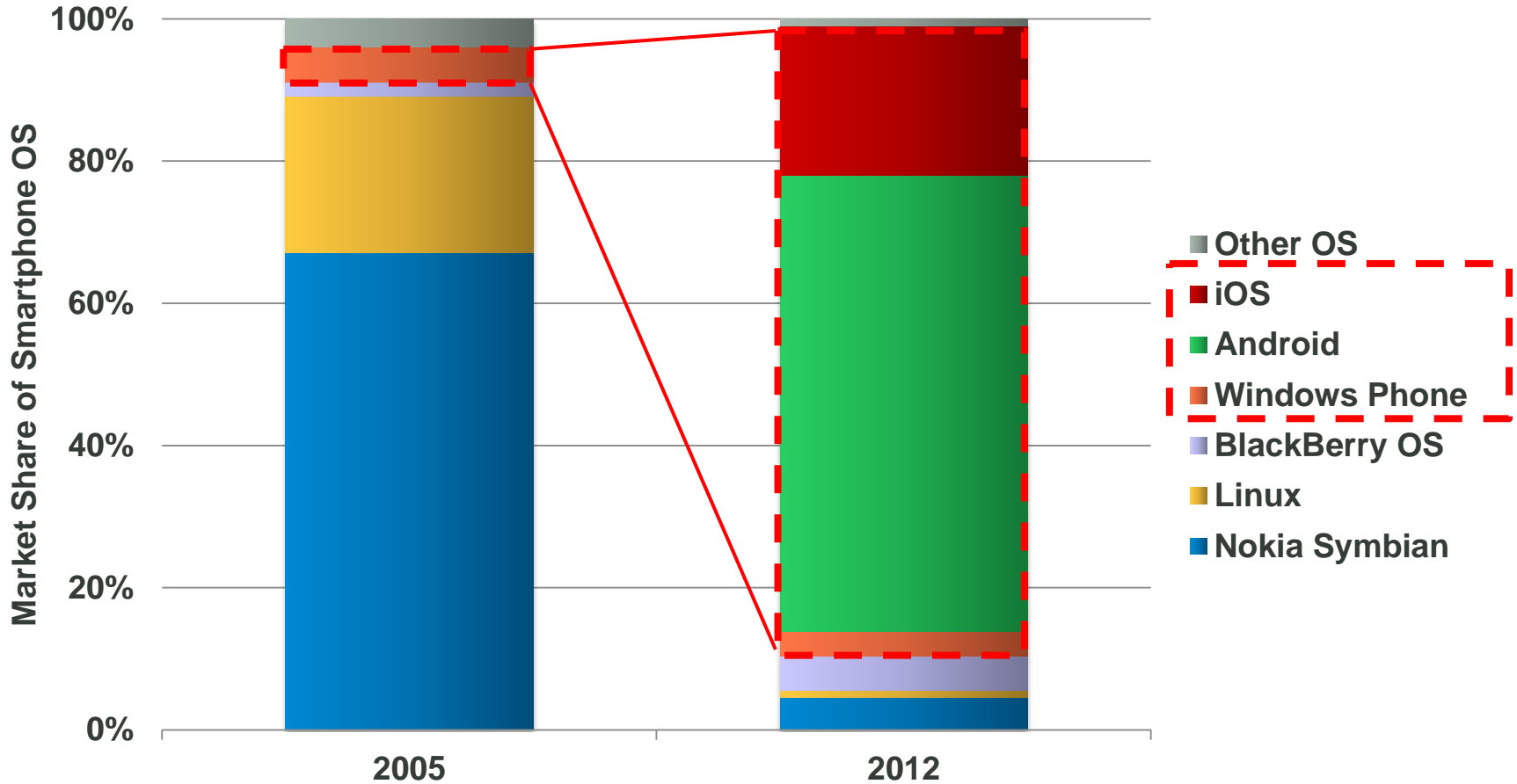
~$20B+ Opportunity in USA

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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

Chart: Monthly Unique Visitors (MMs), showing USA Users (yellow) and International Users (blue).

Property	
Google	~1,120
Microsoft	~850
Facebook	~820
Yahoo!	~700
Wikipedia	~480
Amazon.com	~350
Apple	~290
Glam Media	~280
Tencent	~280
Baidu.com	~260

Legend:
- USA Users
- International Users

X-axis: Monthly Unique Visitors (MMs) — 0, 200, 400, 600, 800, 1,000, 1,200

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Source: comScore Global, 2/13.
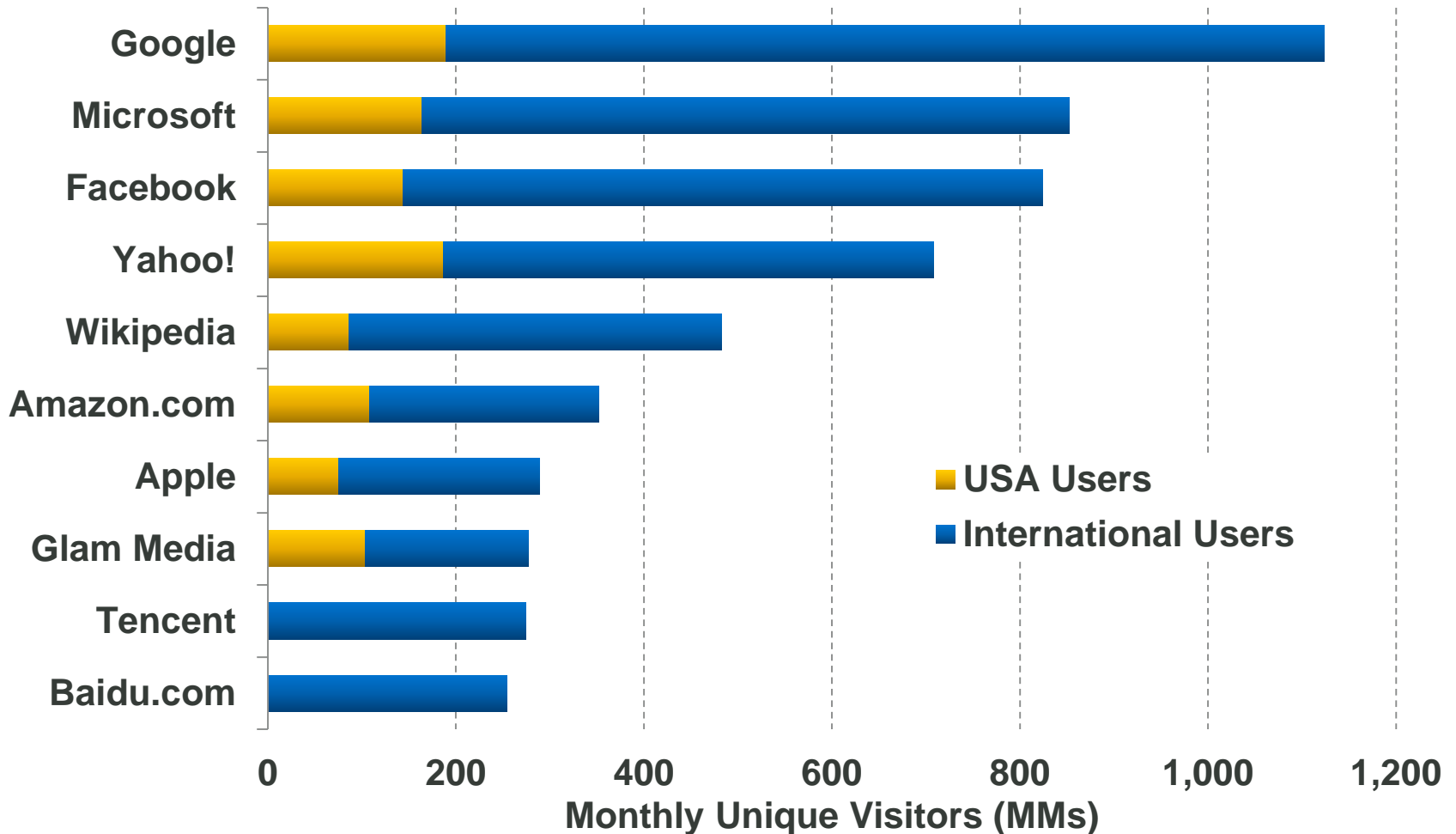
Global Smartphone Operating Systems 'Made in USA'… 88% Share from 5% Six Years Ago

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

Market Share of Smartphone OS

- Other OS
- iOS
- Android
- Windows Phone
- BlackBerry OS
- Linux
- Nokia Symbian

2005   2012

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

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

1990s
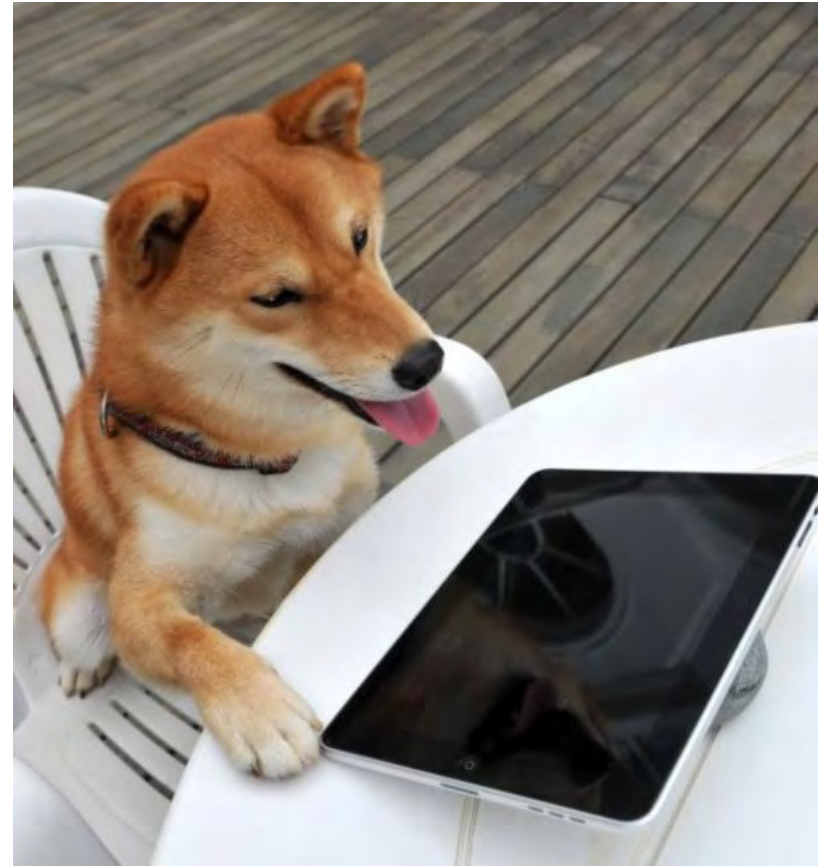
2010s

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

1993
On the Internet, <u>nobody</u> knows you're a dog.

2013
*On the Internet, <u>everybody</u> knows you're a dog.*

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

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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

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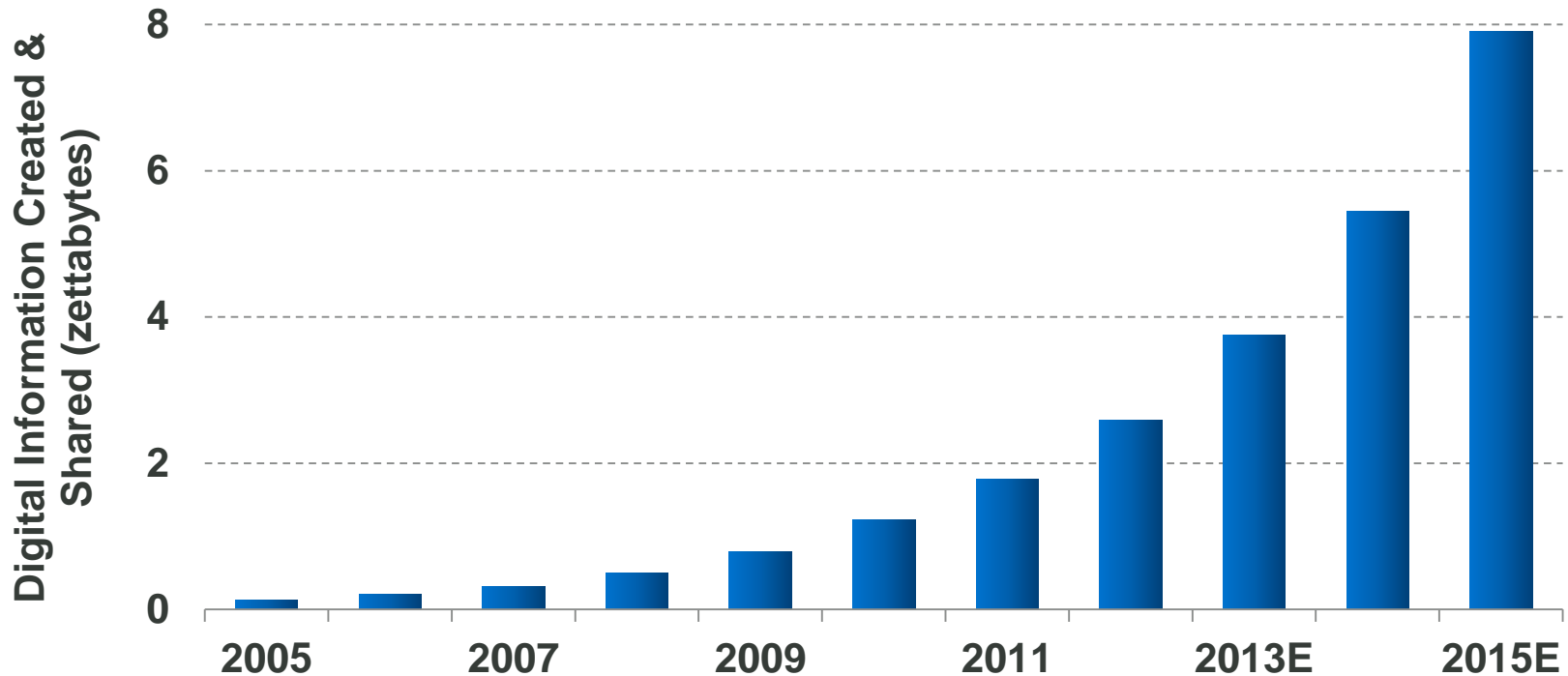
Media + Data Uploading + Sharing from Mobiles = Ramping Fast & Still Early Stage

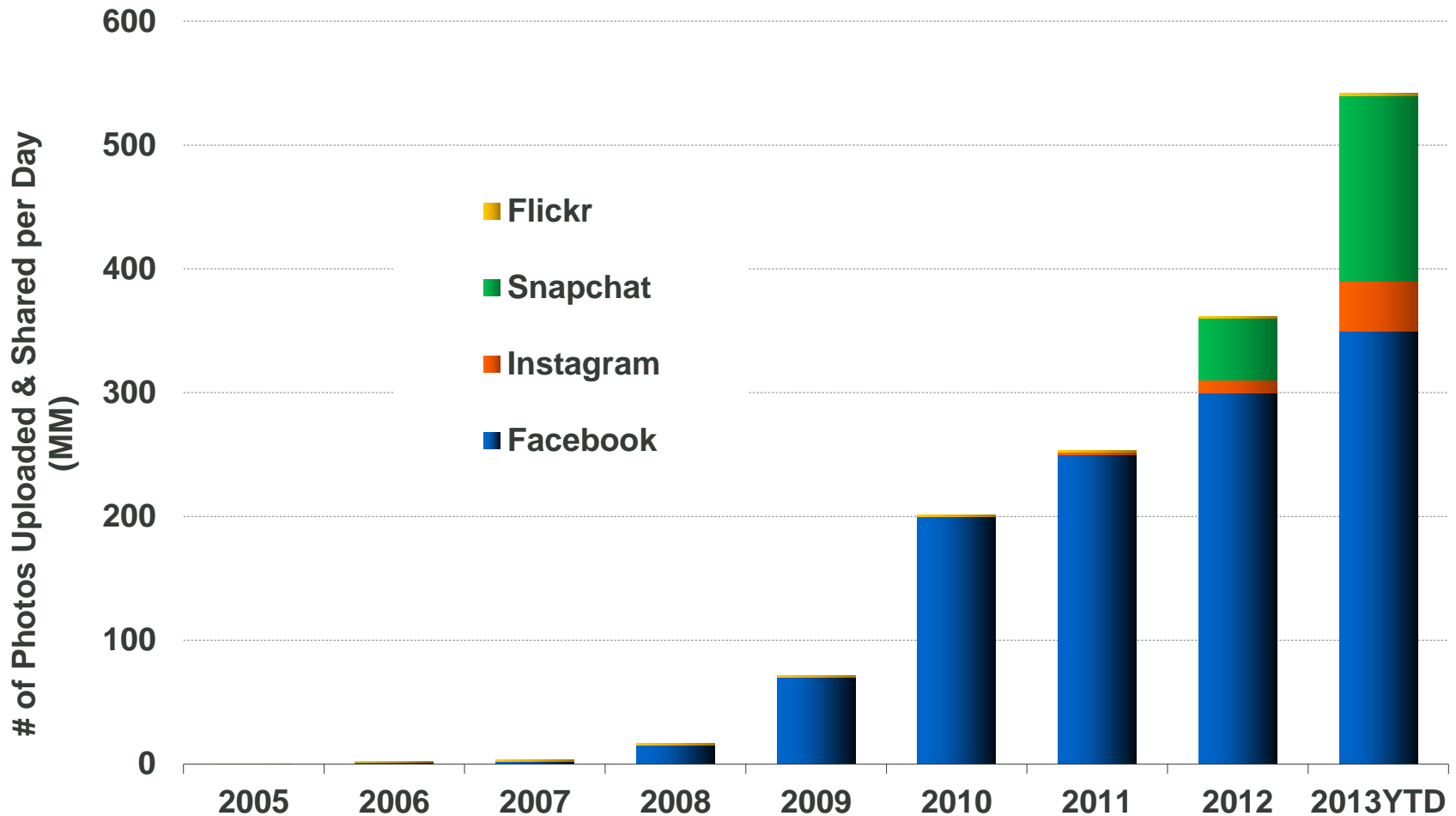| First	Now	Next	Next
PHOTOS	**VIDEO**	**SOUND**	**DATA**
Explosive Growth, But Still Early Stage	Ramping Very Fast	Emerging	Emerging

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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

Legend:
- ■ Flickr
- ■ Snapchat
- ■ Instagram
- ■ Facebook

Y-axis: # of Photos Uploaded & Shared per Day (MM), scale 0–600

X-axis: 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013YTD

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Short-Term Sharing Exploding – Snapchat Growth From Content That Disappears, Up >2x in 2 Months
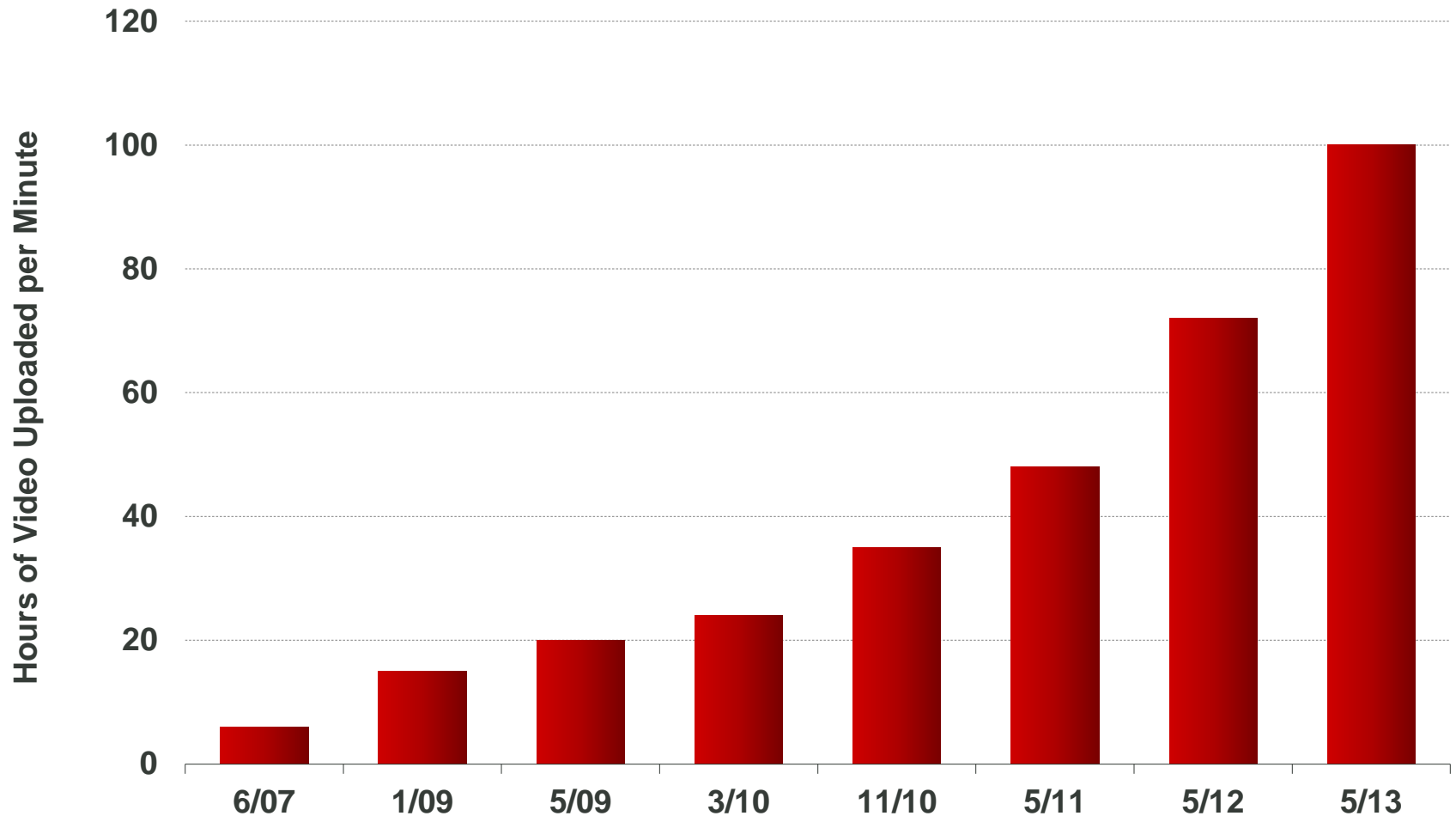
Snapchat Daily Number of 'Snaps'
5/12 – 4/13
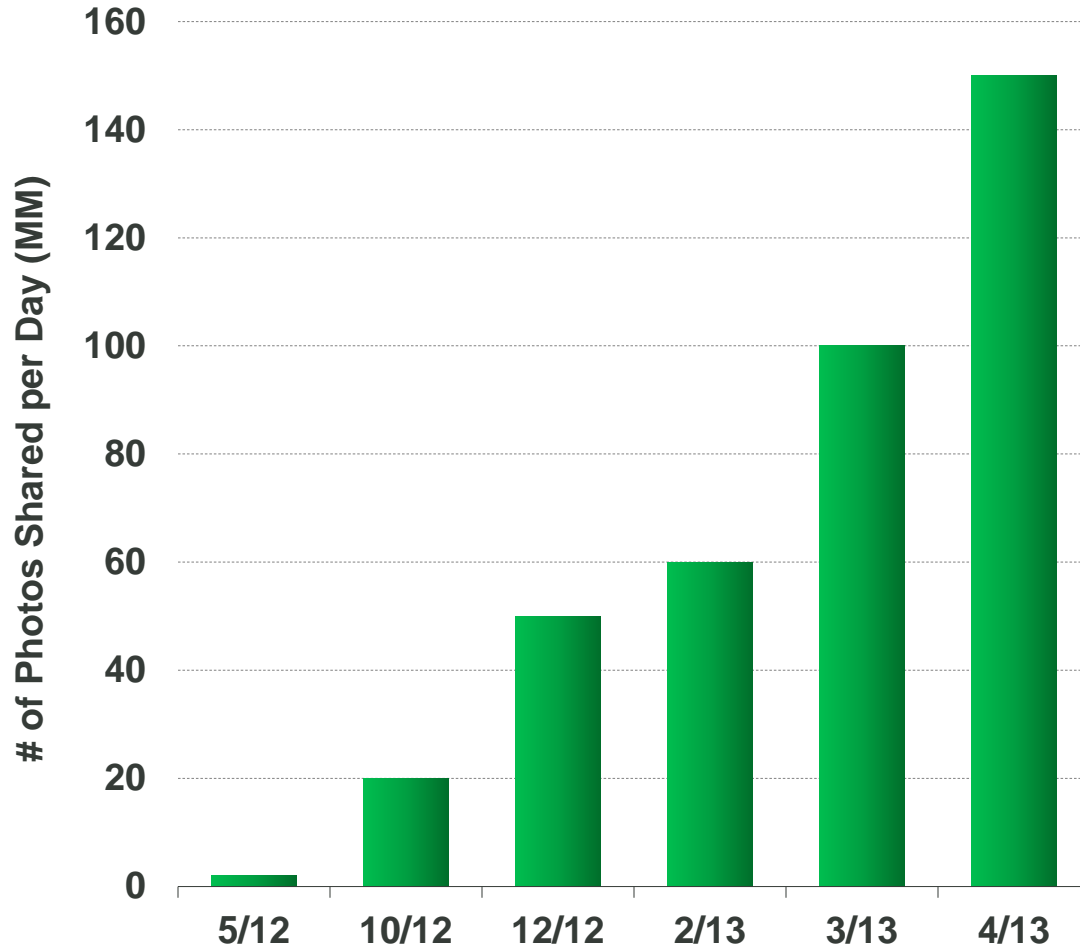
Choose How Long Your 'Snap' Lives

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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

Hours of Video Uploaded per Minute

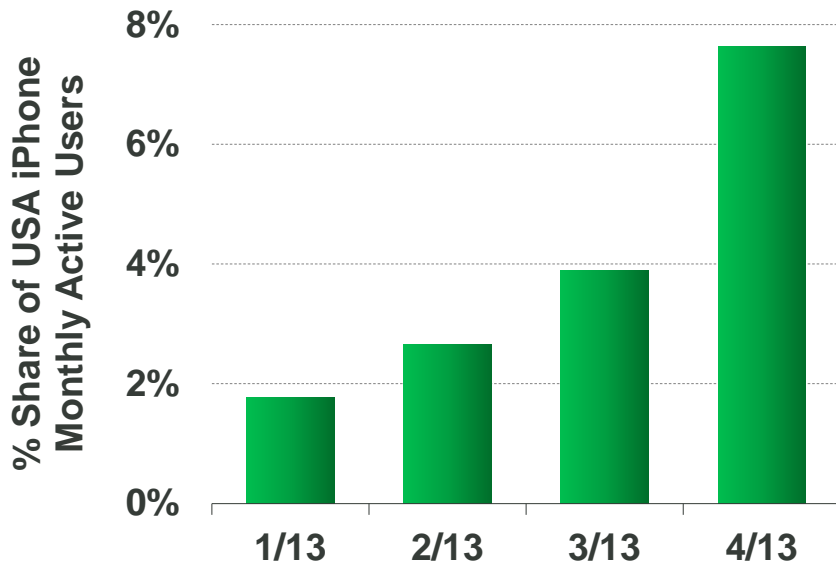| 6/07 | 1/09 | 5/09 | 3/10 | 11/10 | 5/11 | 5/12 | 5/13 |

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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
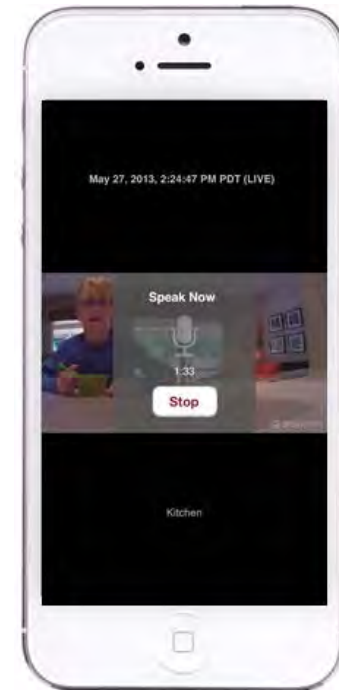Uploaded per Minute Than YouTube**

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…

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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
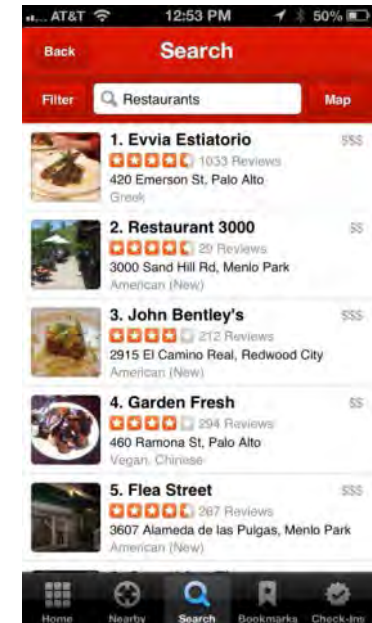
Jawbone UP

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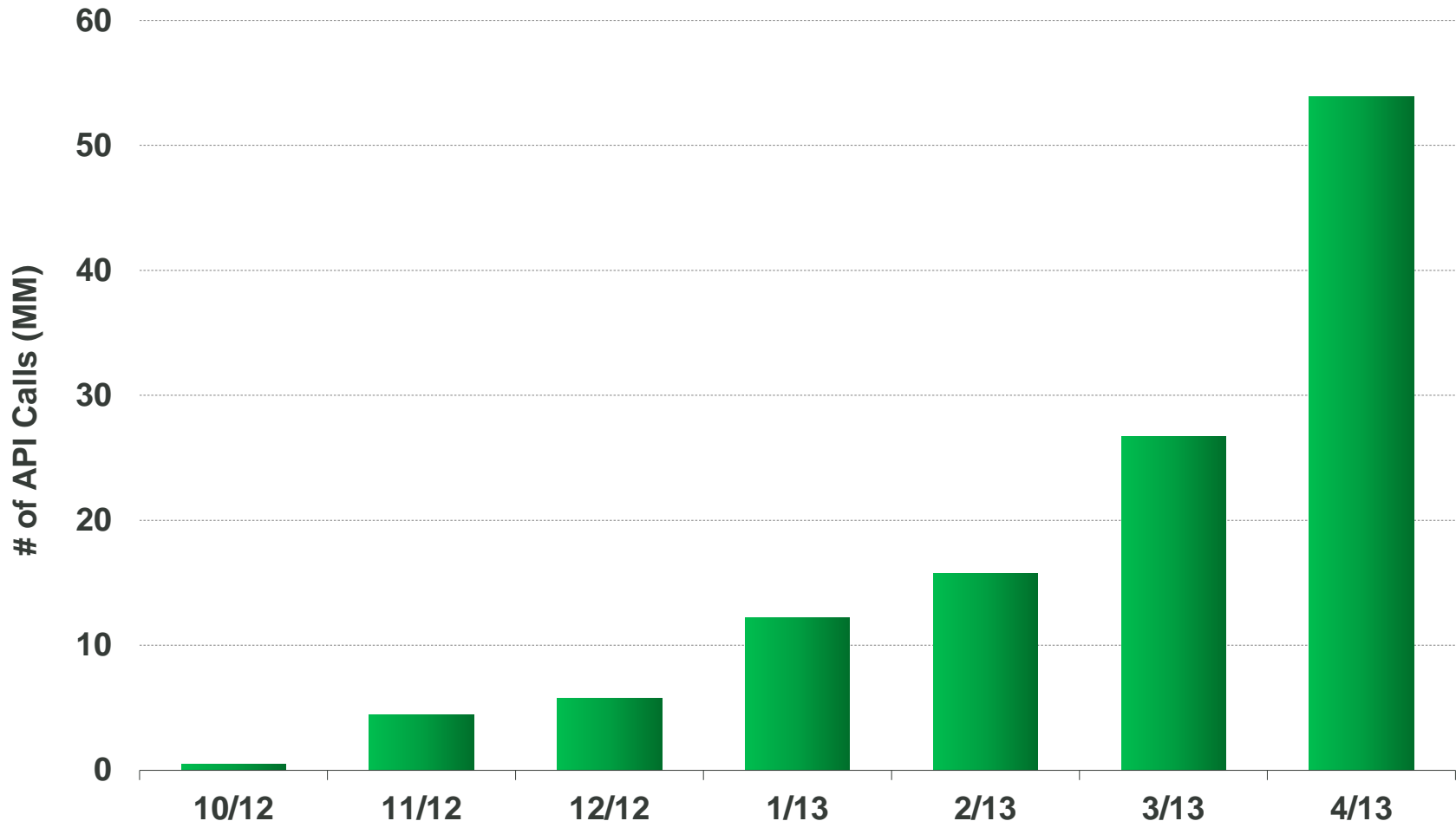- 700K+ Hours of Sleep
- 5x App Interactions per User

Yelp

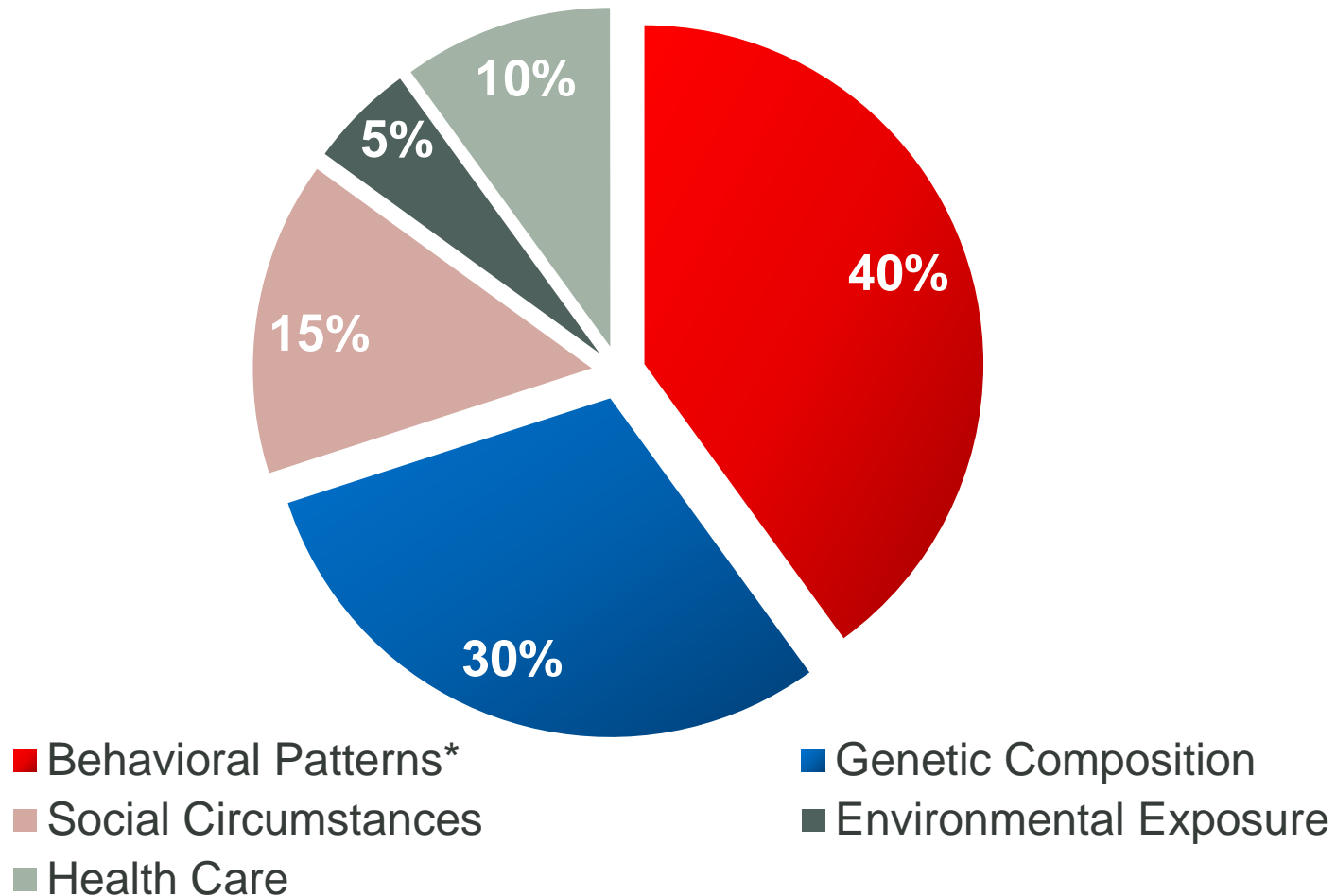- 102MM Users, +43% Y/Y
- 39MM User-Generated Reviews, +42% Y/Y

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

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

Note: *API calls are data request from fitness devices (such as Jawbone UP) and GPS-enabled activity tracking apps (such as Endomondo / Runtastic) that partner with MyFitnessPal. Source: MyFitnessPal.

USA Proportional Contribution to Premature Death, 2007

Legend:
- Behavioral Patterns*
- Genetic Composition
- Social Circumstances
- Environmental Exposure
- Health Care

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

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Sharing…

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

Which of the Following Social Media Do You Use?

Legend: ■ 2012 ■ 2011

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Americans = Sharing Underachievers…

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

World Average = 24%

15%
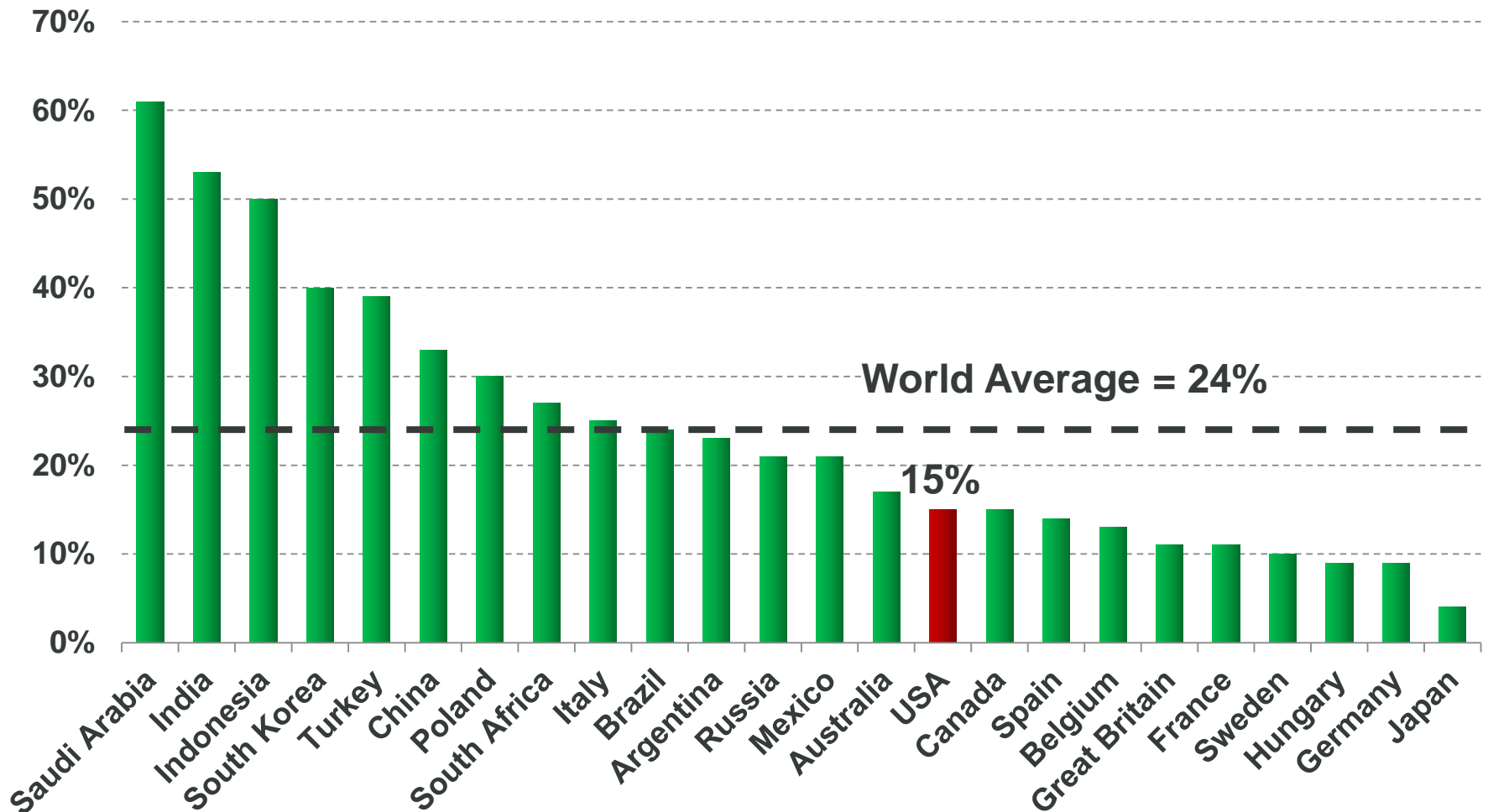
Ramp in Always-On Connected Global Citizens

- 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

Source: IDC, 3/13. Facebook-sponsored research asked smartphone owners how an array of social and communication activities on their phones made them feel. Most owners use ~7.4 social and communications apps on their phones. Responses are indexed above.

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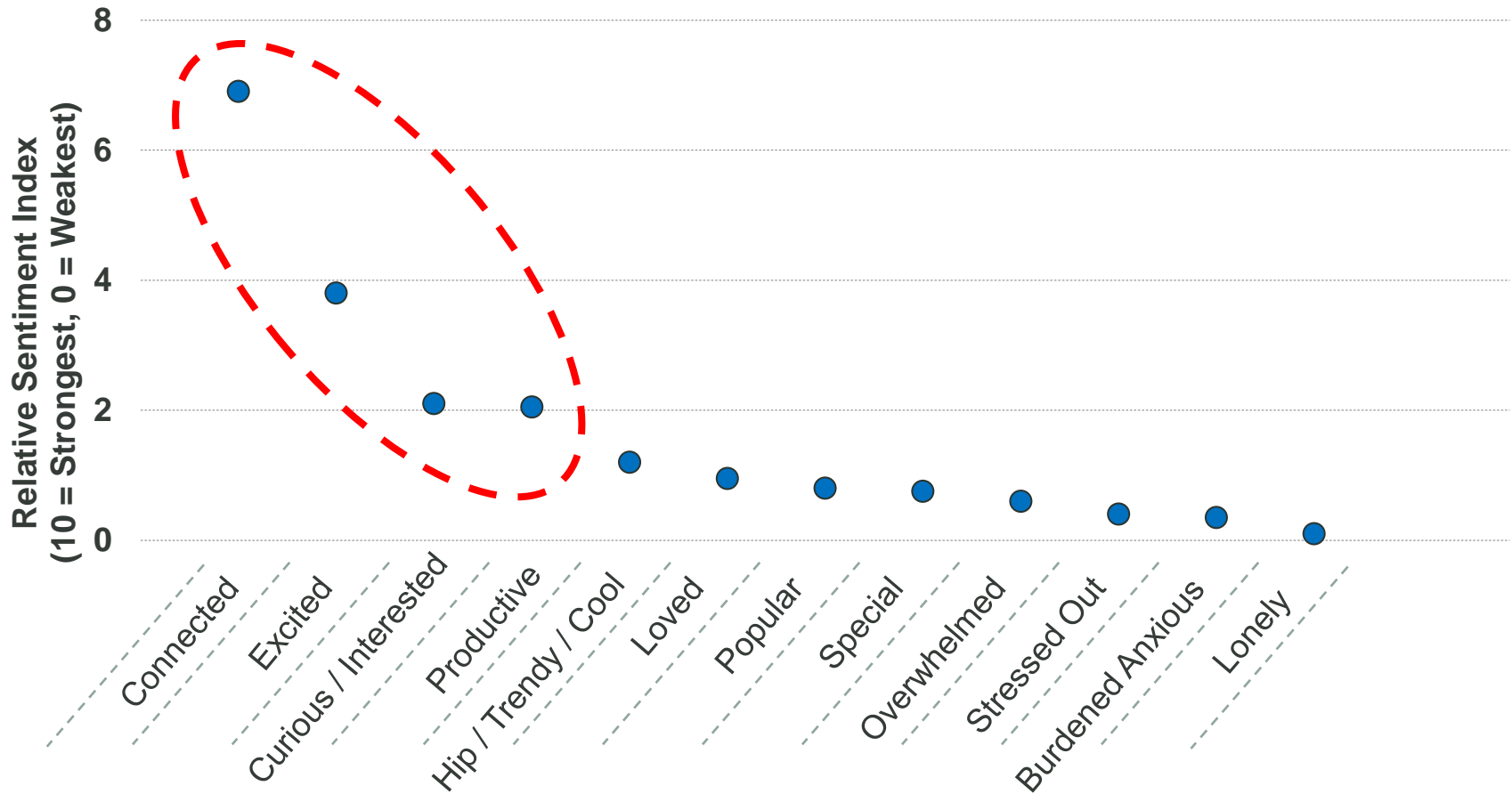
Mobile Traffic as % of Global Internet Traffic =
Growing 1.5x per Year & Likely to Maintain Trajectory or Accelerate

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

% of Internet Traffic

- 0.9% in 5/09
- 2.4% in 5/10
- 6% in 5/11
- 10% in 5/12
- 15% in 5/13
- Trendline

12/08   12/09   12/10   12/11   12/12   12/13E   12/14E

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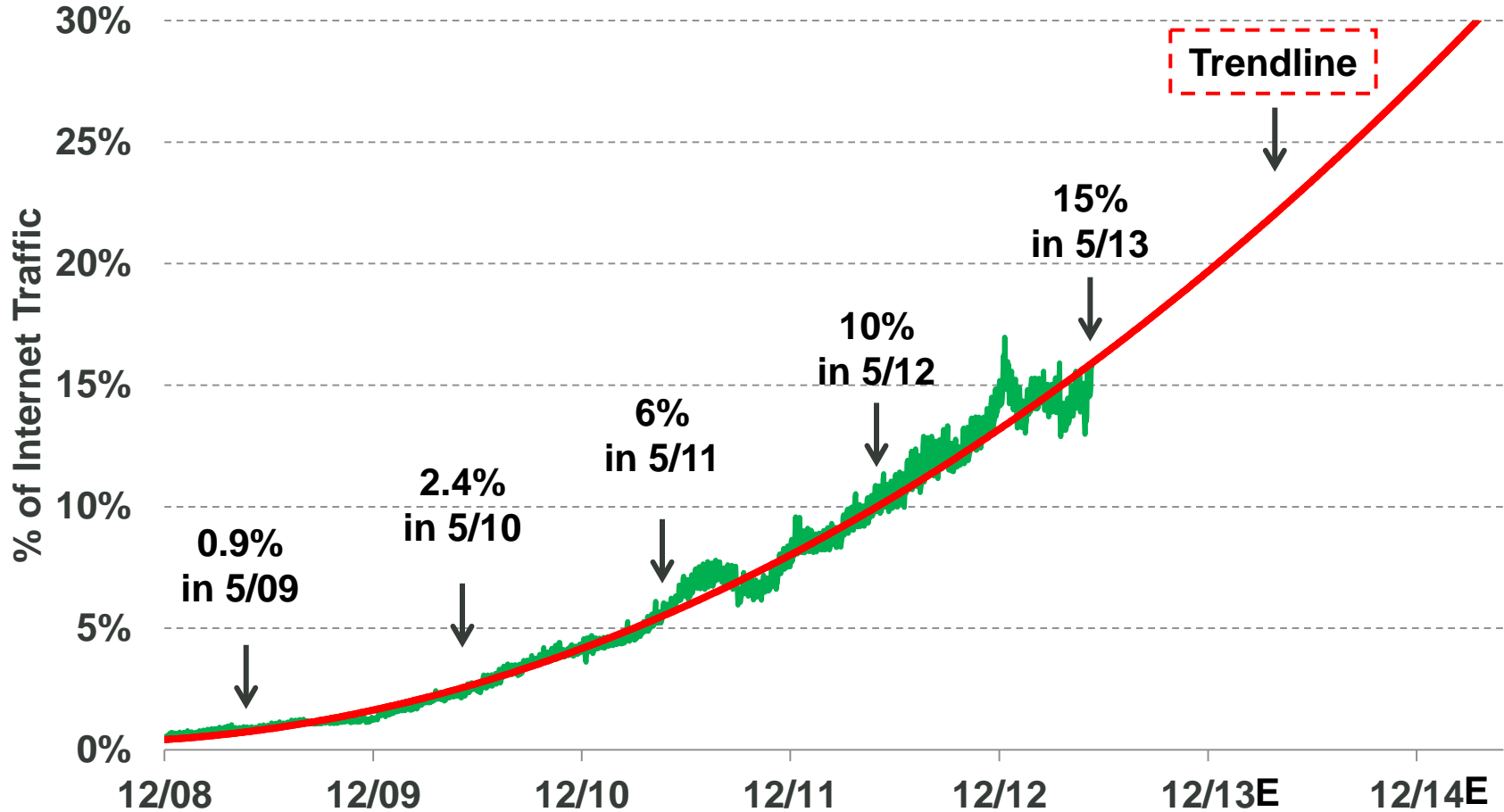
**% of Chinese Internet Users Accessing the Web
via Desktop PCs vs. via Mobile Phones, 6/07 – 12/12**

% of Total Internet Users in China

- via Desktop PC
- via Mobile Phone

96%

75%

71%

28%

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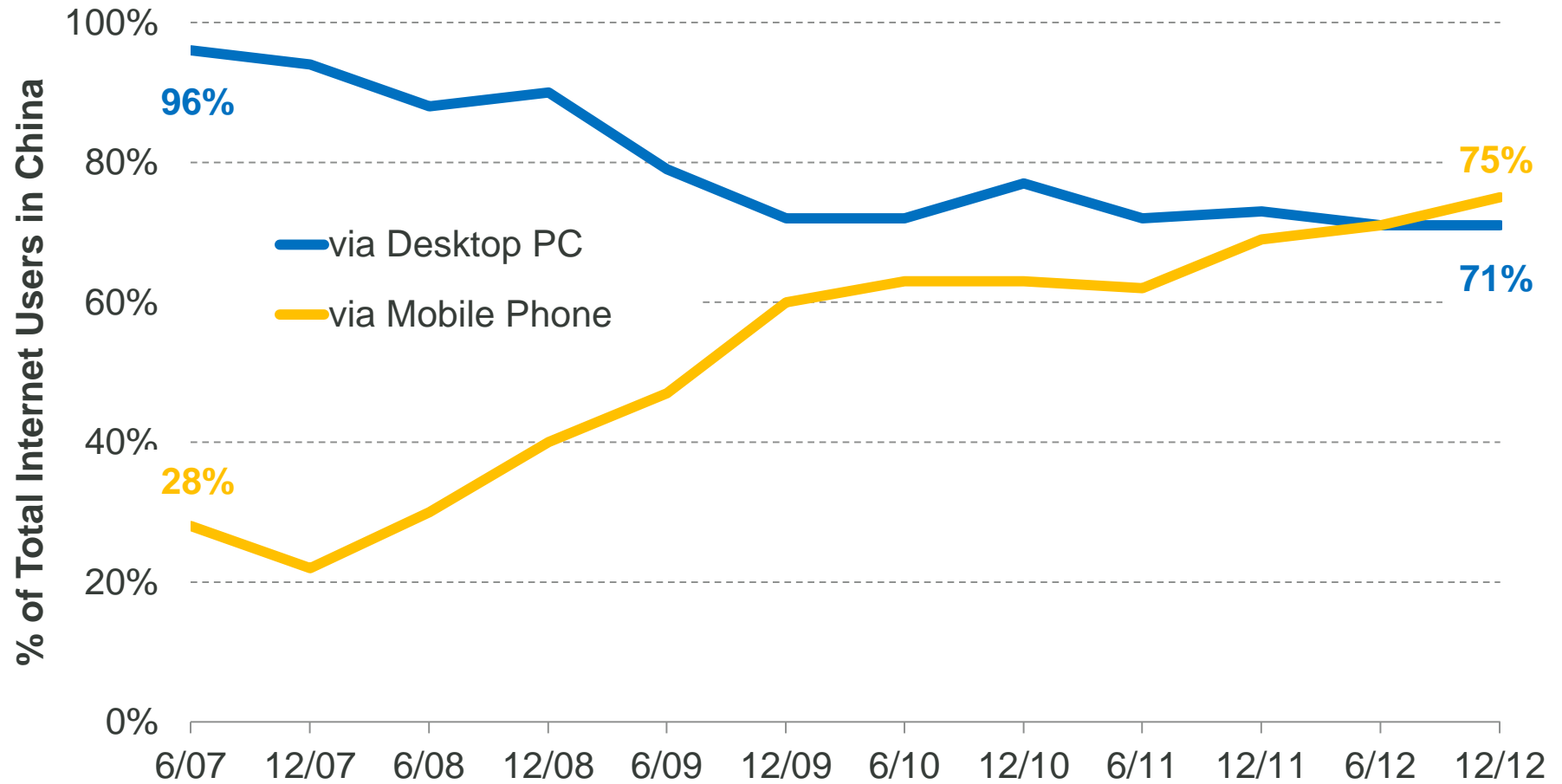
S. Korea –
Mobile Search Queries Surpassed PC, Q4:12

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

NHN Search Query (Indexed)

PC Query

Mobile Query

1/11   3/11   5/11   7/11   9/11   11/11   1/12   3/12   5/12   7/12   9/12   11/12   1/13   3/13
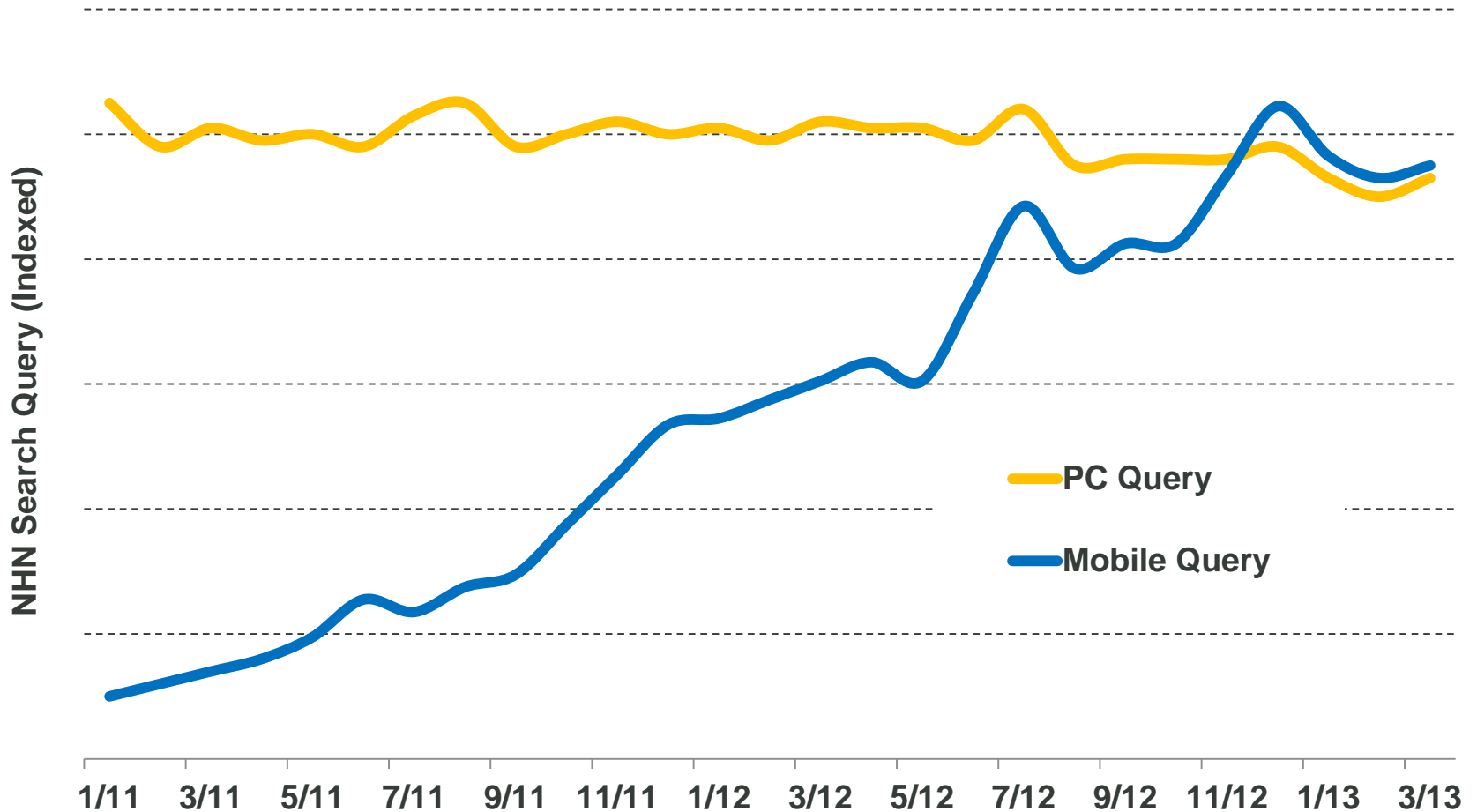
Groupon N. America –
45% of Transactions on Mobile, Up from <15% Two Years Ago

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

45%

14%

Groupon North America Transactions Completed on Mobile (%)

Source: Groupon, as of 3/13.

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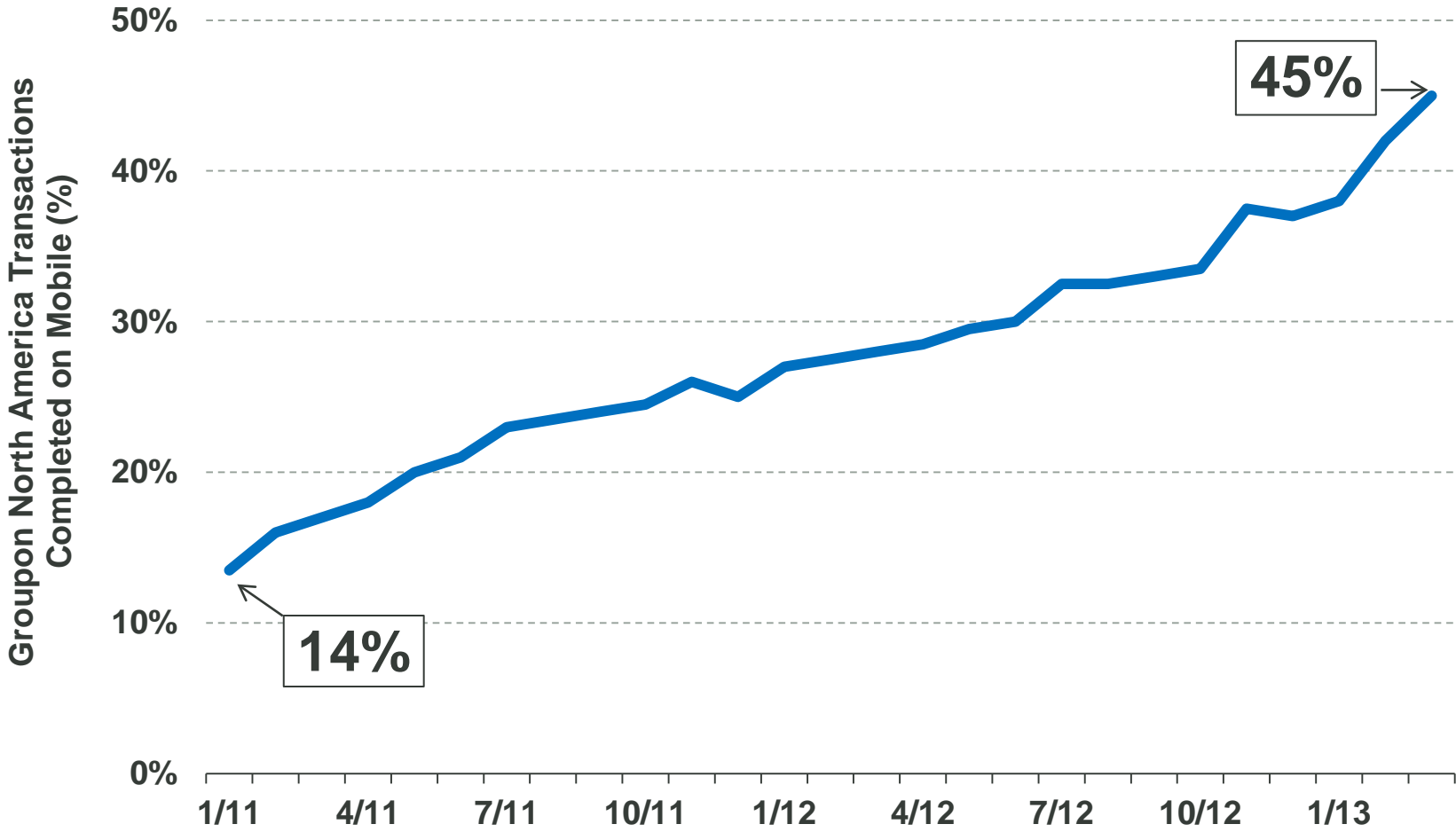
Facebook – Mobile Has Helped Drive Users & Revenue,
Q1 Growth = Revenue +43% Y/Y, Mobile Users +54% (to 68%), ARPU + 15%

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

Annualized Ad ARPU ($)

$6

$4

$2

0

3/11 6/11 9/11 12/11 3/12 6/12 9/12 12/12 3/13

Desktop Ad ARPU   Mobile Ad ARPU   Overall Ad ARPU
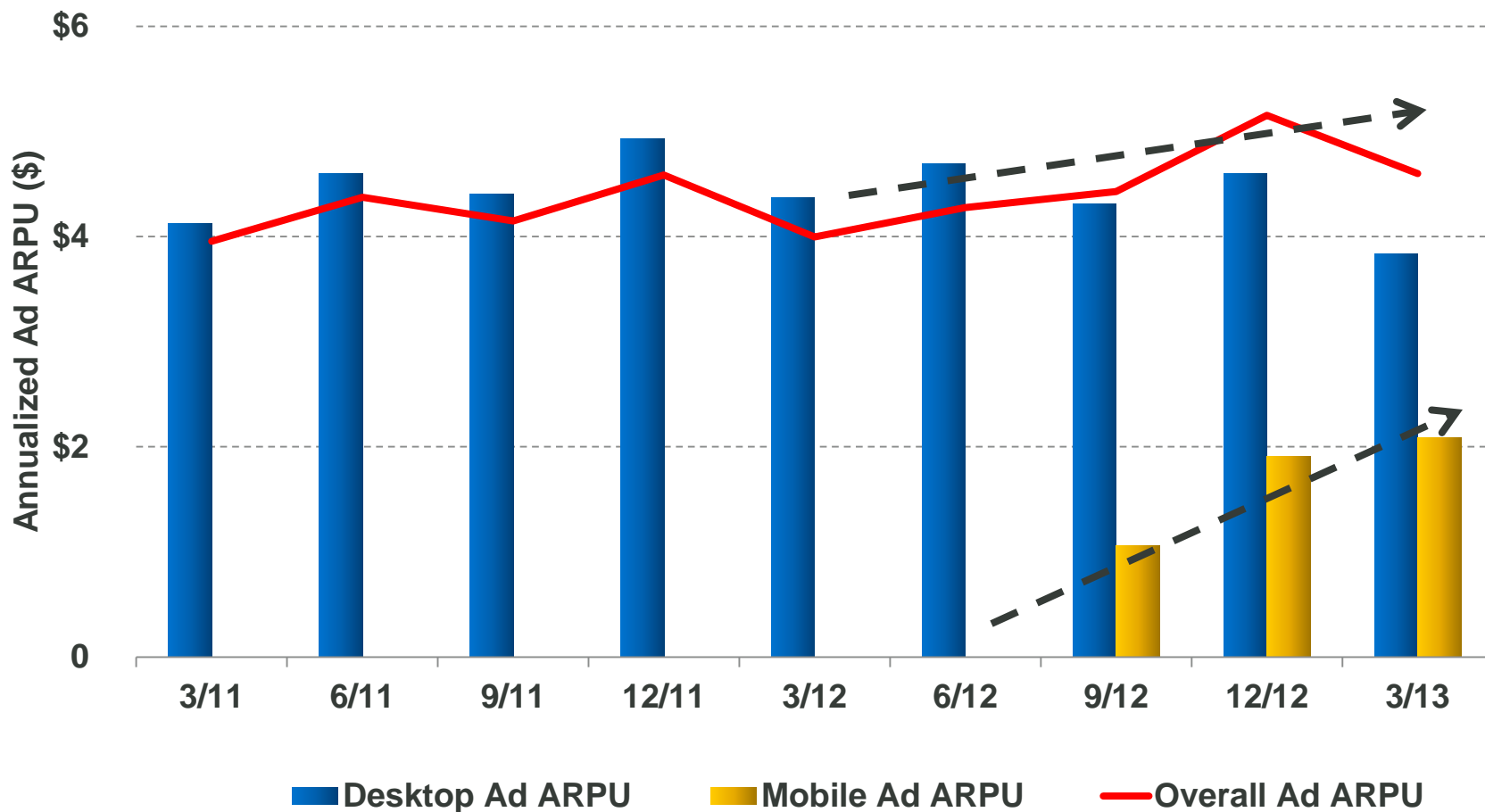
COMPUTING –
YET ANOTHER PLATFORM CHANGE…

We Just Began to Figure Out Smartphones…

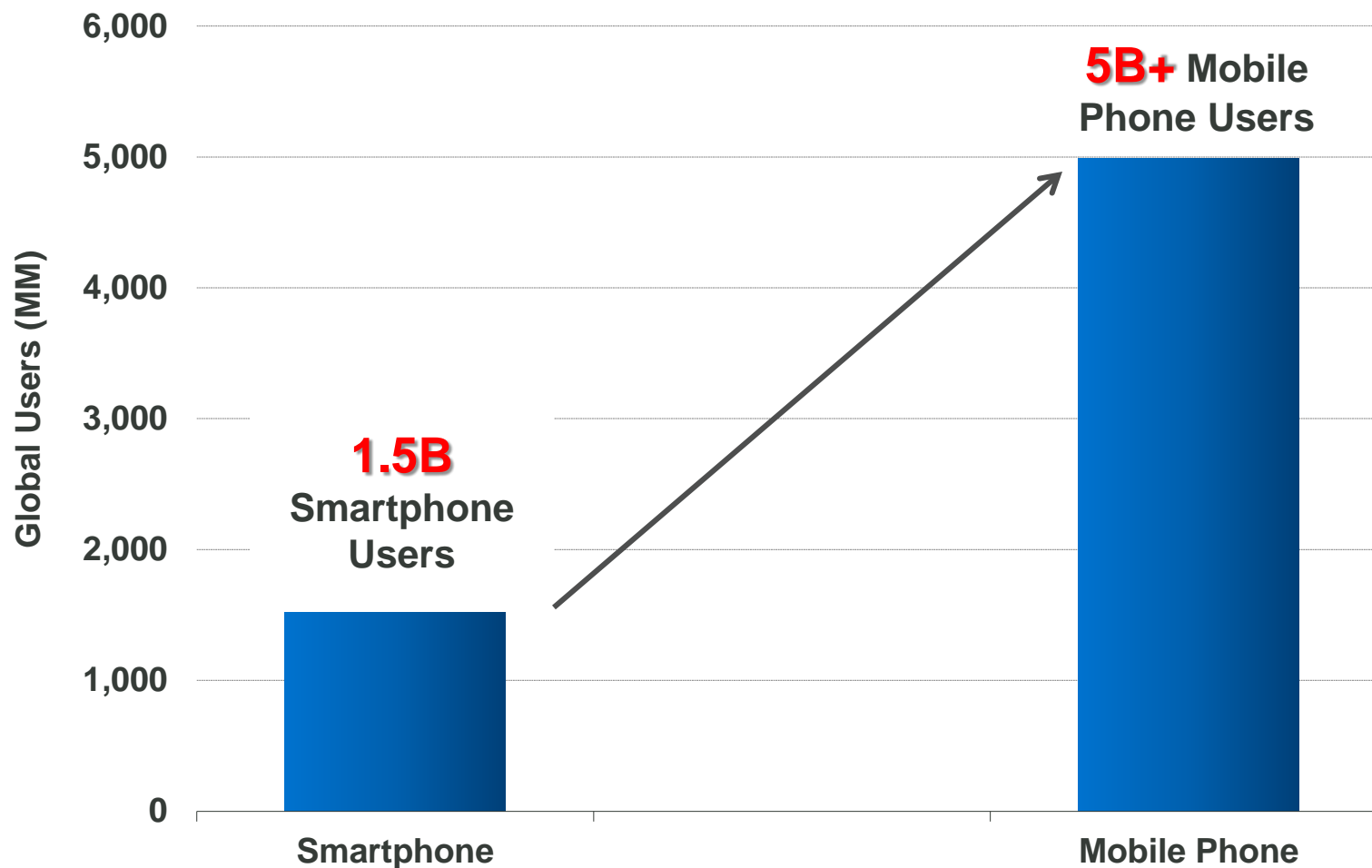# Smartphone Subscriber Growth = Remains Rapid
1.5B Subscribers, 31% Growth, 21% Penetration in 2013E

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%

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

Global Smartphone vs. Mobile Phone Users, 2013E

5B+ Mobile Phone Users

1.5B Smartphone Users

Y-axis: Global Users (MM) — 0, 1,000, 2,000, 3,000, 4,000, 5,000, 6,000

X-axis: Smartphone, Mobile Phone

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

Global Smartphone Unit Market Share

Q1:10

Q4:12

16%

4%

80%

22%

49%

29%

- Apple
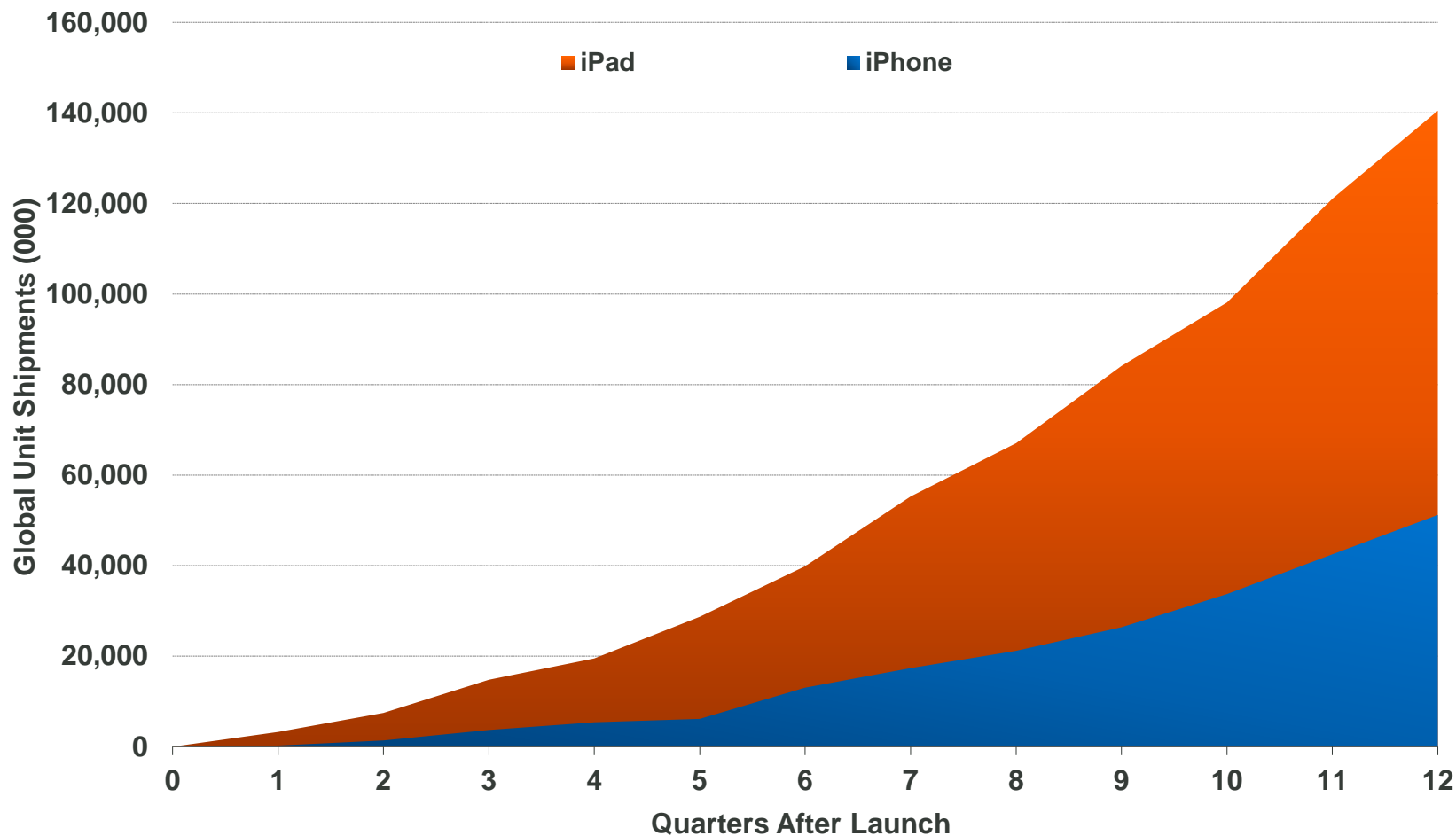- Samsung
- Other

55MM Units

219MM Units

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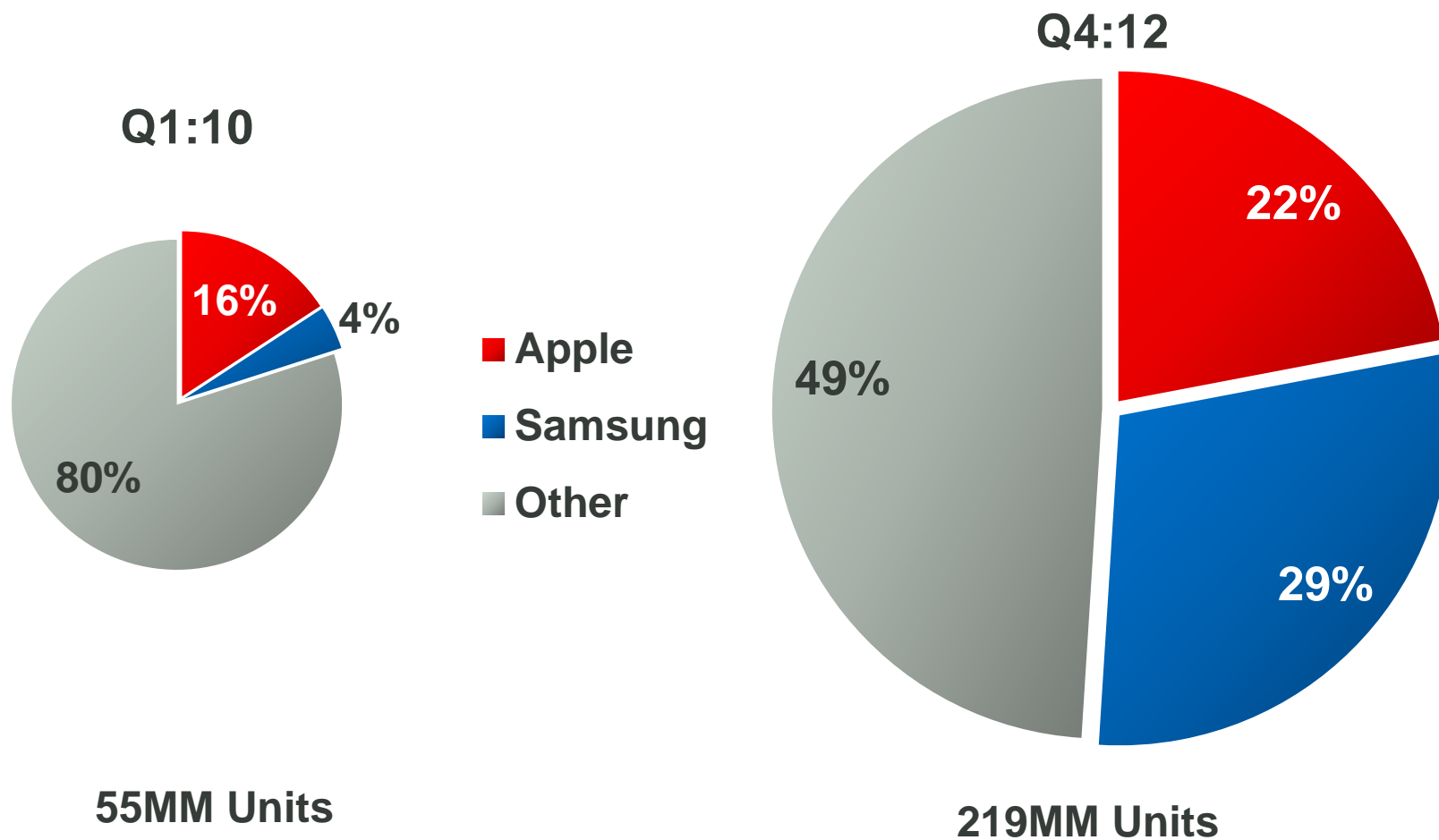
…Then Along Came Tablets…

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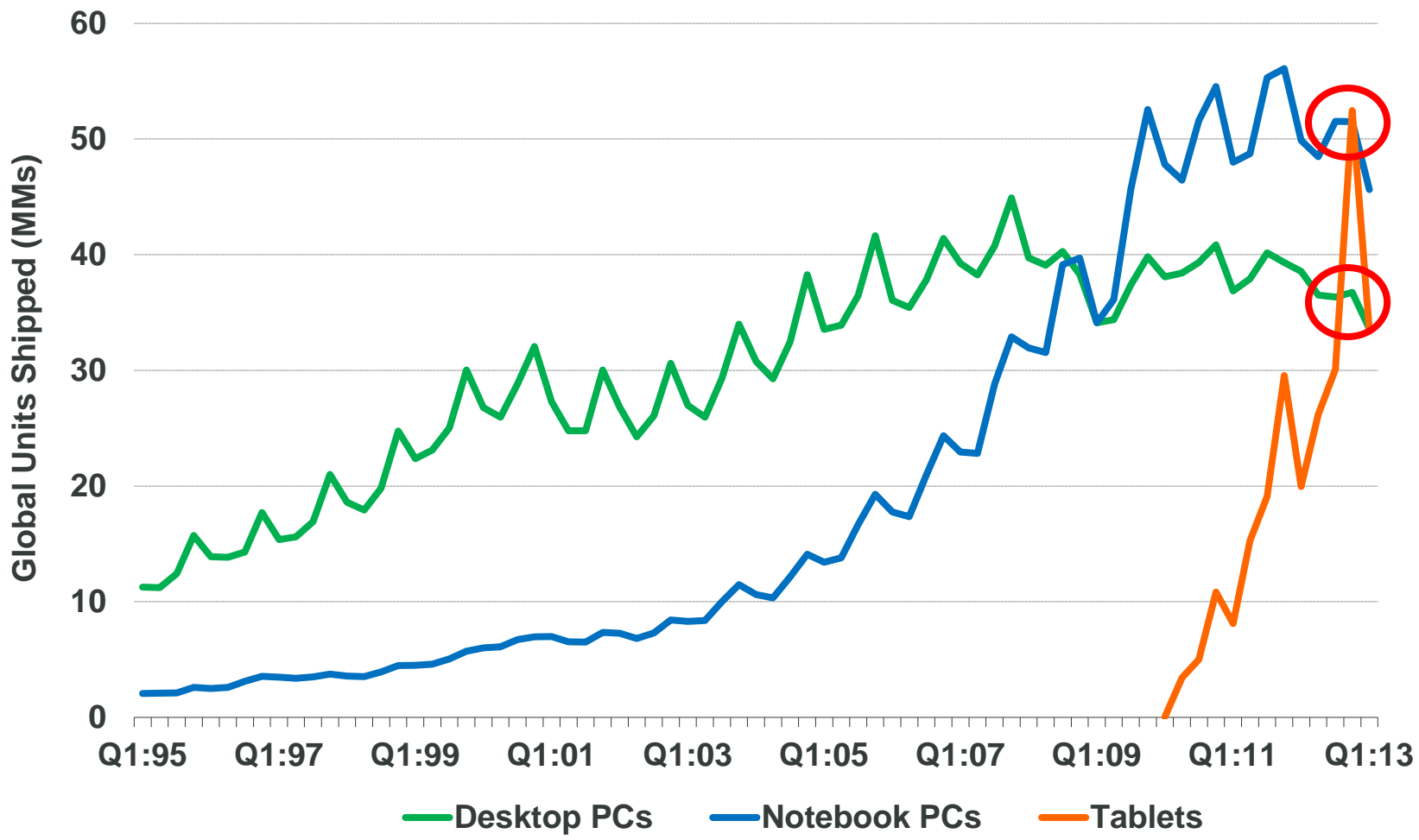## More Rapid than Smartphones, iPad = ~3x iPhone Growth

First 12 Quarters Cumulative Unit Shipments, iPhone vs. iPad

Legend: ■ iPad ■ iPhone

Y-axis: Global Unit Shipments (000), 0 – 160,000

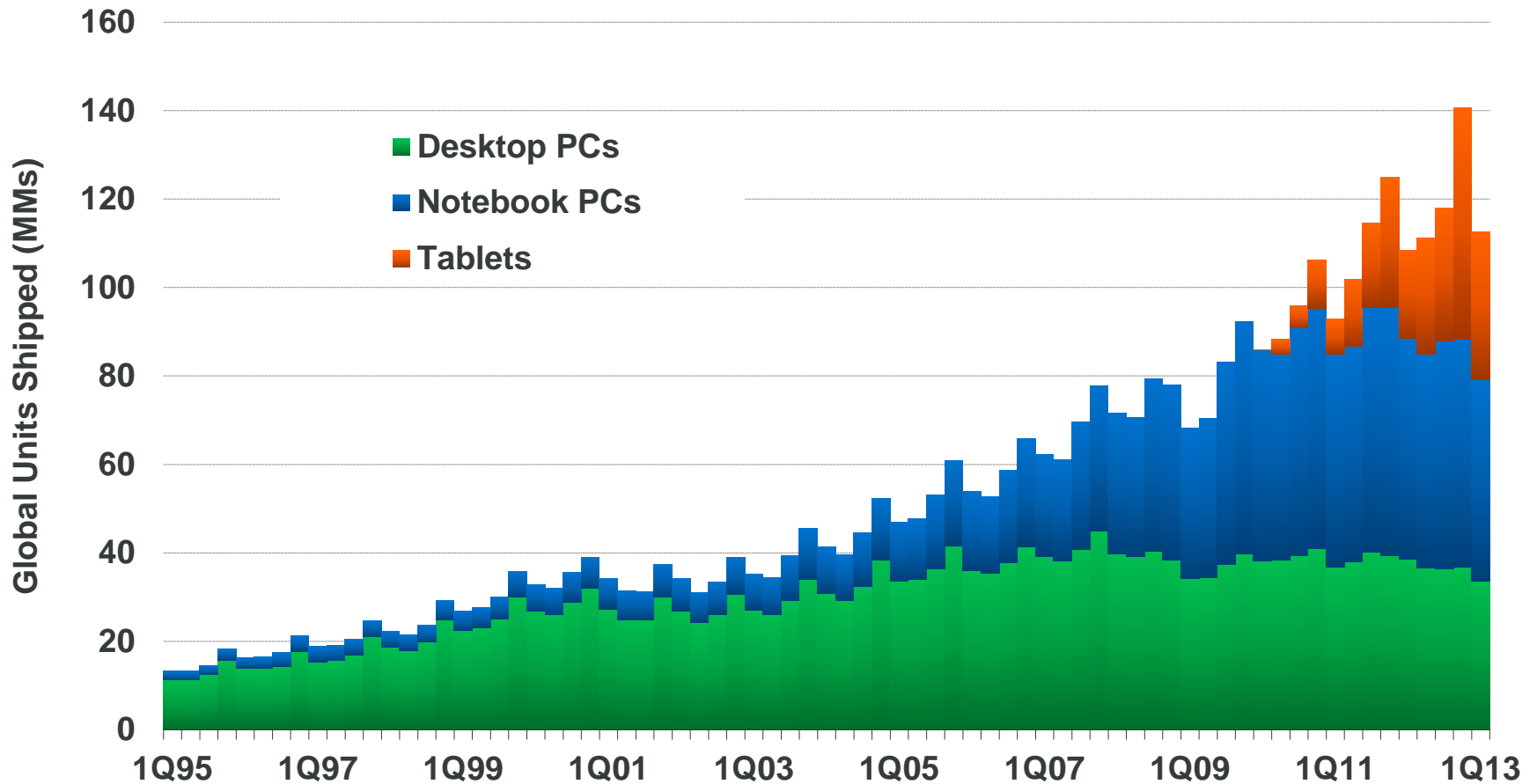X-axis: Quarters After Launch, 0 – 12

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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

Global Units Shipped (MMs)

— Desktop PCs   — Notebook PCs   — Tablets

Note: Notebook PCs include Netbooks.
Source: Katy Huberty, Ehud Gelblum, Morgan Stanley Research. Gartner. Data as of 4/13.   45

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

Legend:
- Desktop PCs
- Notebook PCs
- Tablets

Y-axis: Global Units Shipped (MMs) — 0, 20, 40, 60, 80, 100, 120, 140, 160

X-axis: 1Q95, 1Q97, 1Q99, 1Q01, 1Q03, 1Q05, 1Q07, 1Q09, 1Q11, 1Q13

Note: Notebook PCs include Netbooks.
Source: Katy Huberty, Ehud Gelblum, Morgan Stanley Research. Gartner. Data and Estimates as of 4/13.

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

Desktop PC
Market Share
2000

	% Share
Compaq	13%
Dell	11%
HP	8%
IBM	7%
NEC	4%
Others	57%

Notebook PC
Market Share
2010

	% Share
HP	19%
Acer	17%
Dell	12%
Lenovo	10%
ASUS	8%
Others	34%

Tablet
Market Share
2012

	% Share
Apple	51%
Samsung	13%
Amazon	8%
ASUS	5%
Lenovo	1%
Others	20%

Smartphone
Market Share
2012

	% Share
Samsung	30%
Apple	19%
Sony	5%
ZTE	5%
BlackBerry	5%
Others	37%

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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

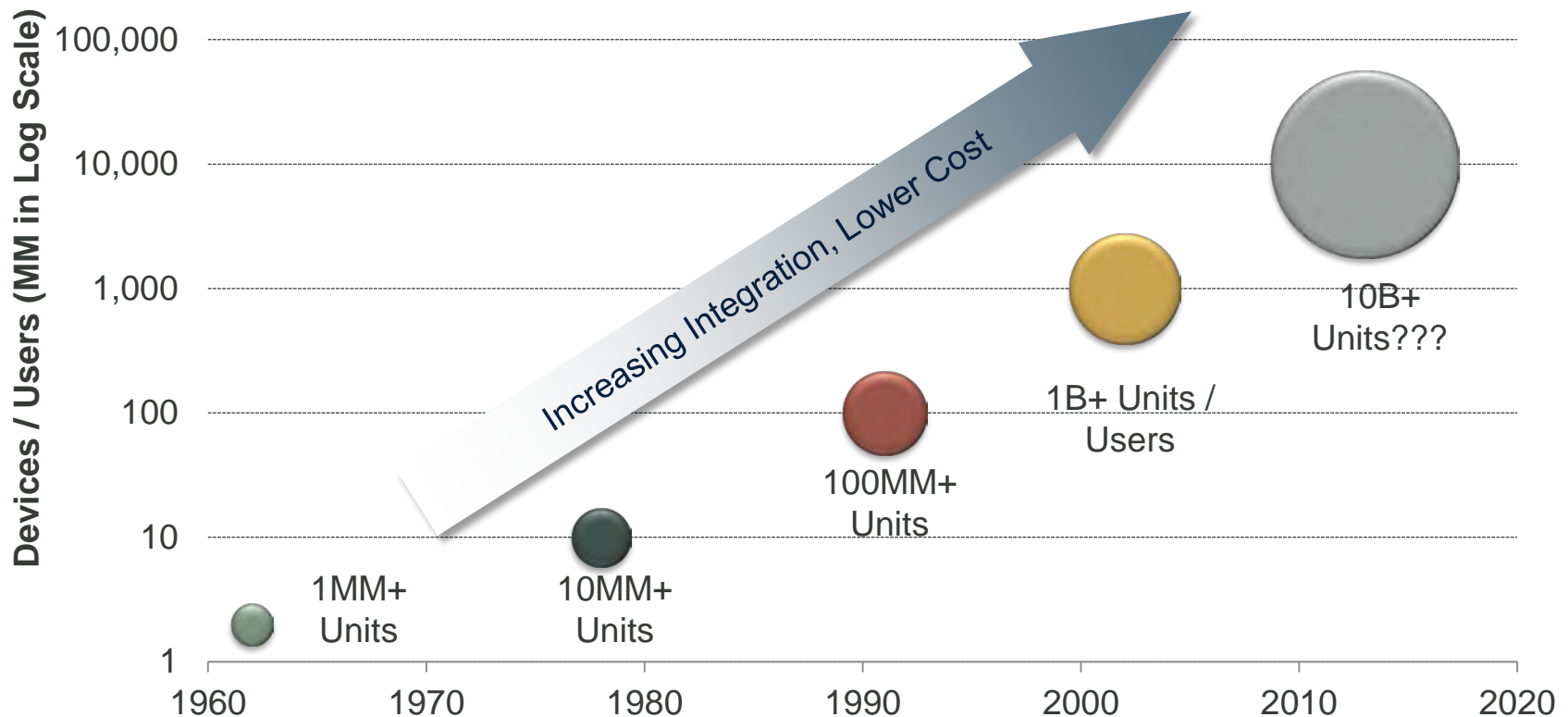| *Mainframe* Computing 1960s	*Mini* Computing 1970s	*Personal* Computing 1980s	*Desktop Internet* Computing 1990s	*Mobile Internet* Computing 2000s	*Wearable / Everywhere* Computing 2014+

Others?

Image Source: Computersciencelab.com, Wikipedia, IBM, Apple, Google, NTT docomo, Google, Jawbone, Pebble.

Computing Growth Drivers Over Time, 1960 – 2020E

Y-axis: Devices / Users (MM in Log Scale) — 1, 10, 100, 1,000, 10,000, 100,000

X-axis: 1960, 1970, 1980, 1990, 2000, 2010, 2020

Increasing Integration, Lower Cost

- 1MM+ Units
- 10MM+ Units
- 100MM+ Units
- 1B+ Units / Users
- 10B+ Units???

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

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…Wearables (with Sensors)…

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

# of Times Typical User Checks Phone per Day

Activity	Times
Messaging	23
Voice Call	22
Checking Time	18
Music	13
Gaming	12
Social Media	9
Camera	8
Alarm	8
News & Alerts	6
Calendar	5
Web	3
Search	3
Other	14

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Sensor-Enabled Wearable Attributes

Hands-Free
- Voice / gesture control

Development Platform
- 3rd party apps
- API partners
- Accessories

Always-On
- Low power consumption
- Instant wake
- Background working / sensing

Attention-Getting
- Less distracting when receiving alerts / reminders / messages

Environment-Aware
- GPS
- Accelerometer
- Compass
- Camera
- Microphone
- Other Sensors

Connected
- Wi-Fi
- 3G / 4G
- Bluetooth
- NFC

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Some People Laugh at Wearables…

And 'SNL' Does Rule… ;)

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

- Ken Olsen
(Founder)
Digital Equipment
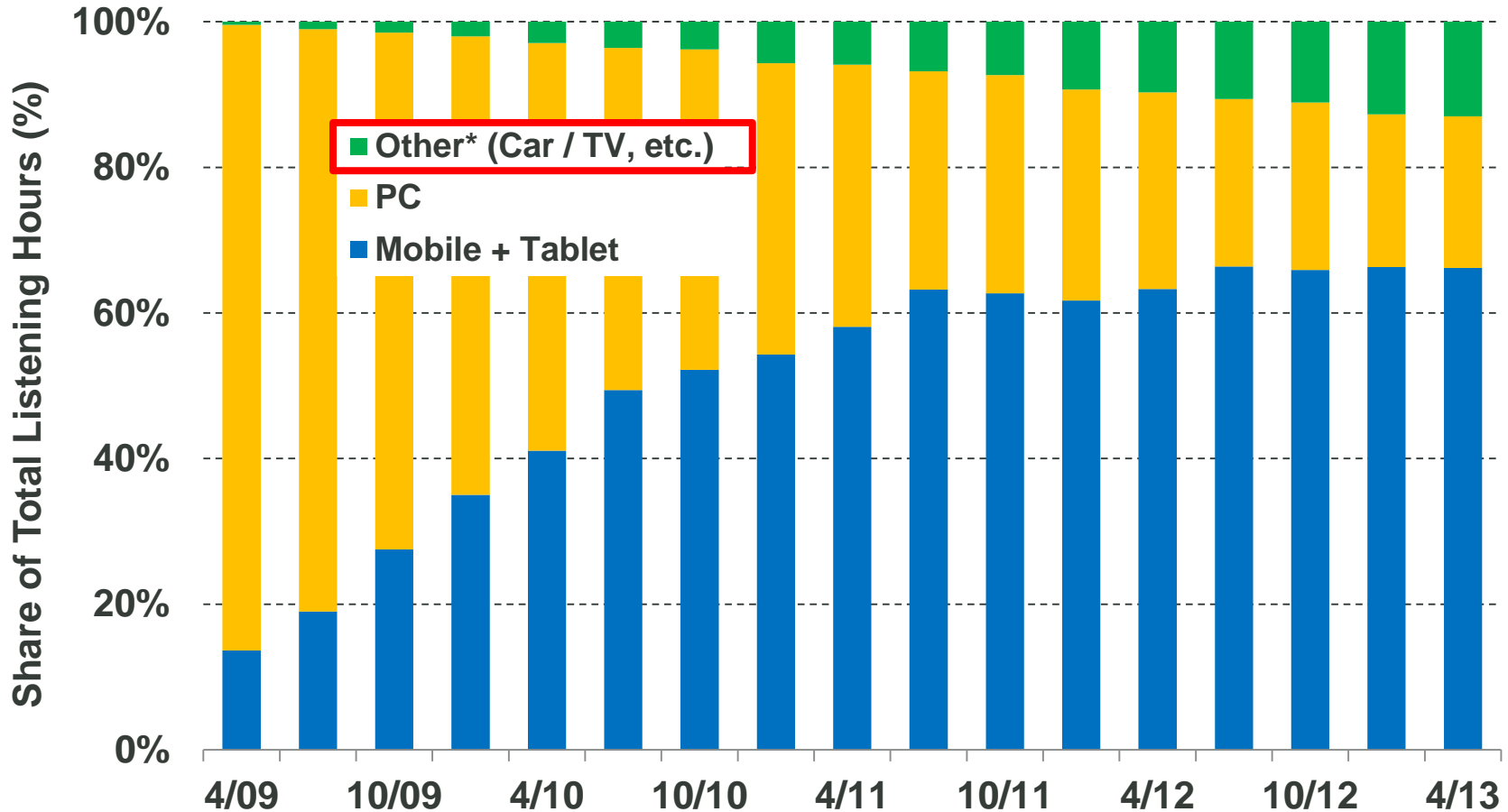1977

May 1999

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…Drivables…

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A Car or a Computer on Four Wheels?

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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**

Legend:
- Other* (Car / TV, etc.)
- PC
- Mobile + Tablet

Y-axis: Share of Total Listening Hours (%)

X-axis: 4/09, 10/09, 4/10, 10/10, 4/11, 10/11, 4/12, 10/12, 4/13

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…Flyables…

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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
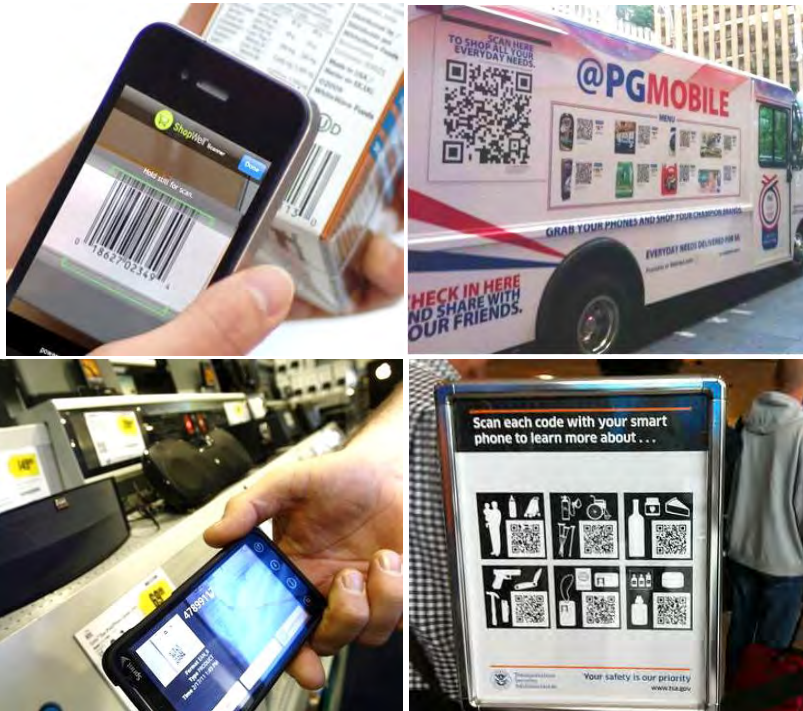
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Scannables –
Codes / Tags + Cameras / Sensors

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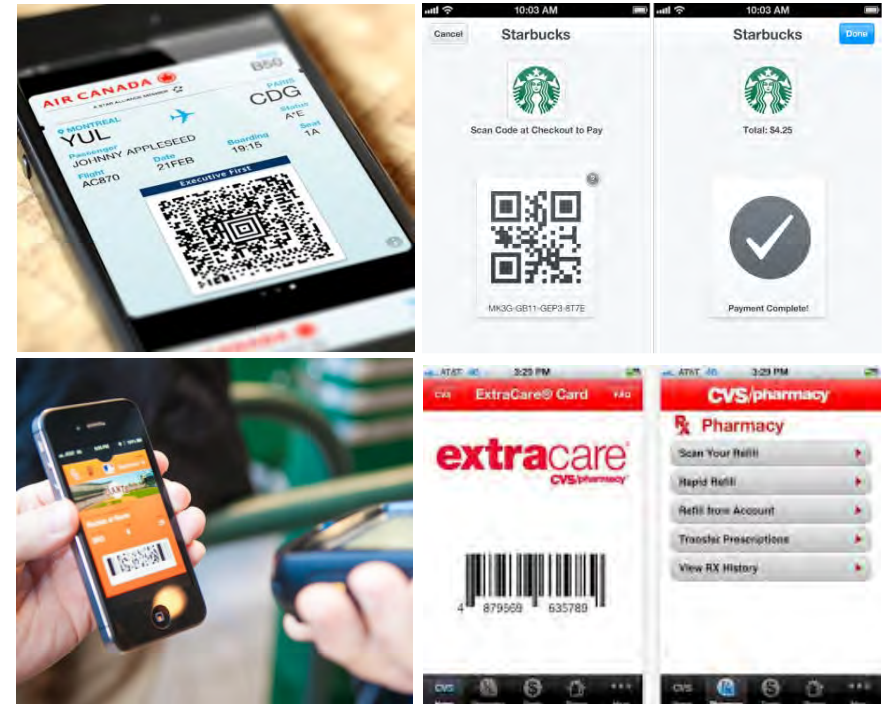## Scan & Be Scanned to Get Stuff…

SCAN

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

BE SCANNED

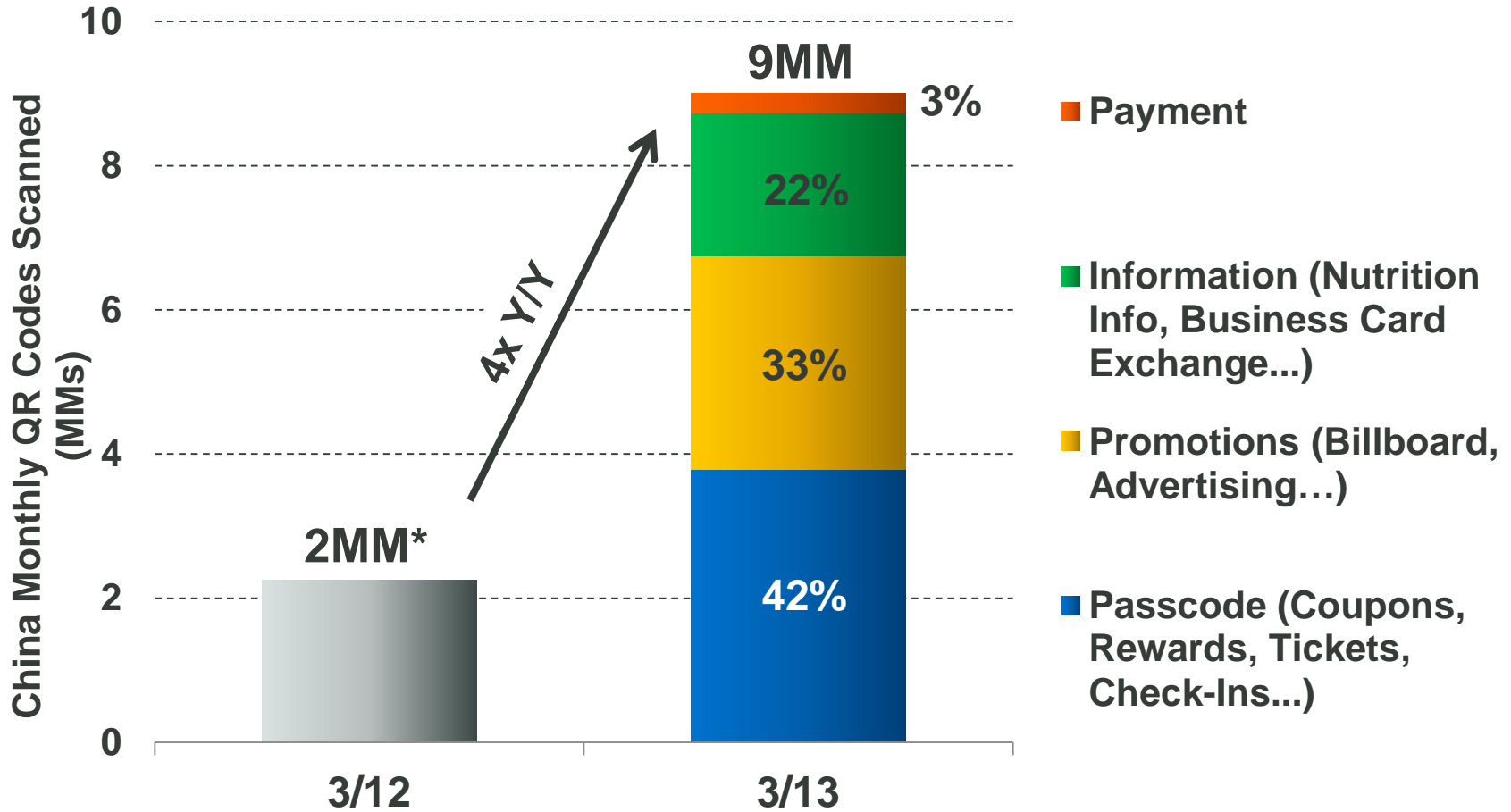**Smartphone-Generated Codes For Boarding Pass / Ticket / Payment / Rewards…**

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

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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

China Monthly QR Codes Scanned (MMs)

- 2MM* (3/12)
- 9MM (3/13)
  - 3% Payment
  - 22% Information (Nutrition Info, Business Card Exchange...)
  - 33% Promotions (Billboard, Advertising…)
  - 42% Passcode (Coupons, Rewards, Tickets, Check-Ins...)

4x Y/Y

Note: * March 2012 use case breakdown not available. Source: Imageco, China QR Code Market Study, 2013. We believe data are understated.

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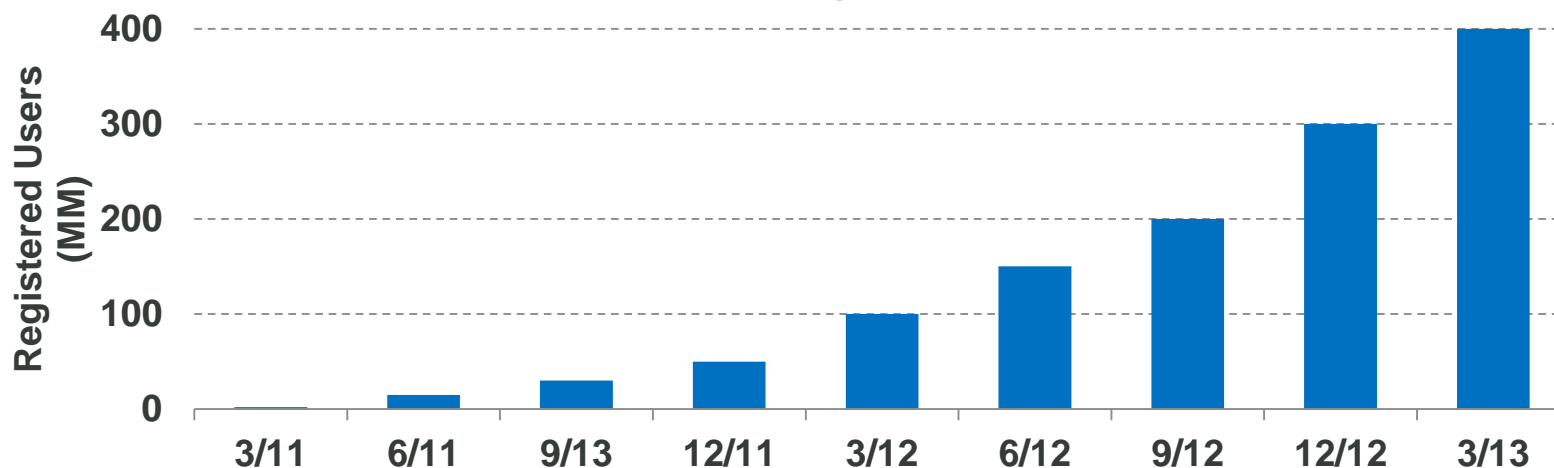## Mobile Communication + Local Commerce via QR Codes

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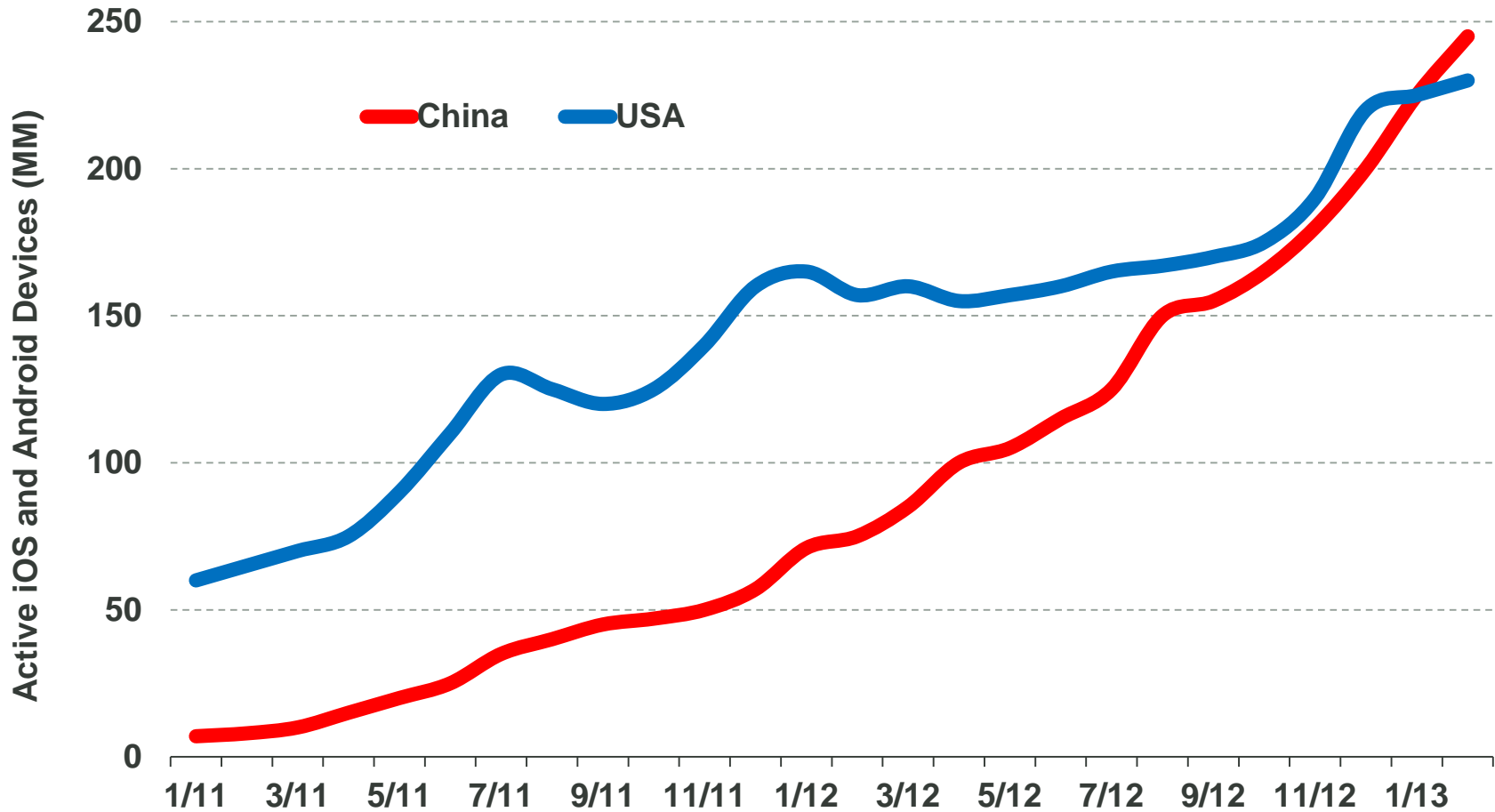
Tencent WeChat Registered Users, 3/11-3/13

Bar chart — Y-axis: Registered Users (MM), values 0, 100, 200, 300, 400. X-axis: 3/11, 6/11, 9/13, 12/11, 3/12, 6/12, 9/12, 12/12, 3/13.

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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**

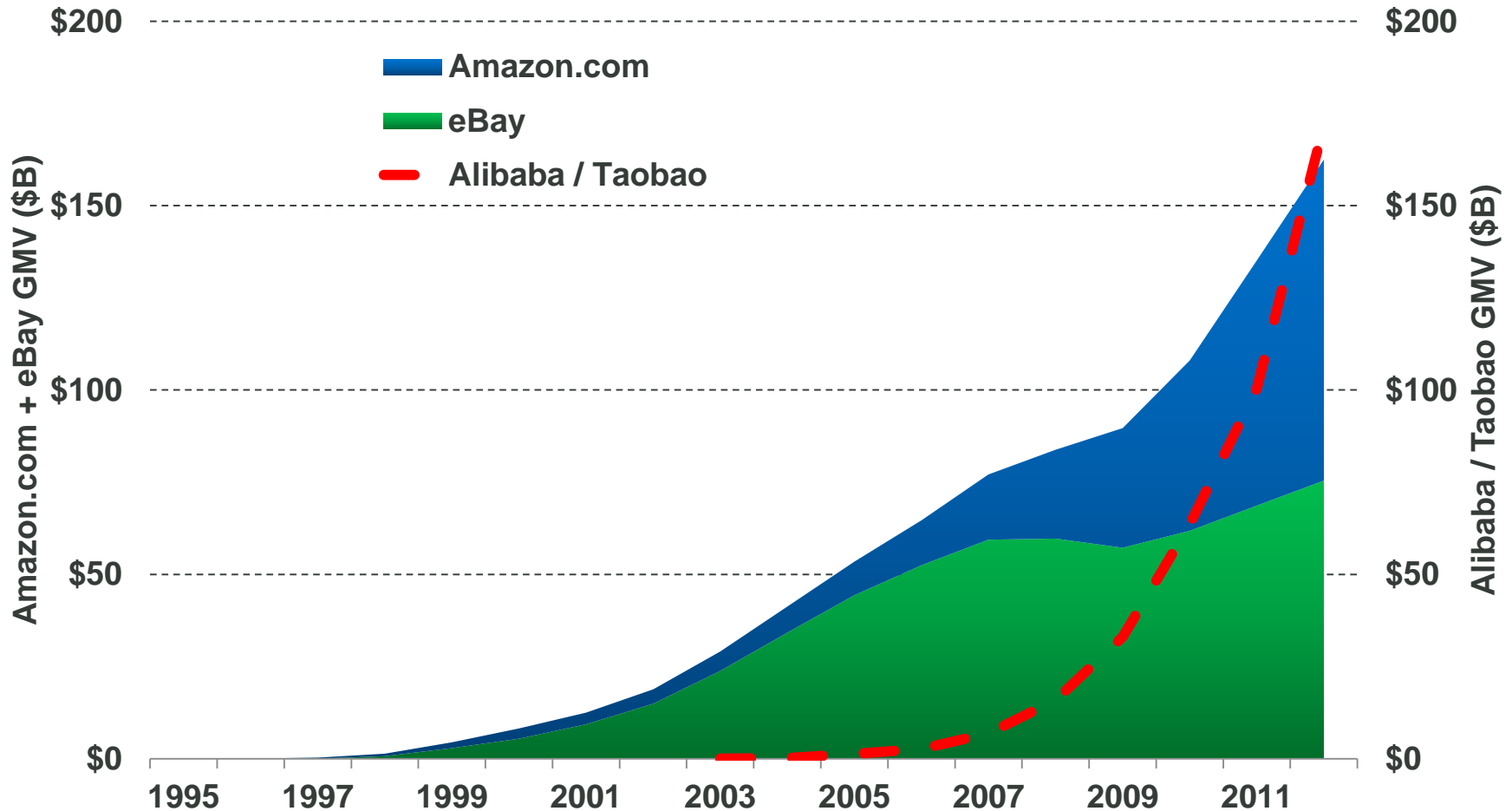Legend: China, USA

Source: Flurry Analytics.

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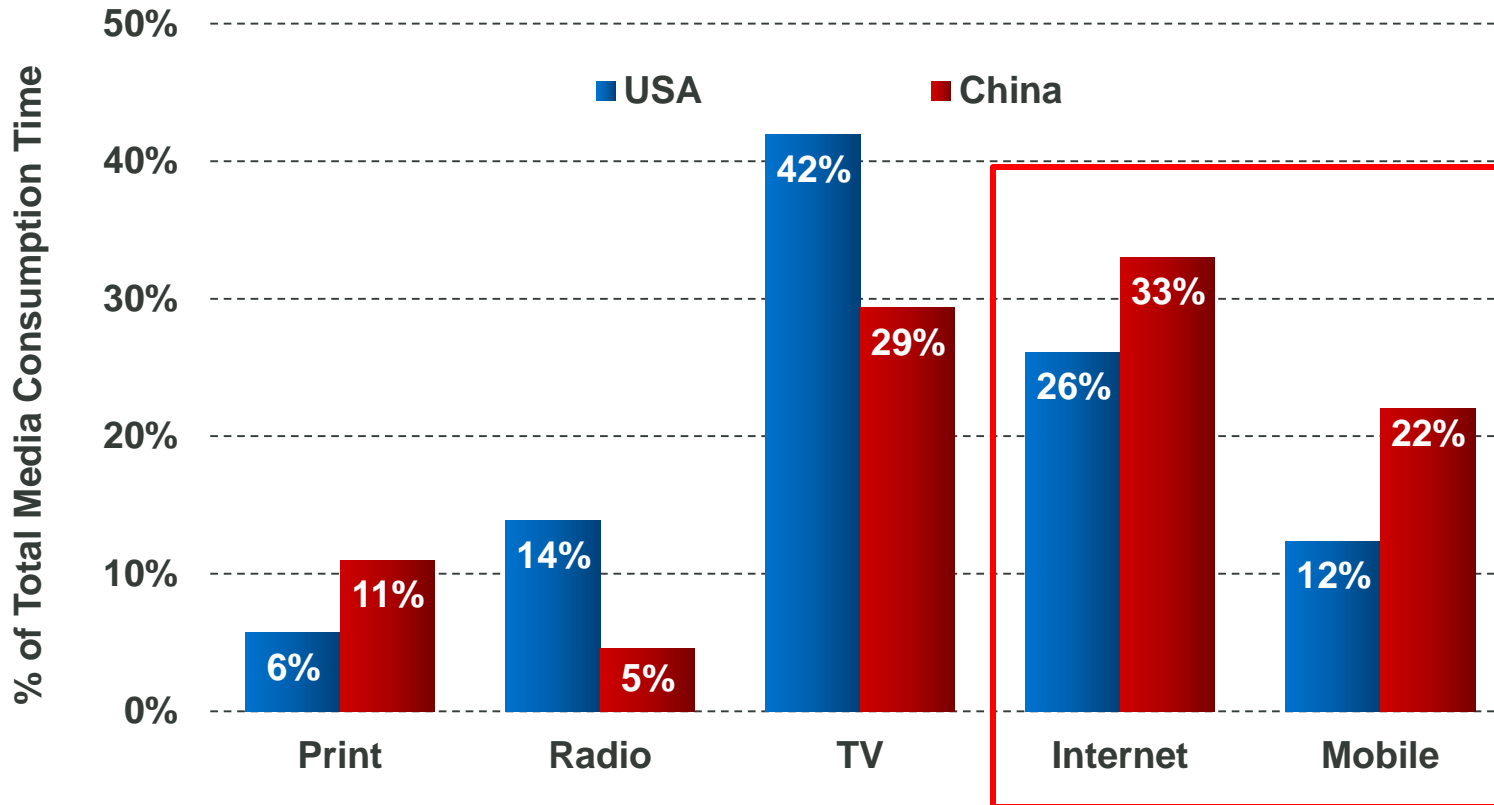
Alibaba – Gross Merchandise Volume Surpassed Amazon.com + eBay, Q4:12

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

Legend:
- Amazon.com
- eBay
- 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

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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

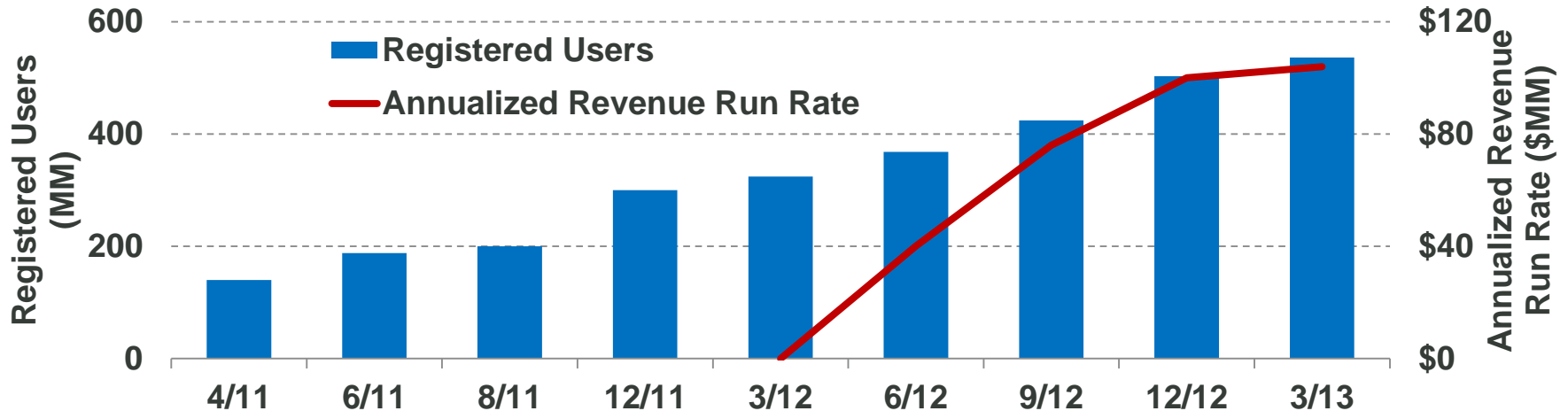## Notable Events / Movements Helped by Sina Weibo

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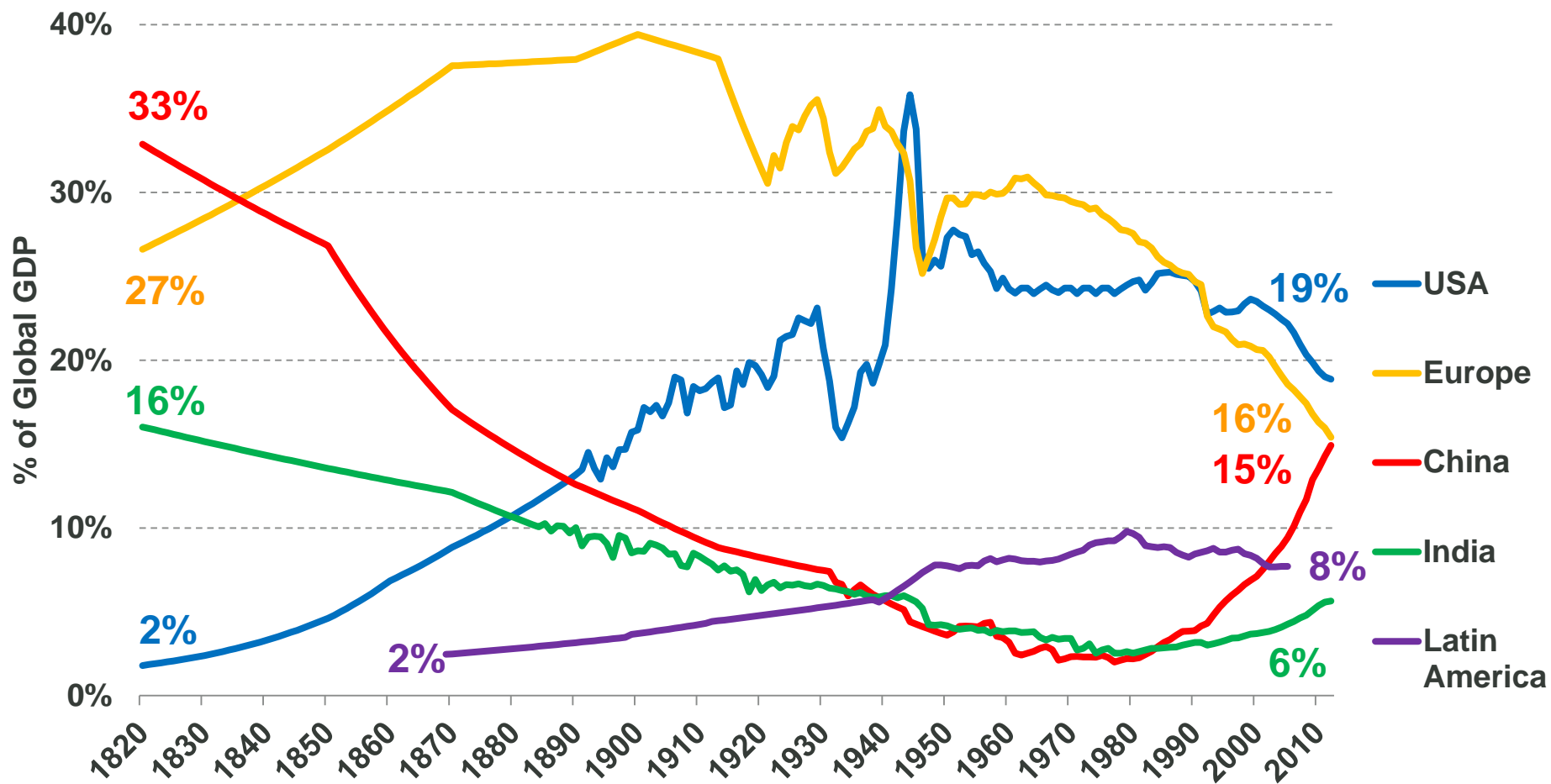
Sina Weibo Registered Users & Annualized Revenue Run Rate, 4/11-3/13

Legend:
- Registered Users
- Annualized Revenue Run Rate

Left axis: Registered Users (MM) — 0, 200, 400, 600
Right axis: Annualized Revenue Run Rate ($MM) — $0, $40, $80, $120

X-axis: 4/11, 6/11, 8/11, 12/11, 3/12, 6/12, 9/12, 12/12, 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**

% of Global GDP

- USA — 19%
- Europe — 16%
- China — 15%
- India — 6%
- Latin America — 8%

Starting values (1820): 33%, 27%, 16%, 2%, 2%

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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

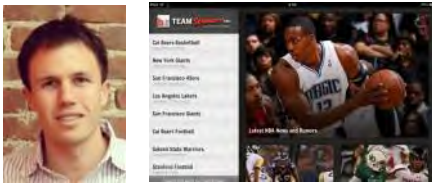**Rise of New 'Geek' Entrepreneur Heroes** – Jobs + Sergey / Larry + Zuck…

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

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

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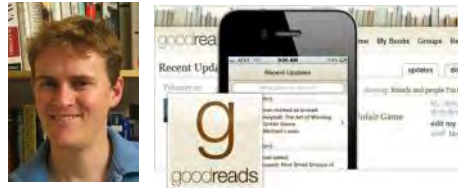# Turning Passion Into Businesses…On an Epic Internet Palette

Sports
**David Finocchio /
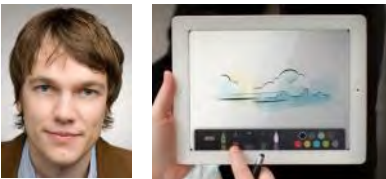BleacherReport**

Books
**Otis Chandler /
Goodreads**

Music
**Daniel Ek /
Spotify**

Art / Creativity
**Georg Petschnigg /
Fiftythree**

Design / Inspiration
**Ben Silbermann
Pinterest**

Sound
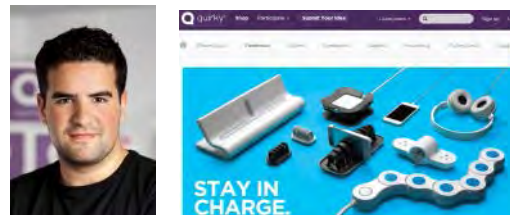**Alex Ljung + Eric Wahlforss /
SoundCloud**

News & Politics
**Chris Altchek + Jake Horowitz /
PolicyMic**

Product Design
**Ben Kaufman
Quirky**

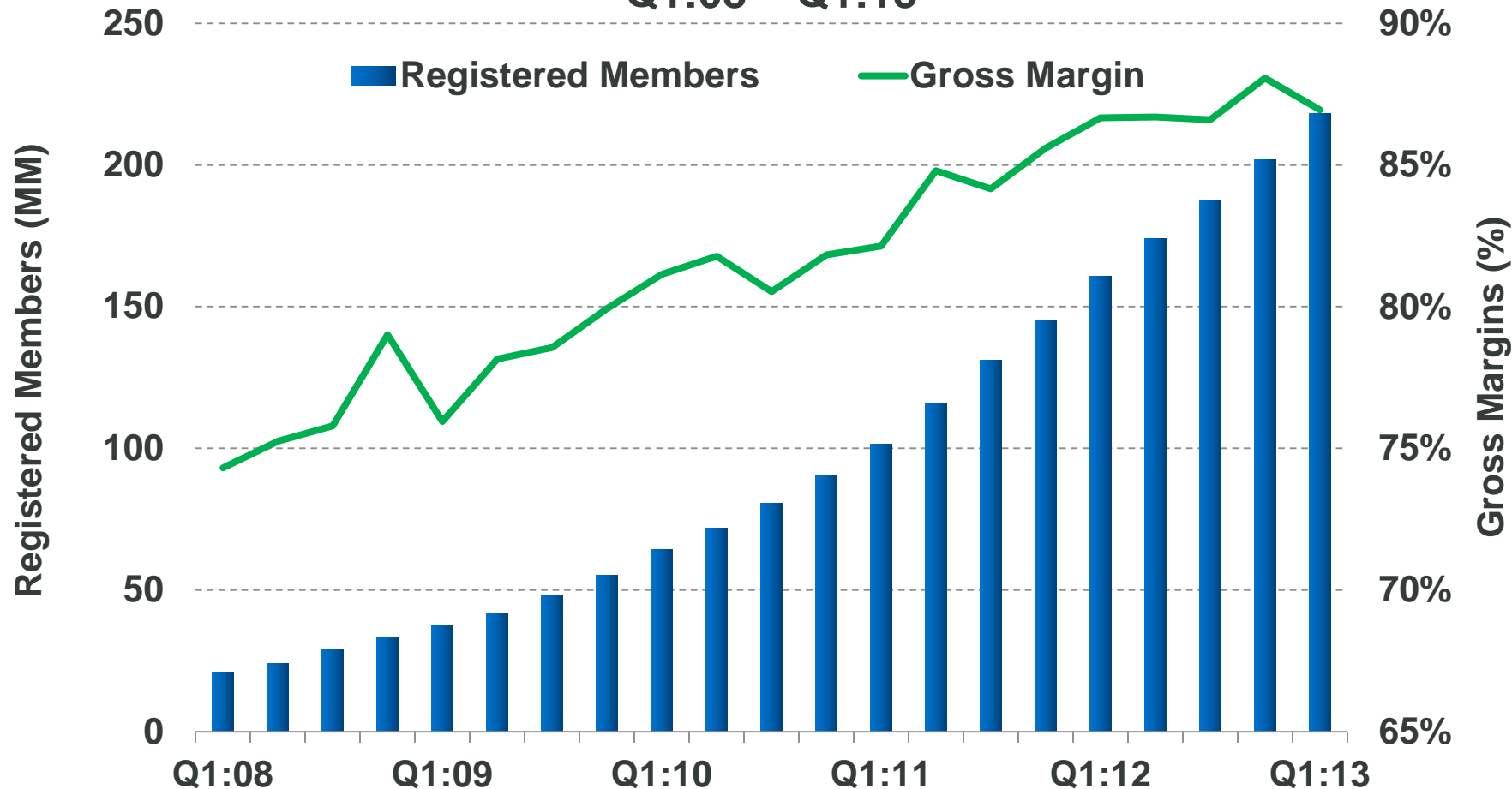**Home Decoration**
**Adi Tatarko + Alon Cohen /
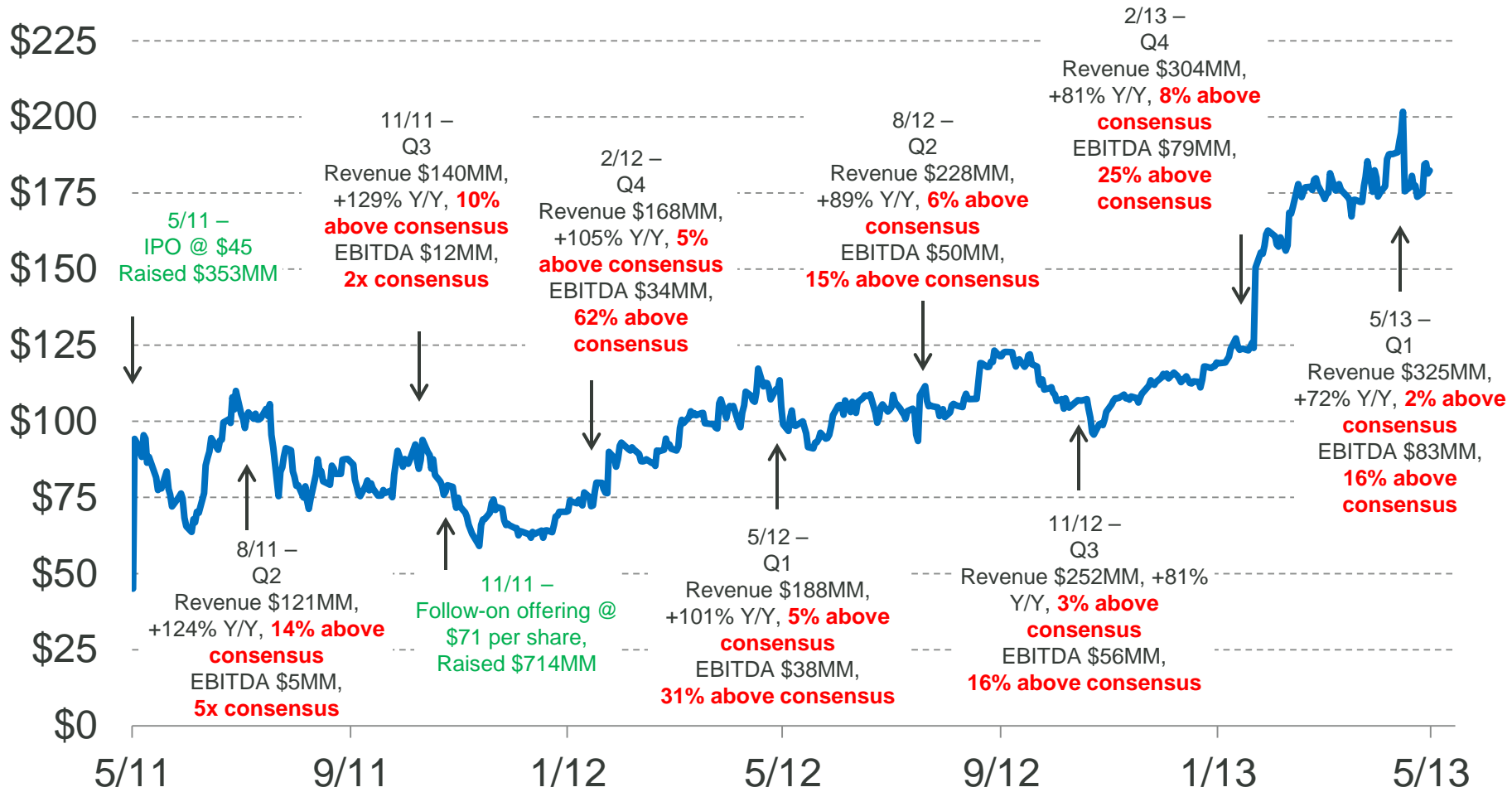Houzz**

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SO, YOU WANT TO BE A PUBLIC COMPANY?

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

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…Internet IPO Standout – LinkedIn
Averaged 7% Revenue / 83% EBITDA Upside Since IPO, Shares +305%

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

5/11 –
IPO @ $45
Raised $353MM

8/11 –
Q2
Revenue $121MM,
+124% Y/Y, **14% above consensus**
EBITDA $5MM,
5x consensus

11/11 –
Q3
Revenue $140MM,
+129% Y/Y, **10% above consensus**
EBITDA $12MM,
2x consensus

11/11 –
Follow-on offering @ $71 per share,
Raised $714MM

2/12 –
Q4
Revenue $168MM,
+105% Y/Y, **5% above consensus**
EBITDA $34MM,
62% above consensus

5/12 –
Q1
Revenue $188MM,
+101% Y/Y, **5% above consensus**
EBITDA $38MM,
31% above consensus

8/12 –
Q2
Revenue $228MM,
+89% Y/Y, **6% above consensus**
EBITDA $50MM,
15% above consensus

11/12 –
Q3
Revenue $252MM, +81% Y/Y, **3% above consensus**
EBITDA $56MM,
16% above consensus

2/13 –
Q4
Revenue $304MM,
+81% Y/Y, **8% above consensus**
EBITDA $79MM,
25% above consensus

5/13 –
Q1
Revenue $325MM,
+72% Y/Y, **2% above consensus**
EBITDA $83MM,
16% above consensus

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Financial Dynamics of Internet Leaders

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

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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**

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2013 market value data as of 5/20/2013. Source: FactSet, Google Finance, Morgan Stanley Research.

HIGH-SKILLED IMMIGRATION – PERSPECTIVE

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

Report / Presentation Can Be Found at www.kpcb.com/insights

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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

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*Note: STEM = Science / Technology / Engineering / Mathematics.
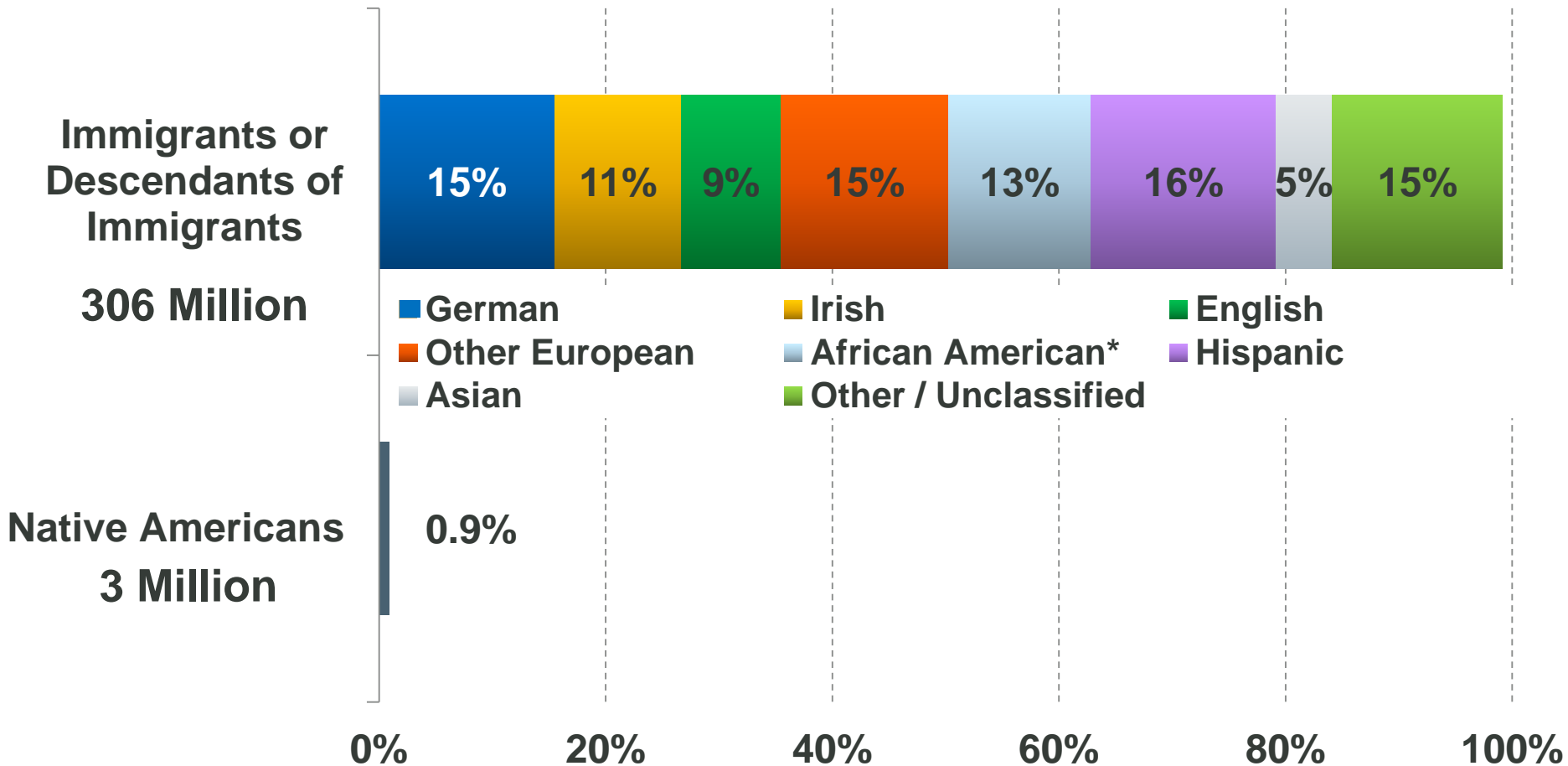
High-Skilled Immigrants Are Only 1% Of Total U.S. Population

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

270MM
U.S. Born
87% of Total
Population

40MM
Immigrants
13%

4MM, 1%

19MM, 6%

6MM, 2%

11MM, 4%

■ Legal Immigrants (High-Skilled)

■ Legal Immigrants (Family-Based)

■ Legal Immigrants (Refugees & Other)

■ Undocumented Immigrants
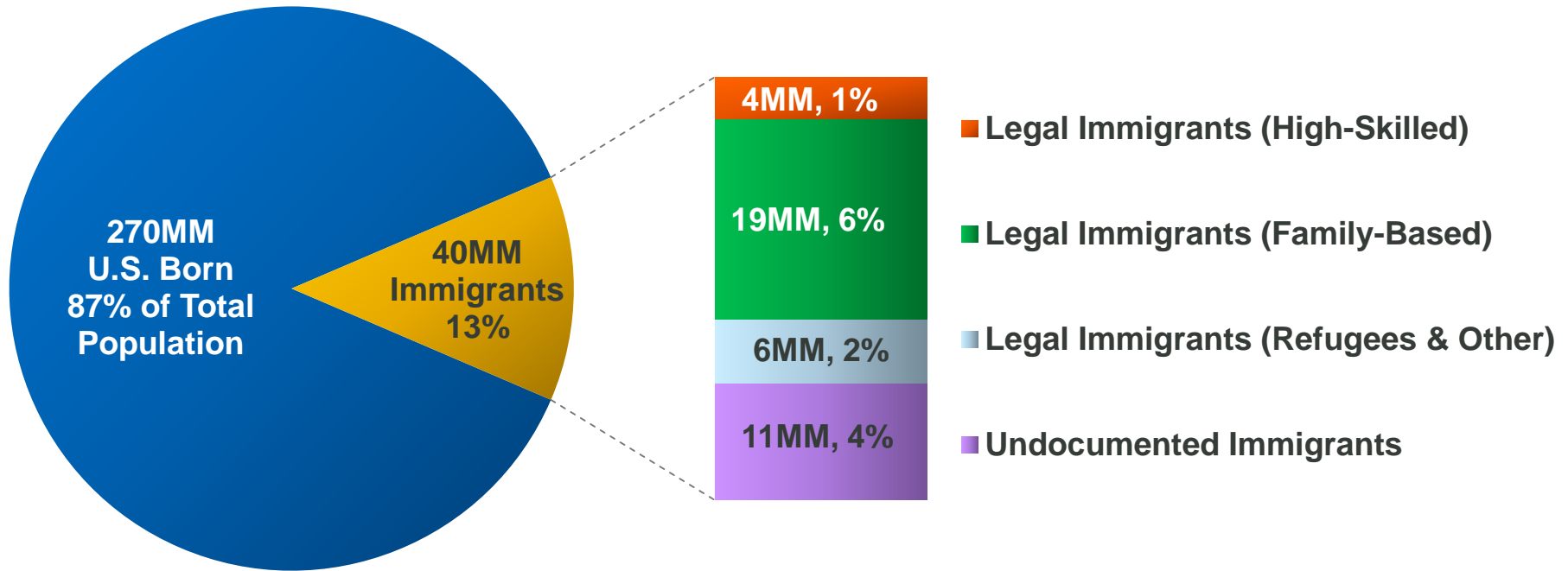
Total USA Population = 310MM

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.

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60% of Top 25 Tech Companies Founded By 1st & 2nd 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	--	--
Total Founded by 1st or 2nd Gen Immigrants		**$1,590,800**	**$507,516**	**1,151,835**		

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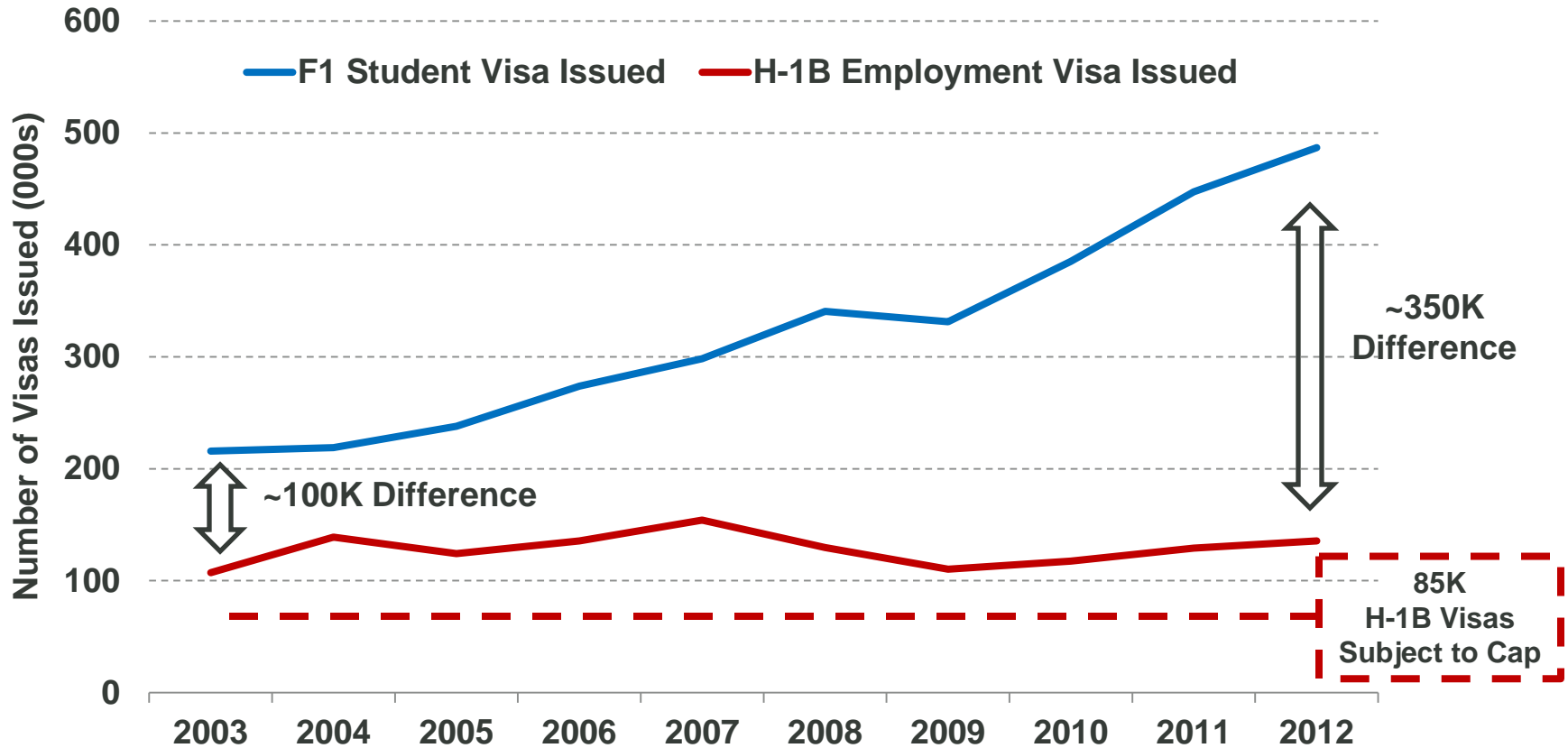
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Computer Science Job Opening Forecast =
2.4x # of Computer Science Graduates

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

# of Graduates w/ Bachelors Degree in Computer Science — 51,474

# of Job Openings Requiring a Bachelor's Degree in Computer Science — 122,300

Number of People, per Year (0, 50,000, 100,000, 150,000)
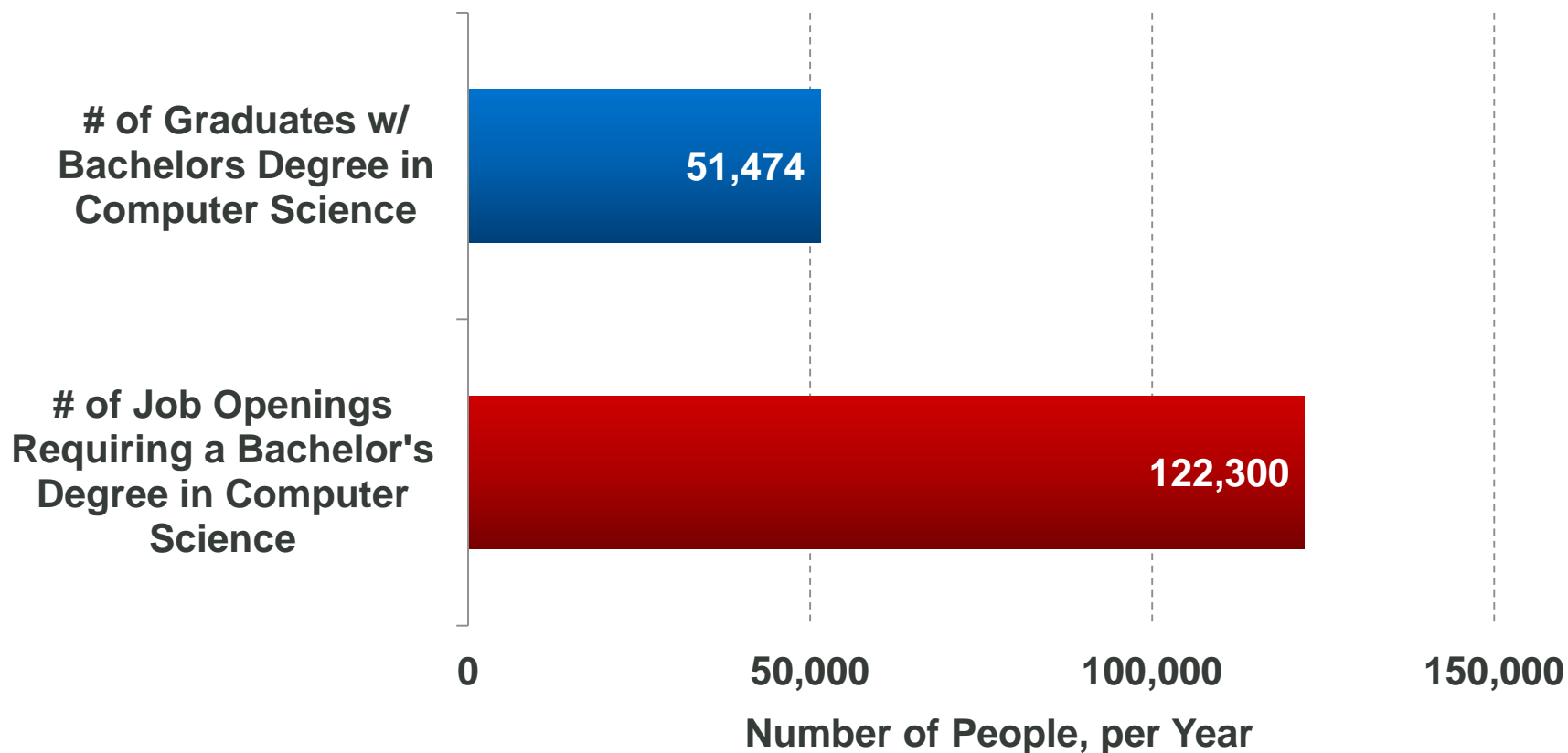
USA Sending More Qualified Foreign Students Home Post Graduation - 3.5x Rise in Student & Employment Visa Issuance Gap Over Decade

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

Source: U.S. Department of State.

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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.

Image: View outside of Quixey's office on Castro St. in Mountain View, CA. Picture by Joshua Stanton-Savitz. Data source: Technology CEO letter to the president and lawmakers, 3/13. http://www.scribd.com/doc/130388692/Tech-CEO-letter

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

Mary Meeker / Liang Wu
5.29.13

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APPENDIX

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Traditional Industries Being Re-Imagined

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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

Source: Annual Report of the Postmaster General. Data not available for 1914 - 1925.

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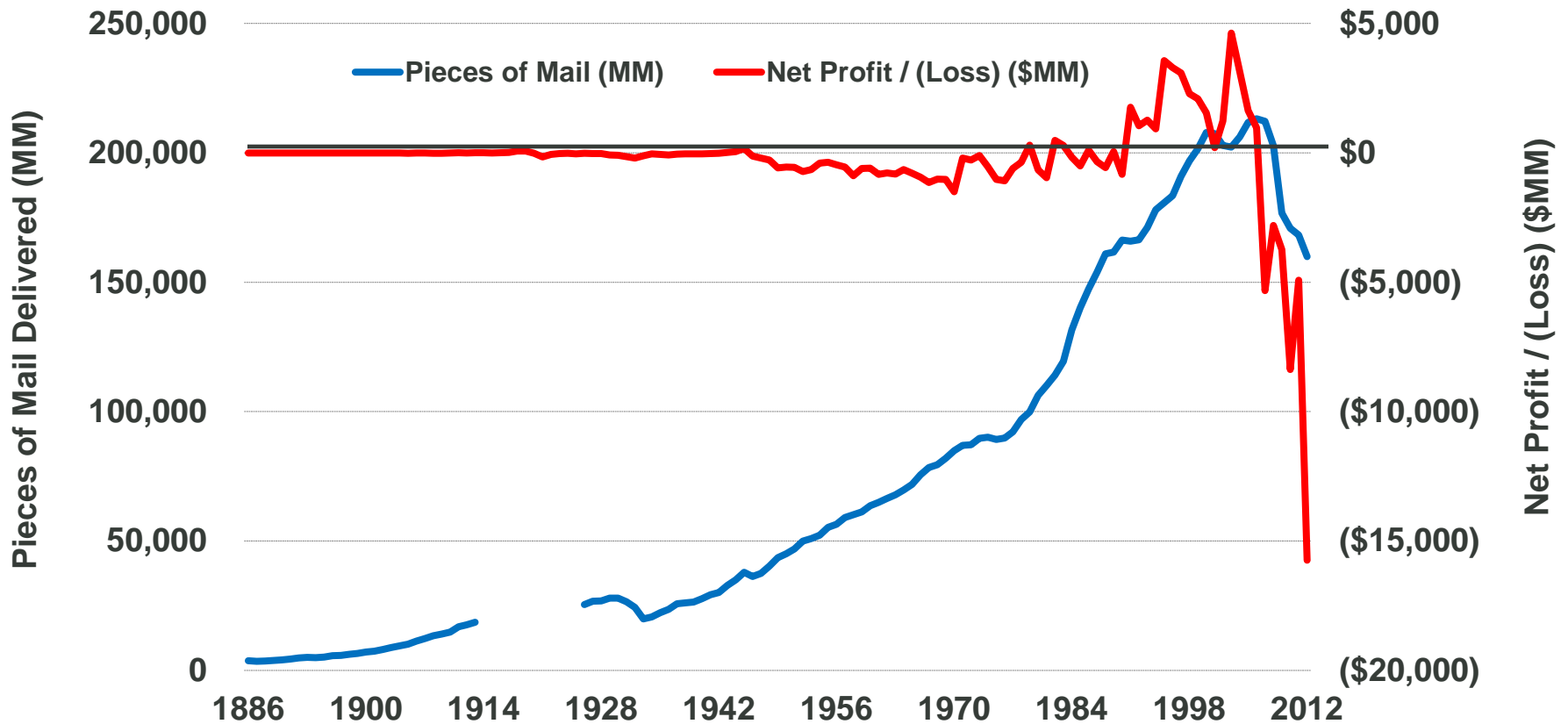
Relative Impact of Technology on Large Organizations = #2 Concern & Rising Rapidly

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

Market Factors: 84% (2004), 67% (2006), 48% (2008), 56% (2010)

Technological Factors: 42% (2004), 44% (2006), 48% (2008), 39% (2010)

Macroeconomic Factors: 39% (2004), 41% (2006), 35% (2008), 38% (2010)

People Skills: 37% (2010)

Globalization: 33% (2004), 25% (2006), 21% (2008)

2004   2006   2008   2010

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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.

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Emerging Financial Services Metrics

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

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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.

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Source: **Federal Reserve Bank of New York. Programme for International Student Assessment (PISA).   98

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
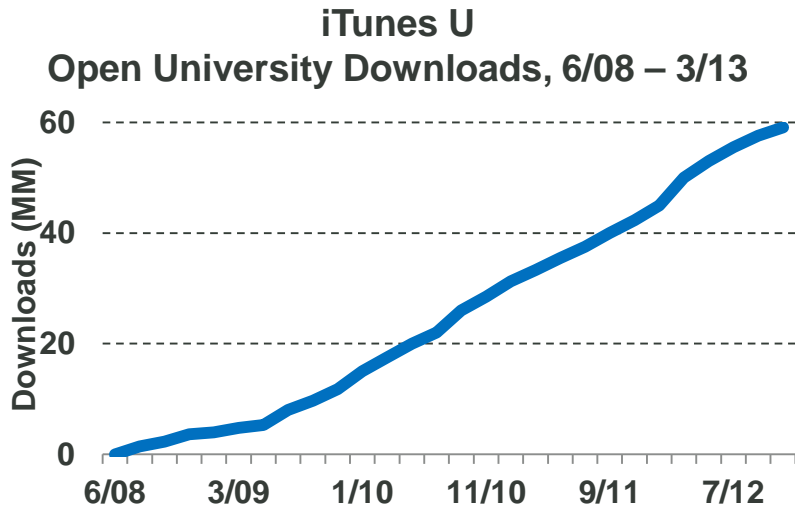
Online Students (MM) / % of Total Enrollment

Fall 2002, Fall 2003, Fall 2004, Fall 2005, Fall 2006, Fall 2007, Fall 2008, Fall 2009, Fall 2010, Fall 2011

■ Students Taking at Least One Online Course

━ Online Enrollment as a % of Total Enrollment

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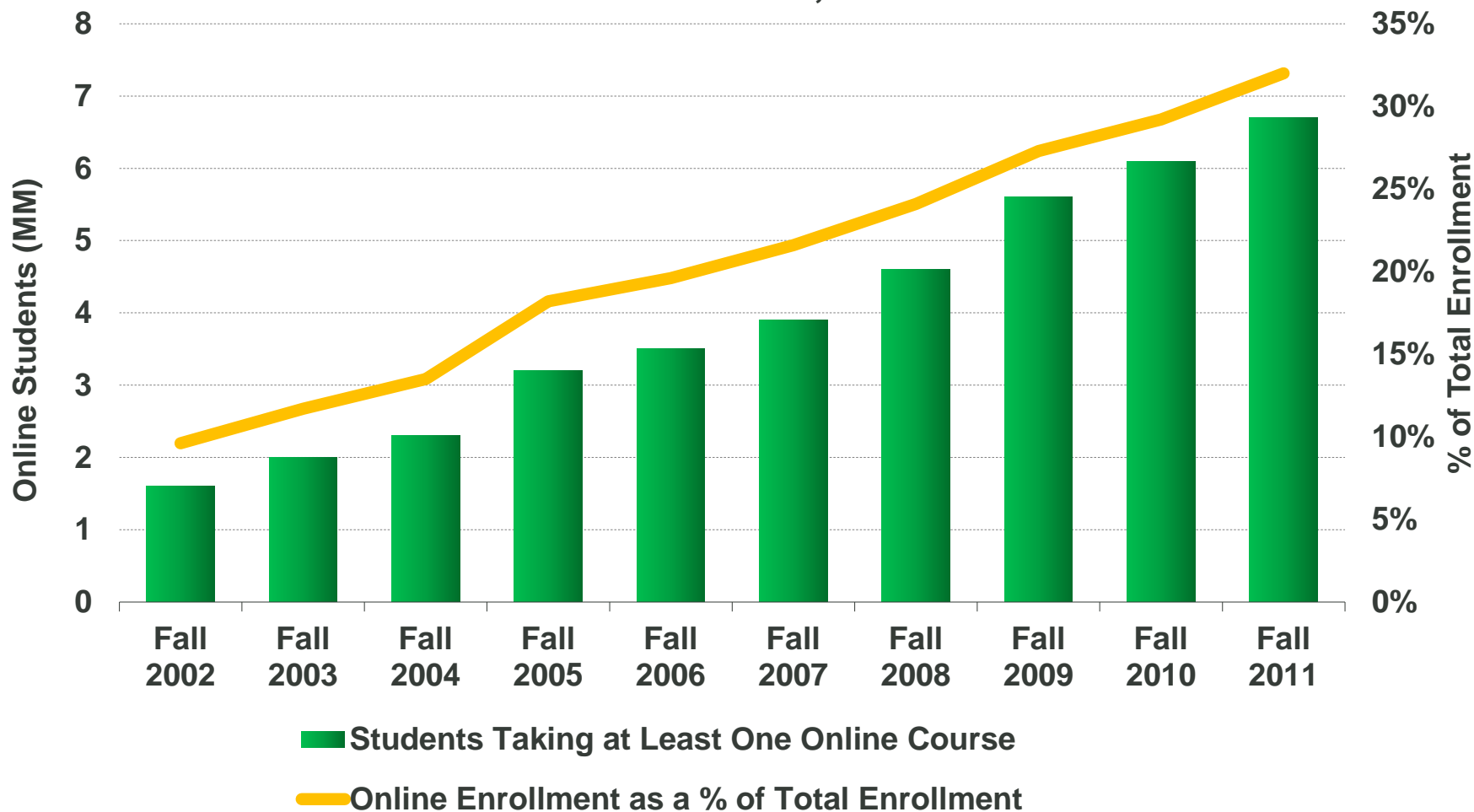
Online Education =
Quickly Becoming More Accepted

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**

Legend: ■ Inferior & Somewhat Inferior ■ Same ■ Superior & Somewhat Superior

Years: 2012, 2011, 2010, 2009, 2006, 2004, 2003
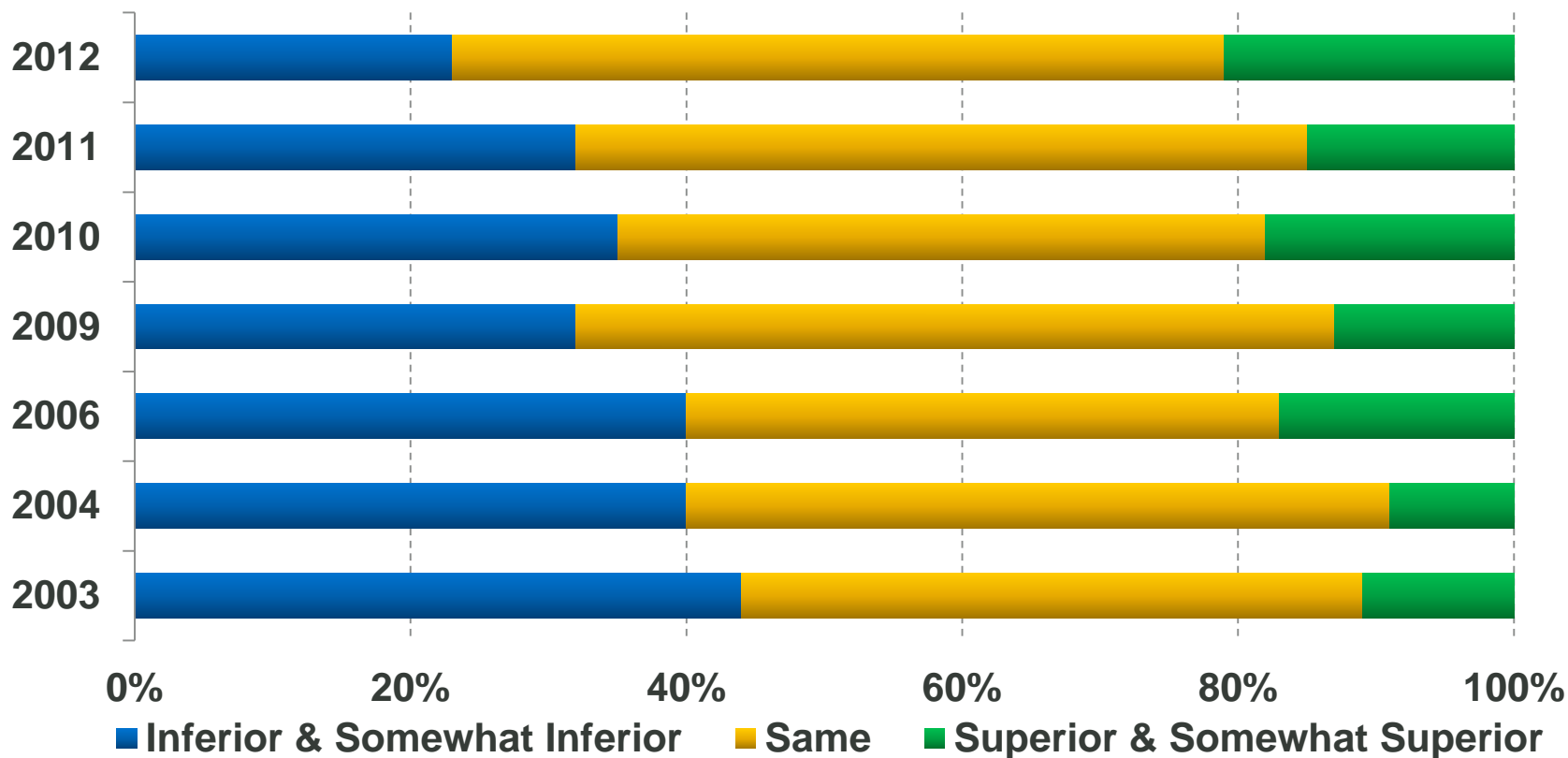
Education Being Democratized =
Fast Global MOOC (Massively Open Online Course) User Growth

iTunes U
Open University Downloads, 6/08 – 3/13

Coursera
Users & Course Enrollment, 9/12 – 3/13
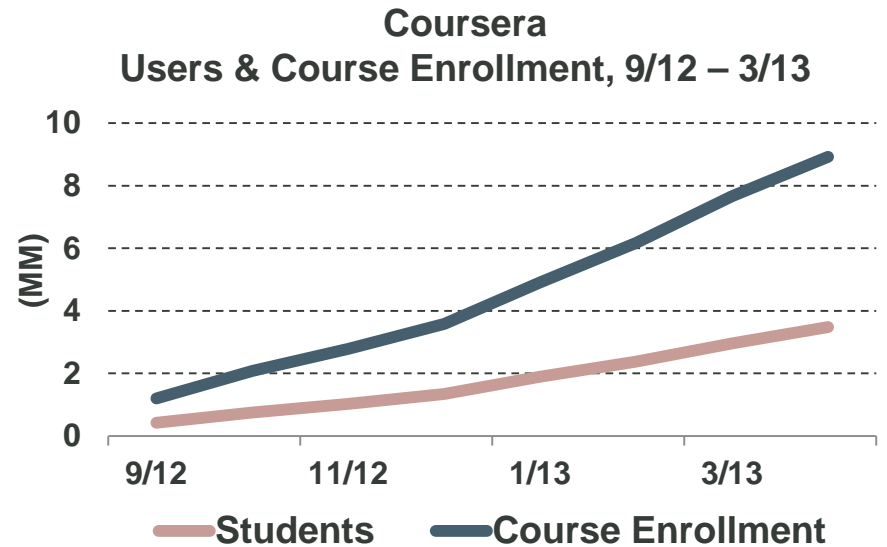
iTunes U Open University Downloads, by Region

Coursera Users, by Region
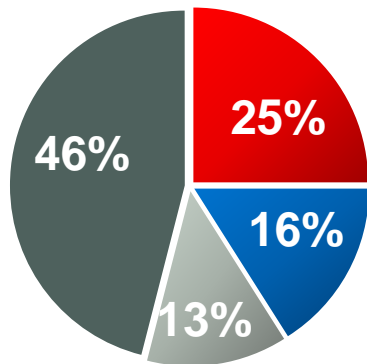
- United States
- China
- UK
- Other
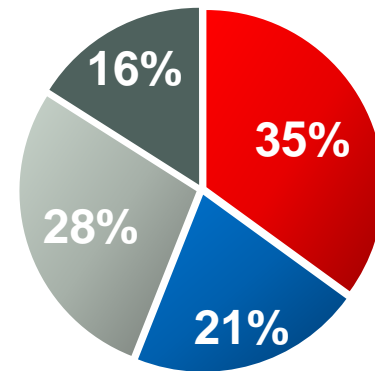
- North America
- Asia
- Europe
- Other

iTunes U pie: 25%, 16%, 13%, 46%

Coursera pie: 35%, 21%, 28%, 16%

Coursera lines: Students, Course Enrollment

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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.

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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

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Re-Imagination is Alive & Well

Re-Imagination of Basic Business Process…

Building / Funding
KickStarter
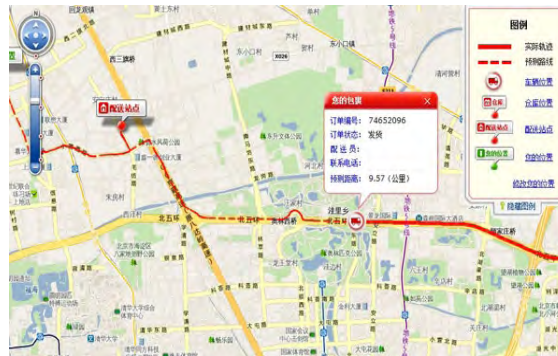Online / Social Distribution / Real-Time Progress

Logistics
JD.com (360buy)
At Your Door Same-Day Delivery / Real-Time Tracking / Last Mile on Bikes

Manufacturing
MakerBot
3-D Prototyping / Printing

Education
Codecademy
Accessible by Anyone, Anywhere, Anytime

Housing
Airbnb
Turn Privately-Owned Properties into Hotel Experience
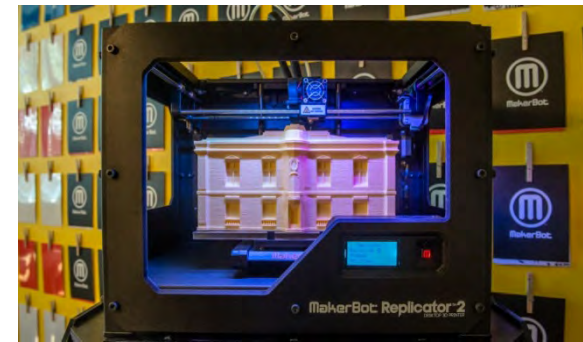
Transportation
Uber
On-Demand Transportation

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

Music
(Spotify)
Pay for Access / Instant On-Demand
Streaming on Internet-Enabled Devices

Video
(Netflix)
On-Demand / Instant Access Anywhere

Textbooks
(Chegg)
Pay For Usage Rights During Semester

Wallet
(Square)
Smartphone is the New Wallet

Employment
(oDesk / eLance)
Workforce as a Service (WaaS) /
On-Demand / Global
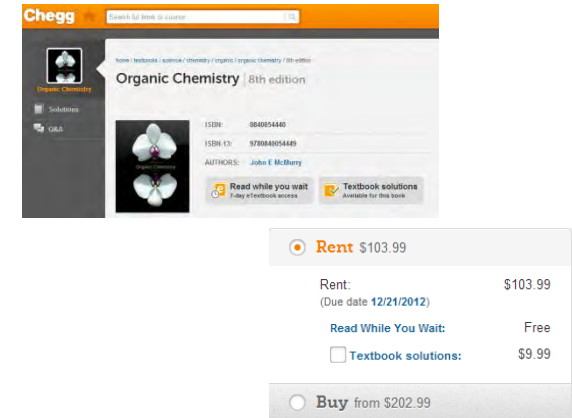
Store Fronts
(Zaarly)
Anyone Can Open / Beautifully Designed

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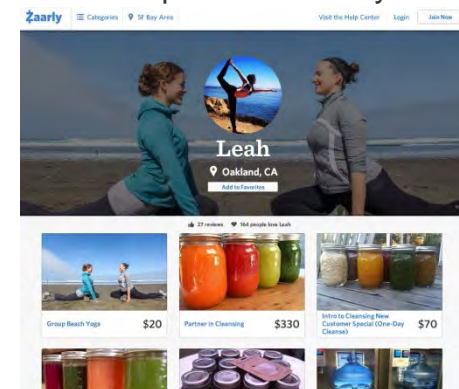
Minted

- 85K designs submitted
- 4MM monthly visitors

Quirky

- 87K designs submitted
- 360K registered users

99Designs

- 228K designers
- 216K contests

minted.

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.
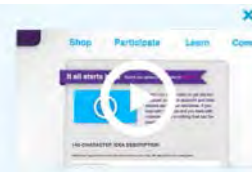
Quirky

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 + ⒢ℰ

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

99 designs

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.

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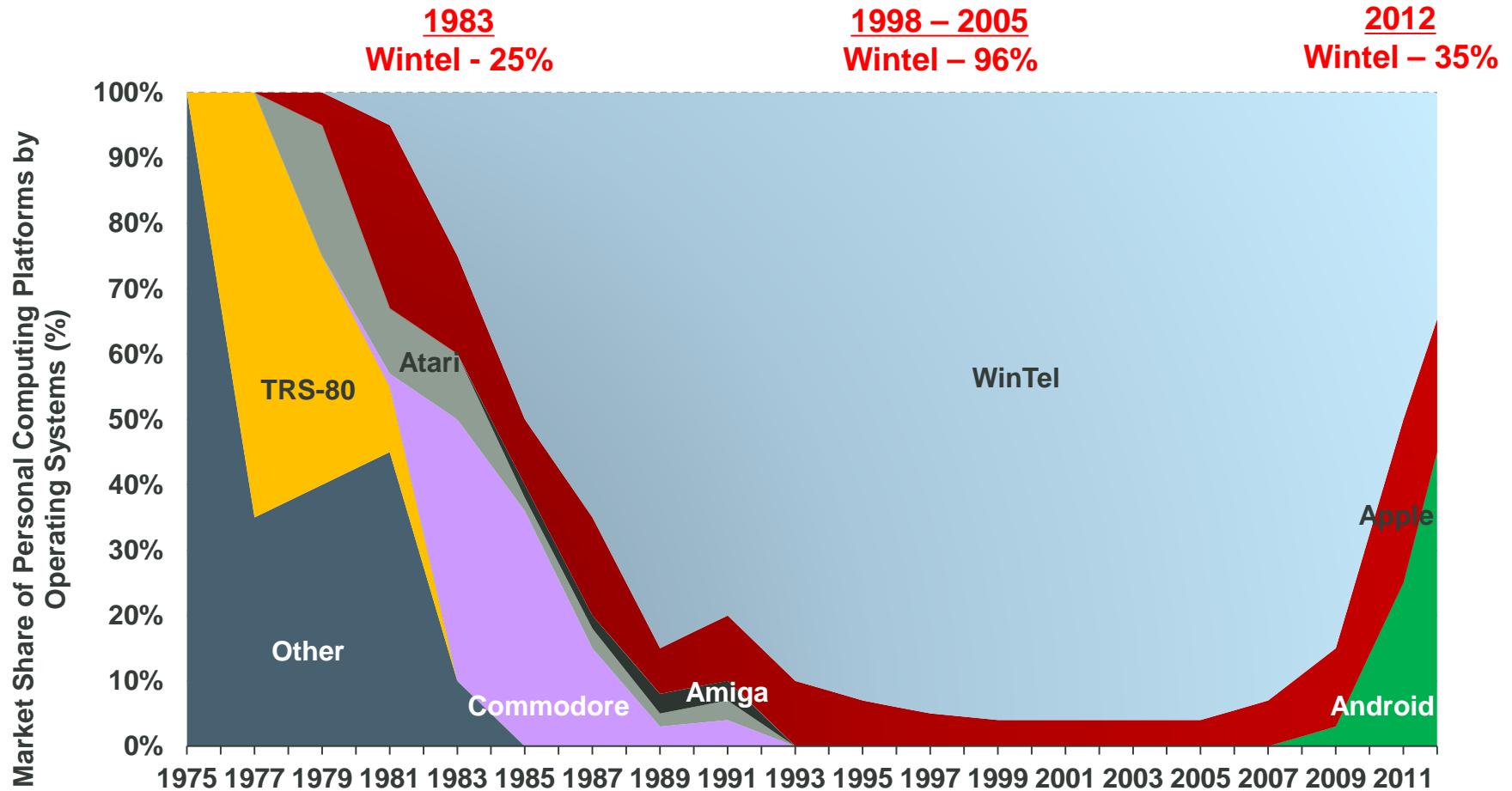# Twitter / YouTube / Google Docs / Google / WordPress

- 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)

C4LPT Ranking of Top Learning Tools

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

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Source: Centre for Learning & Performance Technology (C4LPT) Top 100 Tools For Learning 2012.

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

1983
Wintel - 25%

1998 – 2005
Wintel – 96%

2012
Wintel – 35%

Market Share of Personal Computing Platforms by Operating Systems (%)

TRS-80

Atari

Other

WinTel

Apple

Commodore

Amiga

Android

Source: Asymco.com (as of 2011), Public Filings, Morgan Stanley Research, Gartner for 2012 data.

USA, Inc.

Report / Presentation Can Be Found at www.kpcb.com/insights

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

The Conference Board Consumer Confidence Index, 1978 – 2013 YTD

35 Year Average CCI = 91.5

4/13 CCI = 68.1

2/09 Trough CCI = 25.3

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Note: Index started in 1967 / benchmarked to 1985=100. The Index is calculated each month on the basis of a household survey of consumers' opinions on current conditions and future expectations of the economy. Source: The Conference Board, 5/13.
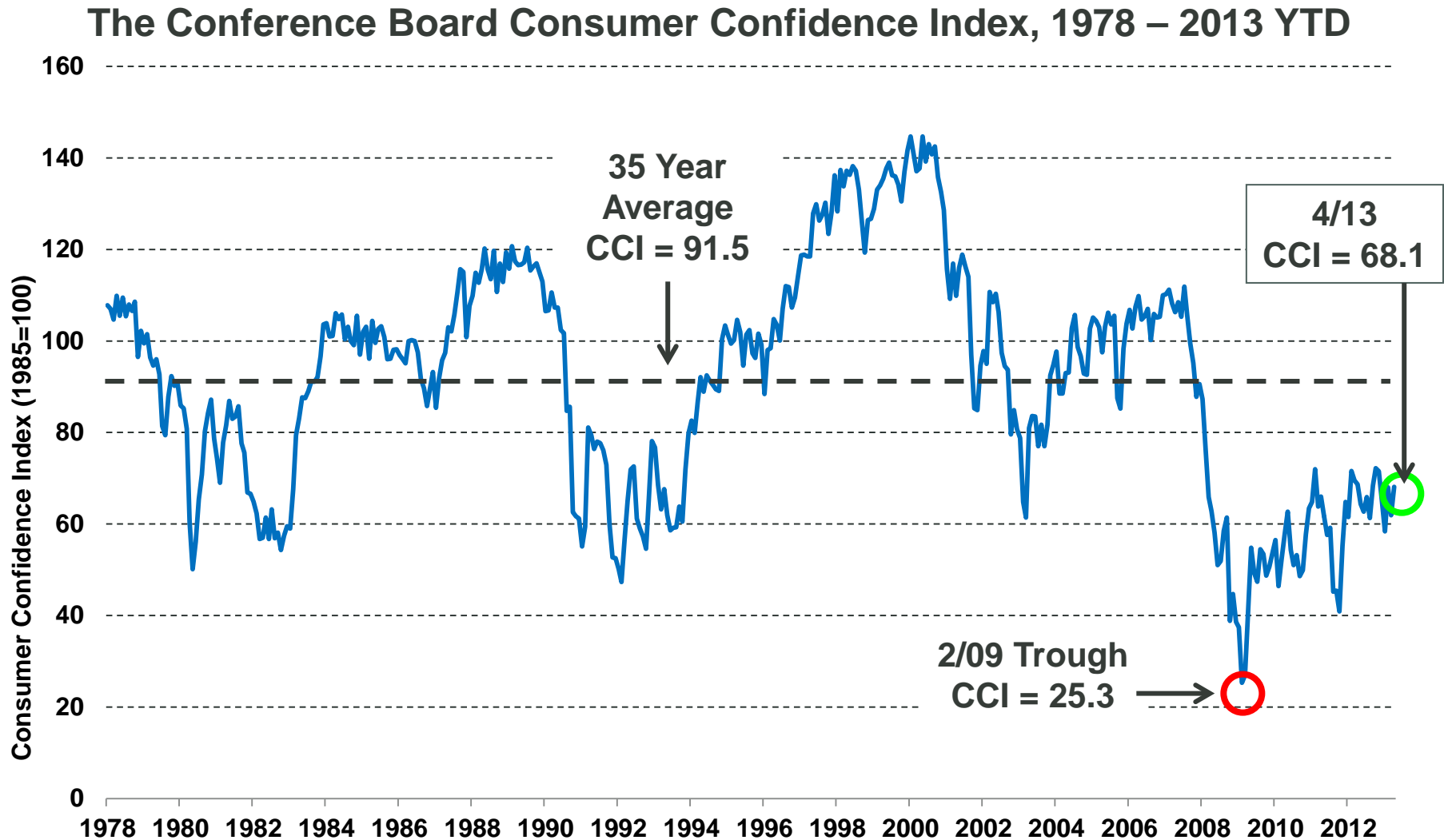
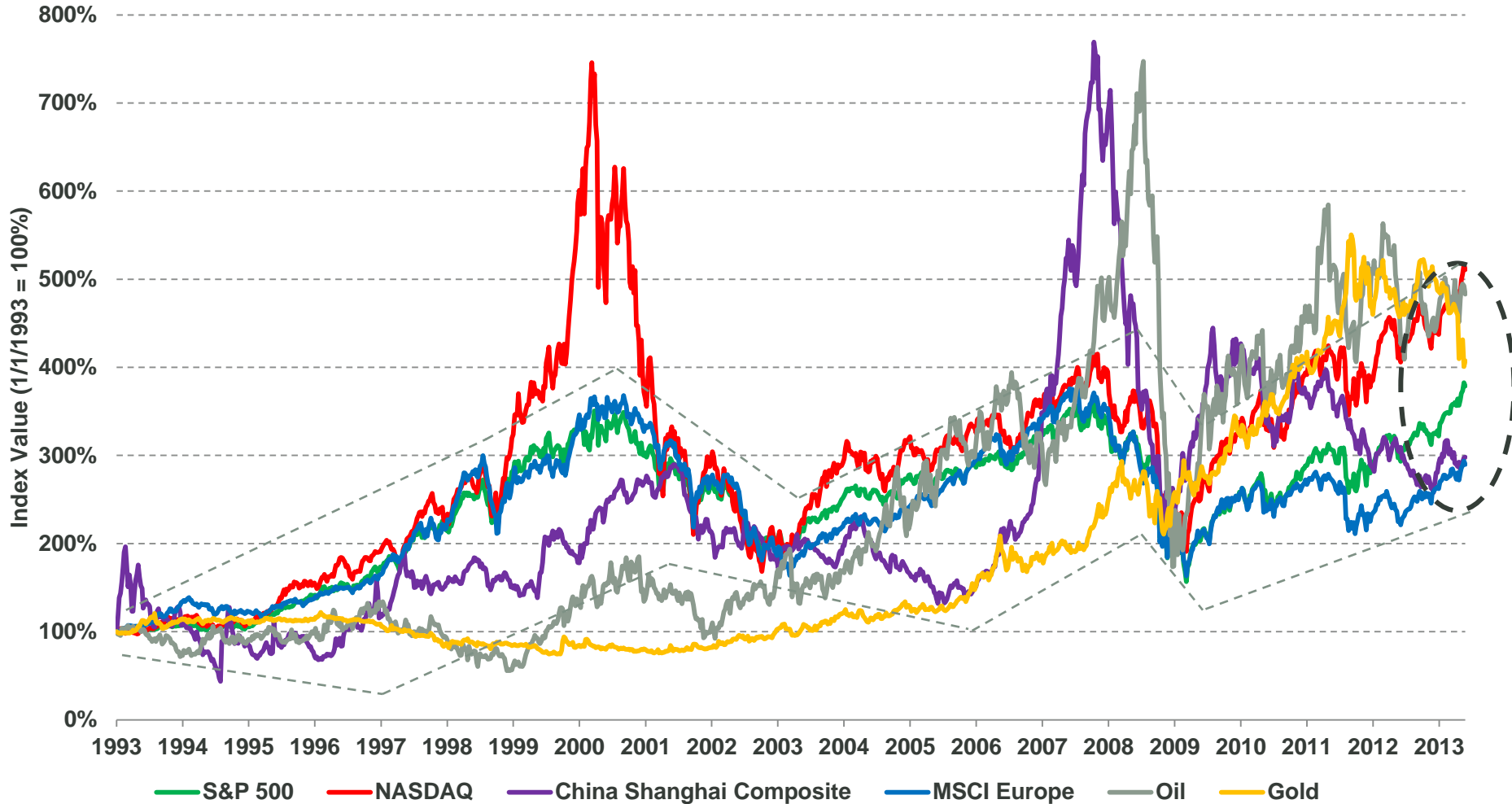# Consumers Less Concerned About Employment, More Concerned About Rising Prices

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?
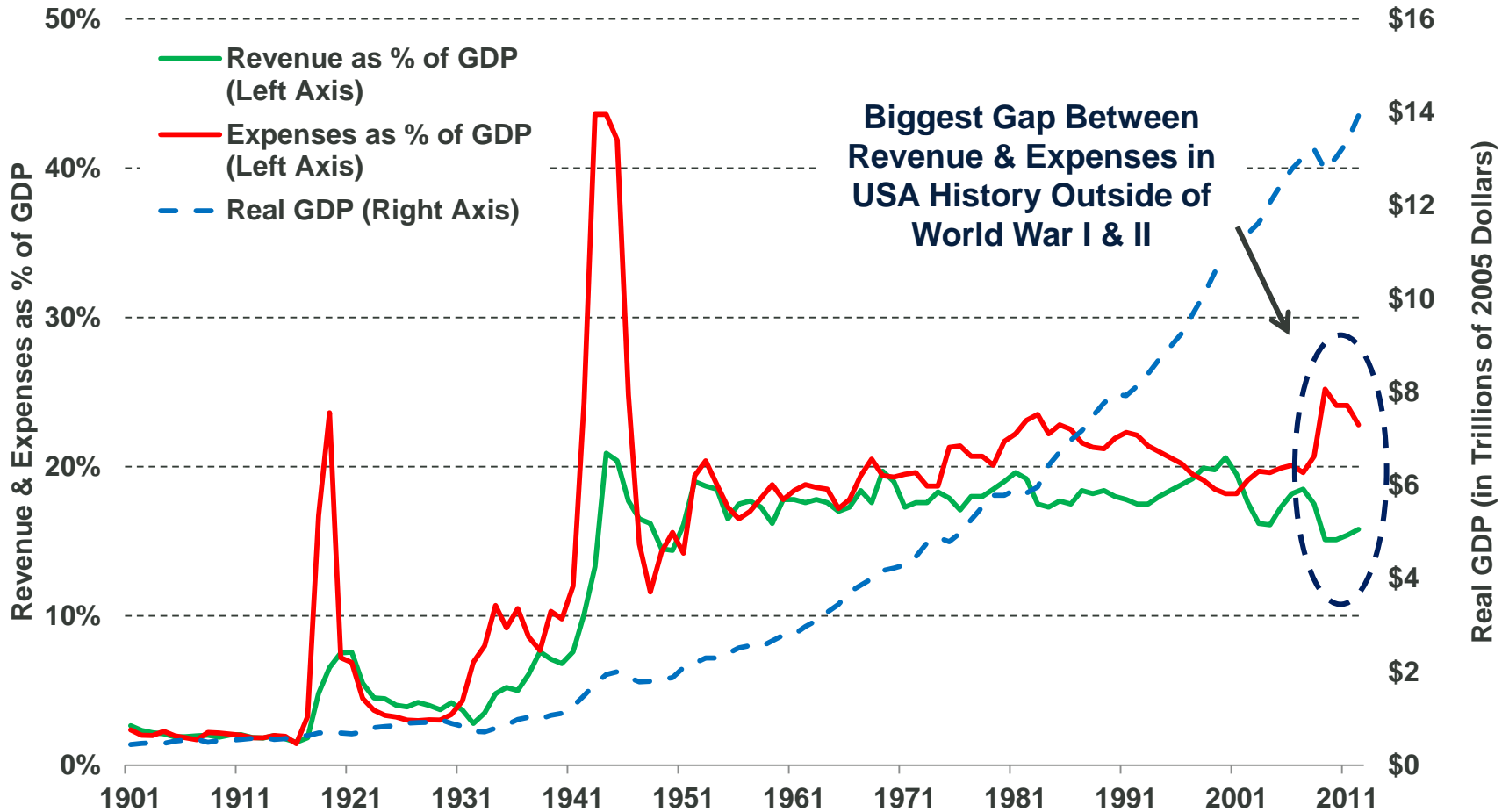

Legend:
- **Unemployment / Job Security**
- **Rising Prices**
- **Financial Markets**
- **Real Estate / Home Values**

X-axis: 4/09, 7/09, 10/09, 1/10, 4/10, 7/10, 10/10, 1/11, 4/11, 7/11, 10/11, 1/12, 4/12, 7/12, 10/12, 1/13, 4/13

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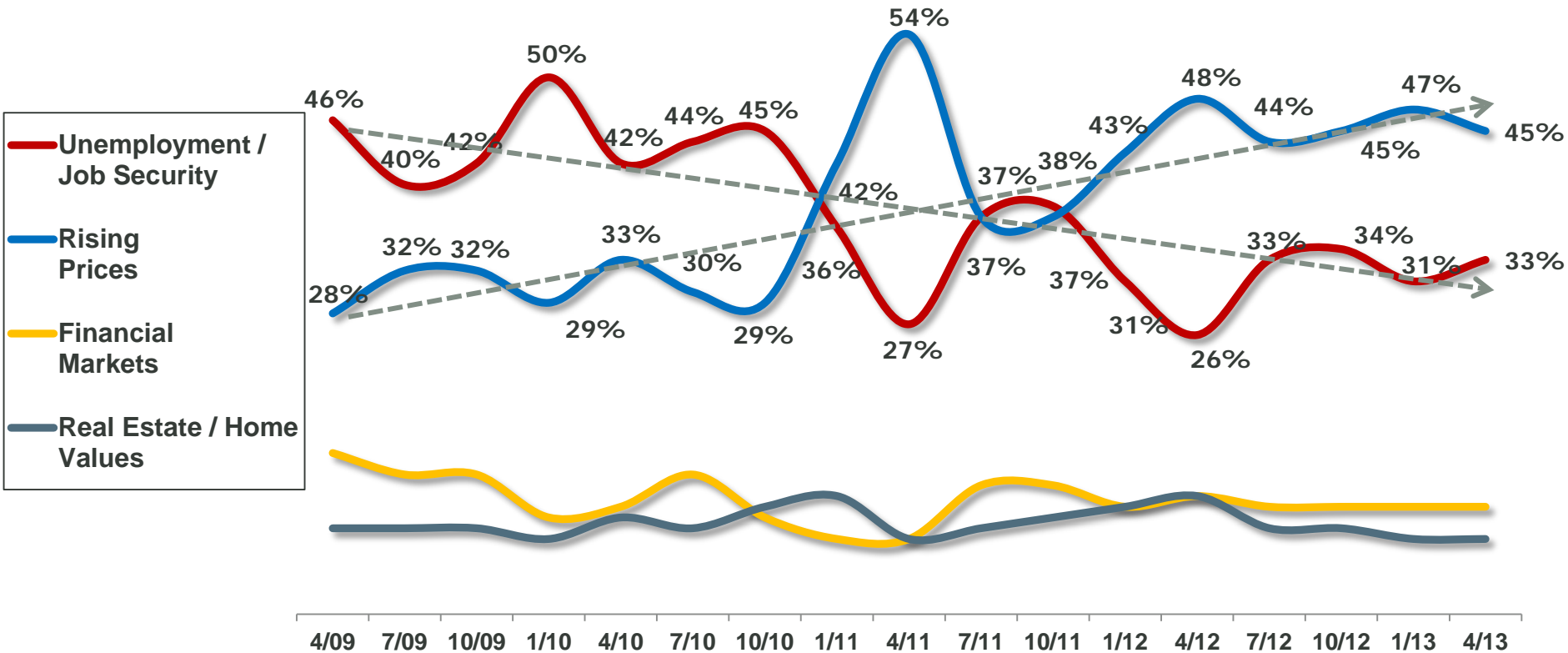
Stock Markets =
Often Leading Indicators of Economic Activity

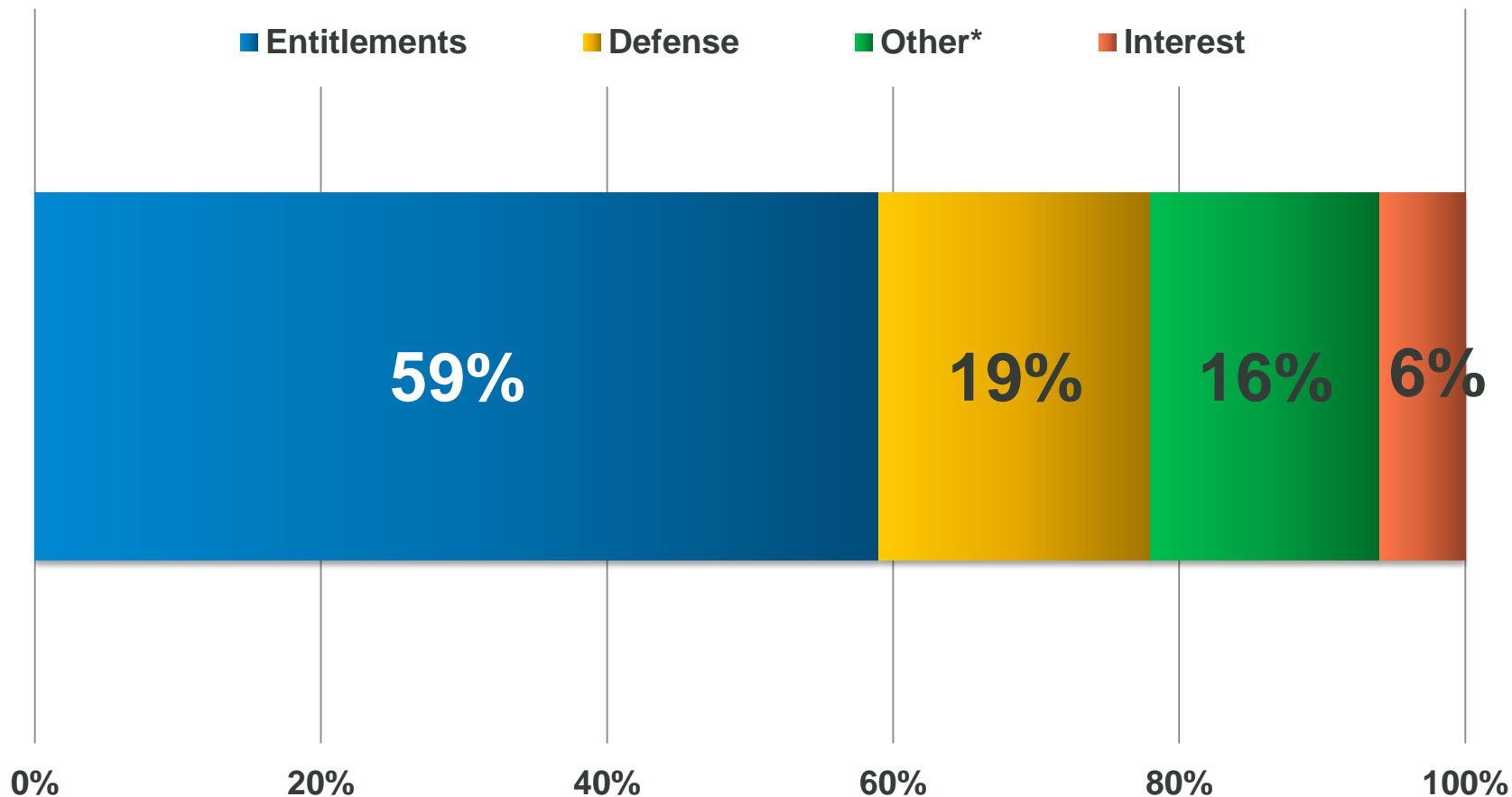**Stock / Commodity Markets Performance (% Change From 1/93), 1/93 – 5/13**

Legend: S&P 500, NASDAQ, China Shanghai Composite, MSCI Europe, Oil, Gold

Y-axis: Index Value (1/1/1993 = 100%), ranging 0% to 800%

X-axis: 1993 to 2013

Note: All values are indexed to 1 (100%) on Jan 1, 1993. Data as of 5/24/13.
Source: FactSet.

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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

Biggest Gap Between Revenue & Expenses in USA History Outside of World War I & II

Source: 1910 – 1930 per Census Bureau, 1940-2012 per White House OMB. Real GDP adjusted for inflation, in 2005 dollars.

Where Your Tax Dollars Go –
Entitlements = 59%

% of USA Federal Government Spending, 2012

■ Entitlements   ■ Defense   ■ Other*   ■ Interest

59%   **19%**   **16%**   **6%**

0%   20%   40%   60%   80%   100%

Note: Federal entitlement expenses include Social Security, Medicare and Medicaid.
Source: White House OMB.

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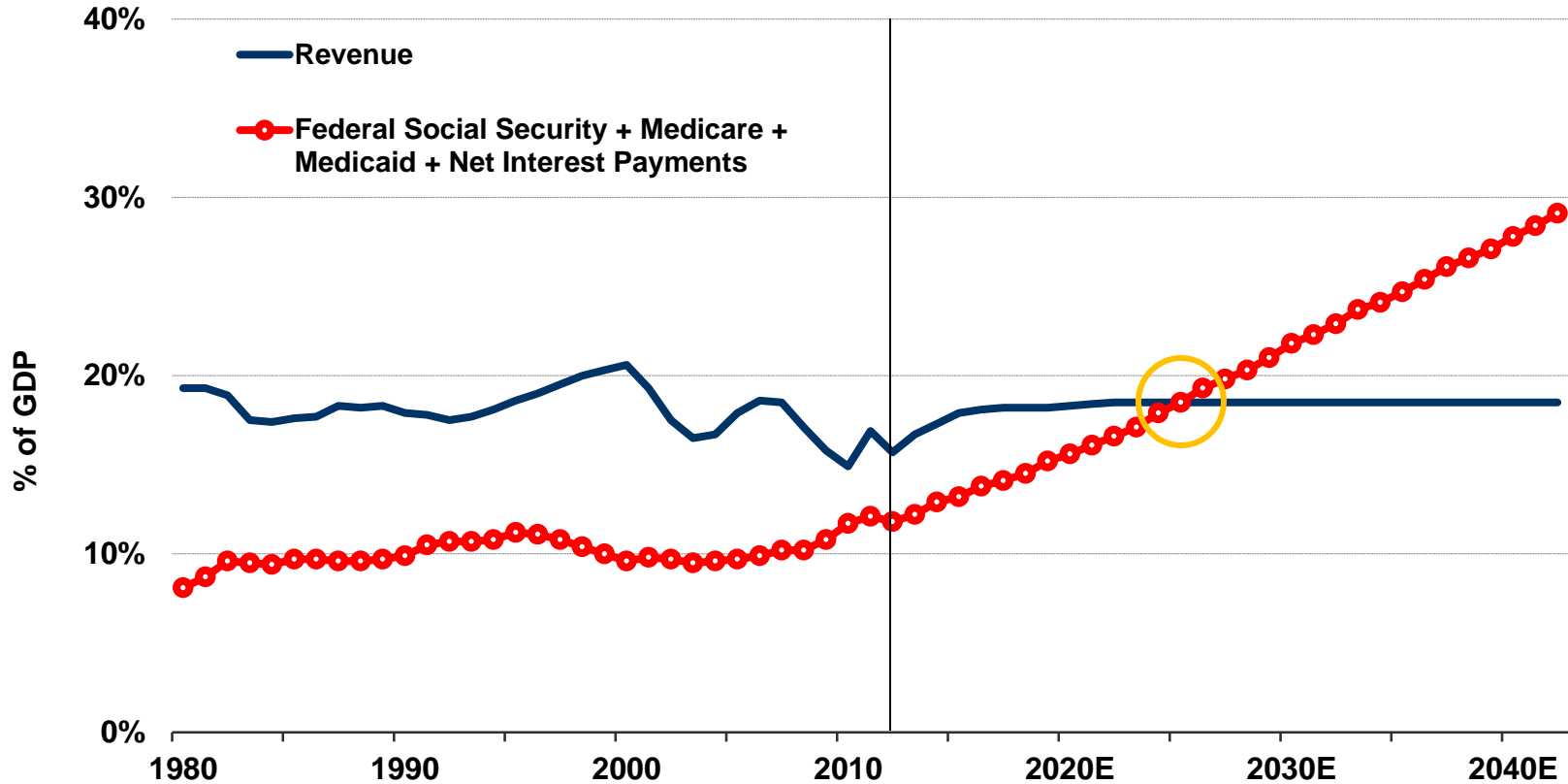
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Disclosure

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