What’s Next? Drivers & Trends Shaping our Future

2015 CIHC Conference San Francisco

Mary O’Hara-Devereaux, Ph.D., President, Global Foresight

The future is already here, It’s just not evenly distributed.

Pay Attention to Weak Signals

Are you ready for your future NOW!
**Recent Weak Signals**

- Personalized manufacturing - 3D printing robot kit ($500)
- WYOD - wear your own device
- Brain Fitness
- Personal memory chips for Alzheimer patients
- Feral Economic Zones
- Air scrubbing trees
- Self driving auto
- India, China go solar
- B.I.G = Basic Income Guarantee
- Terrorism goes viral

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"Talent hits a target no one else can hit…
Genius hits a target that no one else can see."

Arthur Schopenhauer

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**Global & U.S. Economy**

What’s Next!

- Survival and Success depend on peripheral vision.
Global Economy is Slowing Down

China Slows!

Gross Domestic Product Comparisons 2014 (Real)

Source: World Bank: World Development Indicators, July 2, 2014
Note: China figures exclude Taiwan, and special administrative regions of Hong Kong and Macau.

China’s Exports: The Party is Over

Global Trade: Going Downhill

Source: IMF, Moody’s Analytics

12-mo rolling sum, % change yr ago

World exports, 12-mo rolling sum, % change yr ago

Source: IMF, Moody’s Analytics
Global Business Cycle Status

December 2015

Emerging Markets Slump

GDP, % change yr ago

Source: National statistical offices, Moody's Analytics

European Union Fragile Turnaround

EuroZone Gains Traction

but Fragile turnaround

GDP, % change qtr ago, SA, WDA

Source: Moody's Analytics, Eurostat

Source: Moody's Analytics Dismal Scientist – U.S. Macro Outlook: Looking Past a Temporary Slowdown
**600 Cities Drive Global Growth to 2025**

**Developed-Market Cities**
- 157 cities in the City 600
- Other large cities
- Small cities and rural areas

**Emerging Market Cities**
- 443 cities in the City 600
- Other large cities
- Small cities and rural areas

By 2025 Urbanization will Create...

“One Billion New Middle Class Consumers”

- 90% will be in emerging markets—most in Asia.

By 2025, Urbanization will Create...

“...One Billion New Middle Class Consumers”

- 90% will be in emerging markets—most in Asia.

Global Macro-Economic Takeaways 2016-2020

- Risk is to the downside
- Global GDP 2.8 to 3.1
- China Struggles to shift to a consumer society and manage legacy problems
- EuroZone-existential crisis, sovereign debt, refugee crisis
- Many social issues-high unemployment, aging
- Russia-West standoff
- Perennial instability in Middle East-terrorism gone viral
- New style terrorism--viral

How will 1 Billion new consumers change the global economic and consumer landscape?
Global Revenue for Industrial Cybersecurity Will More than Double between 2013 and 2019

Global industrial cybersecurity revenue forecast

Source: IHS

United States Unspectacular Economy

Drivers
- Fed monetary policies
- Low interest rates-normalizing
- Inflation 2%
- Exports - EE growth needs
- Business investment
- Private sector hiring
- Consumer spending
- Housing

2013-2018 U.S. Economic Growth

Anchors & Brakes
- Politics
- Federal debt
- Weak European Economy
- Wage gaps
- Emerging market volatility
- Underemployment
- Weather

Cyclical recession likely late 2018/2019

Inflation Remains Low... foreseeable future

Headline Core

(Rates)

Source: Bureau of Labor Statistics, Bloomberg, Pimco
Interest Rate Normalization in 2016

-1.00% 0.00% 1.00% 2.00% 3.00% 4.00% 5.00% 6.00%


Fed Funds 10-yr T-Bonds

Source: Conference Board, Goldman Sachs, A.T. Kearny

Household Net Worth Surges

Source: Moody’s Analytics Dismal Scientist — U.S. Macro Outlook: Looking Past a Temporary Slowdown

Full Employment Is a Year Away

Source: Moody’s Analytics Dismal Scientist – U.S. Macro Outlook: Here Birthdays for the Expansion

Wage Growth Set Strong Acceleration

Source: Moody’s Analytics Dismal Scientist – U.S. Macro Outlook: Looking Past a Temporary Slowdown
Labor Market Dynamism Has Been Falling

Source: Moody’s Analytics Dismal Scientist – DataPoints: The Dismal Scientist Blog – Why is Hiring Slow?

How Will Consumers Drive 70% of U.S. Economy?

Middle Class Jobs = 27%
Down from 62%.....

You Need the Right Skills to Play

- Read/write native language
- English language competency
- Understand math and science
- Computer literacy
- Facile with information
- Share/create knowledge
- Business basics
- Group work skills
- Cross cultural competency

Least Affordable Housing Markets for the Middle Class

<table>
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<tr>
<th>#</th>
<th>U.S. Metro</th>
<th>% of for-sale homes affordable for middle class, Nov 2014</th>
<th>Median size of affordable for-sale homes, Nov 2014 (square feet)</th>
<th>% of for-sale homes affordable for middle class, Oct 2013</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>San Francisco, CA</td>
<td>15%</td>
<td>1050</td>
<td>14%</td>
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<tr>
<td>2</td>
<td>Los Angeles, CA</td>
<td>22%</td>
<td>1250</td>
<td>24%</td>
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<td>3</td>
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<td>25%</td>
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<td>New York, NY-NJ</td>
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<td>1050</td>
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<td>Orange County, CA</td>
<td>26%</td>
<td>1100</td>
<td>23%</td>
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<tr>
<td>6</td>
<td>San Jose, CA</td>
<td>30%</td>
<td>1200</td>
<td>31%</td>
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<td>33%</td>
<td>1250</td>
<td>32%</td>
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<td>Honolulu, HI</td>
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<td>700</td>
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<td>1800</td>
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<td>Miami, FL</td>
<td>41%</td>
<td>1150</td>
<td>51%</td>
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Source: Trulia Trends: “Where is Homeownership Within Reach of the Middle Class and Millennials?”
Least Affordable Housing Markets for Typical Millennial Household

<table>
<thead>
<tr>
<th>#</th>
<th>U.S. Metro</th>
<th>% of for-sale homes affordable for median millennial household, Nov 2014</th>
<th>Median income, millennial households</th>
<th>Median income, all households</th>
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<td>16%</td>
<td>90000</td>
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<td>New York, NY-NJ</td>
<td>28%</td>
<td>60000</td>
<td>57000</td>
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</tbody>
</table>

Source: Trulia Trends: “Where is Homeownership Within Reach of the Middle Class and Millennials?”

Energy Boom Hurt Labor Productivity

Recession—yes but when?

- 10 years is longest between recessions...historically
- 5 years past the start of the Great Recession
- Depends on how well economy responds to rising interests rates?
- Opportunity for FED to bungle it...
- Earliest next recession 1 year post interest rate rise...
- Latest...2020..but maybe longer
- Bay Area Recession .....???

What not to worry about
- Consumer spending
- Oil exploration
- Stock market

What to worry about
- Consumer spending keeps pace with economic growth
- Education
- Investment in infrastructure
- Rising inequality
- Productivity
Powerful Demographic Trends

Demographics are Destiny

Driver
Healthy Longevity

Big Shift at 60

When will I die?
to
Who will I become?

Bio-gerontotechnology Extends life.
Global Aging

Geezer Glacier

World Population Aged 60 and Over 1950-2050

Escalating Longevity!
Fastest Growing Group 85+

Population 65+ by Age: 1900 - 2050

Second Middle Age 60-80

Source: U.S. Bureau of the Census
How Will Humans Adapt to
25 More Years of Life?

Generational Fault Lines At Work

Boomers
- 1945-1964
- 51-68 today
- Driven
- Minimalists

Generation X
- 1965-1980
- 35-50 today
- Raised by Wolves

Rise of Generation Z

Rebels with A Cause

Big Shift

Millennials
- 1981-2000
- 20-34 today
- Determined
- Pragmatic

Raised by Soccer Moms
- 2001-2011
- 3-19 today

Big Shift

1980
2025

There is a population tsunami approaching

361,000

Approximate number of babies born in the world each day.

More than a quarter of America’s population belongs to Gen Z, and with each birth, the segment is growing.

Source: U.S. Census Bureau, 2012 (as Midde, 2014)
How will Gen Z Re-Boot Our World?

**Disaggregation of Work**

- From jobs to tasks
- Rise of Smart Machines
- Critical new skills

**Multiracial children is the fastest growing youth group in the US**

Modern families come in all colors and sizes. Long-standing views of race have been challenged by culture: celebrities, artists, politicians and athletes of mixed heritage have changed discourse, along with trans-racial and international adoptions.

Source: Census, "The two or more race population, 2010 Census Brief"
American Academy of Child and Adolescent Psychiatry

**Entrepreneurship is in their DNA**

Surrounded by DIY education and crowdsourcing, these teens dream of self employment. They feel pressured to gain professional experience at a very early age. Low wage entry level Gen Z jobs lead to competition with struggling Millennials, fueling competitiveness.


**+400%**

Increase in multiracial marriages (Black and White) in the last 30 years (with a 1,000% increase in Asian-White marriages)

**+50%**

Increase in the multiracial youth population since 2000 (to 4.2 million)

**72%**

of high school students want to start a business someday (compared to 64% of college students)

**61%**

of high school students want to be an entrepreneur rather than an employee (compared to 40% of college students)
### The Internet of Things

- Waste Management
- Urban Planning
- Environmental Sensing
- Continuous care
- Smart Meters
- Smart Product Management
- Smart Homes
- Smart Offices
- Machine to Machine Communication

### Lesson from Disruptive Innovation Cycles

**Technology doesn’t drive change. Human choices make change.**

### Disruptive Shifts in Work

- Employee ➔ Entrepreneur
- Career ladder ➔ Experience portfolio
- Permanent ➔ Velcro relationships
- Outsourcing ➔ Crowdsourcing
- Physical ➔ Digital infrastructure;
- Desktop ➔ Device
- Organizations ➔ Social networks
- Protecting knowledge ➔ Sharing knowledge
- Sharing knowledge ➔ Creating context for persuasive conversations

### End of Work As We Know It!
What is human?
What is our comparative advantage?

Skills for the Future

- Social Intelligence
- Trans-Disciplinary
- Create Unique Critical Insights
- Design Architect
- Cognitive Load Management
- Engage Networks
- Cross-cultural Cross-Generational Empathy
- New Media Literacy

People Challenges
What to do on Monday!

Trade Up!
Strategic Imperative

Beware of Insight Deficit

Deep Dive on the Social Trends that will Disrupt Your Business - Plot How & When

- Longevity
- Education-Jobs Gap
- Income inequality
- Education Gender Gap
- Healthcare shifts

Black Hole of the Superficial Insight
Define Your Human Comparative Advantage

Assess Your Generational Readiness

Parting Thoughts

The Future Won’t Resemble the Past!
Never Mistake a Clear View for a Short Distance

Global Foresight LLC
mohara@global-foresight.net
415 398-8816
www.global-foresight.net

Finding Targets No One Else Can See