It's (Always) About the Money

Peter Kuper

August 20, 2014
• **Multi-Billion Private Market**
  – 2012 saw over 200 cyber security startups worldwide land more than $1.4 billion, up from approximately $1 billion in 2011 and some $500 million in 2010

• 2014 on track for even more robust figures, including at the earliest of stages

• US Government agencies also accelerating investments
Total early stage VC investment in cyber security

http://money.cnn.com/2014/07/21/smallbusiness/cybersecurity-startups/
• It’s because that’s where the money is…

• *Almost $100BN worth*…

**Gartner**: Companies are projected to spend **$67 billion** in information security in 2014 and will increase 39%, to **$93 billion, by 2017**

• And the exits are available:
  – Valuations for private investment, IPOs and M&A all at or above 2001 era levels
Public companies saw Tech Bubble 2.0 levels but have recently retrenched some of the euphoria.

- FireEye was worth $13BN
- Still over $4BN
  - With no near-term profit
Bubble 2.0?
Other Hot Investment Areas:

**Military Equipment for Local Police**

As the nation's wars abroad wind down, many of the military's surplus tools of combat have ended up in the hands of state and local law enforcement. Totals below are the minimum number of pieces acquired since 2006 in a selection of categories.

- **435** Other armored vehicles (including cars and trucks)
- **44,900** Night vision pieces (including sights, binoculars, goggles, lights and accessories)
- **533** Aircraft (planes and helicopters)
- **93,763** Machine guns (5.56 mm and 7.62 mm rifles)
- **180,718** Magazines (No ammunition)

*Source: Department of Defense*
• How to “police” 21,000 people?
• Since 2003, $9.4 million for police in St. Louis County including two helicopters, a Bearcat, and night vision equipment.
• “The focus is terrorism, but it’s allowed to do a crossover for other types of responses…It’s for any type of civil unrest…the grant [has] no restriction put on that by the federal government.”

- Nick Gragnani, executive director of St. Louis Area Regional Response System
• **Who’s making these investments?**
  – Department of Homeland Security has distributed more than **$34 billion** through “terrorism grants,” enabling local police departments to acquire equipment

• **But wait – there’s more!!!**
  – Enter the 1033 program. The Department of Defense provides military-grade weapons and equipment to local law enforcement agencies

• **Law Enforcement Support Office:**
  – “1033 program has transferred more than $5.1 billion worth of property. In 2013 alone, $449,309,003.71 worth of property was transferred to law enforcement.”
• This is **not** an isolated scenario
• Keene, a small New Hampshire town (pop. 23,000) had 3 homicides from 1999 and 2012
• But, in 2011 it spent ~$286,000 on a BearCat armored personnel-carrier
• The police chief of Keene justified the acquisition to patrol the town's "Pumpkin Festival and other dangerous situations,"

  - *The Economist*
Oh The TERROR!!!
Oh The TERROR!!!
So, What?

- What does this have to do with cyber security?

Everything.
• By any (real) measure, the US (and most of the world) economy is in worse shape than before the financial crisis.

• Just follow the money…
Persons Receiving Food Stamps

Source: USDA

scottgrannis.blogspot.com
Rent Prices Are Going Up, But Your Income Isn't

The percent change in median renter income compared to median monthly rent since 1986.
About Those Jobs Created...
And Any Jobs Going to “Retirees”

Employment by Age Group
Previous 3 Months, May '08 = 100, SA

Source: ONS
Percent Job Losses in Post WWII Recessions

Current Employment Recession

Dotted Line ex-Census Hiring

http://www.calculatedriskblog.com/
Ok, but Auto Sales Are Ripping!

Literally, nothing has changed since the last crash.

Source: Federal Reserve Bank of New York Consumer Credit Panel / Equifax.
(c37) Reserve currency status does not last forever
• People feel like they are not getting ahead.
• There is unrest in the streets (and fields).
• Americans feel they are no longer dealing “our” government, but “The” government.
• You’re an educated, unemployed broke 20something. What are you going to do?
• Why Ferguson, MO is essentially, a barometer of things to come.
• Ferguson is not a one-off racial protest; it is that and much more
• People are frustrated everywhere (not just in US) and more protests will occur
• Recall the government official’s position on how the equipment can be deployed
• If you are one of 21,000 standing in the street, how do you plan on not being a martyr?
These Little Piggies Can’t Go To Market...

EU Citizens <25 = 24%

European Under-25 'Youth' Unemployment Rates
• **Virtual War Machine**
  – Why try to outgun the guys with all the bullets?
    • DHS request for 1.6 BN rounds over 5 years
  – And why even put yourself in the line of fire to begin with?
  – Some smart protesters have already figured this out
Knowledge Is Free.
We Are Anonymous.
We Are Legion.
We Do Not Forgive.
We Do Not Forget.
Expect Us.
• Defense Department: cyber attacks to federal and other global computer systems can be "attributable directly to the Chinese government and military," in its annual report to Congress.

• Dozens of computers in the Ukrainian prime minister’s office and at least 10 of Ukraine’s embassies abroad have been infected with a virulent cyber espionage weapon linked to Russia. – FT, August 7, 2014
• It’s not just infrastructure…

• Community Health Systems Inc, one of the biggest U.S. hospital groups, said it experienced a cyber attack from China, resulting in the theft of personal data belonging to 4.5 million patients in April and June.

• Why?

• We may well have a bubble to a certain extent, but unlike early 2000s, volume and velocity of attacks is unprecedented keeping the investment curve more sustainable

• Be it domestic or foreign based, cyber attacks are now the norm and ignoring this reality is not a good career strategy

• The timing has never been better for security start ups.
What’s your idea?
QUESTIONS?

pkuper@iqt.org
Core CPI (which excludes food and energy) rose 0.3 percent in January. Since the onset of the recession, education, medical care and food/beverage costs have risen faster than core CPI. The price of housing and durable goods, however, have lagged core CPI.

### CPI Components

**Housing** = 40% of CPI

**Medical** = 7% of CPI

**Education** = 7% of CPI

Source: U.S. Bureau of Labor Statistics
S. Culp, 21/02/2013
Good Investment?

Record

Tuition & Required Fees (In-State for Public Institutions) for All Four-Year Degree-Granting Institutions, 1976-2010

Source: Digest of Education Statistics: 2010

© Political Calculations 2012
Record loans $1 Trillion

Average Graduate Debt: $32,000
I’d Gladly Pay You Two Decades From Now...
Why Should You Care?

- Beyond your mortgage, the weak Macro-economy directly impacts InfoSec
- And in more ways than one
  - Economic stress (unemployment) leads to lower GDP
  - Economic stress (weak GDP) leads to budget pressures
  - Economic stress (weak earnings) leads to budget cuts
    - Including IT Security
  - Persistent economic stress (poor outlook for years to come) will lead to a repeat of the above.
    - And that’s what we are seeing today
The New American Dream?

Median Asking Rent For Vacant Rent Units By Region

- Northeast
- Midwest
- South
- West


$200 $300 $400 $500 $600 $700 $800 $900 $1,000 $1,100