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An Applied Market Intelligence Webinar

Industry Update

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Agenda

- Setting the stage
- Economic factors and data
- Looking forward – forecast and projections
- Some specific industry projections
- Closing thoughts

Current Market Observations

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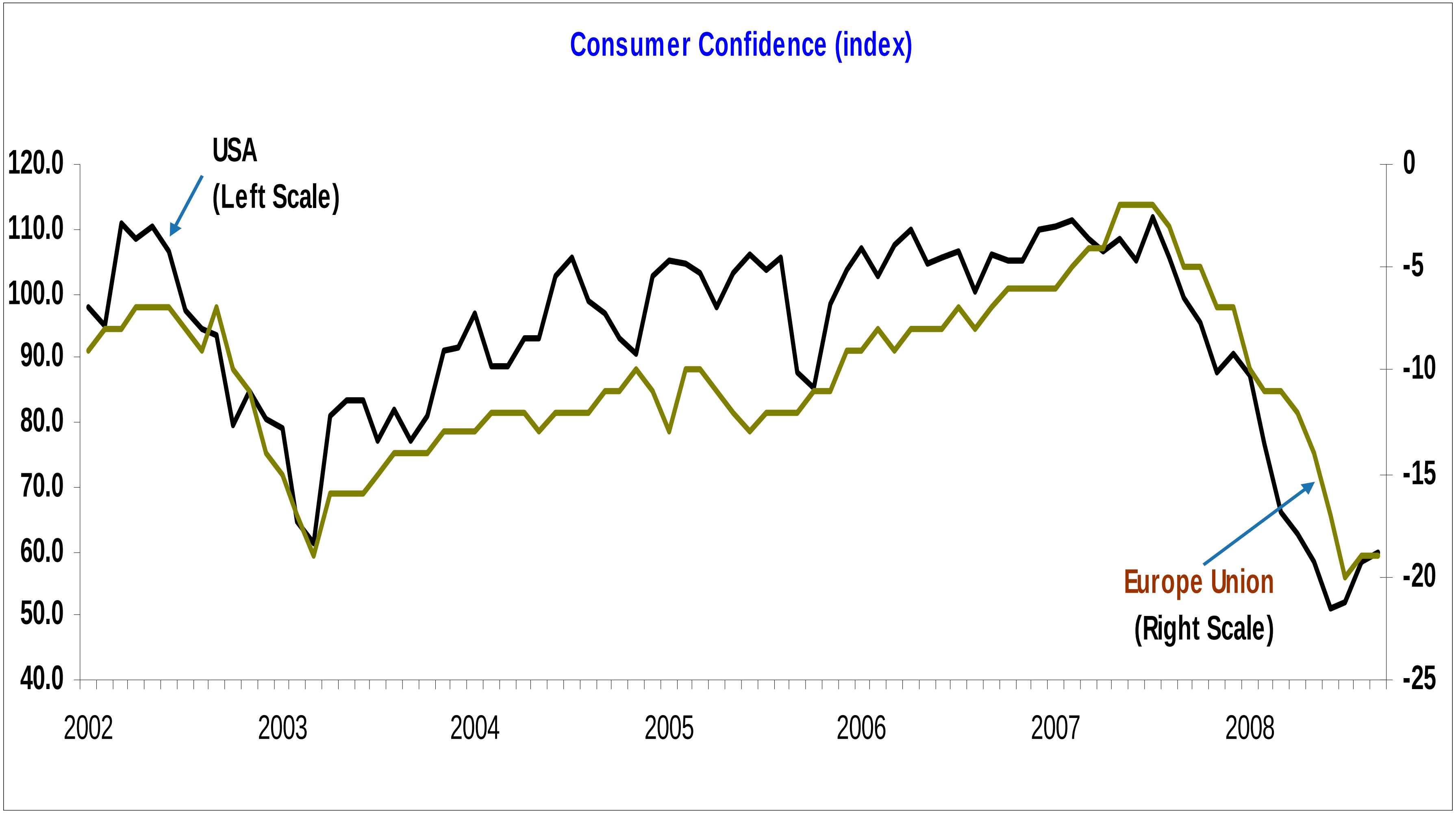
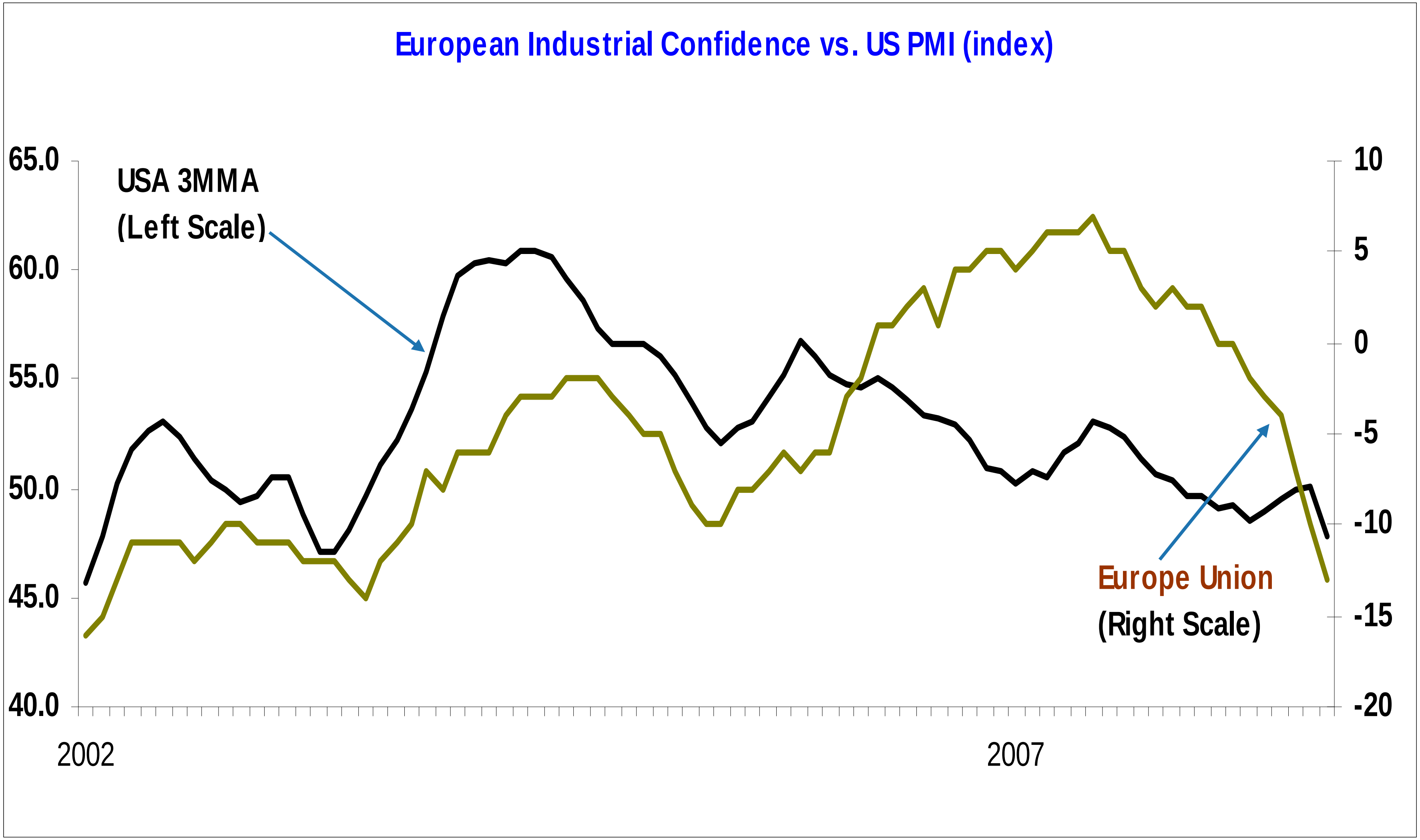
- Changes in the Market are being driven from drastically reduced demand (ie demand side slow down) slow consumer & industry spending and ***uncertainty***!
  - Supply & Capex have been ***SLASHED*** and will continue to be adjusted downward in response to demand
- The Electronics Supply Chain will be hyper sensitive to inventory (at every node)
  - Excess inventory will swell until stock levels are adjusted to decreased revenue levels
- Looking forward everyone has a very short horizon, i.e. what about next month and quarter therefore making tactical decisions
  - The 4th quarter was a shocker to everyone – relative to how quickly the market deteriorated
  - Most companies are in “survival mode” few are in “predator mode”
- Access to “reasonably” priced capital – how about any capital?
  - House hold company names will ***FAIL*** though out the supply chain
  - Everyone is paying extra special attention to their “customer” & “suppliers” financial viability

US & European consumer confidence



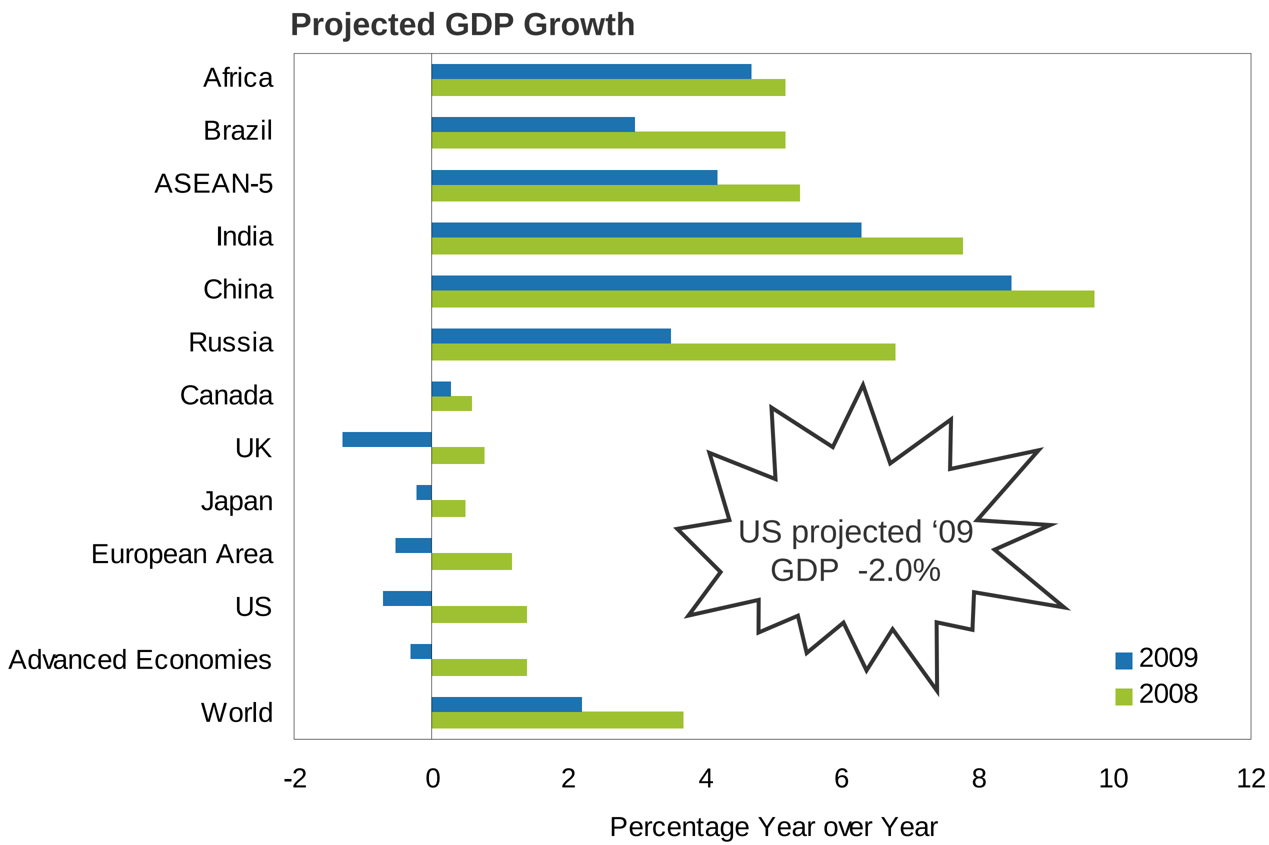
European industrial confidence & US PMI



Global Economic Crisis

- Record DJIA high of 14,164 on October 9, 2007
- DJIA of 8,451 on October 10, 2008, a drop of 40% in on year; 20% lost between Sep 19, 2008 and October 10, 2008 (3 weeks)
- US stock paper losses for 2008 = $8.3T as of Oct. 9 (DJ Wilshire 5000)
- 2007 US GDP = $13.8T

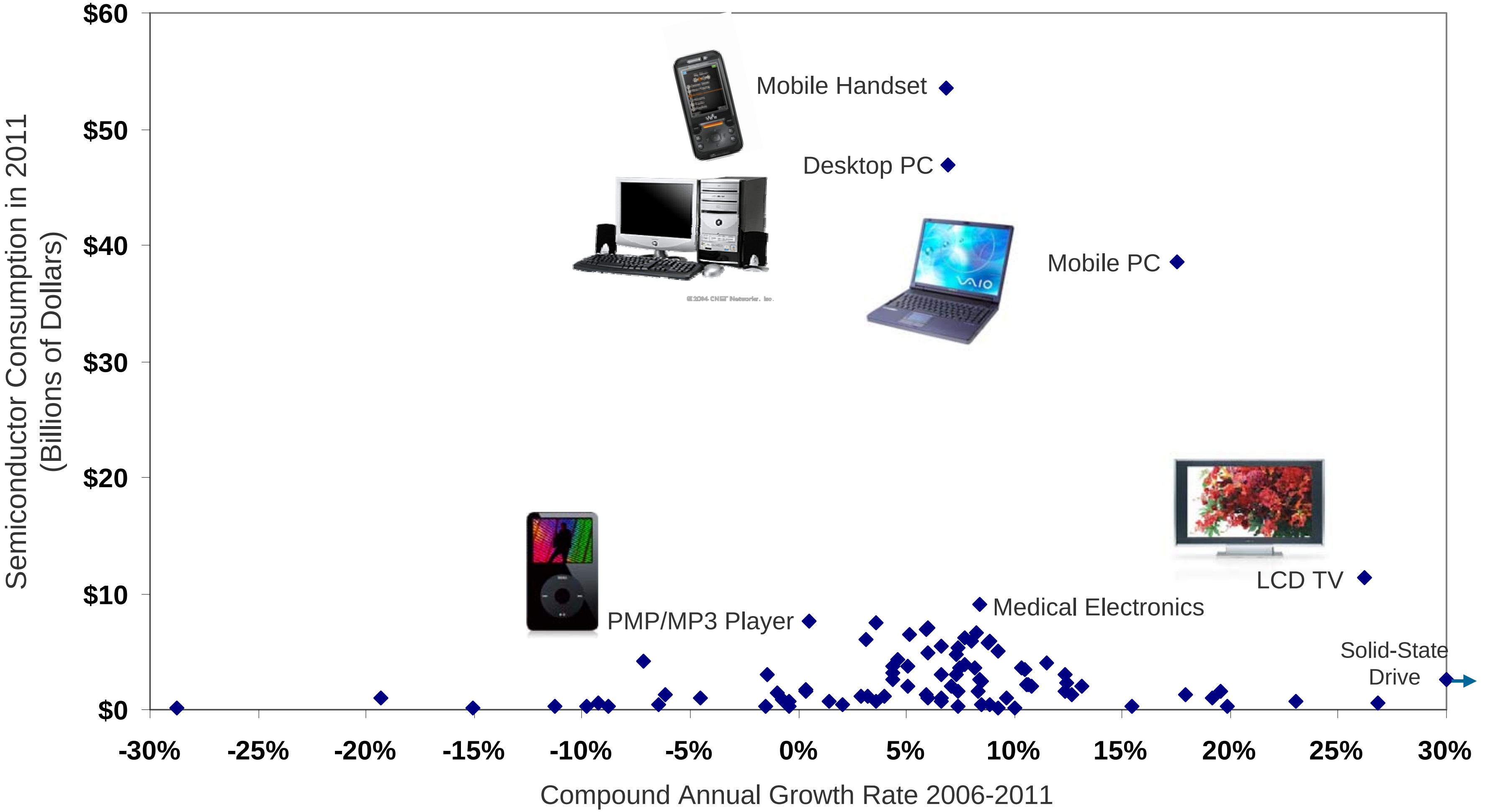
Global economic data



Source – International Monetary Fund (IMF)

Semiconductor demand profile

- PCs and handsets largest impact on semiconductor demand
- Remaining market fragmented with selected high-growth markets



Sources – iSuppli Corporation *Application Market Forecast Tool (AMFT)*™

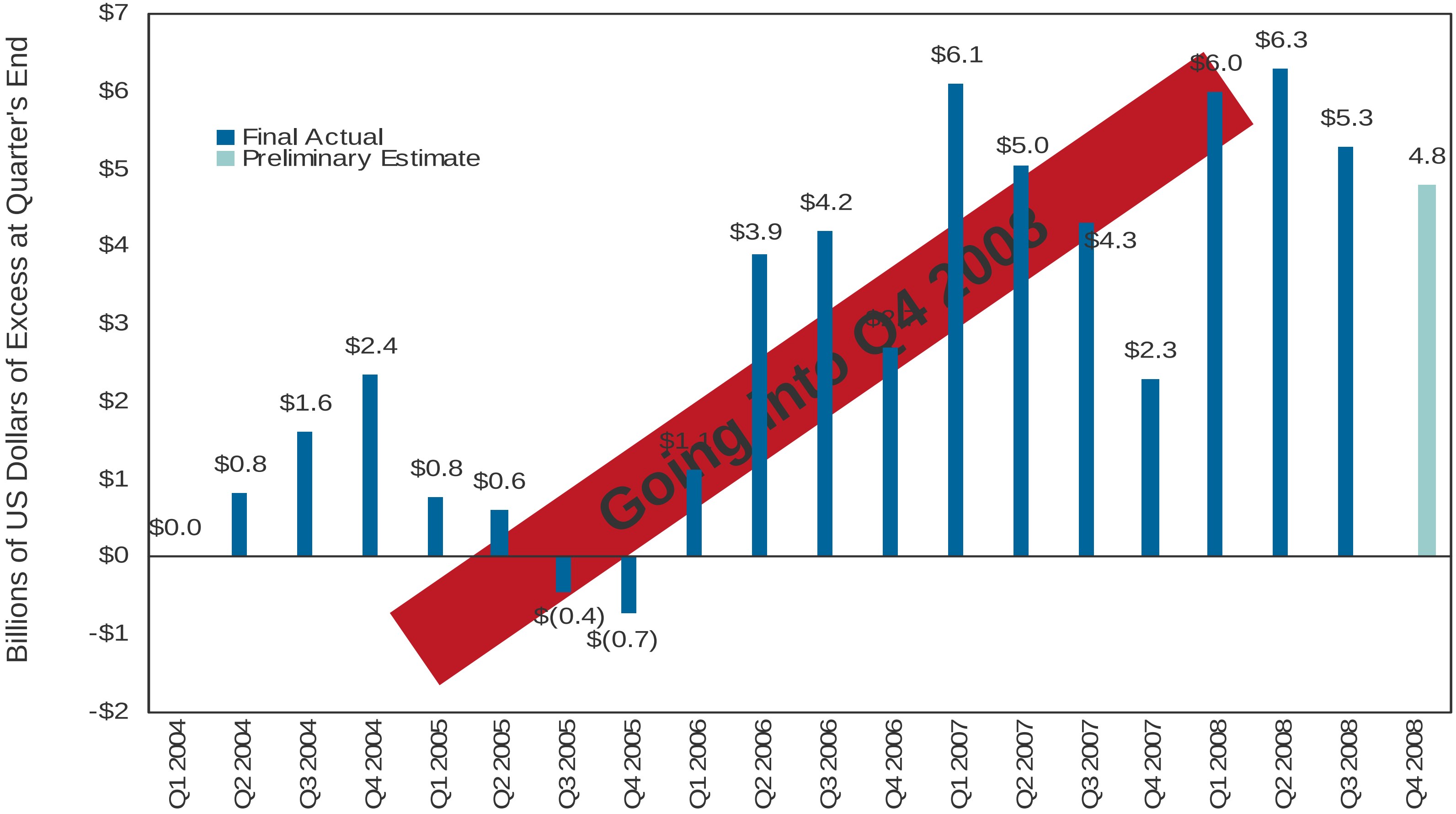
Preliminary semiconductor market growth forecast – 2008

Category	2008 Growth
Total Semiconductor	-4.5%
Total ICs	-5.4%
Memory ICs	-21.1%
DRAM	-25.1%
SRAM	-19.1%
NOR Flash	-21.5%
Data Flash	-14.8%
Microcomponent ICs	-0.2%
MPU	3.5%
MCU	0.3%
DSP	-18.8%

Category	2008 Growth
Logic ICs	1.1%
General Purpose Logic	-7.6%
ASIC/ASSP Logic	3.0%
Analog ICs	-2.2%
Standard Linear	-1.6%
ASIC/ASSP Analog	-2.5%
Discrete	-4.8%
Optical	5.1%
Image Sensors	4.2%
Sensor/Actuators	1.1%

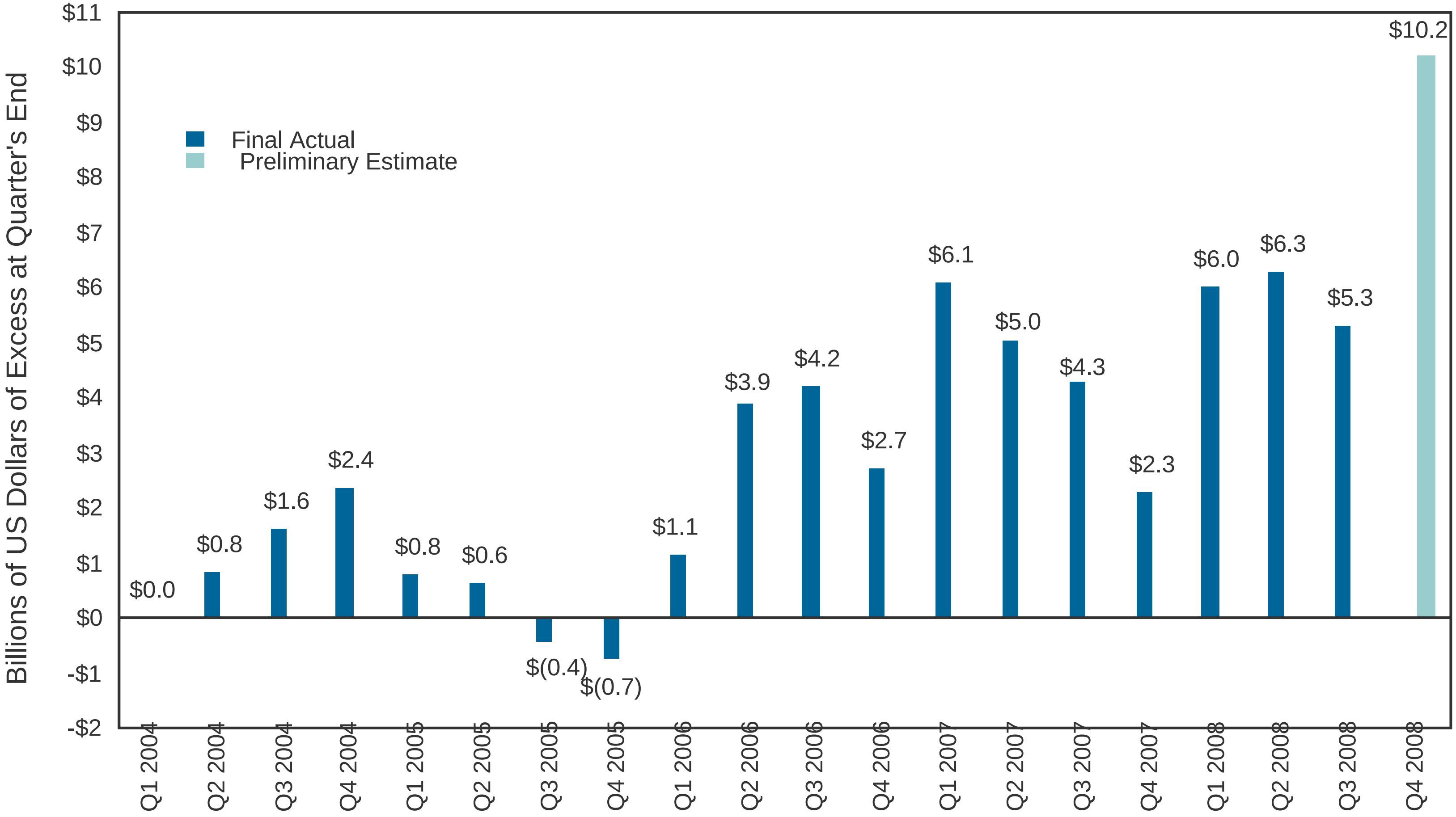
Source – iSuppli Corporation *Application Market Forecast Tool (AMFT)*™

Inventory / production



Source – iSuppli Corporation *Electronic Equipment and Semiconductor Forecast*

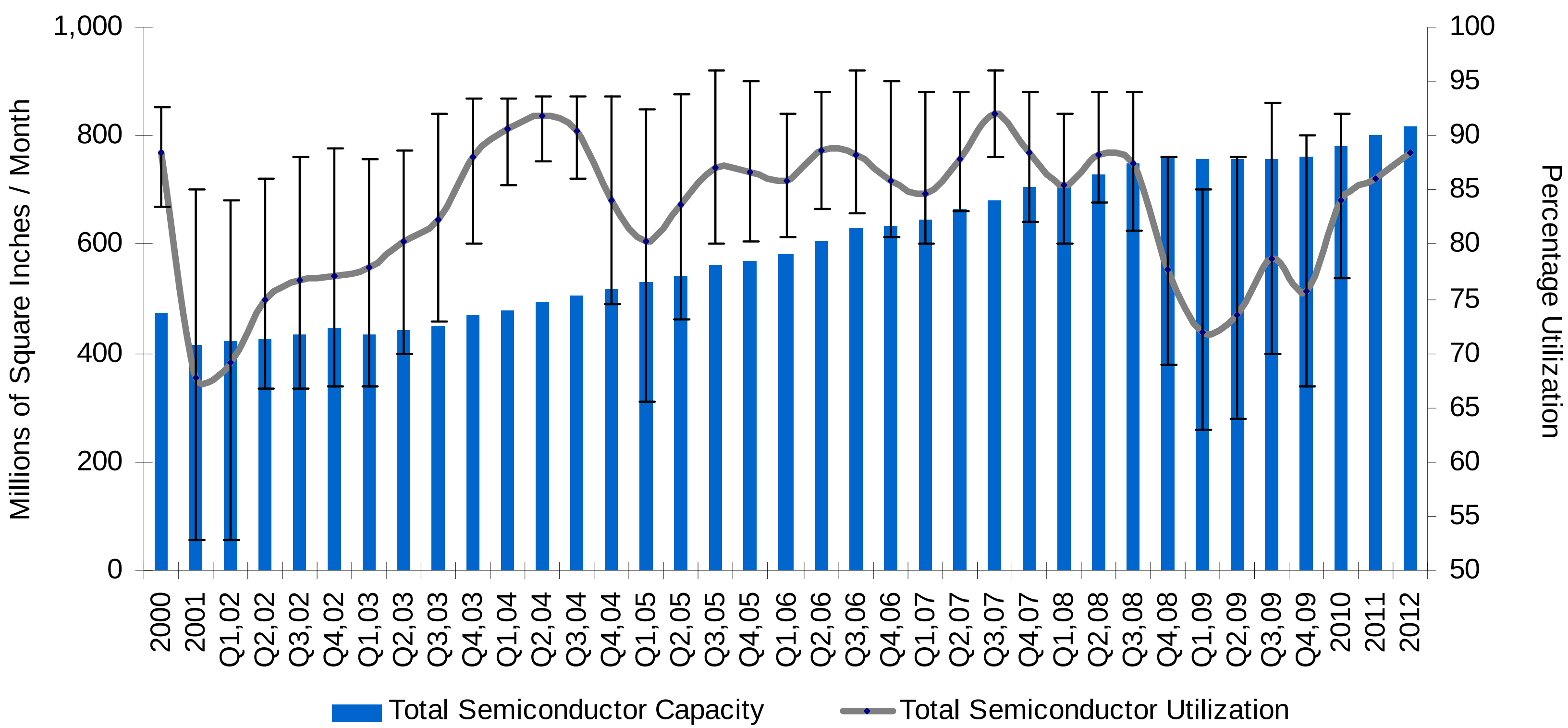
Inventory / production…….today



Source – iSuppli Corporation *Semiconductor Inventory Market Tracker*

Short-term impact

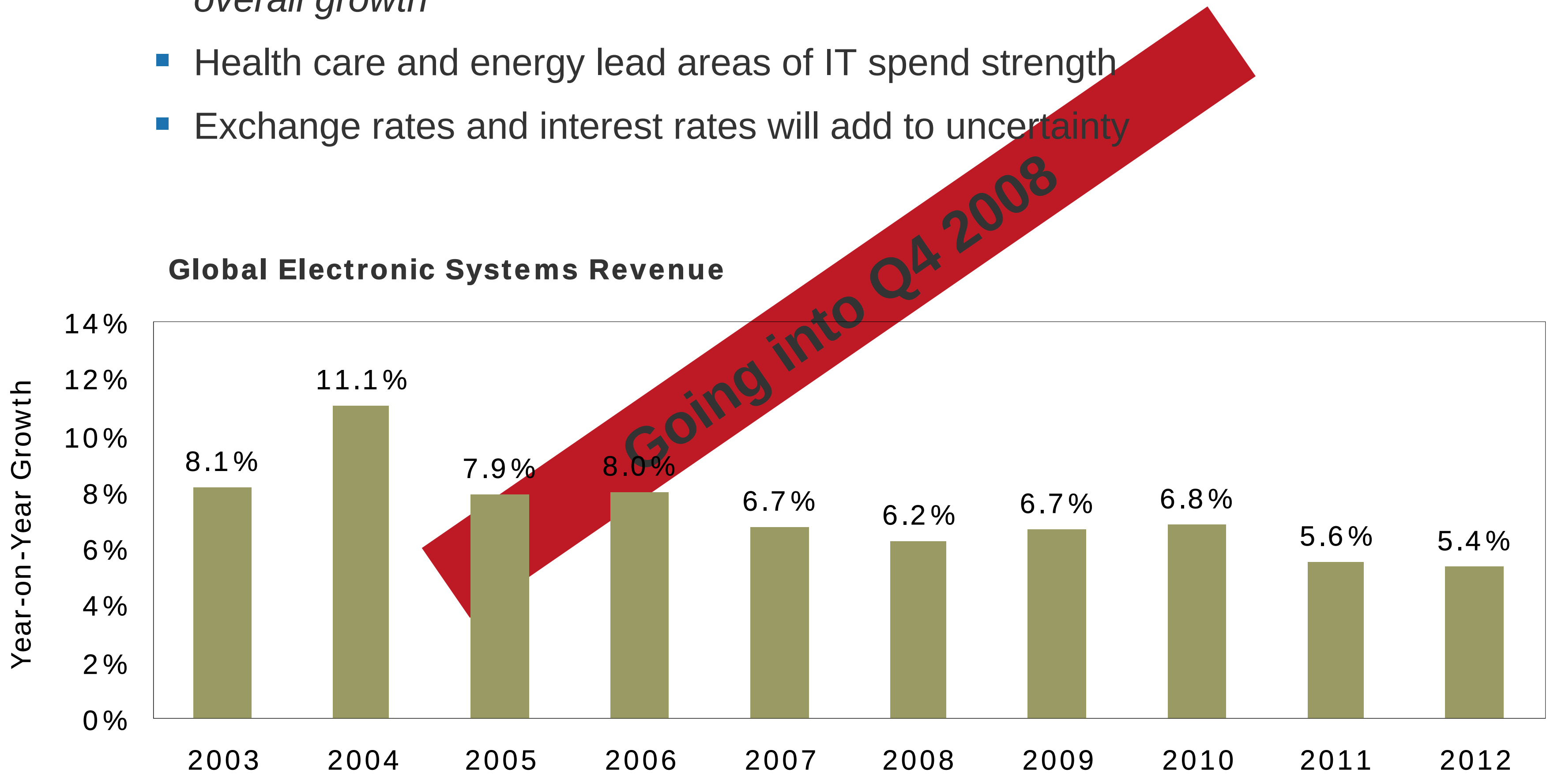
- Industry will remain in an overcapacity position through 2009
  - Companies are fighting to keep market share



Source – iSuppli Corporation *Semiconductor Manufacturing and Supply*

Electronic systems market

- Price pressures continue with expanding reach in global market
  - *Full extent of global economic slow down will continue to put pressure on overall growth*
  - Health care and energy lead areas of IT spend strength
  - Exchange rates and interest rates will add to uncertainty



Source – iSuppli Corporation *Electronics Equipment and Semiconductor Forecast Q3 2008*

Electronic systems market

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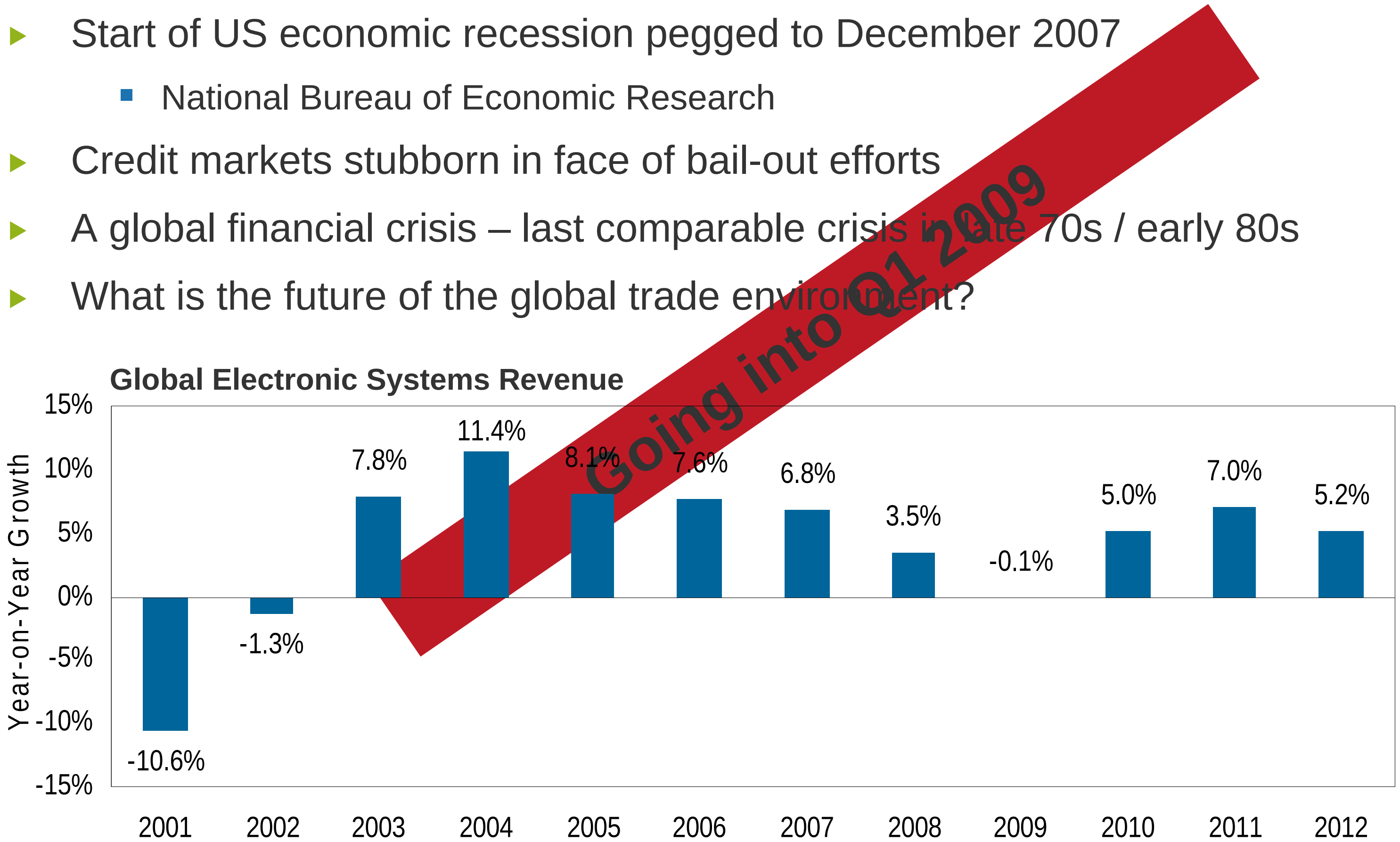
- First decline in factory OEM revenues since 2002
  - Modest downturn expected compared to 2001
- Start of US economic recession pegged to December 2007
  - National Bureau of Economic Research
- Credit markets stubborn in face of bail-out efforts
- A global financial crisis – last comparable crisis in late 70s / early 80s
- What is the future of the global trade environment?



Source – iSuppli Corporation *Electronic Equipment and Semiconductor Forecast*

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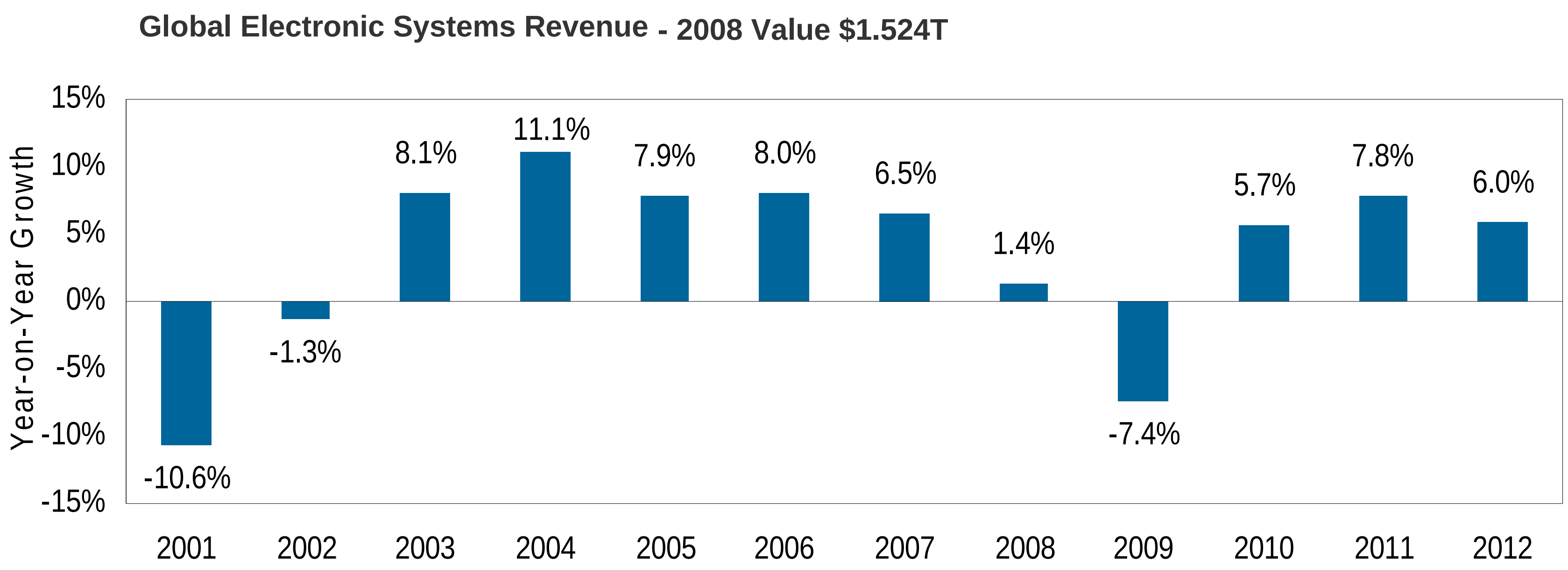
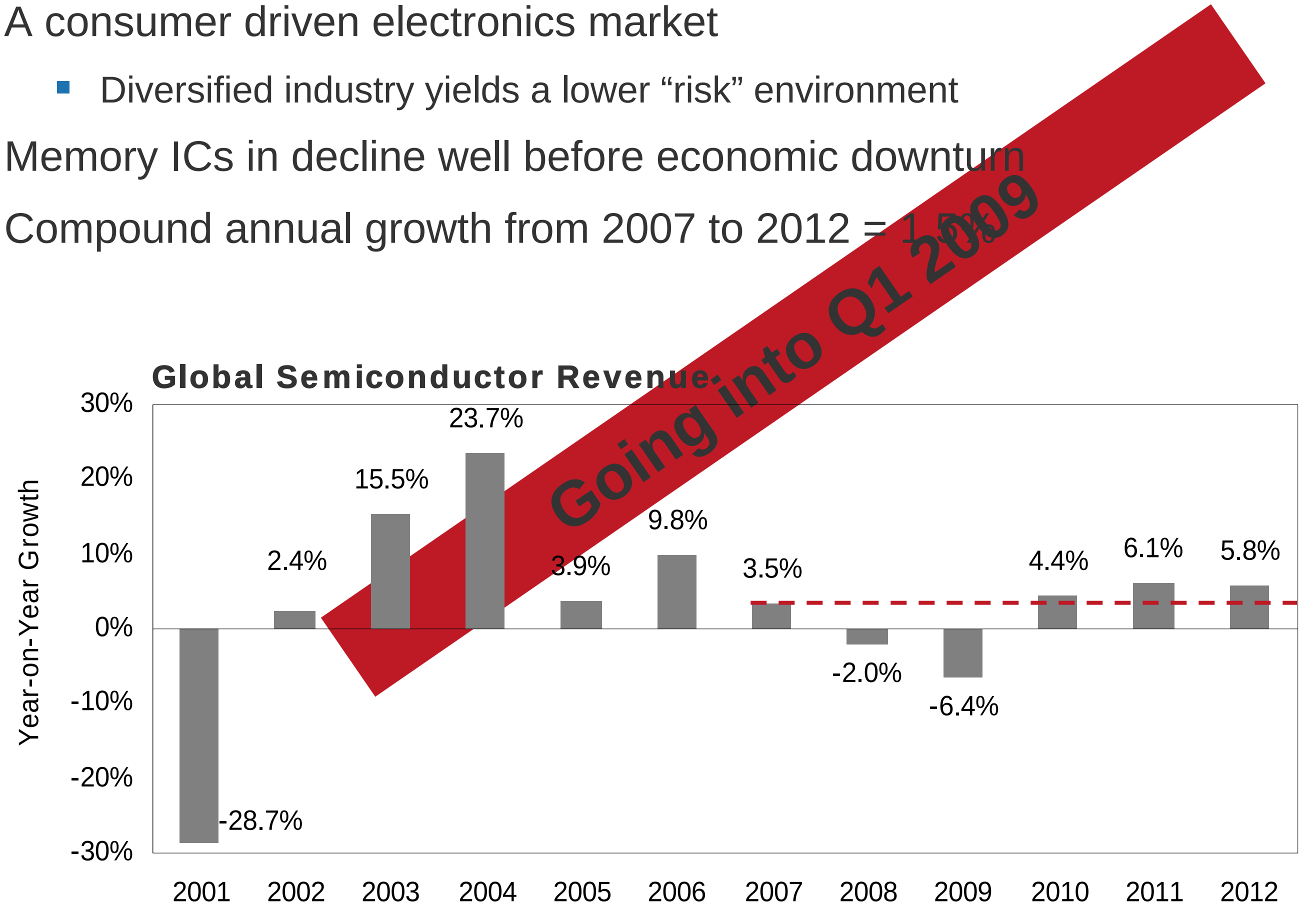


Source – iSuppli Corporation *Application Market Forecast Tool (AMFT)™*

Semiconductor market

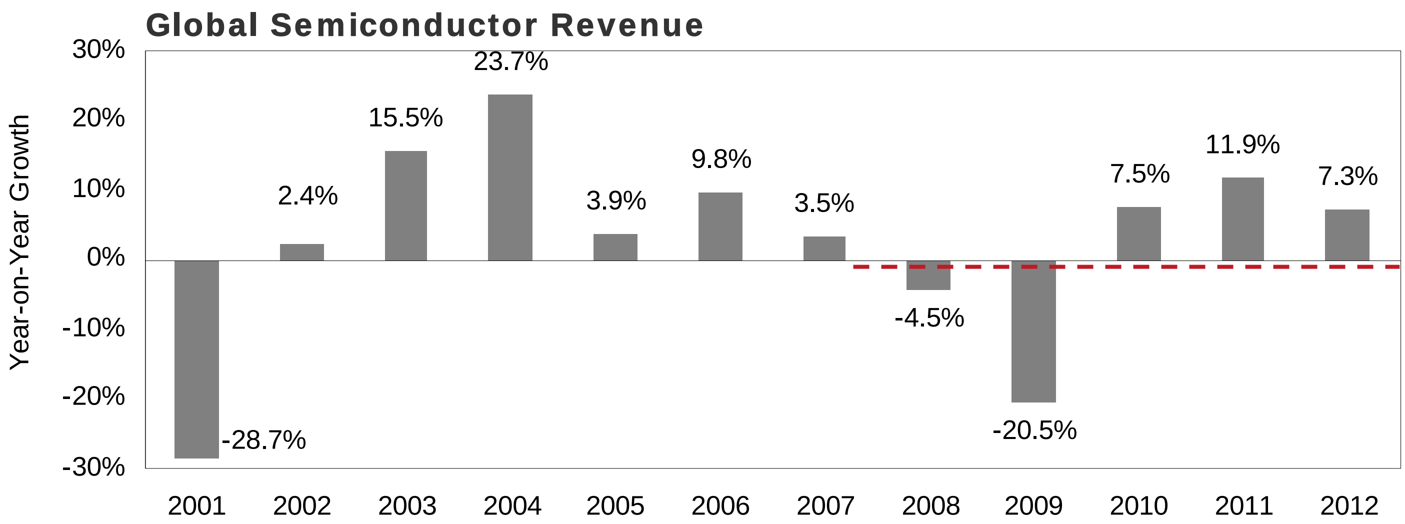
- 2008 economic fears mutate into 2008 global financial crisis
  - Semiconductor downturn begins in Q3 2008
- A consumer driven electronics market
  - Diversified industry yields a lower “risk” environment
- Memory ICs in decline well before economic downturn
- Compound annual growth from 2007 to 2012 = 1.5%



Source – iSuppli Corporation *Preliminary Semiconductor Forecast Q4 2008*

Semiconductor market

- 2008 economic fears mutate into 2008 global financial crisis
  - Semiconductor downturn begins in Q3 2008
- A consumer driven electronics market
  - Economic health most important factor in supporting renewed growth
- Memory ICs in decline well before economic downturn
- *Compound annual growth from 2007 to 2012 = -0.4%*
- Expectation of economic recovery beginning late 2009 / early 2010



Source – iSuppli Corporation *Application Market Forecast Tool (AMFT)*™

Preliminary semiconductor market growth forecast – 2009

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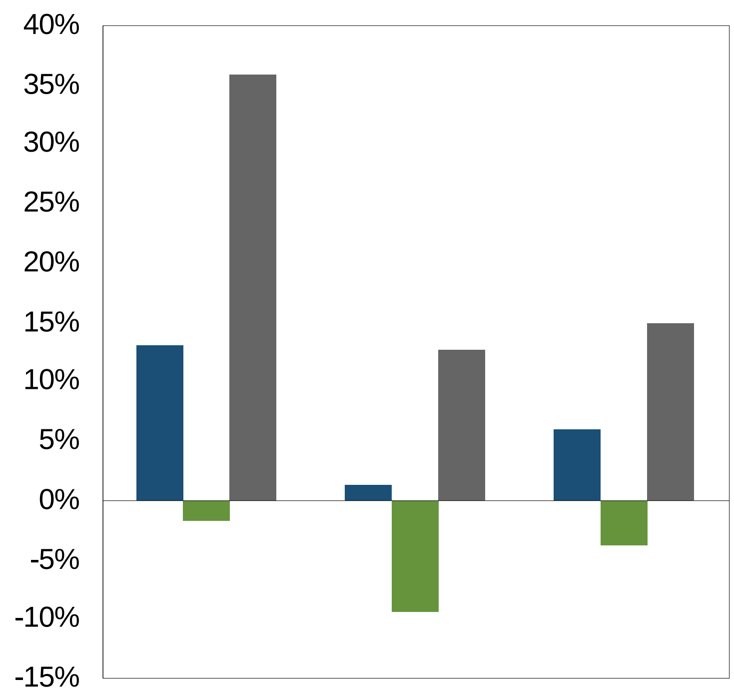
Sensor/Actuators	-2.6%

Source – iSuppli Corporation *Application Market Forecast Tool (AMFT)*™

Revised PC forecast (units) – headlines

- 2008 total PC growth of 13%
  - Desktop PCs at -2%
  - Notebook PCs at 36%
- 2009 total PC growth of 1%
  - Notebook PCs at 13%
  - Desktop PCs at -9%
  - Decreased due to reduced notebook outlook, negative desktop shipments
- 2010 total PC growth of 6%
  - Desktop PCs at -4%
  - Notebook PCs at 15%
  - Decreased due to negative desktop shipments, no change to notebook forecast



	2008	2009	2010
Total PCs	13.0%	1.2%	5.9%
Desktop PCs	-1.7%	-9.3%	-3.8%
Notebook PCs	35.9%	12.6%	15.0%

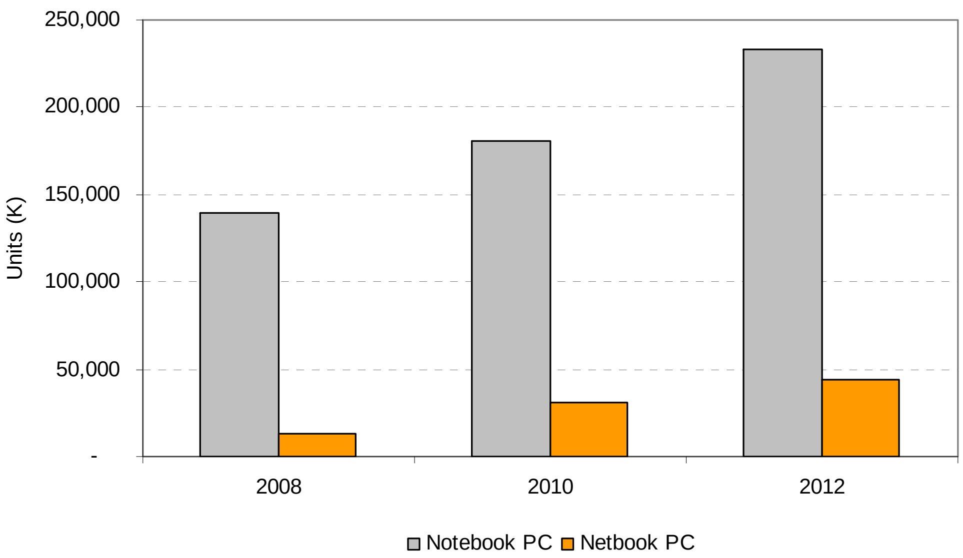
Netbook Market Forecast

- Netbook market a key growth driver for 2009 PC market

- 22 million Netbook shipments in 2009
  - 68% growth over 2008

- Worldwide Notebook PC Forecast
  - 157m units in 2009
  - 233m units in 2012
  - Unit shipment CAGR of 18%

- Worldwide Netbook PC Forecast
  - Unit shipment CAGR of 143%
  - 22m units in 2009
  - 43m in 2012



Global Mobile Device Market: Unprecedented Contraction

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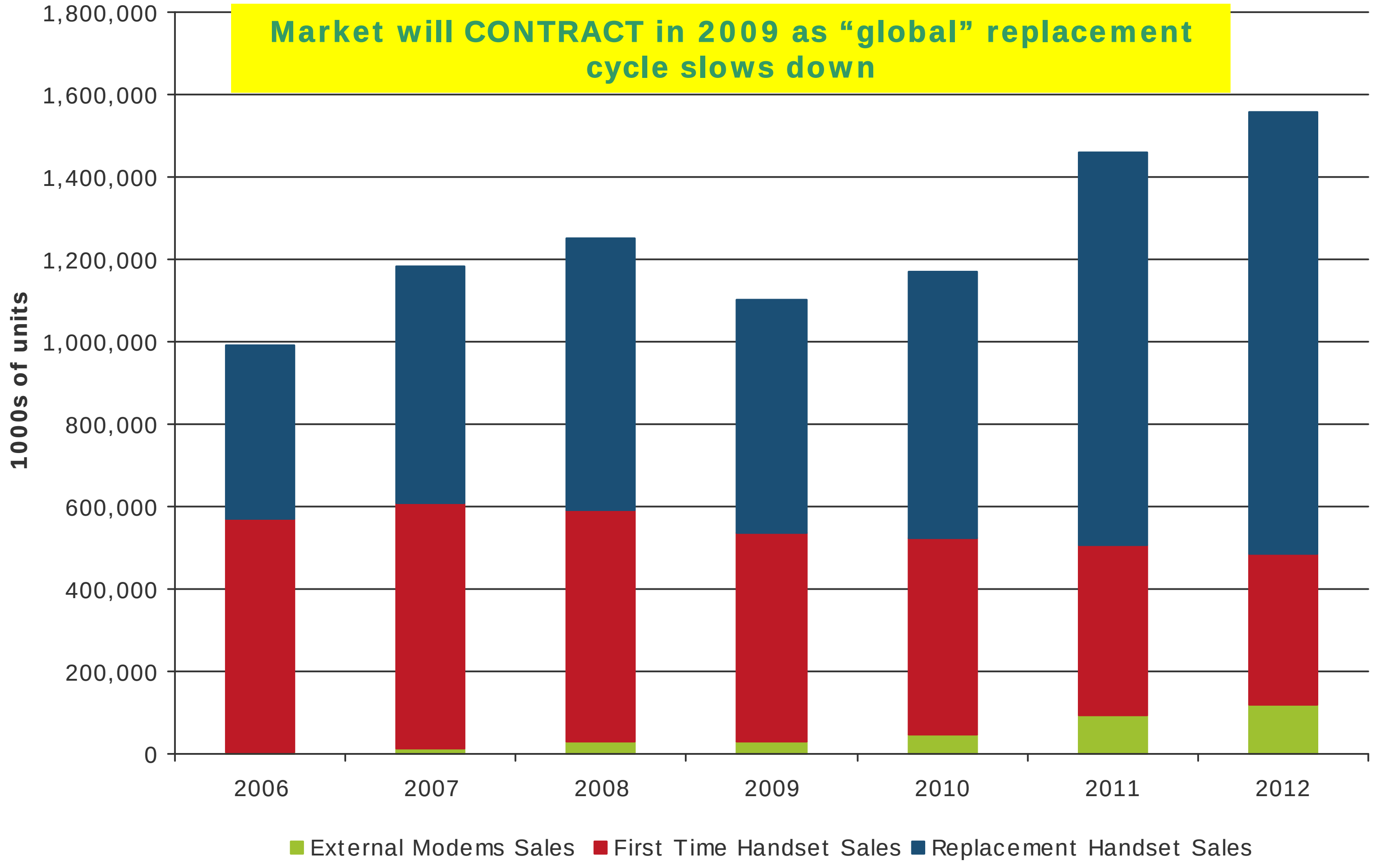
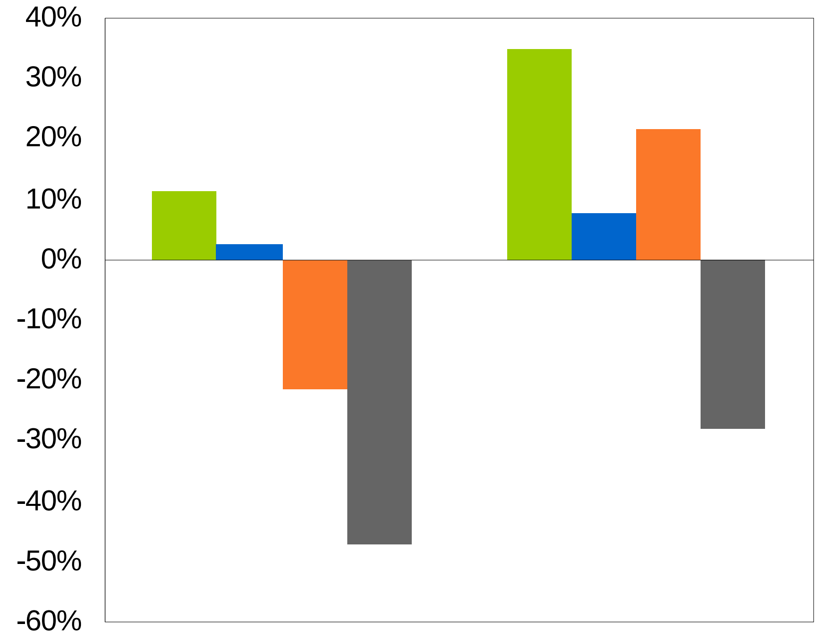


Source: Growth Stalls In Handset Market
iSuppli Mobile Handset Market Tracker, Q1 2009

Televisions

- Revenues LCD TV revenues decline by 7% in 2008 in spite of unit growth
  - Poor consumer confidence and buying pattern expected to remain through the first half of 2009.
  - Shift toward smaller screen size is also expected during this tough economic period.
- Growth is expected to pick up in late 2009
  - Very low prices and aggressive marketing
  - Analog shut-off
- ASPs adjusted down based on panel prices reaching or going below panel costs in Q408 and Q109.

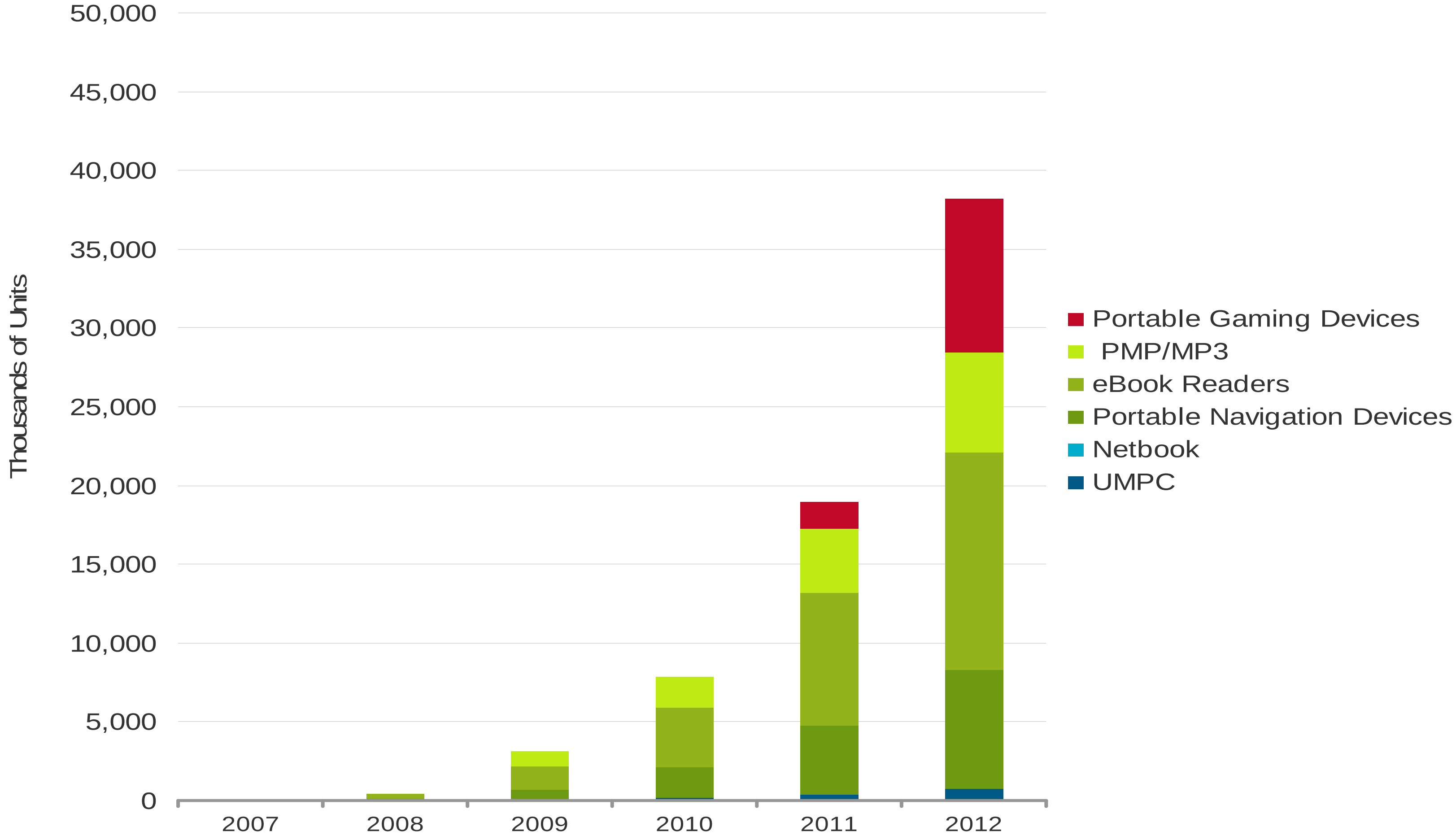


	2009	2010
LCD TV	11.4%	35.0%
PDP TV	2.4%	7.6%
CRT TV	-21.5%	21.7%
RPTV	-47.2%	-28.1%

MID Definition

- A Class All to Themselves
- Primarily existing devices upgraded with the following capabilities
  - Wireless Connectivity
  - MAX 8” display (note departure from a minimum spec)
  - Instant on
  - Always Connectable
  - Full days’ worth of battery at normal usage patterns (8-10 hour

Current Adoption – ex Smartphone



Source – iSuppli Corporation *Wireless Communications Topical Report - MIDs*

ADAS Service Introduction

Elements of ADAS …

Sensing:
- Image
- Location
- Laser
- Sonar
- Map-based

Feedback:
- HMI
- Displays
- Head-Up
- Tactile

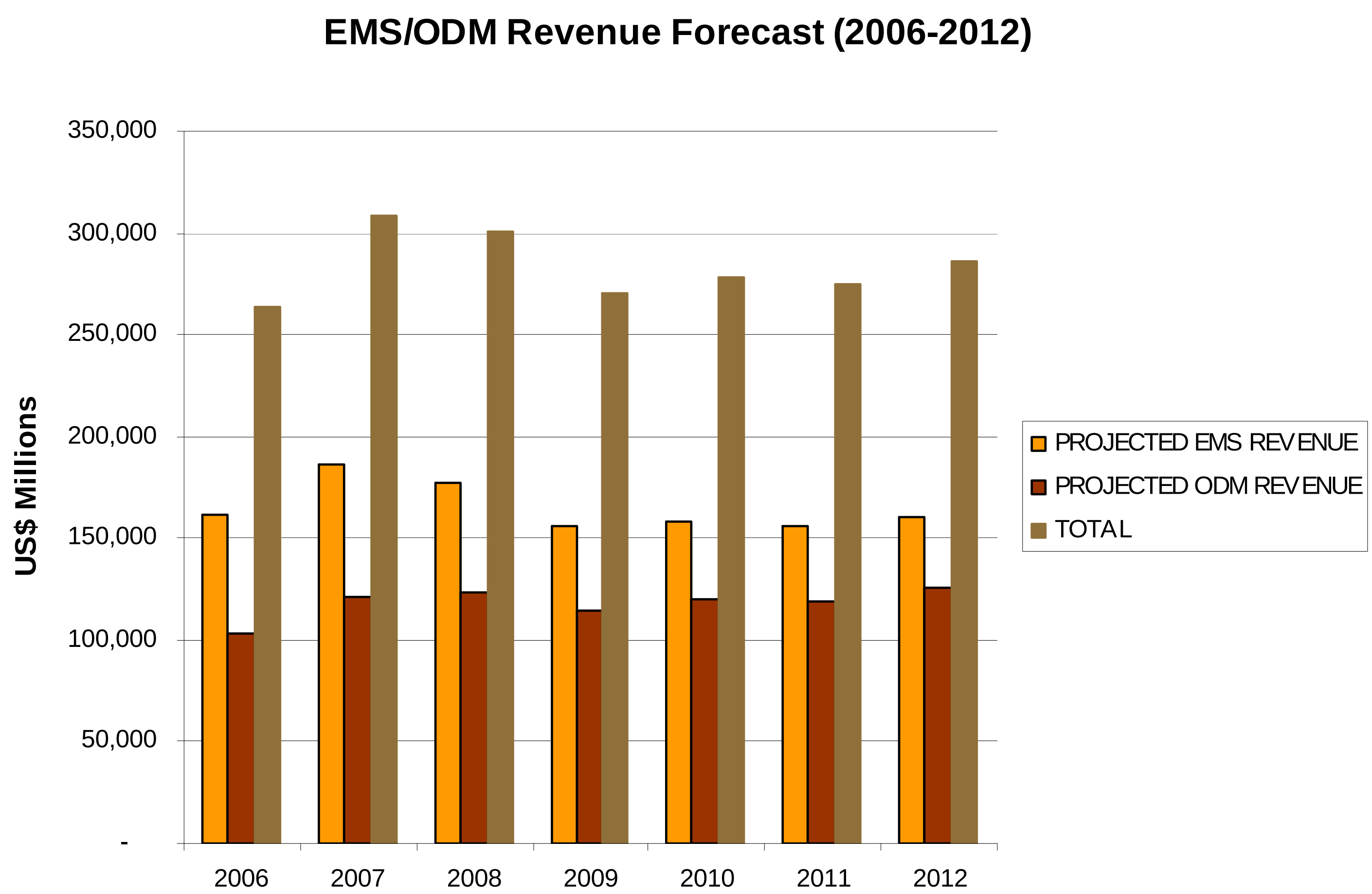
Infrastructure:
- Roadway
- Services
- Information
- Communication

Control
- Acceleration
- Steering
- Braking
- Suspension
- Powertrain

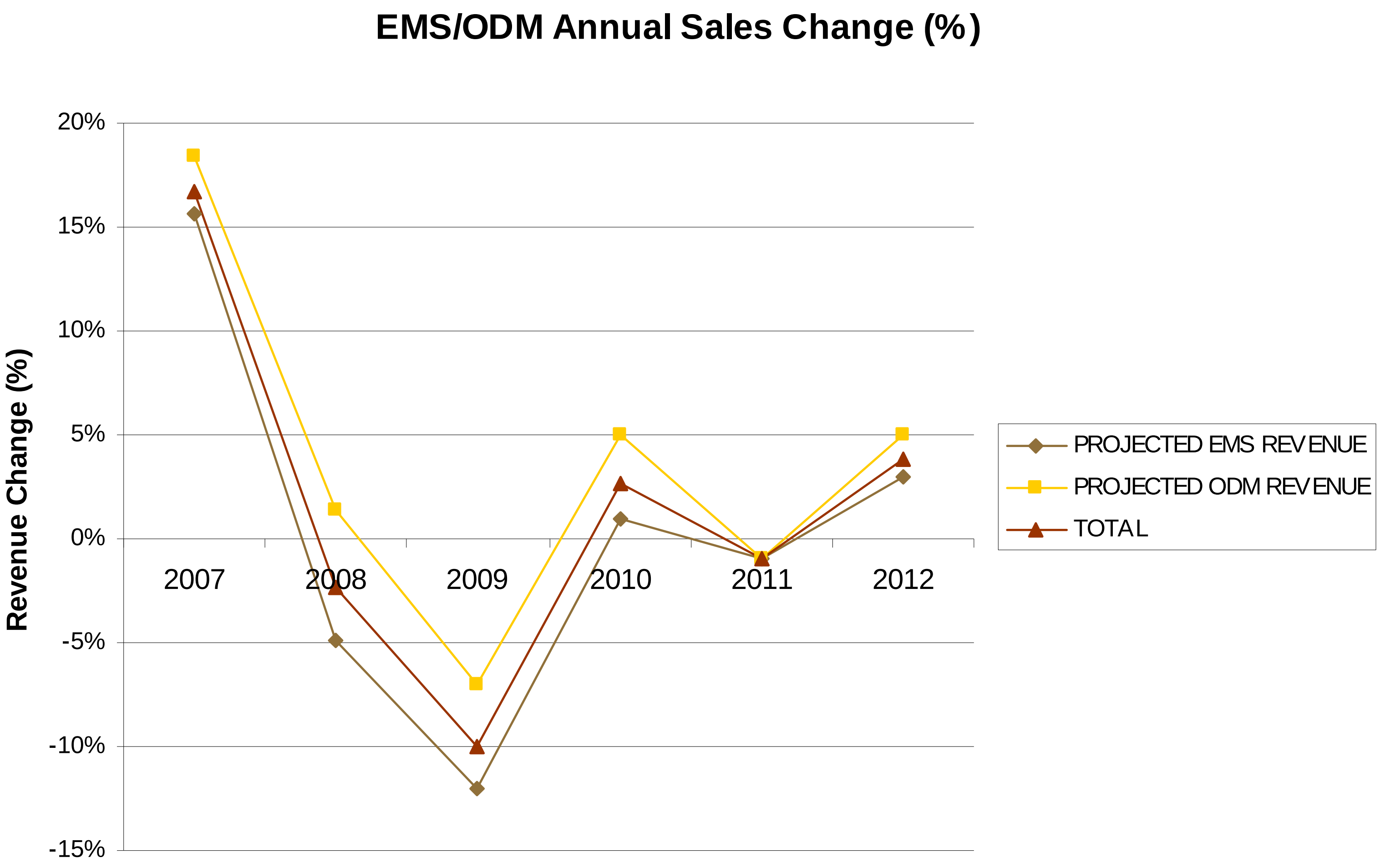
Other “Exciting” Areas for Innovation & Growth

- Security as a broad category
  - All flavors – from personal identity to terrorist threat surveillance
- Medical
  - Remote monitoring (combo of wireless & medical)
  - Display Technologies
  - IT and Health care cost management
  - Advanced devices (MRI, CAT, etc)
- Content and content distribution related
  - From Digital Picture Frames to HD Wireless TV
- Digitally connected home
  - Networks, storage, WLAN, WiFi, Video, Audio, security
- Mobile Internet Devices (MID’s)

EMS/ODM Forecast



EMS/ODM Annual Sales Change



Total Electronics Value of Factory Shipments

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Preliminary Annual Factory OEM Revenue Forecast - Millions of Dollars
Q1 2009 Interim Update

	2006	2007	2008	2009	2010	2011	2012	CAGR 2007-12
Total Market	1,411,700	1,503,691	1,524,127	1,411,895	1,492,632	1,609,687	1,705,651	2.6%
Data Processing	394,352	430,911	457,255	436,210	454,926	483,386	513,188	3.6%
Wired Communications	93,942	100,018	94,668	83,050	88,035	96,835	103,615	0.7%
Wireless Communications	195,373	216,023	218,642	190,269	202,012	232,346	256,659	3.5%
Consumer Electronics	326,525	334,198	331,660	305,402	331,684	357,480	367,612	1.9%
Automotive Electronics	99,279	105,003	99,041	86,768	89,630	93,591	98,593	-1.3%
Industrial Electronics	302,229	317,538	322,862	310,195	326,345	346,050	365,985	2.9%

Source: iSuppli (February 10, 2009)

Preliminary Annual Factory OEM Revenue Forecast - Annual Growth
Q1 2009 Interim Update

	2006	2007	2008	2009	2010	2011	2012
Total Market		6.5%	1.4%	-7.4%	5.7%	7.8%	6.0%
Data Processing		9.3%	6.1%	-4.6%	4.3%	6.3%	6.2%
Wired Communications		6.5%	-5.3%	-12.3%	6.0%	10.0%	7.0%
Wireless Communications		10.6%	1.2%	-13.0%	6.2%	15.0%	10.5%
Consumer Electronics		2.3%	-0.8%	-7.9%	8.6%	7.8%	2.8%
Automotive Electronics		5.8%	-5.7%	-12.4%	3.3%	4.4%	5.3%
Industrial Electronics		5.1%	1.7%	-3.9%	5.2%	6.0%	5.8%

Source: iSuppli (February 10, 2009)

Closing Thoughts…..

- What's different about this downturn cycle?
  - This downturn has all sorts for global interdependencies
  - Access to capital is almost non-existent
  - It has far reaching implications across all industries and geographies
  - Currency fluctuations have been dramatic and extremely rapid
  - House hold name companies will disappear
- What's the good news?
  - We have been through these cycles before and now more capital is concentrated in fewer companies (ie Memory and Foundries)
  - Many nodes have responded aggressively and dramatically (plant shut downs, slashing Capex)
  - Overall better visibility in the value chain
  - We still operate in a ~$1.4T industry
  - Governments around the world are aggressively ($$$$) responding
  - Cash is king!