

Chart 1

# Global "Purchasing Managers" Index

Diffusion Index, >50 = Growth

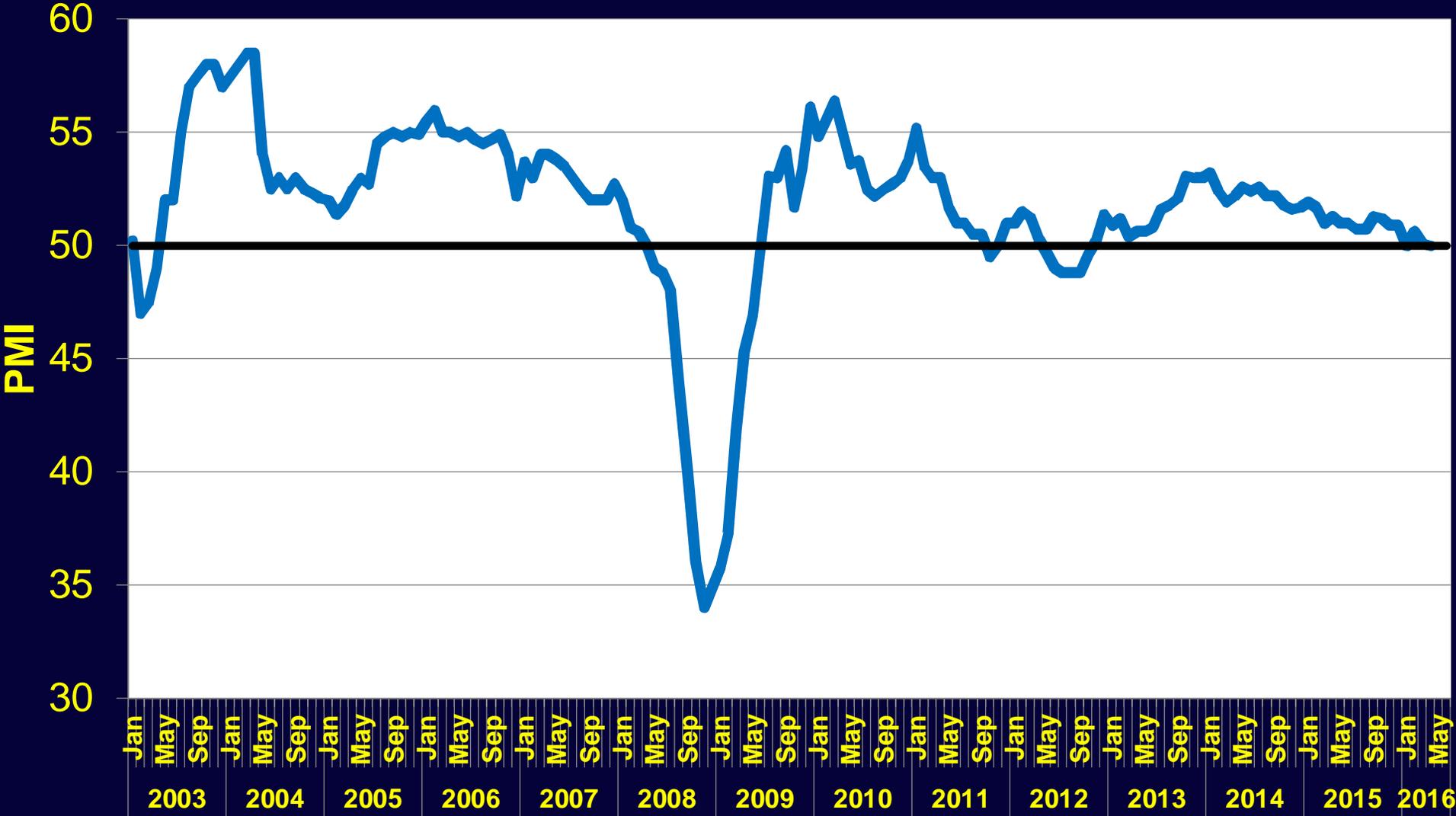
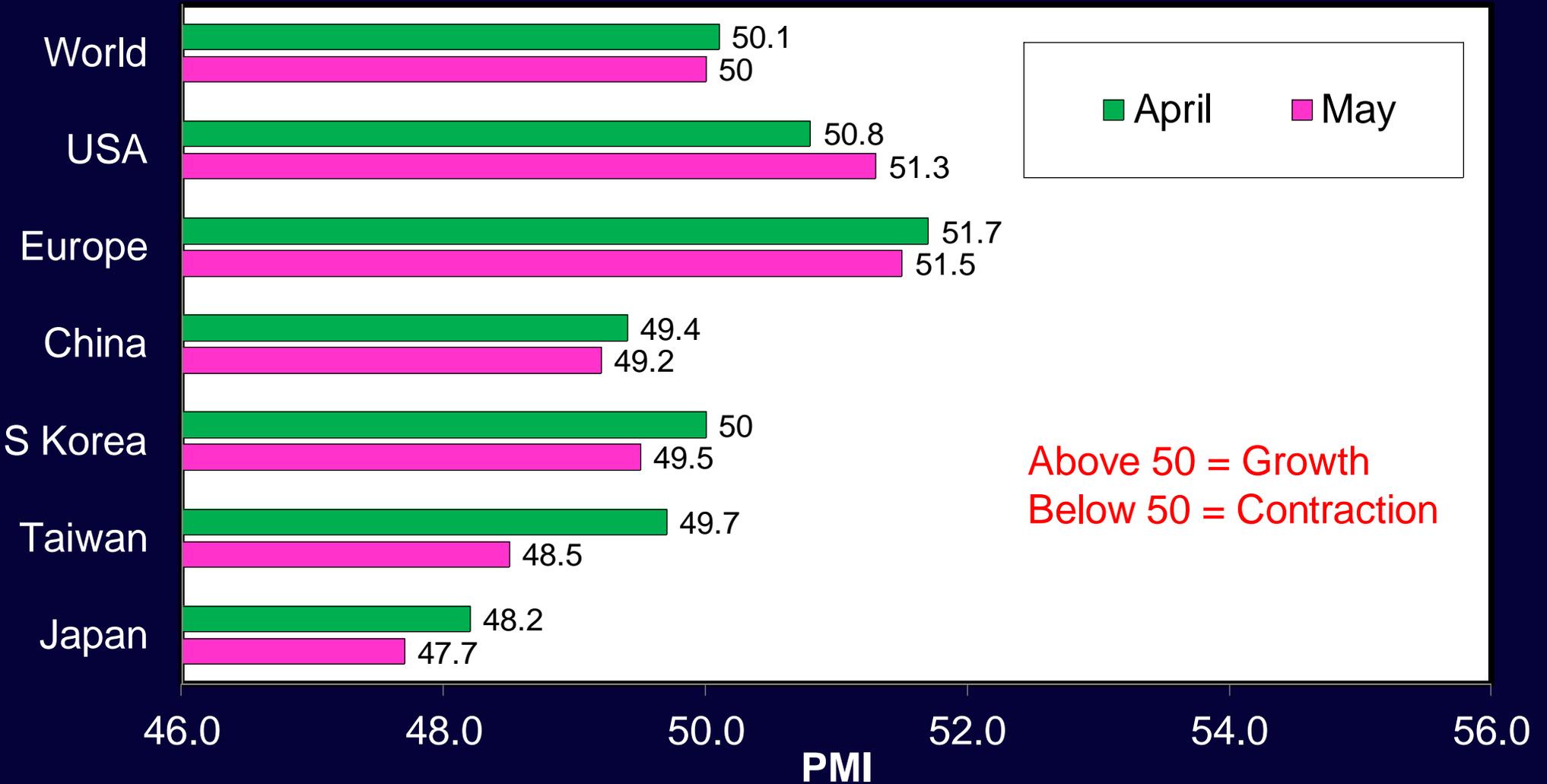


Chart 2

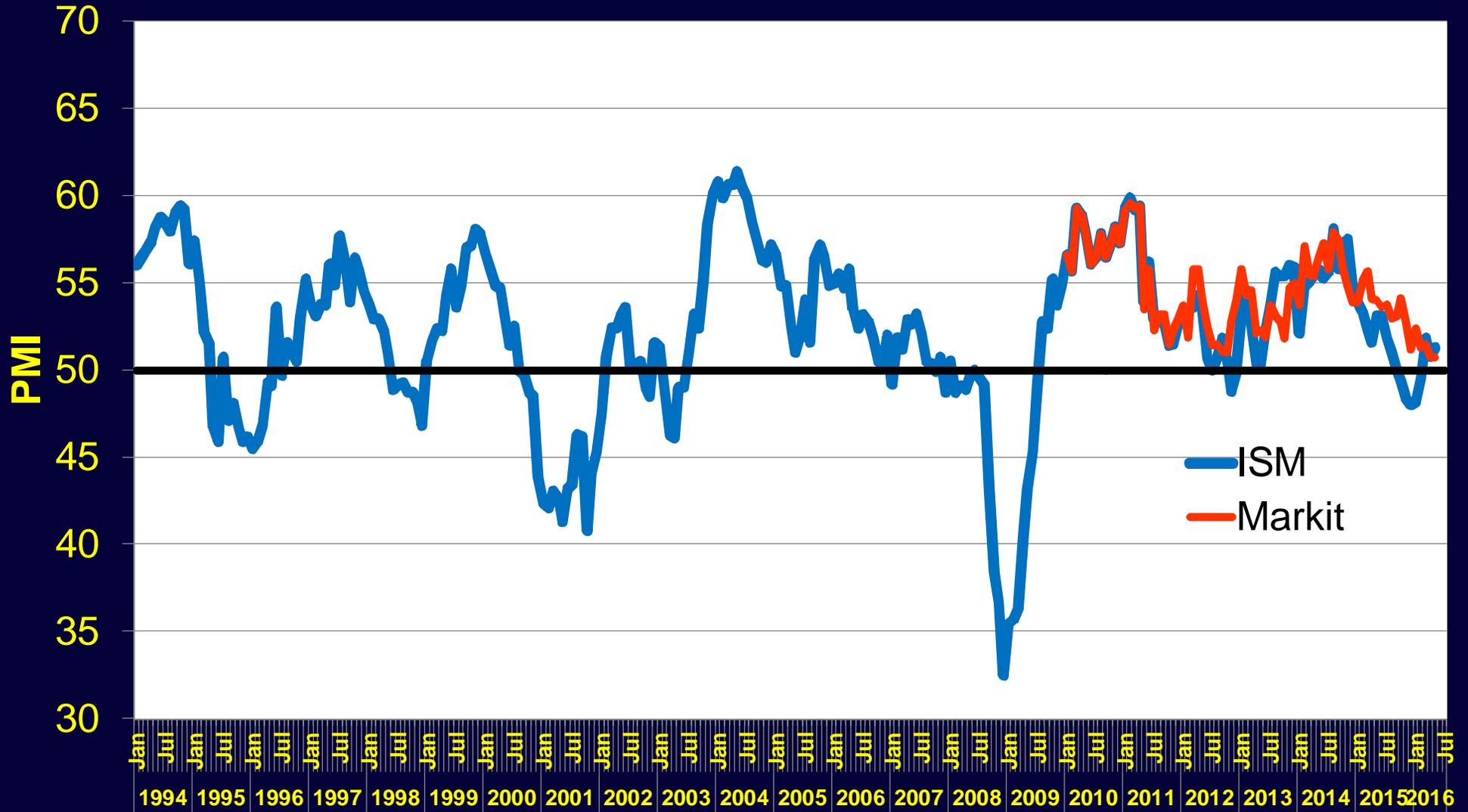
# Purchasing Managers' Indices May vs. April 2016



Markit Economics, JPMorgan and ISM

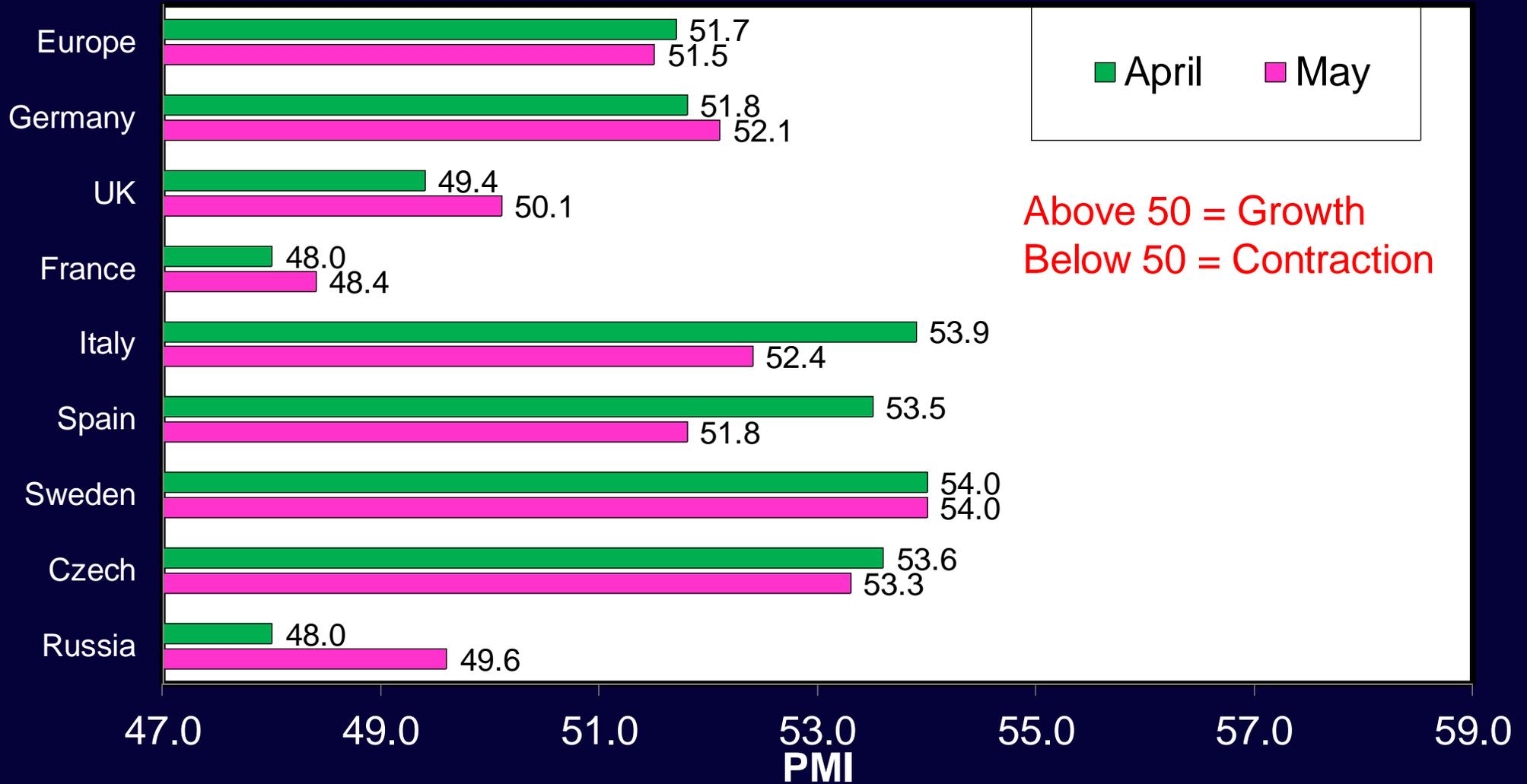
# U.S "Purchasing Managers" Indices ISM vs. Markit Economics

Diffusion Index, >50 = Growth

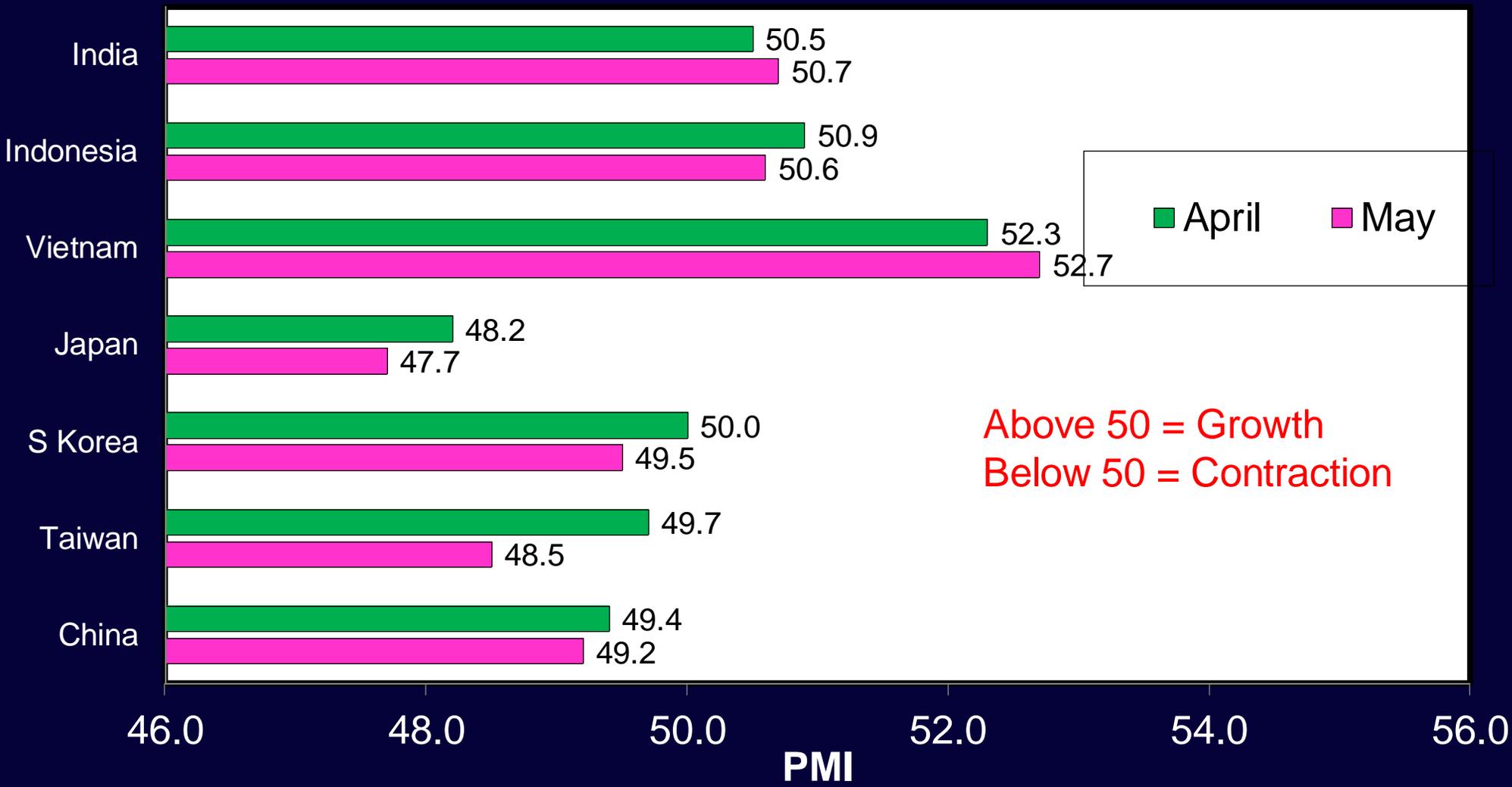




# European Purchasing Managers' Indices May vs. April 2016

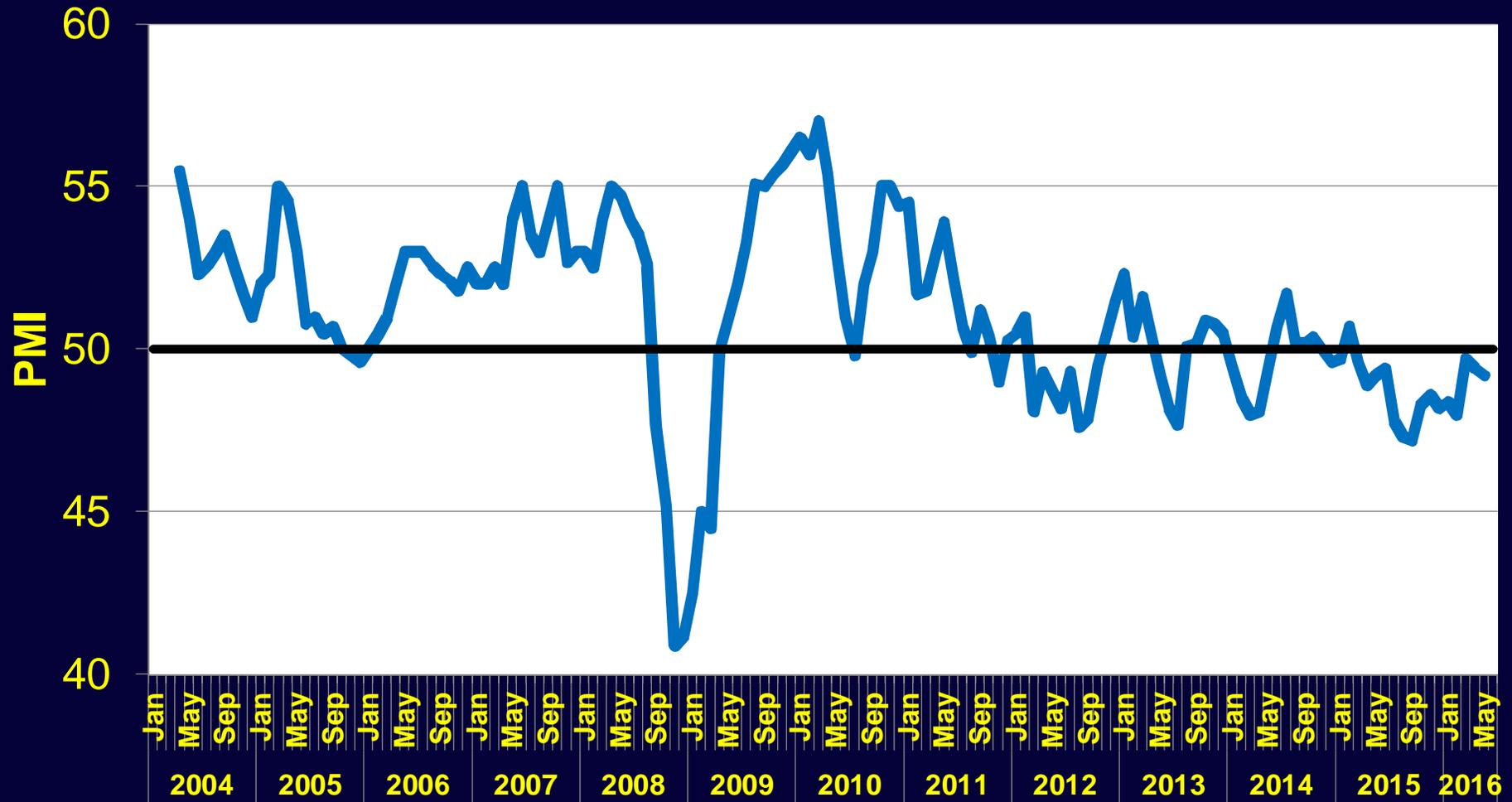


# Asian Purchasing Managers' Indices May vs. April 2016



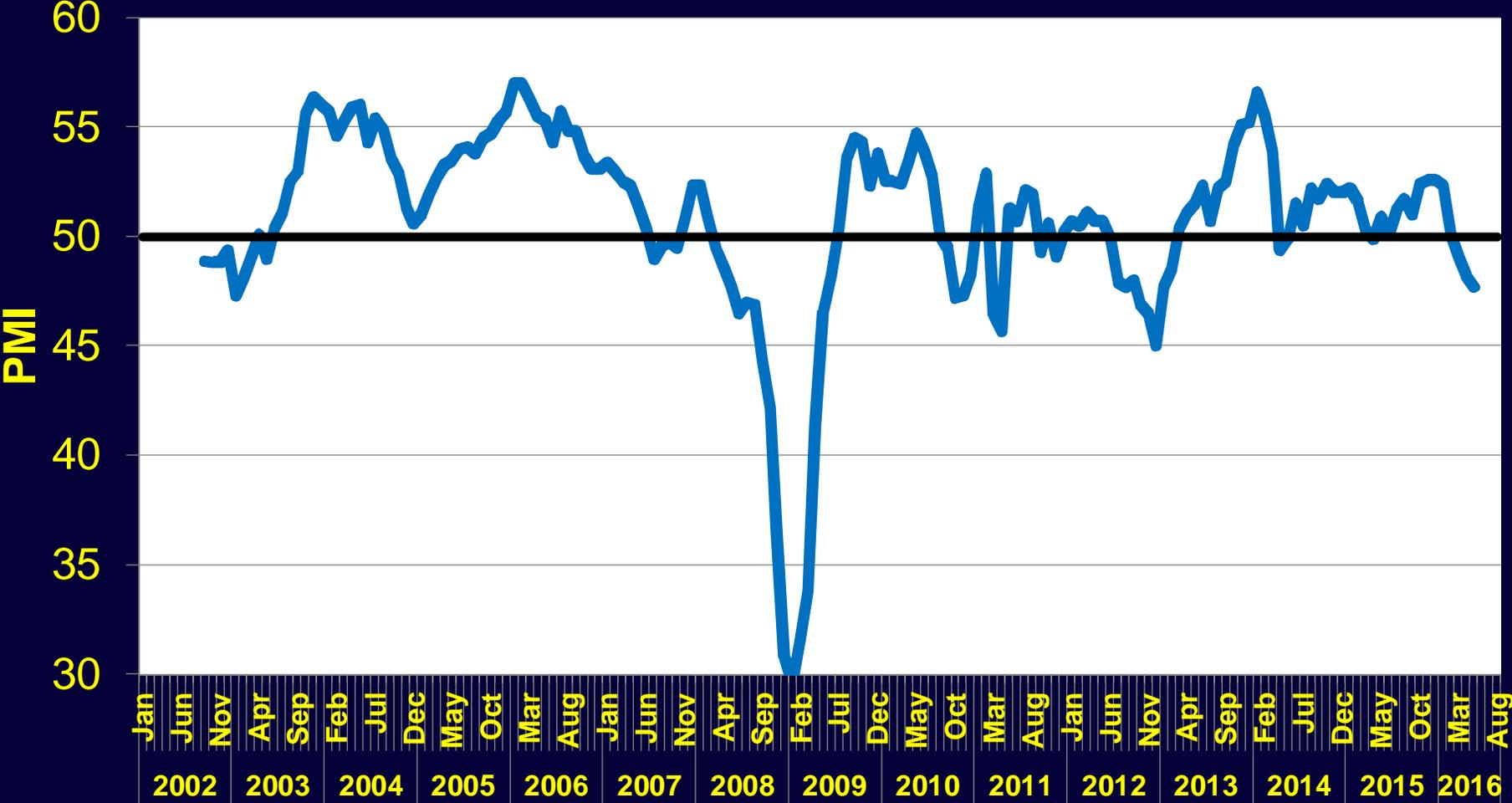
# China "Purchasing Managers" Index

Diffusion Index, >50 = Growth



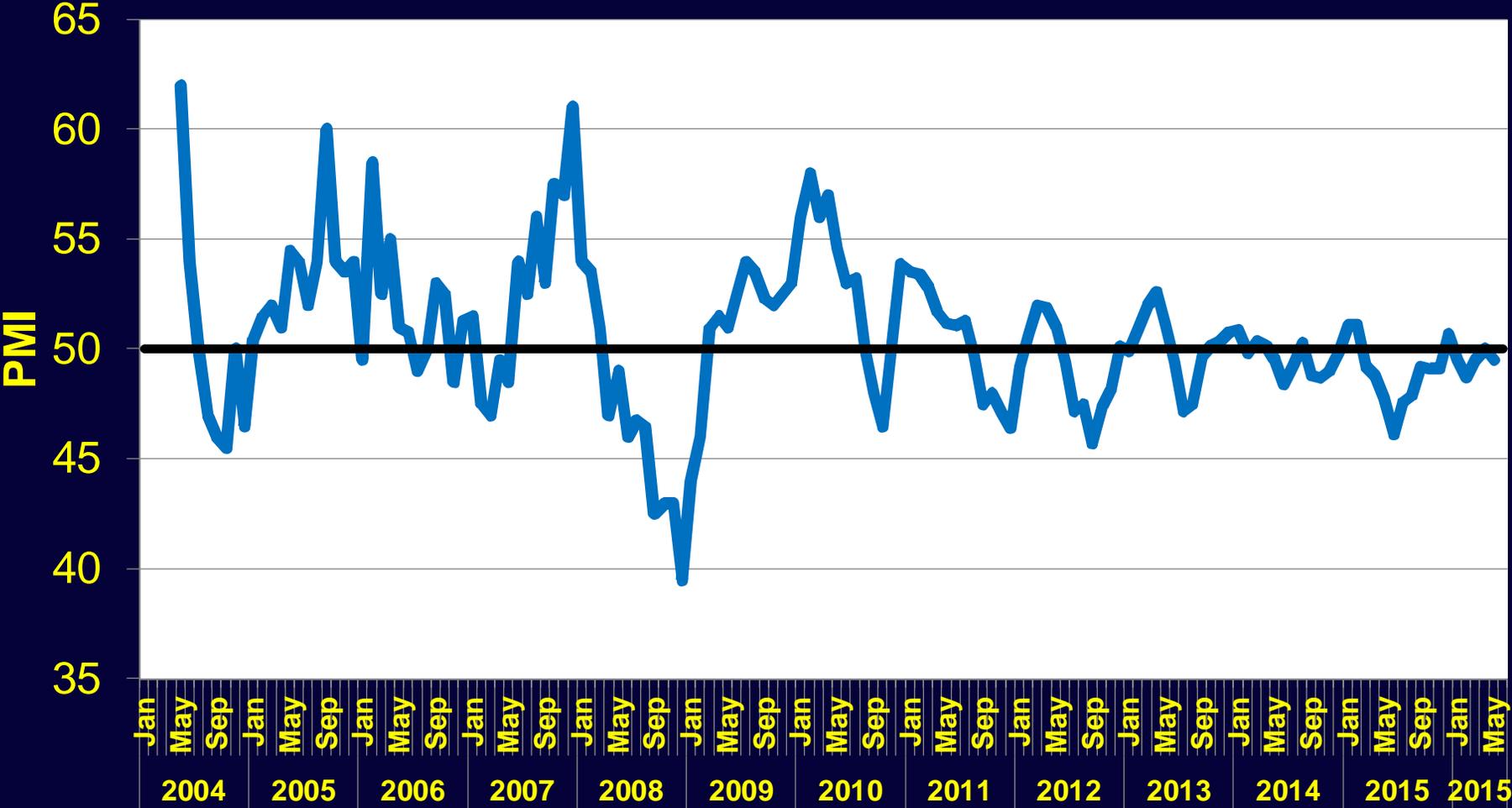
# Japan "Purchasing Managers" Index

Diffusion Index, >50 = Growth



# S Korea "Purchasing Managers" Index

Diffusion Index, >50 = Growth



# Taiwan "Purchasing Managers" Index

Diffusion Index, >50 = Growth

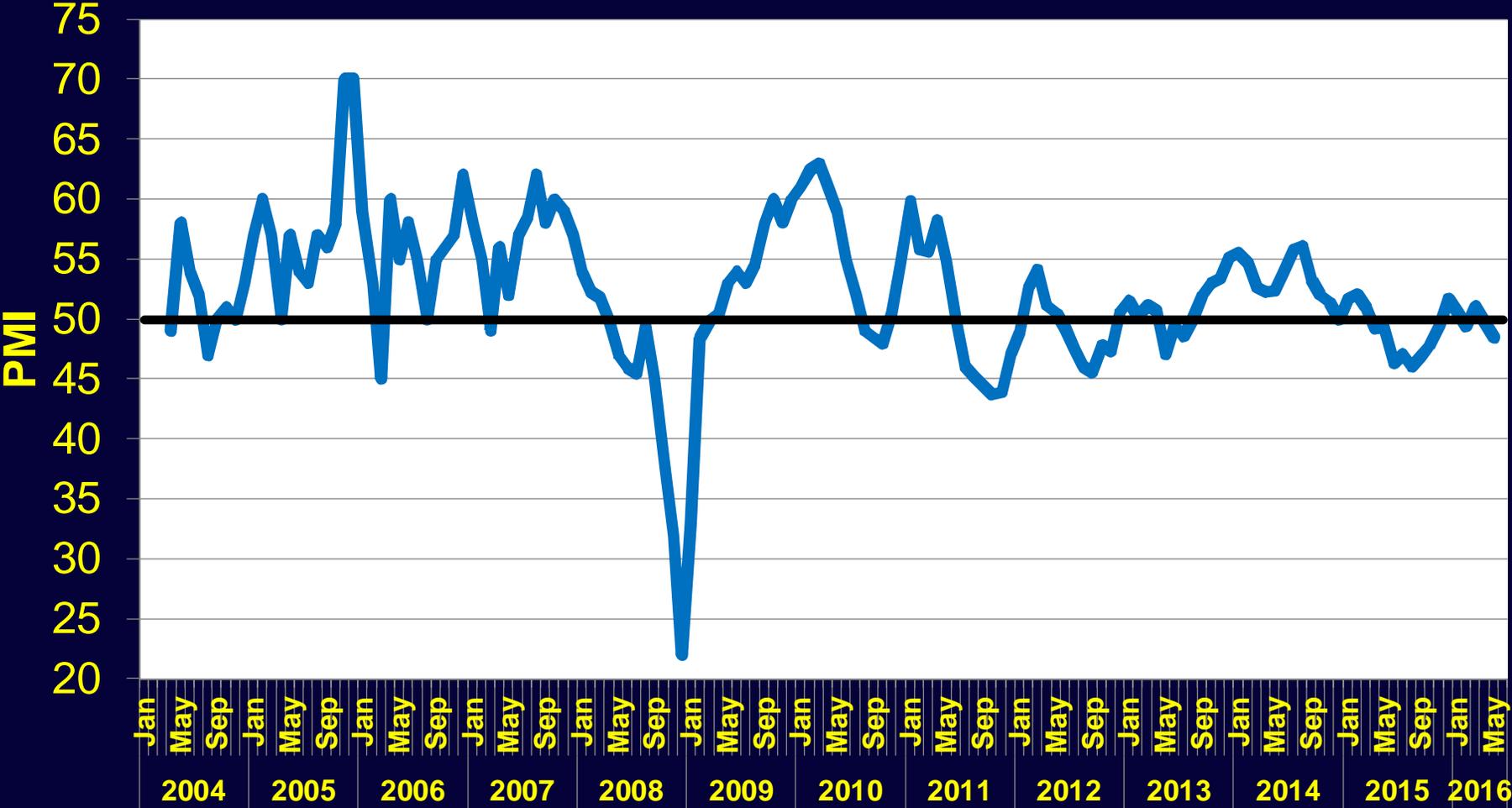
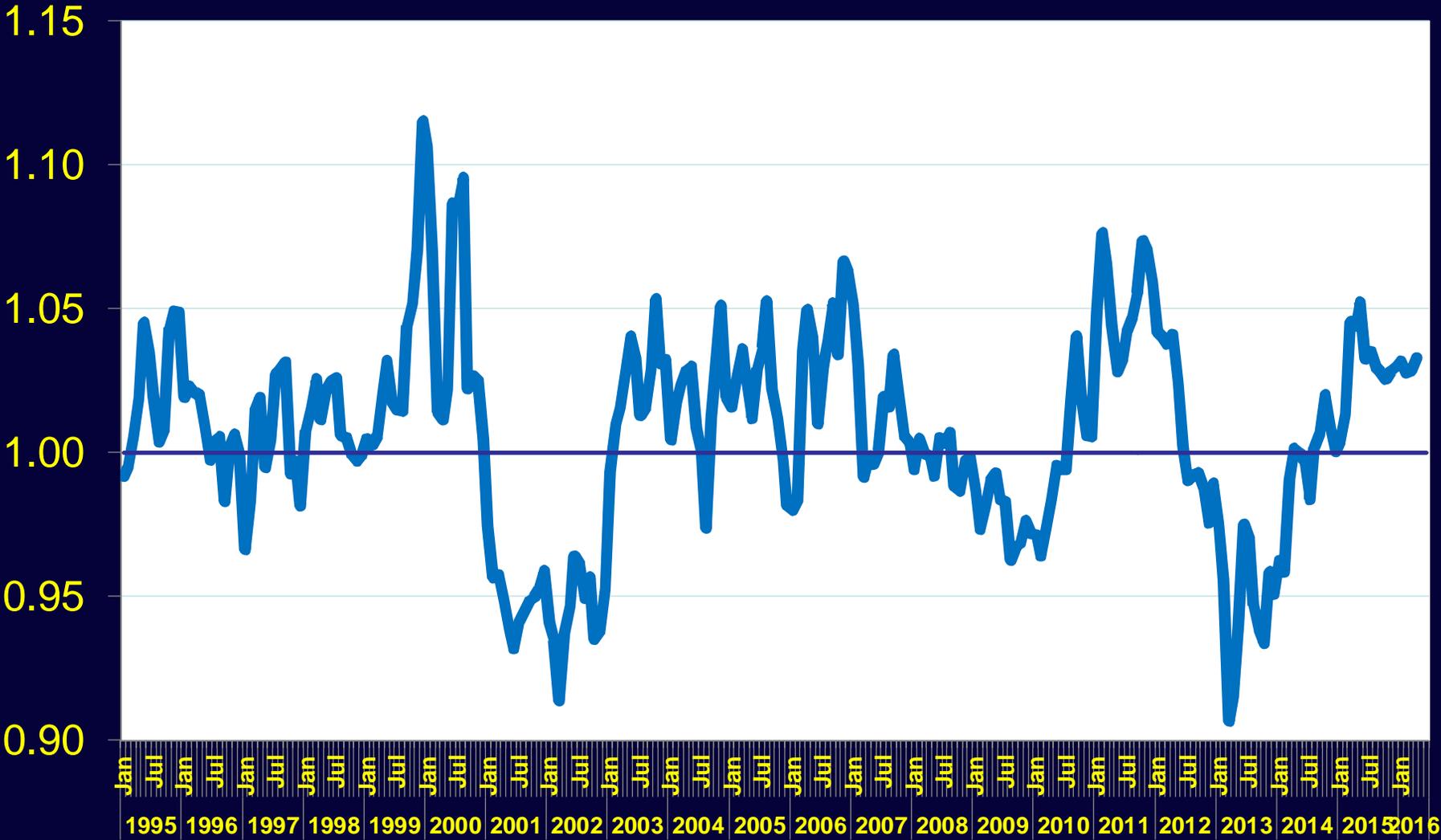


Chart 11

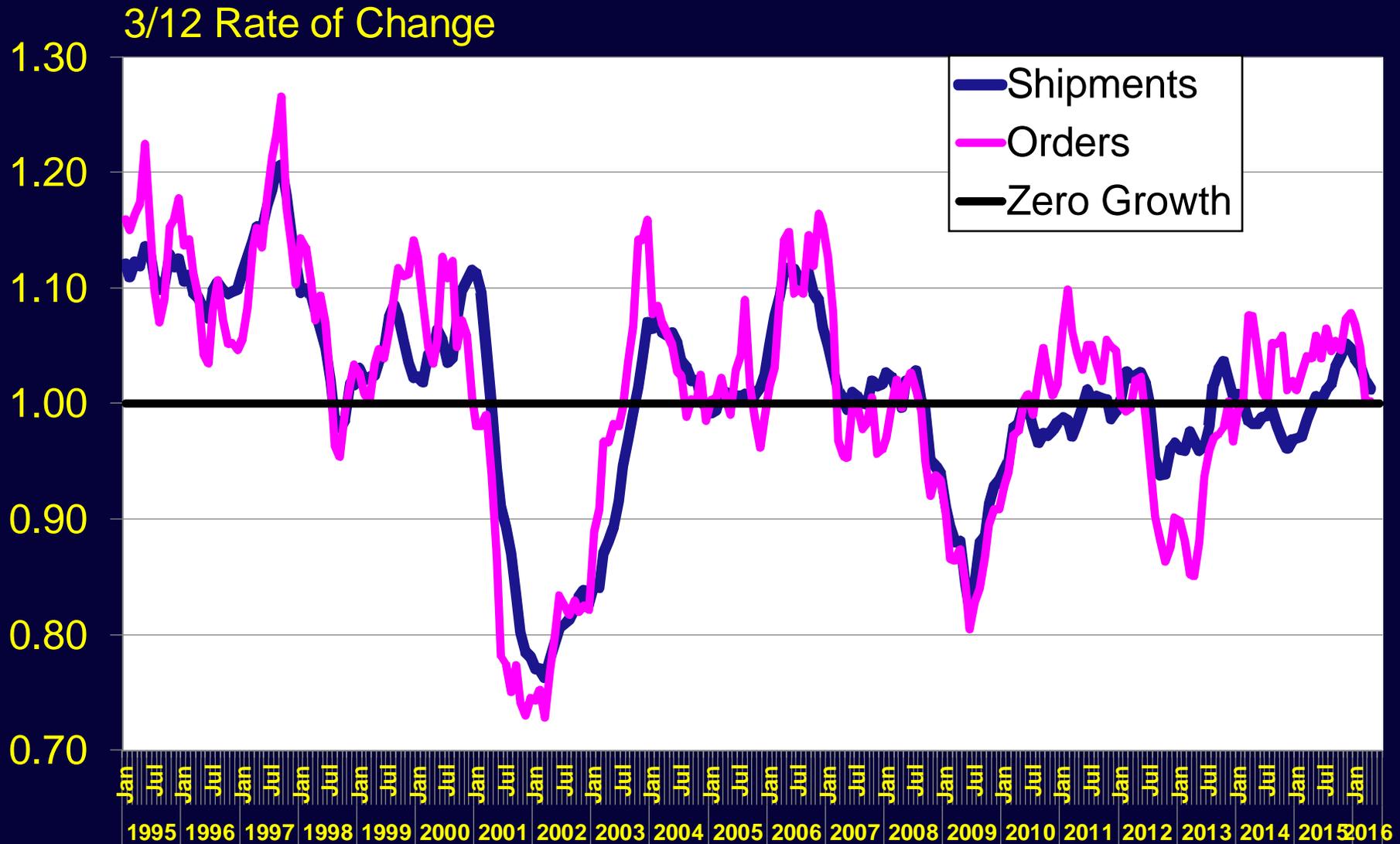
# U.S. Electronic Equipment Book/Bill Ratio

## 3-Month Average



# U.S. Electronic Equipment Order & Shipment Growth

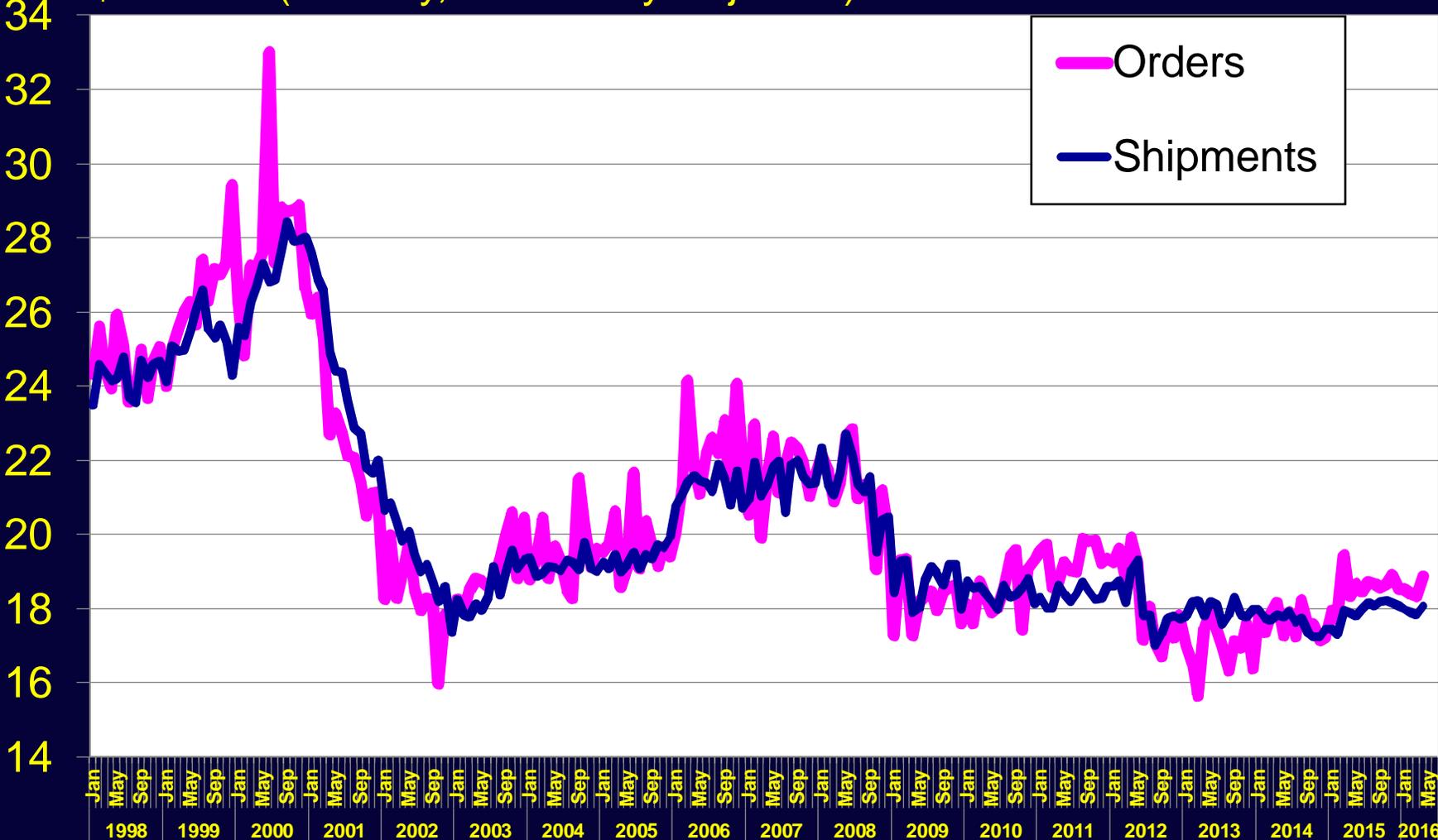
Computer, Communications, Measurement & Control and Military



# U.S. Electronic Equipment Orders & Shipments

## Computer, Communications, Measurement & Control and Military

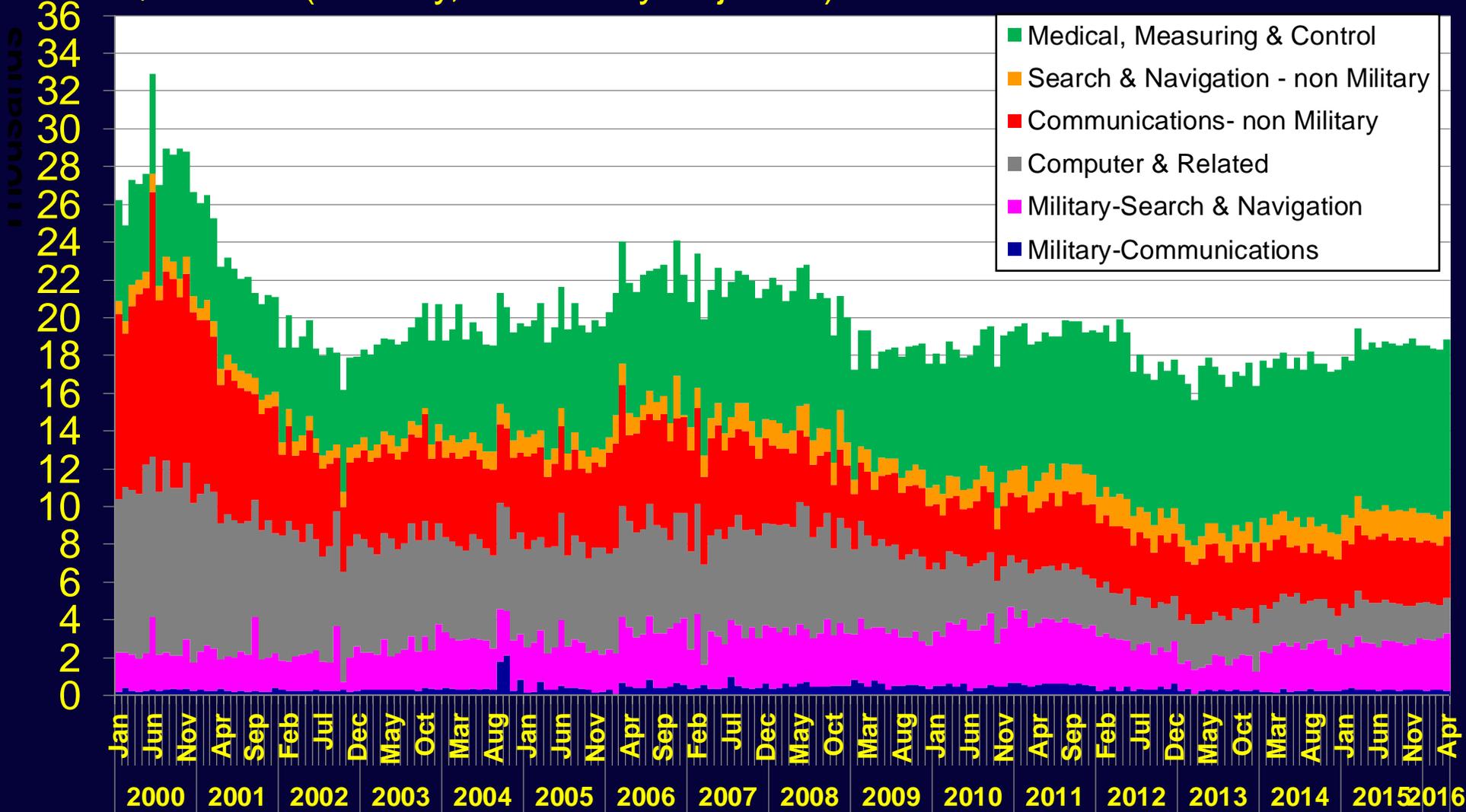
\$ Billions (monthly, seasonally adjusted)



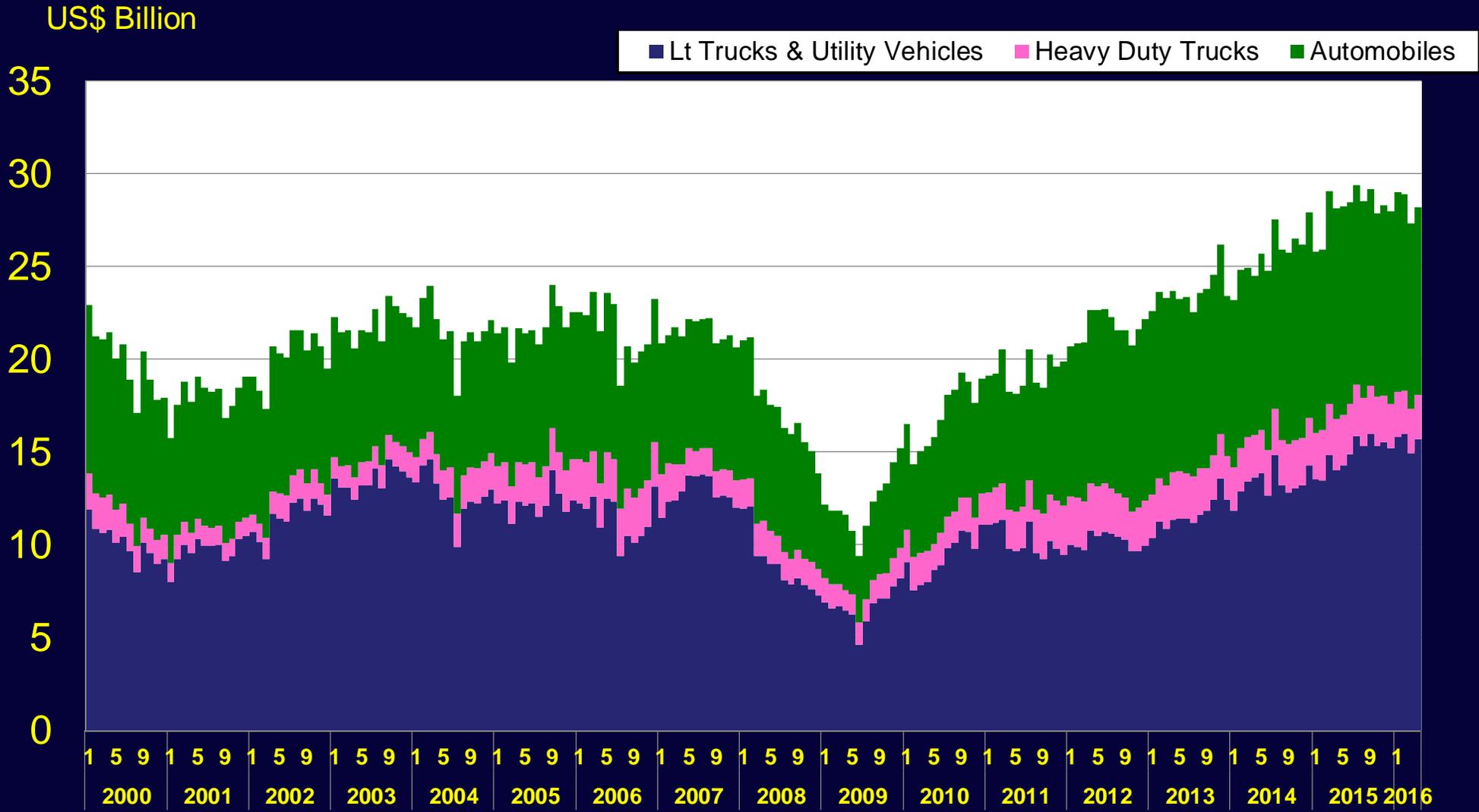
# U.S. Electronic Equipment Orders

## Monthly Data

\$ Billions (monthly, seasonally adjusted)

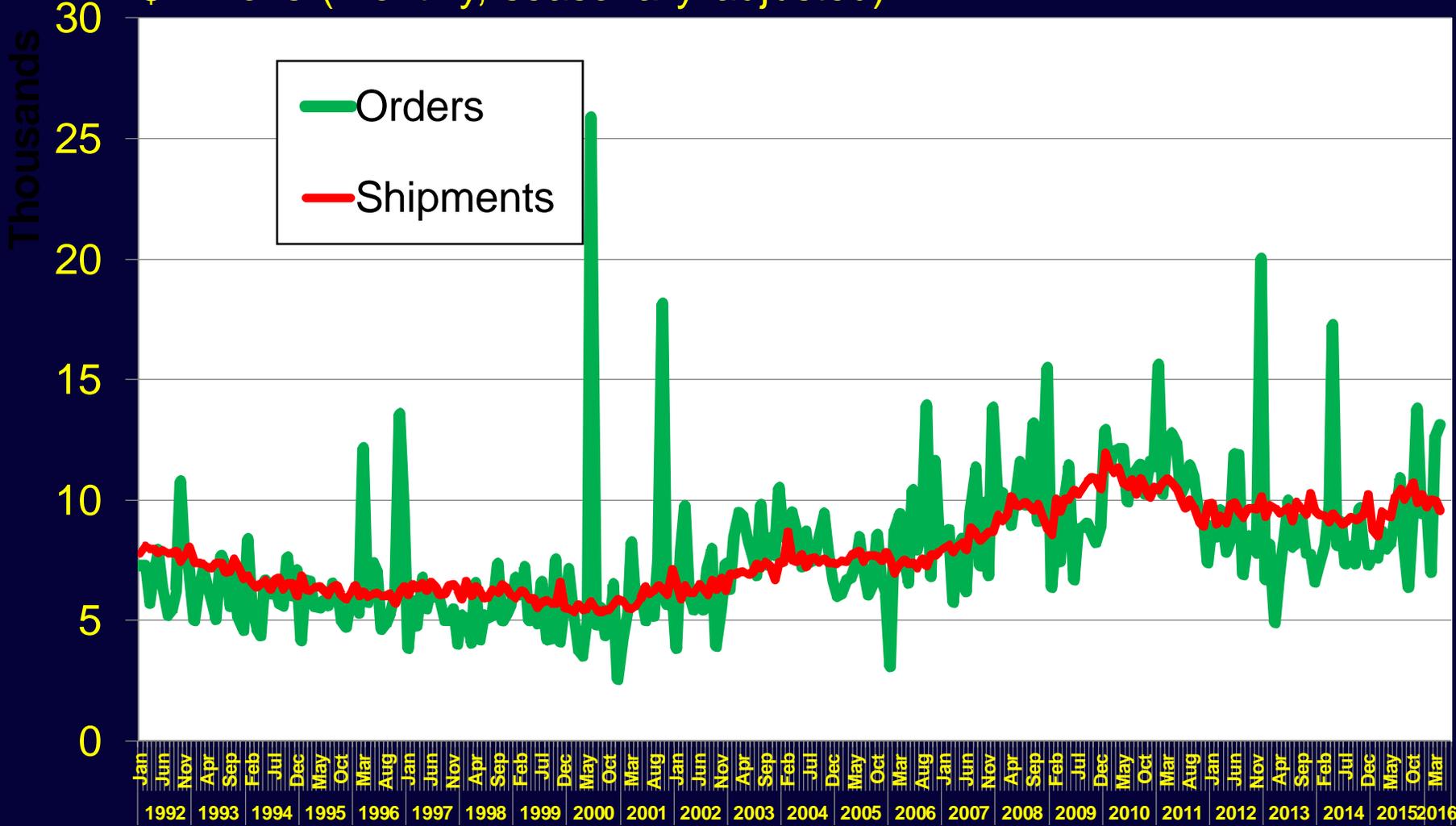


# U.S. Vehicle Shipments

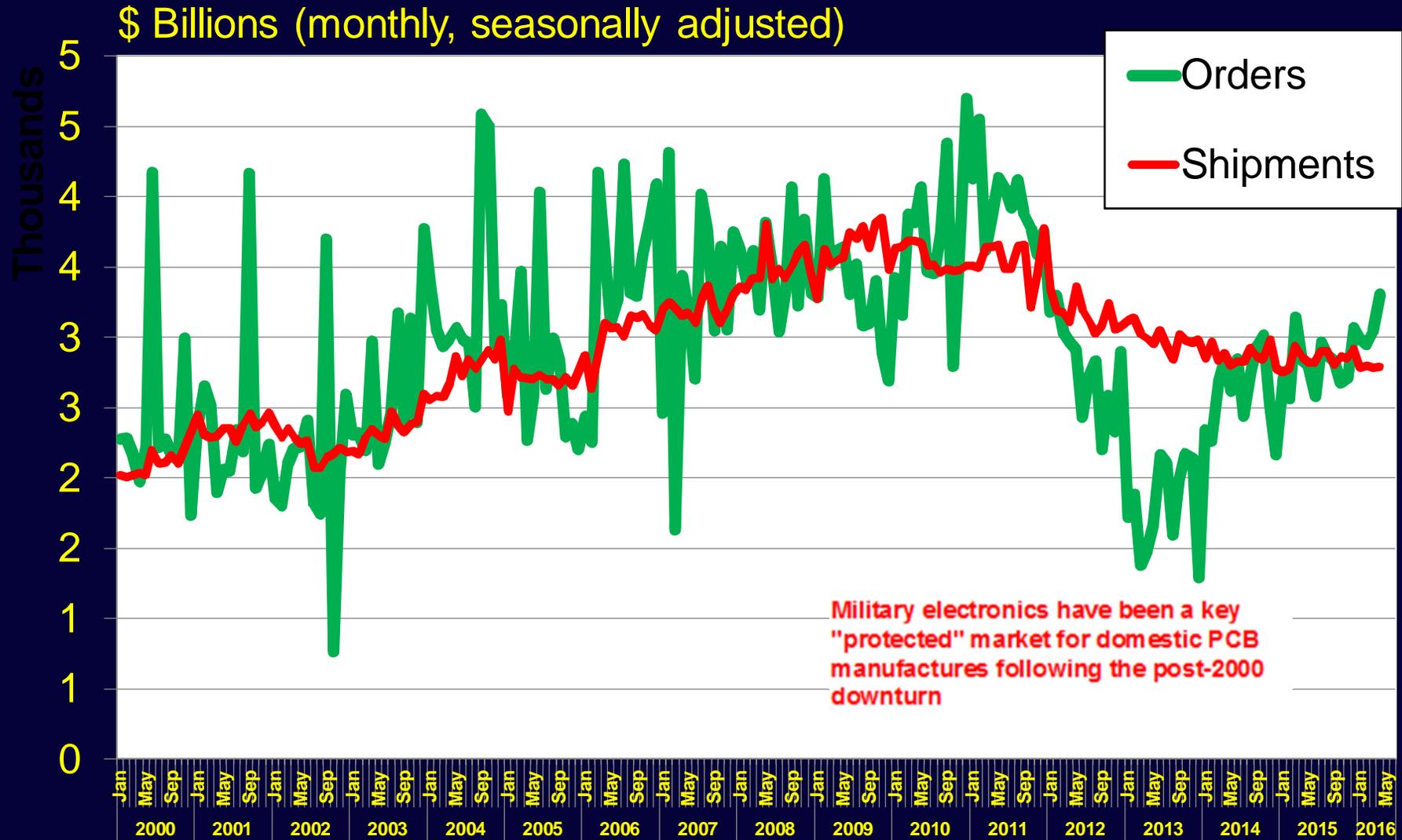


# U.S. Defense Capital Goods Orders & Shipments

\$ Billions (monthly, seasonally adjusted)

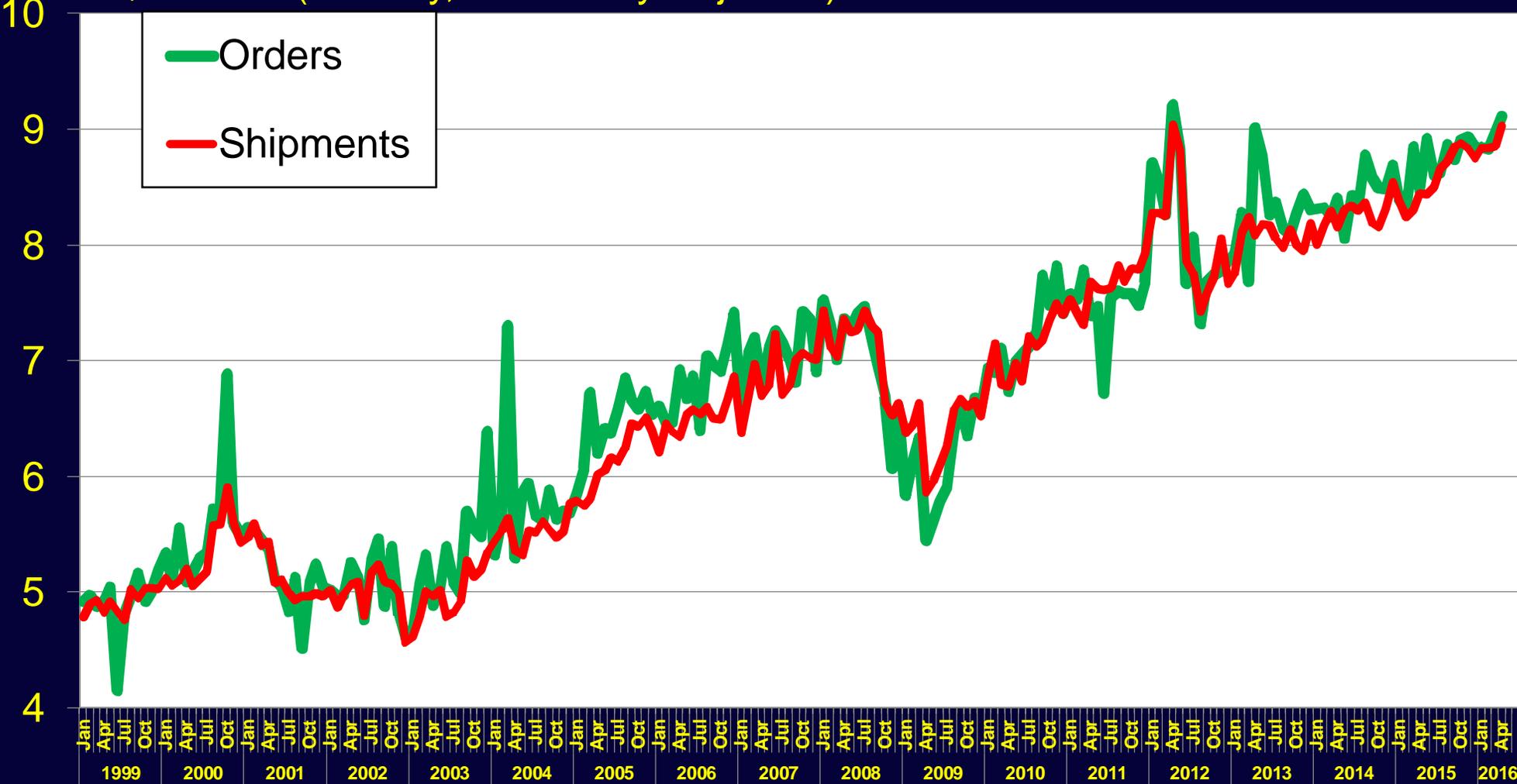


# U.S. Military Electronics Orders & Shipments Defense Communication & Search & Navigation Equipment

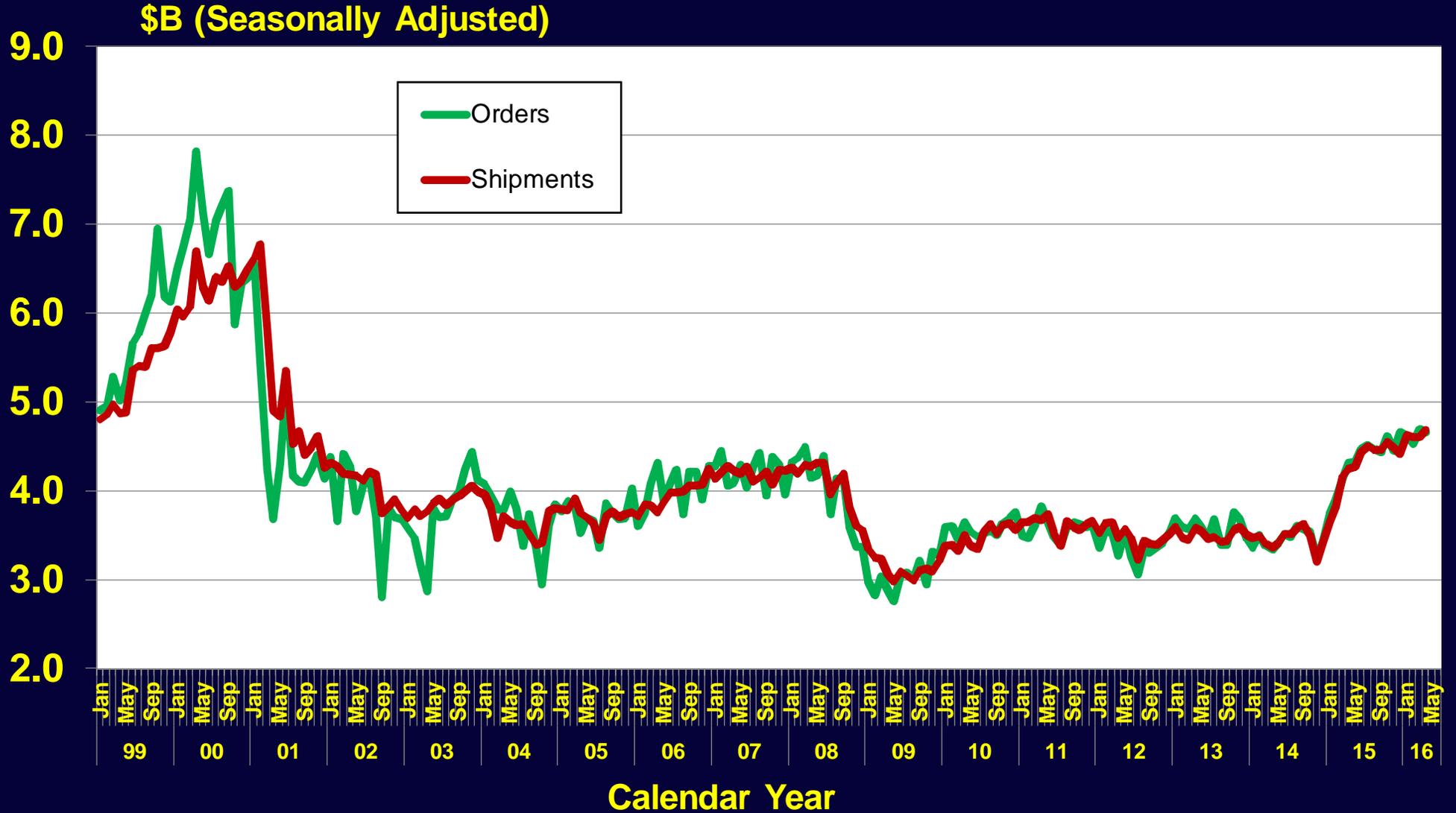


# U.S. Electromedical, Measurement & Control Equipment Orders & Shipments

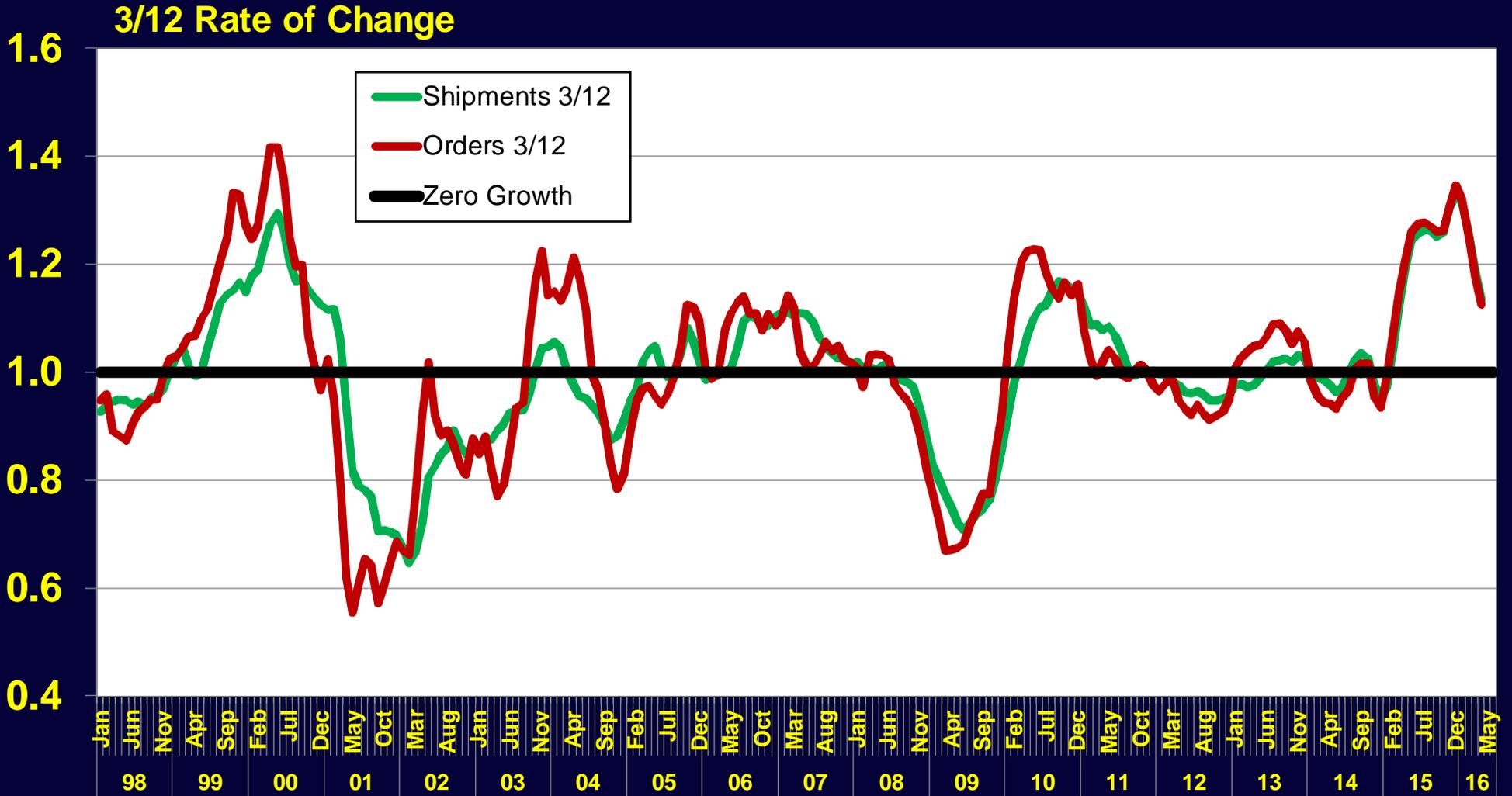
\$ Billions (monthly, seasonally adjusted)



# U.S. Production: "Other" Electronic Components (excludes semiconductors) Orders & Shipments



# U.S. Passive Component Orders & Shipments

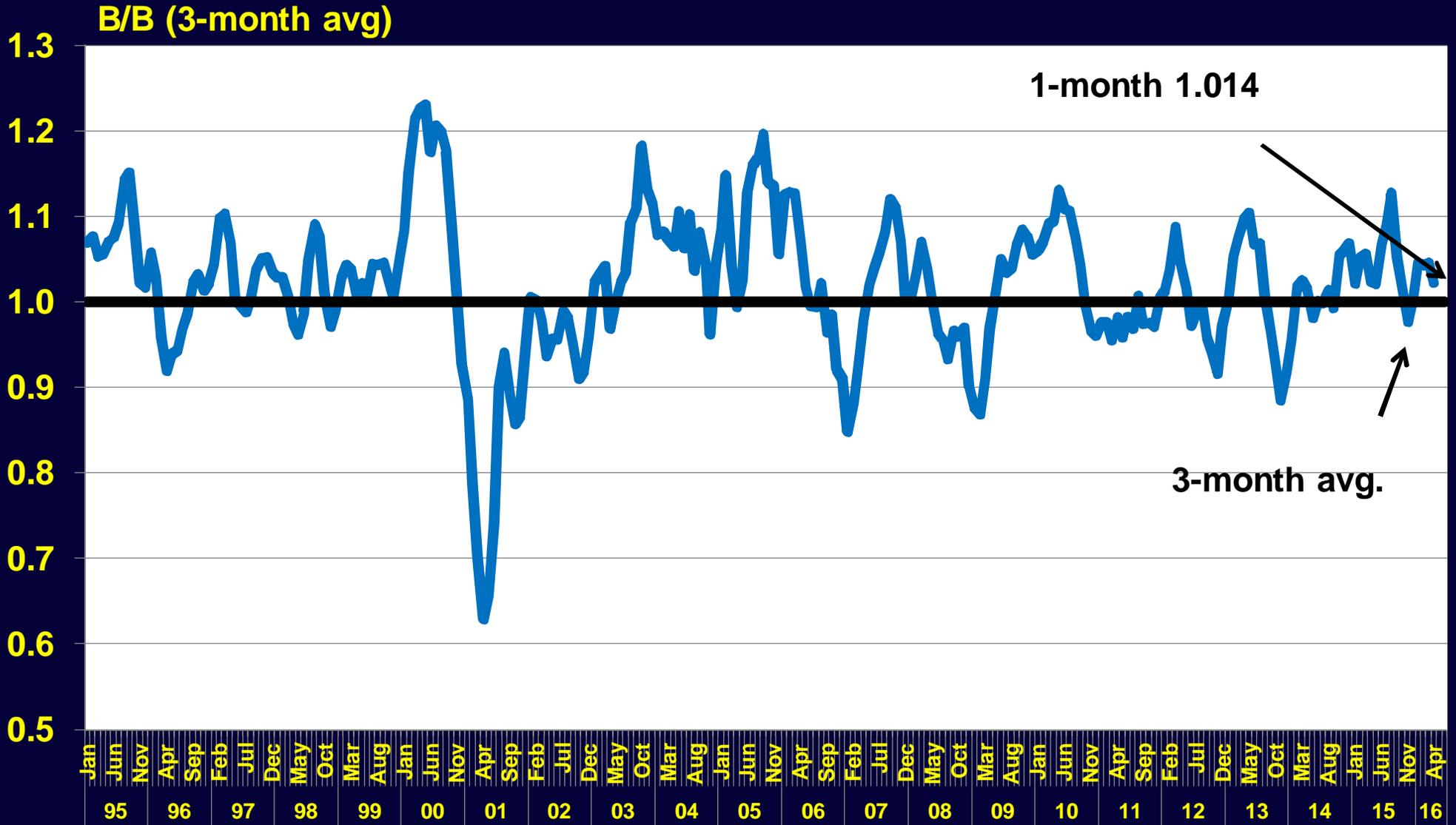


# Present Growth Rates (%) U.S. Economy & Electronics Industry

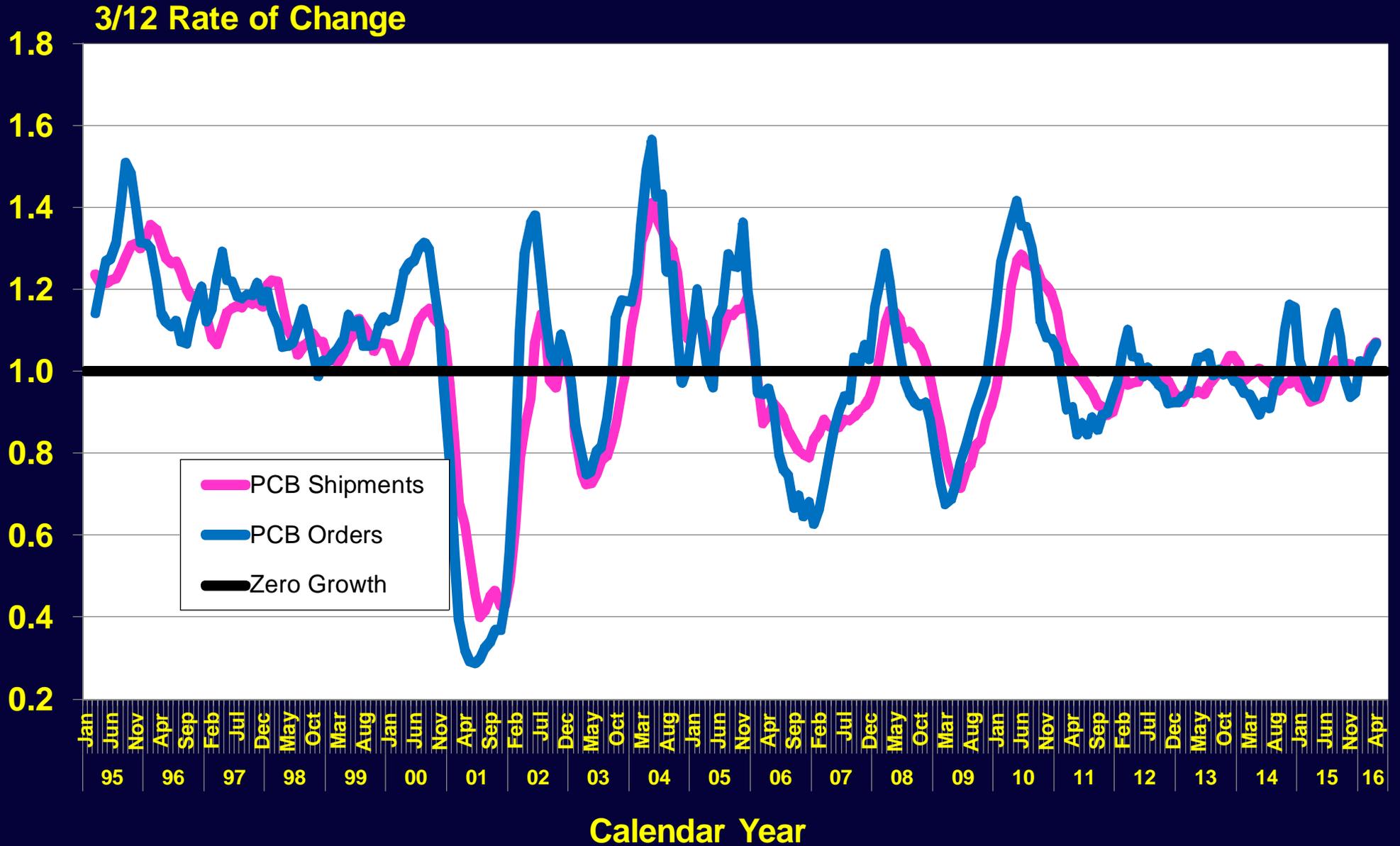
	Latest Month	Annual Growth	3-Month Growth
<b>Electronic Component \$</b>			
Rigid & Flex PCB Orders (N Amer)	4/16	103.1	103.5
Rigid & Flex PCB Shipments (N Amer)	4/16	102.5	107.1
Electronic Component Orders	4/16	124.2	112.5
Electronic Component Shipments	4/16	123.9	113.5
Semiconductor Shipments to N America	3/16	92.3	84.2
<b>U.S. Electronic Equipment Orders \$</b>			
Computer & Related	4/16	89.1	82.5
Communication	4/16	113.0	93.2
Medical, Measurement & Control	4/16	104.3	105.1
Search & Navigation	4/16	106.9	106.4
Defense Capital Goods	4/16	121.9	135.0
Military Electronics	4/16	106.8	108.8
Total Electronic Equipment	4/16	104.5	100.2
<b>U.S. Industrial Production</b>	4/16	99.2	99.5

NOTE: 3 month growth rates compare most recent 3 months to same 3 months one year earlier

# Rigid & Flexible PCB Book/Bill N. America

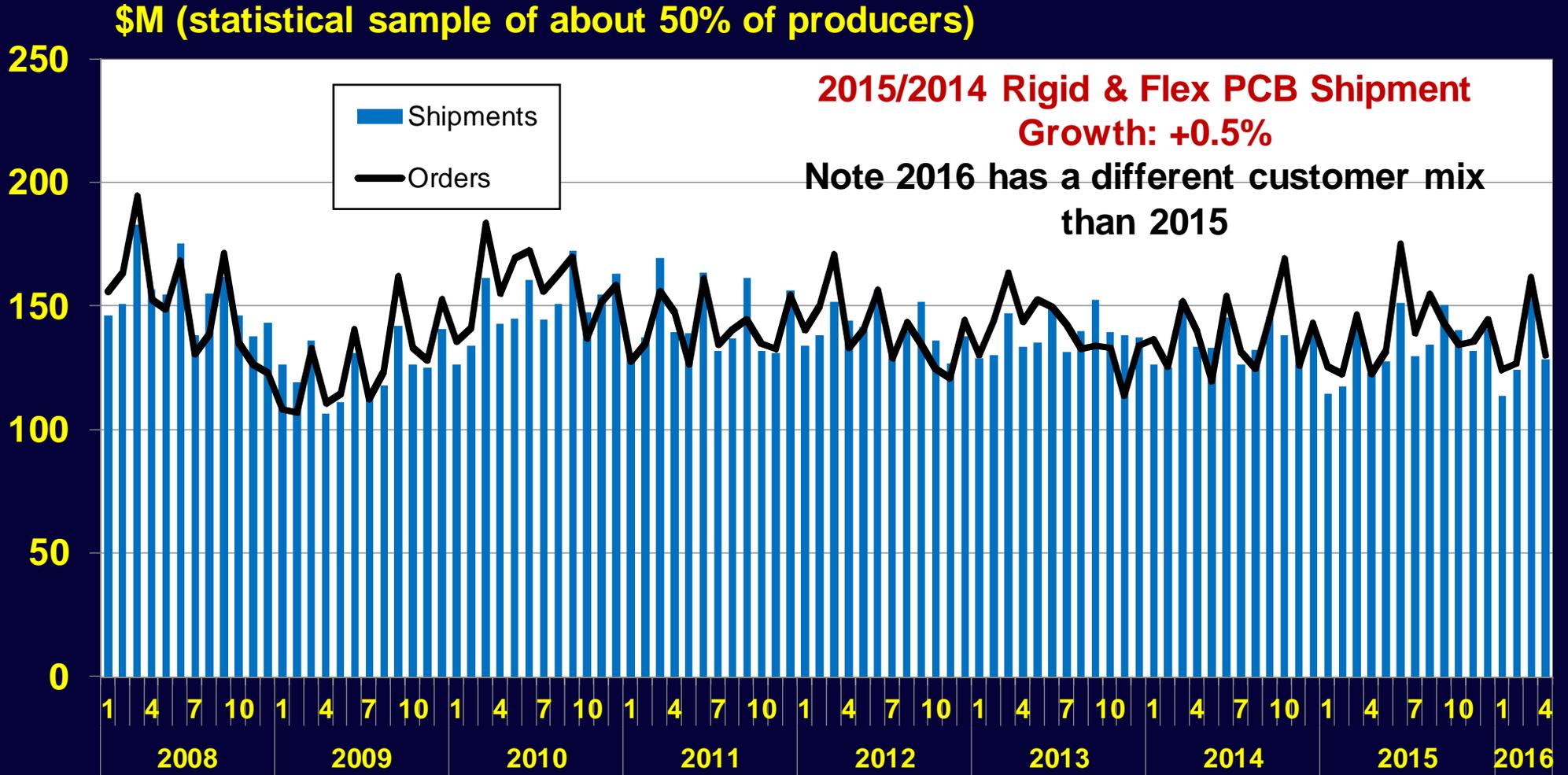


# N. America Rigid & Flexible PCB Orders & Shipments



Data: IPC T/MRC & <http://www.census.gov/indicator/www/m3/>

# N American Rigid & Flexible PCB Shipments & Orders



Note: IPC survey captures "market" not domestic production. About 15% of the above represents imported boards resold by N American PCB producers in survey.

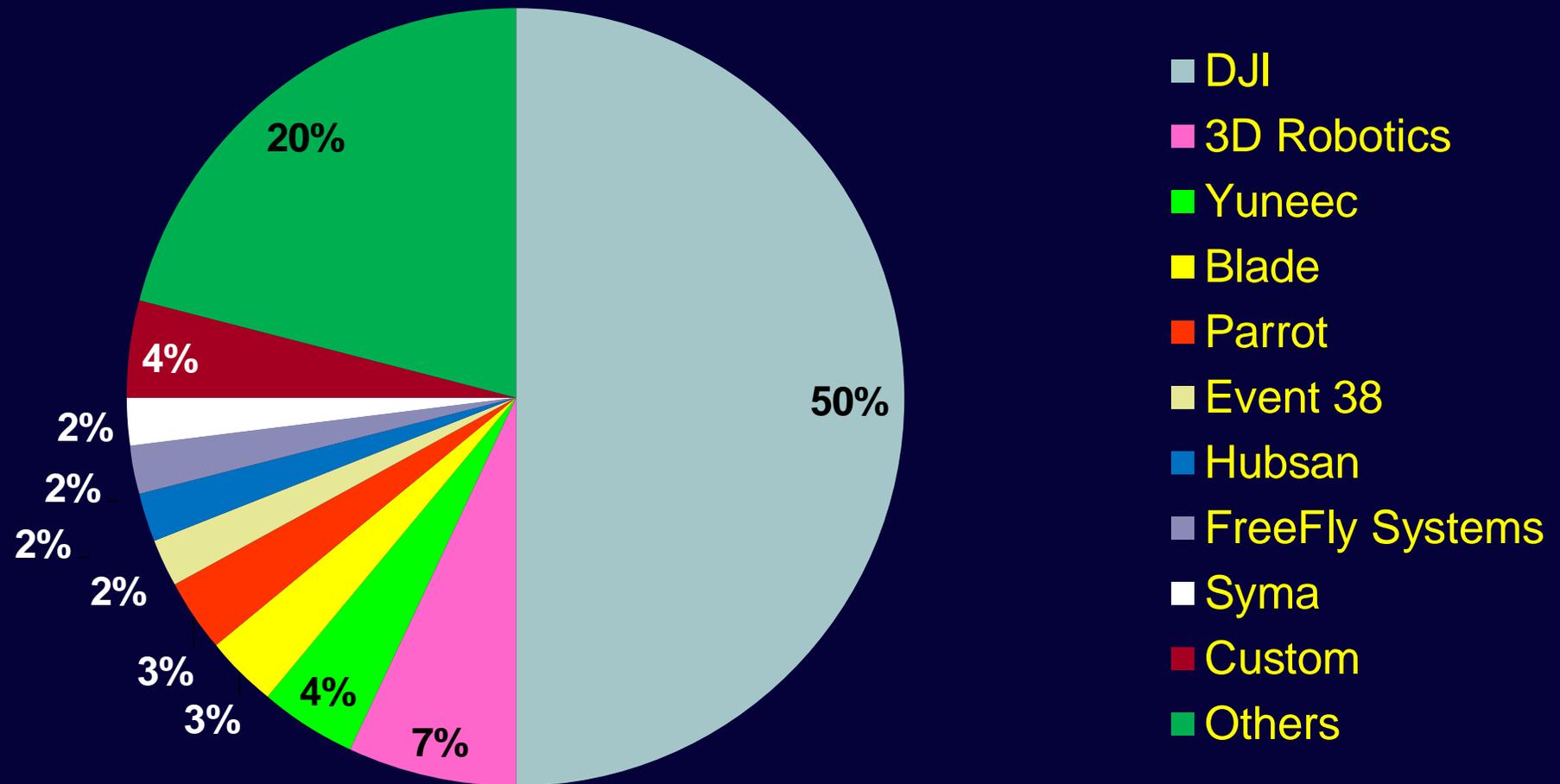
# Top Automotive PCB Producers

H Nakahara's estimated top 10 automotive PCB makers in 2015

	US\$ Million
1. Chin Poon	545
2. TTM	430
3. CMK	420
4. Meiko	419
5. KB PCB Group	300
6. Nippon Mektron	290
7. KCE Electronics	265
8. Tripod	225
9. AT&S	191
10. WUS Group	158

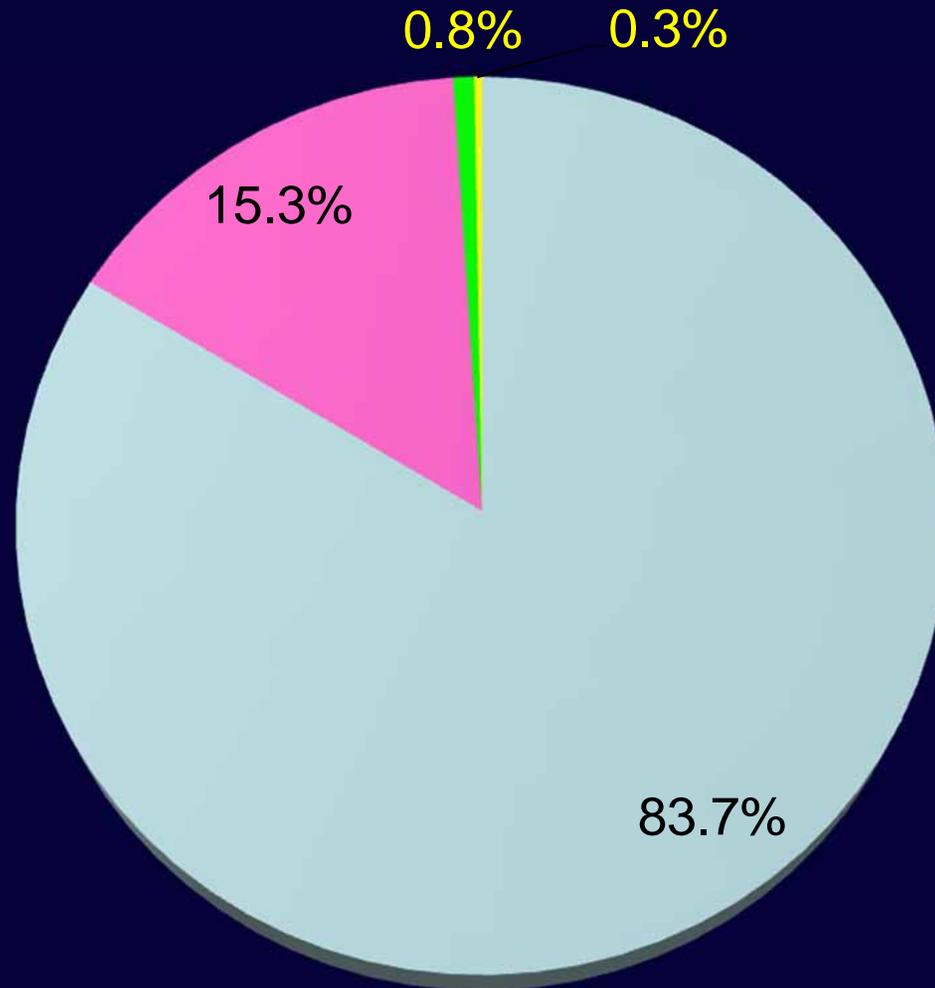
The total 2015 automotive PCB market is estimated to have been \$5.2 billion  
And expecting to grow to \$7.5 billion in 2020.

# U.S. Drone Sales 2015



# World Smartphone Sales by Operating System 2016

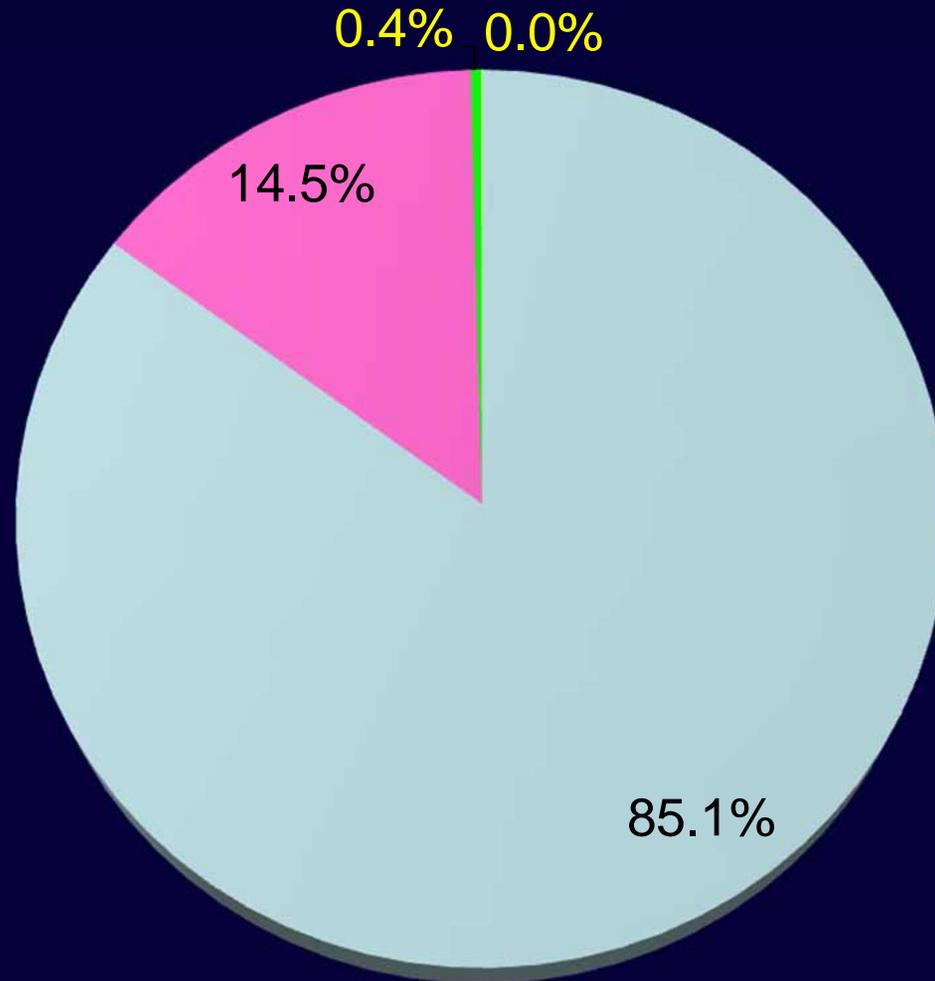
Units



**TOTAL: 1,483 Million Units**

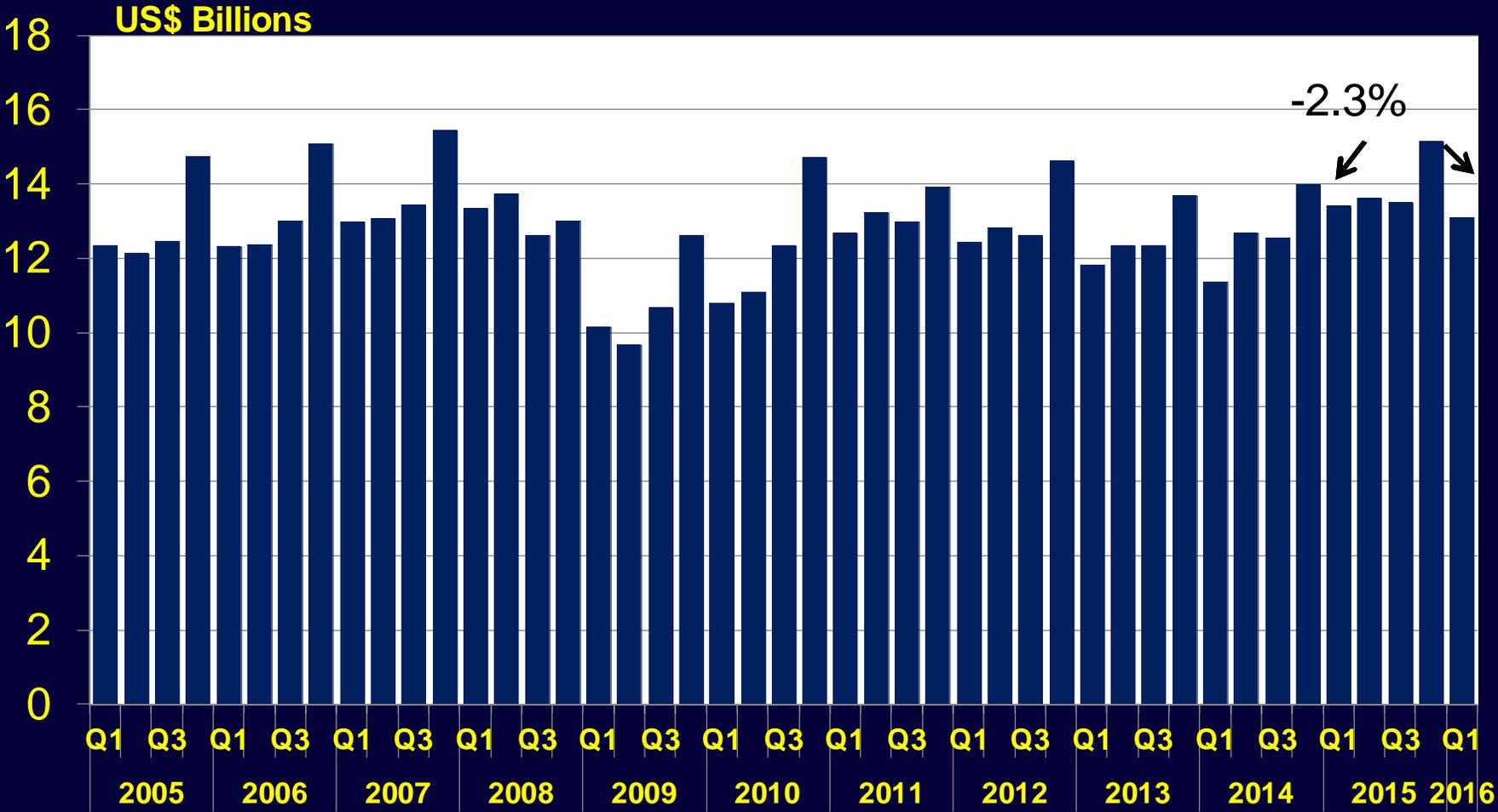
# World Smartphone Sales by Operating System 2020

Units



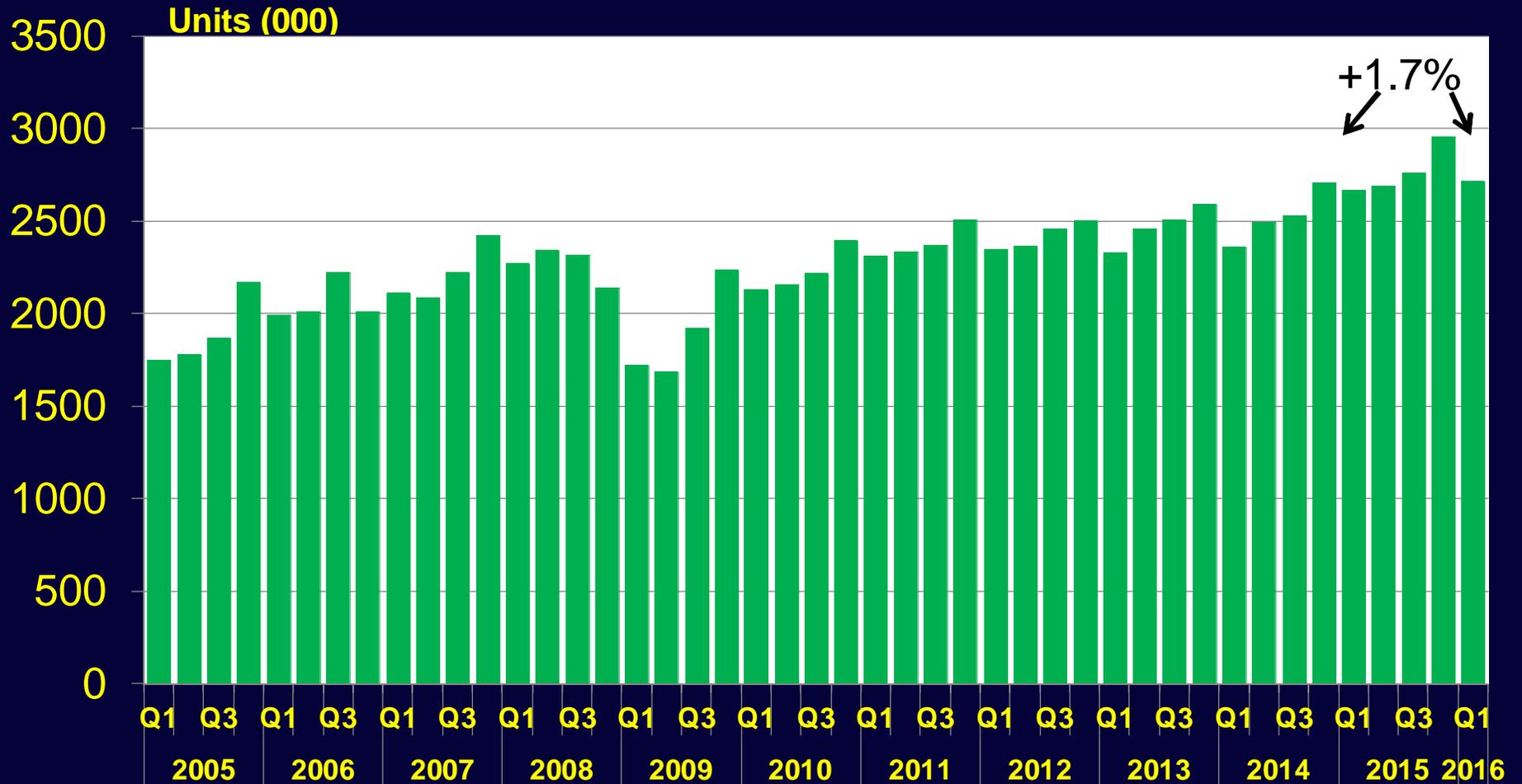
**TOTAL: 1,840 Million Units**

# World Server Shipment Revenue

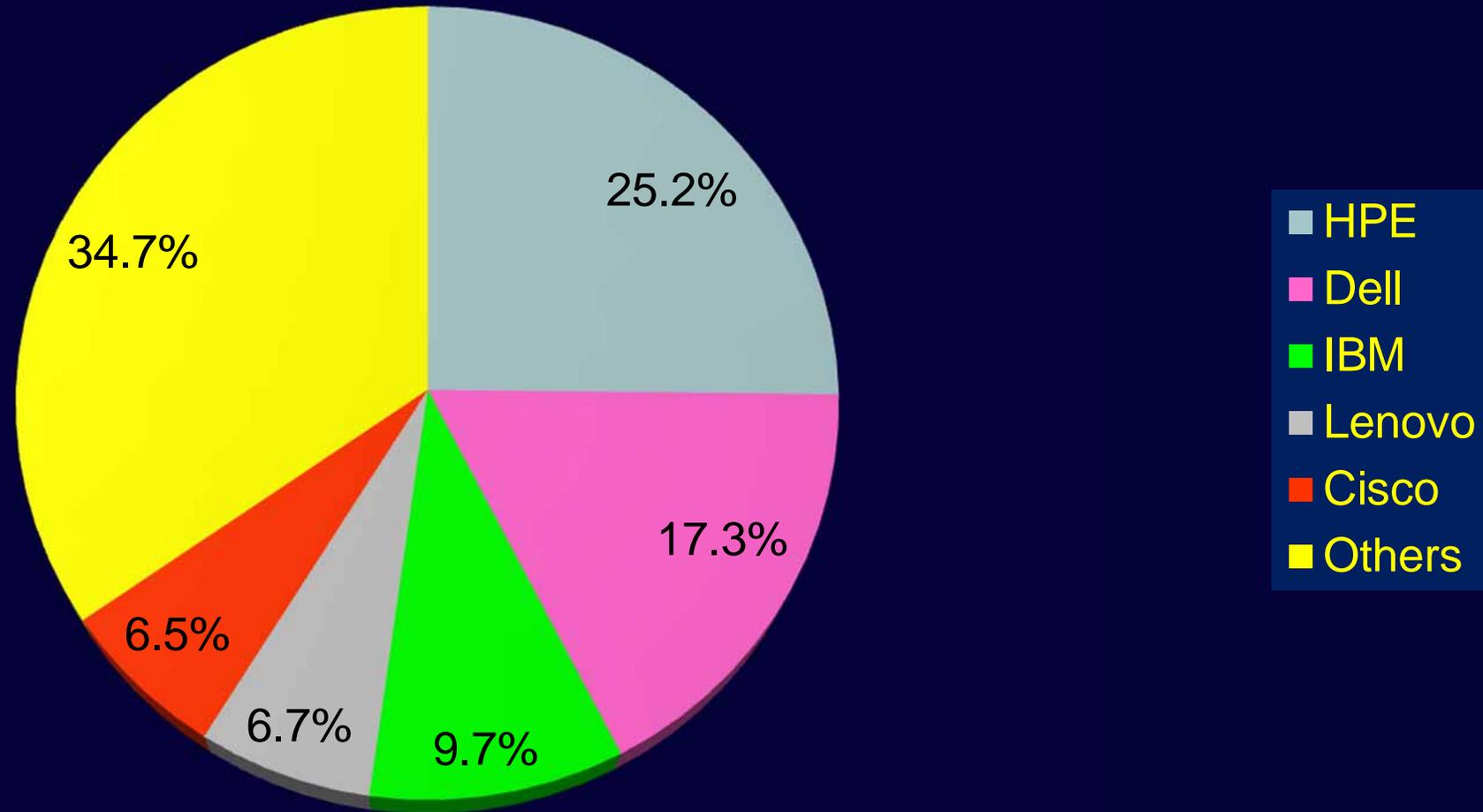


Gartner 6/16 & prior reports

# World Server Shipment Units

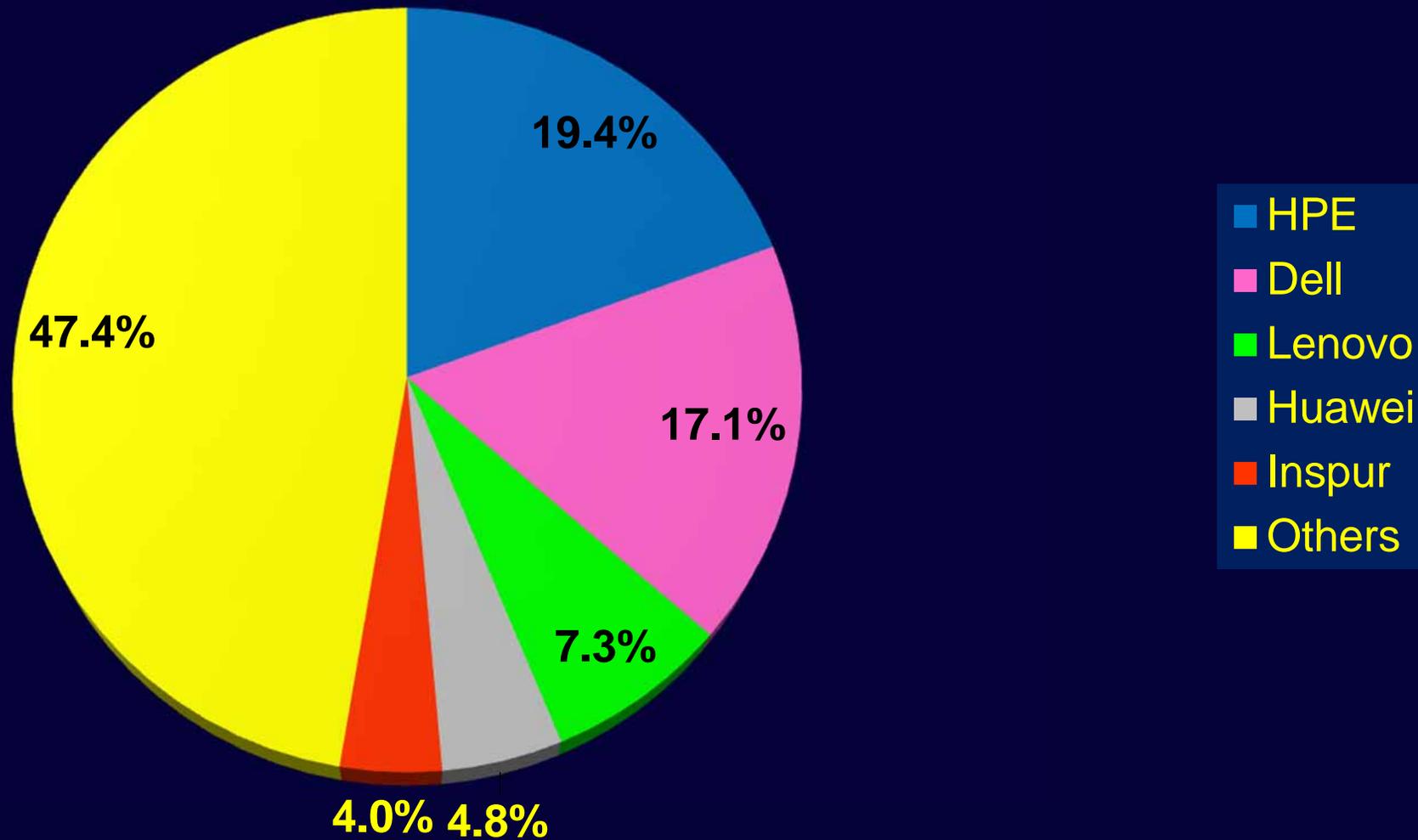


# World Server Shipments 1Q'16



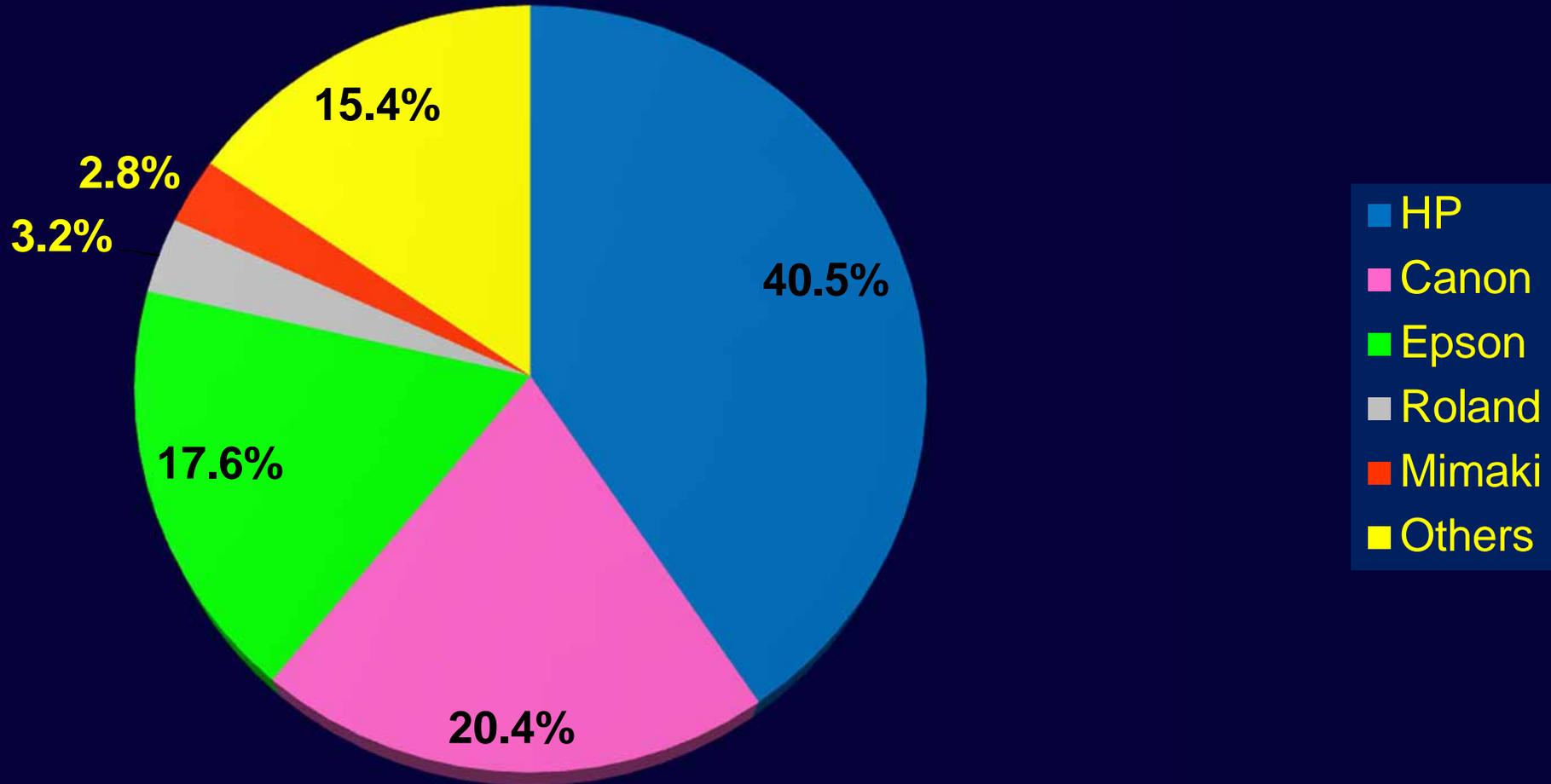
**TOTAL: \$13.1 Billion**

# World Server Shipments 1Q'16



**TOTAL: 2.716 Million Units**

# World Large Format Printer Unit Shipments 1Q'16



**81.7 thousand units**

# World Large Format Printer Shipments

