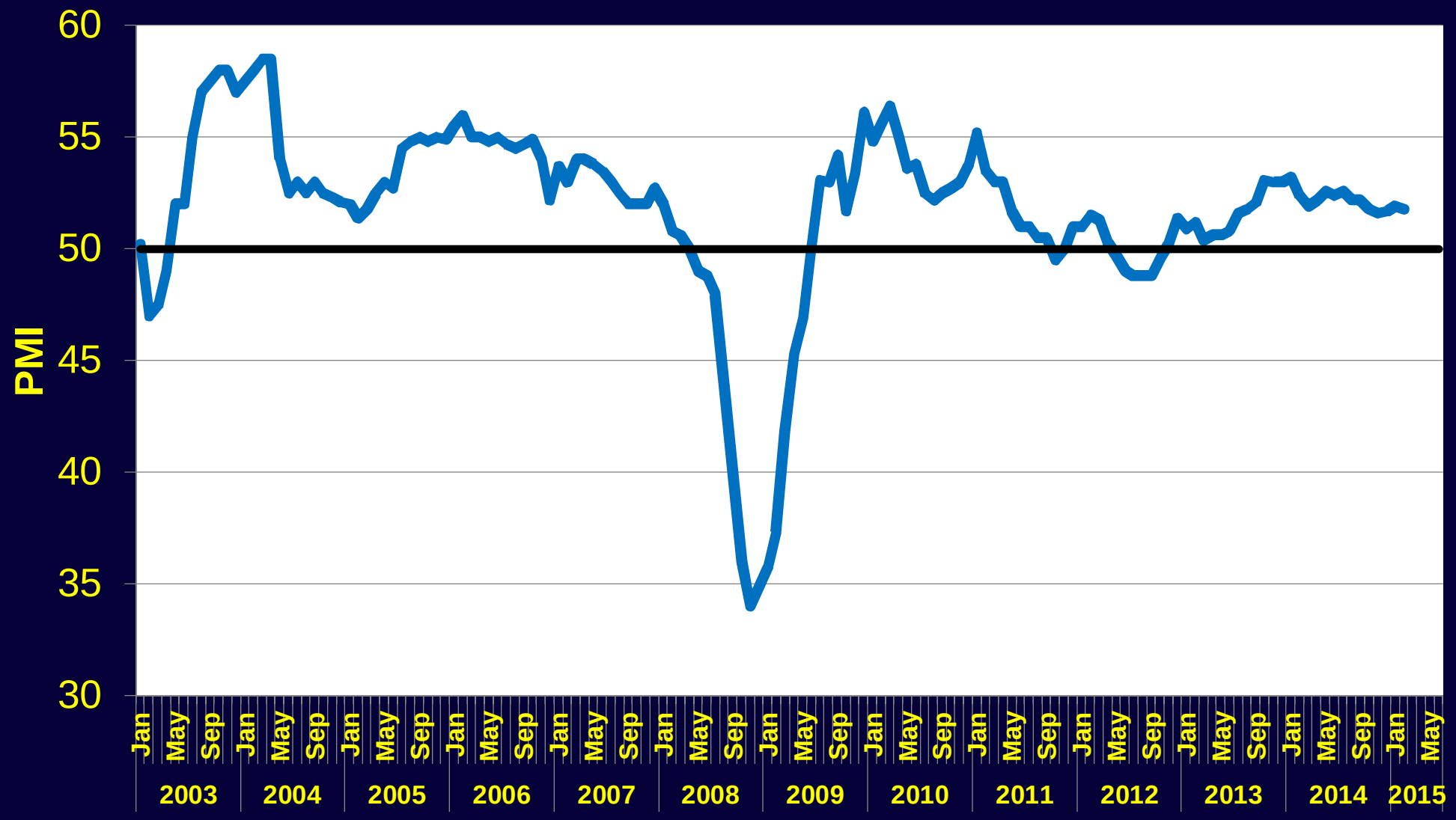
Chart 1

Global "Purchasing Managers" Index

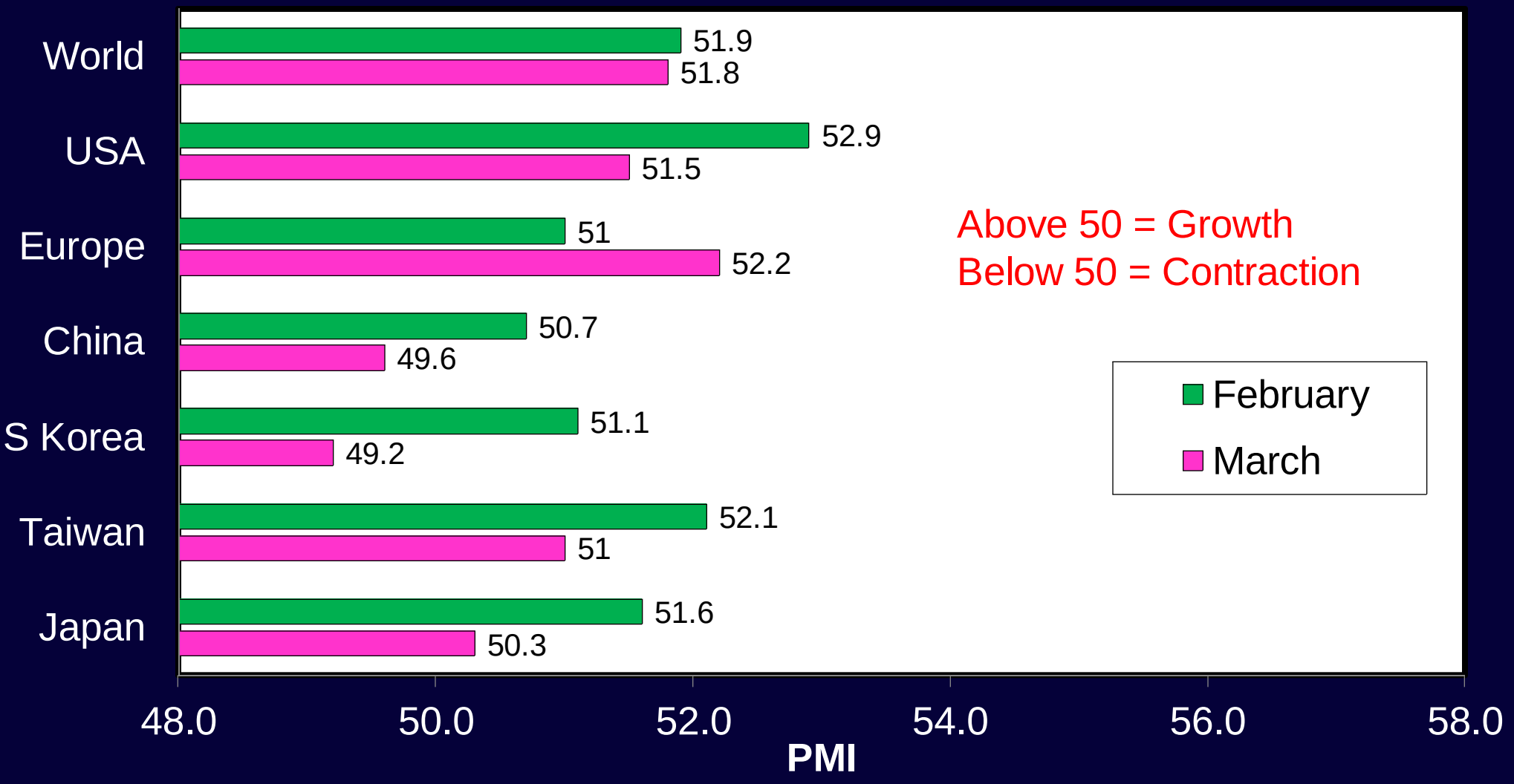
Diffusion Index, >50 = Growth



Markit Economics

Chart 2

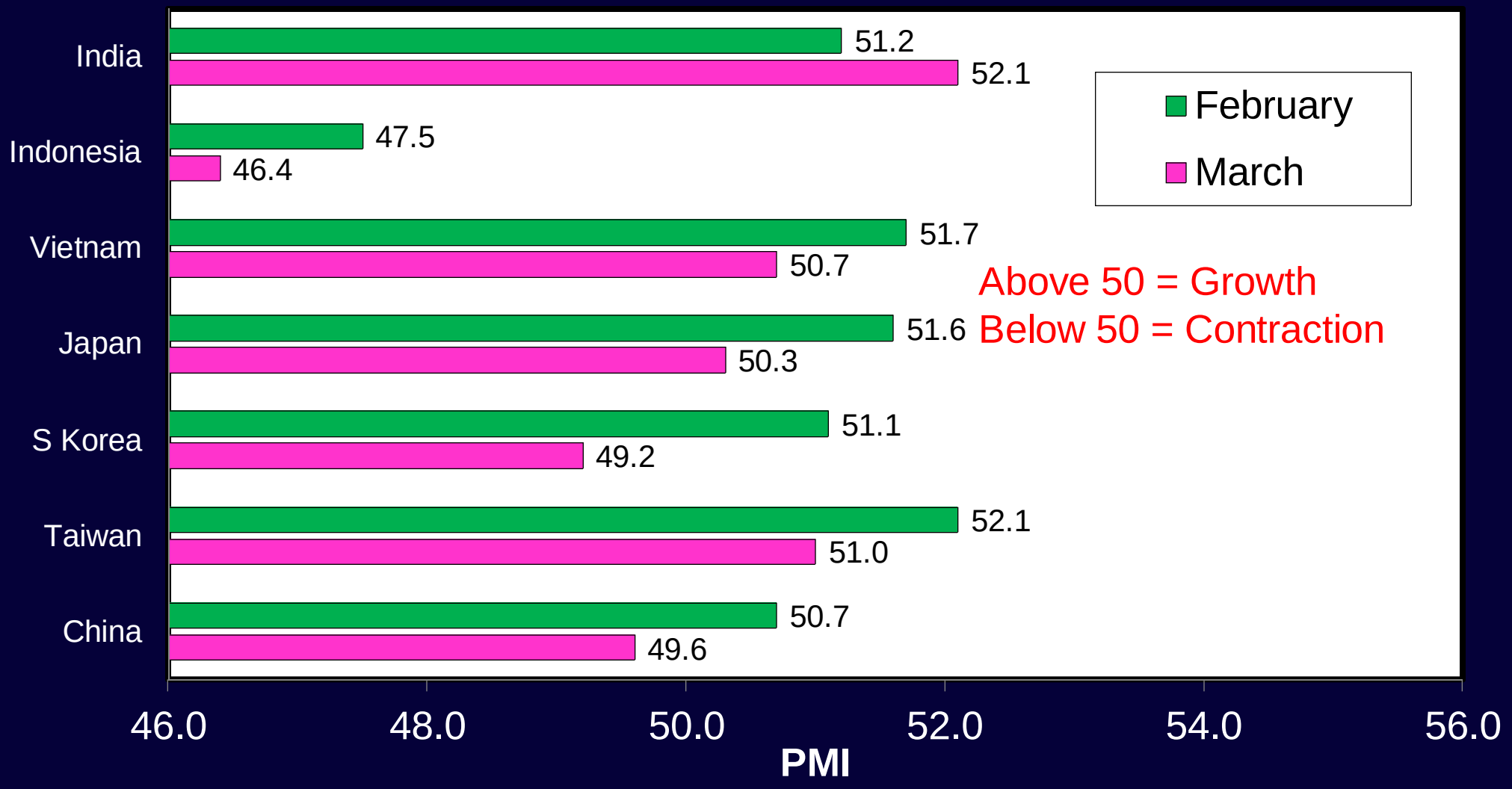
Purchasing Managers' Indices February vs. March 2015



Markit Economics, JPMorgan and ISM

Chart 3

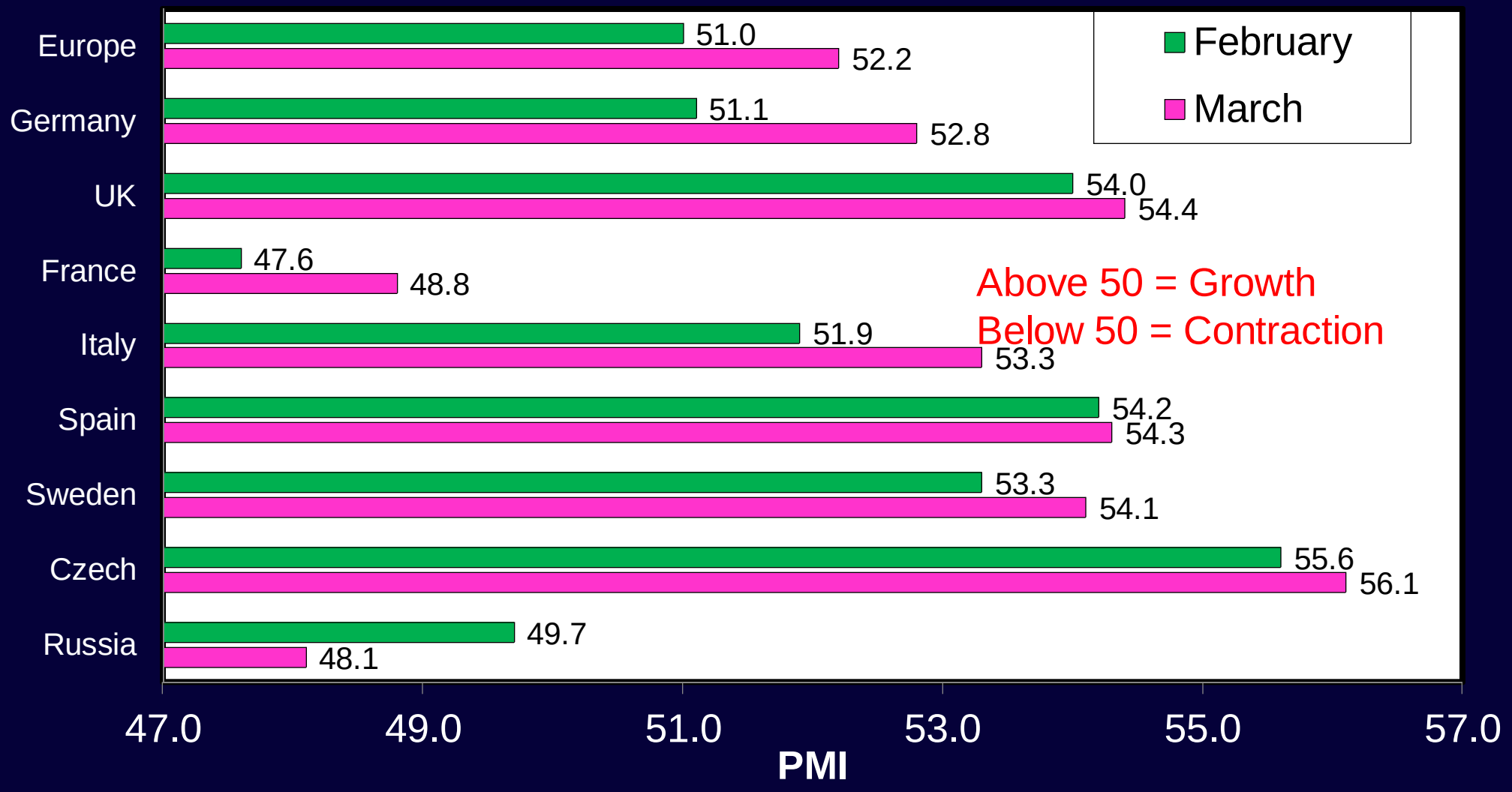
Asian Purchasing Managers' Indices February vs. March 2015



Markit Economics

Chart 4

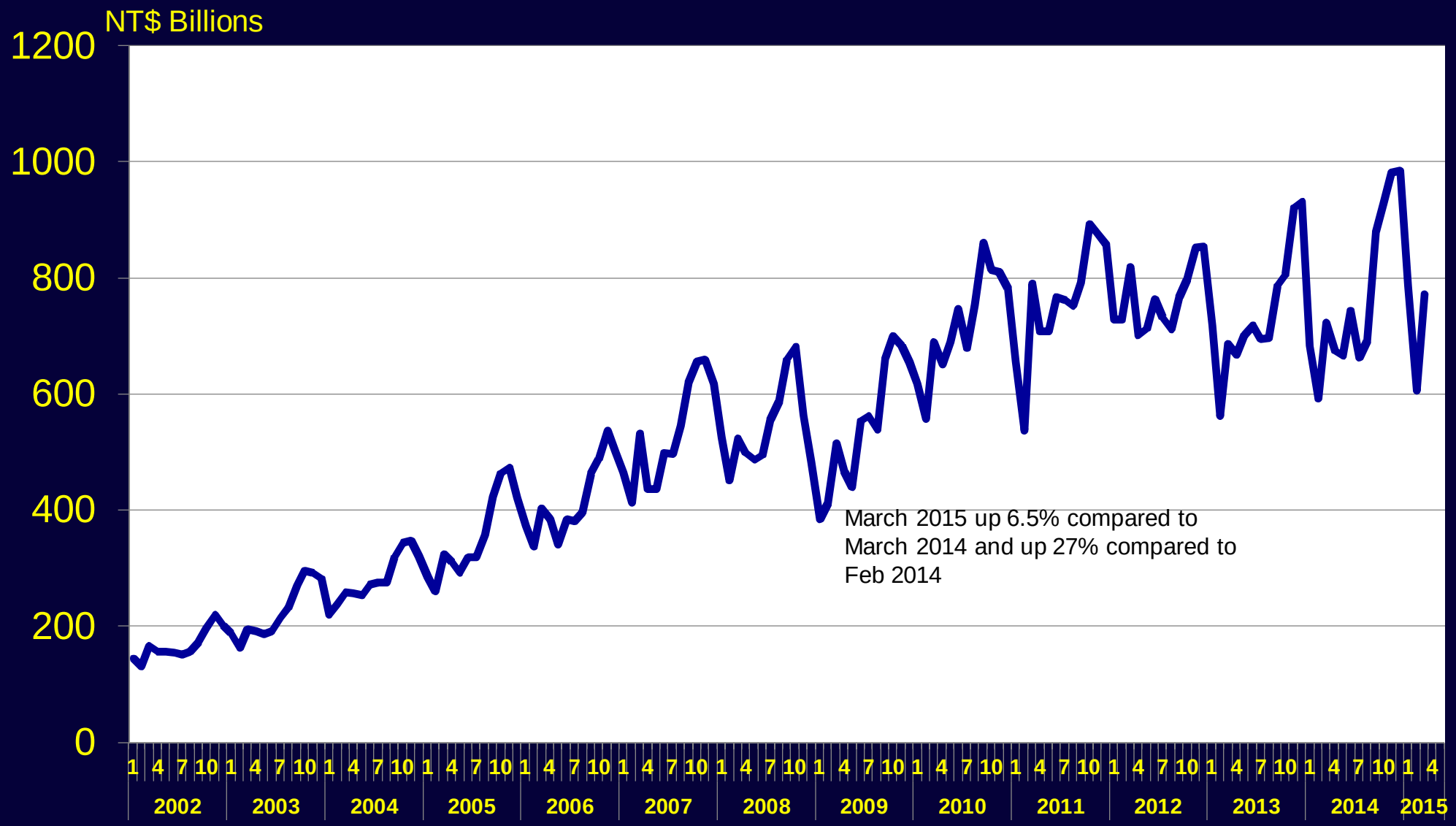
European Purchasing Managers' Indices February vs. March 2015



Markit Economics

Chart 5

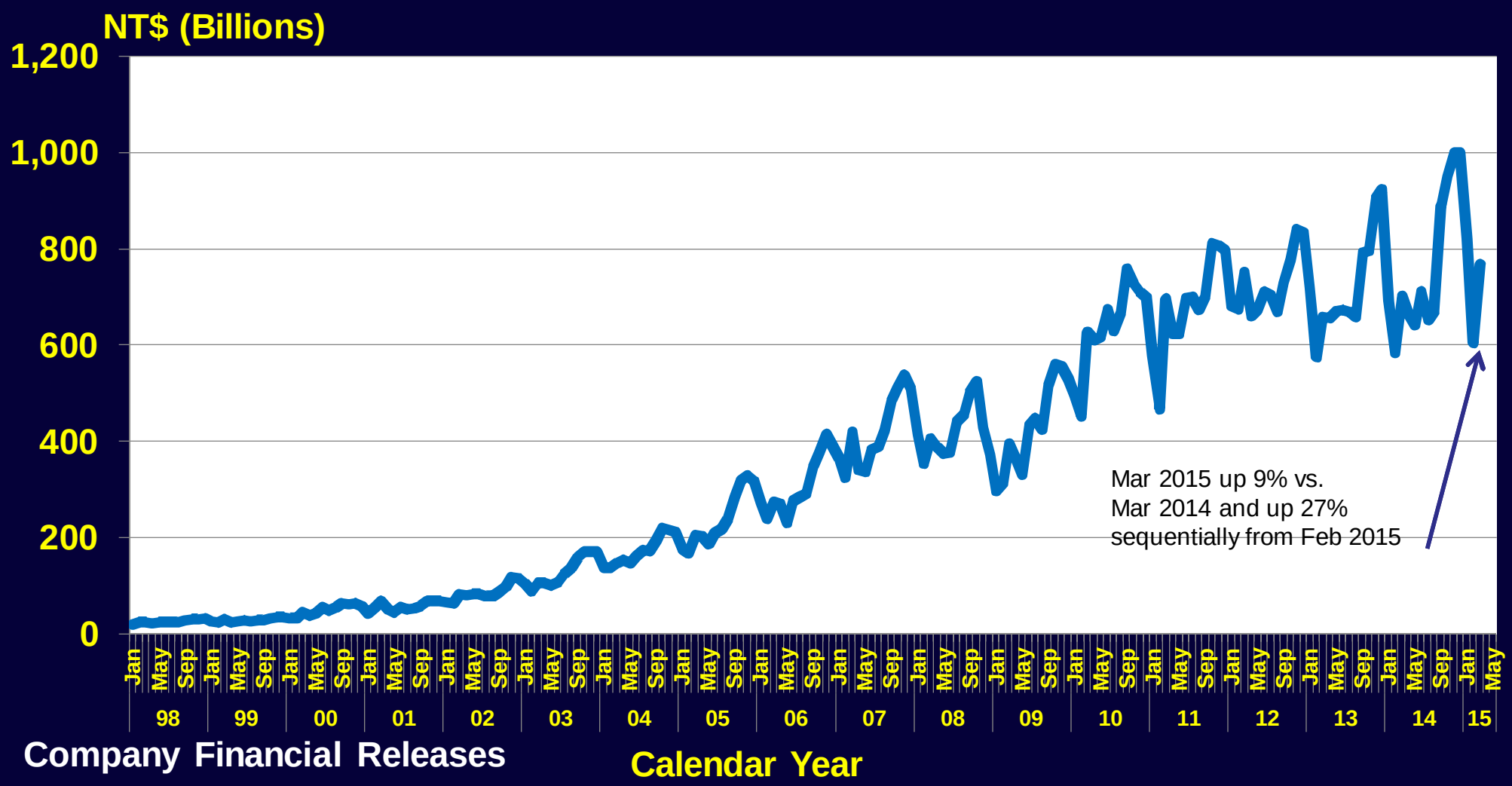
Taiwan/China Electronic Equipment Producers Composite of 101 Manufacturers Consolidated Revenue



Taiwan listed companies, often with significant manufacturing in China

Chart 6

Taiwan ODM Companies
Composite Sales of 11 Large Manufacturers

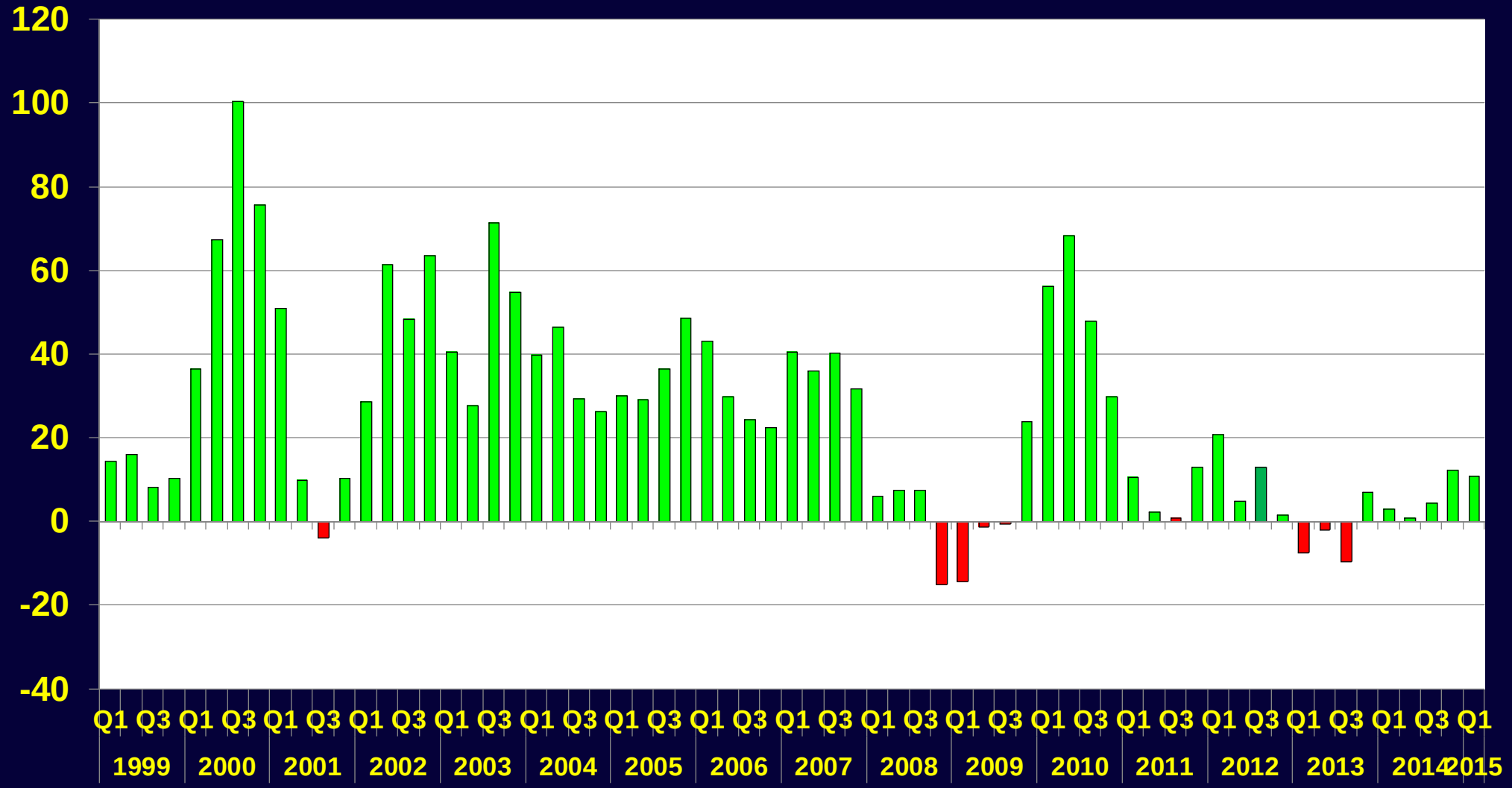


Company Financial Releases

Asustek Computer, Chei Mei, Compal Electronics, Foxconn, Chimei Innolux , Inventec, Inventec Appliance, Lite On Technology, Mitac International, Pegatron, Quanta Computer, Wistron, Chei Mei Display replacing Chei Mei & Innolux Display 3/10 & later

Chart 7

Large ODM Companies
Composite of 10 Public Manufacturers
Quarterly Revenue Growth



Asustek Computer, Compal Electronics, Foxconn, Chimei Innolux, Inventec, Inventec Appliance, Lite On Technology, Mitac International, Pegatron, Quanta Computer, Wistron

Chart 8

Taiwan Wafer Foundries
Composite of 14 Manufacturers

VIA Technologies, Advance Microelectronics, Advance Wireless Semiconductor, Episil Technologies, Inotera Memories, Macronix Intl, Mosel Vitelic, Powerchip Semi, Precision Silicon, ProMOS Tech, TSMC, United Microelectronics, Vanguard International Semi, Winbond Electronics

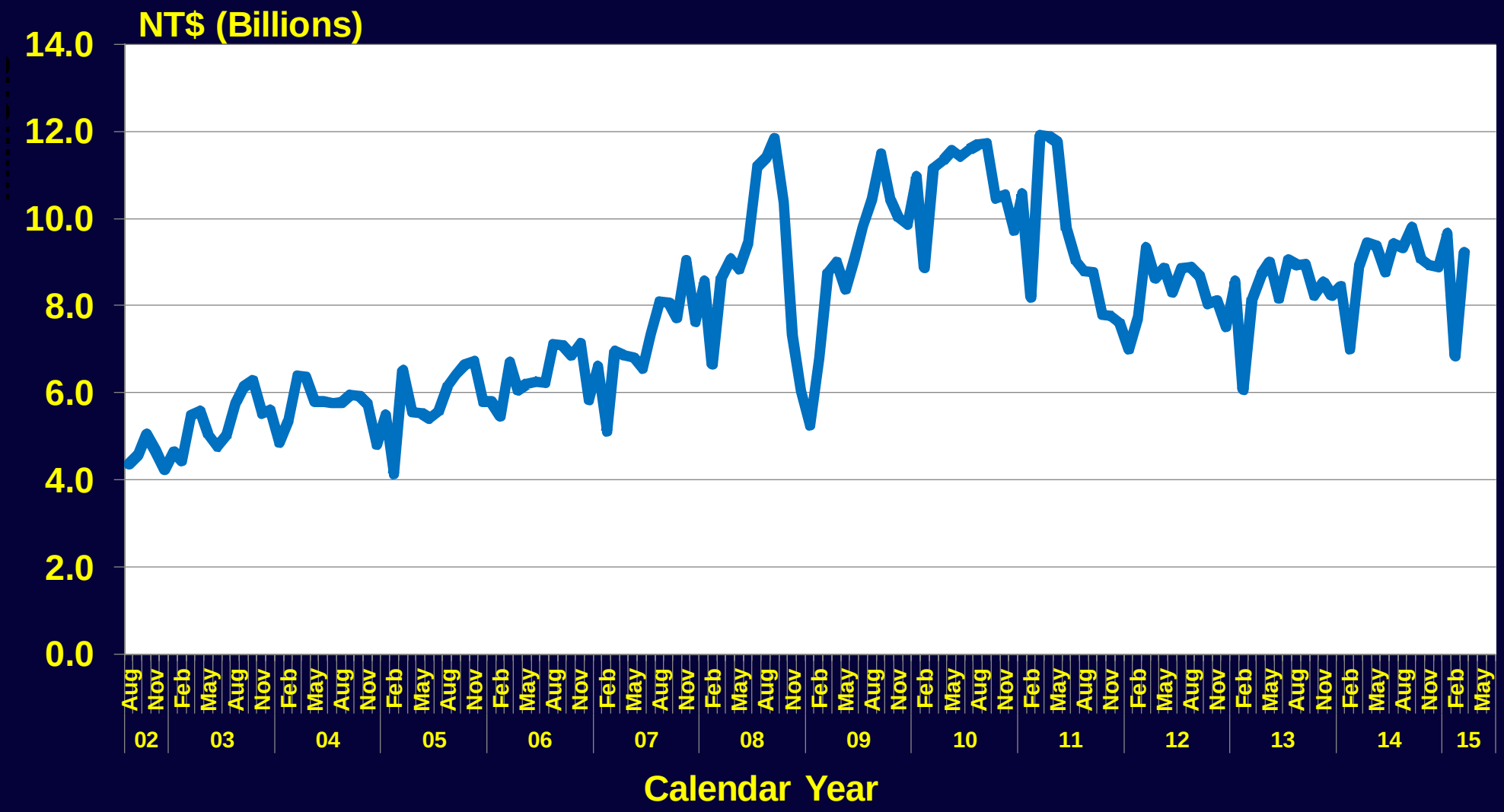
Chart 9

Taiwan Package & Test Companies Composite of 20 Manufacturers

ASE, Ardentec, ChipMOS Tech, Chipbond Tech, E'dale Tech, Formosa, Advance Tech, Fupo Elec, Greatek Elec, International Semiconductor Tech, King Yuan Elec, Lingsen Precision, Orient Semiconductor, Powertech Tech, Signality System, Sigurg Microelectronics, SPIL, Thalin Semiconductor, Vate Tech, Walton Advanced Tech

Chart 10

Taiwan Passive Component Companies Composite of 25 Manufacturers



Chilsin Electronics, Cyntec, (FCE) Feei Cheng Enterprise, Holy Stone Enterprise, 3H (Honey Hope Honesty Enterprise), HJC (Hua Jung Components), Inpaq, Jaan Chem Technological, Kaimei Electronic, King Core Electronics, Laser Tek, Leatec Fine Ceramics, Lelon Electronics, Linton Technology, PTTC (Polytronics Technology Corp), PDC (Prosperity Dielectrics Co), Ralec Electronic, Ta-I Technology, Taiwan Alpha Electronic, Team Young Advanced Ceramics, Teapo Electronic, Thinking Electronic Industrial, WTC (Walsin Technology Corp), Yageo, YCTC (Yeh-Chiang Technology Corp)

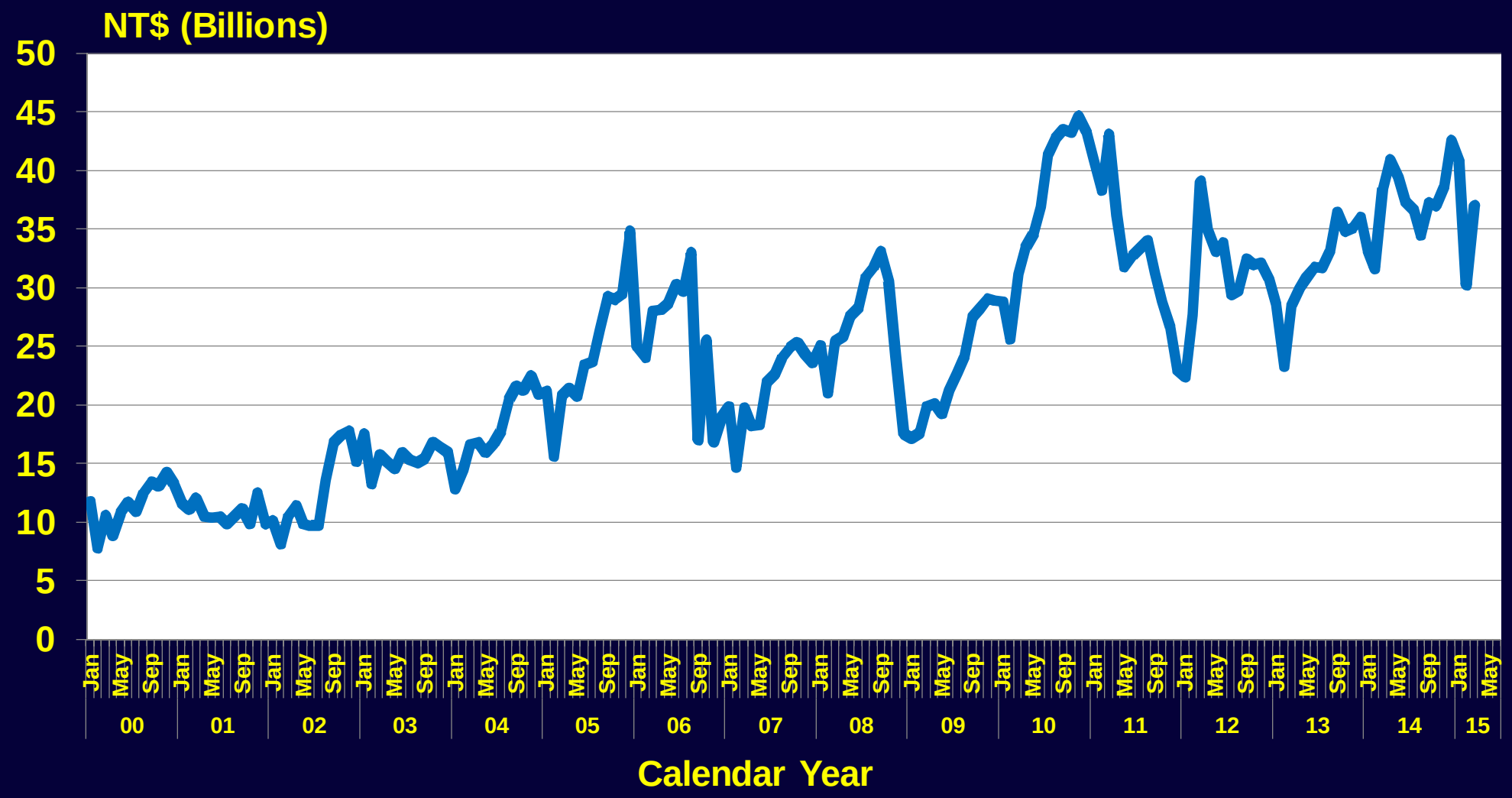
Chart 11

Taiwan Memory Companies
Composite of 8 Manufacturers

Silicon Integrated Systems, Inotera Memories, Macronix Intl, Mosel Vitelic, NanYa Tech, Powerchip Semiconductor, ProMOS, Winbond Elec

Chart 12

Taiwan Solar/Photovoltaic Panel Companies Composite of 27 Manufacturers

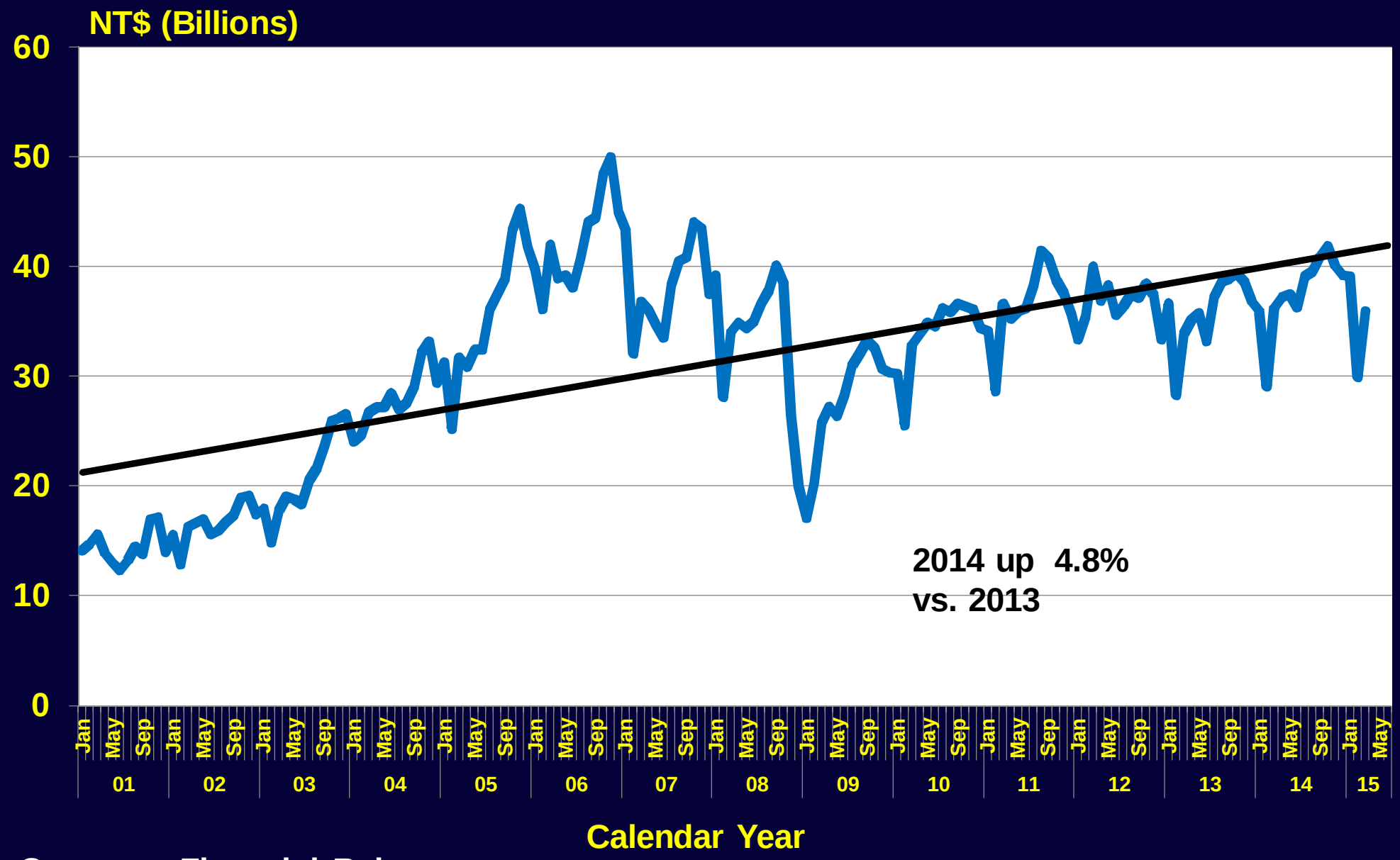


Acter, Big Sun Energy Technology, Chen Full Intl, Danen Technology, Daxon Technology, DelSolar, Delta Electronics, e_TON Solar Tec, Invetec Group, Eversol, Gigasolar materials, Gintech, Green Energy Technology (GET), Higher Way Elec, Kenmec Mechanical, Ligitek, Motech, Neo Solar Power, Phoenixtec Power Co (PPC), Powermate, Precision Silicon, Sino-American Silicon Products (SAS), Solar Applied Materials Technology, Solartech Energy Corp, Sunrise Global Solar Energy, Sysgration, Tainenergy Tech, Tera Autotec, Tyntek, Wafer Works, Wholetech System Hitech

Chart 13

Taiwan Rigid & Flex PCB Shipments

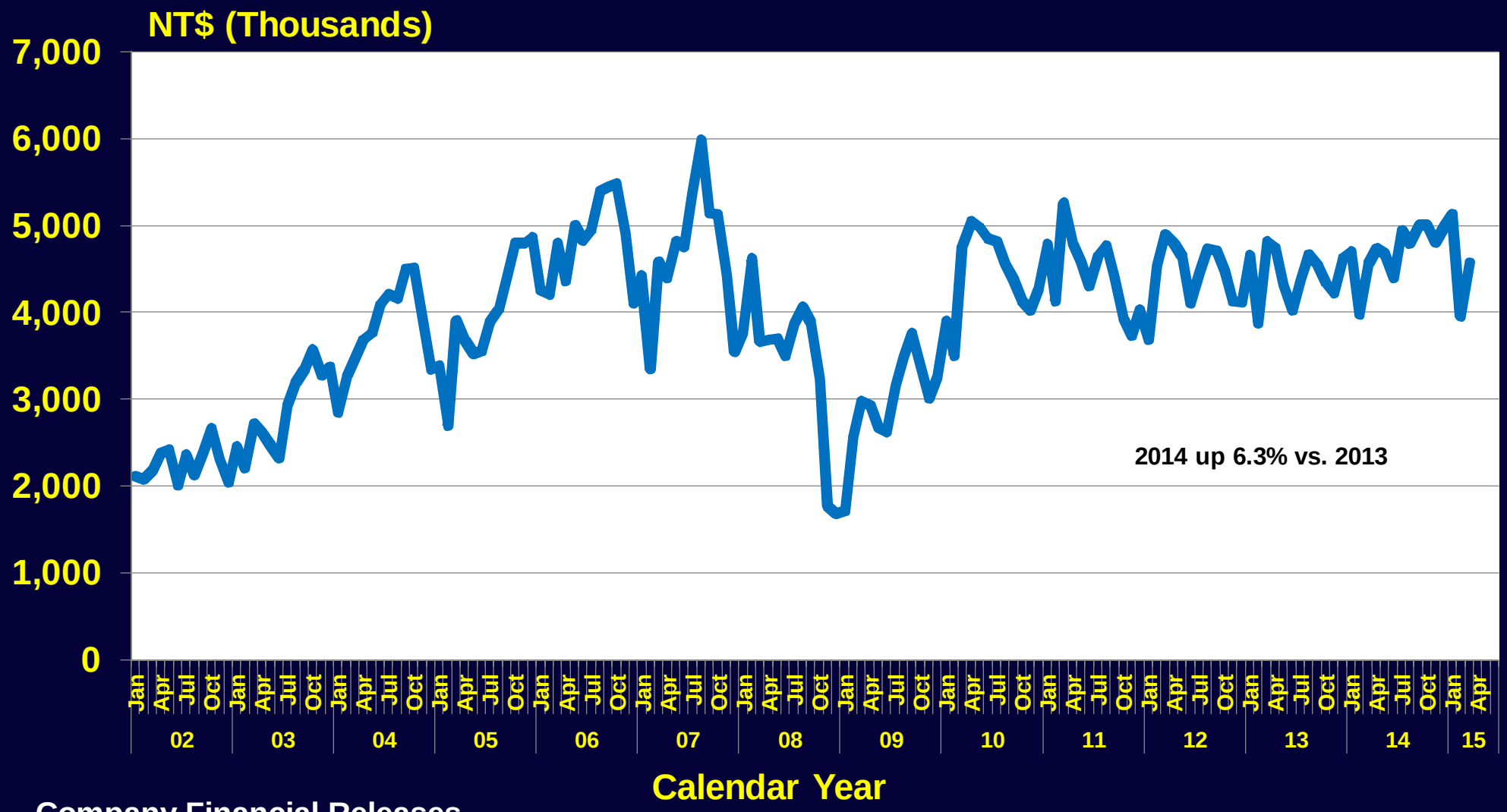
Broad Composite of 46 Taiwan-listed Manufacturers



Company Financial Releases

Chart 14

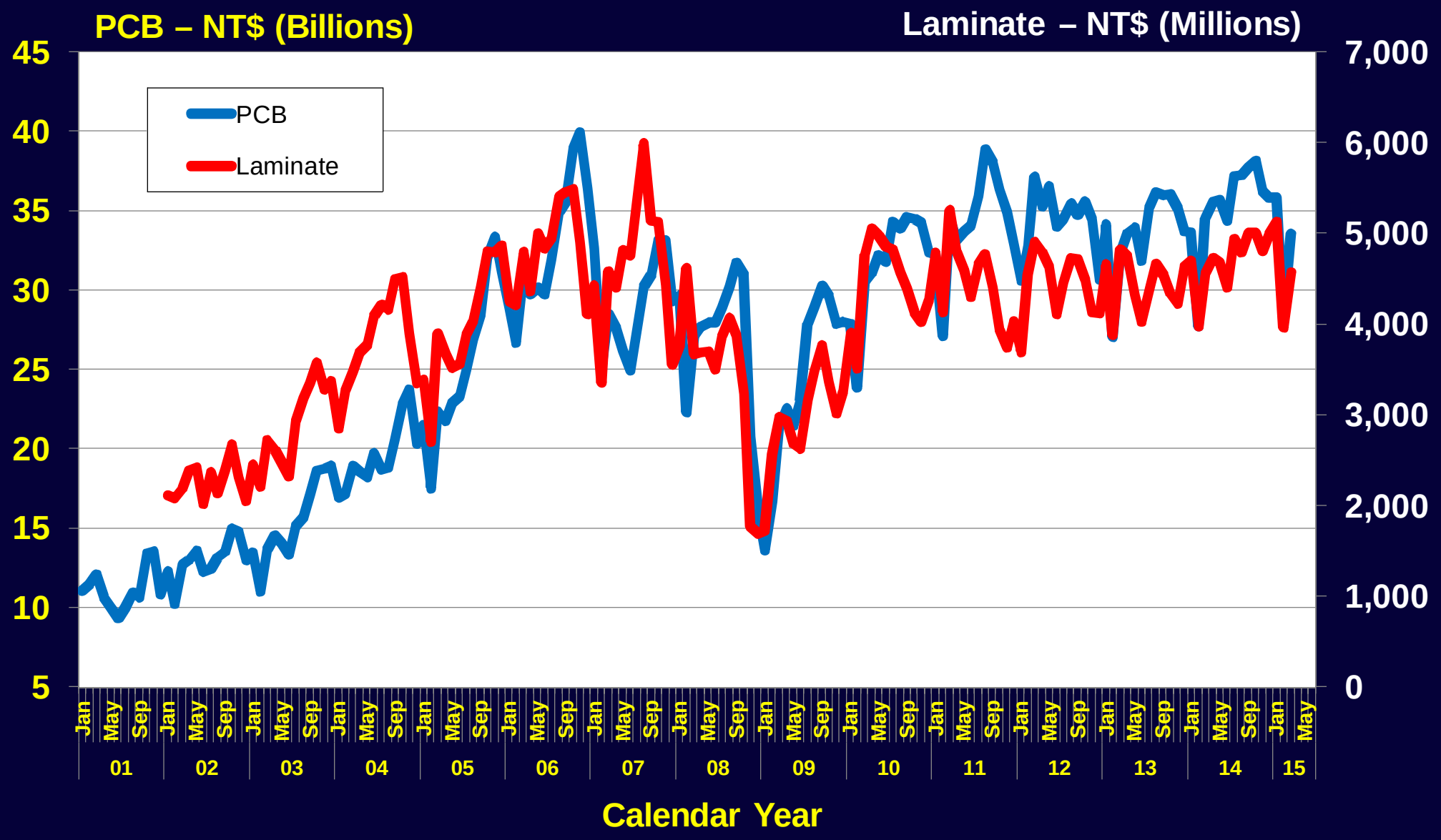
Taiwan Rigid Laminate/Prepreg Vendors Composite of 8 Large Manufacturers



Company Financial Releases
Elite Materials, Top Union Electronics, Taiwan Union Technology, Hwa Woei Laminate, Uniplus Electronics, Iteq, Taiwan Leader Advanced Technology, Shinemore Technology

Chart 15

Taiwan Shipments
42 Rigid PCB & 8 Laminate Manufacturers



Company Financial Releases

Chart 16

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

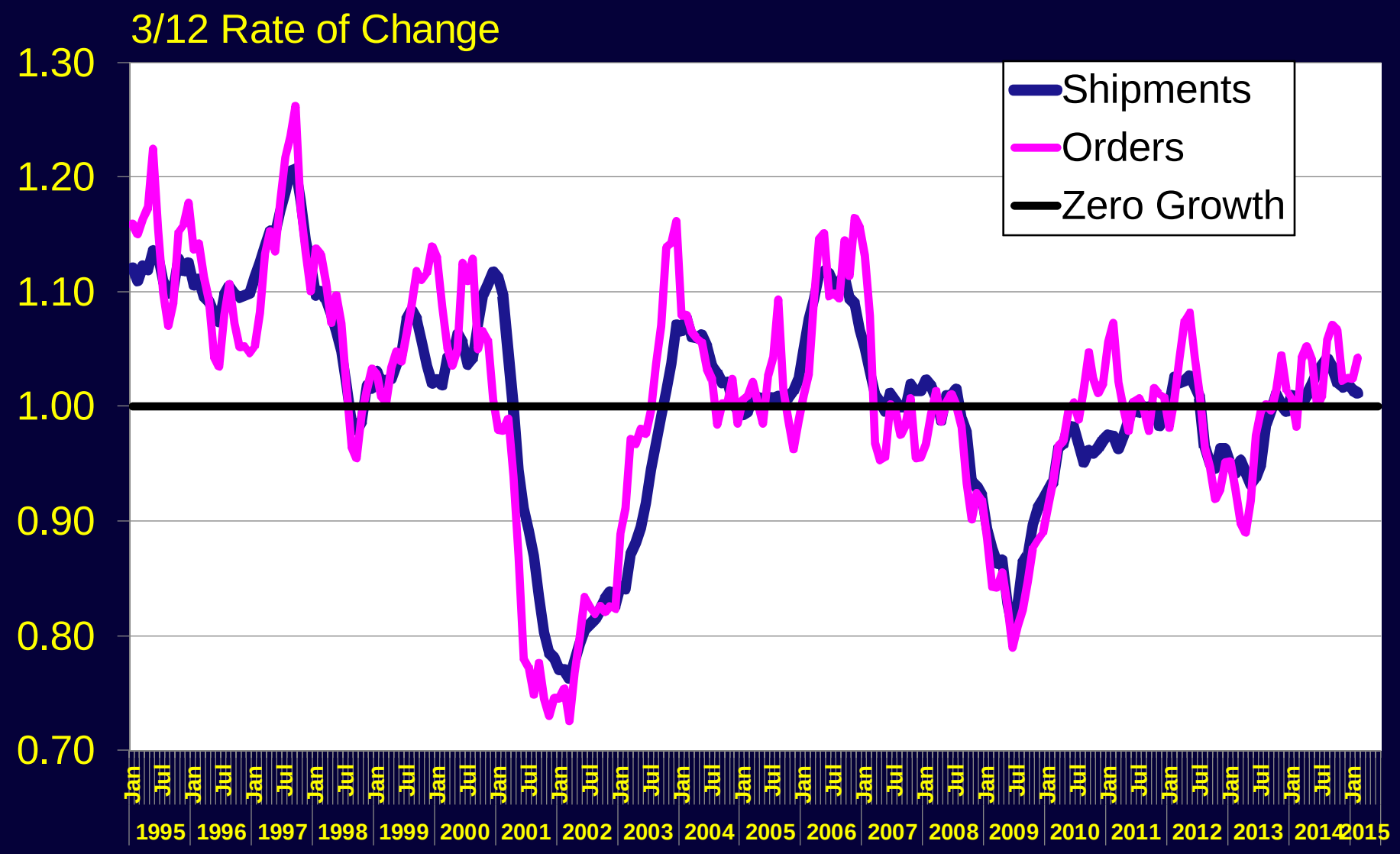
	Latest Month	Annual Growth	3-Month Growth
Electronic Component $			
Rigid & Flex PCB Orders (N Amer)	2/15	101.7	103.3
Rigid & Flex PCB Shipments (N Amer)	2/15	99.7	100.6
Electronic Component Orders	2/15	107.4	114.2
Electronic Component Shipments	2/15	106.0	110.6
Semiconductor Shipments to N America	2/15	112.4	117.1
U.S. Electronic Equipment Orders $			
Computer & Related	2/15	96.4	87.0
Communication	2/15	92.8	96.0
Medical, Measurement & Control	2/15	109.5	109.0
Search & Navigation	2/15	111.9	116.1
Defense Capital Goods	2/15	112.3	110.8
Military Electronics	2/15	112.9	121.6
Total Electronic Equipment	2/15	104.1	104.3
U.S. Industrial Production	2/15	104.3	104.1

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

Chart 17

U.S. Electronic Equipment Order & Shipment Growth

Computer, Communications, Measurement & Control and Military

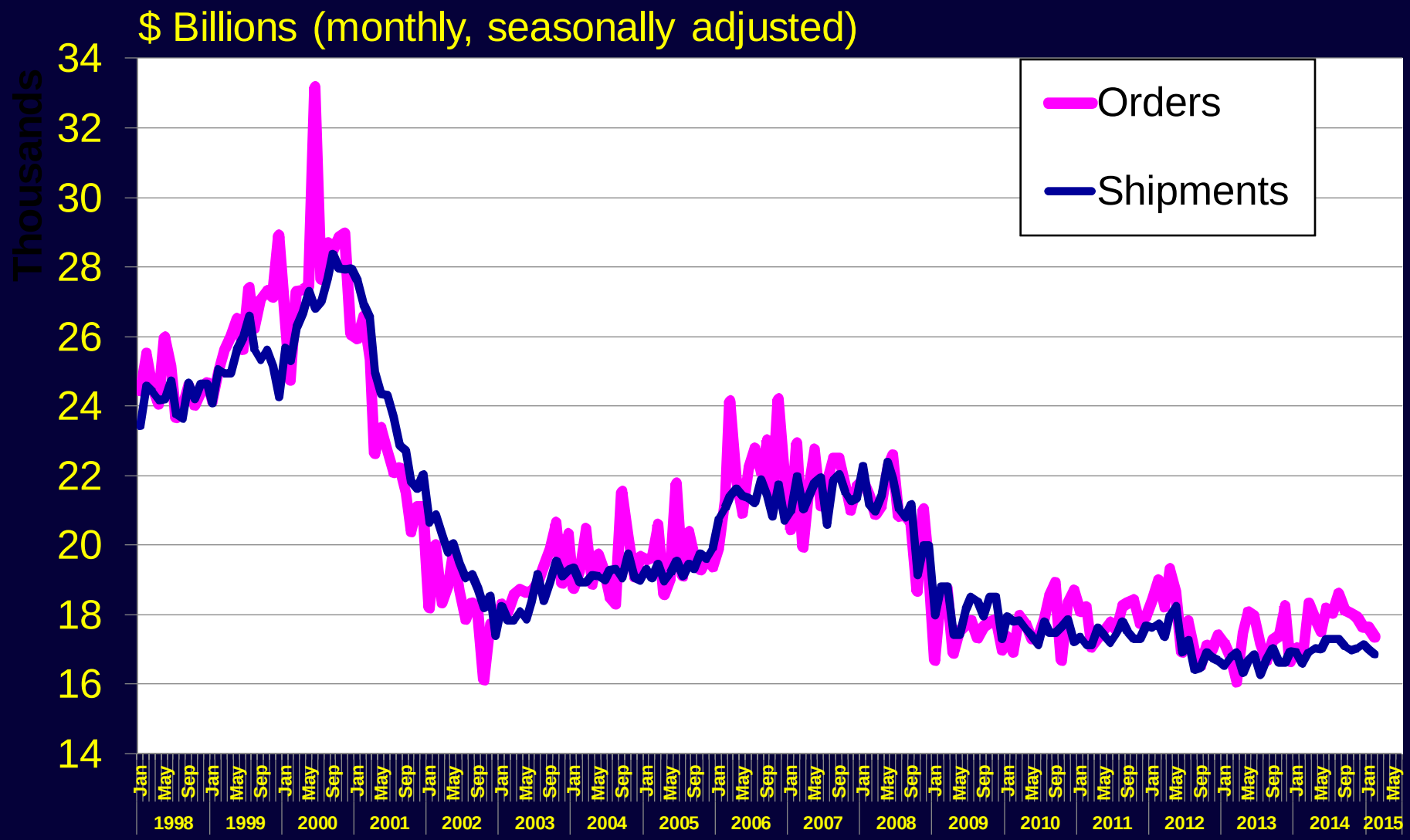


www.census.gov/indicator/www/m3/

Chart 18

U.S. Electronic Equipment Orders & Shipments

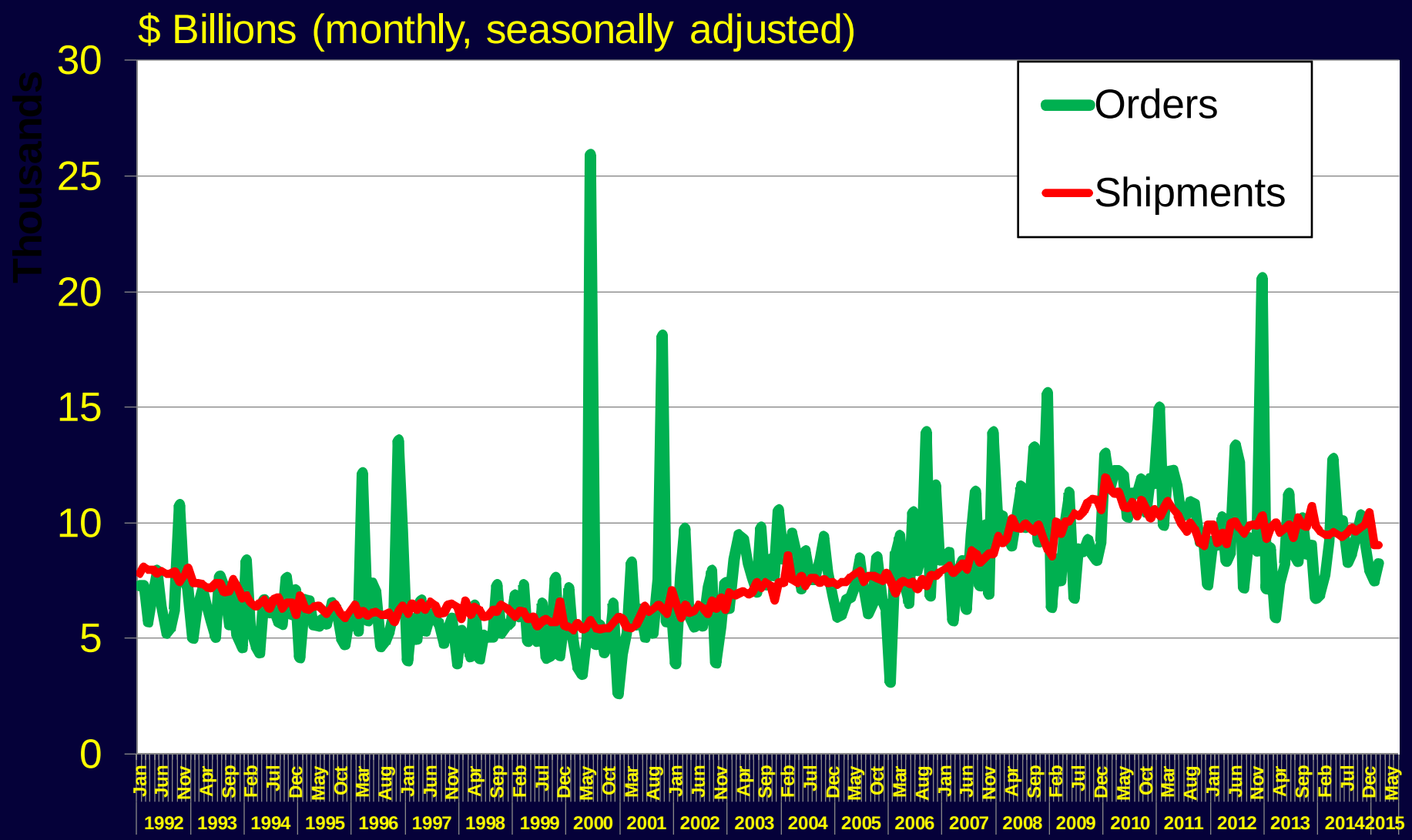
Computer, Communications, Measurement & Control and Military



www.census.gov/indicator/www/m3/

Chart 19

U.S. Defense Capital Goods Orders & Shipments

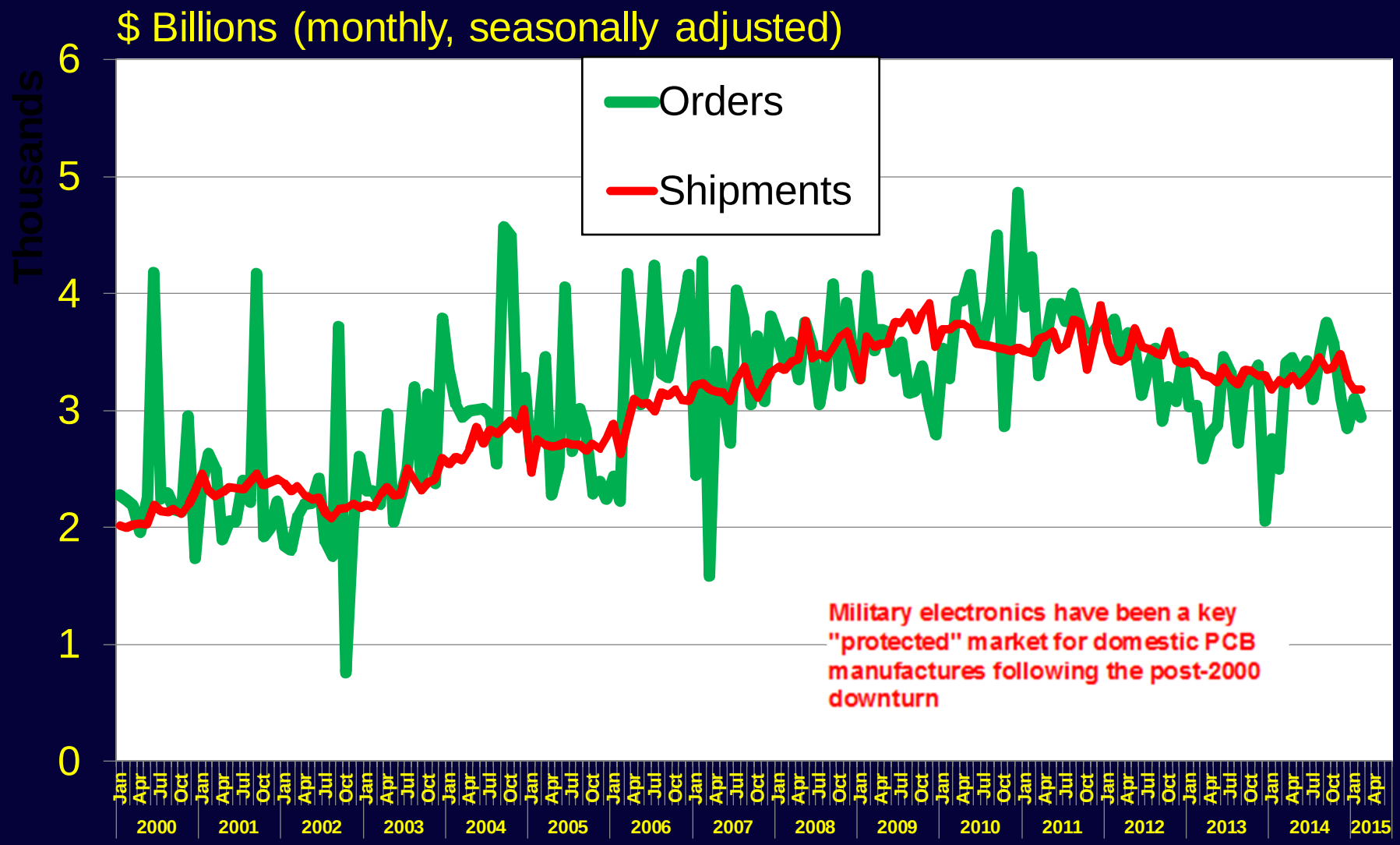


www.census.gov/indicator/www/m3/

Chart 20

U.S. Military Electronics Orders & Shipments

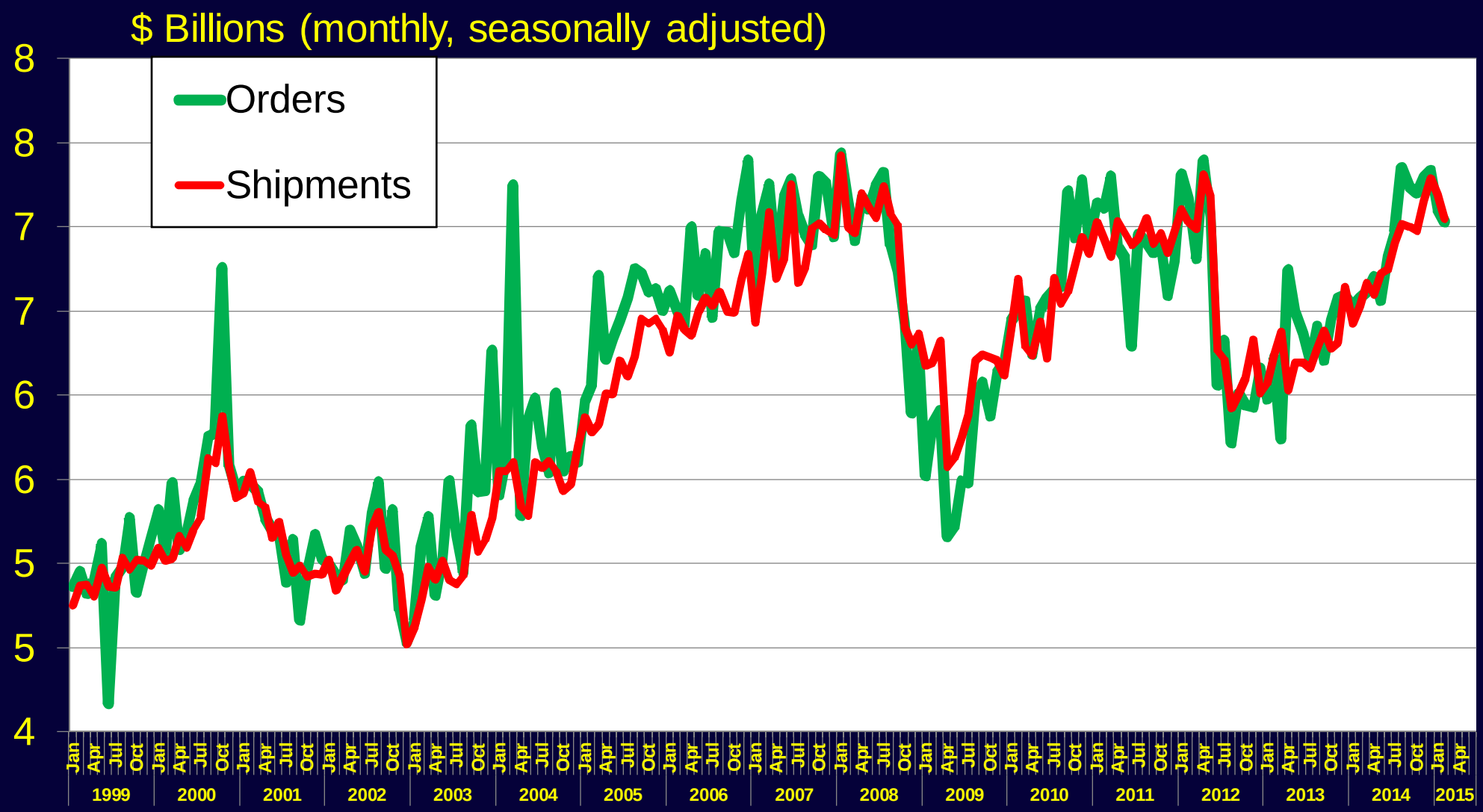
Defense Communication & Search & Navigation Equipment



www.census.gov/indicator/www/m3/

Chart 21

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

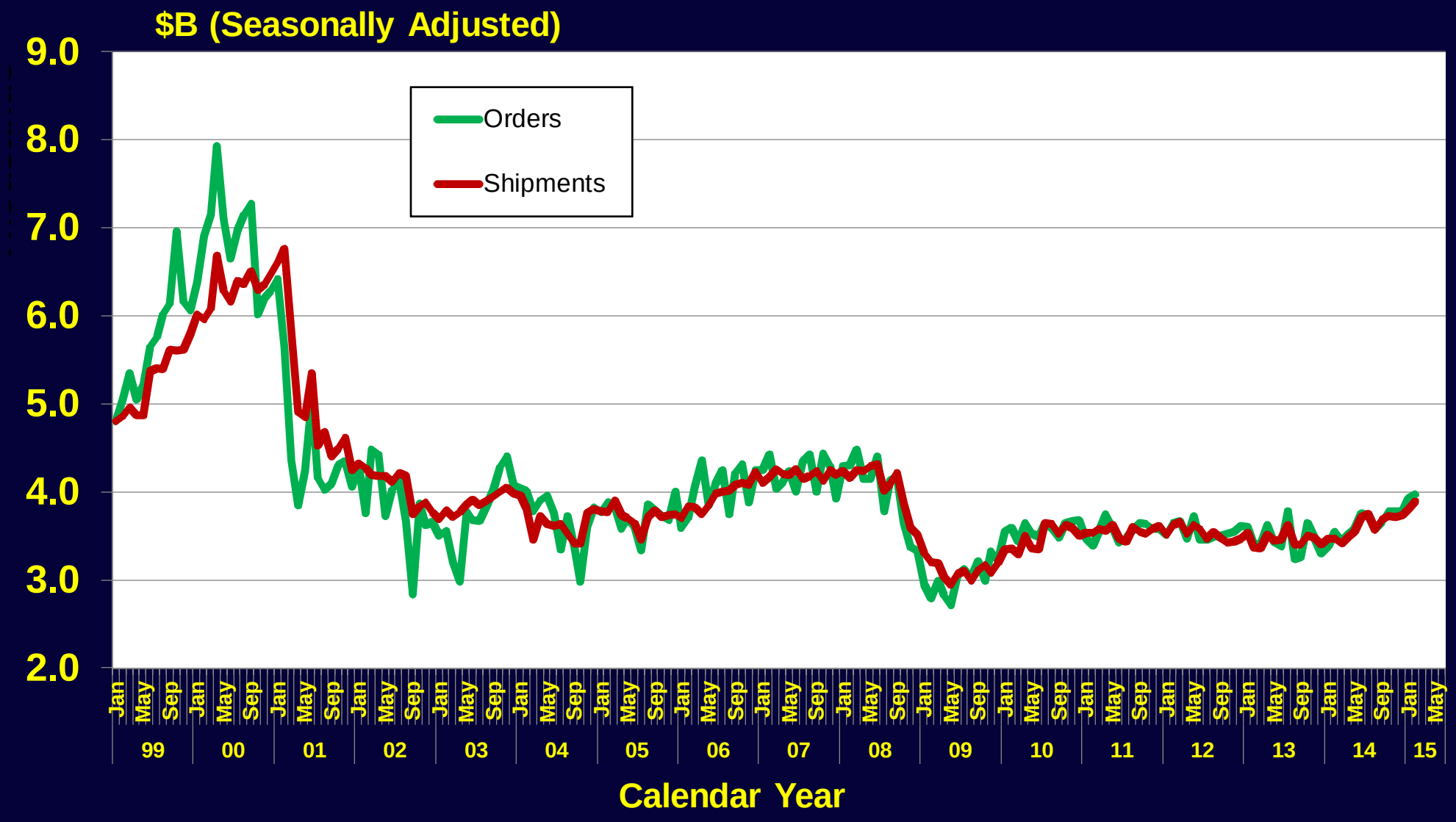


www.census.gov/indicator/www/m3/

Chart 22

U.S. Production: "Other" Electronic Components (excludes semiconductors)

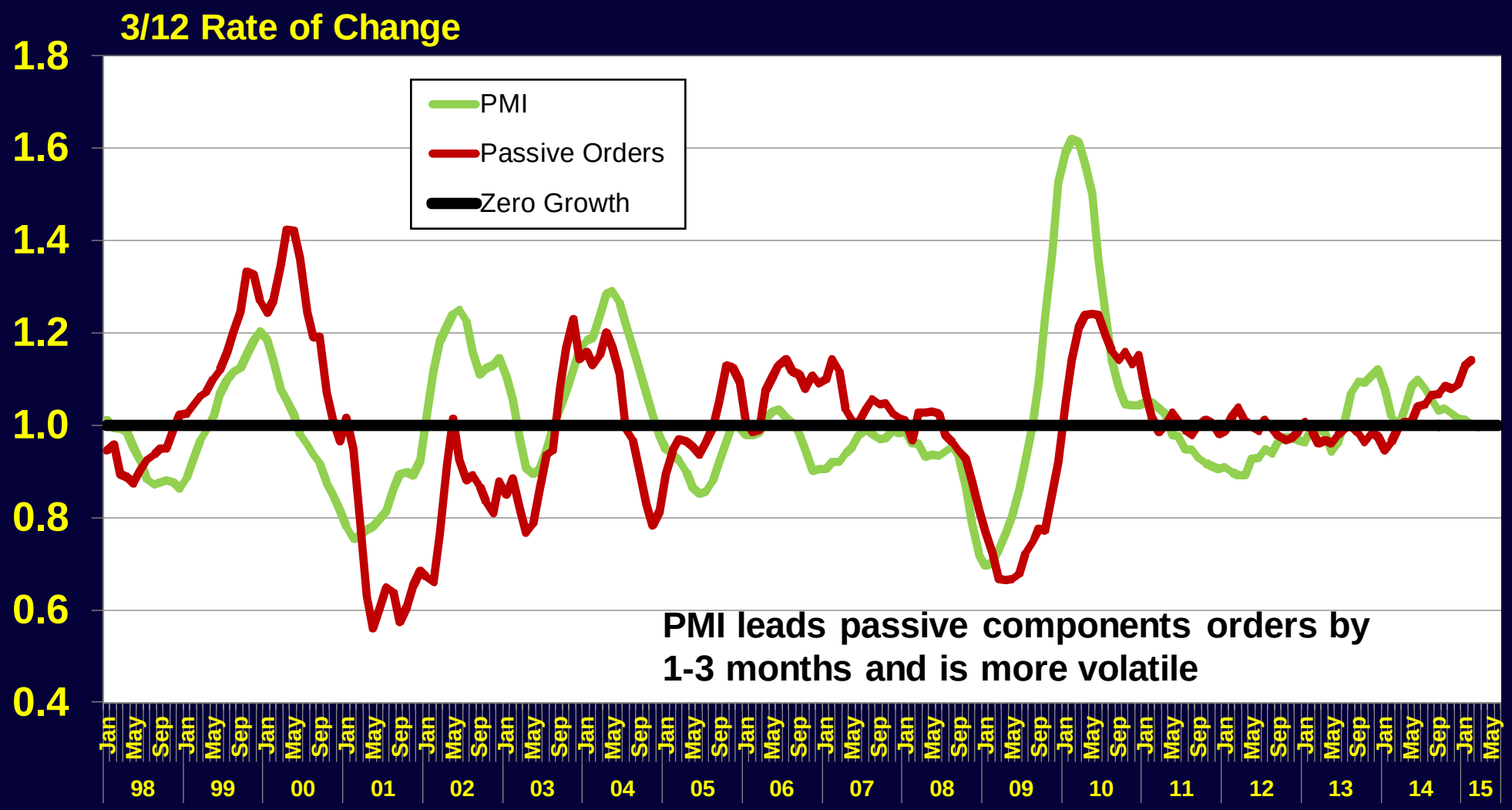
Orders & Shipments



http://www.census.gov/indicator/www/m3/

Chart 23

U.S. Passive Component Orders vs. U.S. PMI



Institute for Supply Management www.ism.ws/
U.S. Dept of Commerce

Chart 24

Monthly Semiconductor Shipments $ Billions (3-month average)

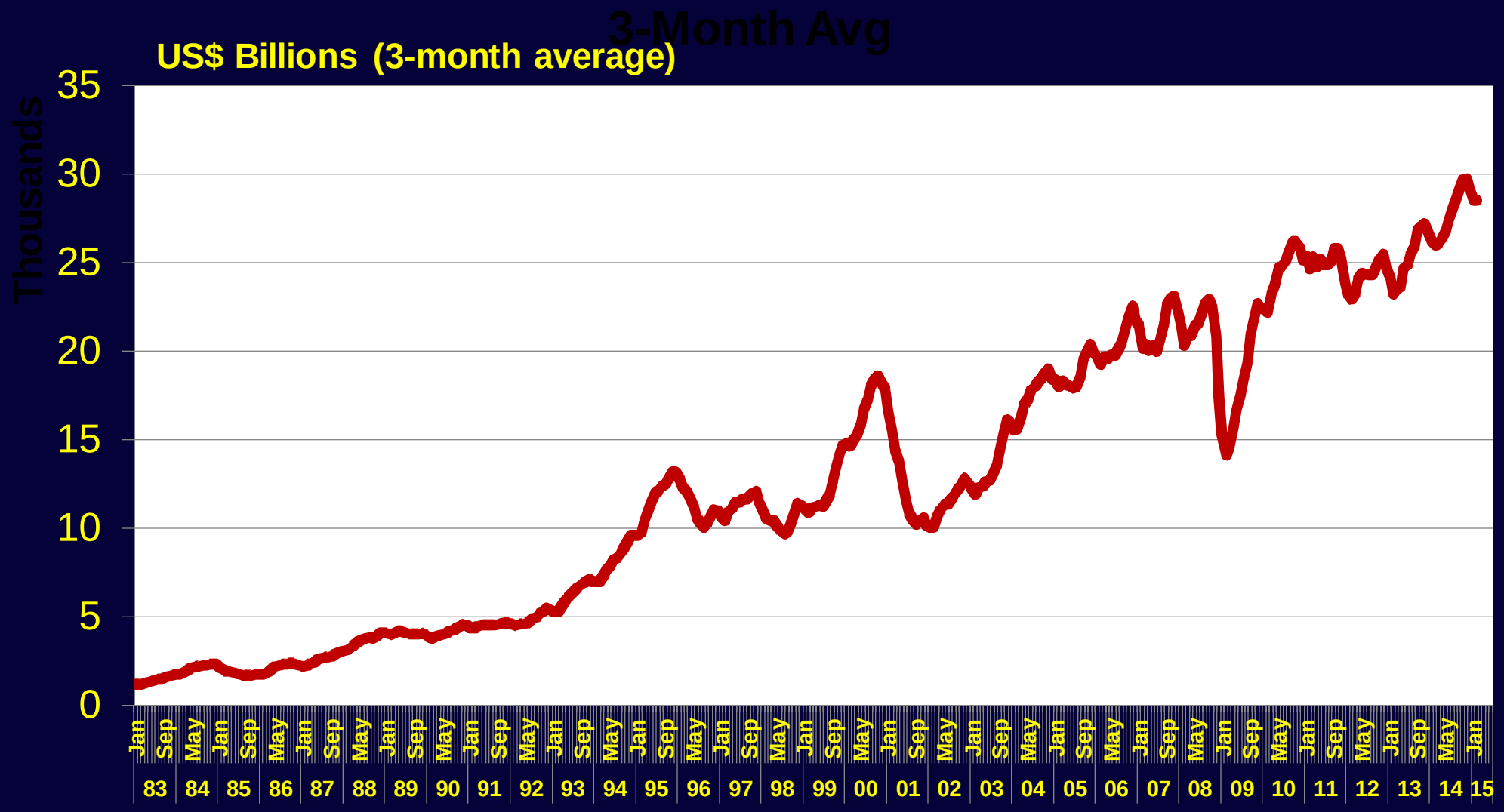
	2/14	2/15	% CH
Americas	5.32	6.23	+ 17.1%
Europe	2.96	2.90	- 2.0%
Japan	2.81	2.56	- 8.8%
Asia Pacific	14.96	16.10	+ 7.6%
Total	26.04	27.79	+ 6.7%

SIA www.sia-online.org/

Chart 25

World Semiconductor Shipments

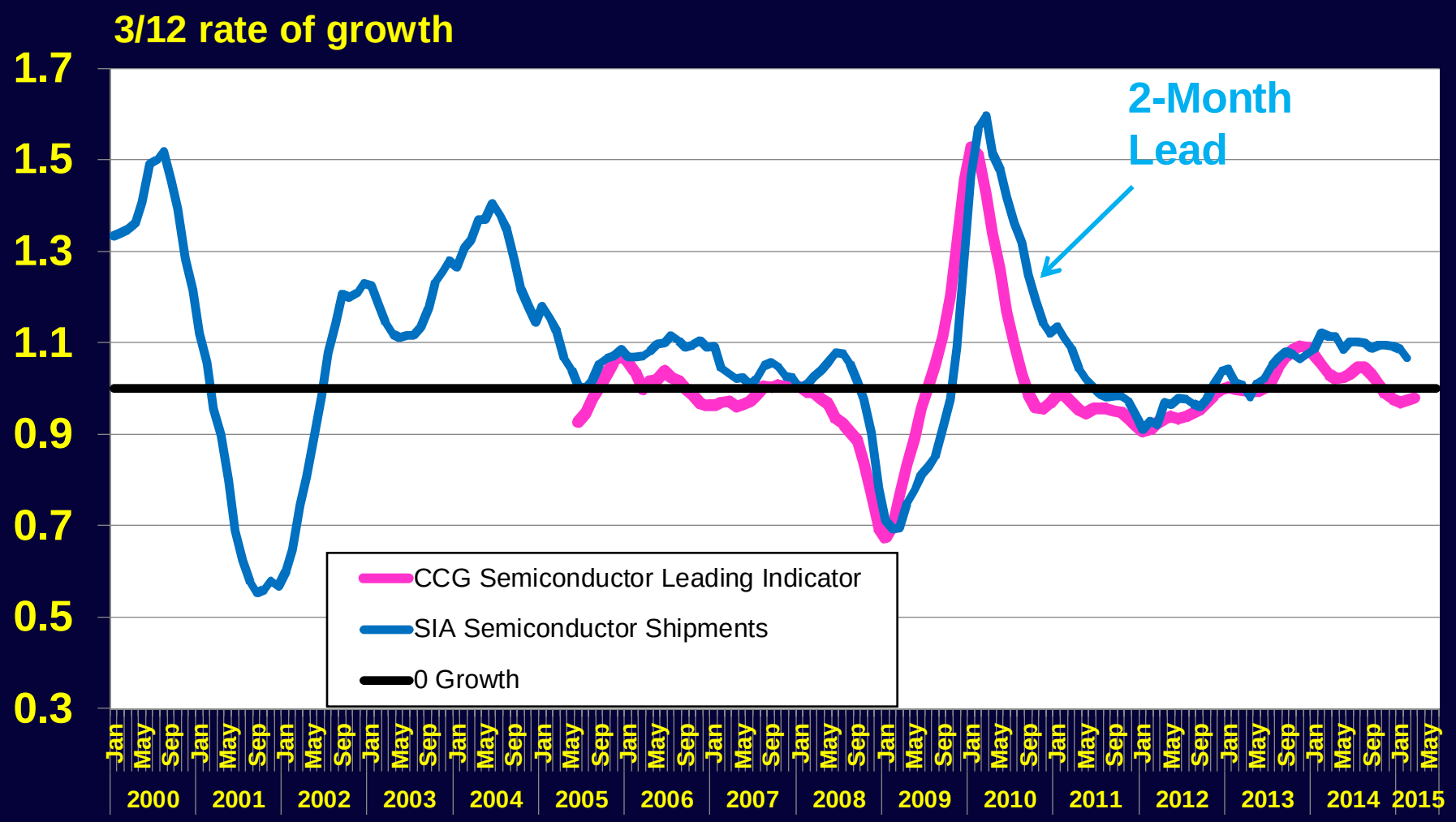
Monthly US$



SIA

Chart 26

CCG Semiconductor Leading Indicator vs. Global Semiconductor Shipments

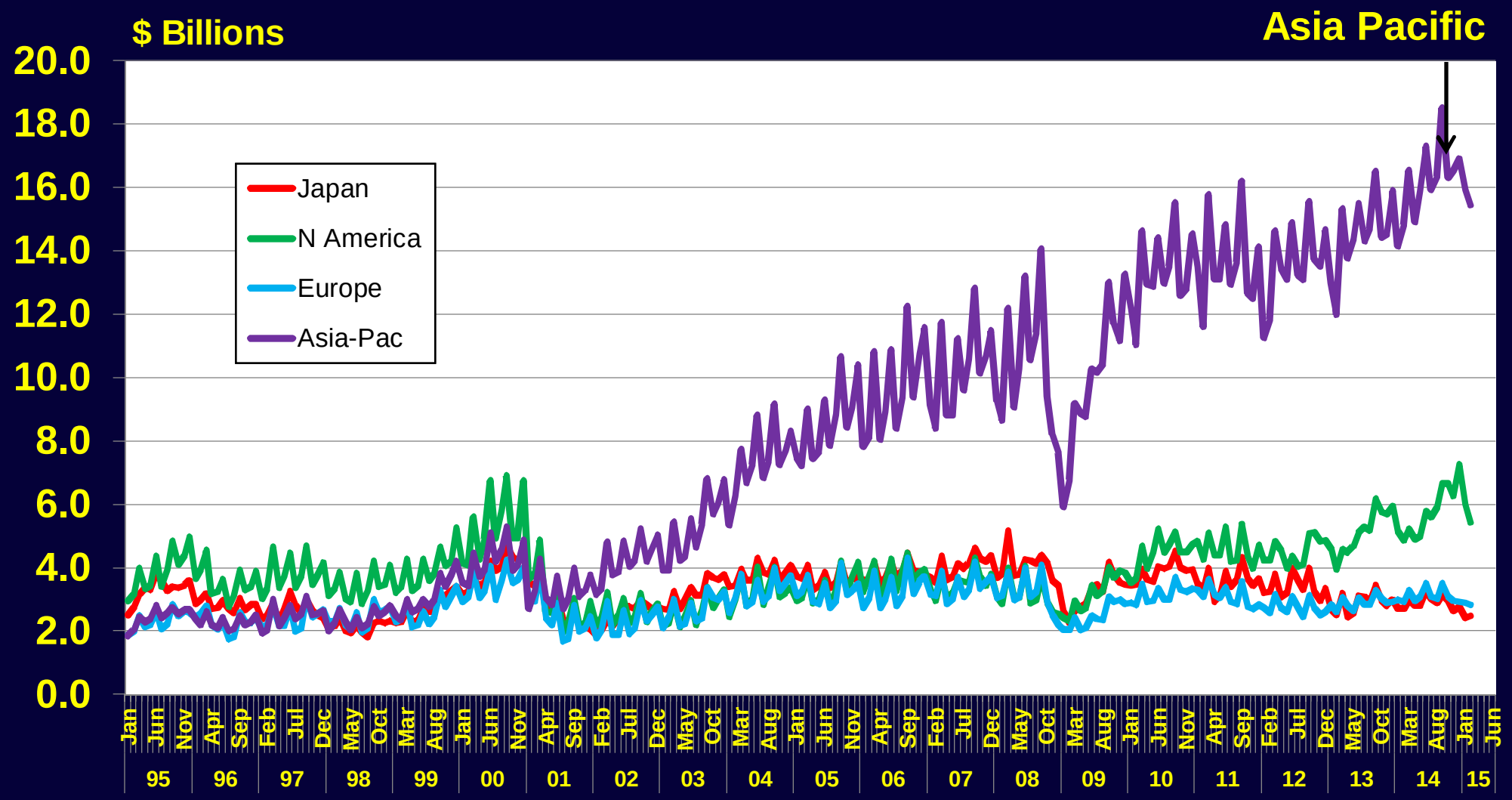


http://www.census.gov/indicator/www/m3/

Chart 27

Total Semiconductor Shipments to an Area

Monthly Shipments - Reporting Firms

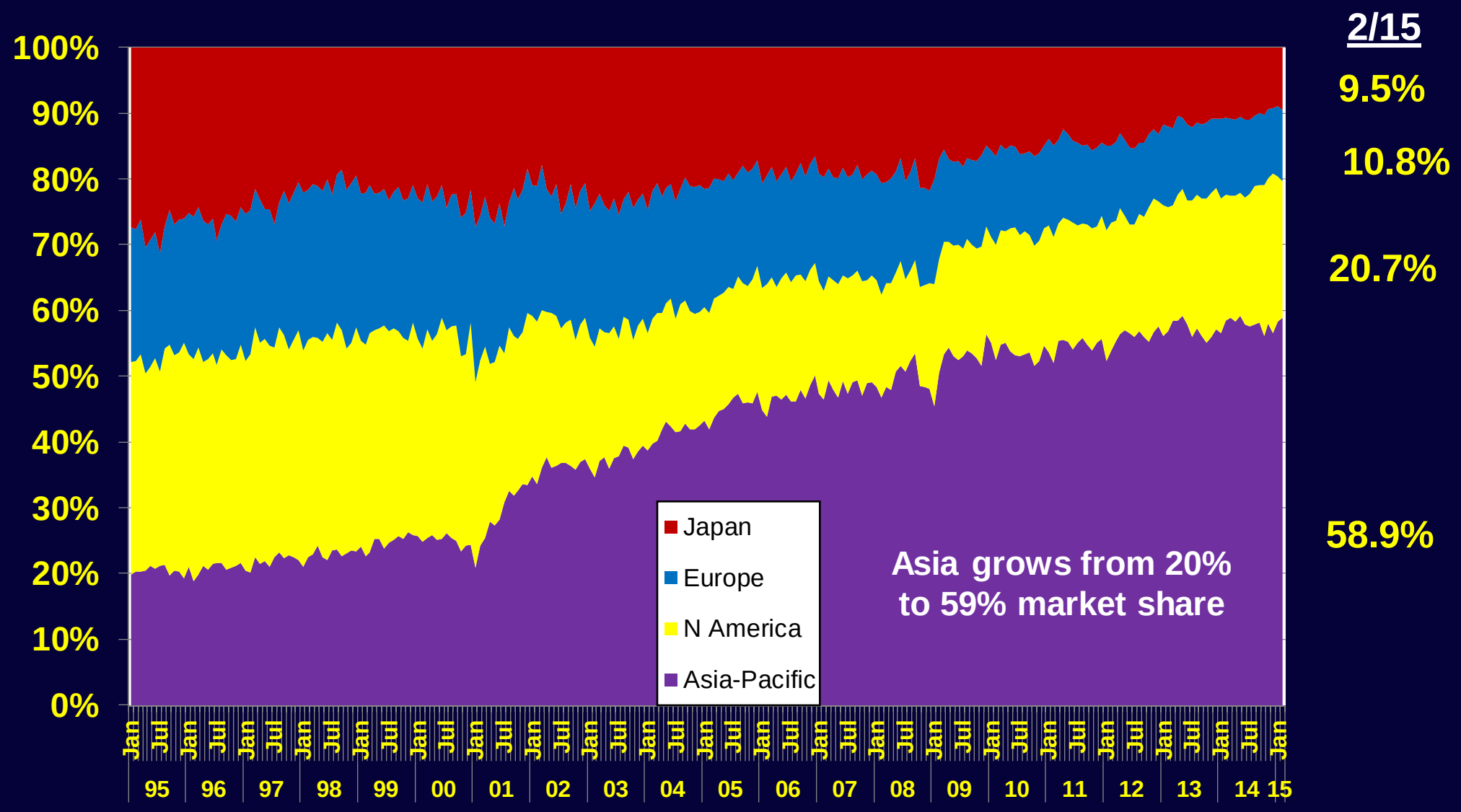


SIA website: www.sia-online.org/

Chart 28

Total Semiconductor Shipments to an Area

Monthly Shipments - Reporting Firms

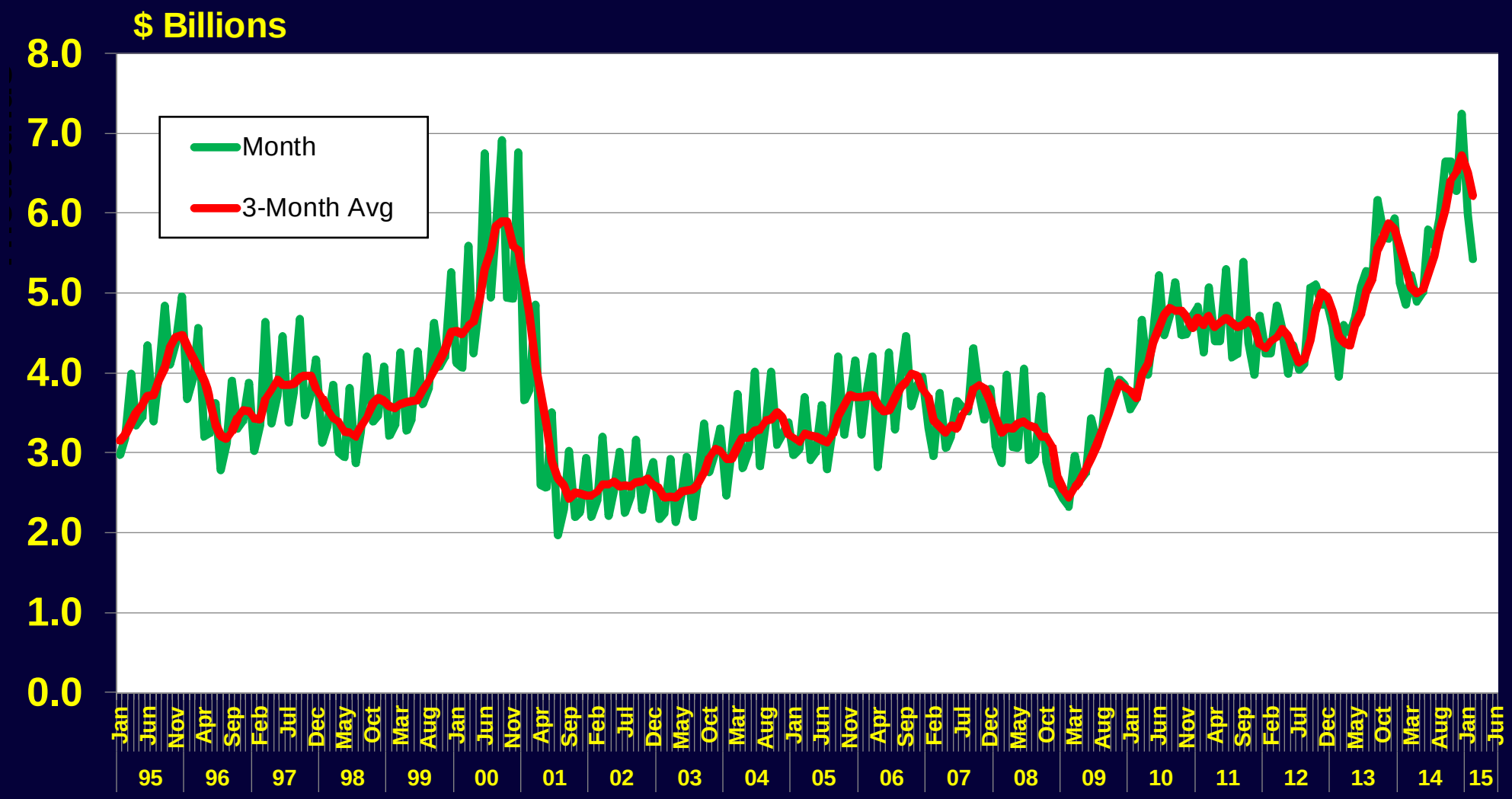


SIA website: www.sia-online.org/

Chart 29

N American Semiconductor Shipments

Monthly & 3-Month Average Shipments



SIA website: www.sia-online.org/

Chart 30

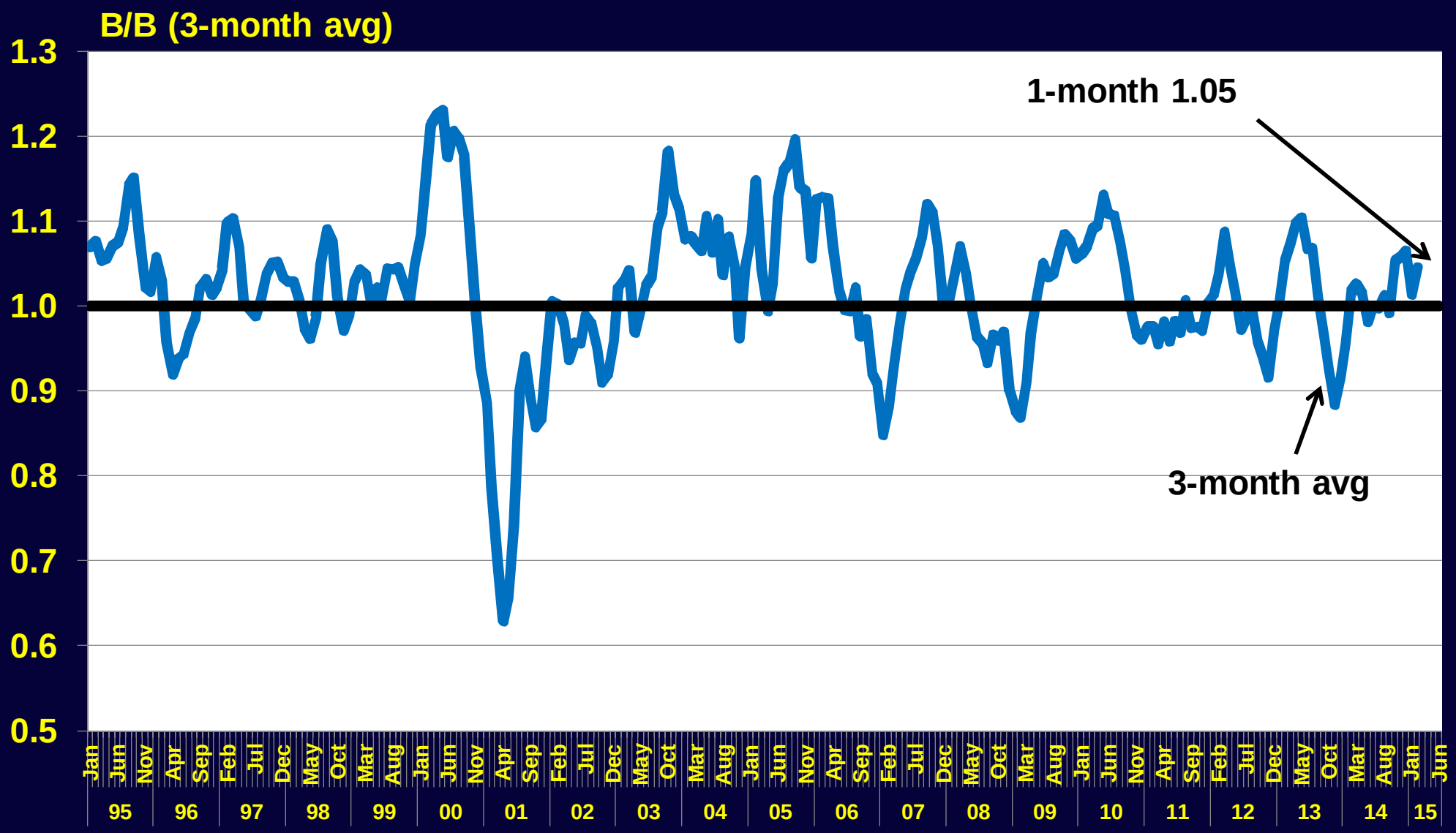
2014 Worldwide Semiconductor Vendors Top 10 by Revenue (US$ millions)

Rank	Maker	2014	2014/2013
1	Intel	52,331	7.7%
2	Samsung Electronics	34,742	13.4%
3	Qualcomm	19,291	12.1%
4	Micron Technology	16,278	36.6%
5	SK Hynix	15,997	26.7%
6	Texas Instruments	11,538	8.9%
7	Toshiba	10,665	-5.4%
8	Broadcom	8,428	2.8%
9	STMicroelectronics	7,376	-8.7%
10	Renesas Electronics	7,276	-8.8%
	Others	156,409	5.5%
	Total	340,331	7.9%

Chart 31

Rigid & Flexible PCB Book/Bill

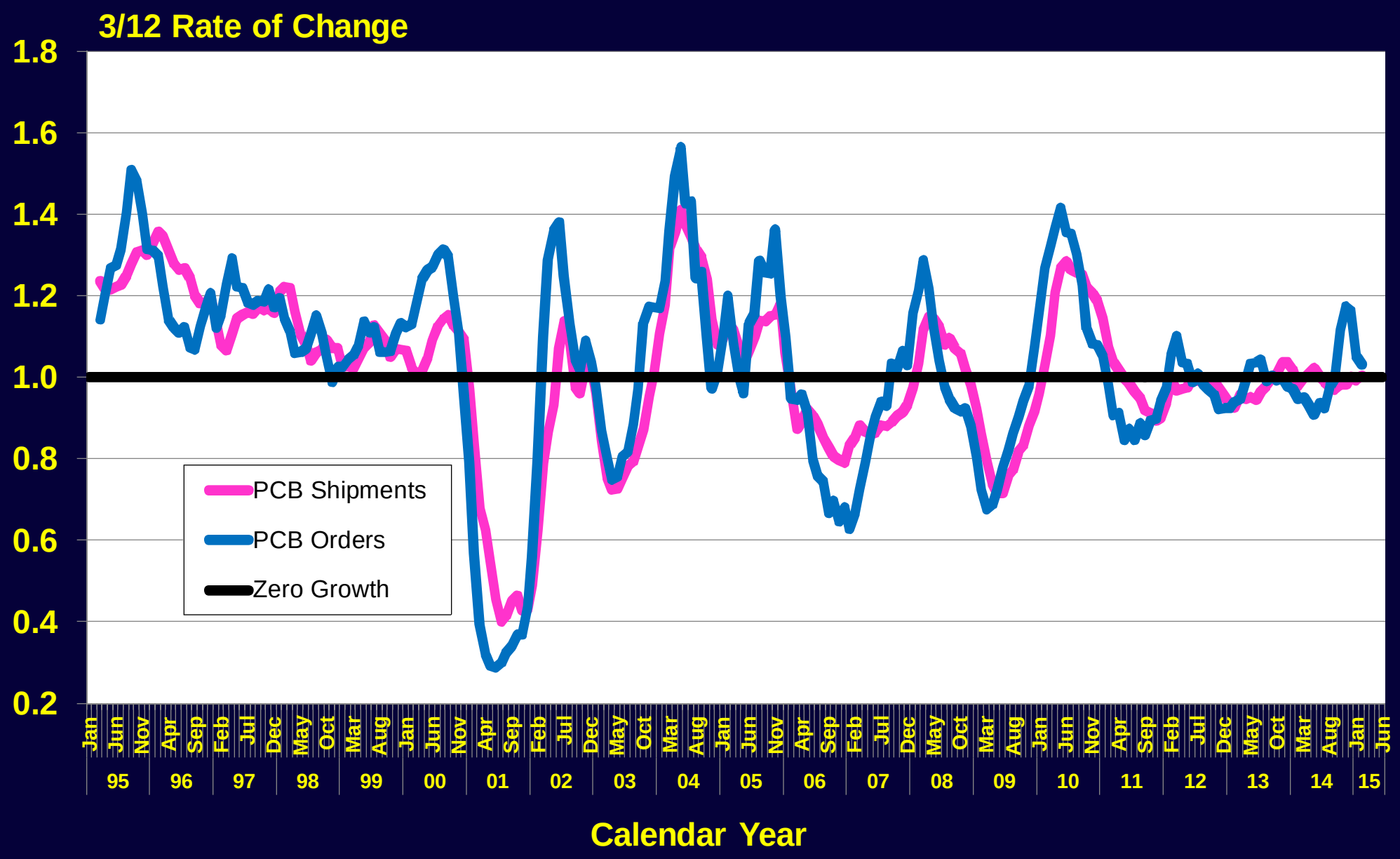
N. America



IPC

Chart 32

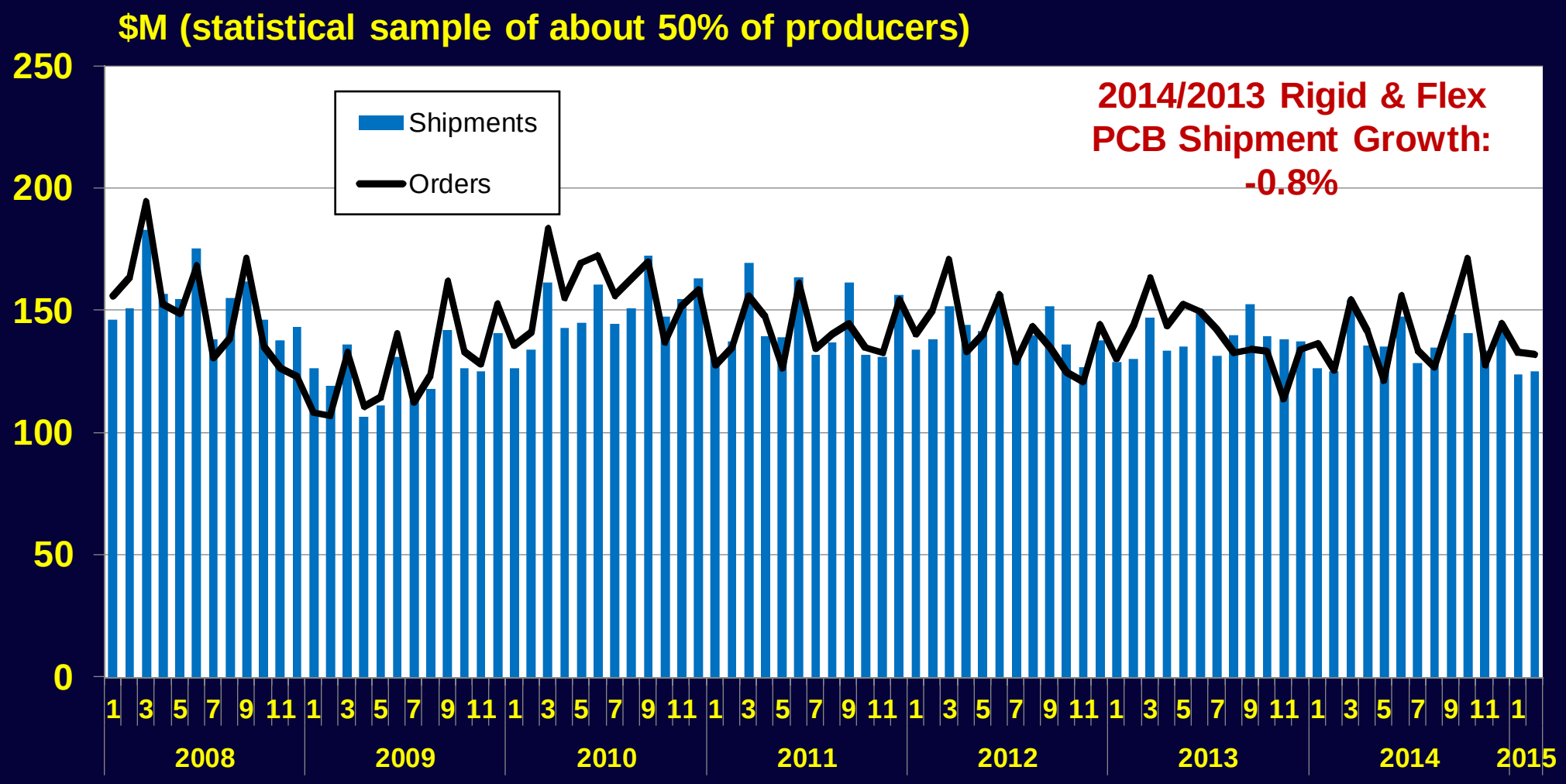
N. America Rigid & Flexible PCB Orders & Shipments



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

Chart 33

N American Rigid & Flexible PCB Shipments & Orders

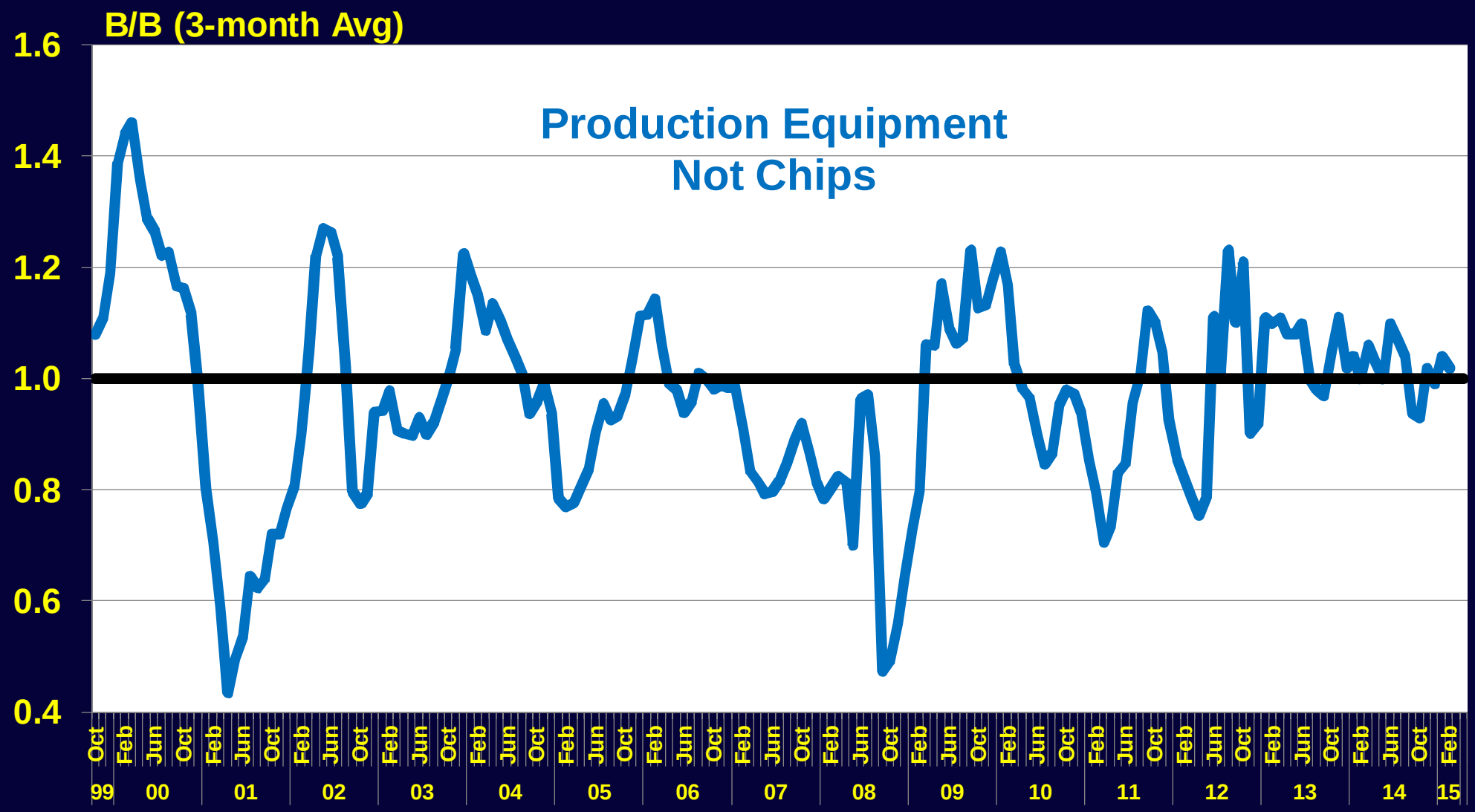


Note: IPC survey captures "market" not domestic production. About 15% of the above represents imported boards resold by N American PCB producers in survey.

IPC

Chart 34

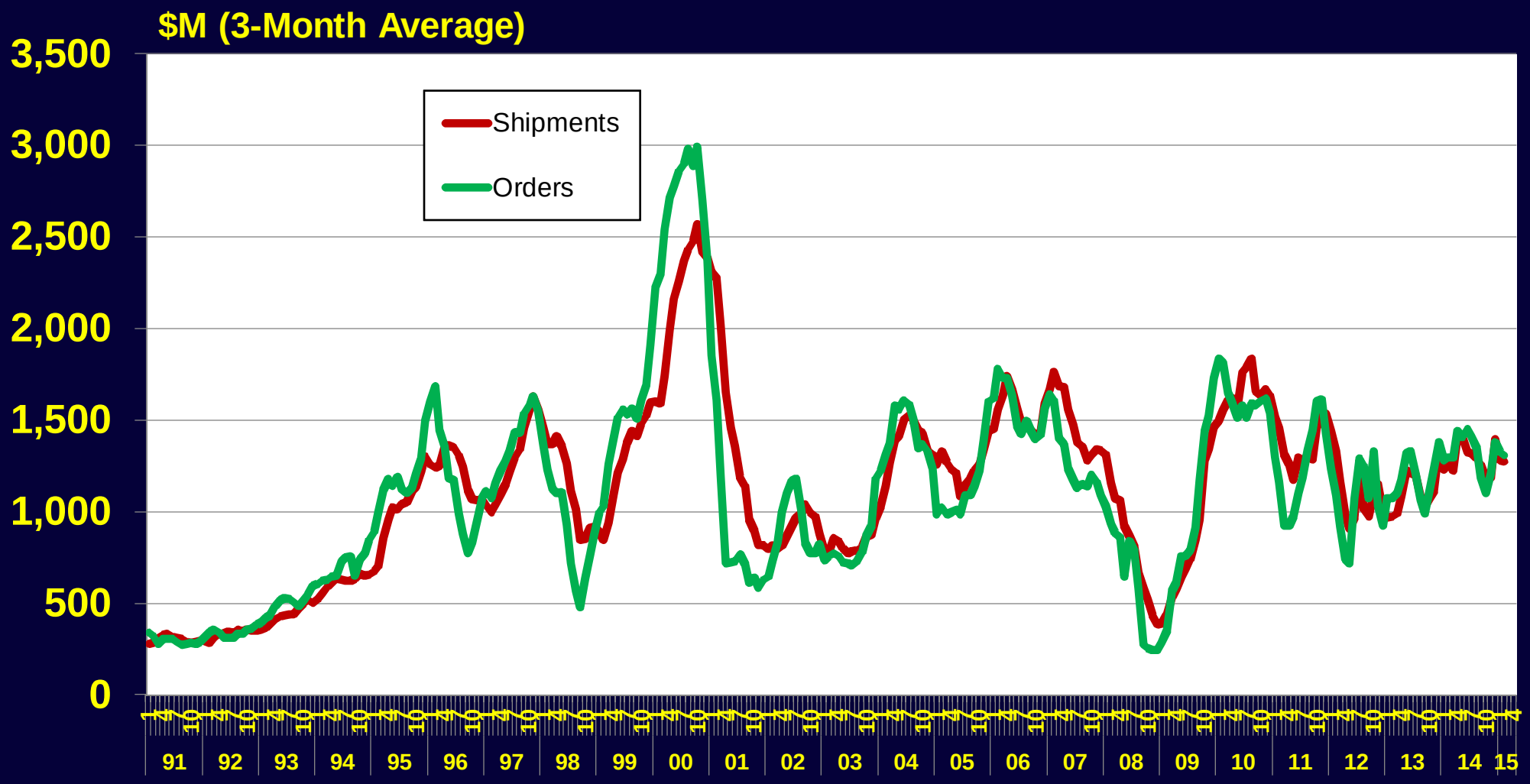
N American Semiconductor Equipment Industry Book/Bill Ratio



SOURCE Semiconductor Equipment and Materials International
http://www.semi.org

Chart 35

N American Semiconductor Equipment Industry Shipments & Orders



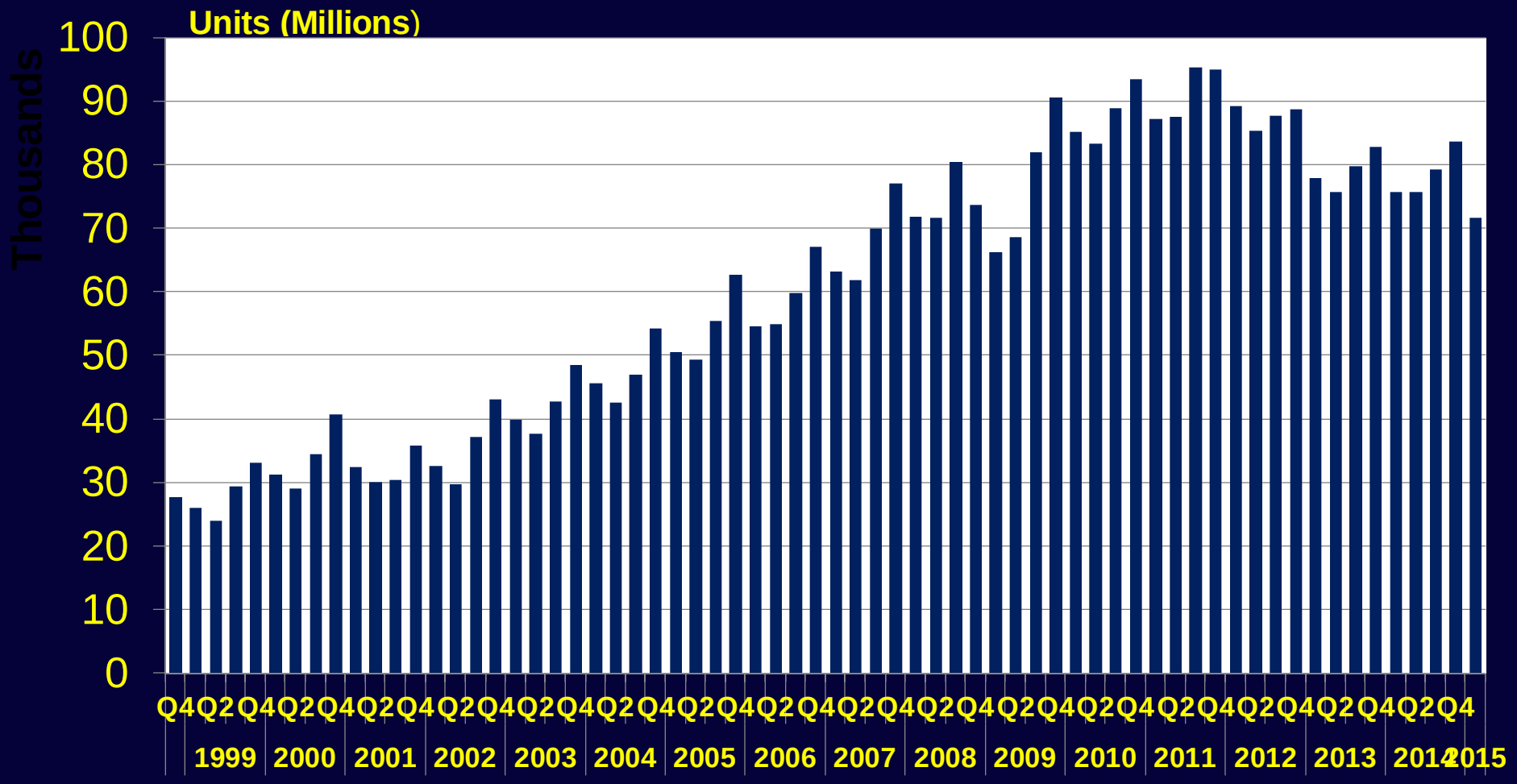
SOURCE Semiconductor Equipment and Materials International
http://www.semi.org

Chart 36

Personal Computer Unit Shipments

World

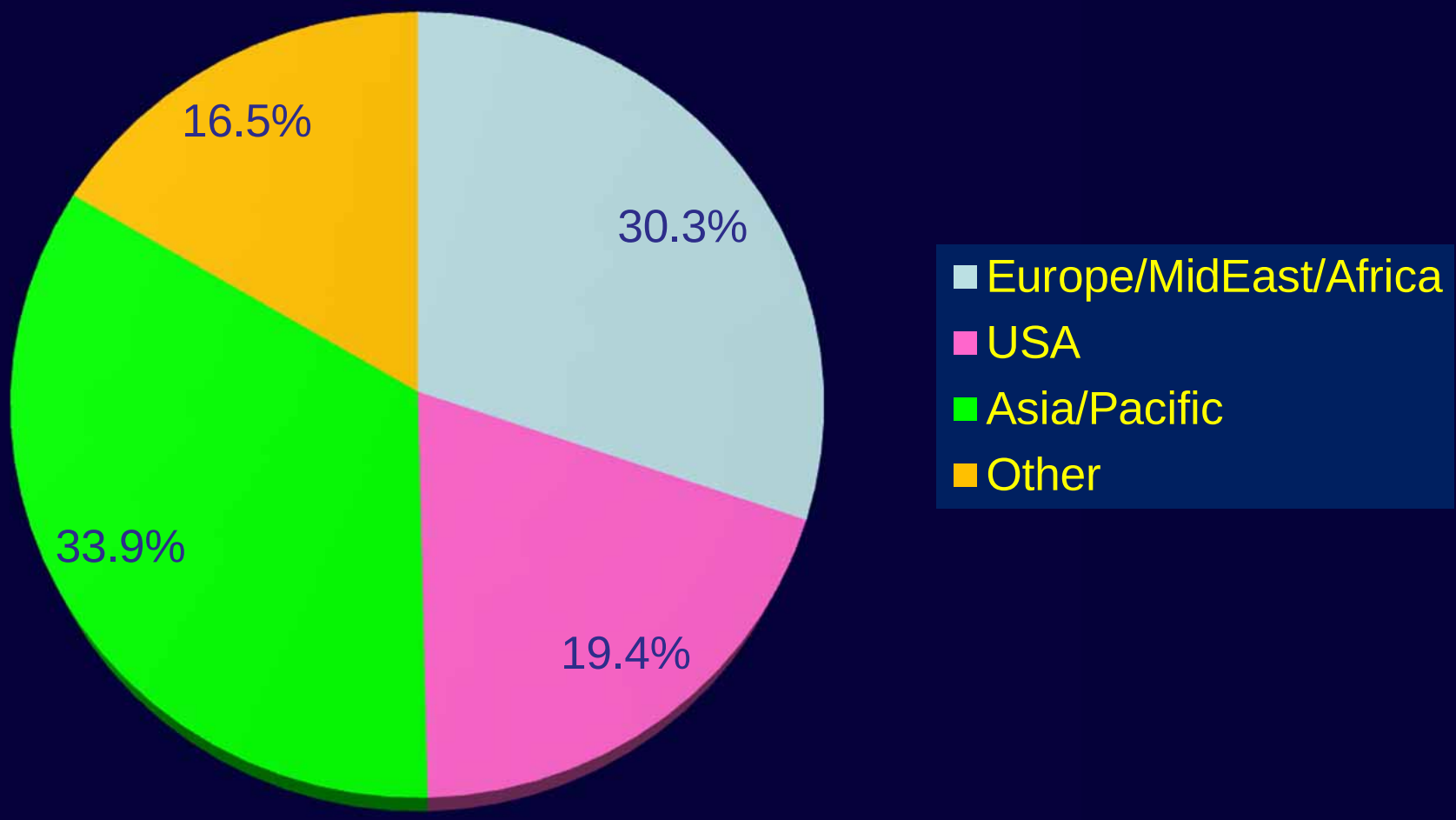
Units



Gartner Dataquest 4/15 & prior reports
Server & Media Tablets not included

Chart 37

World Personal Computer Market 1Q'15



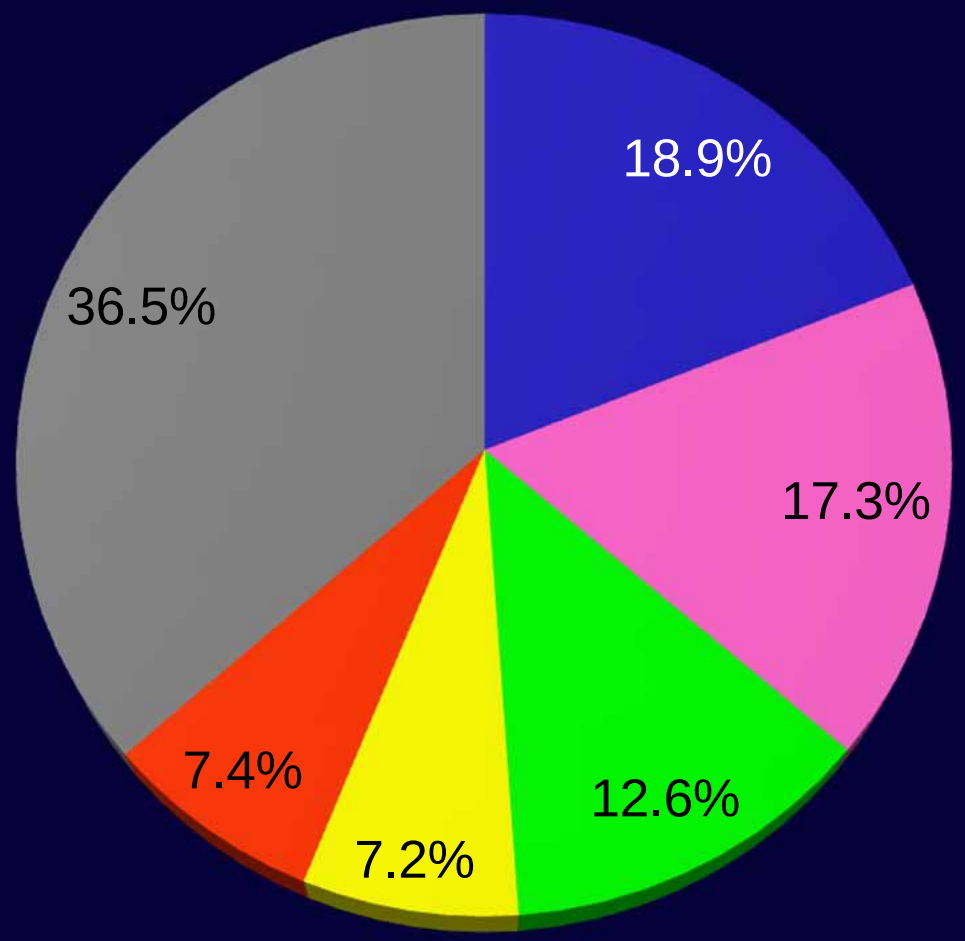
TOTAL: 71.7 Million Units

Includes desk-based PCs, mobile PCs, mini-notebooks but not Media Tablets

Gartner 4/15

Chart 38

World Personal Computer Market 1Q'15



- Lenovo
- HP
- Dell
- Acer Group
- Asus
- Other

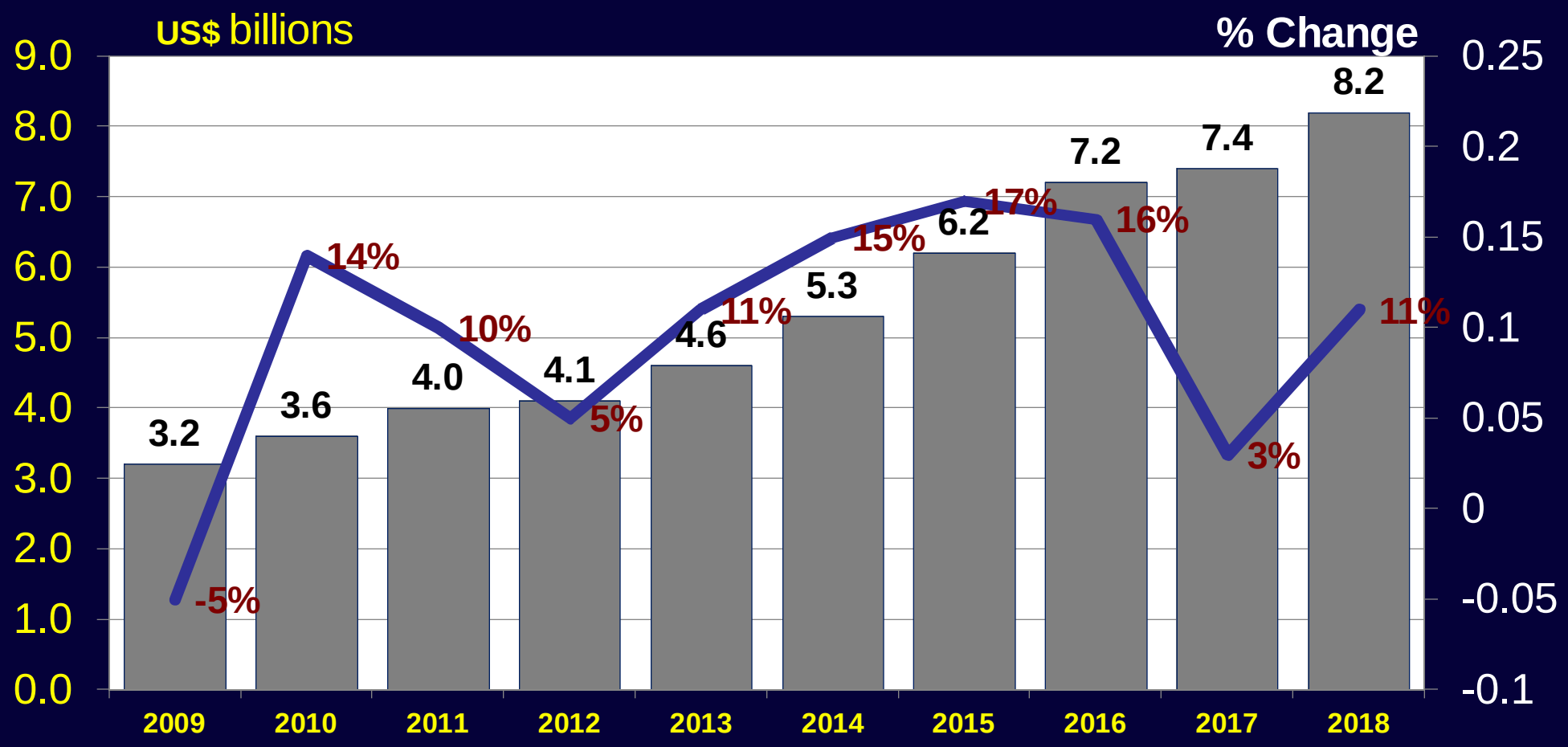
TOTAL: 71.7 Million Units

Includes desk-based PCs, mobile PCs, mini-notebooks but not Media Tablets

Gartner 4/15

Chart 39

Medical Semiconductor Market Forecast



IC Insights 3/15

Chart 40

Wearable Computing Device Shipments by Category World Units (millions)

	2014	2015	2019
Wristwear	17.7	40.7	101.4
Modular	1.6	2.6	6.7
Clothing	0	0.2	5.6
Eyewear	0.1	1.0	4.5
Earwear	0	0.1	0.6
Other	0.2	1.1	7.3
Total	19.6	45.7	126.1