

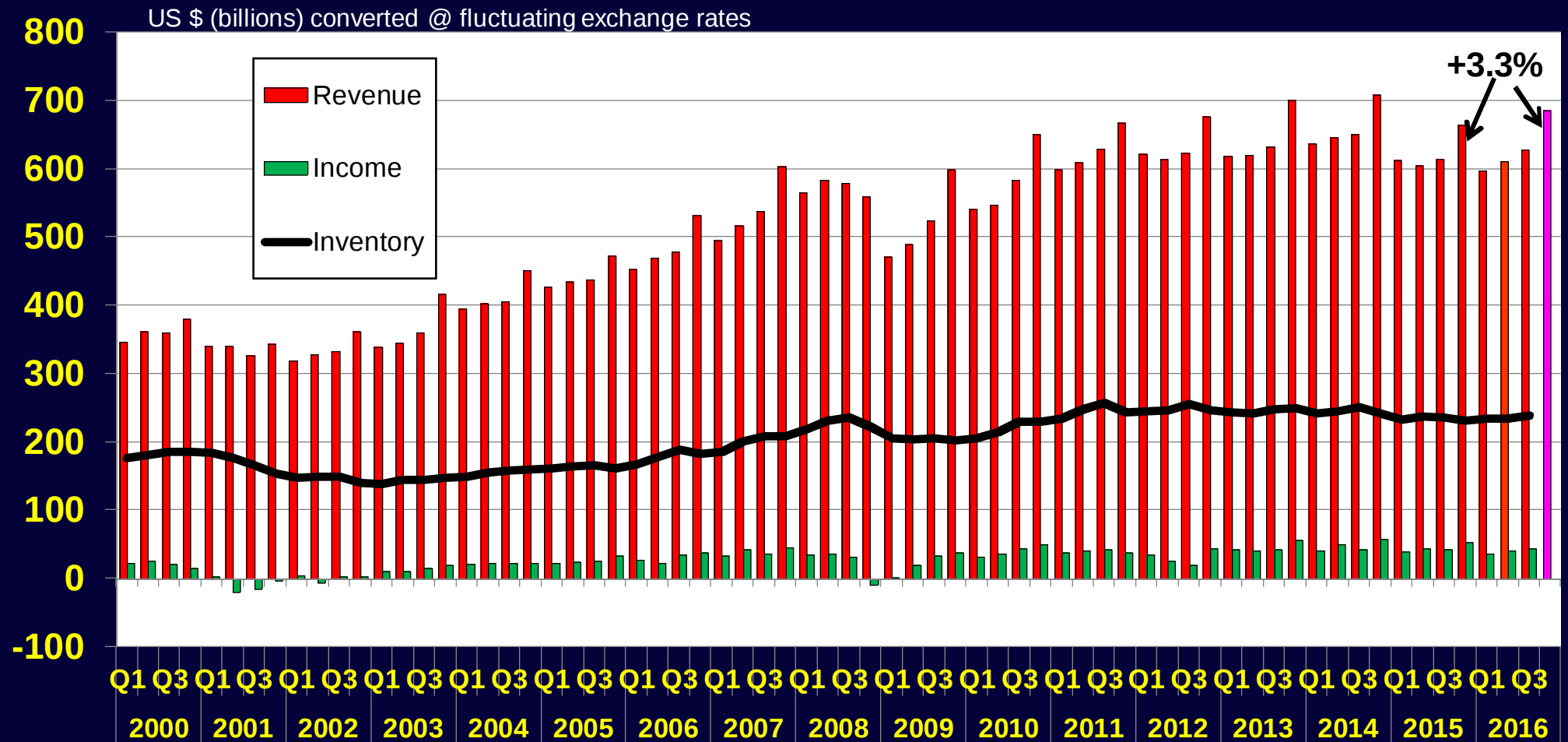
Chart 1

Electronic Equipment Suppliers

Composite of 213 Public Companies

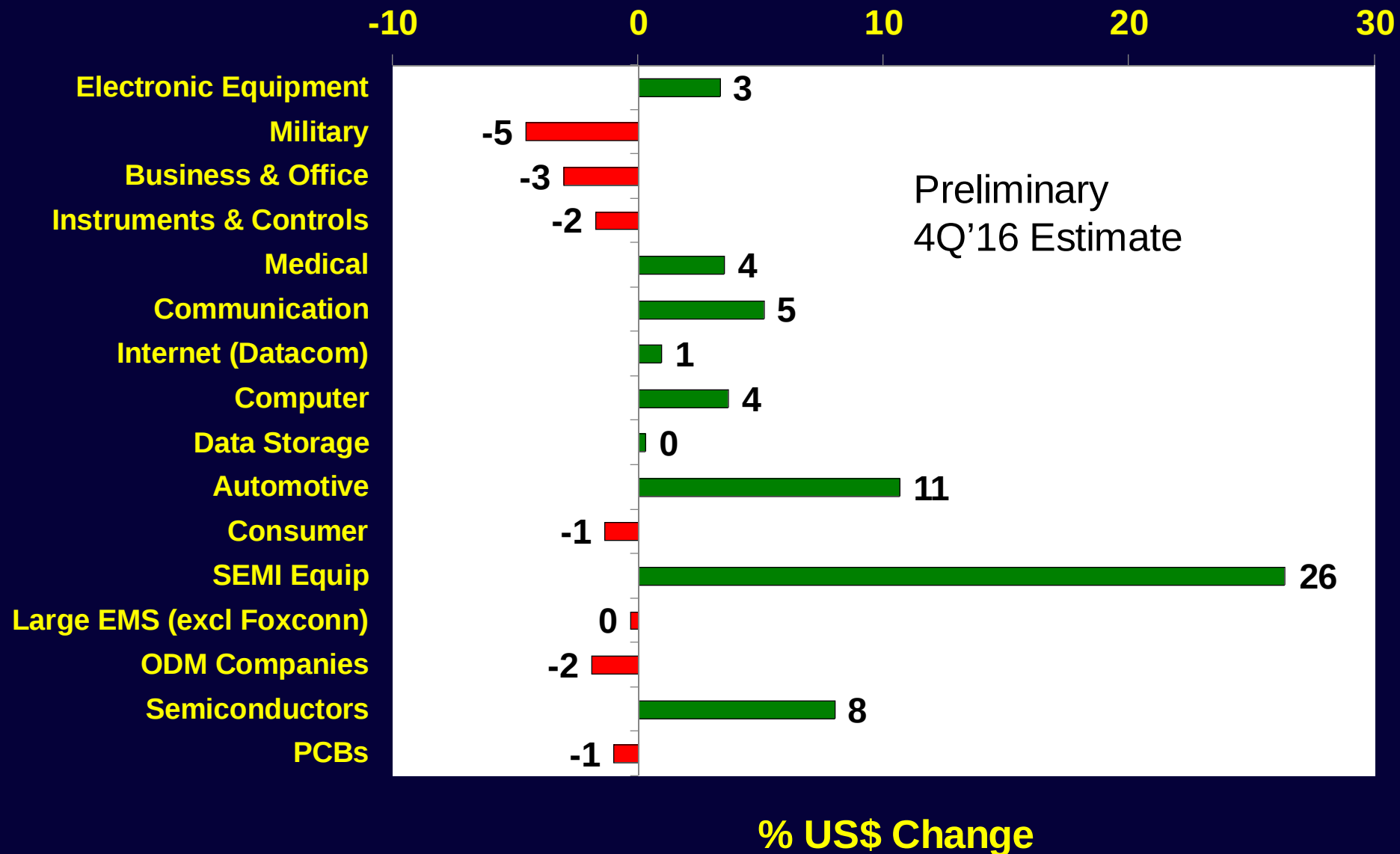
Revenue, Net Income & Inventory

Preliminary



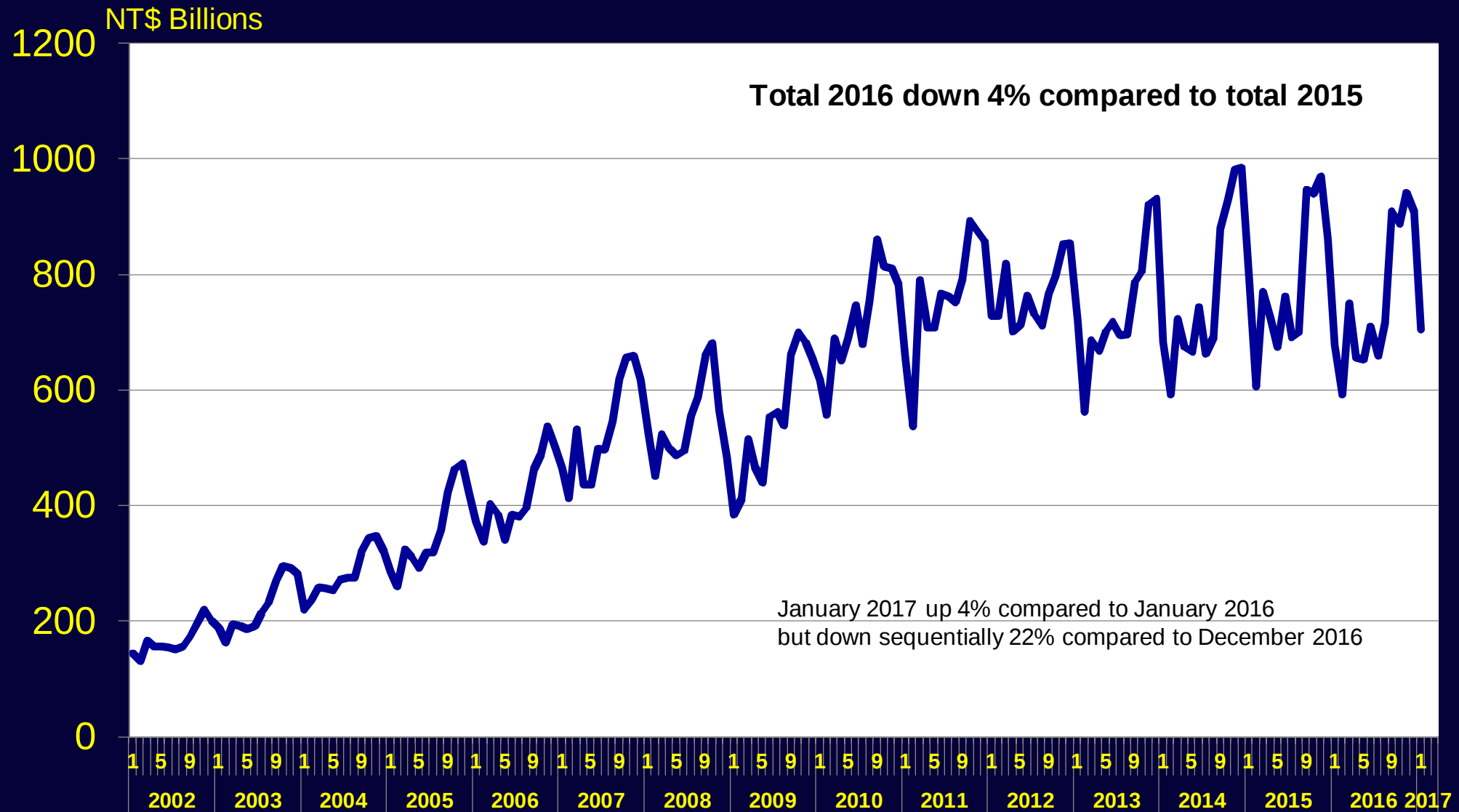
Computer 13, Internet 13, Storage 17, Communication 30, SEMI 40, Medical 21, Instruments 16, Military 21, Business & Office 6, Consumer 21, Automotive 15

Global Electronic Supply Chain Growth 4Q'16 vs. 4Q'15



US\$ equivalent at fluctuating exchange; based upon industry composites including acquisitions

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

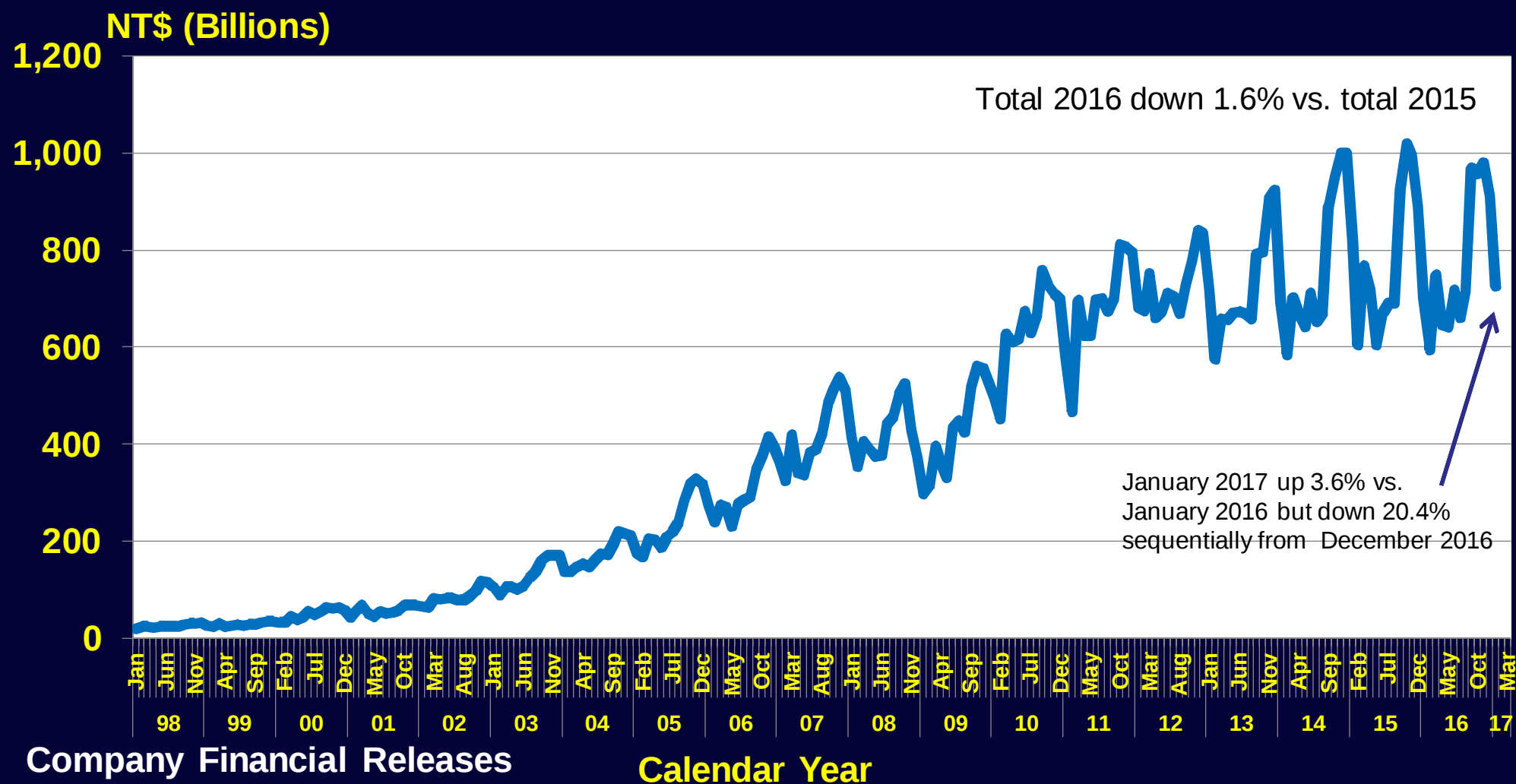


Taiwan listed companies, often with significant manufacturing in China

Chart 4

Taiwan ODM Companies

Composite Sales of 11 Large Manufacturers



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 5

Taiwan Wafer Foundries Composite of 14 Manufacturers



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

Chart 6

Taiwan Wafer Foundry Composite vs. Global Semiconductor Revenues

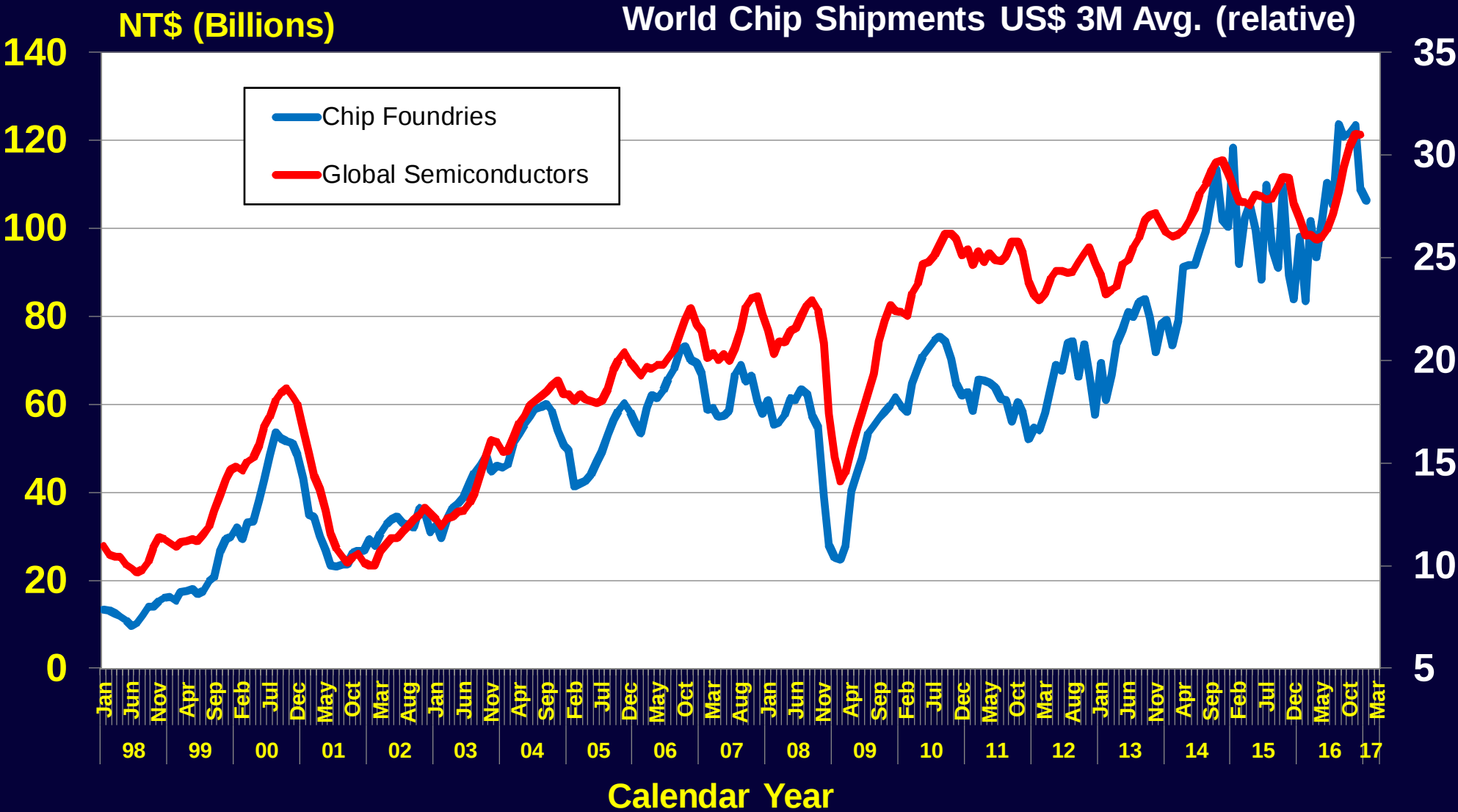


Chart 7

Global Semiconductor Shipments vs. Taiwan Foundry Composite & Global PMI

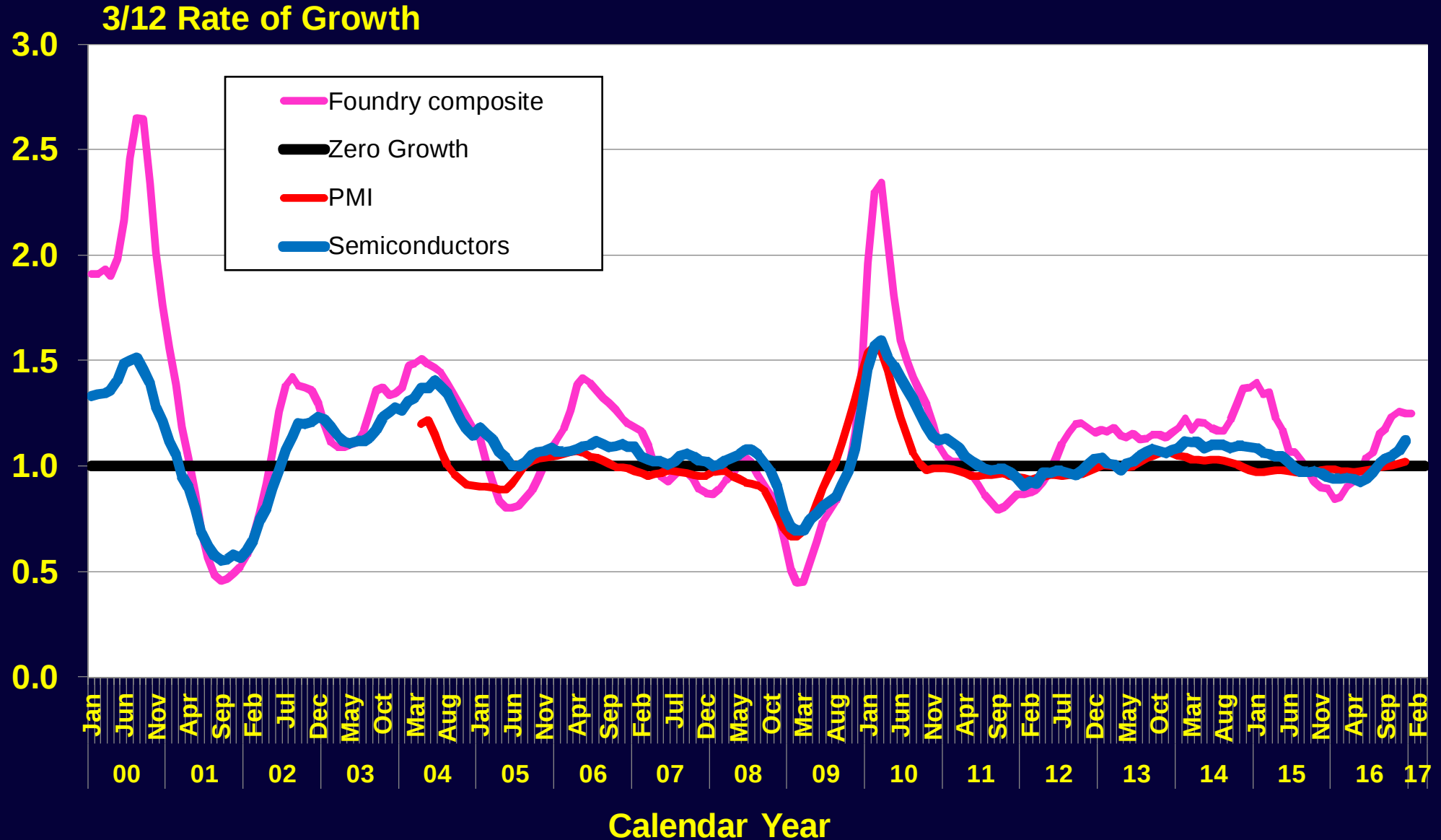
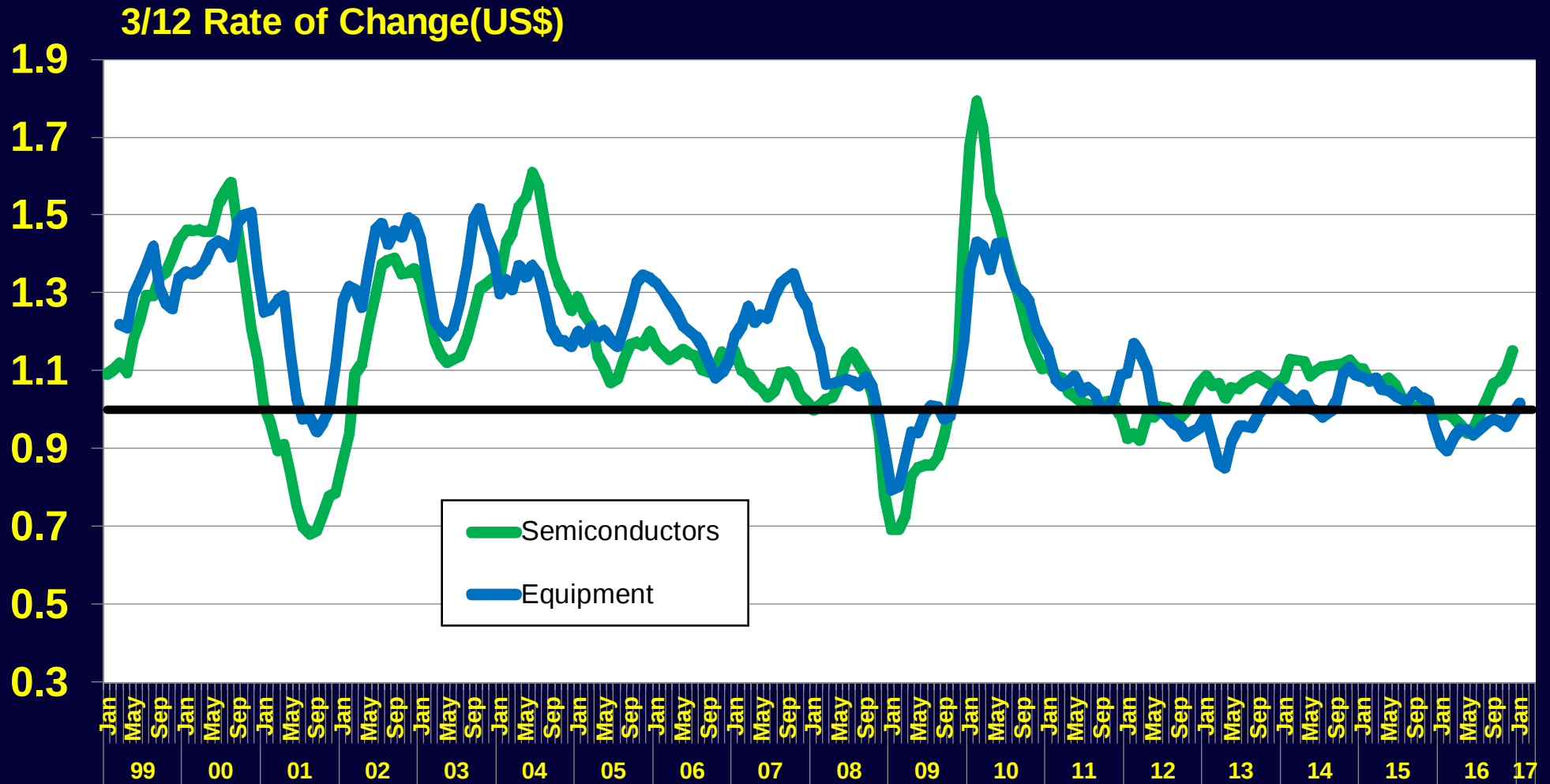


Chart 8

Semiconductor Shipments to Asia/Pacific vs. Taiwan/China Electronic Equipment Production



Total \$ Semiconductor Shipments from All Countries to SE Asia www.sia-online.org/
101 Taiwan listed companies, often with significant manufacturing in China

Chart 9

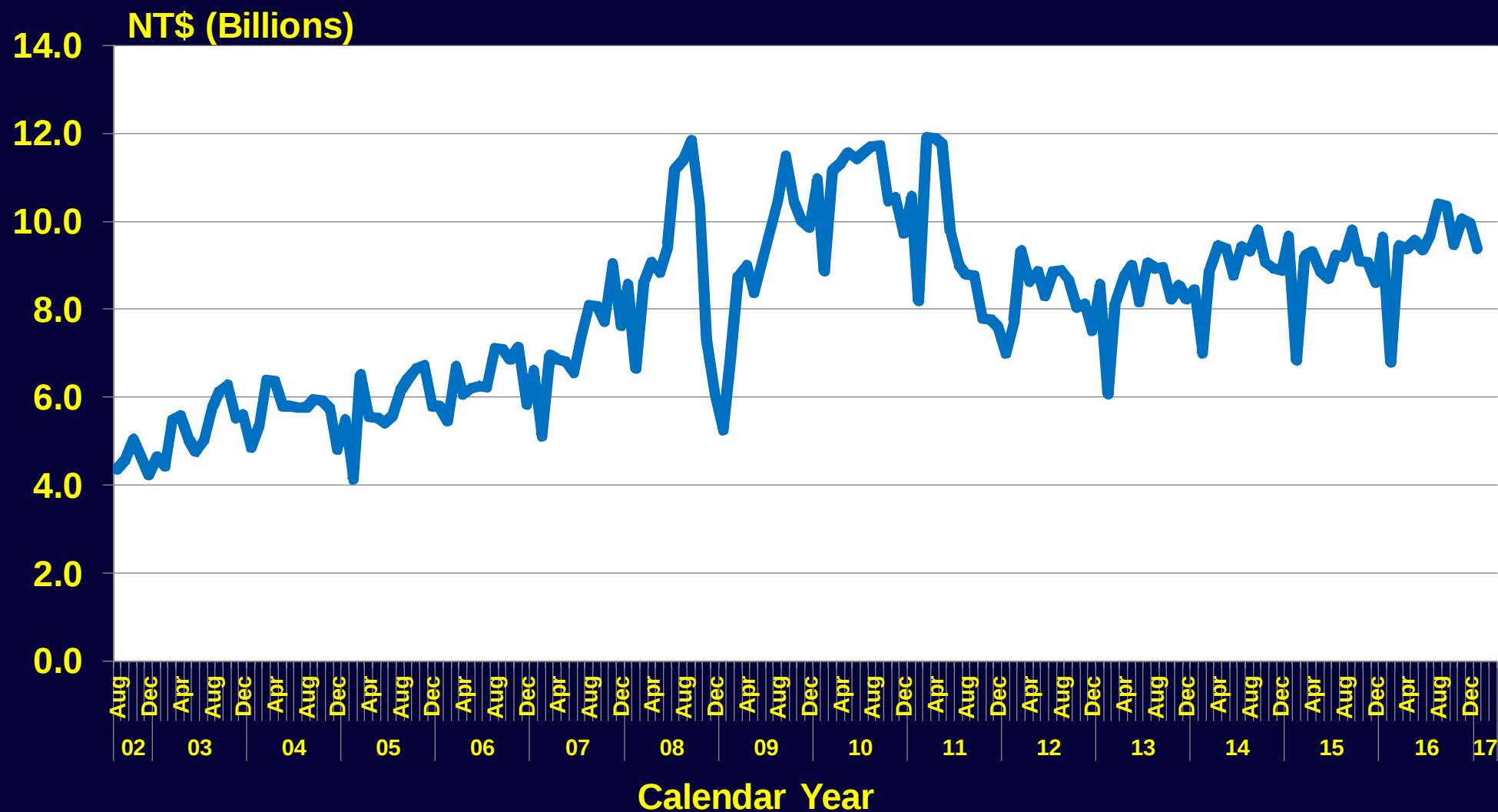
Taiwan Package & Test Companies Composite of 20 Manufacturers



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, Thalín Semiconductor, Vate Tech, Walton Advanced Tech

Chart 10

Taiwan Passive Component Companies Composite Sales of 25 Manufacturers



Chilsin Electronics, Cyntec, (FCE) Feei Cheng Enterprise, Holy Stone Enterprise, 3H (Honey Hope Honest 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)

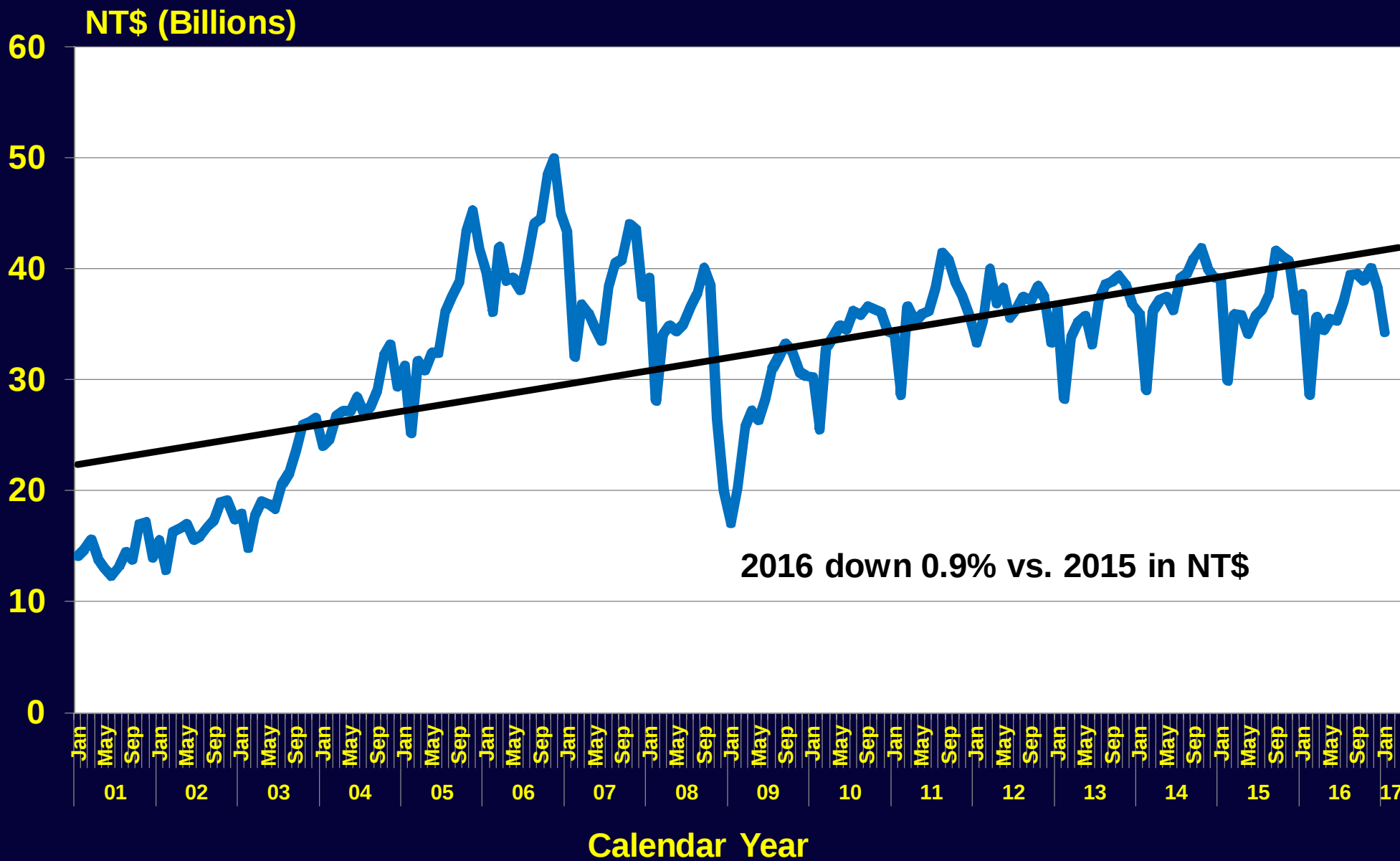
Taiwan Memory Companies Composite of 8 Manufacturers



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

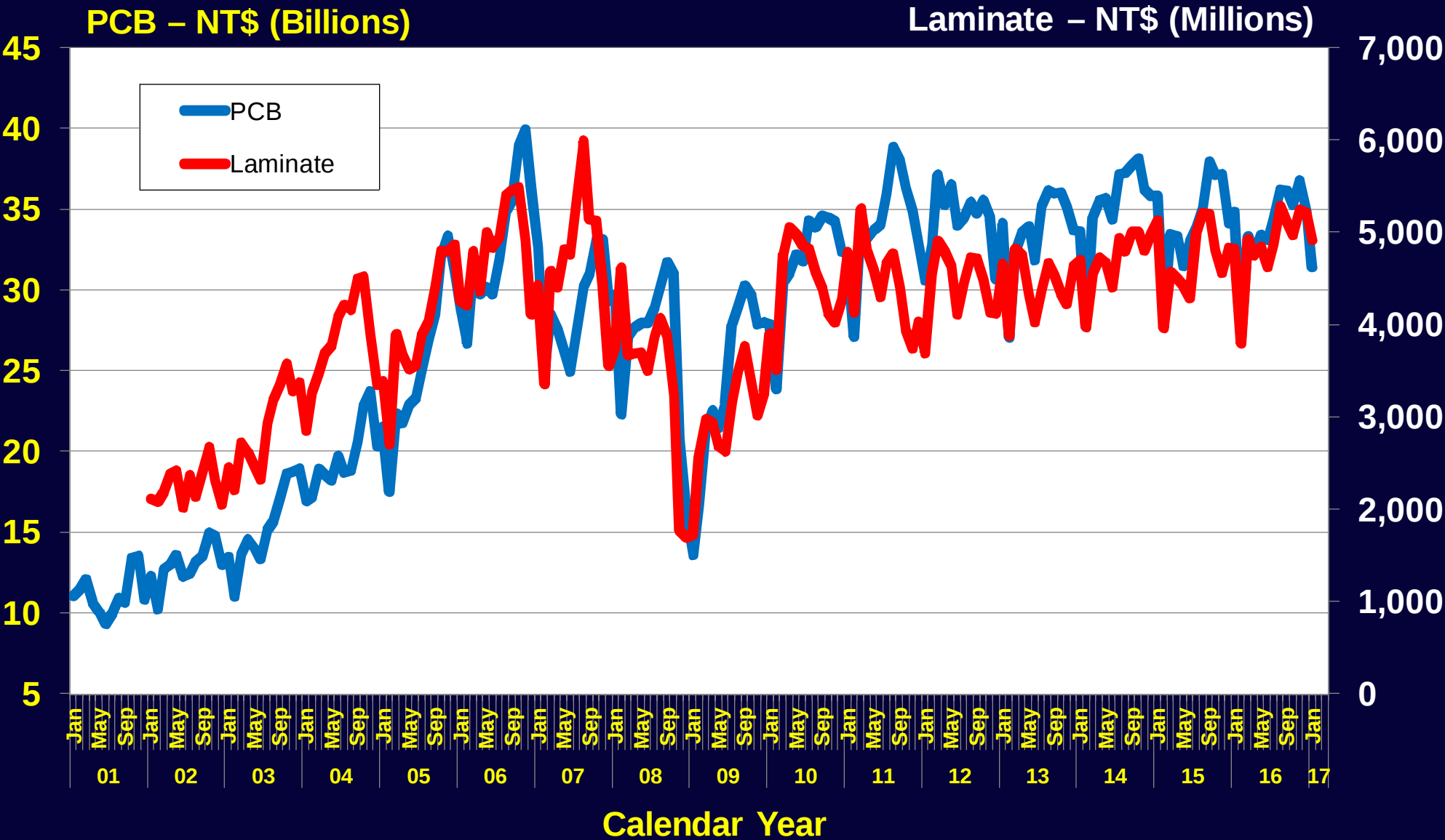
Taiwan Rigid & Flex PCB Shipments

Broad Composite of 46 Taiwan-listed Manufacturers



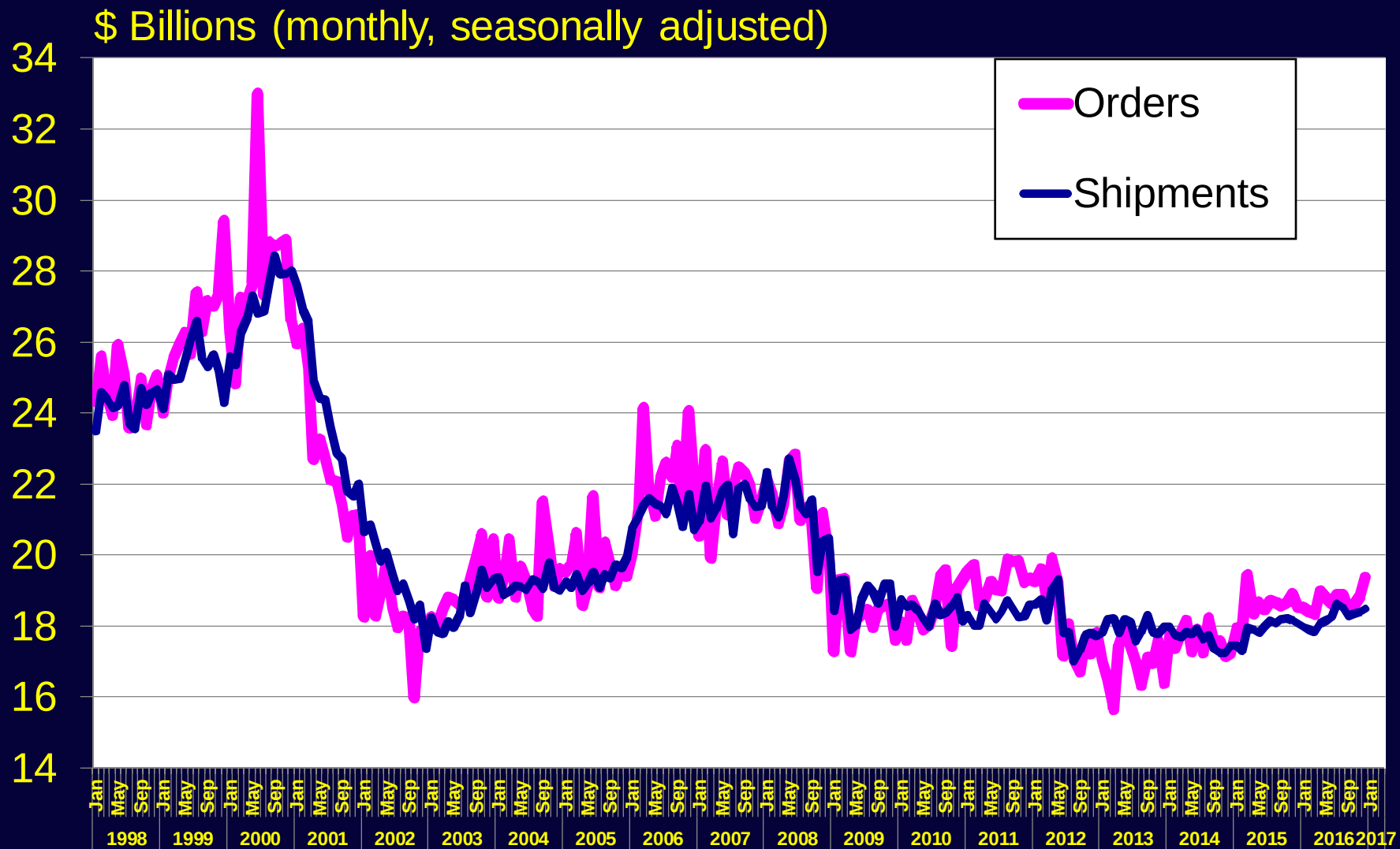
Taiwan Shipments

42 Rigid PCB & 8 Laminate Manufacturers



U.S. Electronic Equipment Orders & Shipments

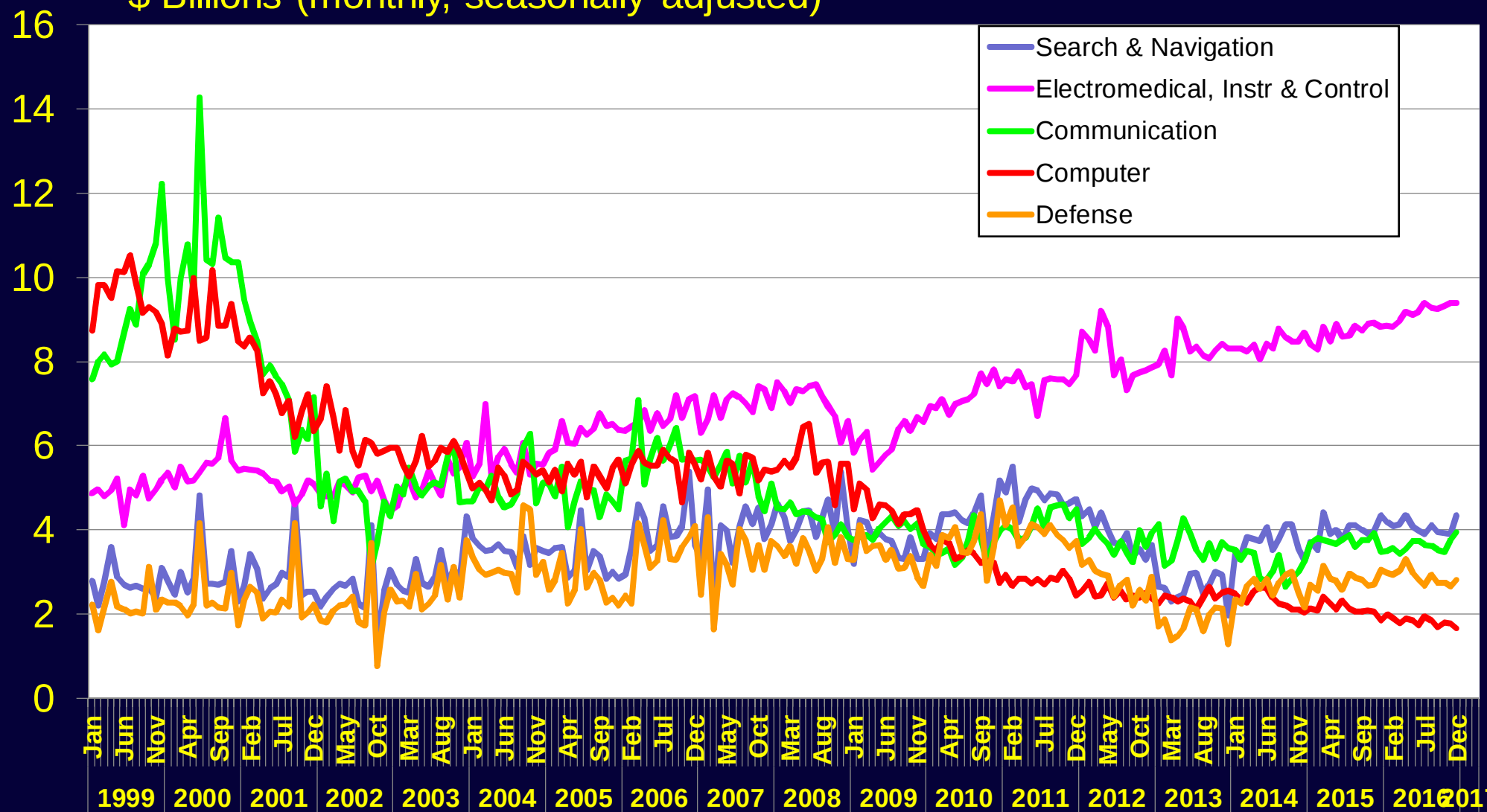
Computer, Communications, Measurement & Control and Military



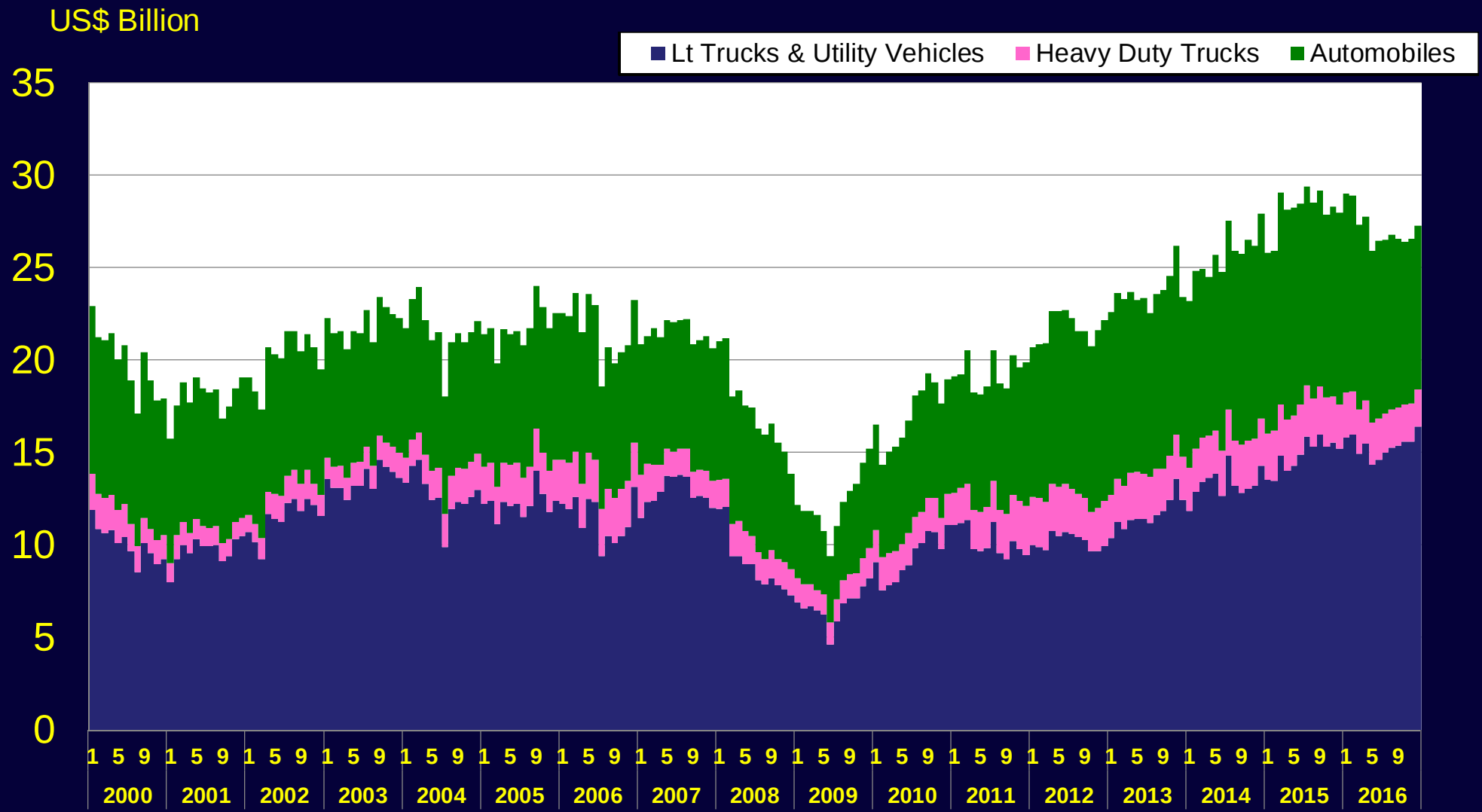
U.S. Electronic Equipment Orders

Monthly Data

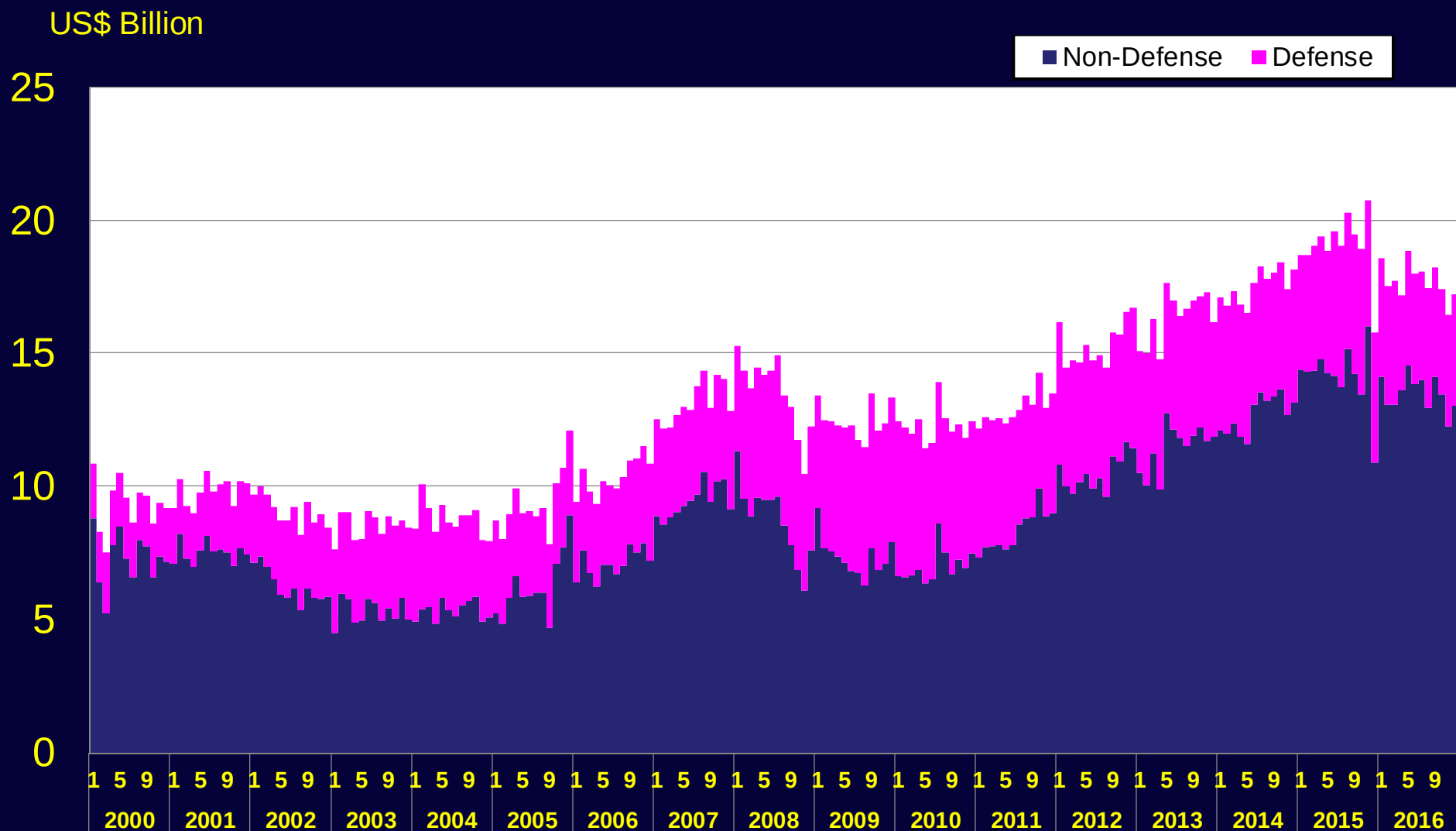
\$ Billions (monthly, seasonally adjusted)



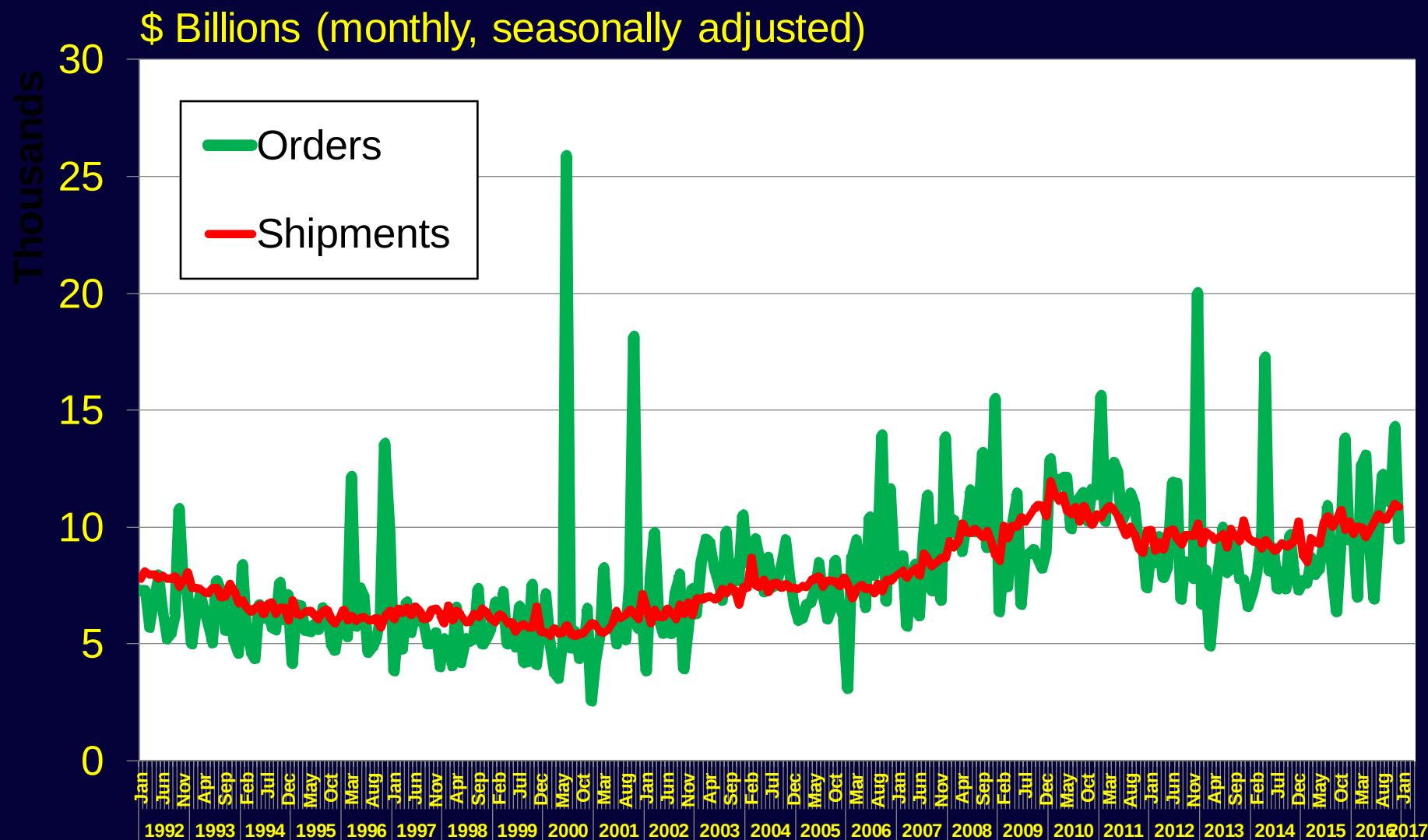
U.S. Vehicle Shipments



U.S. Aircraft & Parts Shipments

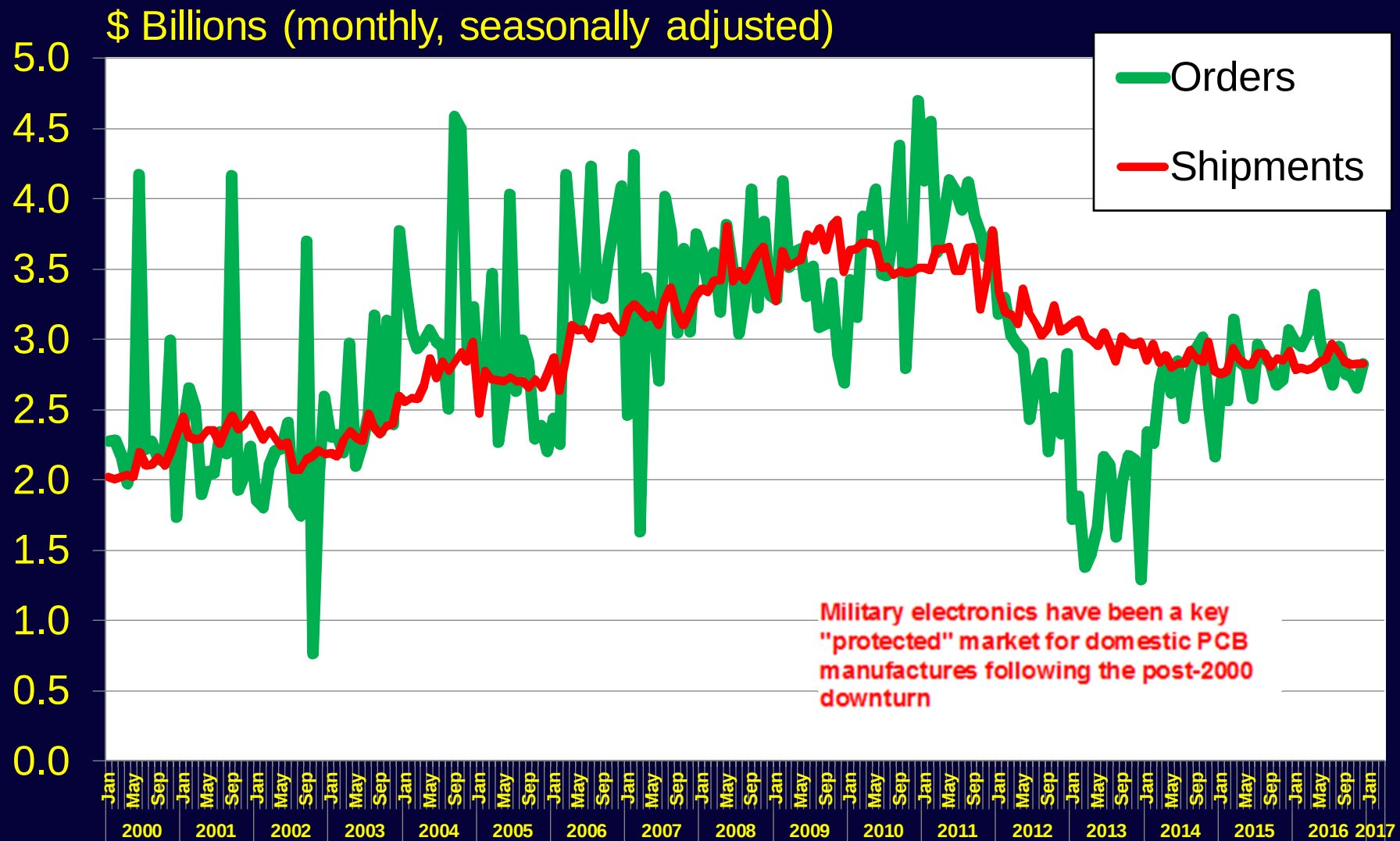


U.S. Defense Capital Goods Orders & Shipments

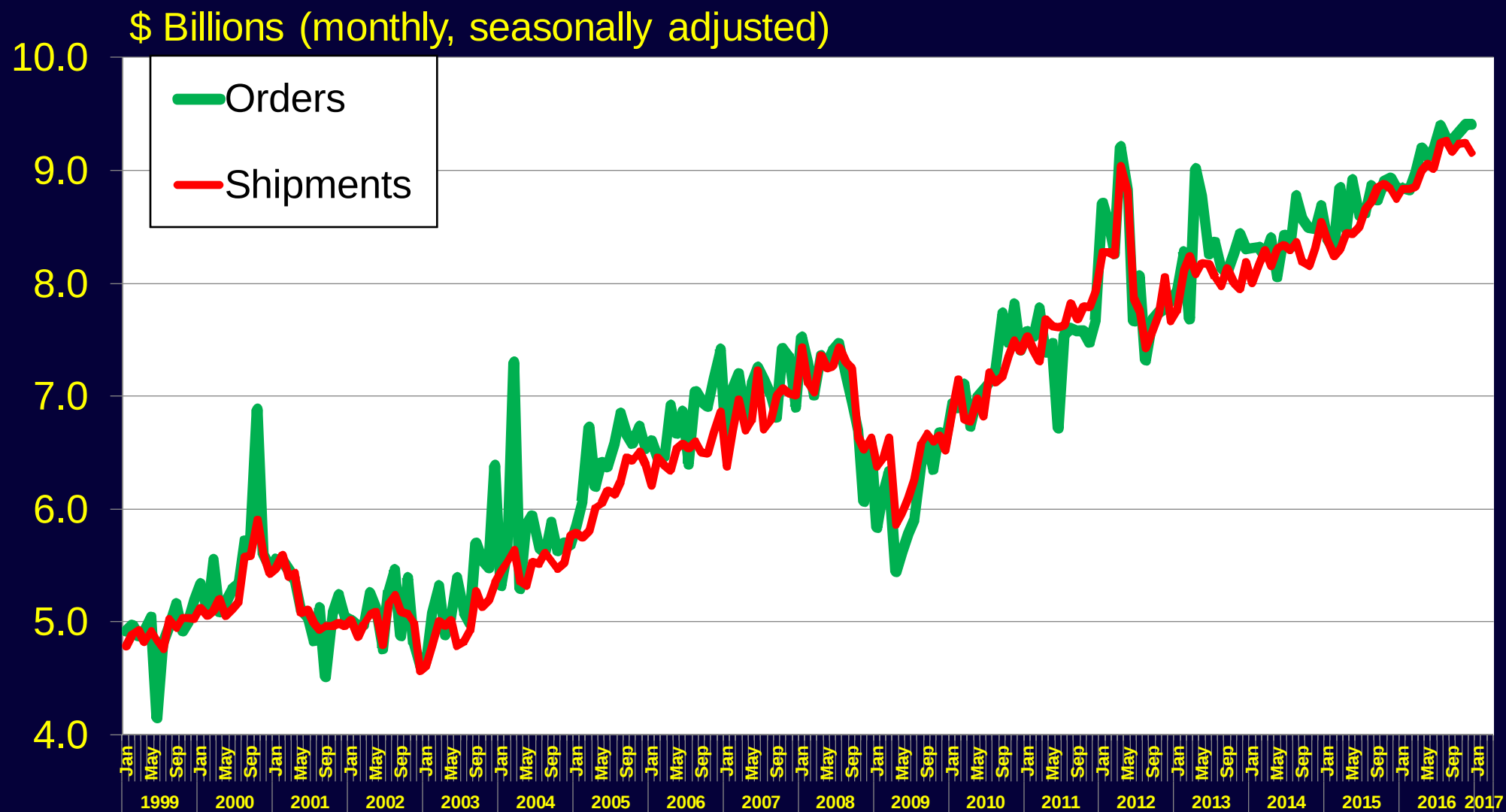


U.S. Military Electronics Orders & Shipments

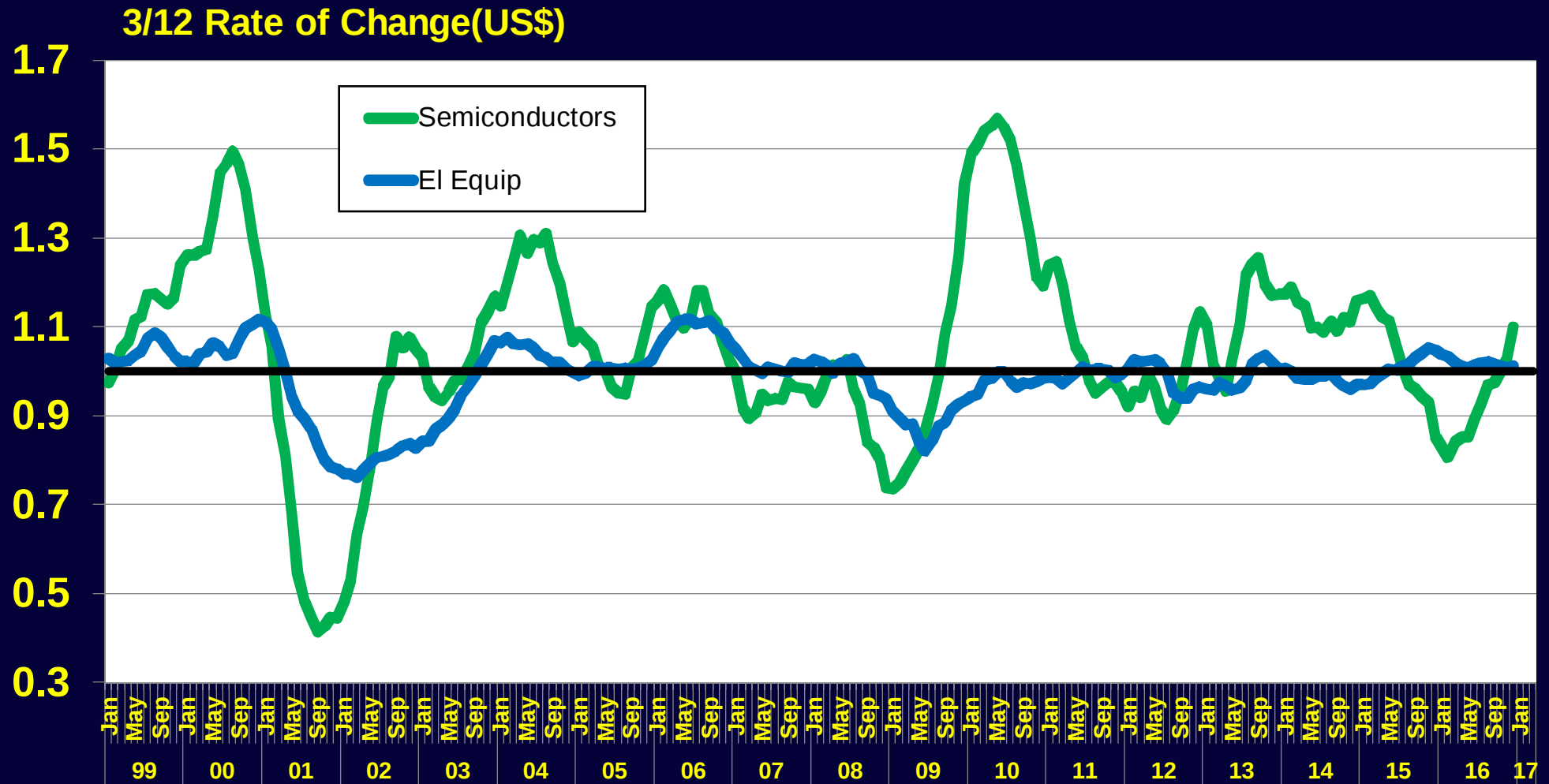
Defense Communication & Search & Navigation Equipment



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



Semiconductor Shipments to N. America vs. U.S. Electronic Equipment Production



Total \$ Semiconductor Shipments from All Countries to N. America www.sia-online.org/
U.S. Electronic Equipment Shipments www.census.gov/indicator/www/m3/

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

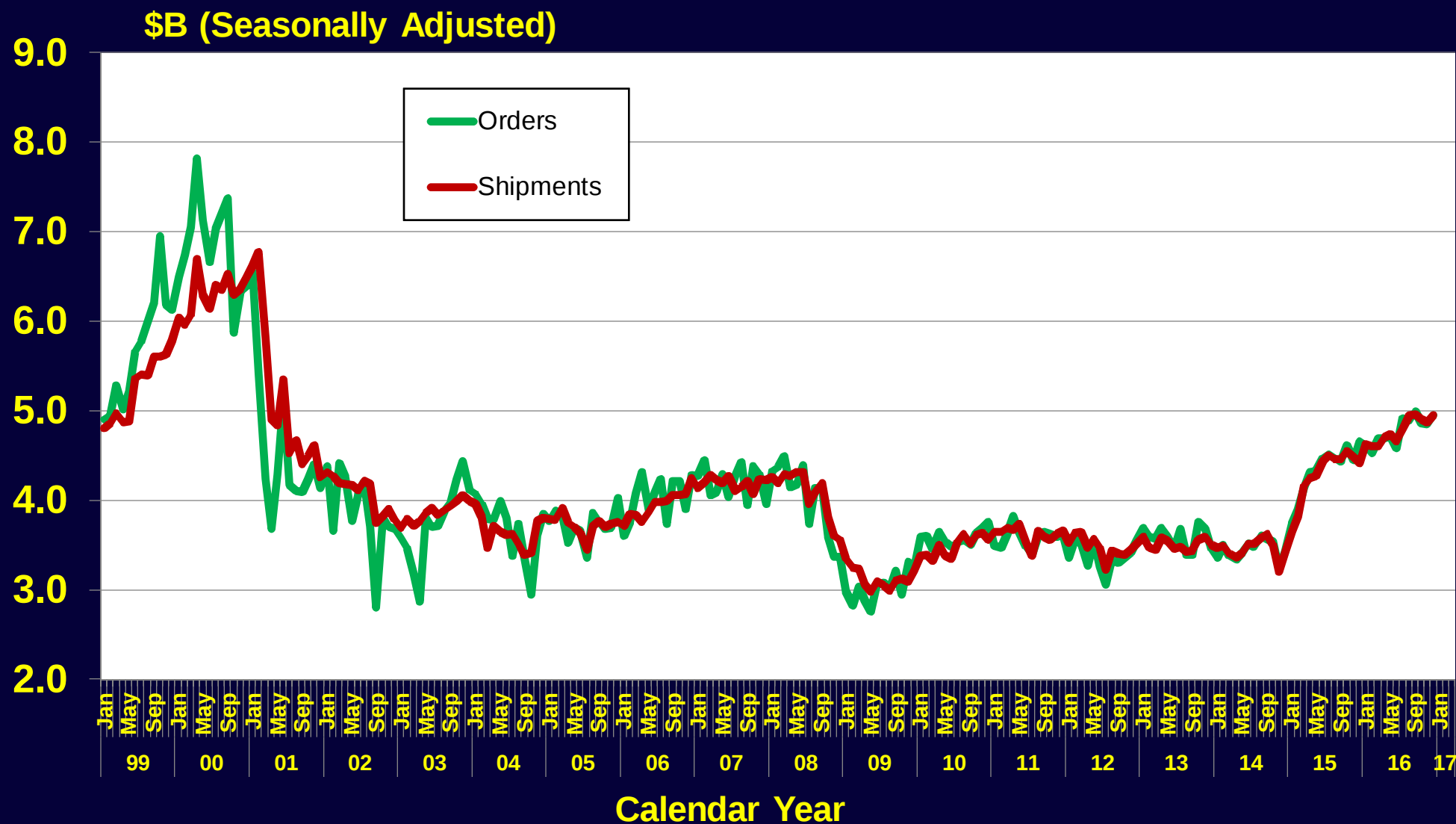


Chart 23

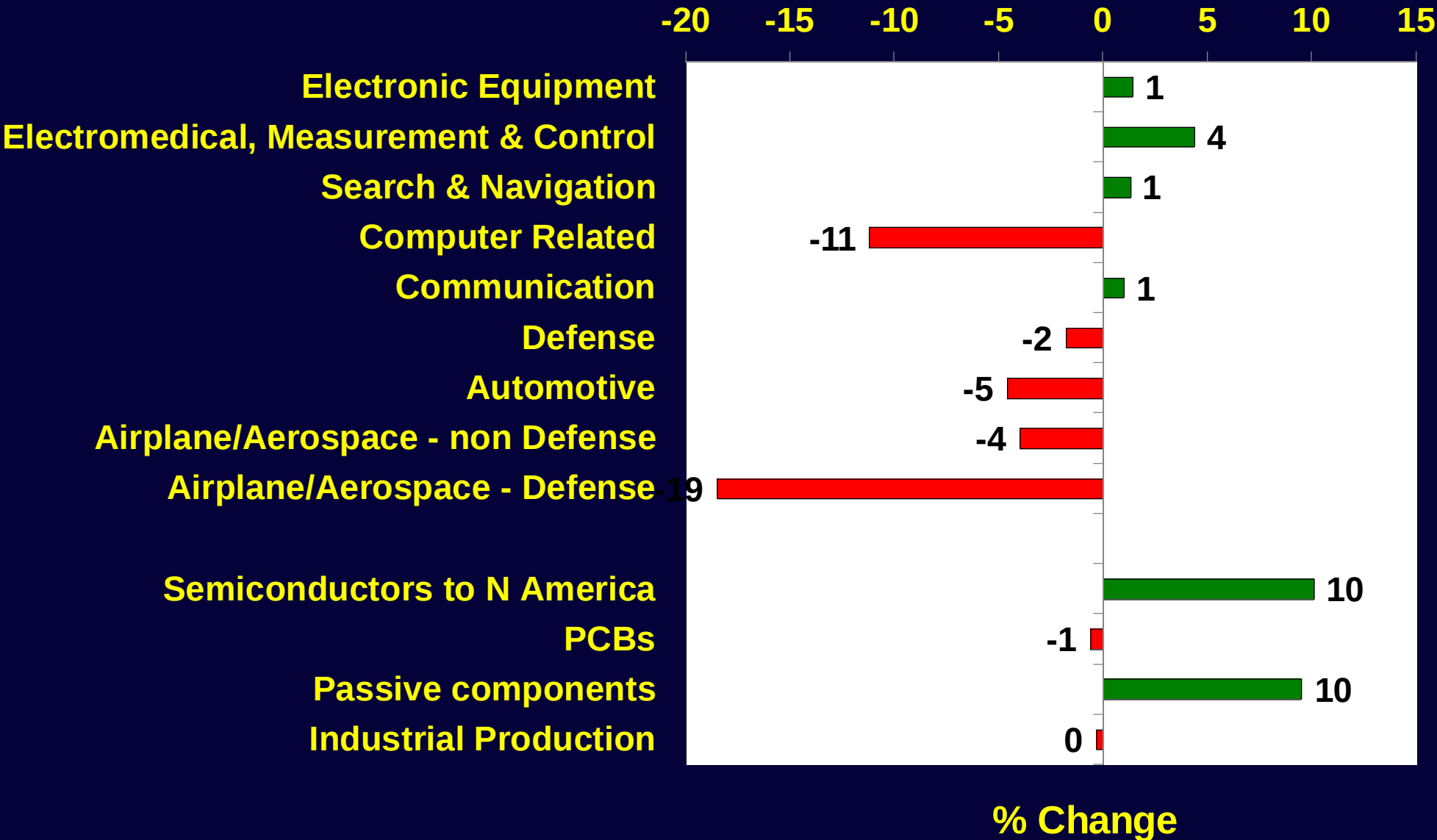
Present Growth Rates (%)

U.S. Economy & Electronics Industry

	Latest Month	Annual Growth	3-Month Growth
Electronic Component \$			
Rigid & Flex PCB Orders (N Amer)	12/16	98.5	96.9
Rigid & Flex PCB Shipments (N Amer)	12/16	102.7	99.4
Electronic Component Orders	12/16	110.2	106.8
Electronic Component Shipments	12/16	111.5	109.5
Semiconductor Shipments to N America	12/16	95.3	110.1
U.S. Electronic Equipment Orders \$			
Computer & Related	12/16	85.6	87.7
Communication	12/16	97.2	100.2
Medical, Measurement & Control	12/16	105.6	105.5
Search & Navigation	12/16	102.6	99.7
Defense Capital Goods	12/16	117.9	106.9
Military Electronics	12/16	102.9	99.7
Total Electronic Equipment	12/16	101.9	101.3
U.S. Industrial Production	12/16	99.0	99.7

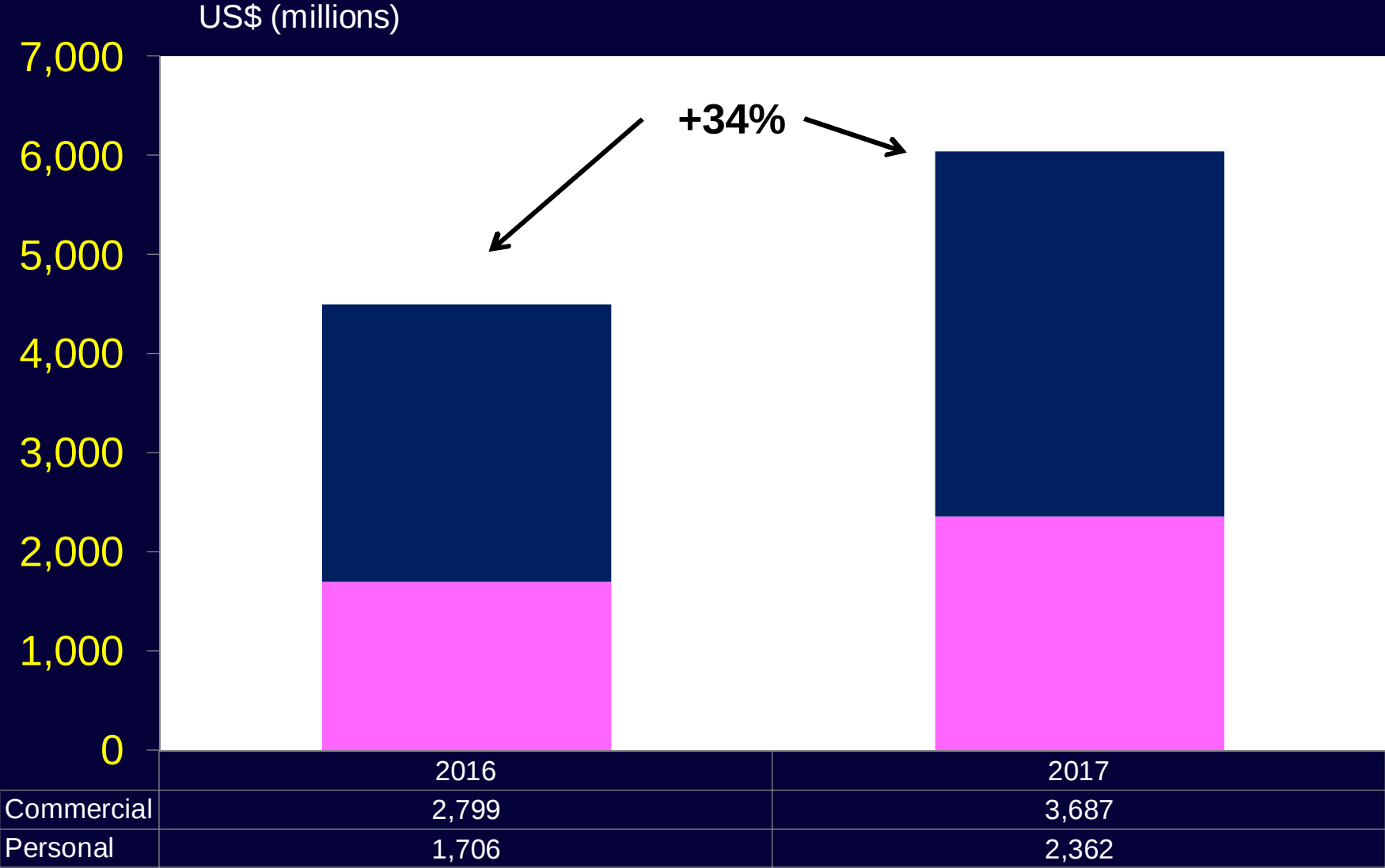
NOTE: 3 month growth rates compare most recent 3 months to same 3 months one year earlier

U.S Electronic Supply Chain Shipment Growth 4Q'16 vs. 4Q'15



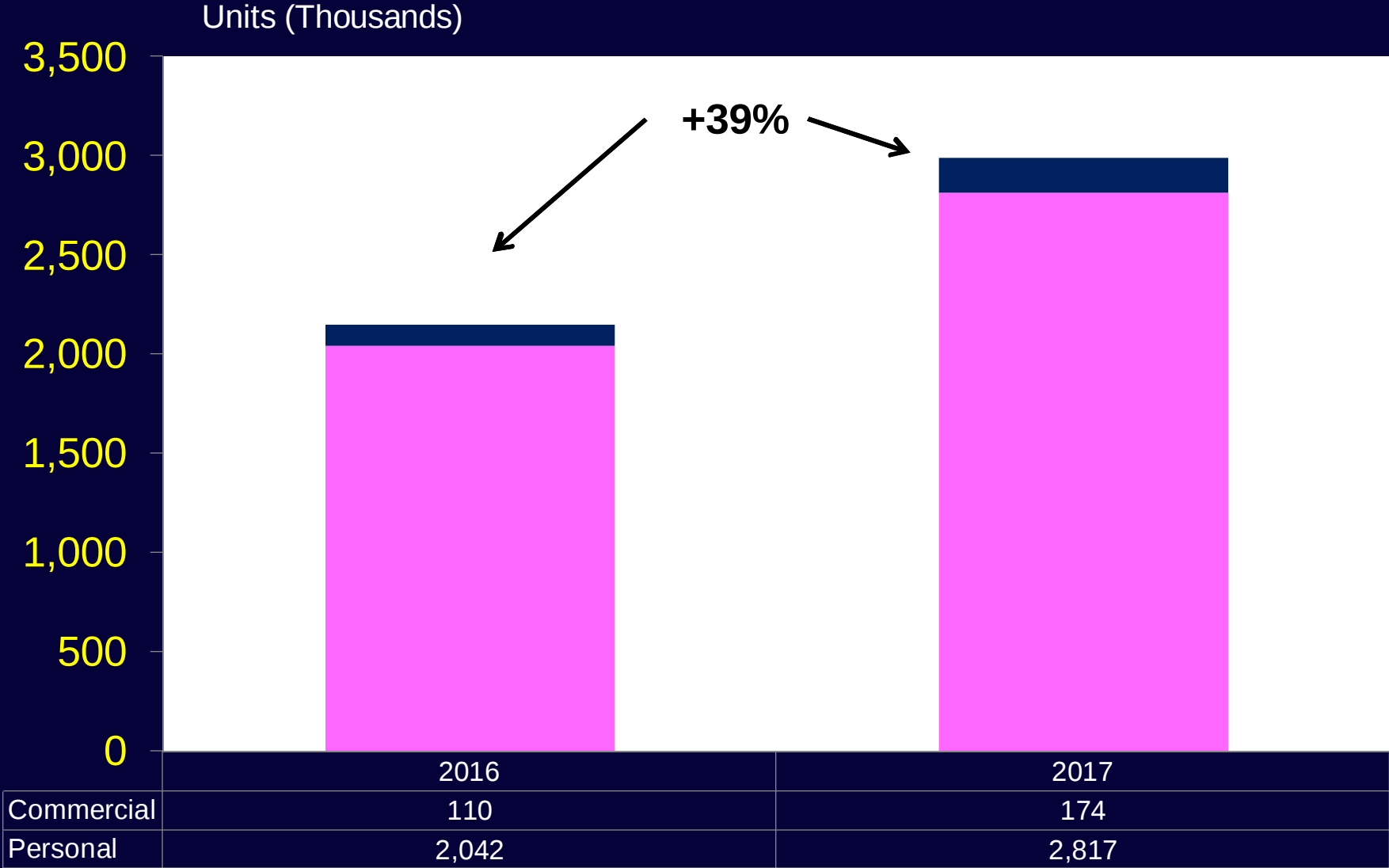
Personal & Commercial Drones Revenue

20161007



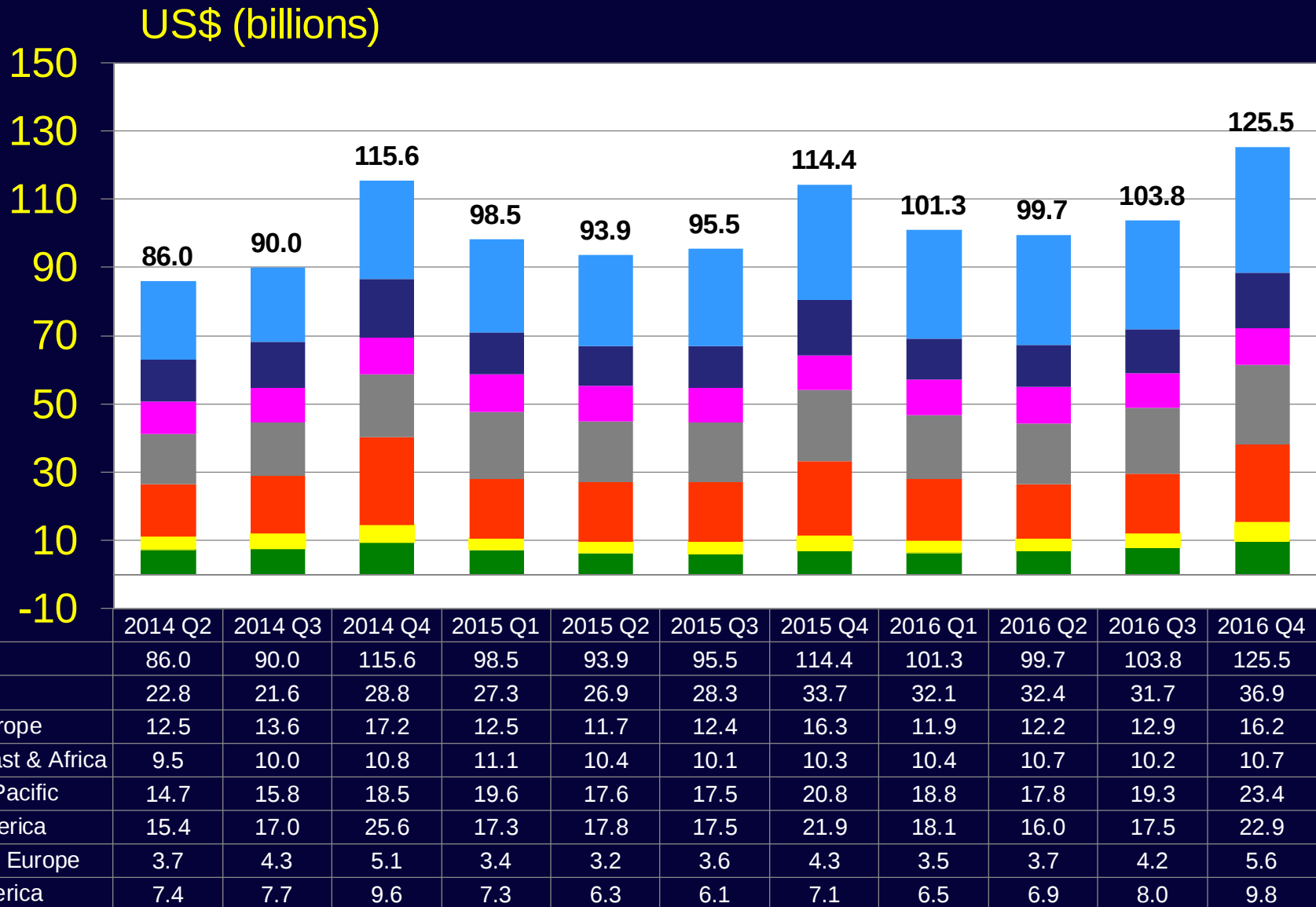
Personal & Commercial Drones Units

20161007



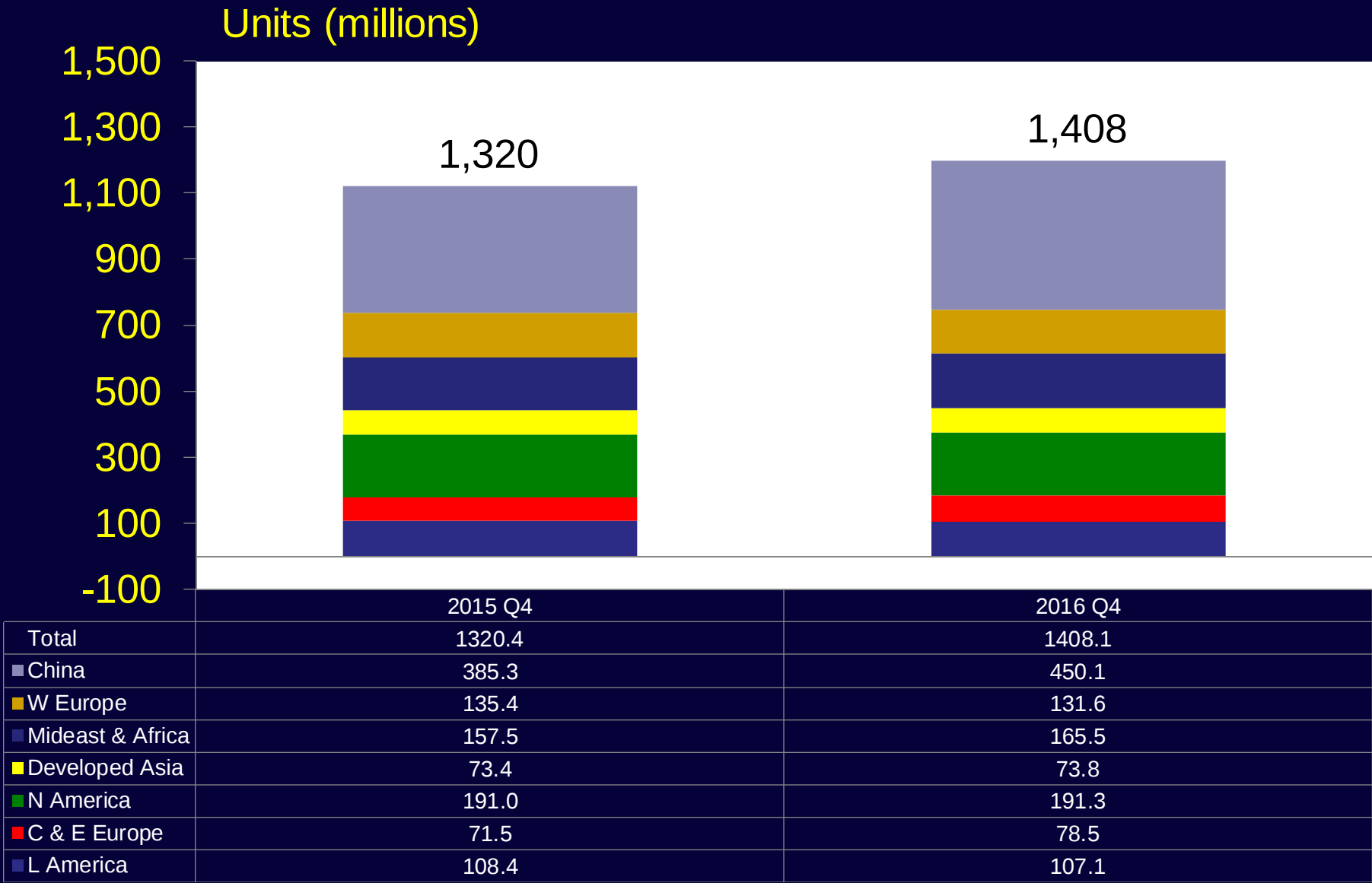
Smartphones

Sales Value by Region



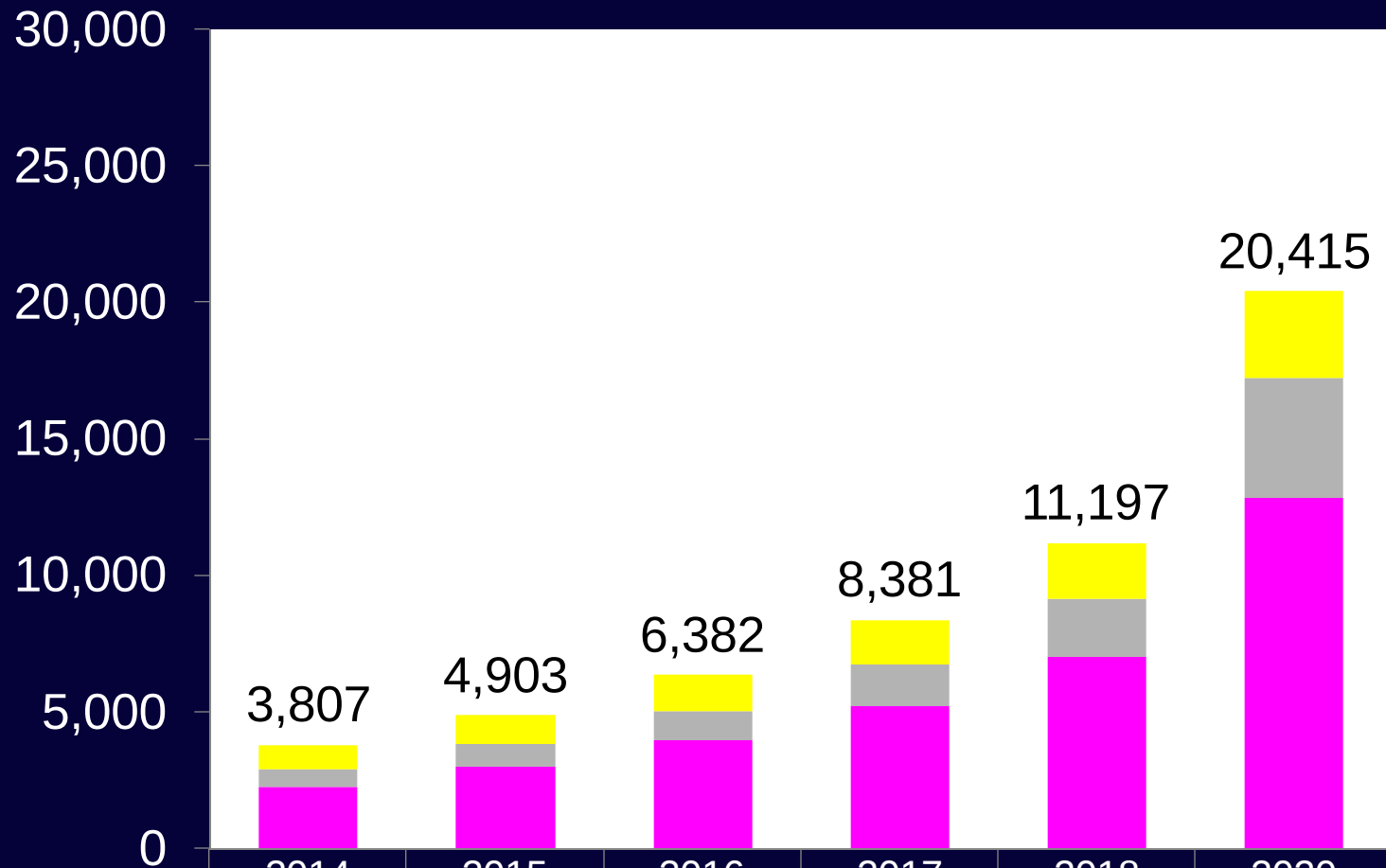
Smartphones

Units Sold by Region



Internet of Things Installed Base by Category

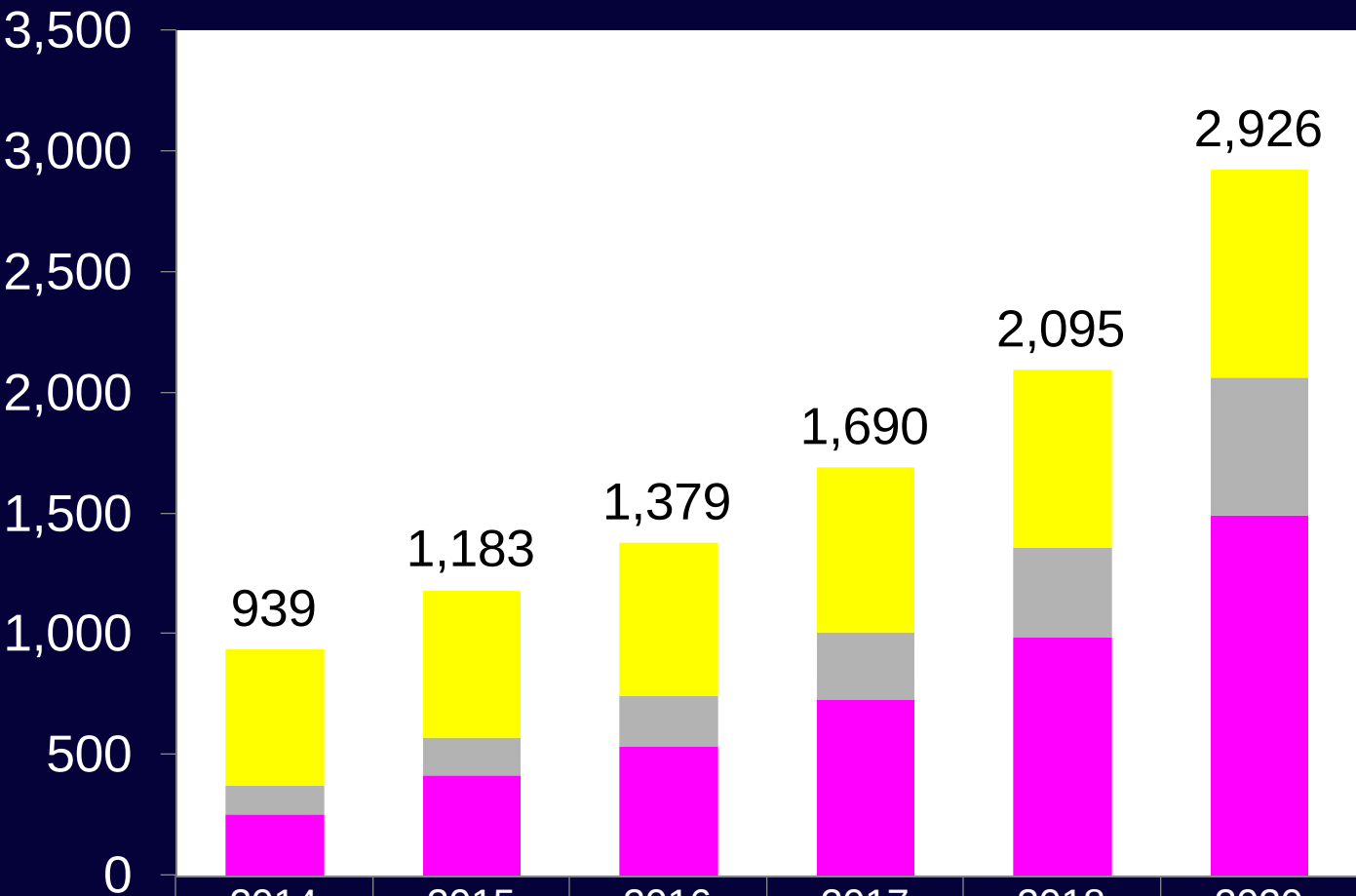
Units (millions)



	2014	2015	2016	2017	2018	2020
Total	3,807	4,903	6,382	8,381	11,197	20,415
■ Business Vertical-Specific	898	1,065	1,317	1,635	2,028	3,171
■ Business Cross-industry	632	815	1,102	1,501	2,133	4,381
■ Consumer	2,277	3,023	3,963	5,244	7,036	12,863

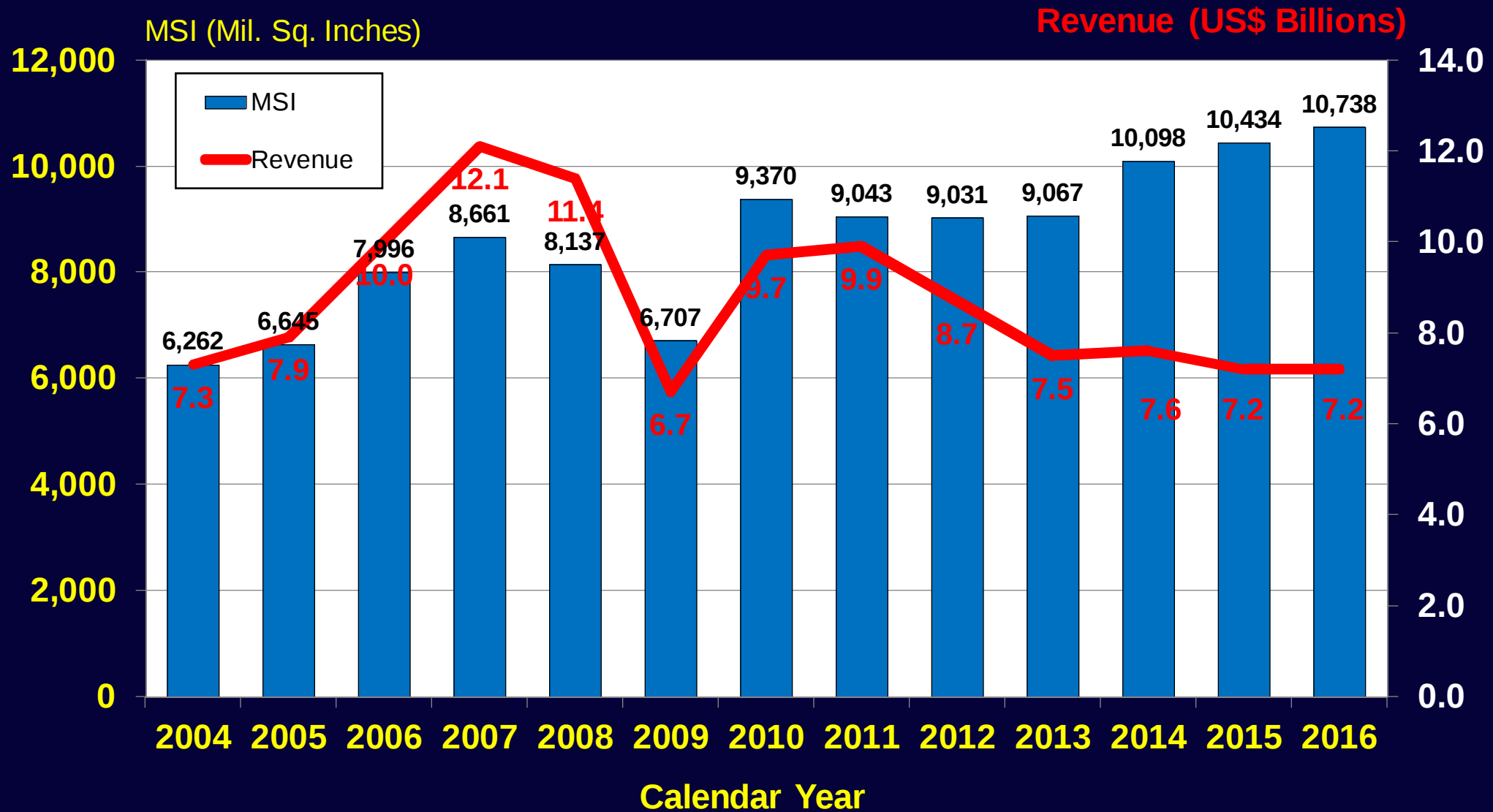
Internet of Things Endpoint Spending by Category

US\$ B



	2014	2015	2016	2017	2018	2020
Total	939	1,183	1,379	1,690	2,095	2,926
Business Vertical-Specific	567	612	635	684	737	864
Business Cross-industry	115	155	212	280	373	568
Consumer	257	416	533	726	985	1,494

Silicon Wafer Shipments



SEMI 10/2016; semiconductors only, does not include solar applications

Global Silicon Wafer vs. Semiconductor Shipments (excluding solar applications for wafers)

