

Chart 1

U.S. Electronic Equipment Book/Bill Ratio

3-Month Average

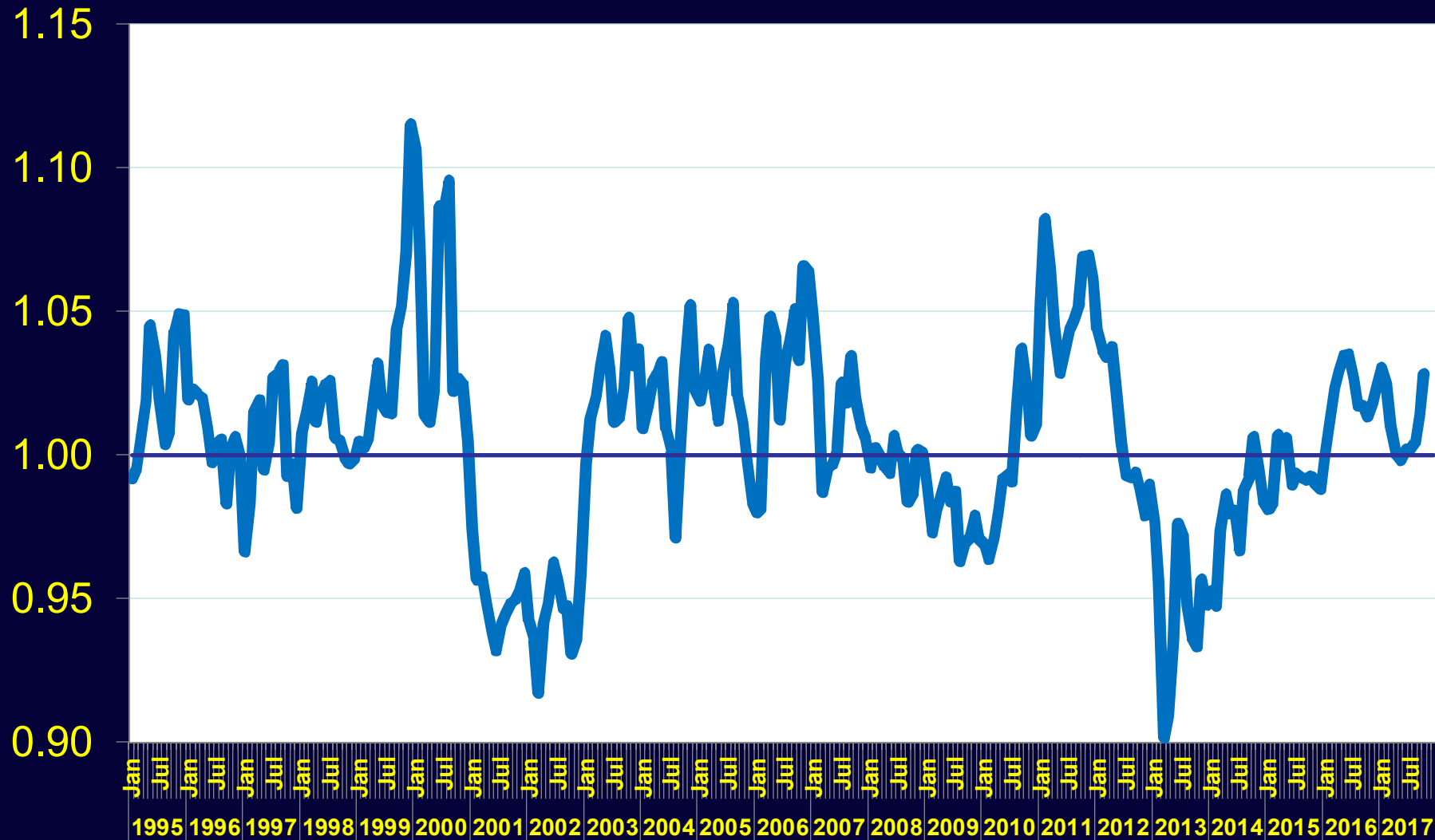


Chart 2

U.S. Electronic Equipment Order & Shipment Growth

Computer, Communications, Measurement & Control and Military

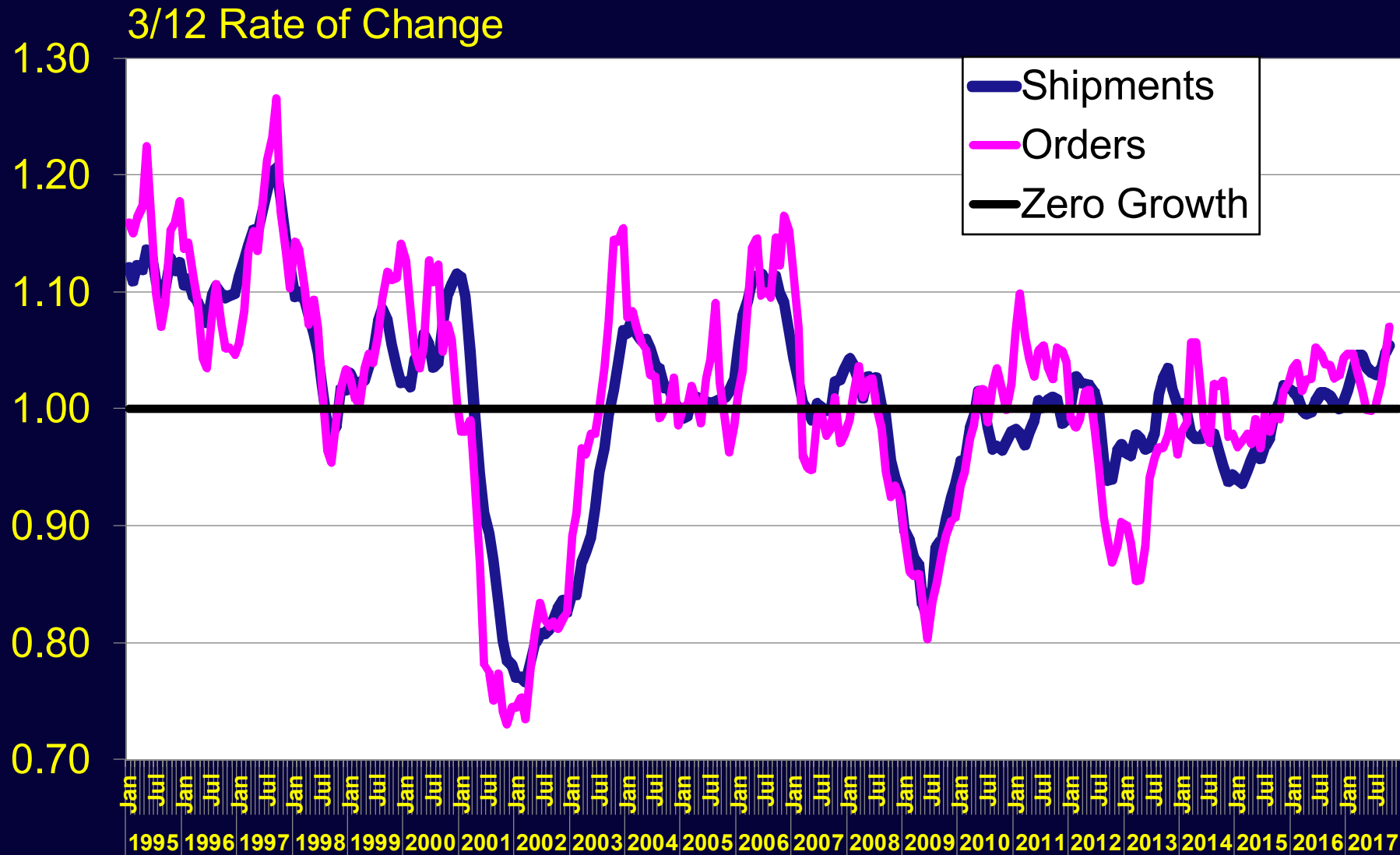


Chart 3

U.S. Electronic Equipment Orders & Shipments

Computer, Communications, Measurement & Control and Military

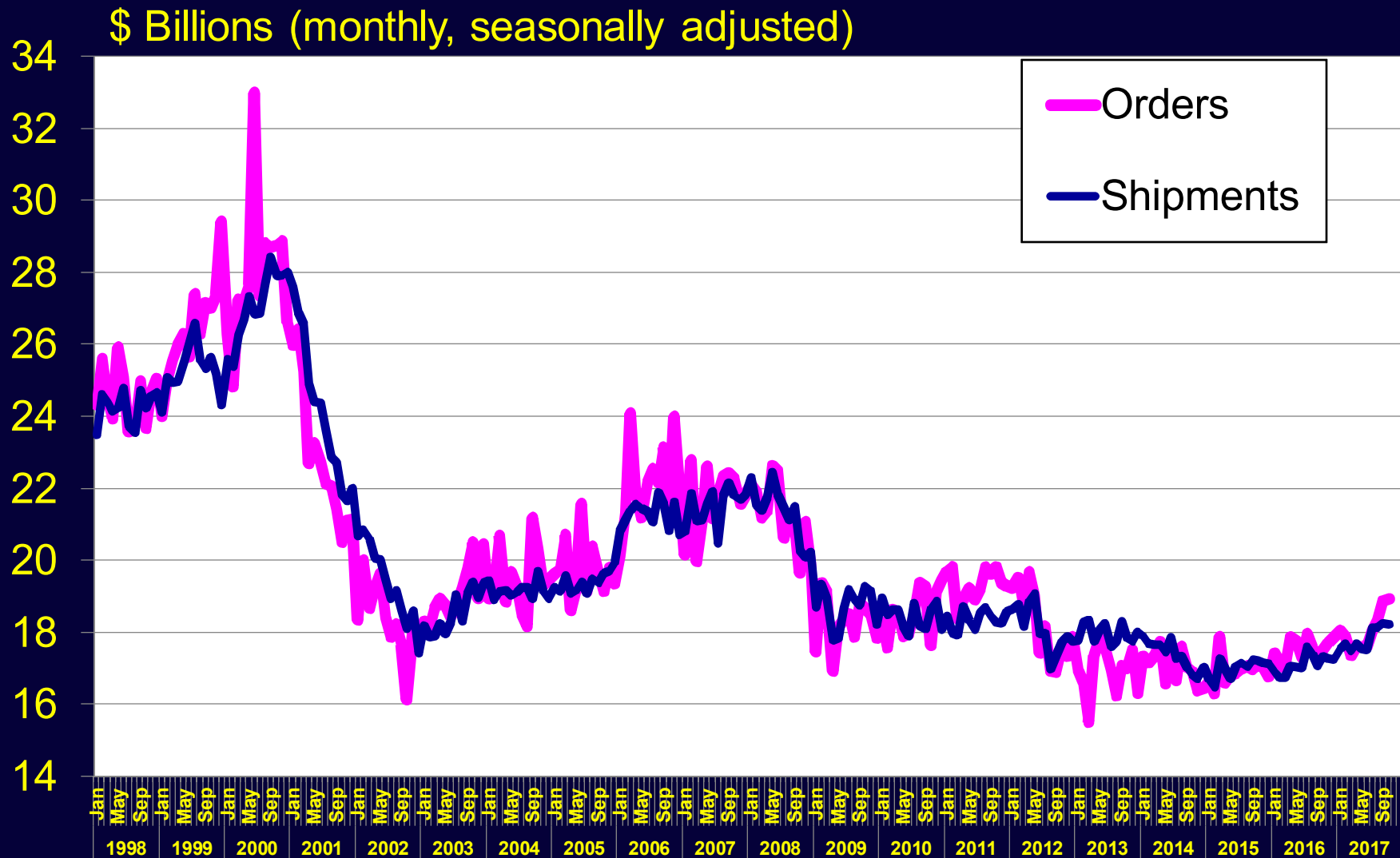


Chart 4

U.S. Electronic Equipment Inventories vs. Orders



Chart 5

U.S. Defense Capital Goods Orders & Shipments

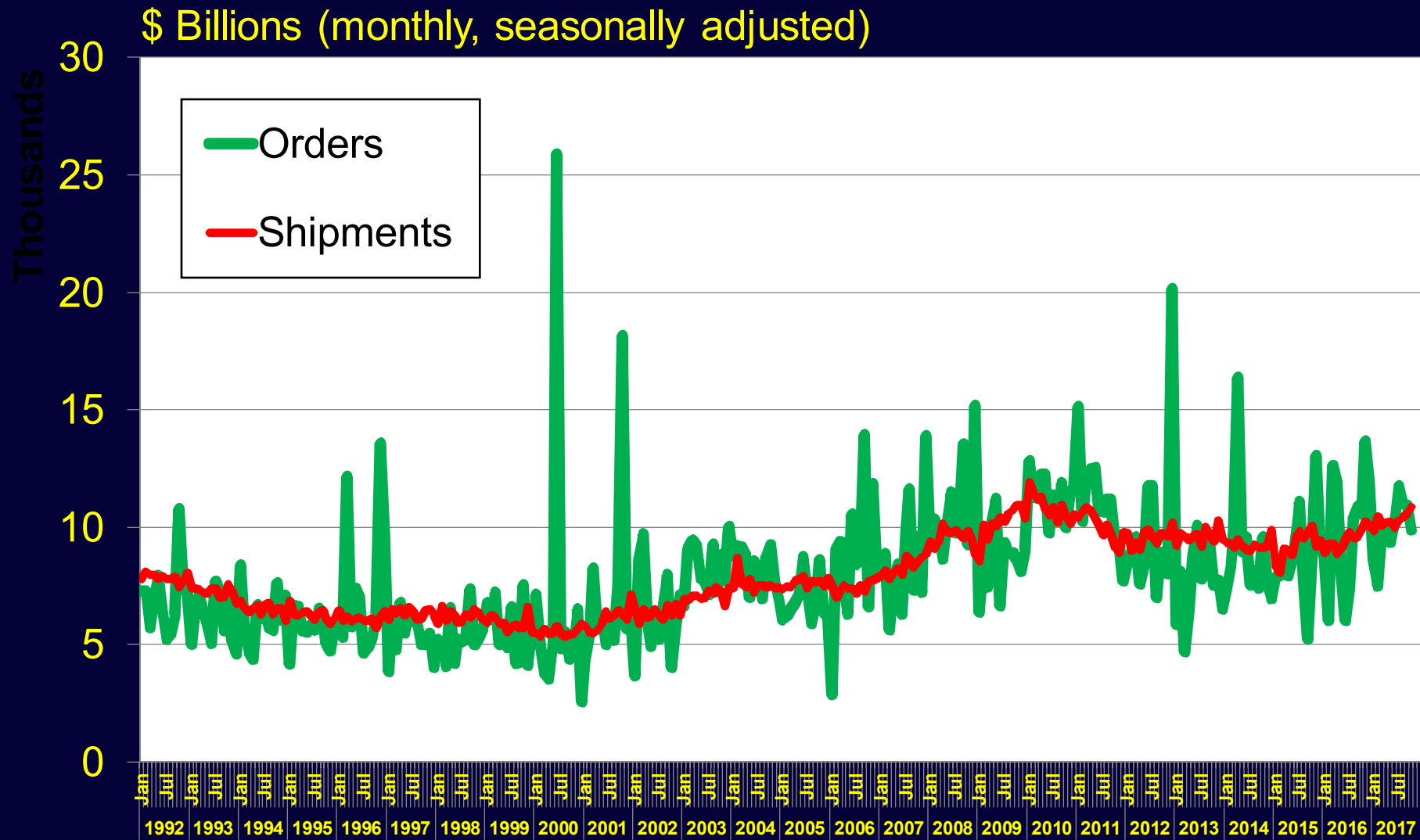


Chart 6

U.S. Defense Capital Goods Book/Bill Ratio

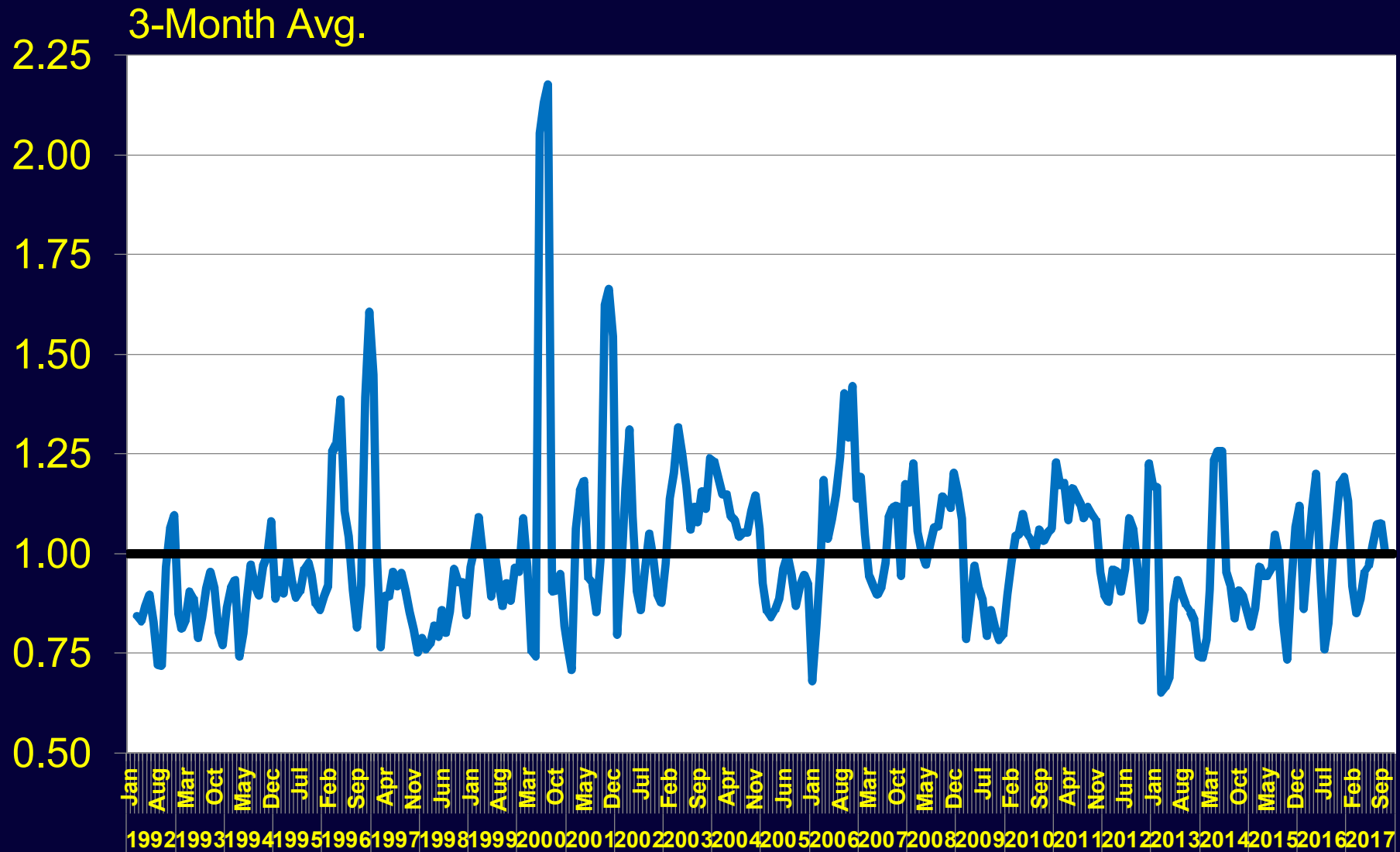


Chart 7

U.S. Communication Equipment Orders & Shipments

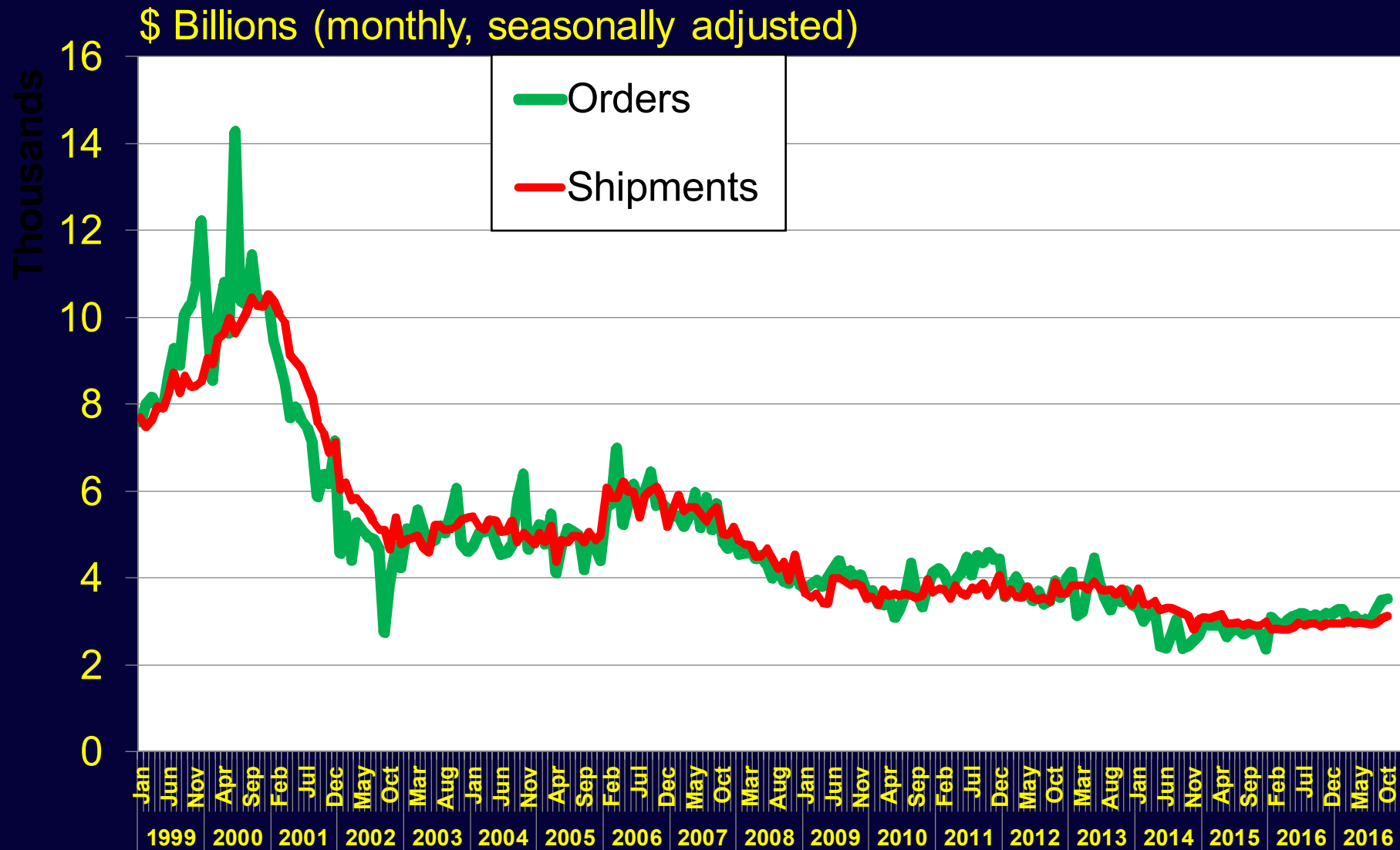


Chart 8

U.S. Aircraft & Parts Shipments

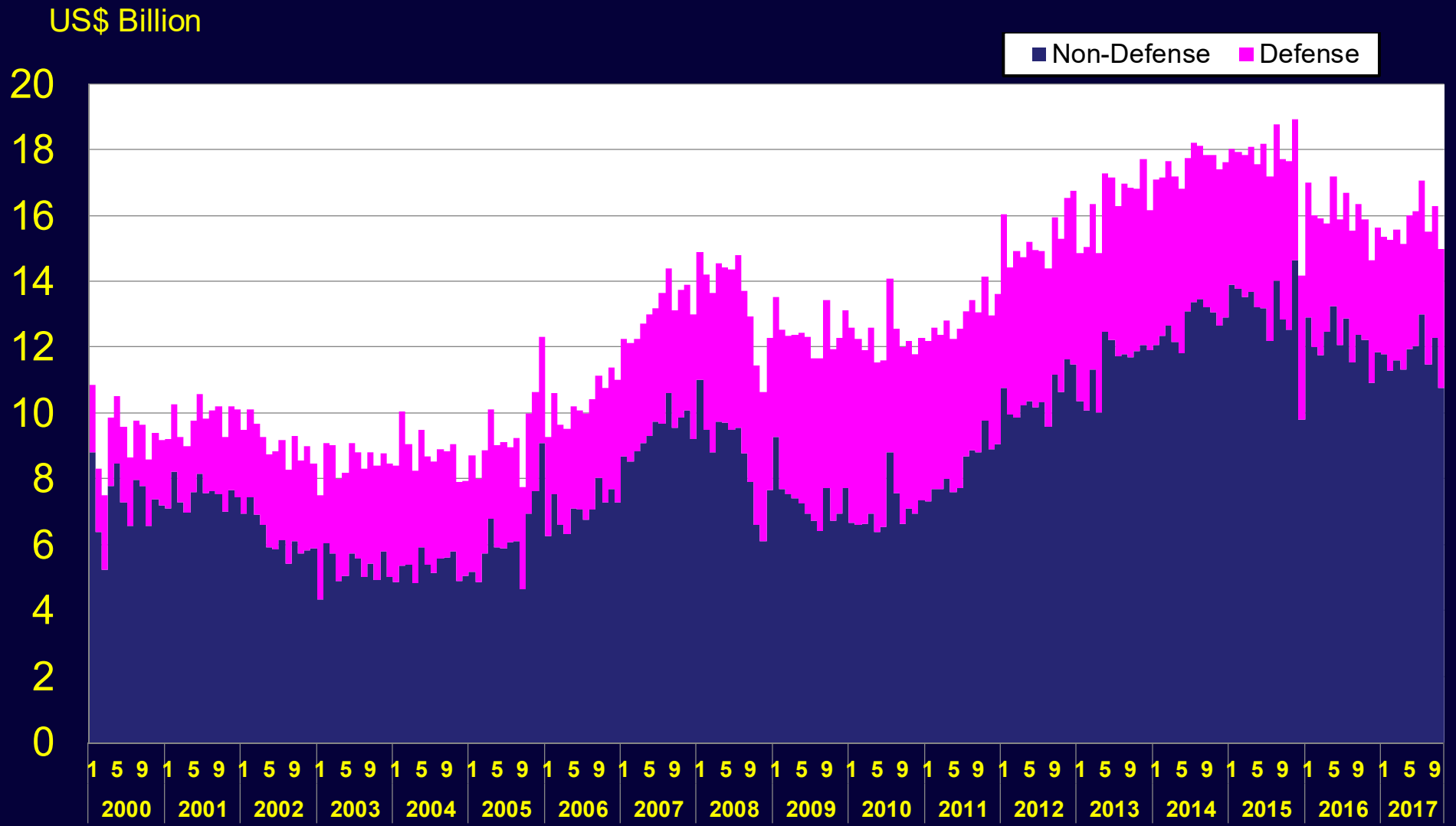
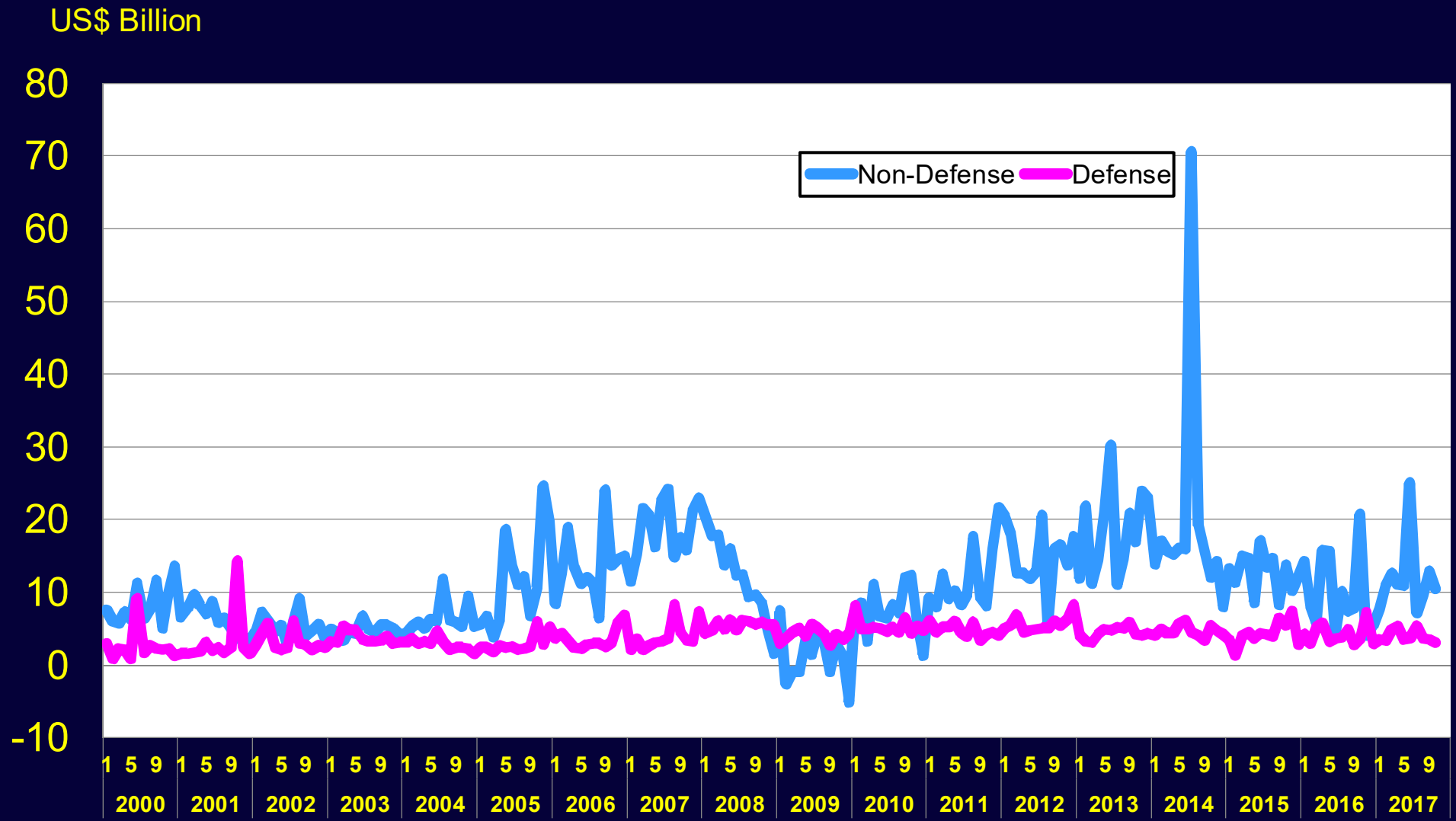
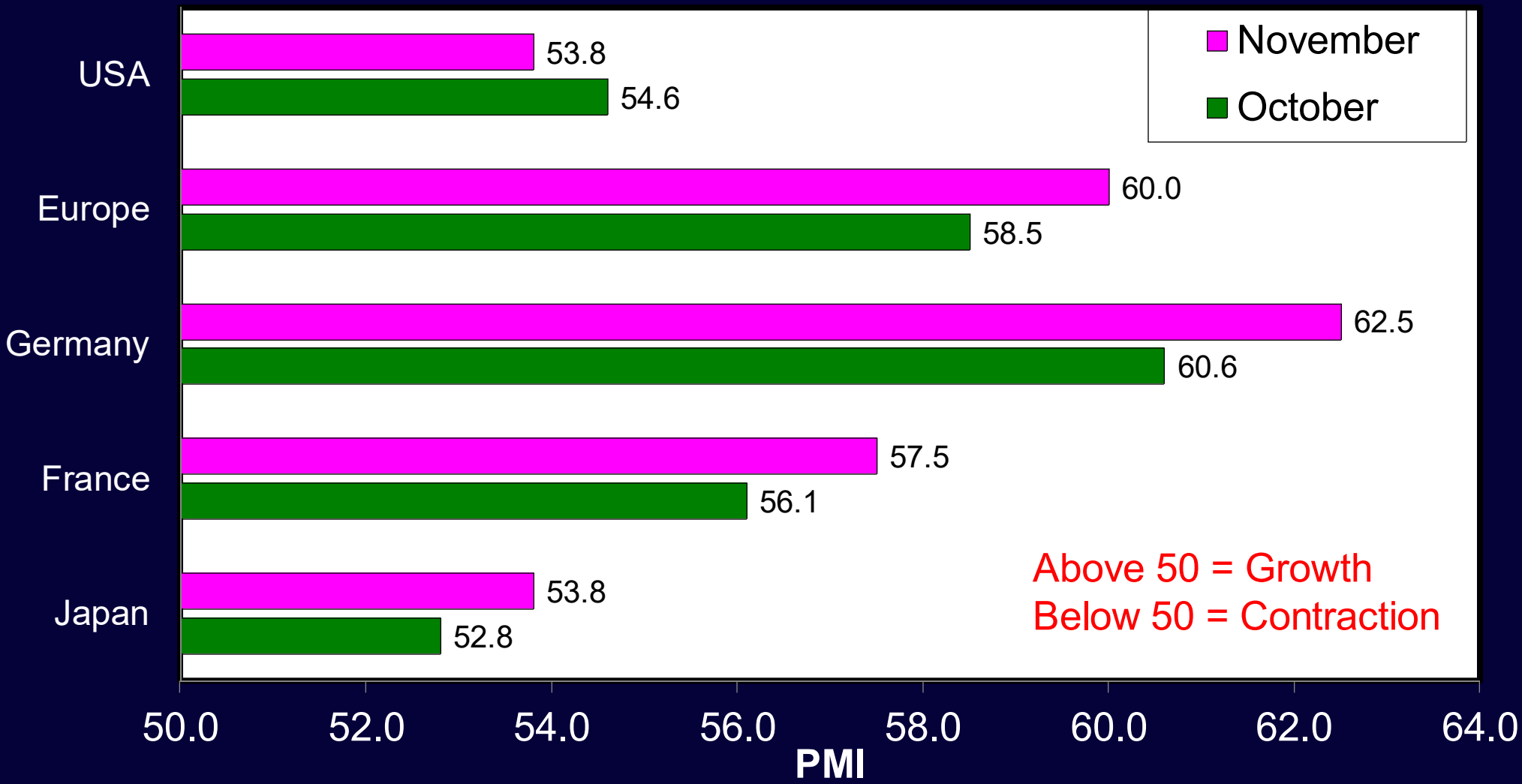


Chart 9

U.S. Aircraft & Parts Orders



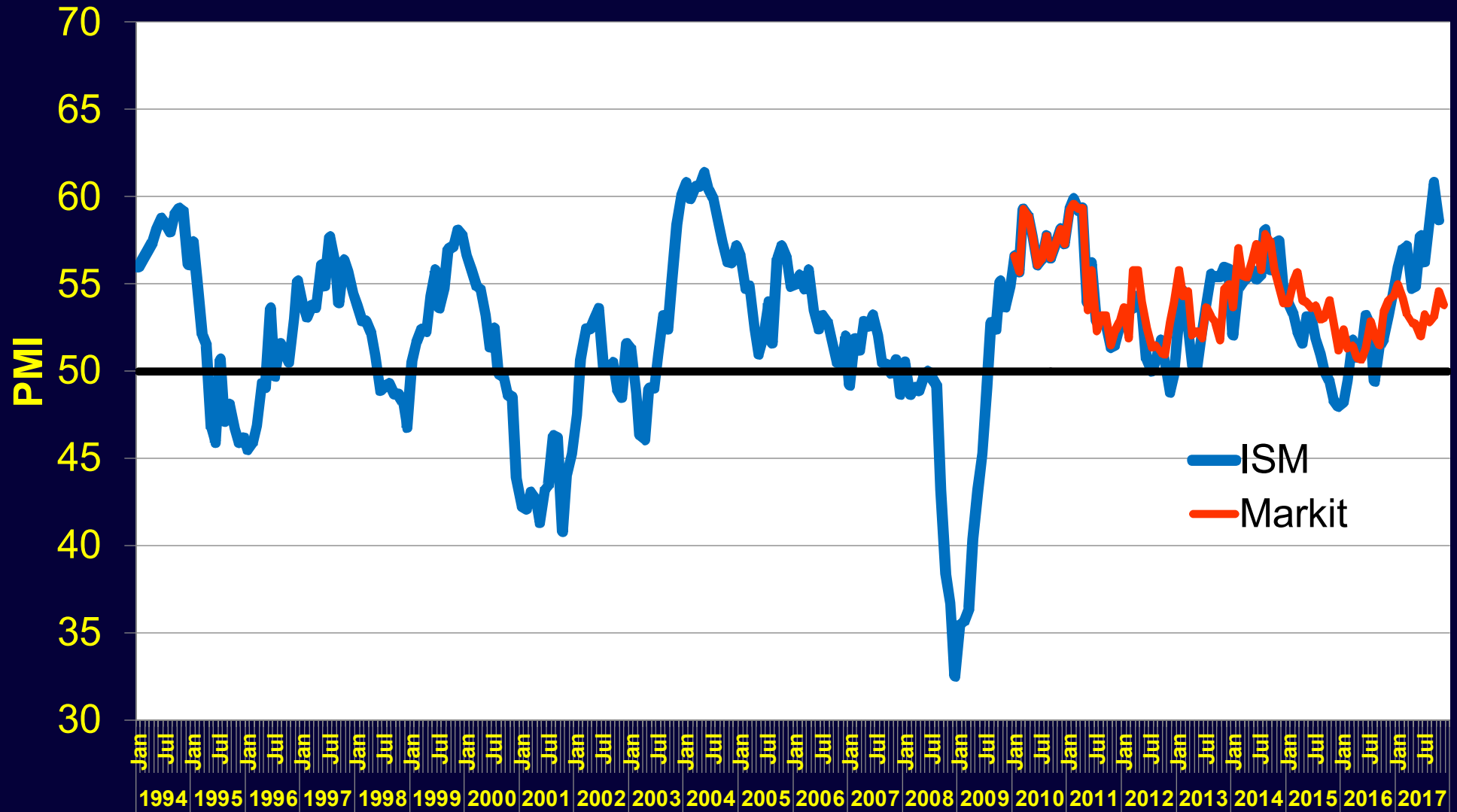
Purchasing Managers' Indices November (flash) vs. October 2017



U.S "Purchasing Managers" Indices

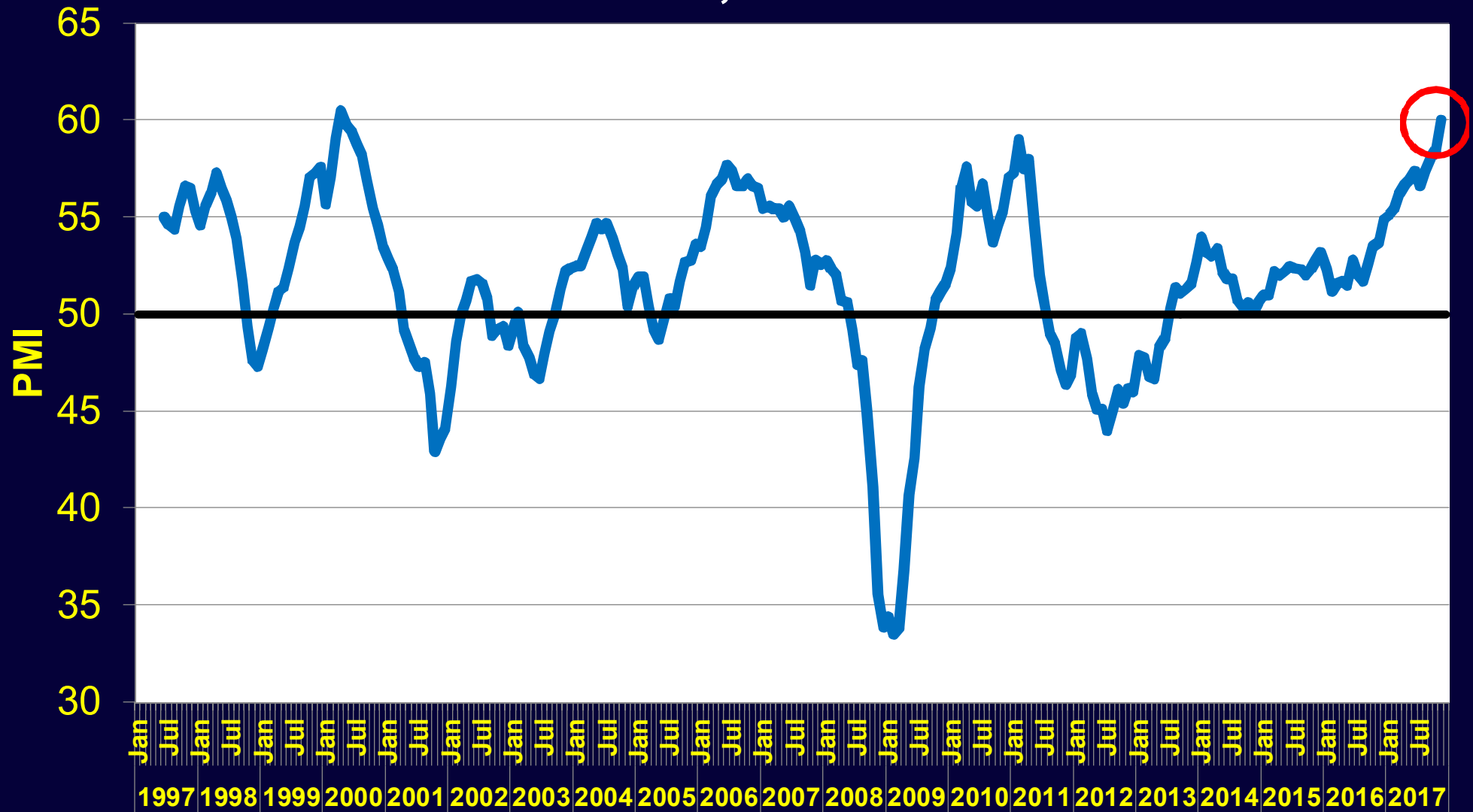
ISM vs. Markit Economics

Diffusion Index, >50 = Growth



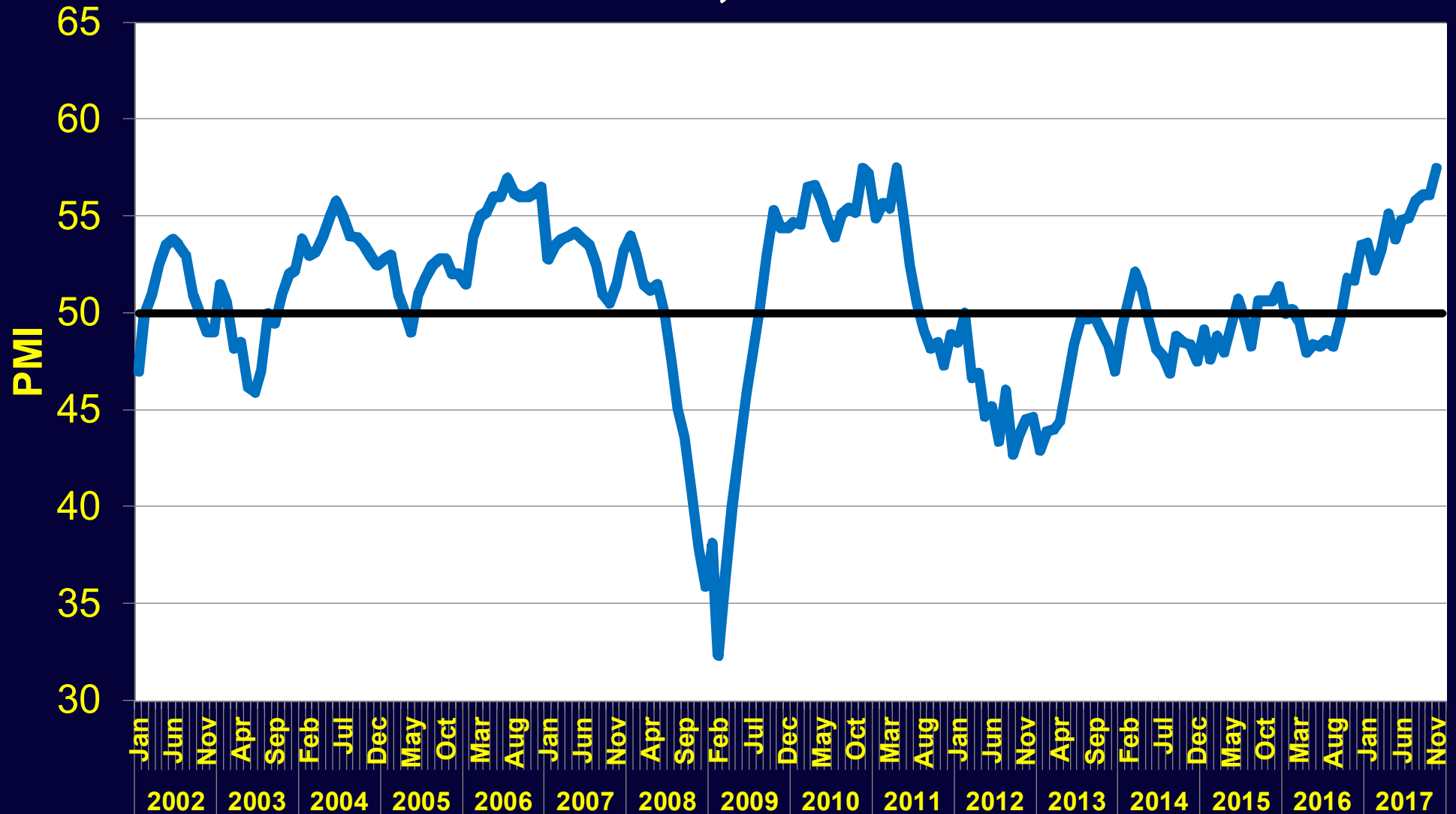
Eurozone Manufacturing "Purchasing Managers" Index

Diffusion Index, >50 = Growth



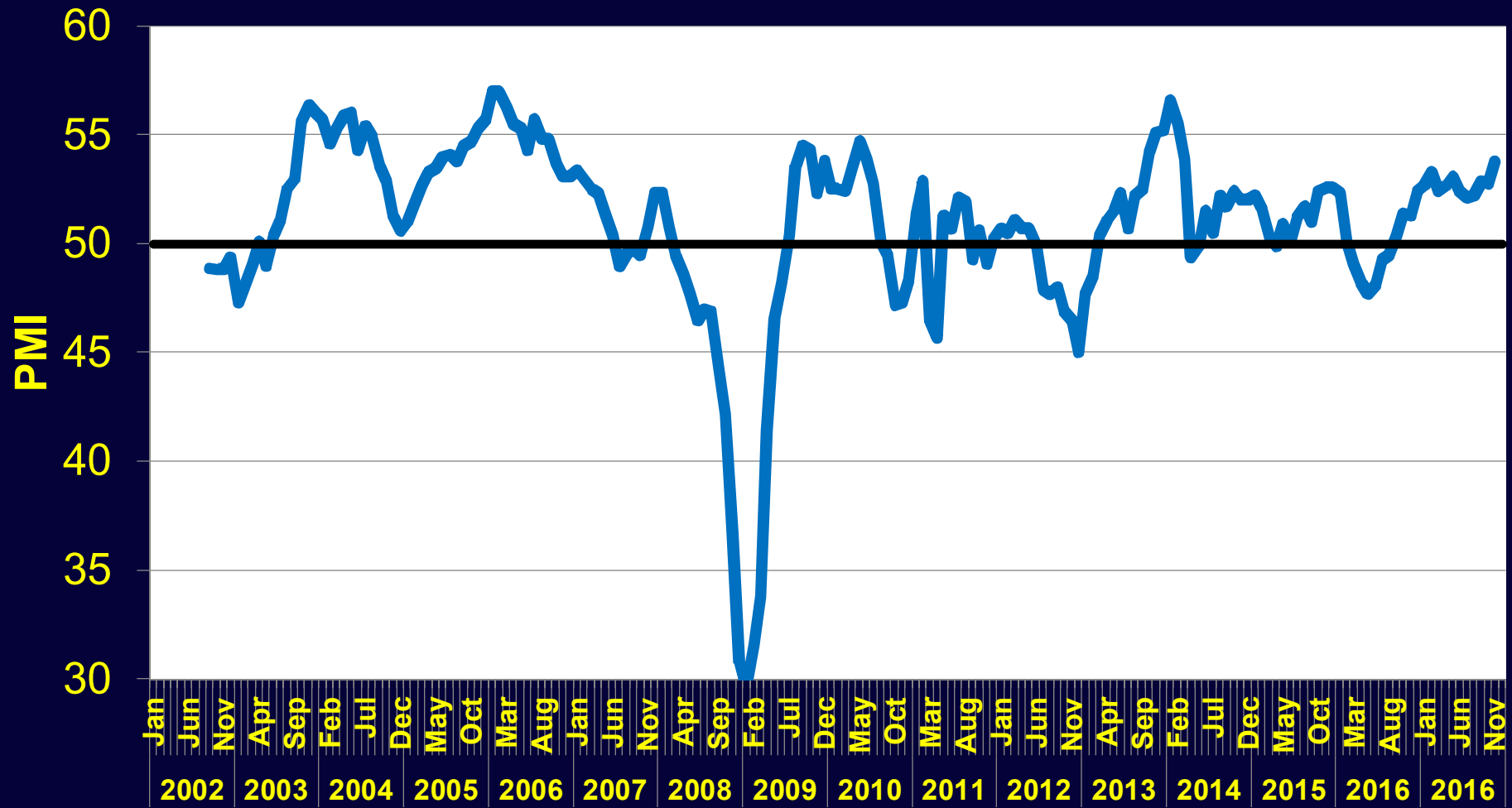
France Manufacturing "Purchasing Managers" Index

Diffusion Index, >50 = Growth



Japan "Purchasing Managers" Index

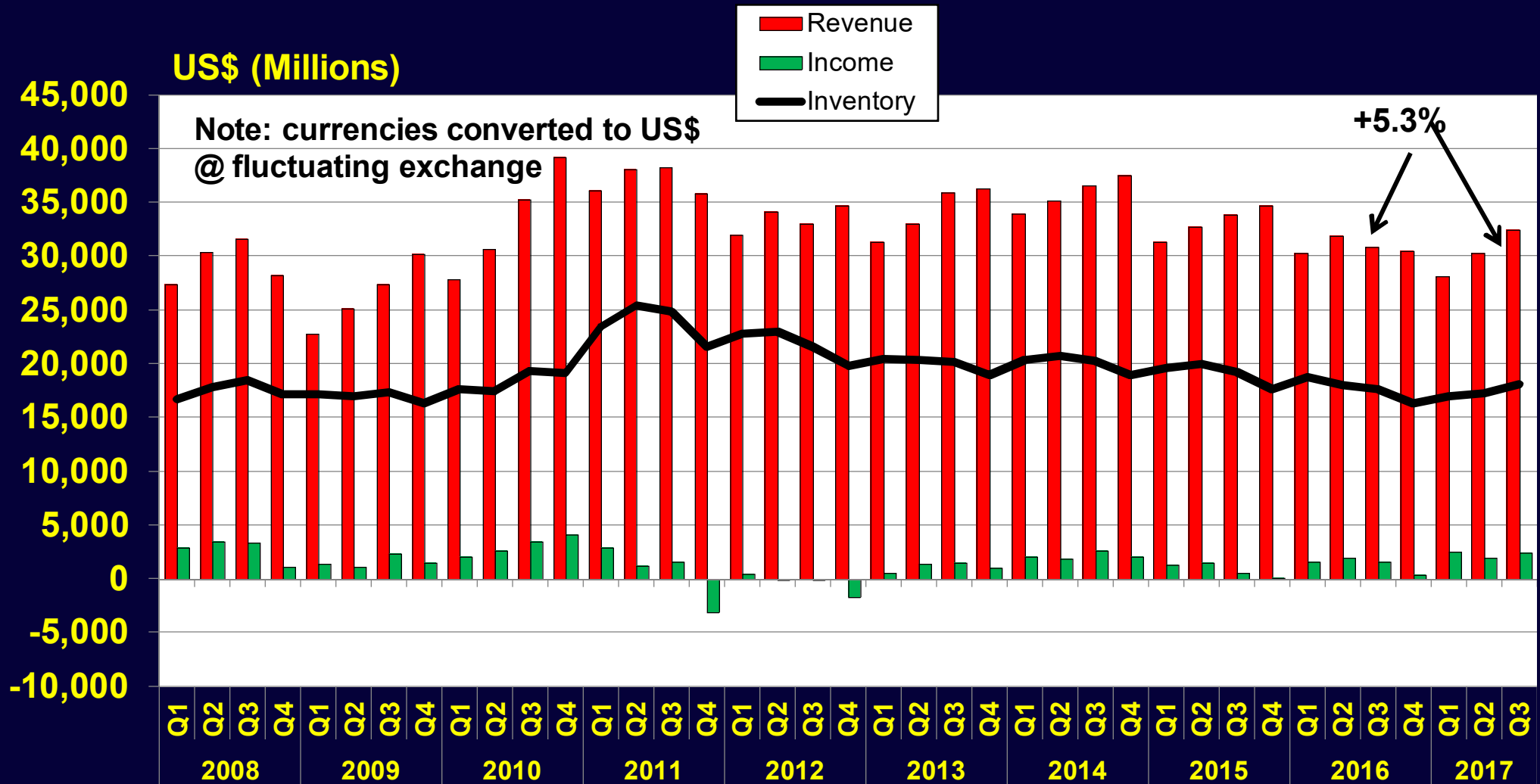
>50 = Growth



Solar/Photovoltaic Financials

Composite of 90 Public Global Companies

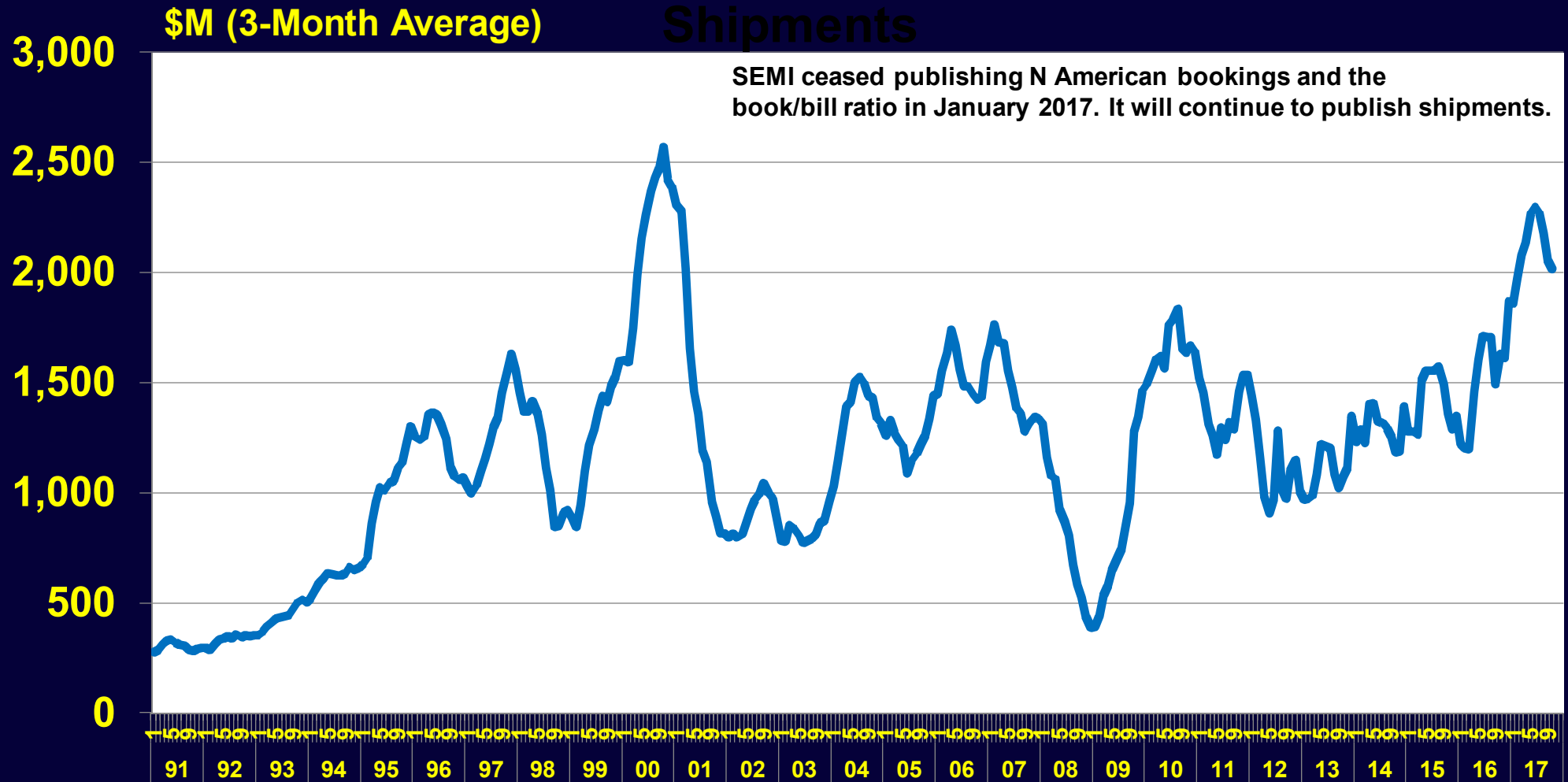
Revenue, Net Income & Inventory



Q3'16
Avnet sold Technology
Solutions business &
Acquired Premier Farnell

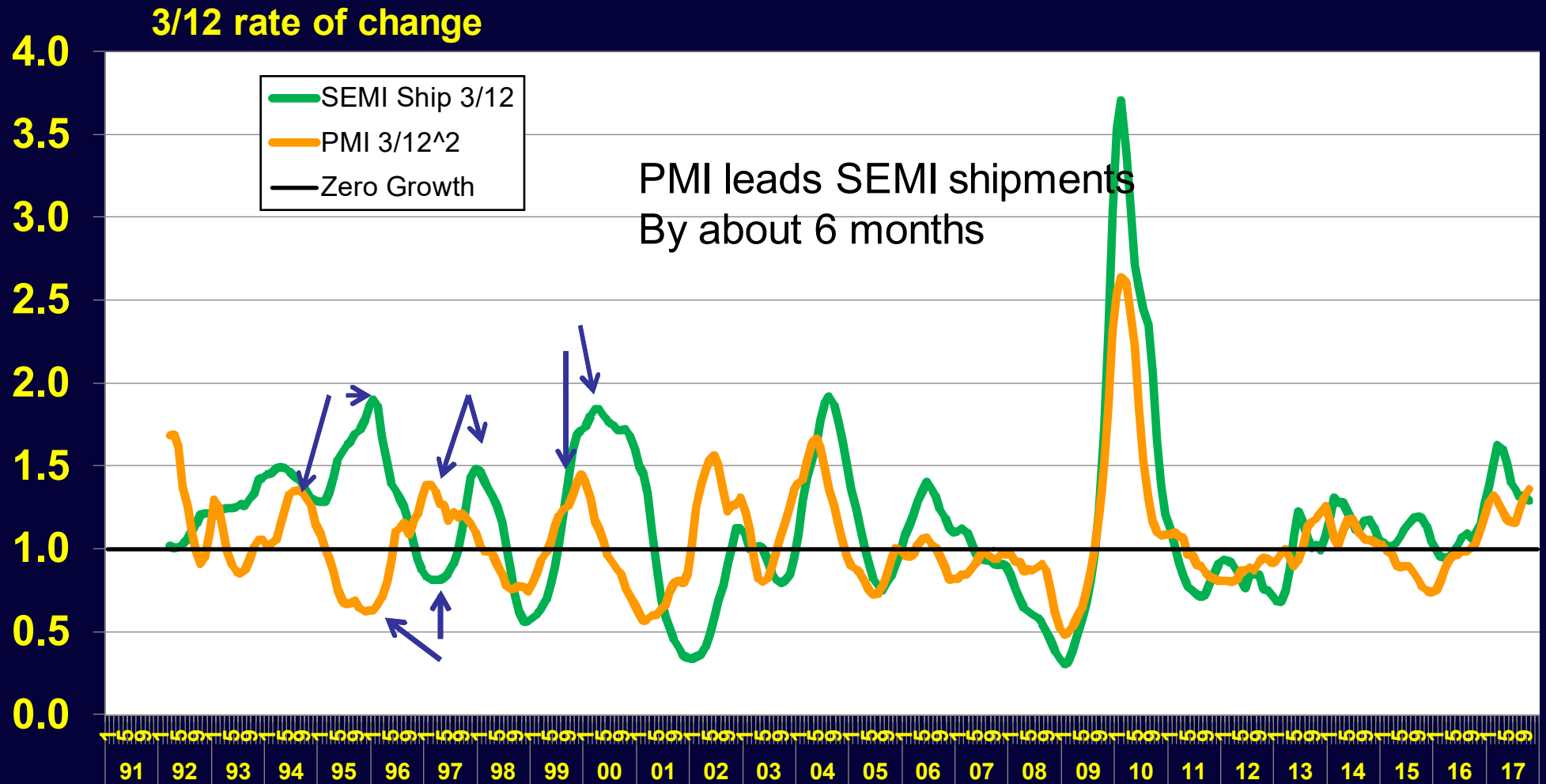


N American Semiconductor Equipment Industry Shipments



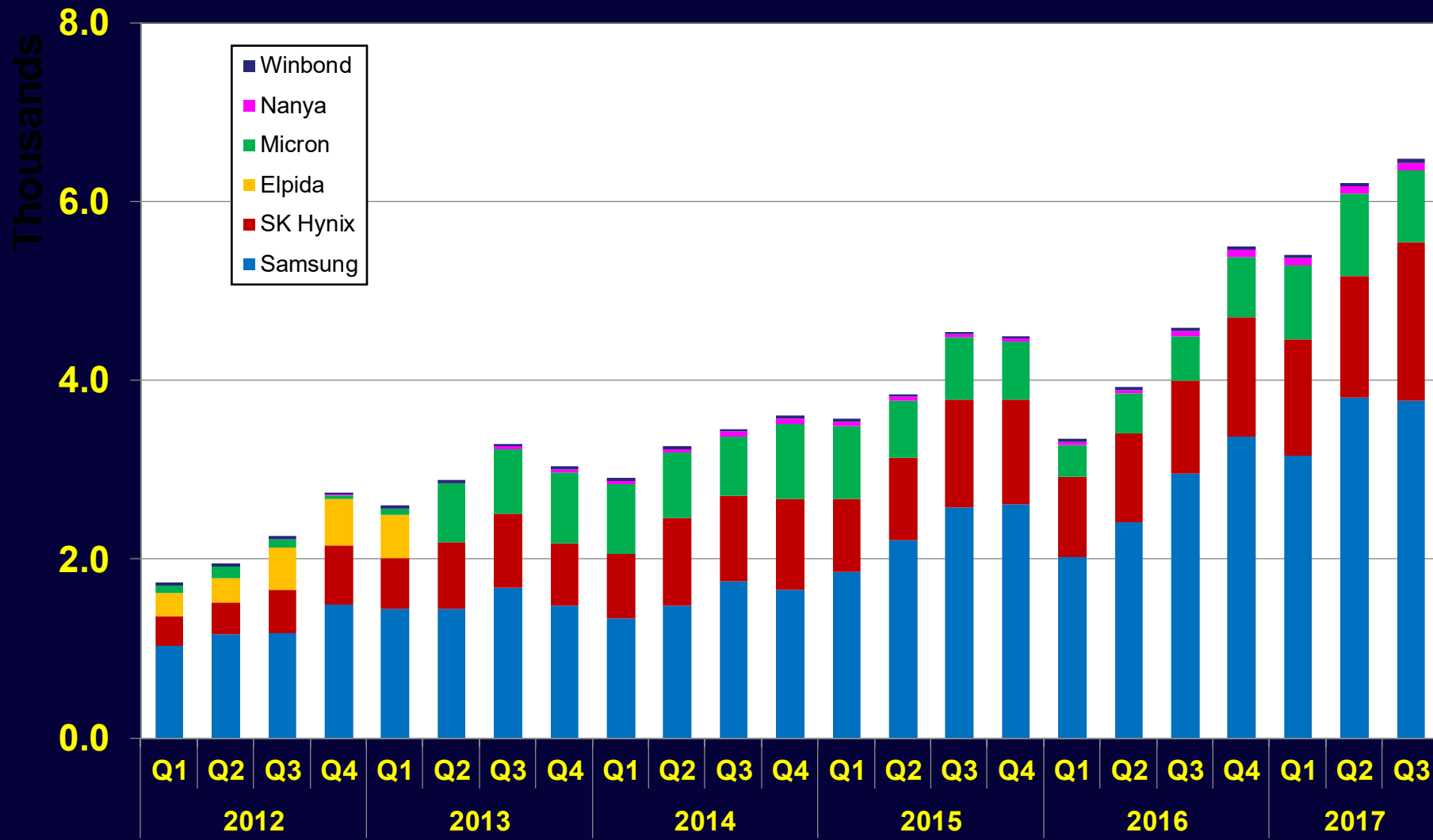
SOURCE Semiconductor Equipment and Materials International
<http://www.semi.org>

N American semiconductor equipment vs. U.S. PMI

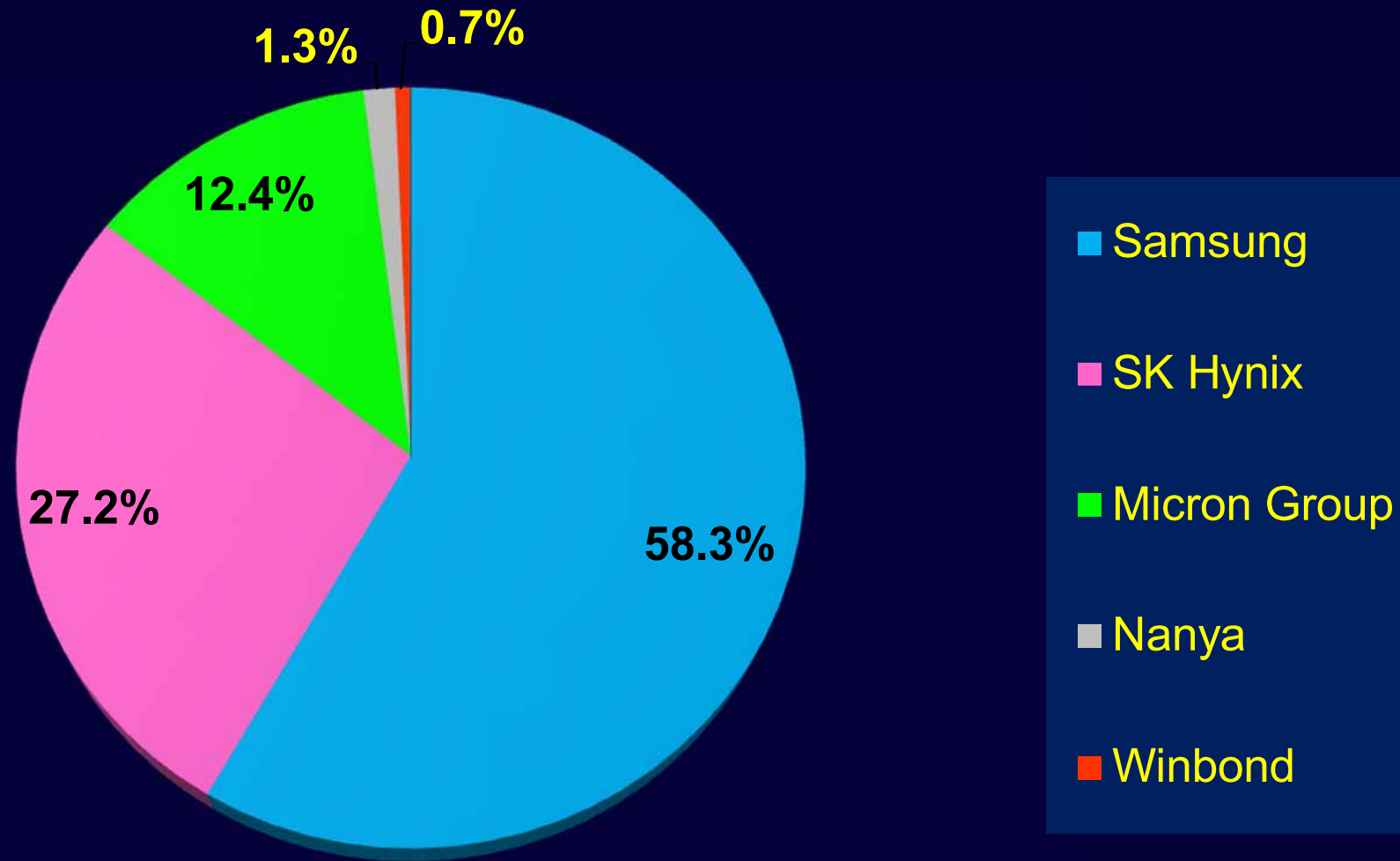


Mobile DRAM Revenue

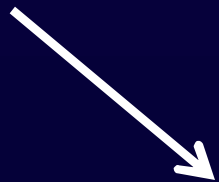
US\$ (Billions)



Mobile DRAM Revenues 3Q'17

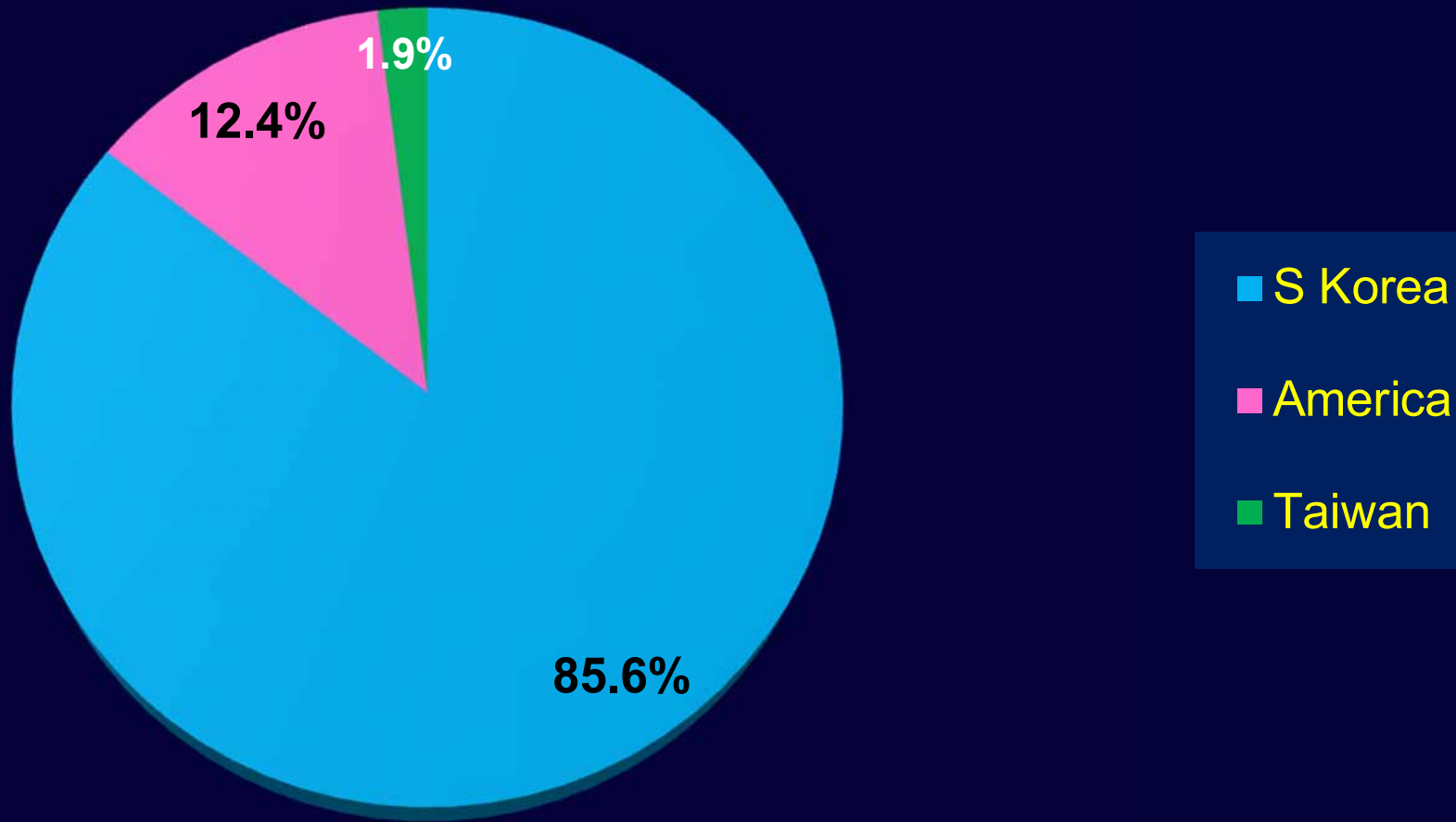


\$6.21 B
2Q'17



3Q'17 Total: US\$6.48 Billion

Mobile DRAM Market Share by Region 3Q'17



1993 Semiconductor Sales Leaders Excluding Foundries (\$M)

<u>Rank</u>	<u>Company</u>	<u>1993</u>	<u>Share</u>
1	Intel	7.6	9.2%
2	NEC	7.1	8.6%
3	Toshiba	6.3	7.6%
4	Motorola	5.8	7.0%
5	Hitachi	5.2	6.3%
6	TI	4.0	4.8%
7	Samsung	3.1	3.8%
8	Mitsubishi	3.0	3.6%
9	Fujitsu	2.9	3.5%
10	Matsushita	2.3	2.8%
	Total Top 10	47.2	57.2%
	Semi Market	82.6	100%

2000 Semiconductor Sales Leaders Excluding Foundries (\$M)

<u>Rank</u>	<u>Company</u>	<u>2000</u>	<u>Share</u>
1	Intel	29.7	11.6%
2	Toshiba	11.0	5.0%
3	NEC	10.9	5.0%
4	Samsung	10.6	4.8%
5	TI	9.6	4.4%
6	Motorola	7.9	3.6%
7	ST	7.9	3.6%
8	Hitachi	7.4	3.4%
9	Infineon	6.8	3.1%
10	Philips	6.3	2.9%
	Total Top 10	108.1	49.4%
	Semi Market	219.0	100%

2006 Semiconductor Sales Leaders Excluding Foundries (\$M)

<u>Rank</u>	<u>Company</u>	<u>2006</u>	<u>Share</u>
1	Intel	31.6	11.8%
2	Samsung	19.7	7.3%
3	TI	13.7	5.1%
4	Toshiba	10.0	3.7%
5	ST	9.9	3.7%
6	Renesas	8.2	3.1%
7	Hynix	7.4	2.8%
8	Freescale	6.1	2.3%
9	NXP	5.9	2.2%
10	NEC	5.7	2.1%
	Total Top 10	118.2	44.1%
	Semi Market	268.2	100%

2016 Semiconductor Sales Leaders Excluding Foundries (\$M)

<u>Rank</u>	<u>Company</u>	<u>2016</u>	<u>Share</u>
1	Intel	57.0	15.6%
2	Samsung	44.3	12.1%
3	Qualcomm	15.4	4.2%
4	Broadcom	15.2	4.2%
5	SK Hynix	14.9	4.1%
6	Micron	13.5	3.7%
7	TI	12.5	3.4%
8	Toshiba	10.9	3.0%
9	NXP	9.5	2.6%
10	MediaTek	8.8	2.4%
	Total Top 10	202.1	55.3%
	Semi Market	365.6	100%

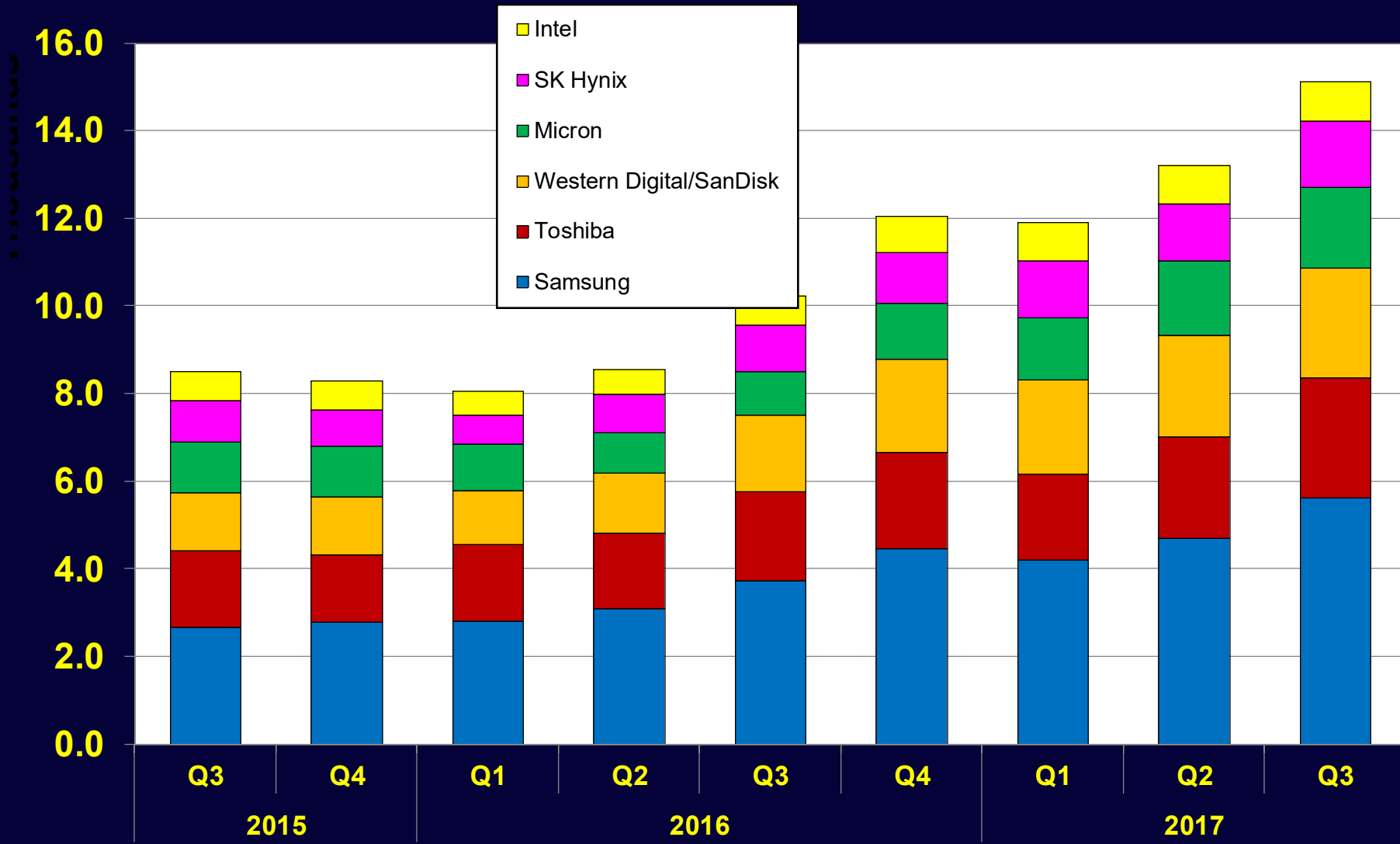
2017 Forecasted Semiconductor Sales Leaders Excluding Foundries (\$M)

<u>Rank</u>	<u>Company</u>	<u>2016</u>	<u>Share</u>
1	Samsung	65.6	15.0%
2	Intel	61.0	13.9%
3	SK Hynix	26.2	6.0%
4	Micron	23.4	5.3%
5	Broadcom	17.6	4.0%
6	Qualcomm	17.1	3.9%
7	TI	13.9	3.2%
8	Toshiba	13.5	3.1%
9	Nvidia	9.2	2.1%
10	NXP	9.2	2.1%
	Total Top 10	256.7	58.5%
	Semi Market	438.5	100%

Chart 28

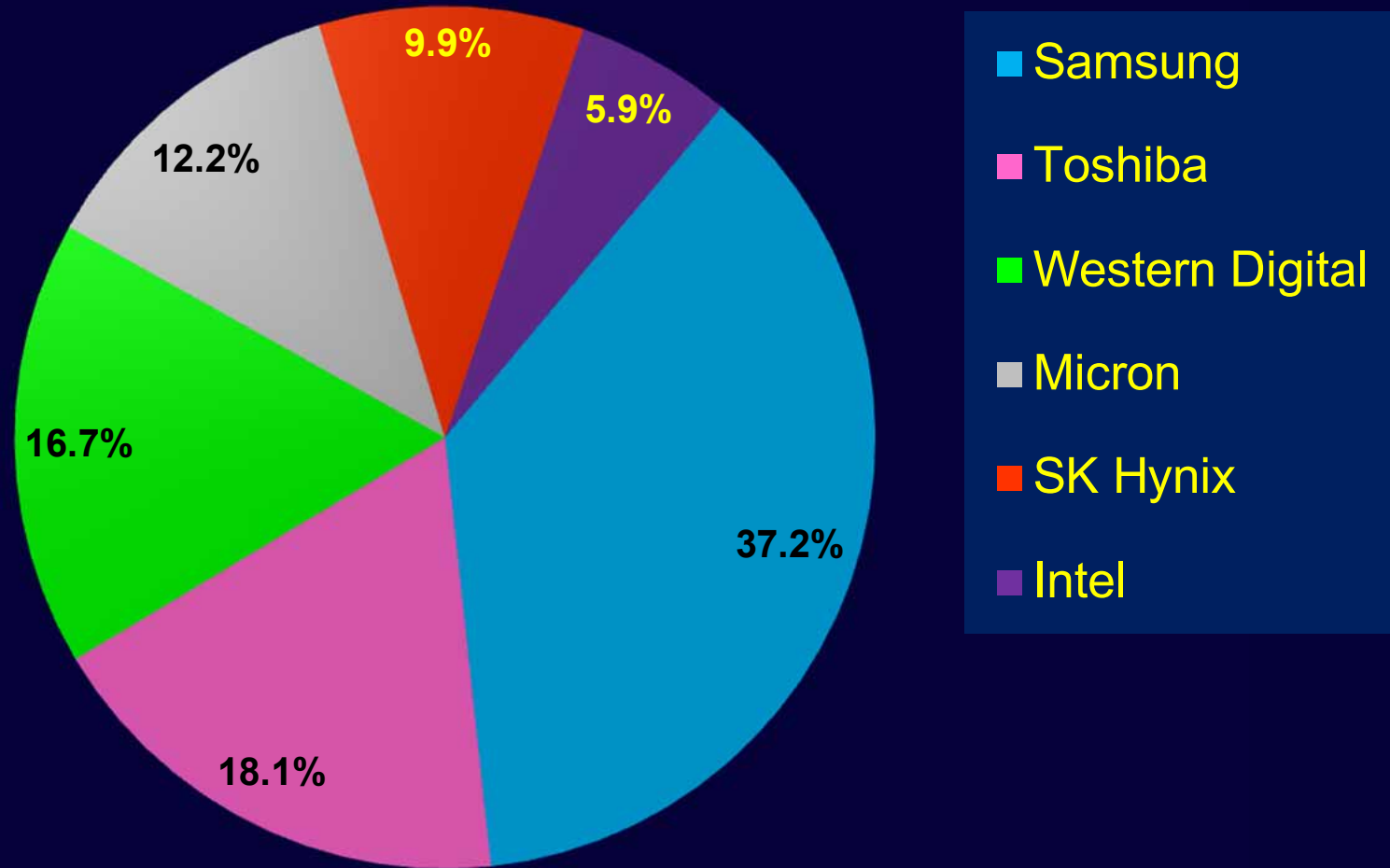
Branded NAND Flash Suppliers

US\$ (Billions)



TrendForce 11/2017 & earlier reports

NAND Flash Market 1Q'17



3Q'17 Total 15,116 US\$ (million)