

Chart 1

# Purchasing Managers' Indices October vs. September 2020

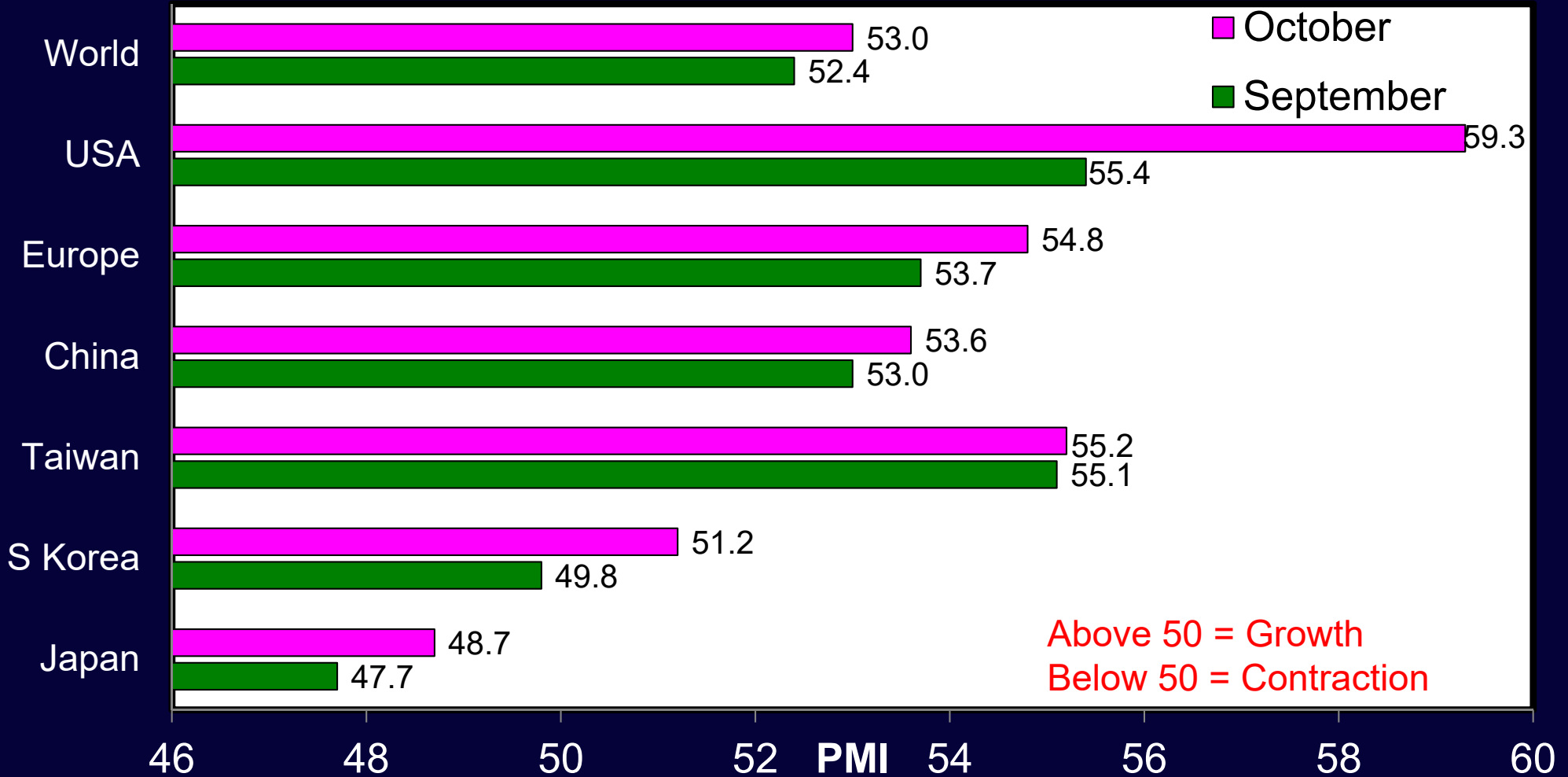
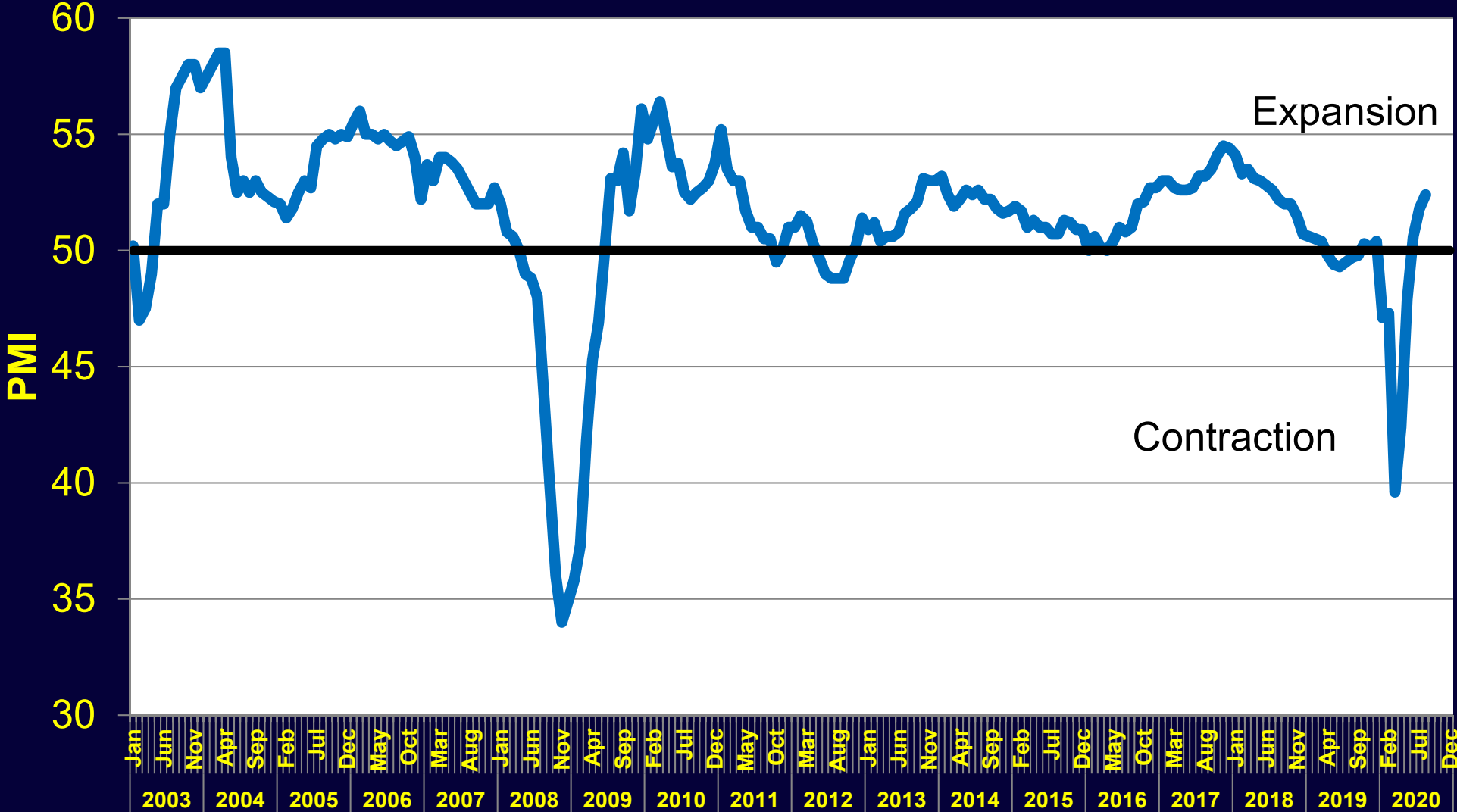


Chart 2

# Global "Purchasing Managers" Index

Diffusion Index, >50 = Growth



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

Diffusion Index, >50 = Growth

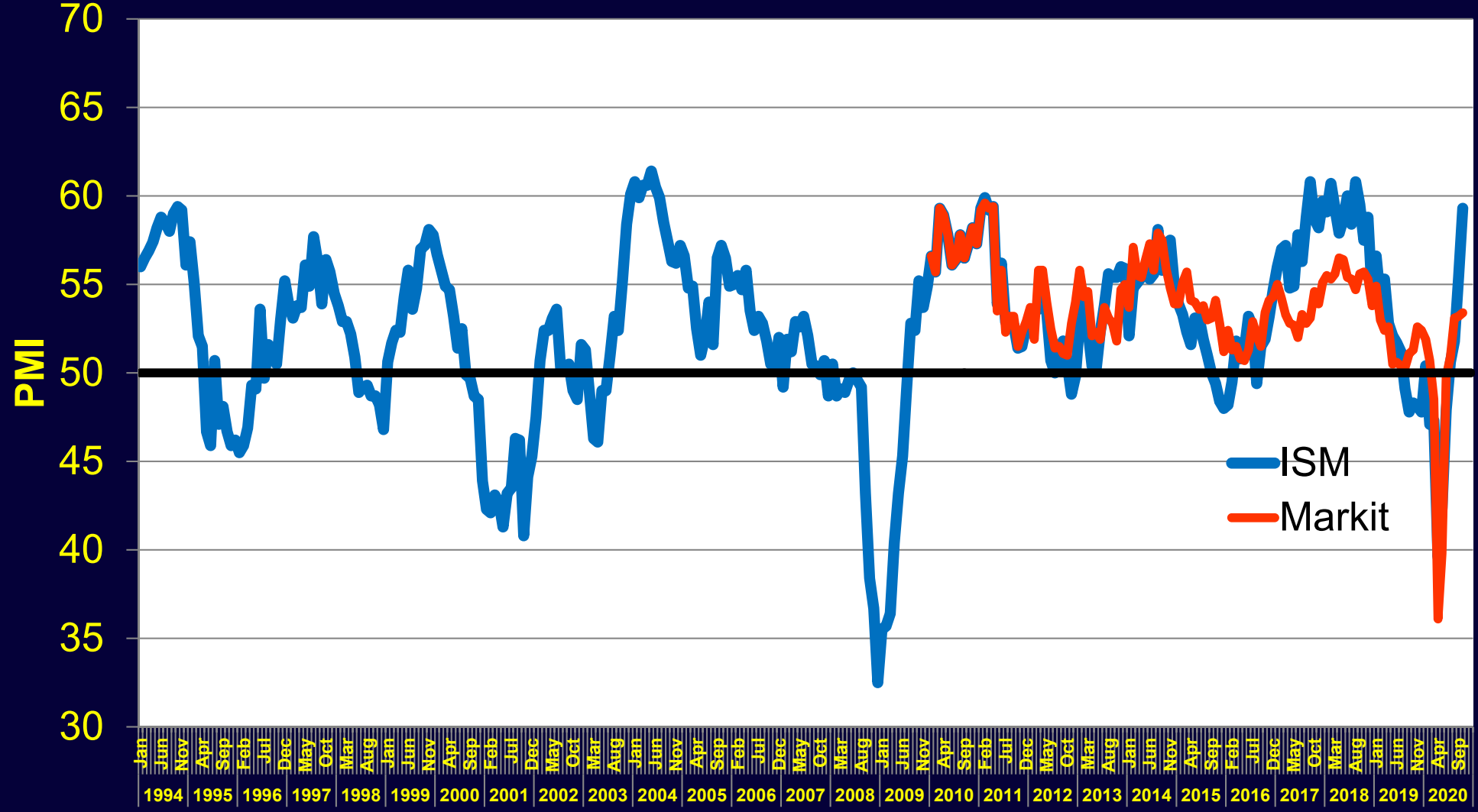
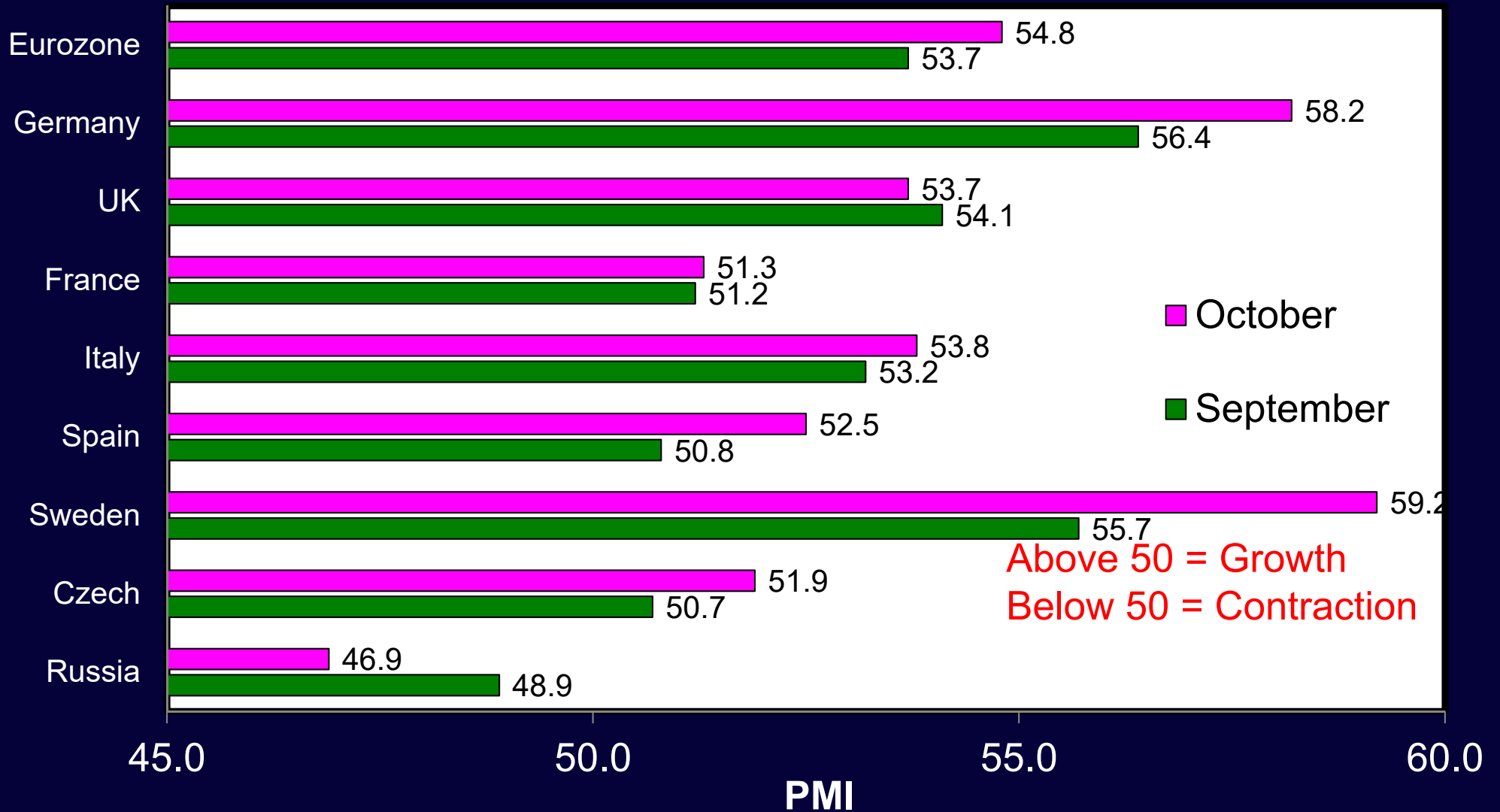


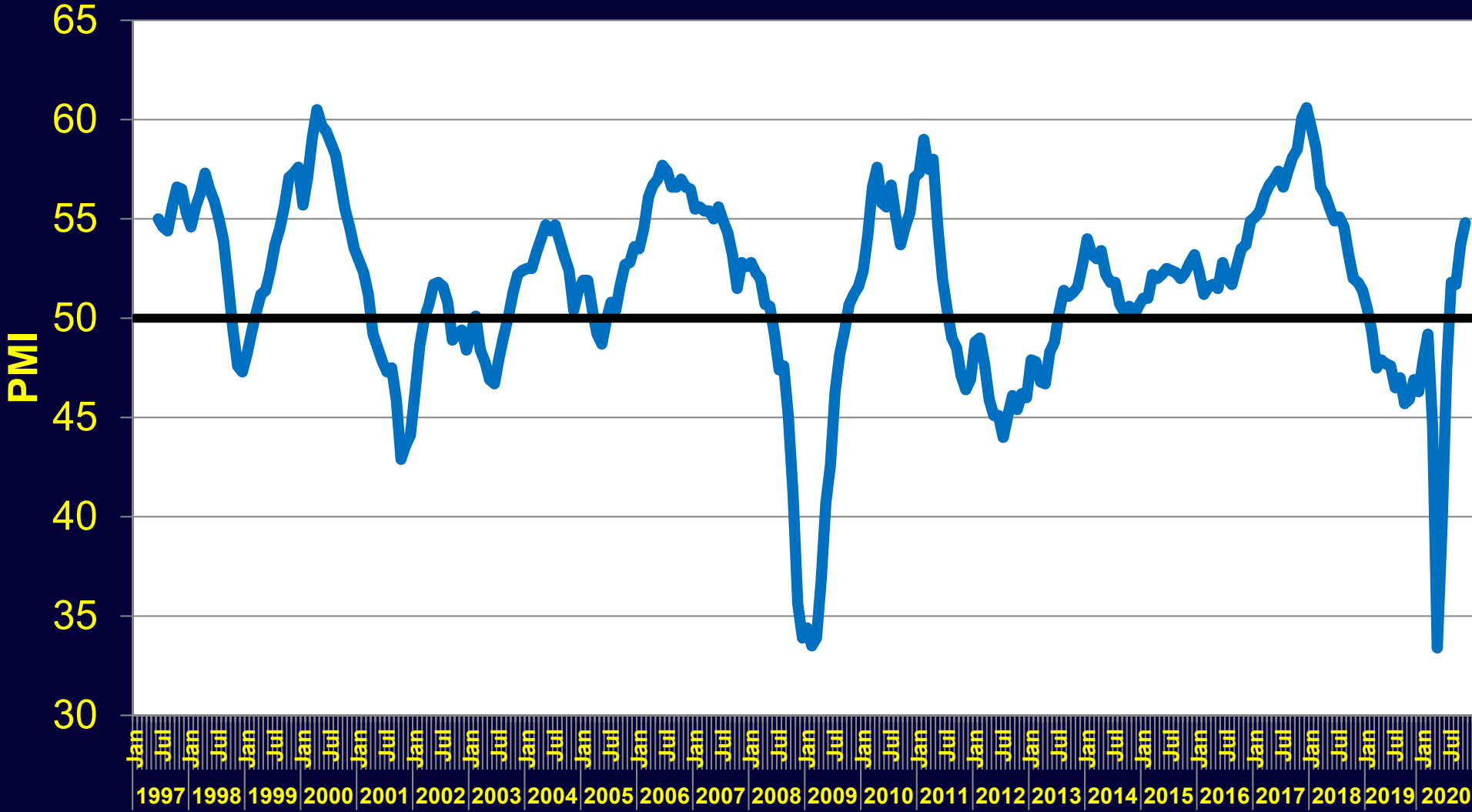
Chart 4

# European Purchasing Managers' Indices October vs September 2020



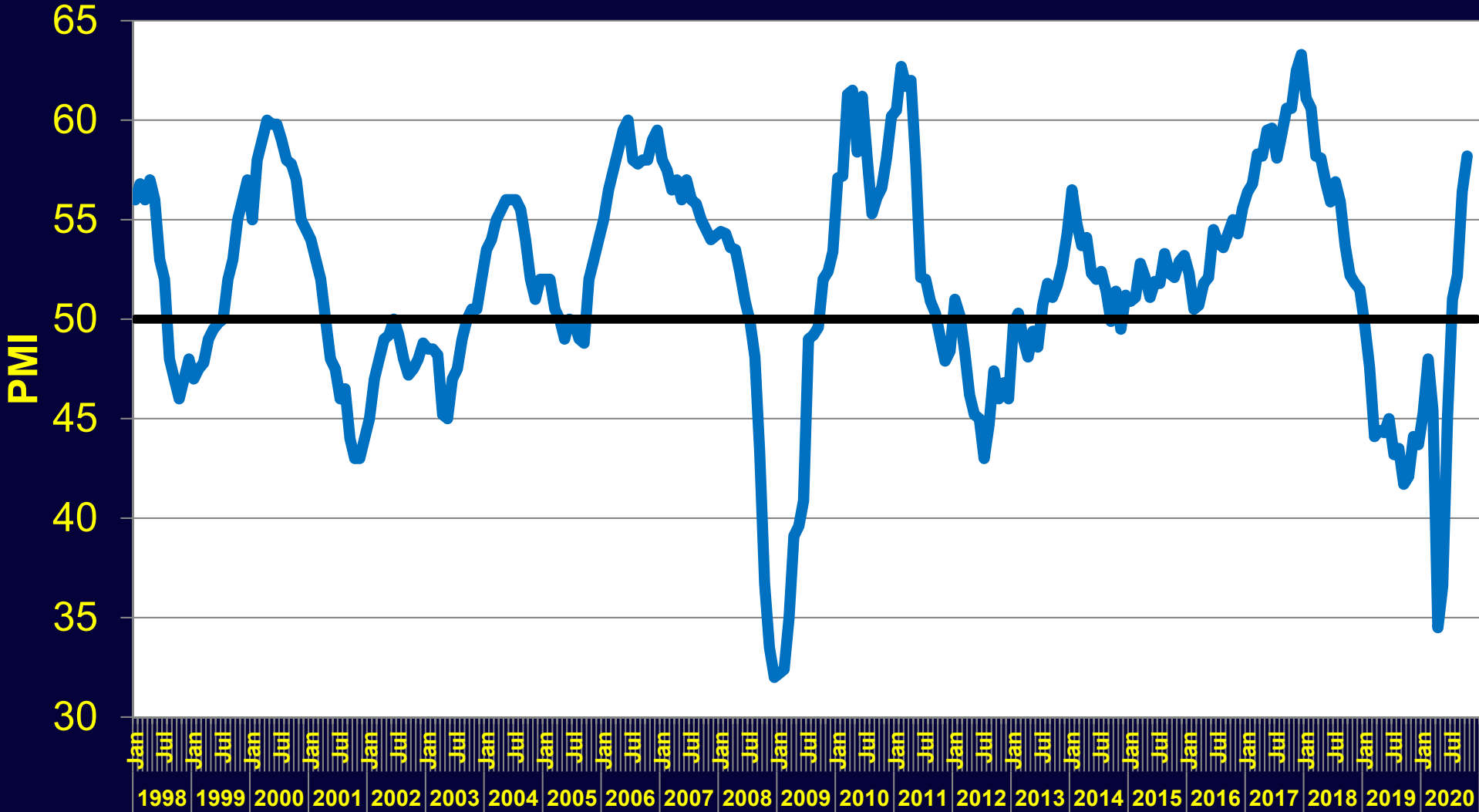
# Eurozone Manufacturing "Purchasing Managers" Index

Diffusion Index, >50 = Growth



# Germany Manufacturing "Purchasing Managers" Index

Diffusion Index, >50 = Growth



# Chart 7 Asian Purchasing Managers Indices October vs. September 2020

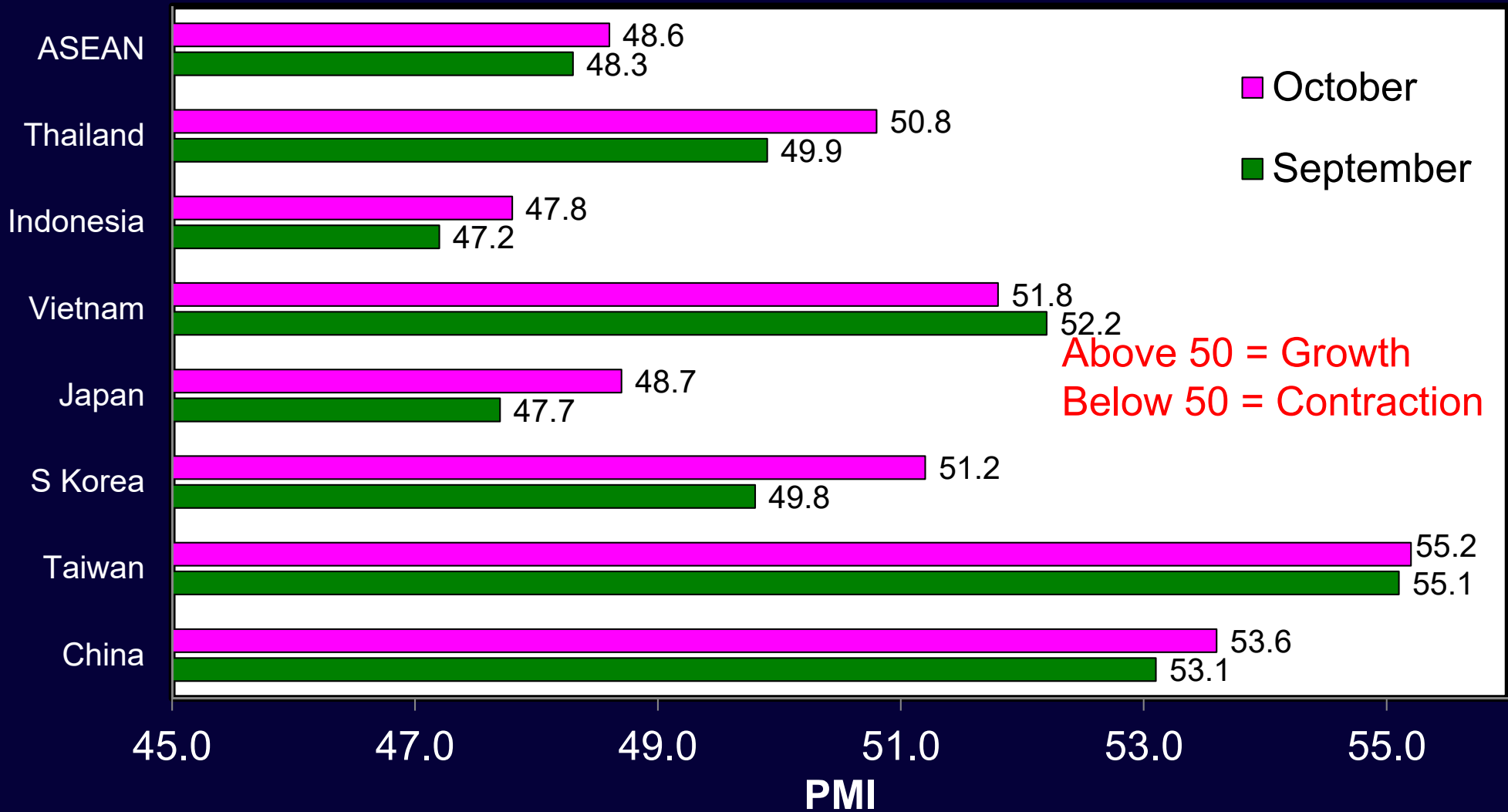


Chart 8

# ASEAN "Purchasing Managers" Index

>50 = Growth

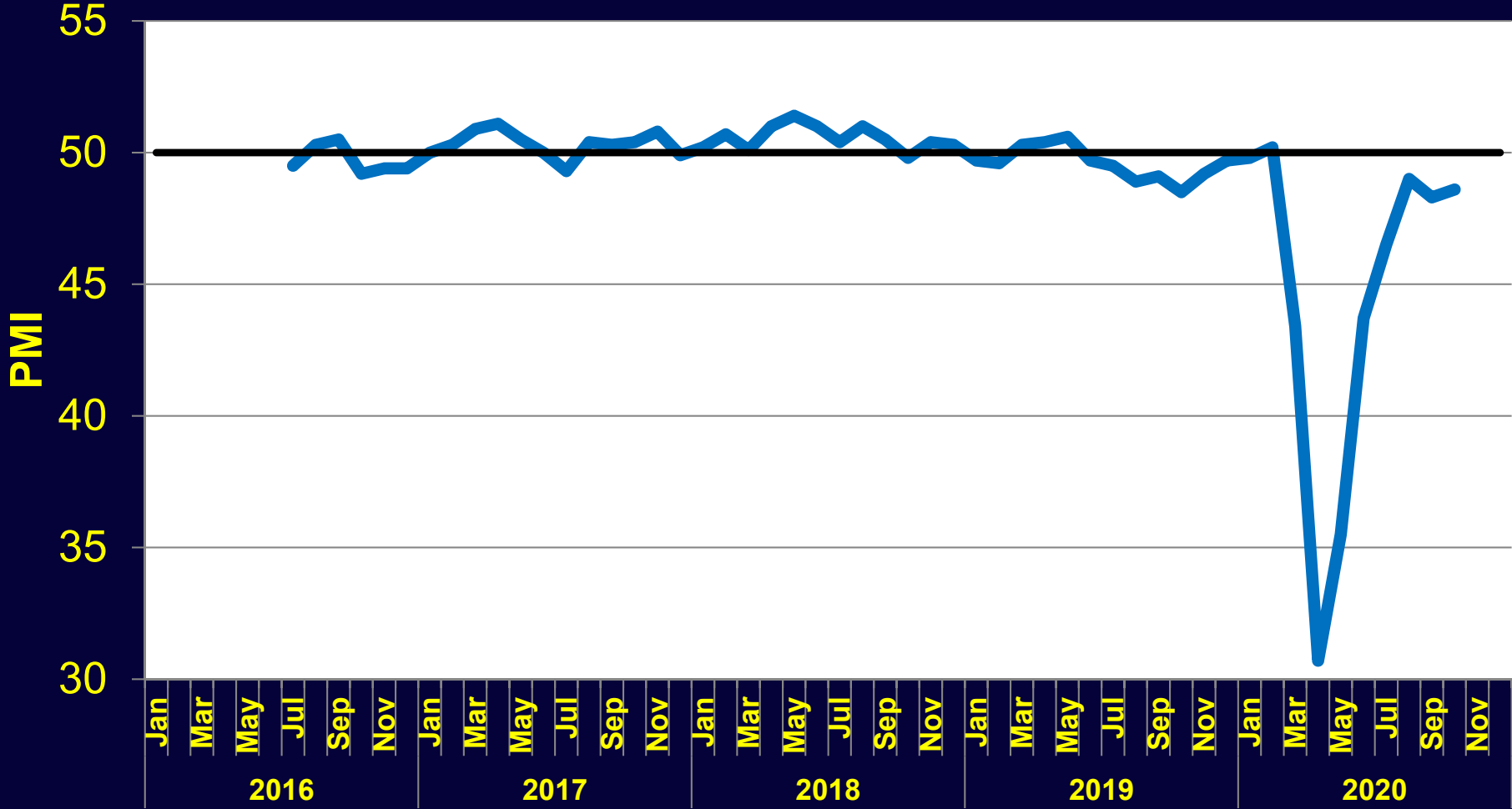




Chart 9

# China "Purchasing Managers" Indices

>50 = Growth

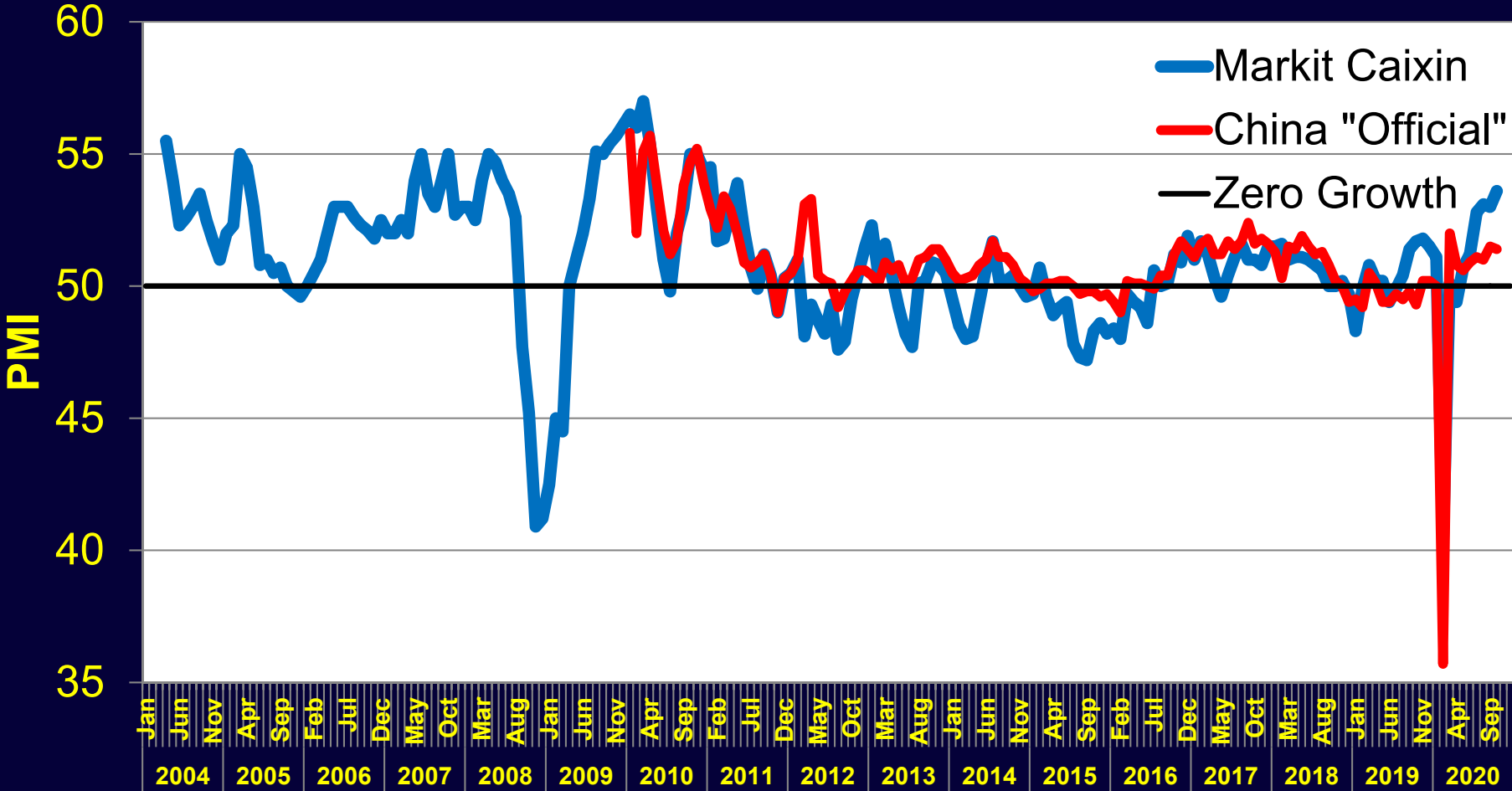
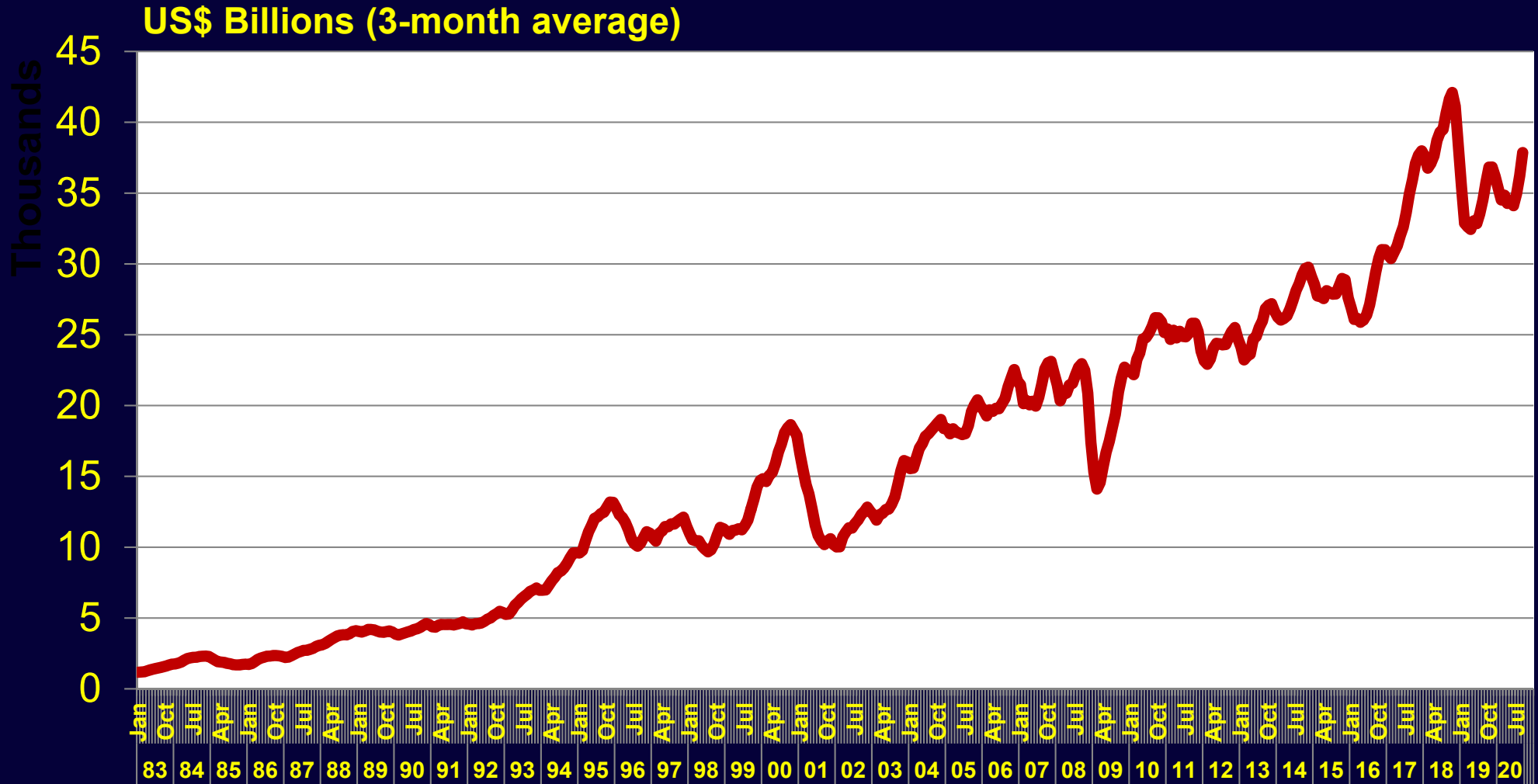


Chart 10

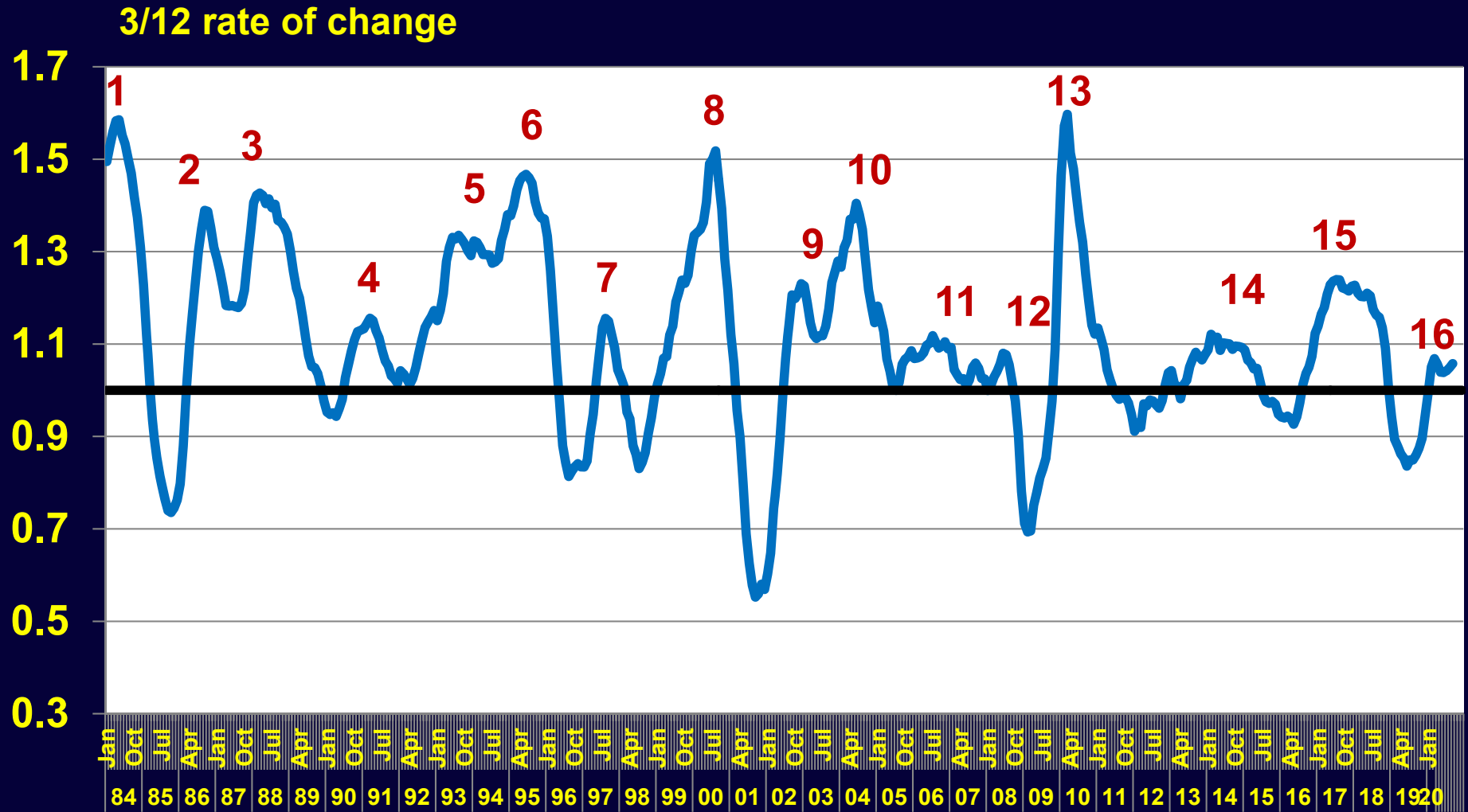
# World Semiconductor Shipments

## Monthly US\$



# Global Semiconductor Shipments

## 3-Month Growth Rates on \$ Basis



Total \$ Shipments from All Countries to an Area  
SIA website: [www.sia-online.org/](http://www.sia-online.org/)





Chart 14

# N American Semiconductor Shipments

## Monthly & 3-Month Average Shipments

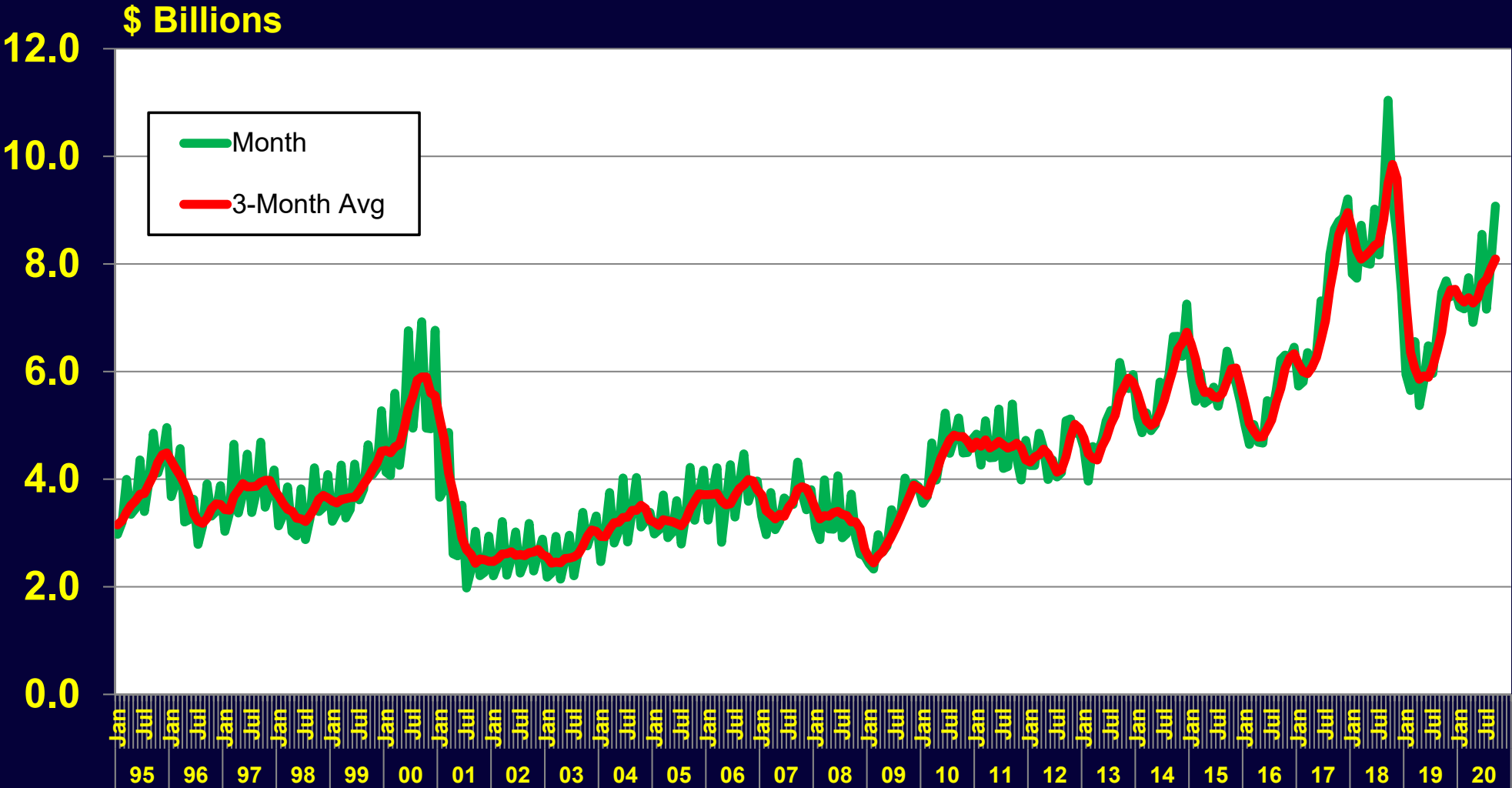
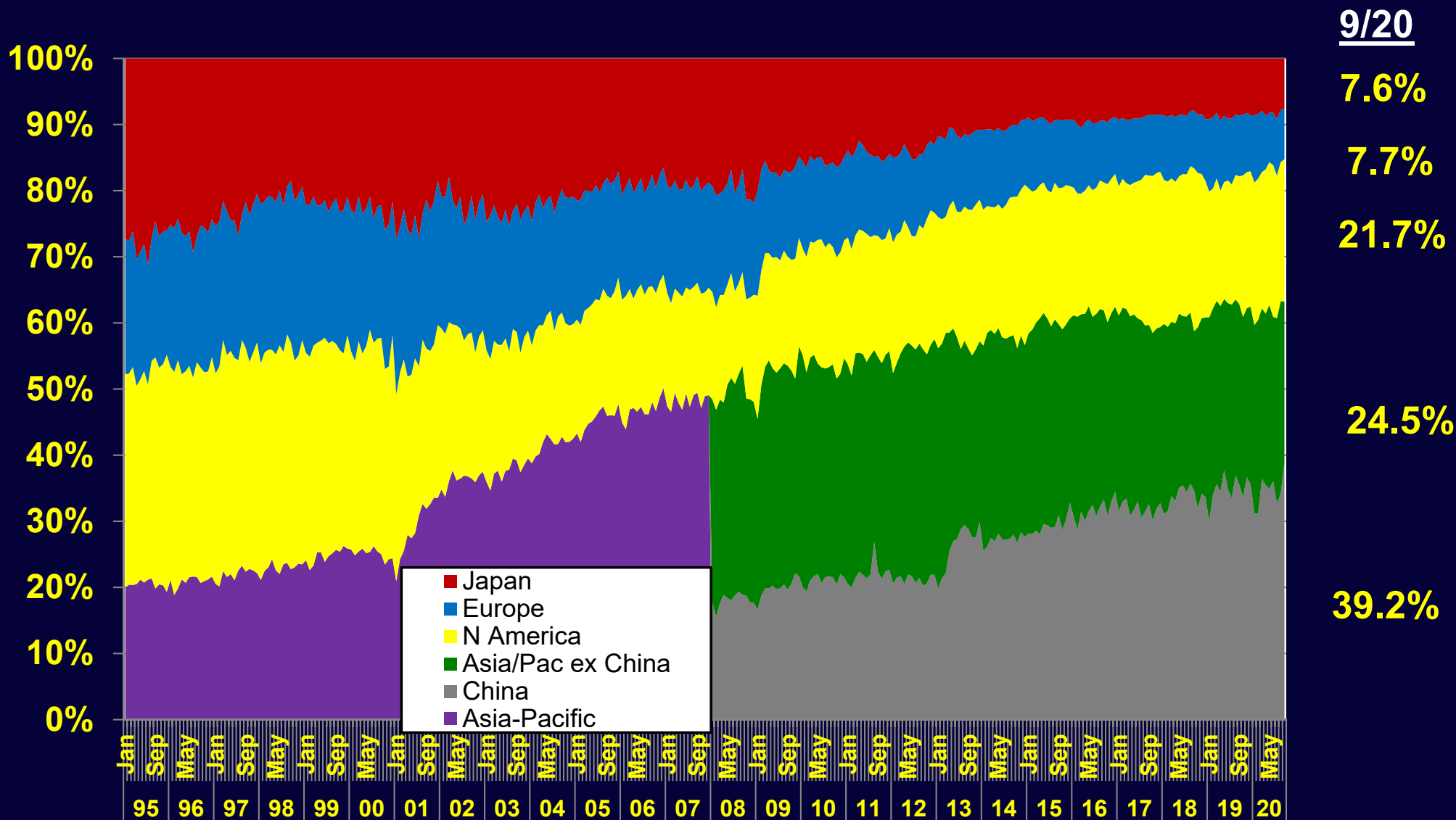
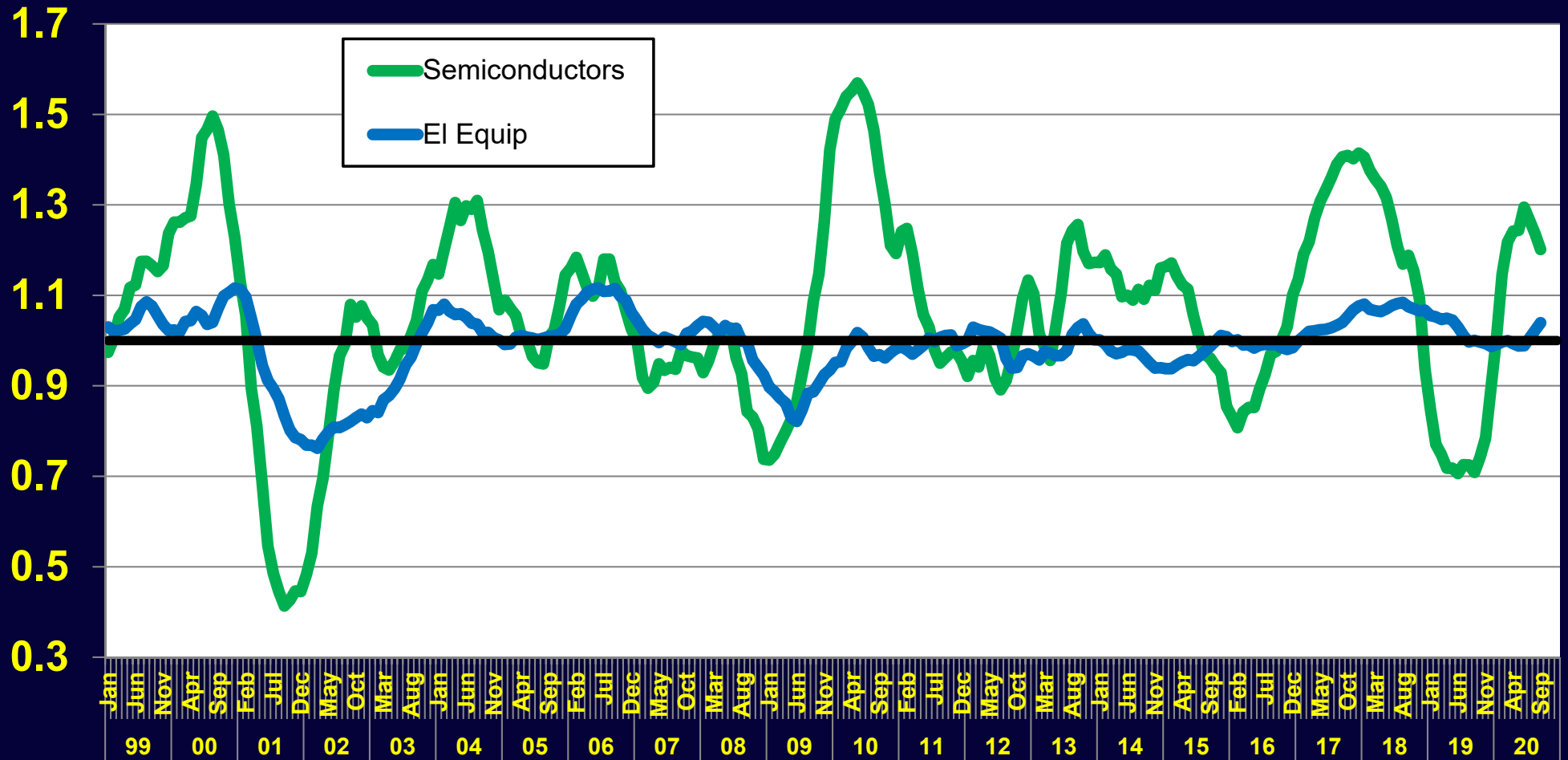


Chart 15 **Total Semiconductor Shipments to an Area**  
**Monthly Shipments - Reporting Firms (showing China)**



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

3/12 Rate of Change(US\$)



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



Chart 17

# Monthly Semiconductor Shipments \$ Billions (3-month avg in US\$)

	<u>9/19</u>	<u>9/20</u>	<u>% CH</u>
Americas	6.73	8.09	+20.1%
Europe	3.36	3.03	- 9.8%
Japan	3.12	3.07	- 1.8%
China	12.63	13.45	+ 6.5%
Asia Pacific / All Other	9.94	10.23	+ 2.9%
Total	35.79	37.86	+ 5.8%

Chart 18

# Present Growth Rates (%)

## U.S. Economy & Electronics Industry

	Latest Month	Annualized Growth Rate	3-Month Growth Rate
<b>Electronic Component \$</b>			
Rigid & Flex PCB Orders (N Amer)	9/20	4.0	5.1
Rigid & Flex PCB Shipments (N Amer)	9/20	6.6	-6.0
Electronic Component Orders	9/20	7.5	6.9
Electronic Component Shipments	9/20	8.3	11.2
Semiconductor Shipments to N America	9/20	13.1	20.7
SEMI Capital Equipment	9/20	-8.0	-45.1
<b>U.S. Electronic Equipment Orders \$</b>			
Computer & Related	9/20	4.8	8.2
Communication	9/20	6.8	17.3
Medical, Measurement & Control	9/20	-2.8	+0.6
Search & Navigation	9/20	-5.2	-3.2
Defense Capital Goods	9/20	7.1	-4.0
Military Electronics	9/20	-5.6	-2.4
Total Electronic Equipment	9/20	-1.0	3.5
<b>U.S. Industrial Production</b>	9/20	-6.0	-7.0

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

Also called 3/12 growth

Chart 19

# U.S. Electronic Equipment Book/Bill Ratio

## 3-Month Average

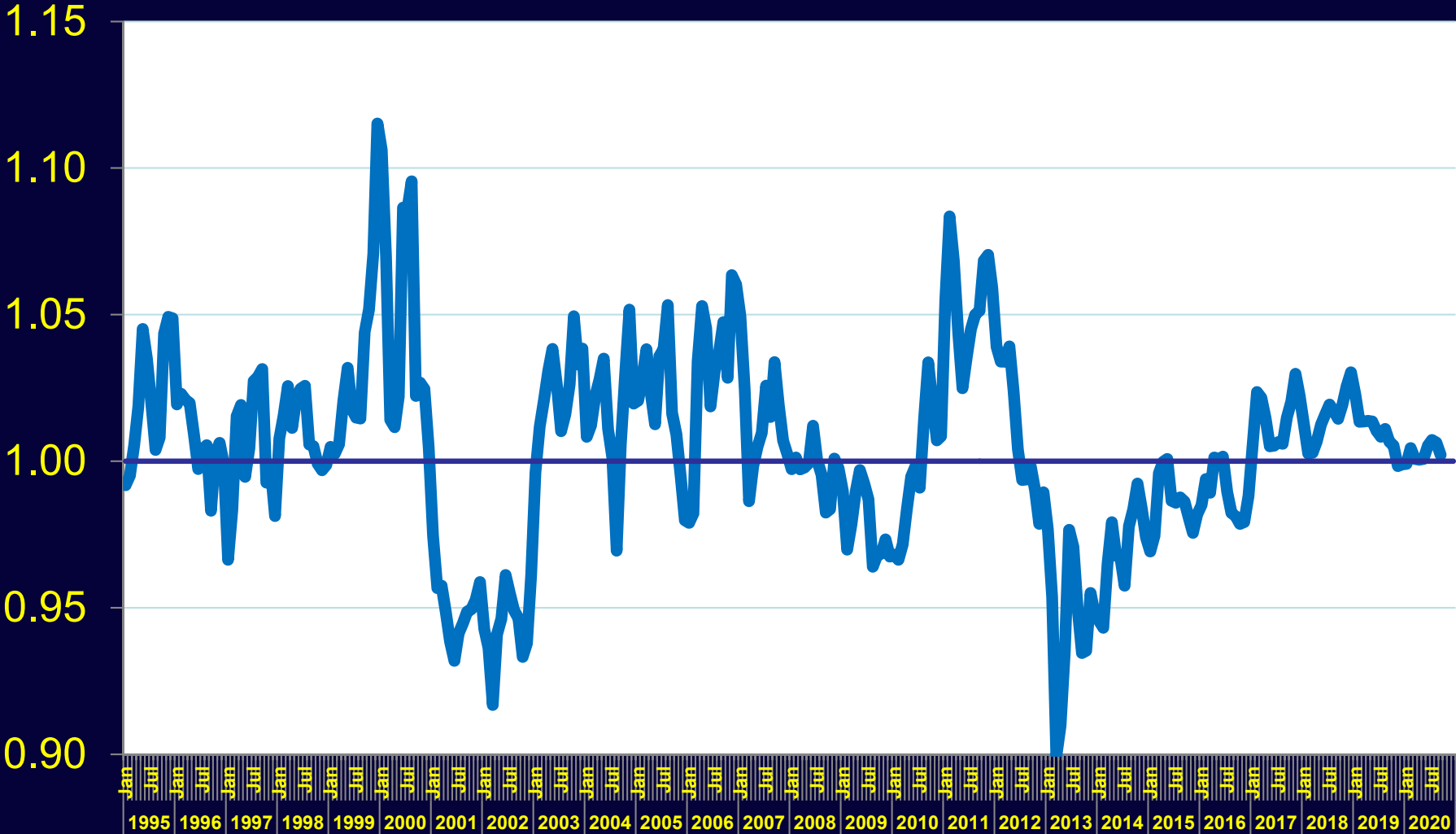
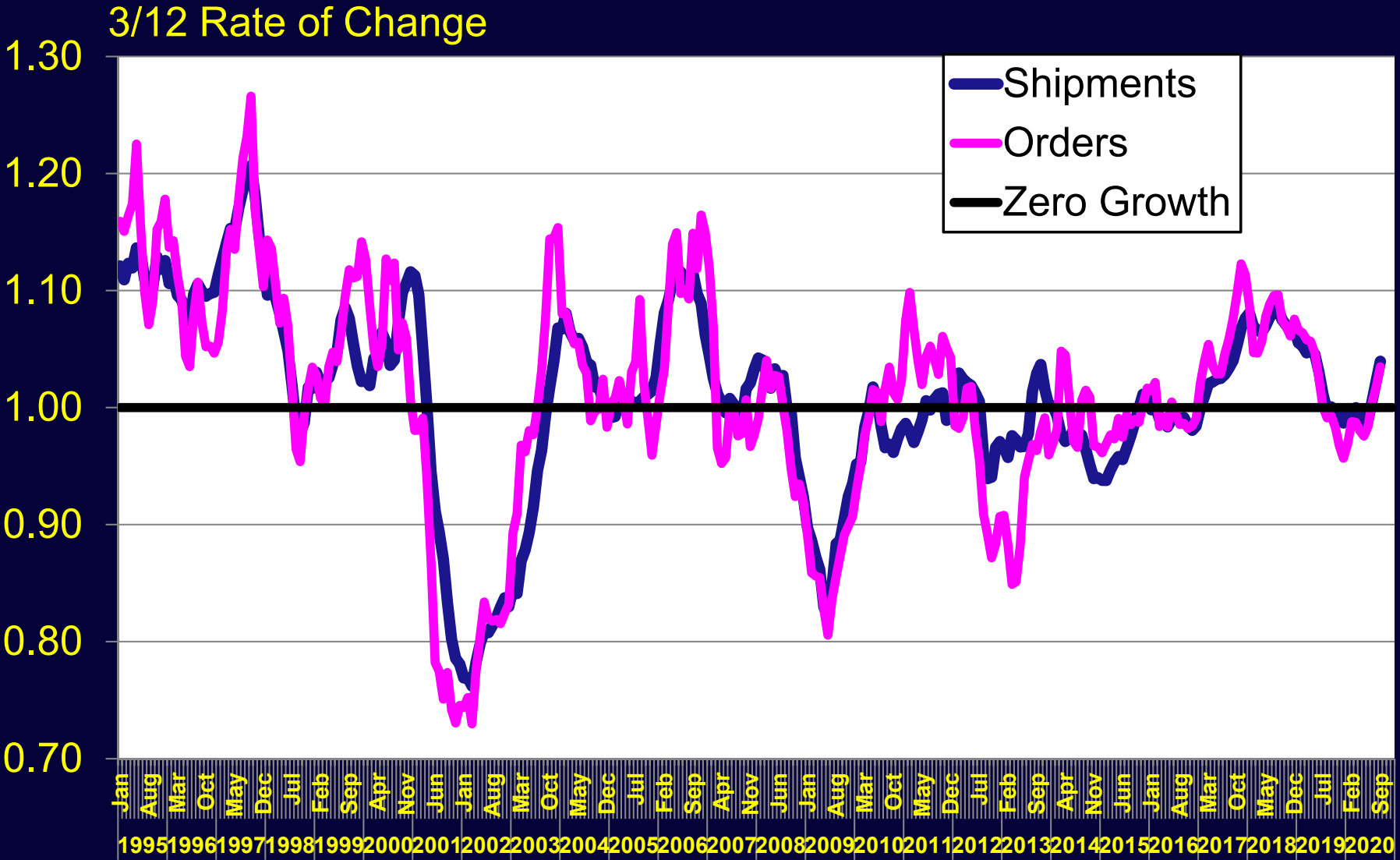


Chart 20

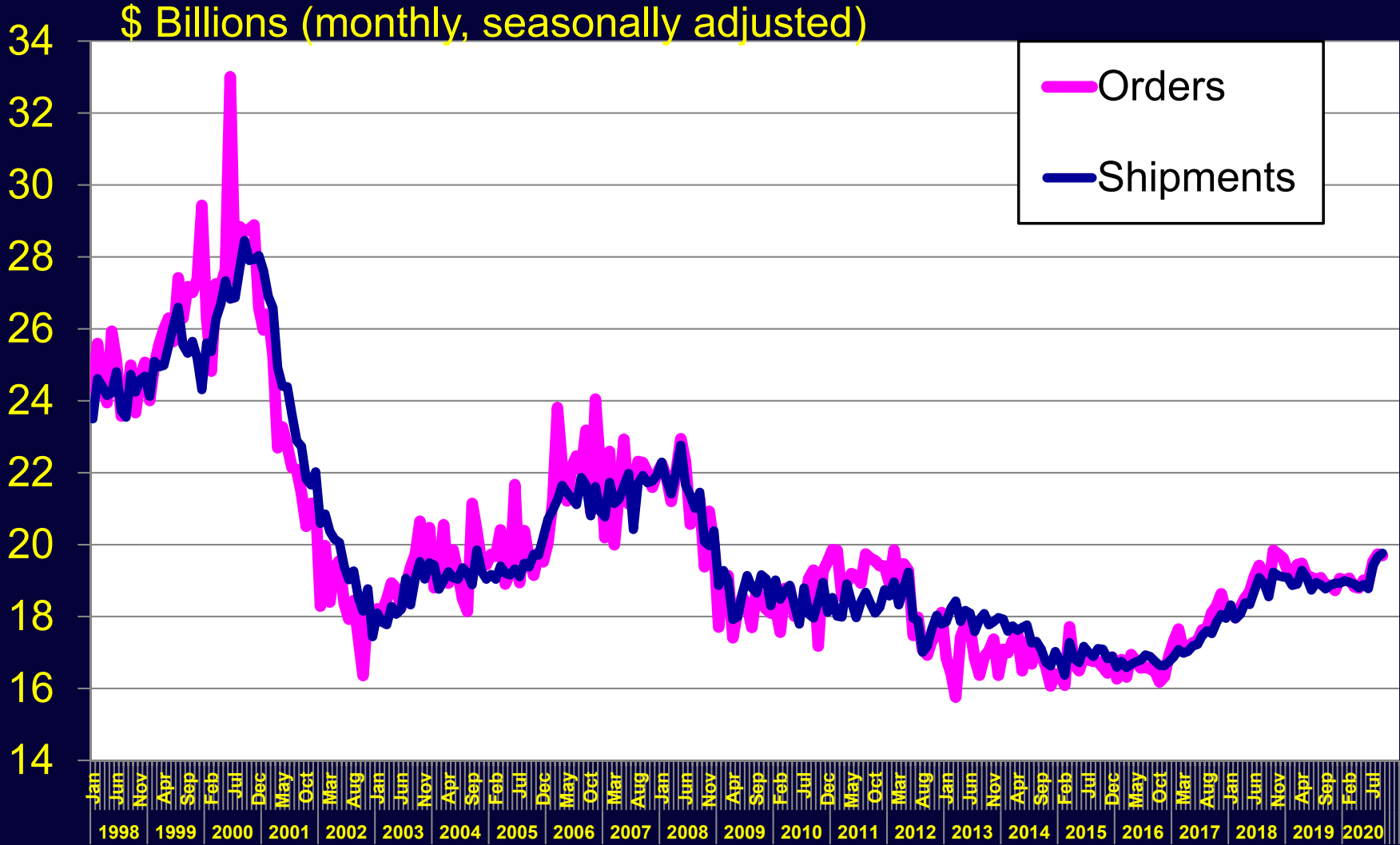
# U.S. Electronic Equipment Order & Shipment Growth

Computer, Communications, Measurement & Control and Military



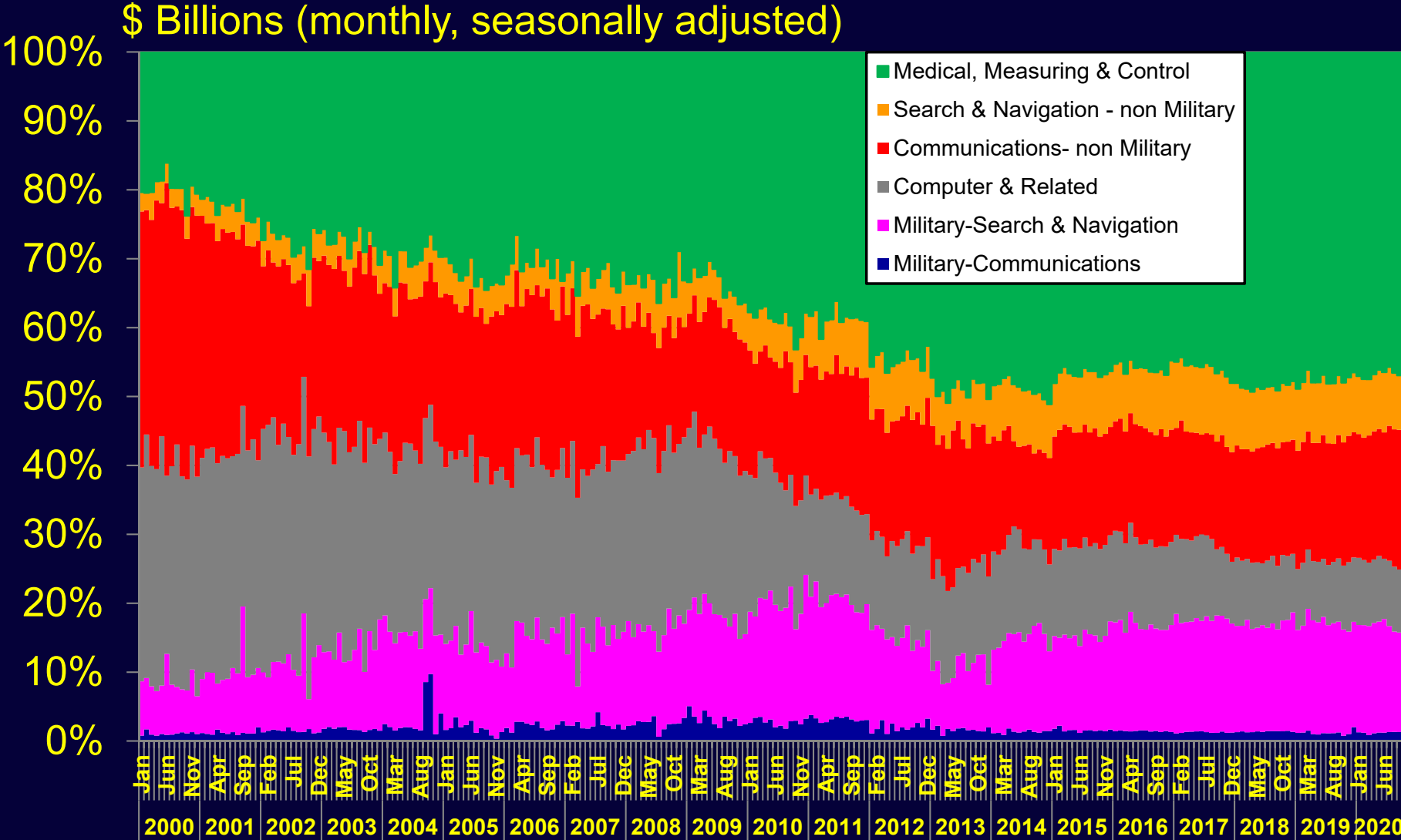
# U.S. Electronic Equipment Orders & Shipments

Computer, Communications, Measurement & Control and Military

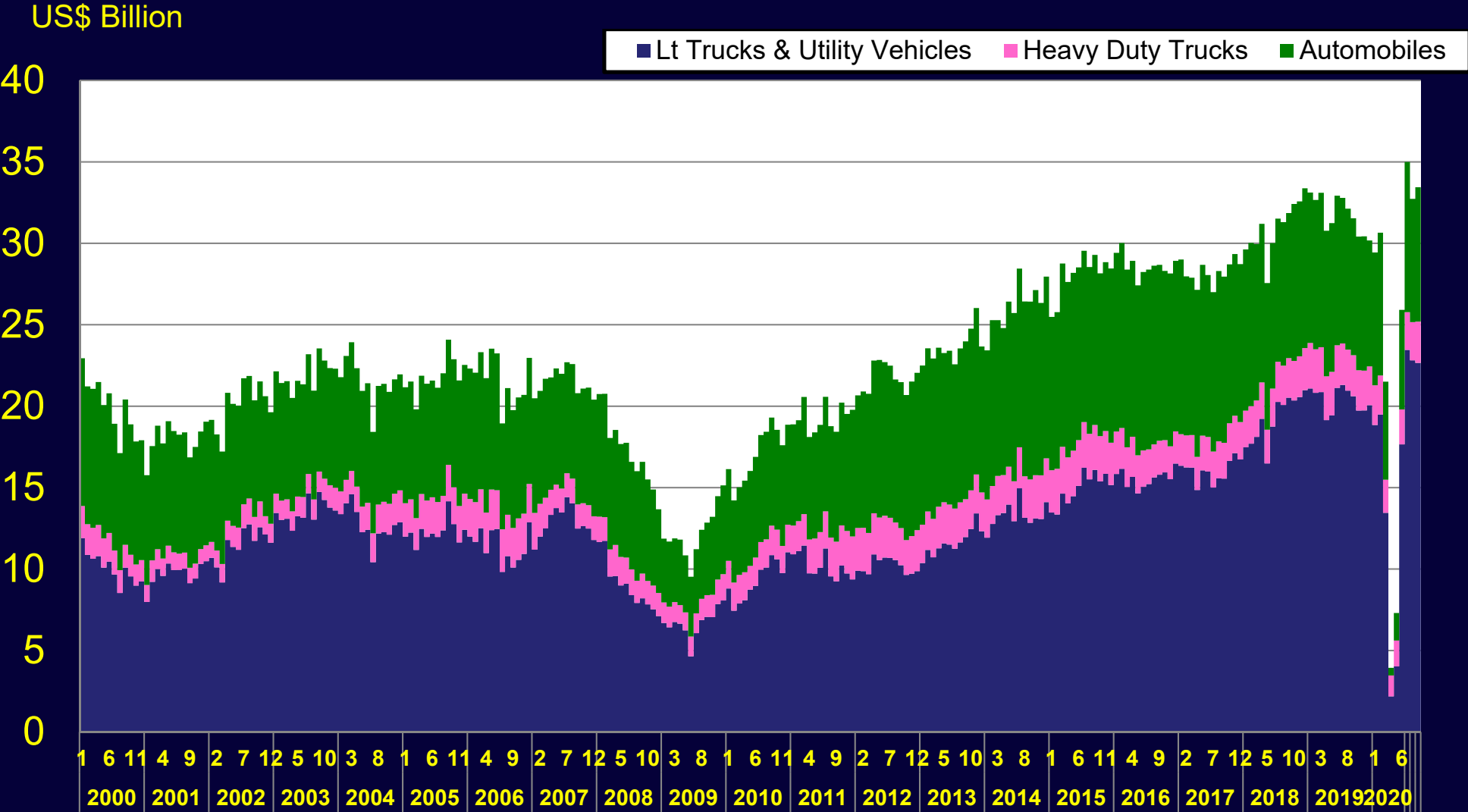


# U.S. Electronic Equipment Orders

## Monthly Data

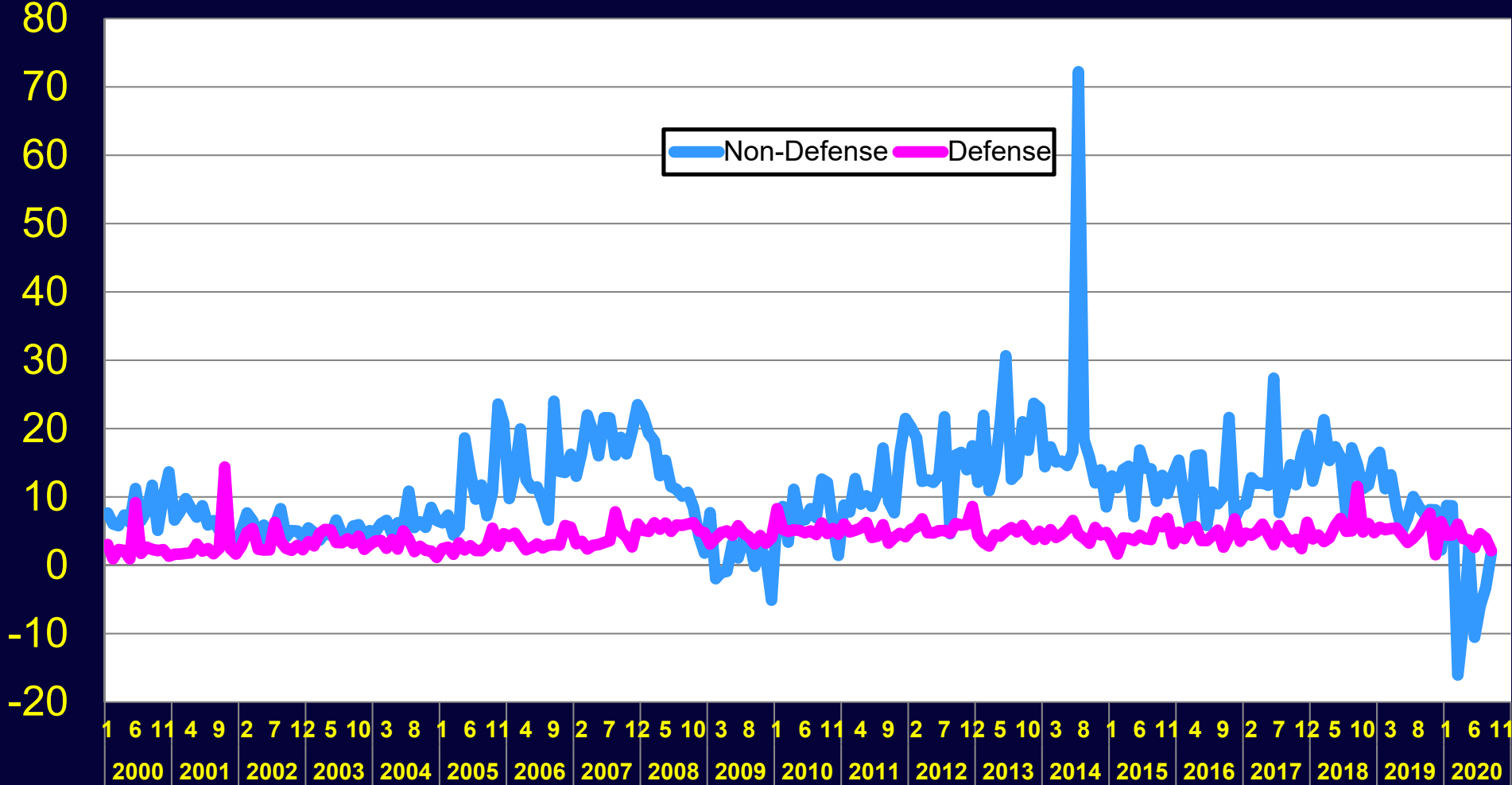


# U.S. Vehicle Shipments



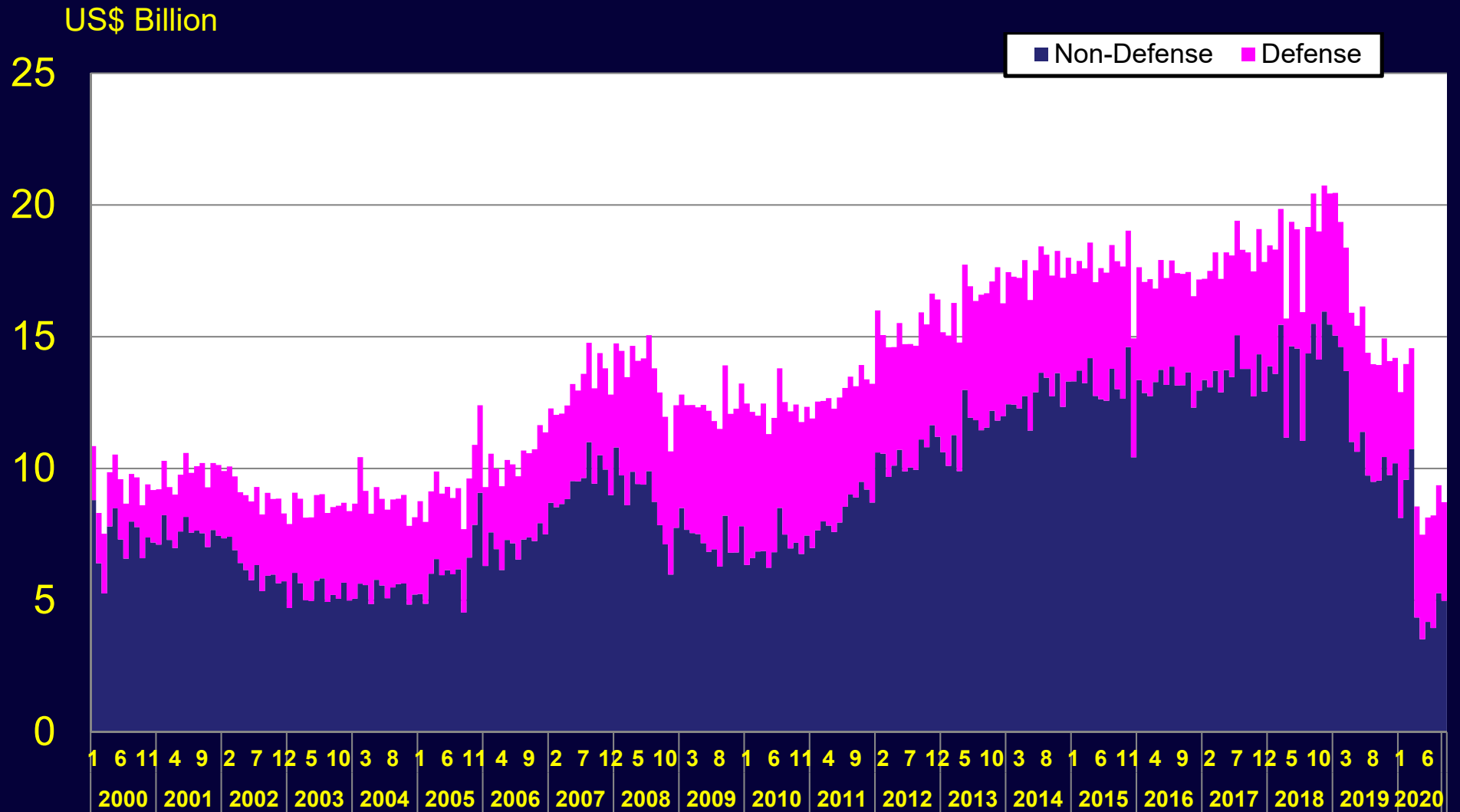
# U.S. Aircraft & Parts Orders

US\$ Billion





# U.S. Aircraft & Parts Shipments



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

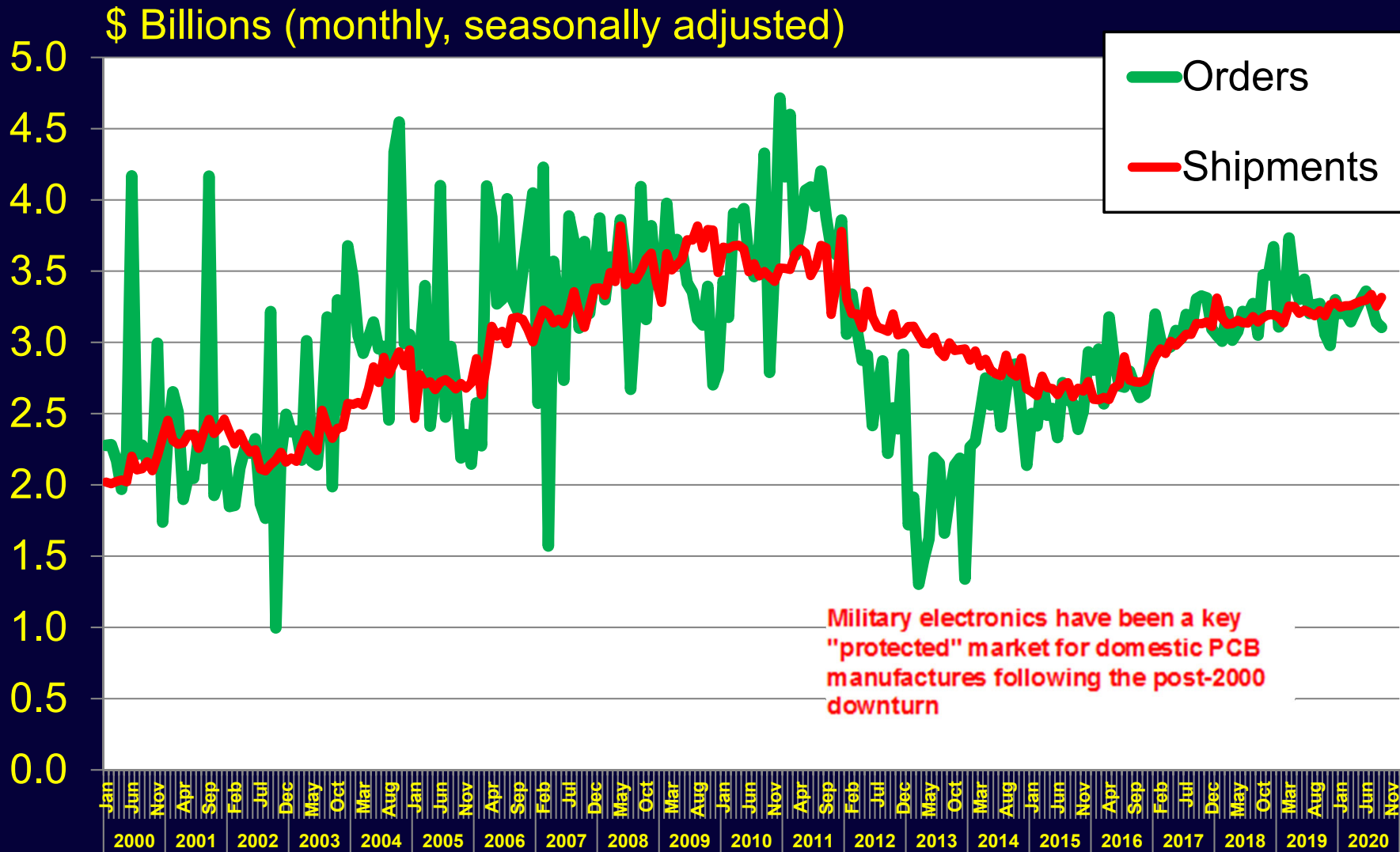
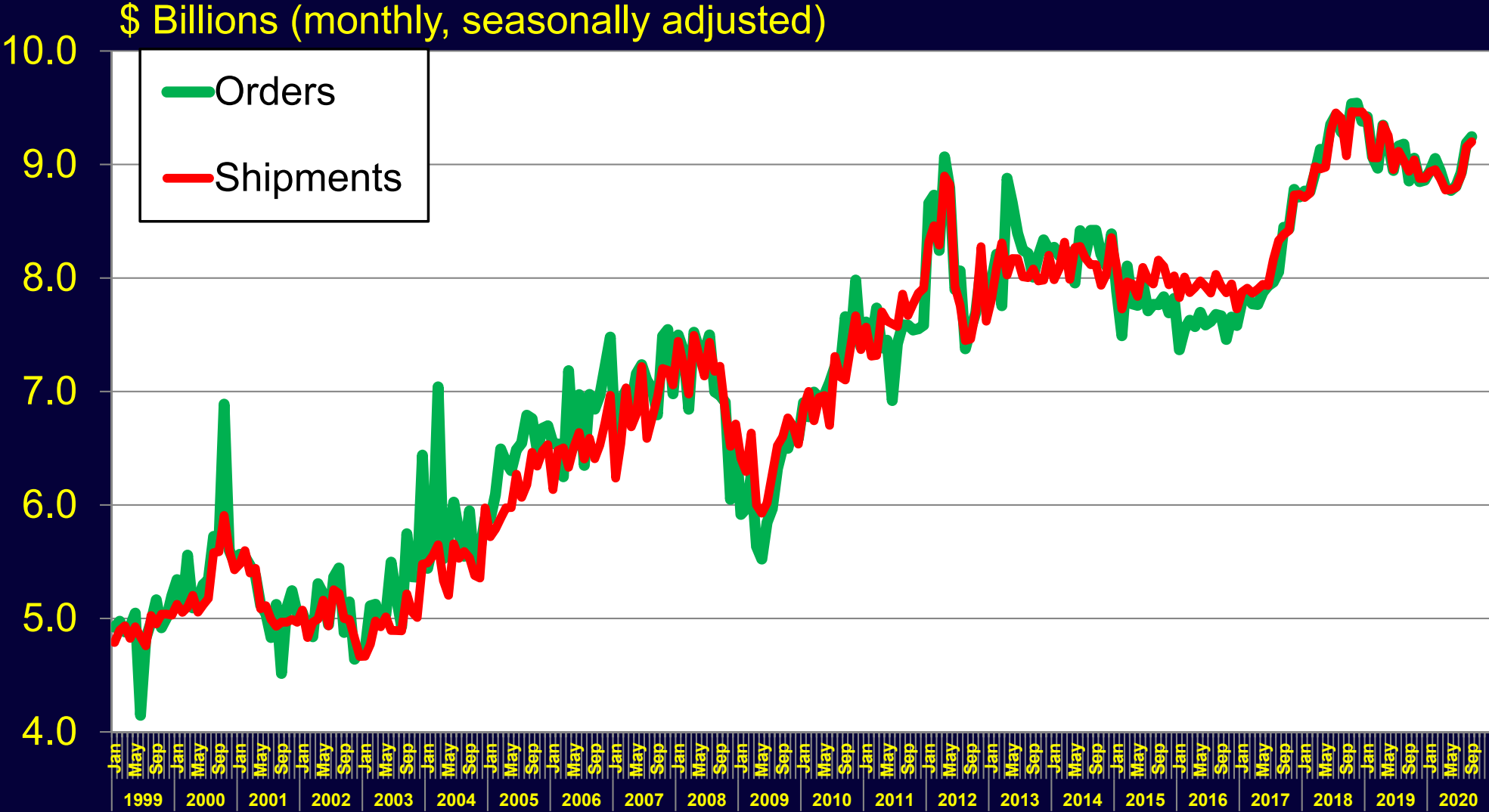


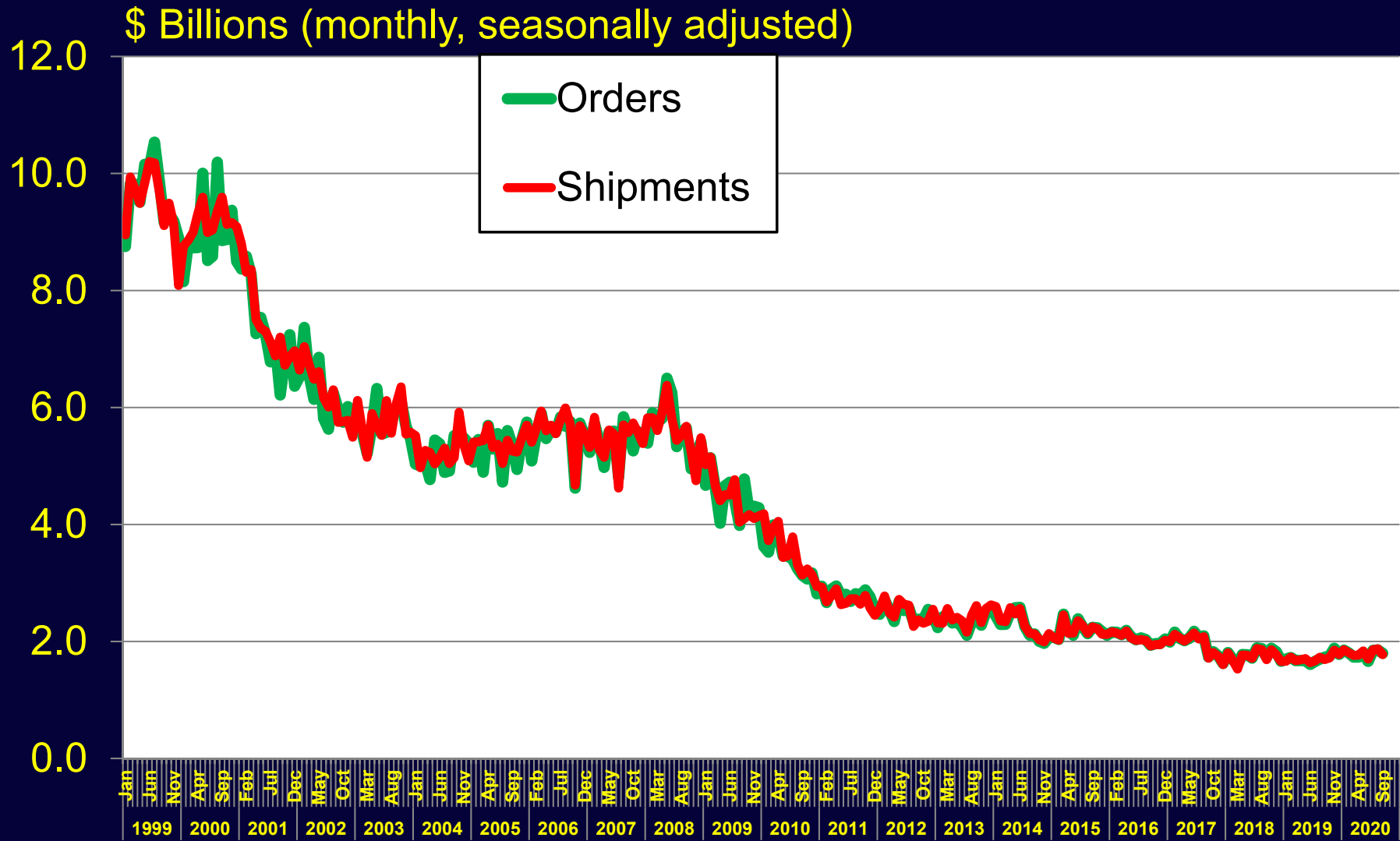
Chart 27

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

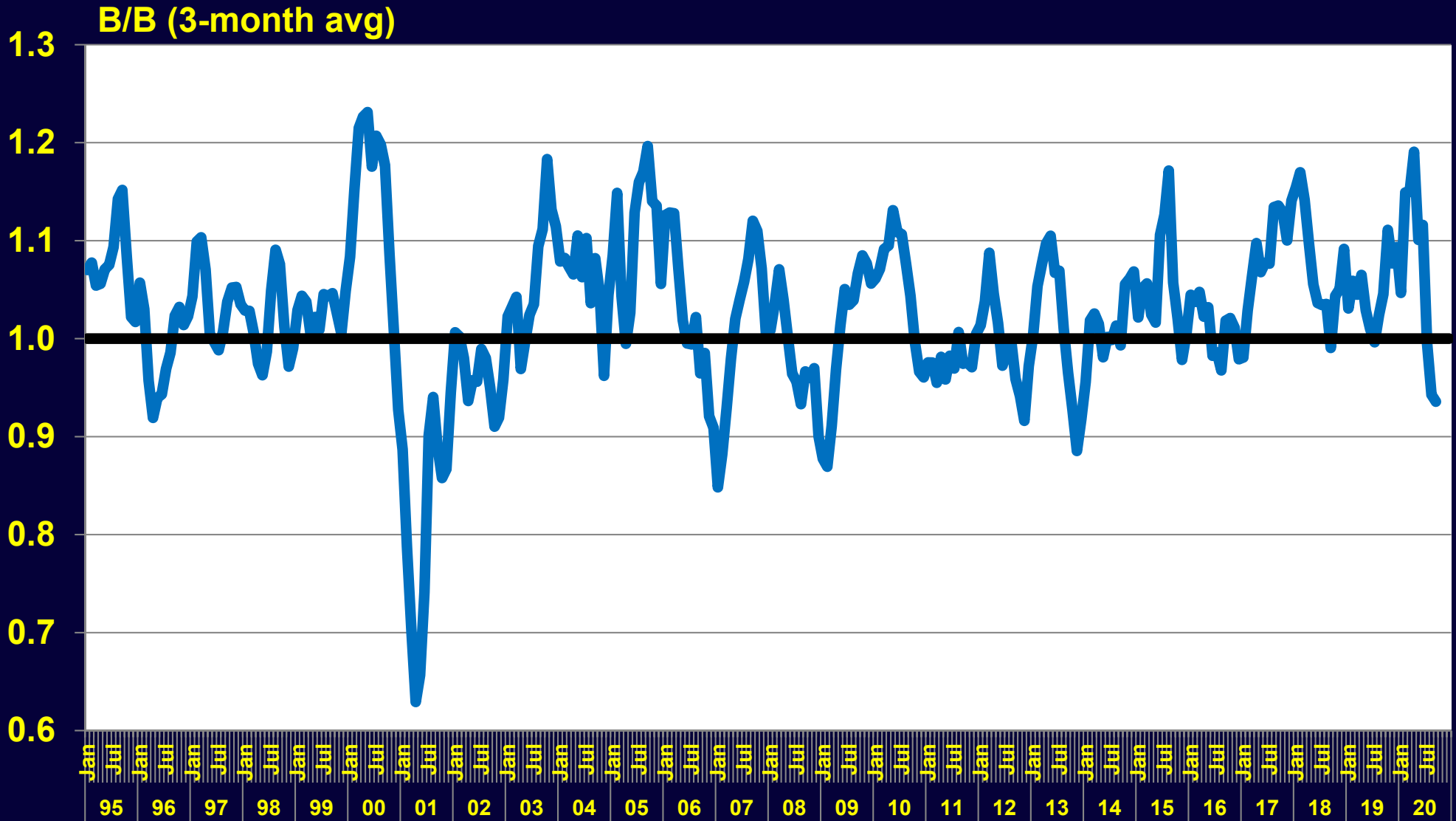




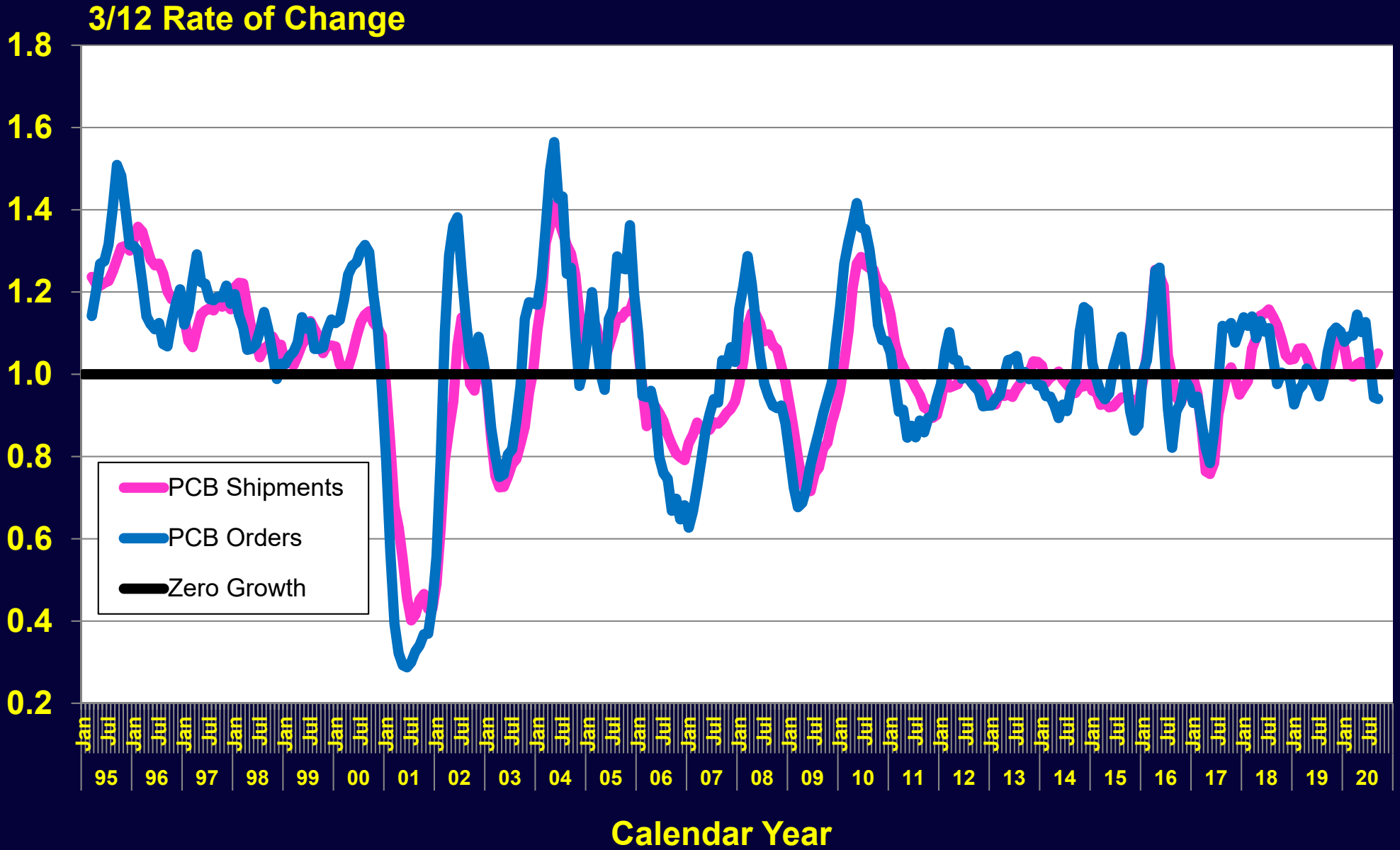
# U.S. Computers & Related Products Orders & Shipments



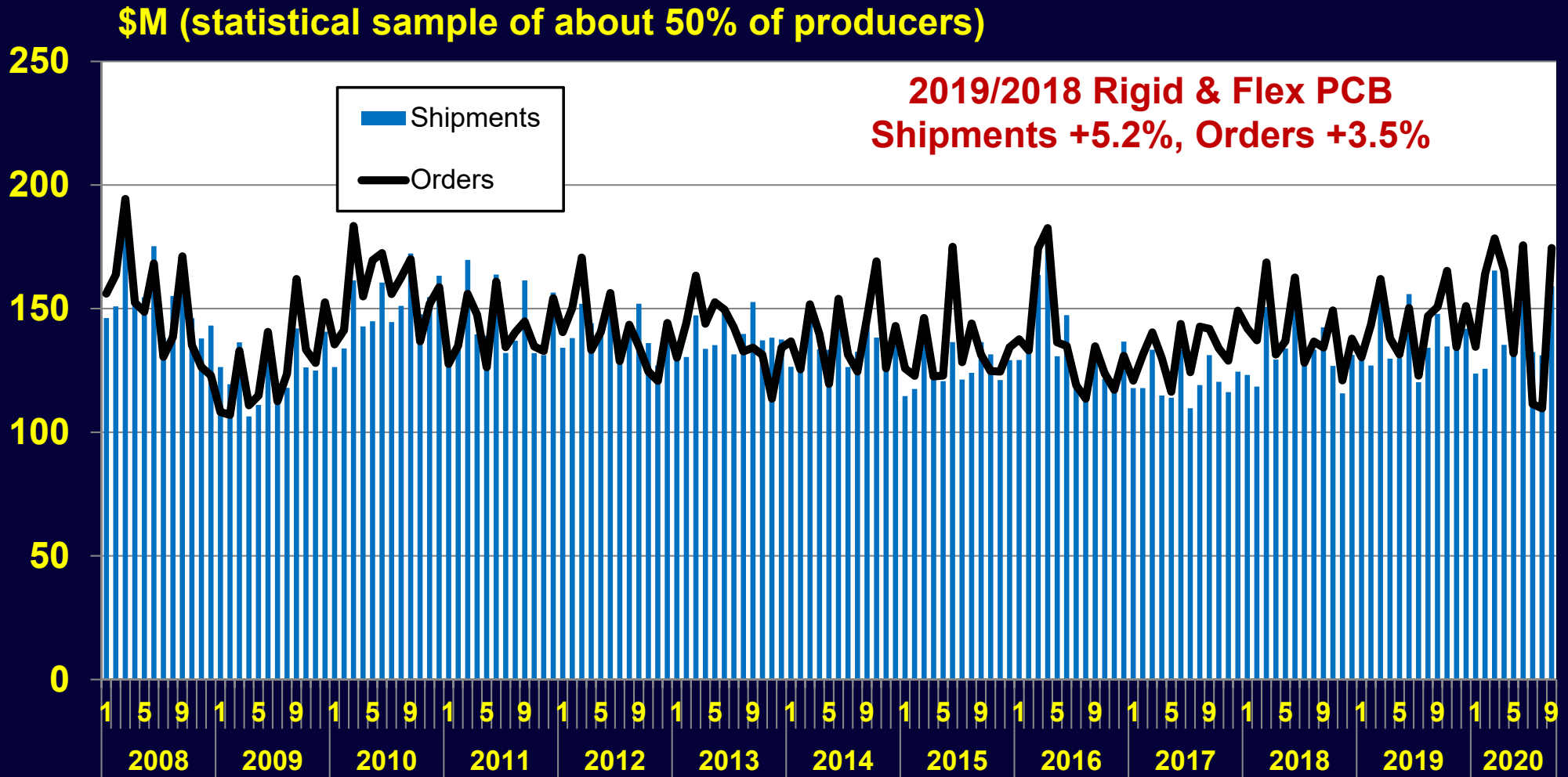
# Rigid & Flexible PCB Book/Bill N. America



# N. America Rigid & Flexible PCB Orders & Shipments



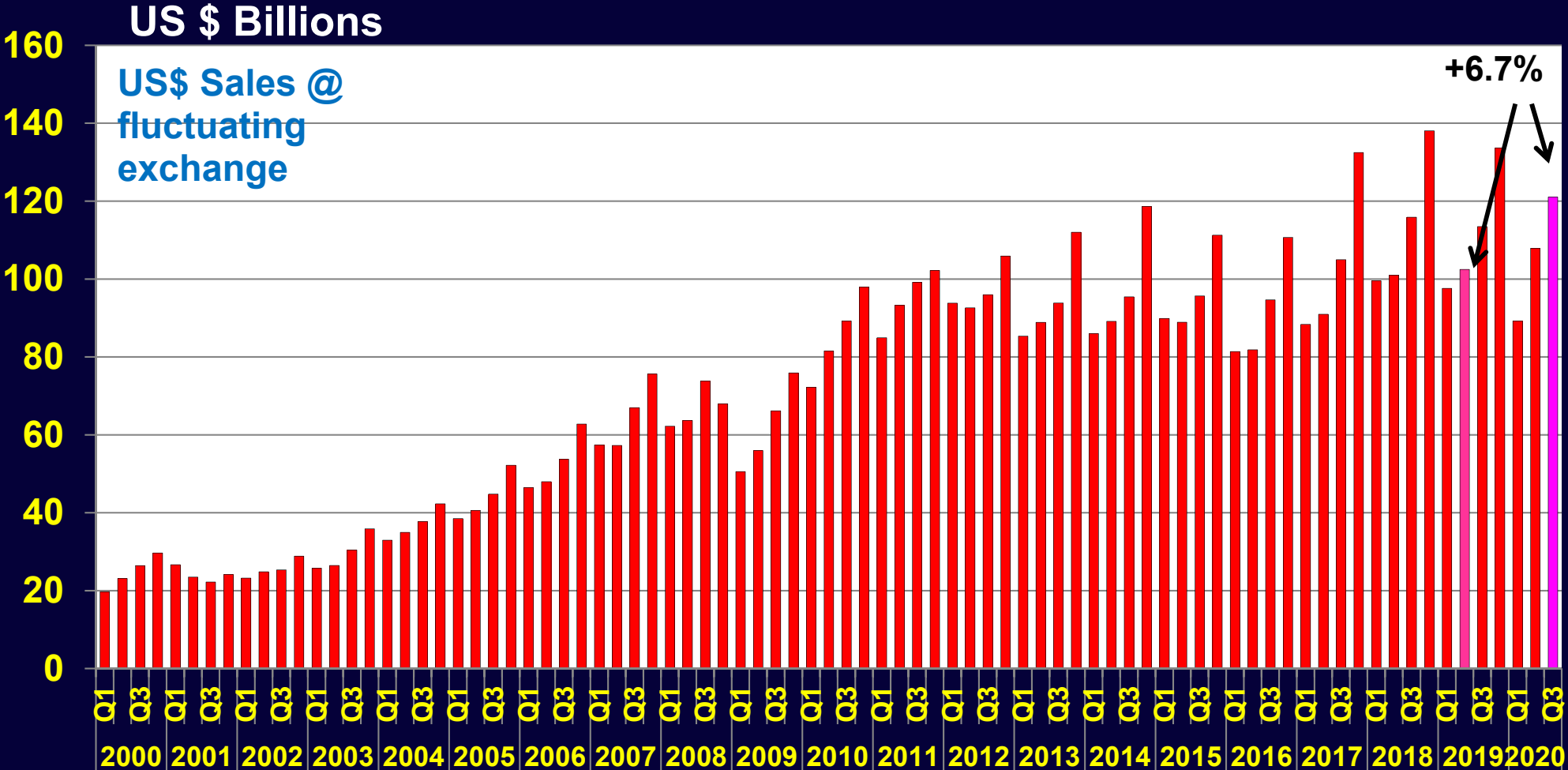
# N American Rigid & Flexible PCB Shipments & Orders



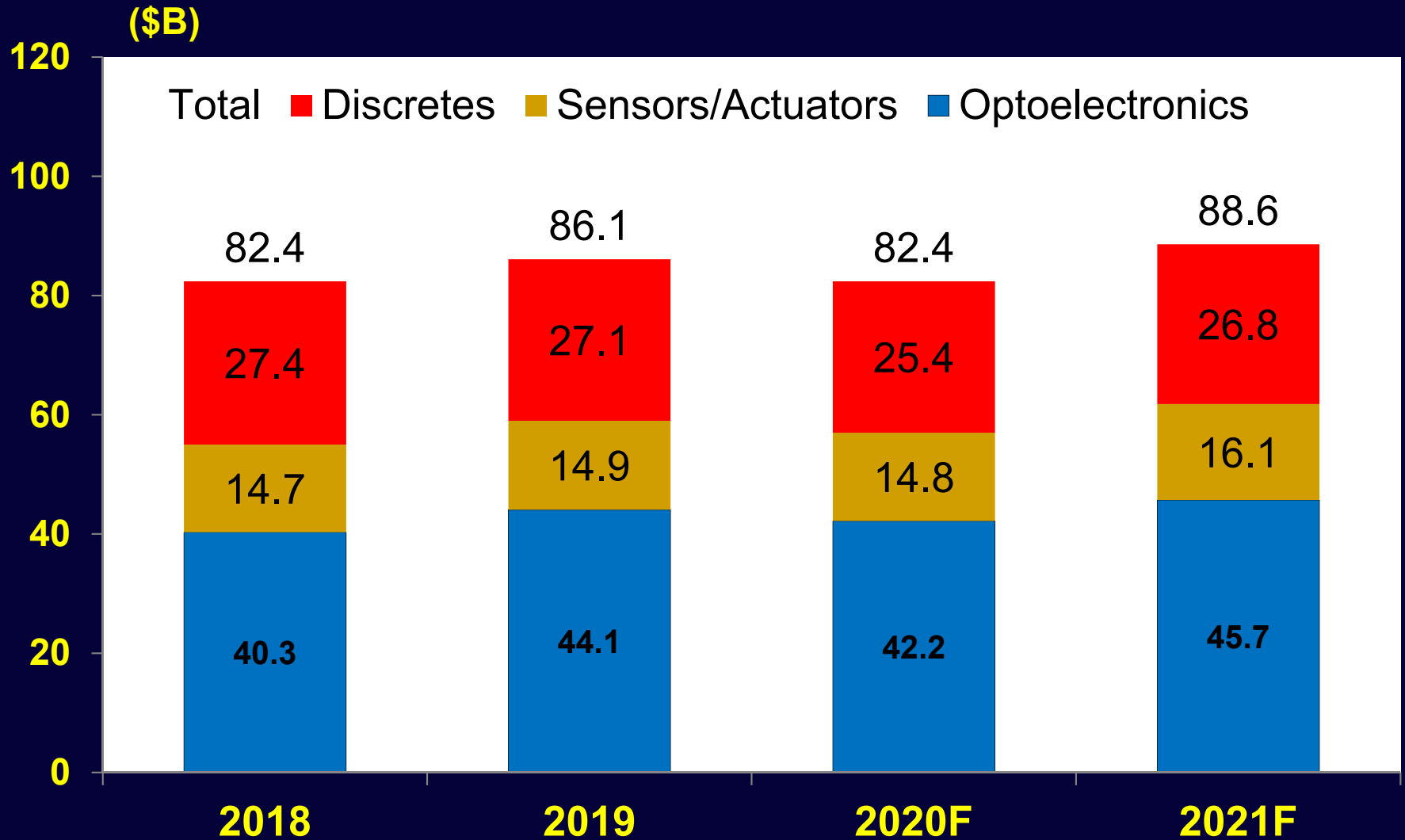
Note: IPC survey captures "market" not domestic production. About 15% of the above represents imported boards resold by N American PCB producers in survey.



# Global EMS & ODM Companies Composite of 52 Public Companies Revenue



# O-S-D Market



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

