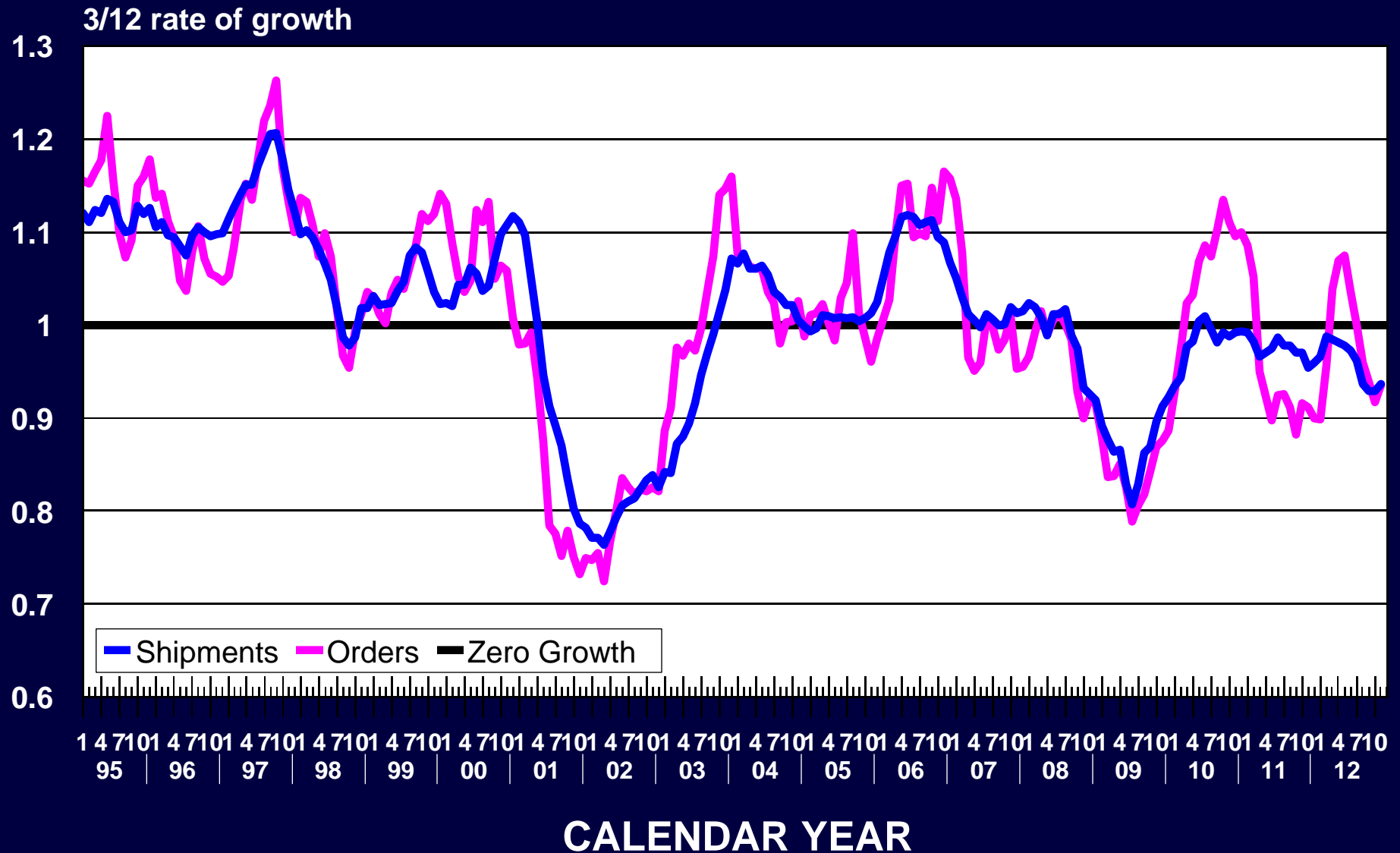


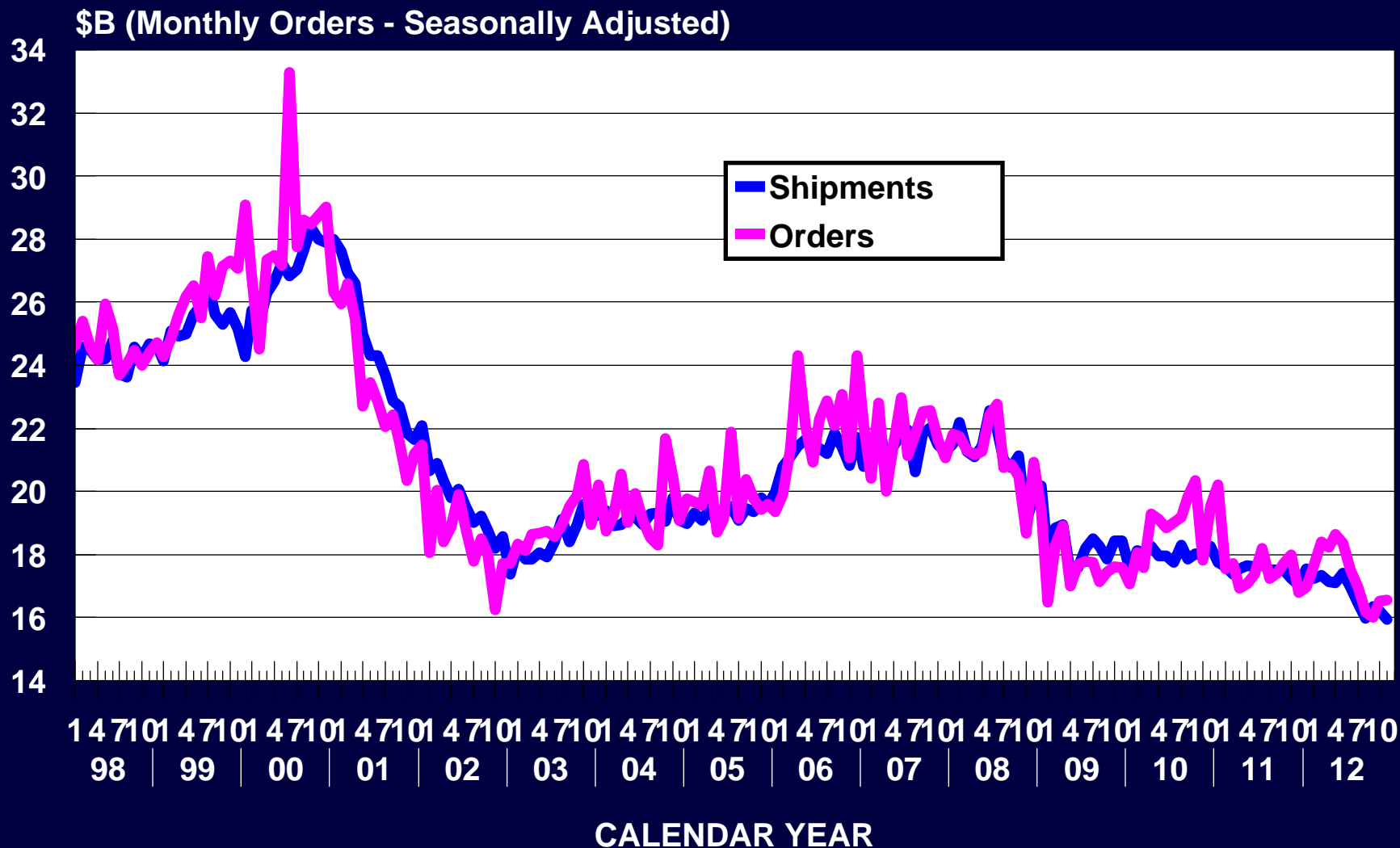
U.S. Electronic Equipment Order & Shipment Growth

Computer, Communications, Measurement & Control and Military



US Electronic Equipment Orders & Shipments

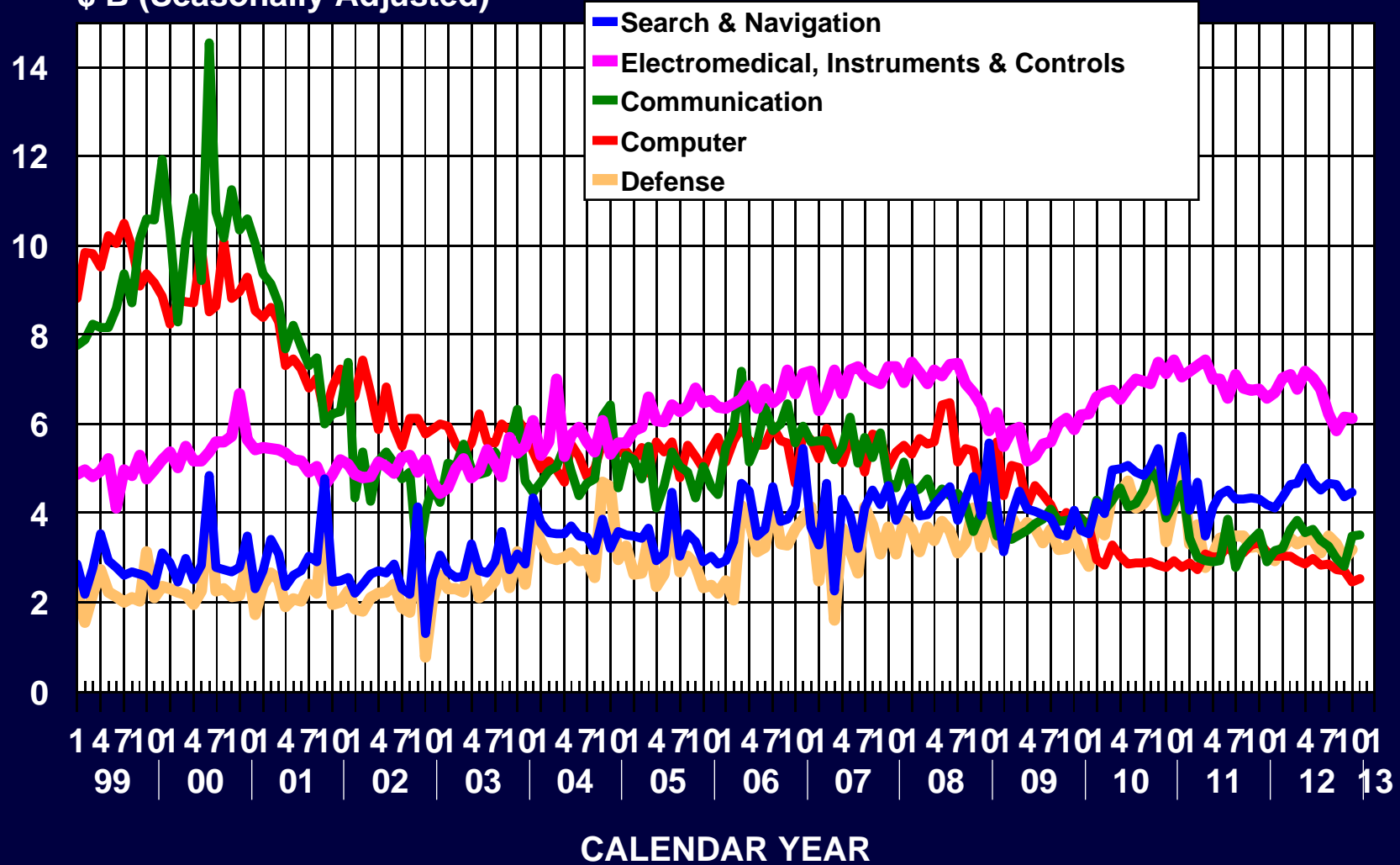
Communications, Computer, Military, Instruments



US Electronic Equipment Orders

Monthly Data

\$ B (Seasonally Adjusted)



U.S. Communications Equipment Orders & Shipments

\$ B (Seasonally Adjusted)

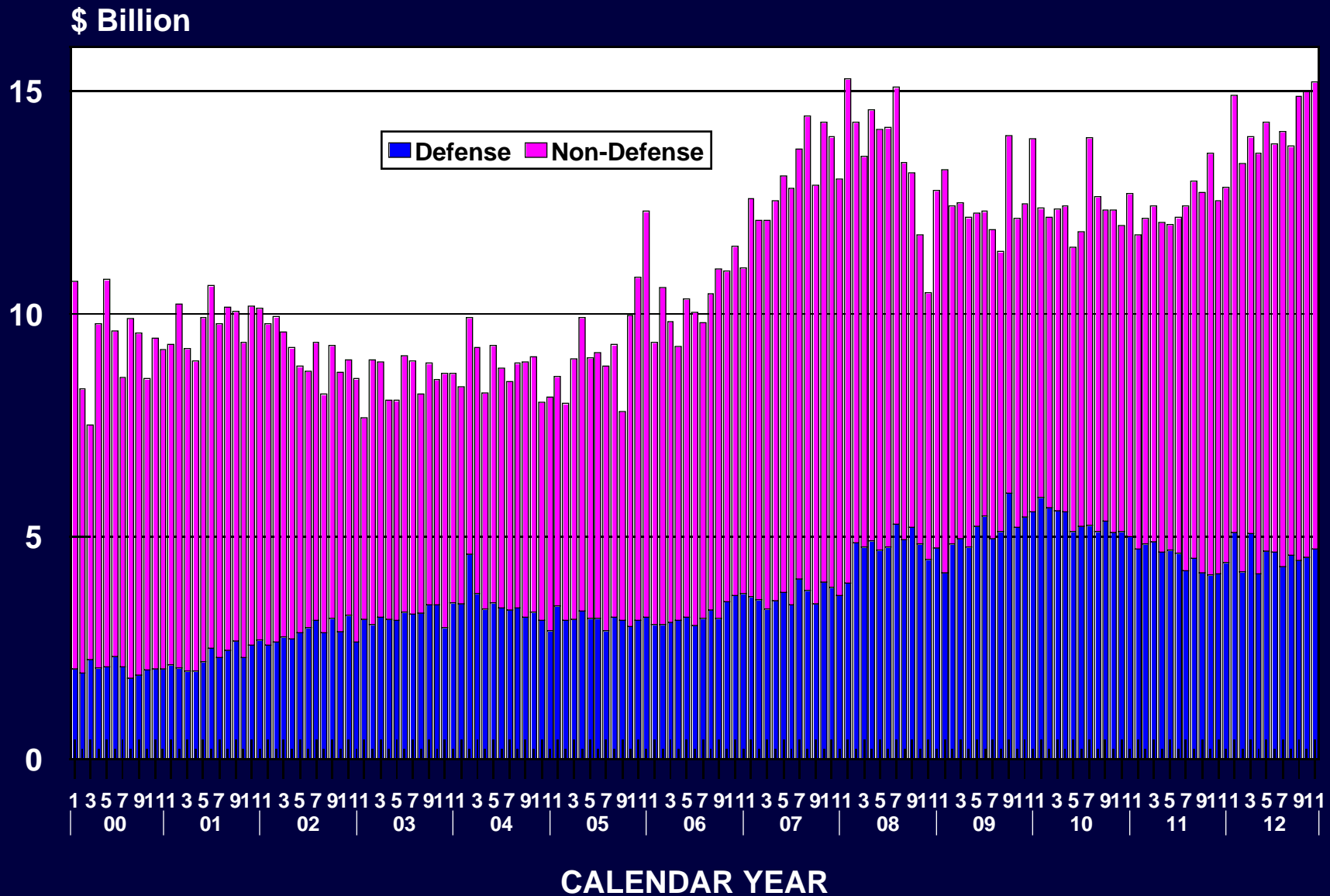


U.S. Computers & Related Products Orders & Shipments



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

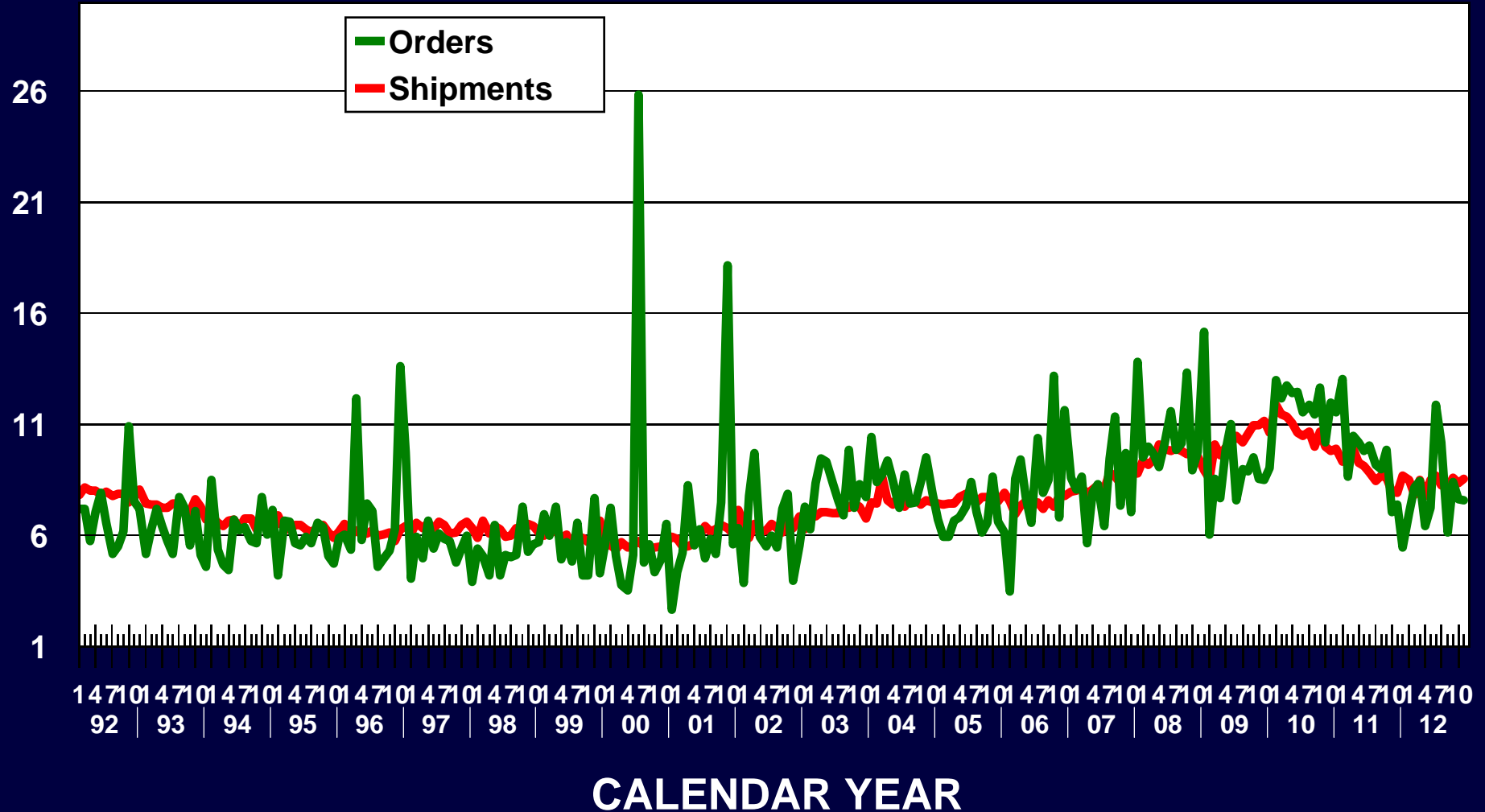
U.S. Aircraft & Parts Shipments



U.S. Defense Capital Goods

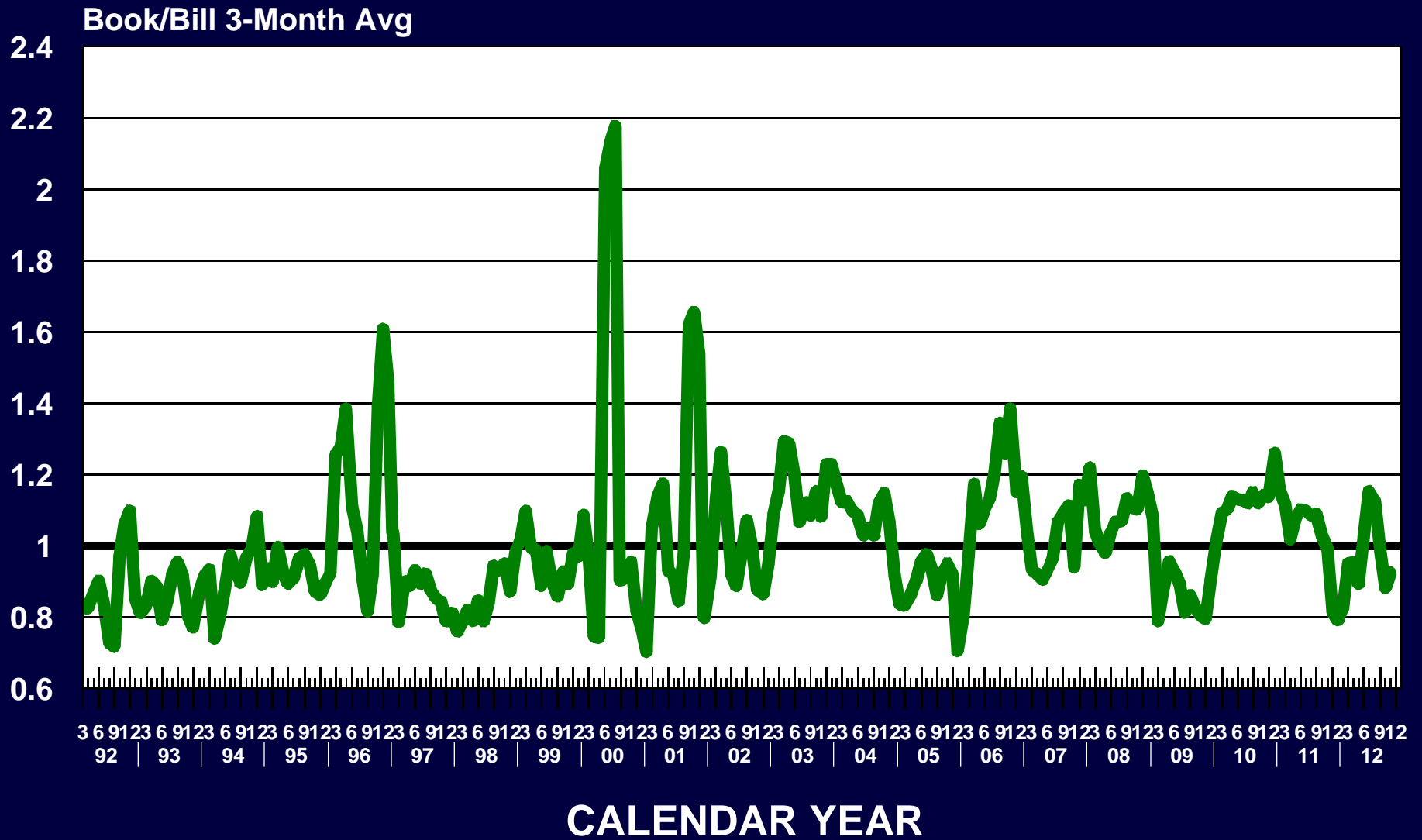
Orders & Shipments

\$ Billions

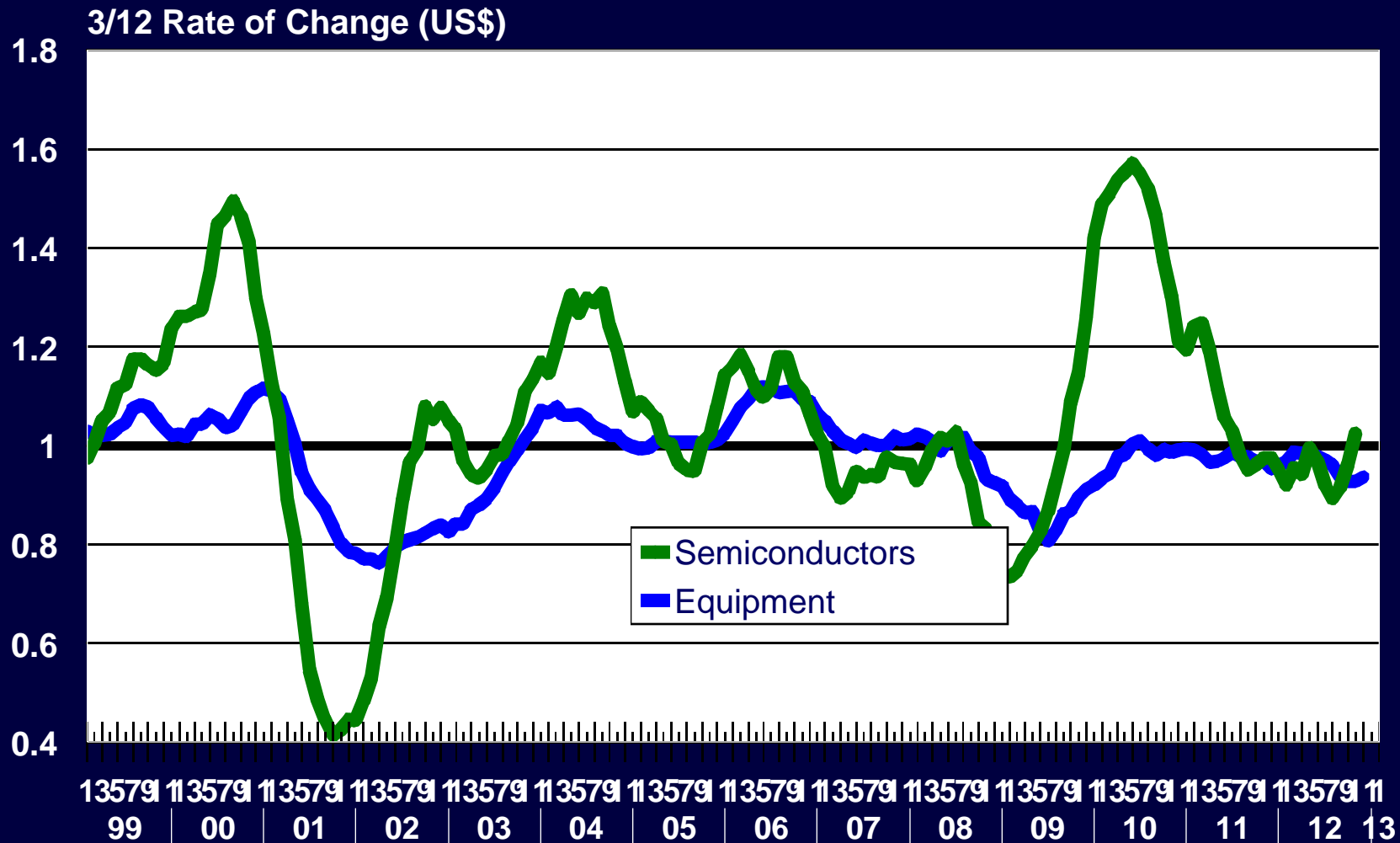


U.S. Defense Capital Goods

Book/Bill Ratio



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/

N AMERICAN PCB GROWTH INDICATORS

% GROWTH - Oct 2012 vs Oct 2011

RIGID PCB \$ SHIPMENTS

Down 5.4%

RIGID PCB \$ BOOKINGS

Down 8.7%

RIGID PCB BOOK/BILL RATIO

3-MONTH AVG 0.95

1-MONTH 0.96

FLEX CIRCUIT \$ SHIPMENTS

Up 18.0%

FLEX CIRCUIT \$ BOOKINGS

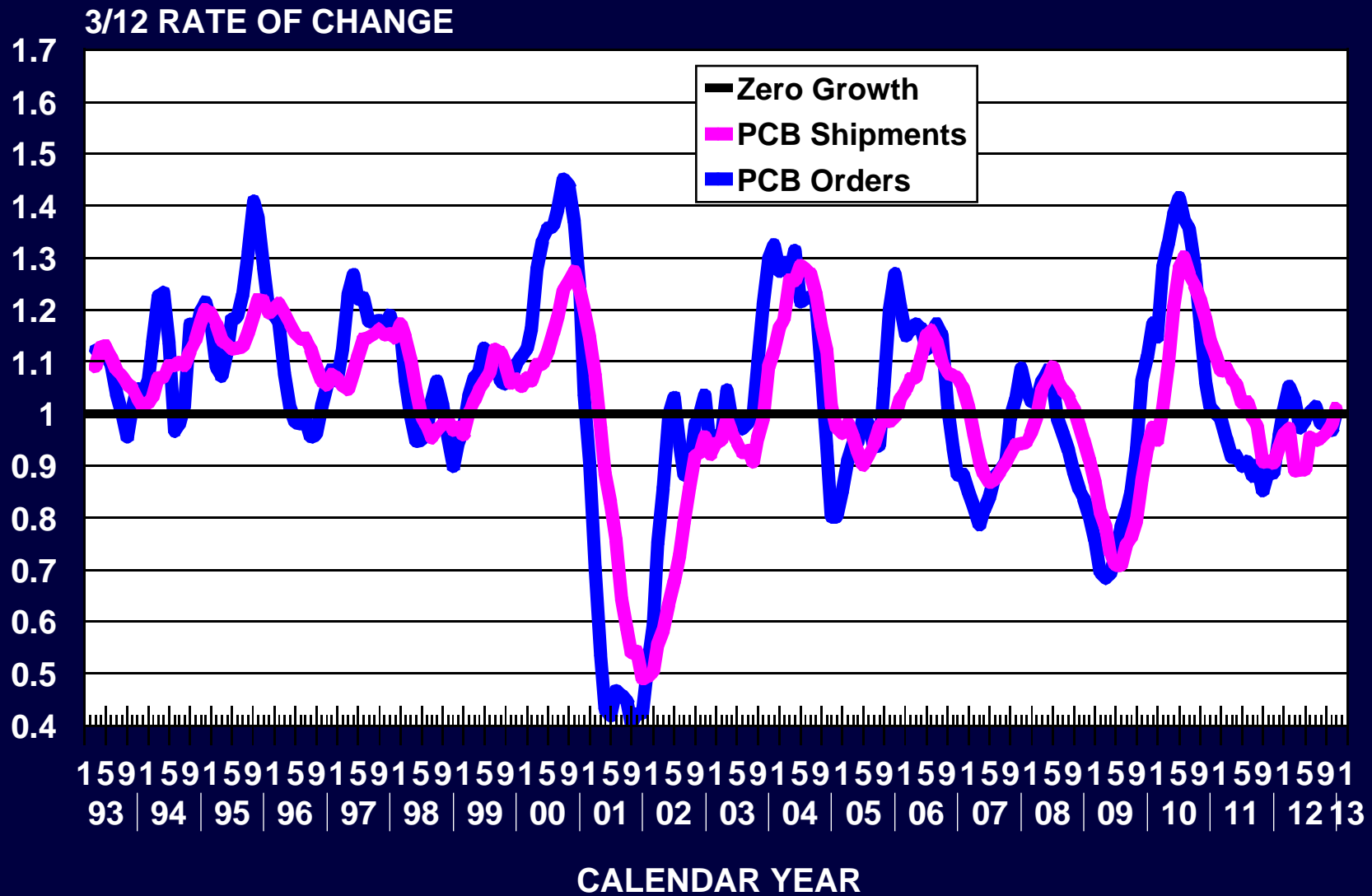
Up 9.9%

FLEX CIRCUIT BOOK/BILL RATIO

3-MONTH AVG 0.74

1-MONTH 0.88

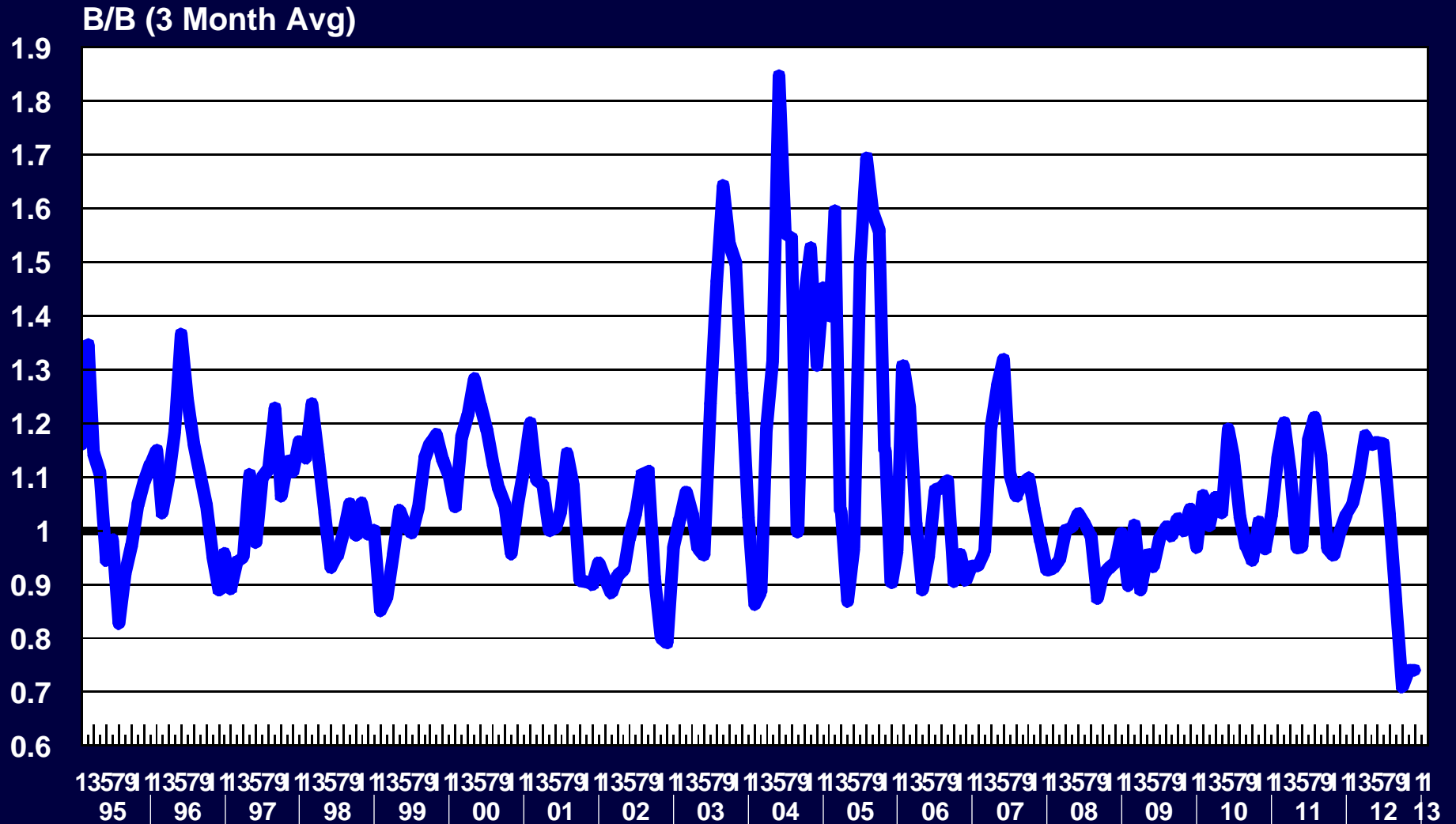
N. America Rigid PCB Orders & Shipments



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

Flexible PCB Book/Bill

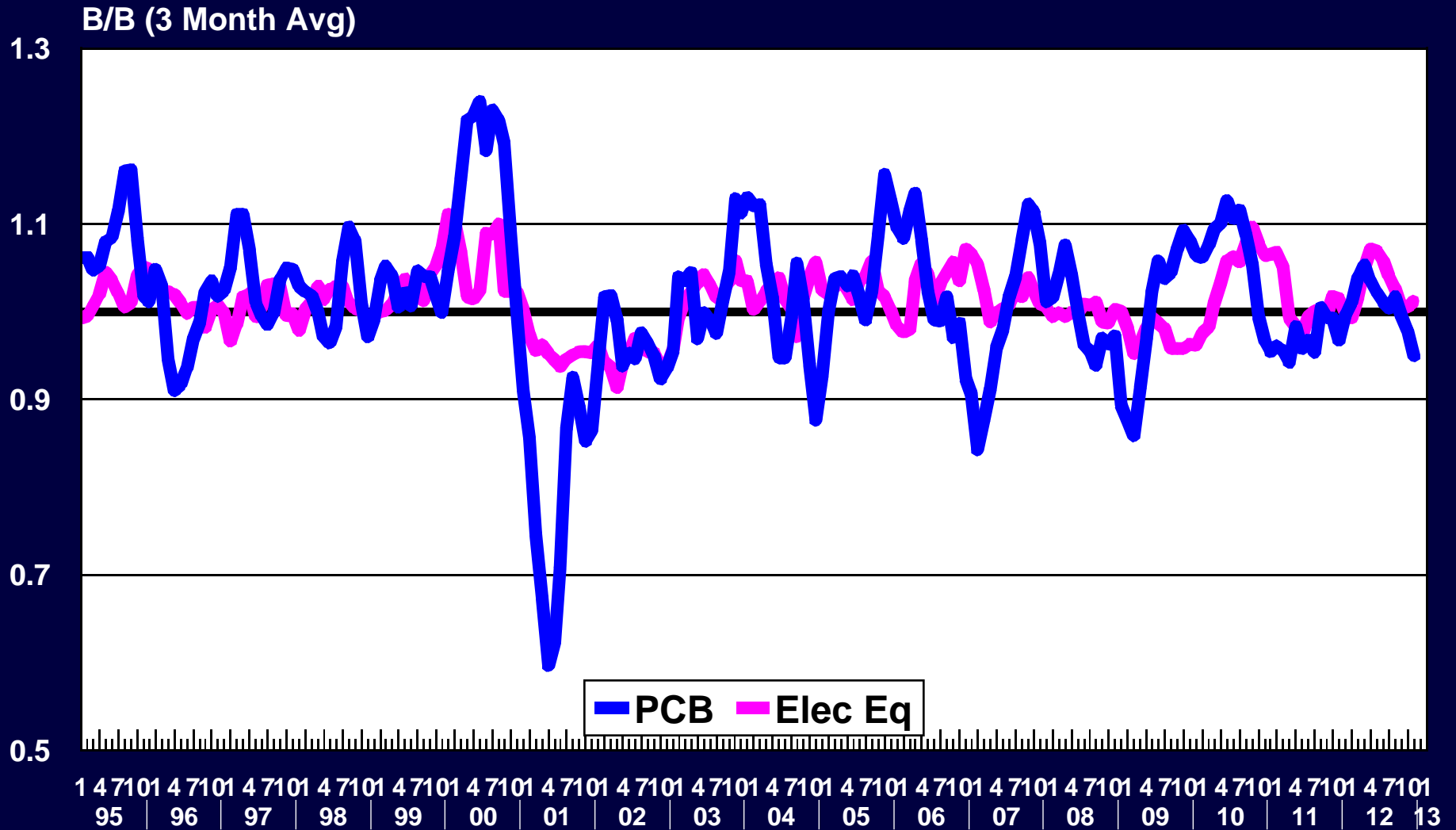
N. America



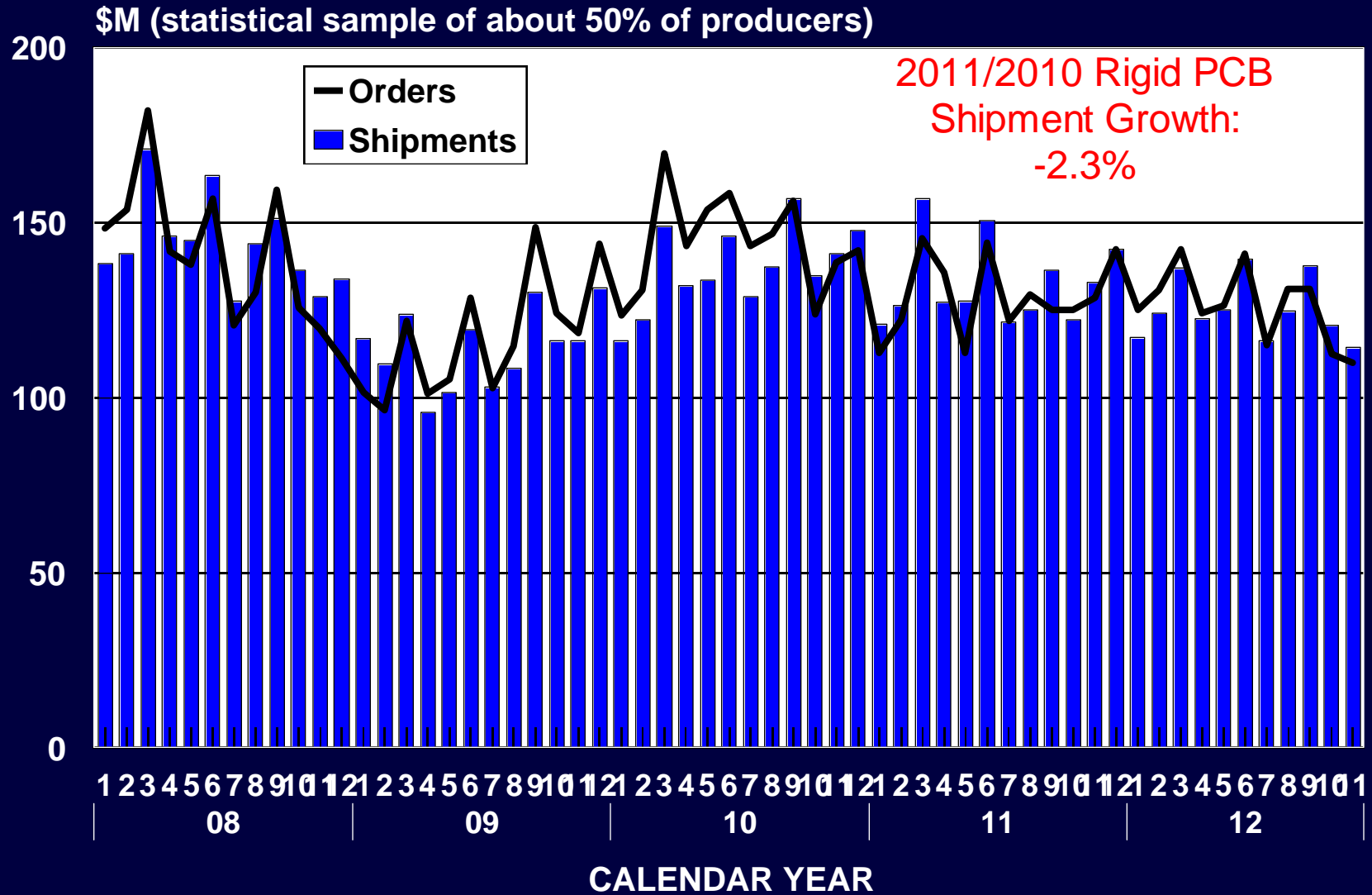
IPC

Note: Mixture of bare & assembled flex circuits

N American Rigid PCB & U.S. Electronic Equipment Book/Bill Ratios



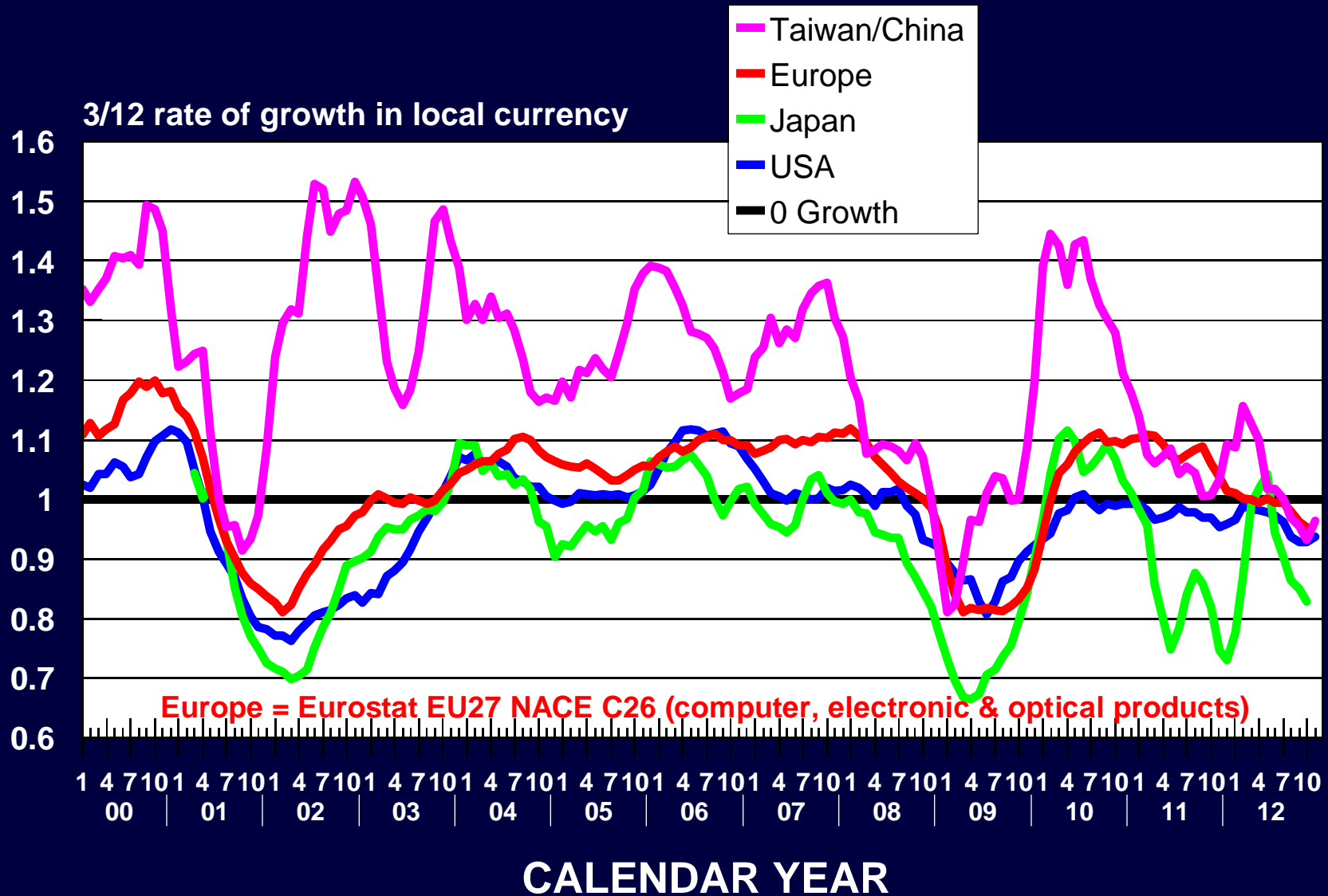
N American Rigid PCB Shipments & Orders



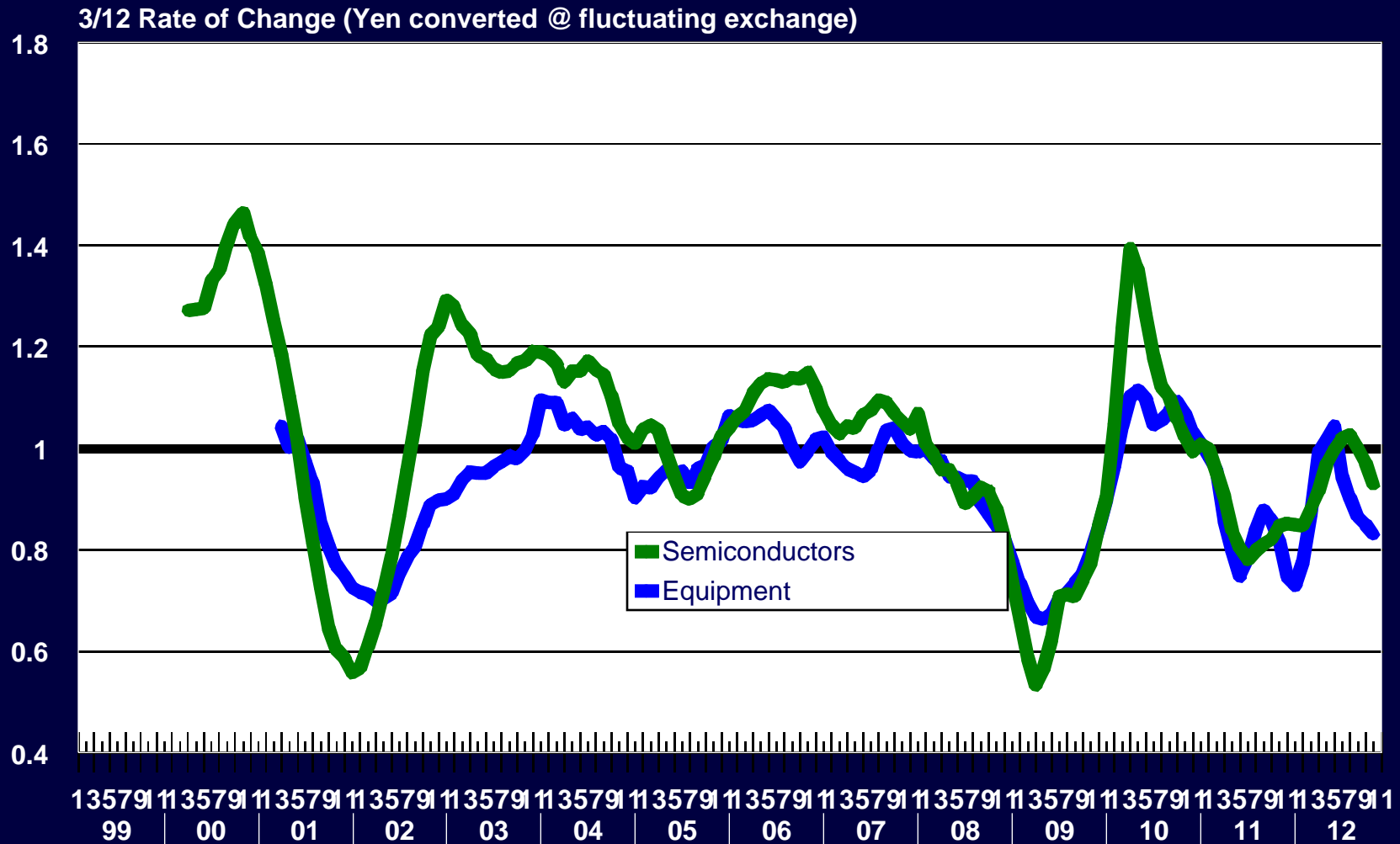
Note: IPC survey captures "market" not domestic production. About 15% of the above represents imported boards resold by N American PCB producers in survey.

IPC

Global Electronic Equipment Shipment Growth

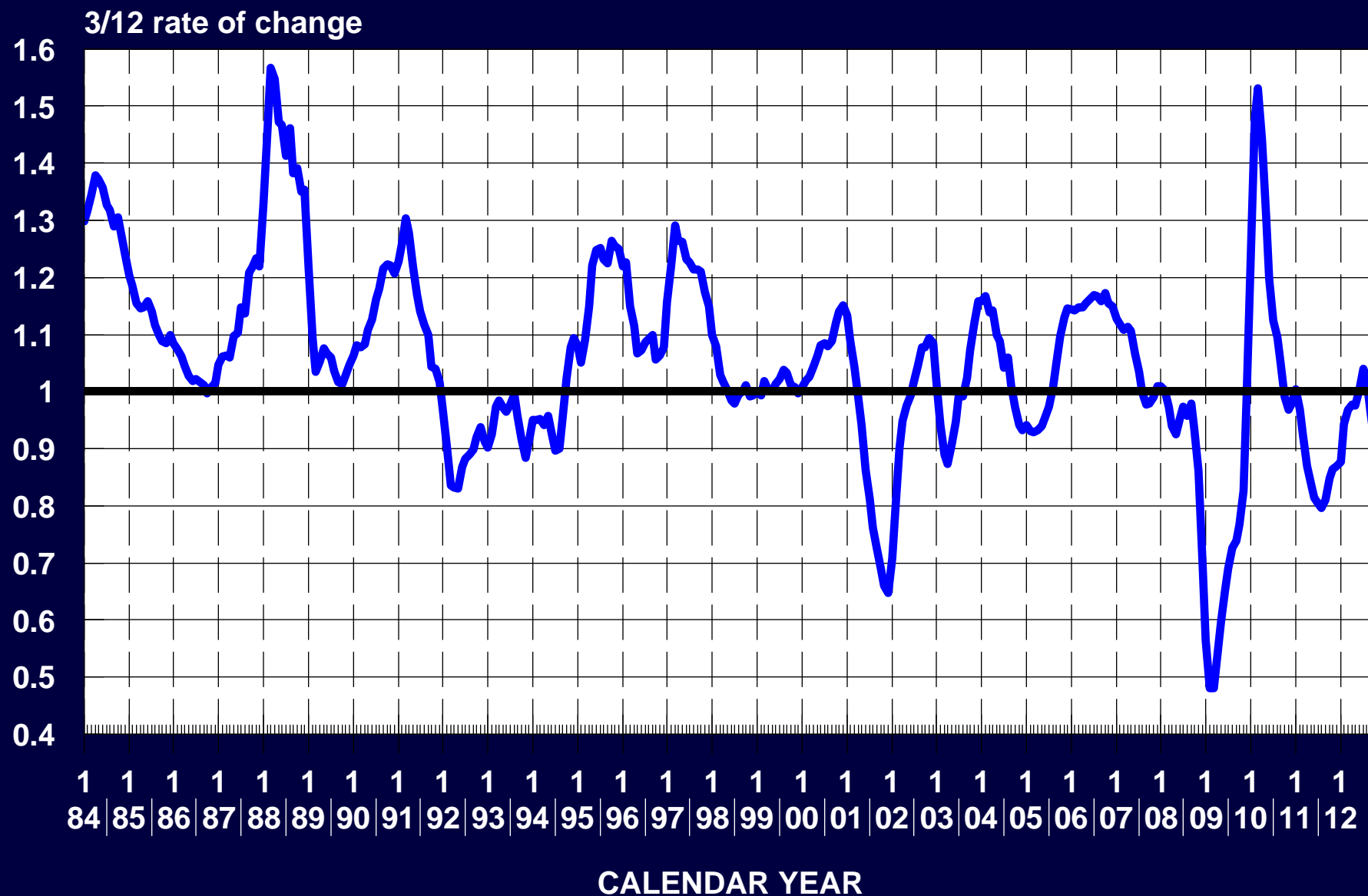


Semiconductor Shipments to Japan vs. Japanese Electronic Equipment Production

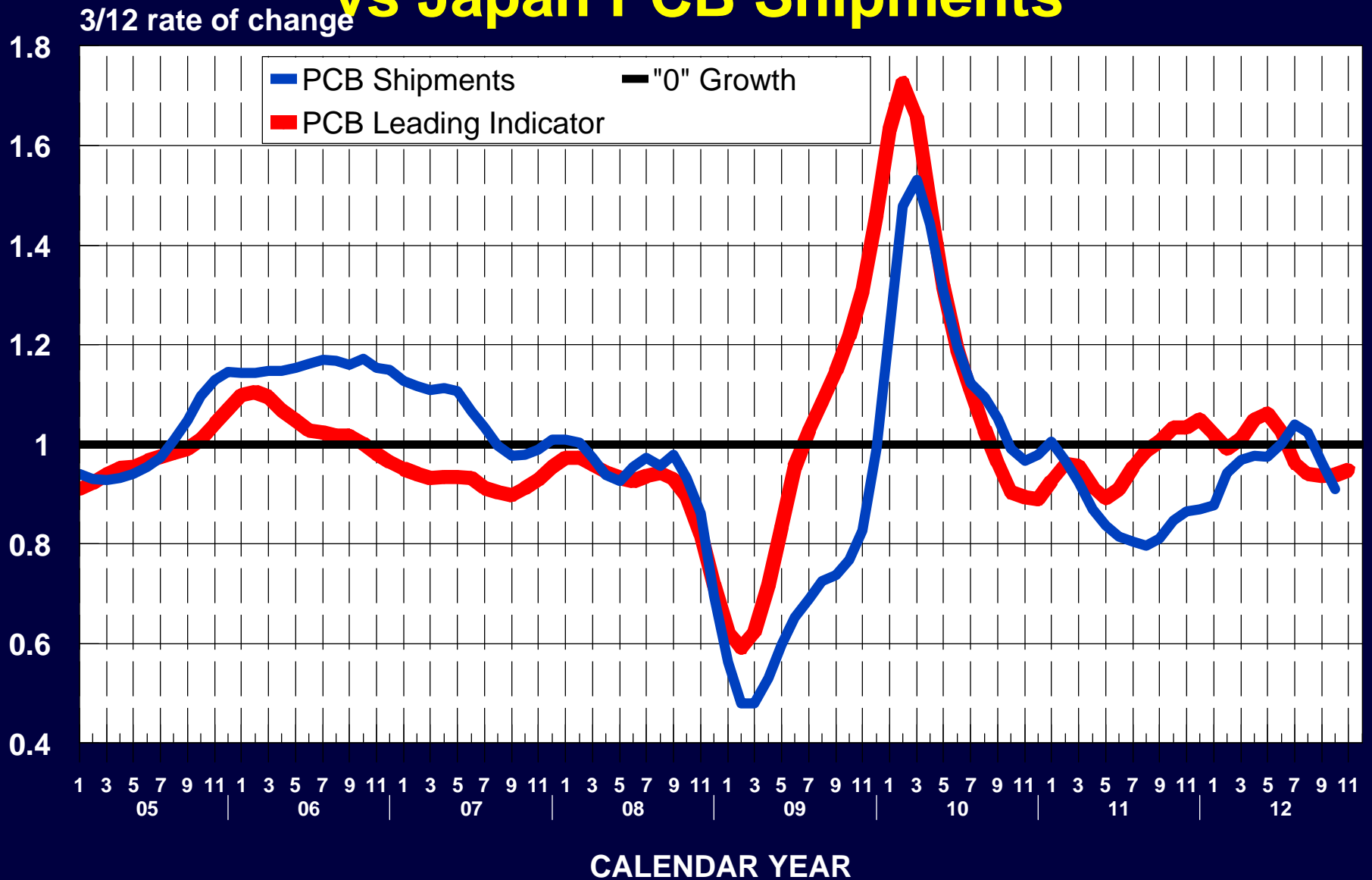


Total \$ Semiconductor Shipments from All Countries to Japan www.sia-online.org/,
JEITA www.jeita.or.jp/

Japan PCB Shipments

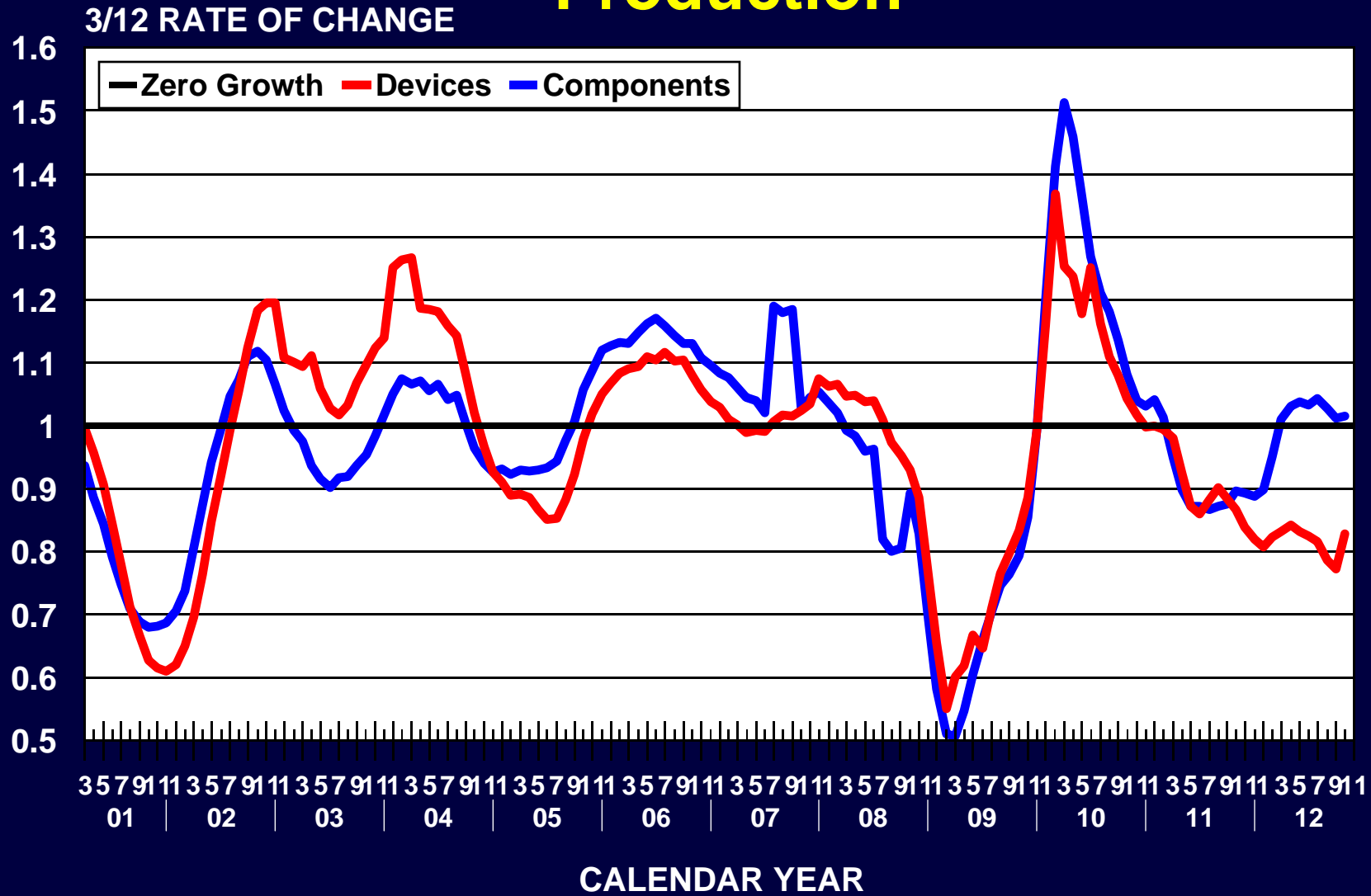


Japan PMI PCB Leading Indicator vs Japan PCB Shipments

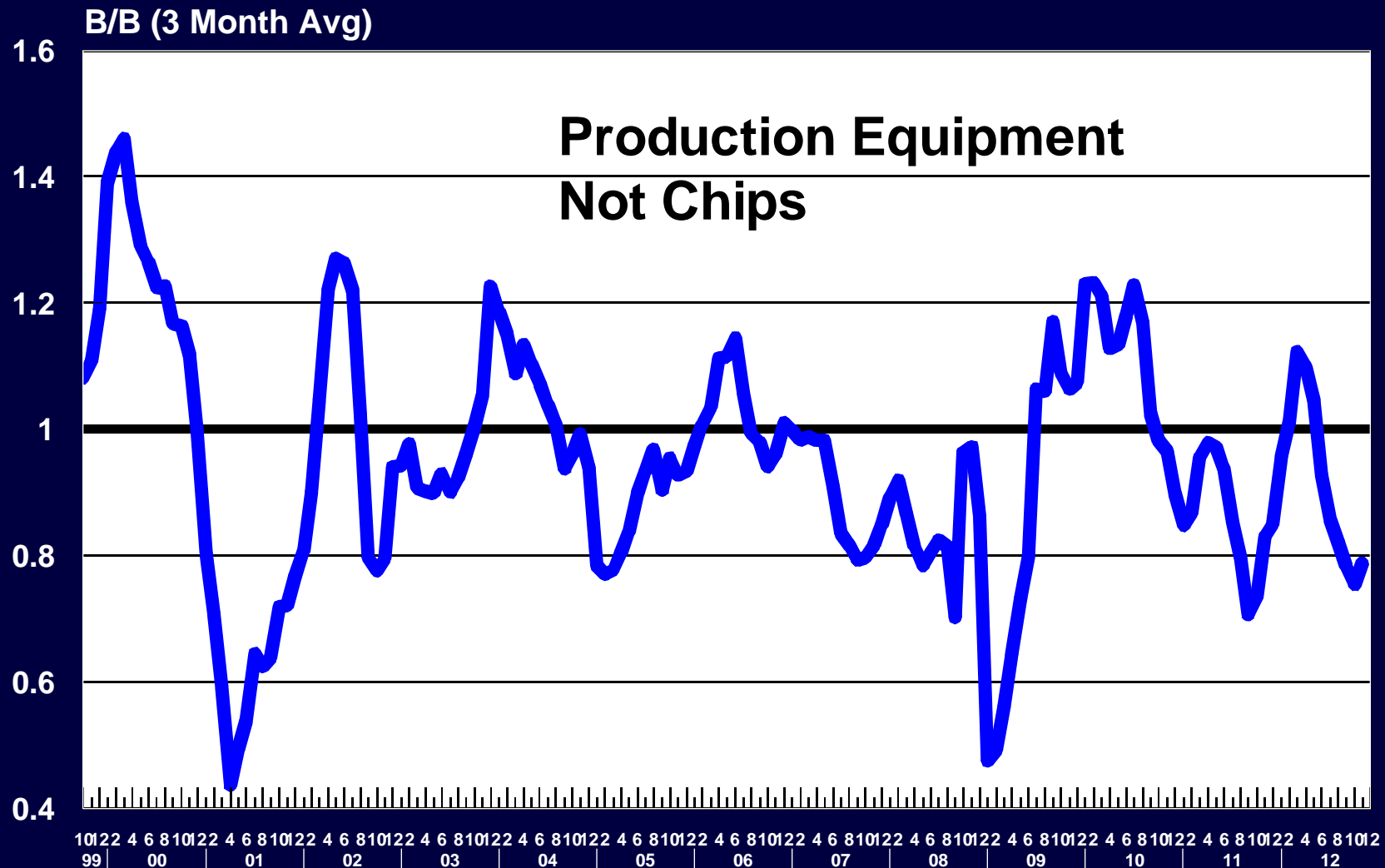


Source: Custer Consulting Group

Japanese Electronic Component & Device Production

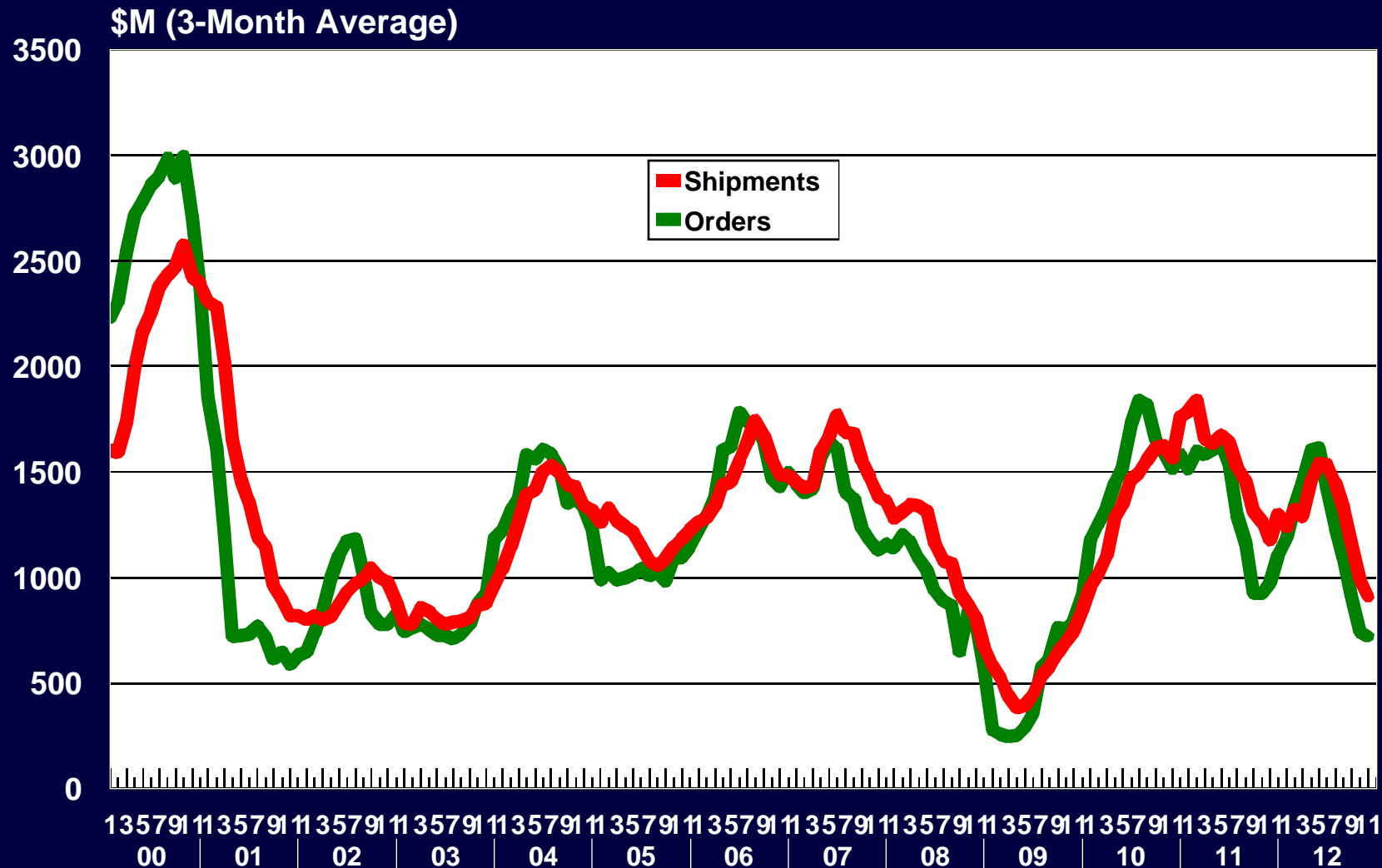


N American Semiconductor Equipment Industry Book/Bill Ratio



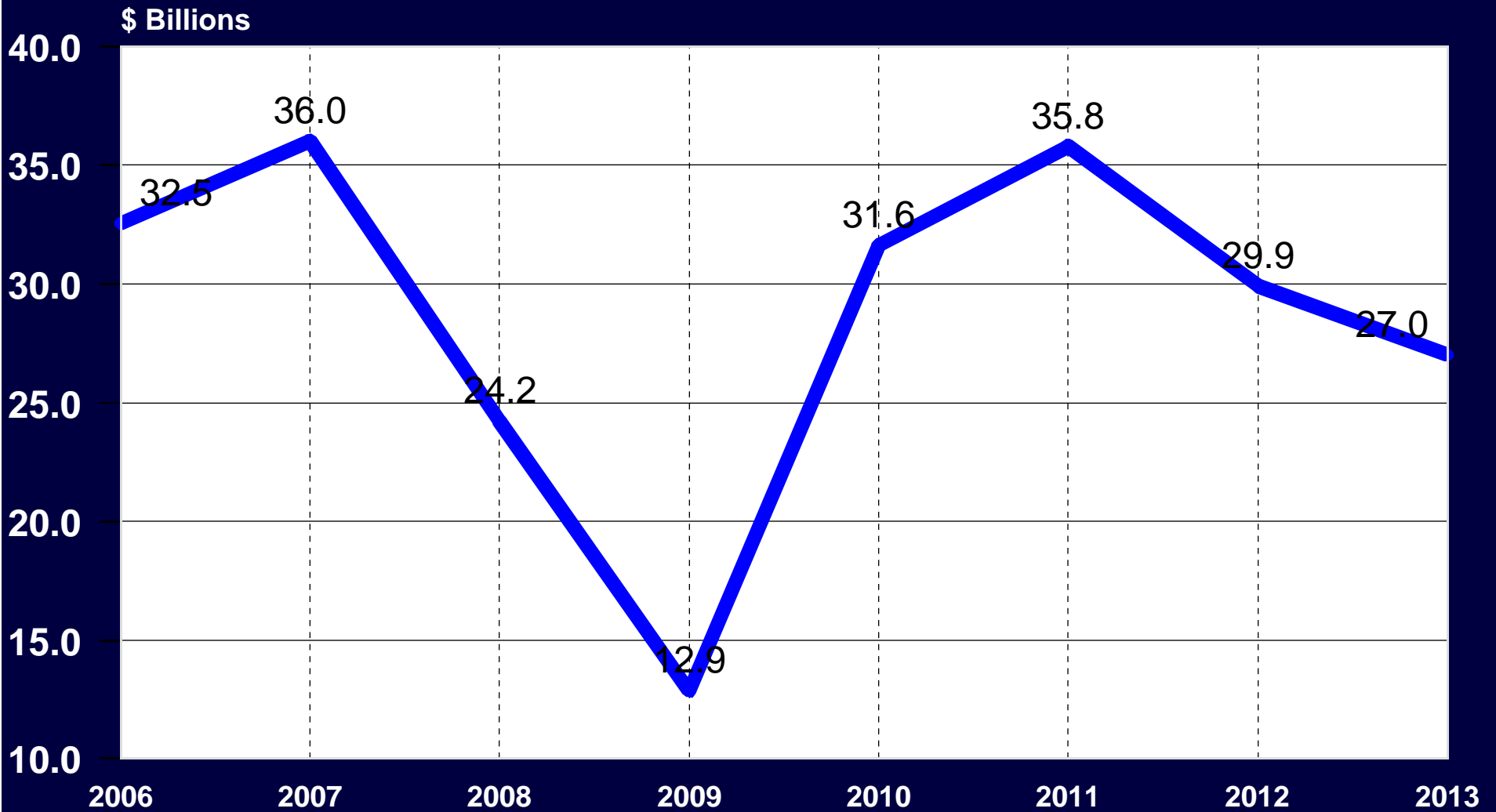
SOURCE Semiconductor Equipment and Materials International
<http://www.semi.org>

N American Semiconductor Equipment Industry Shipments & Orders



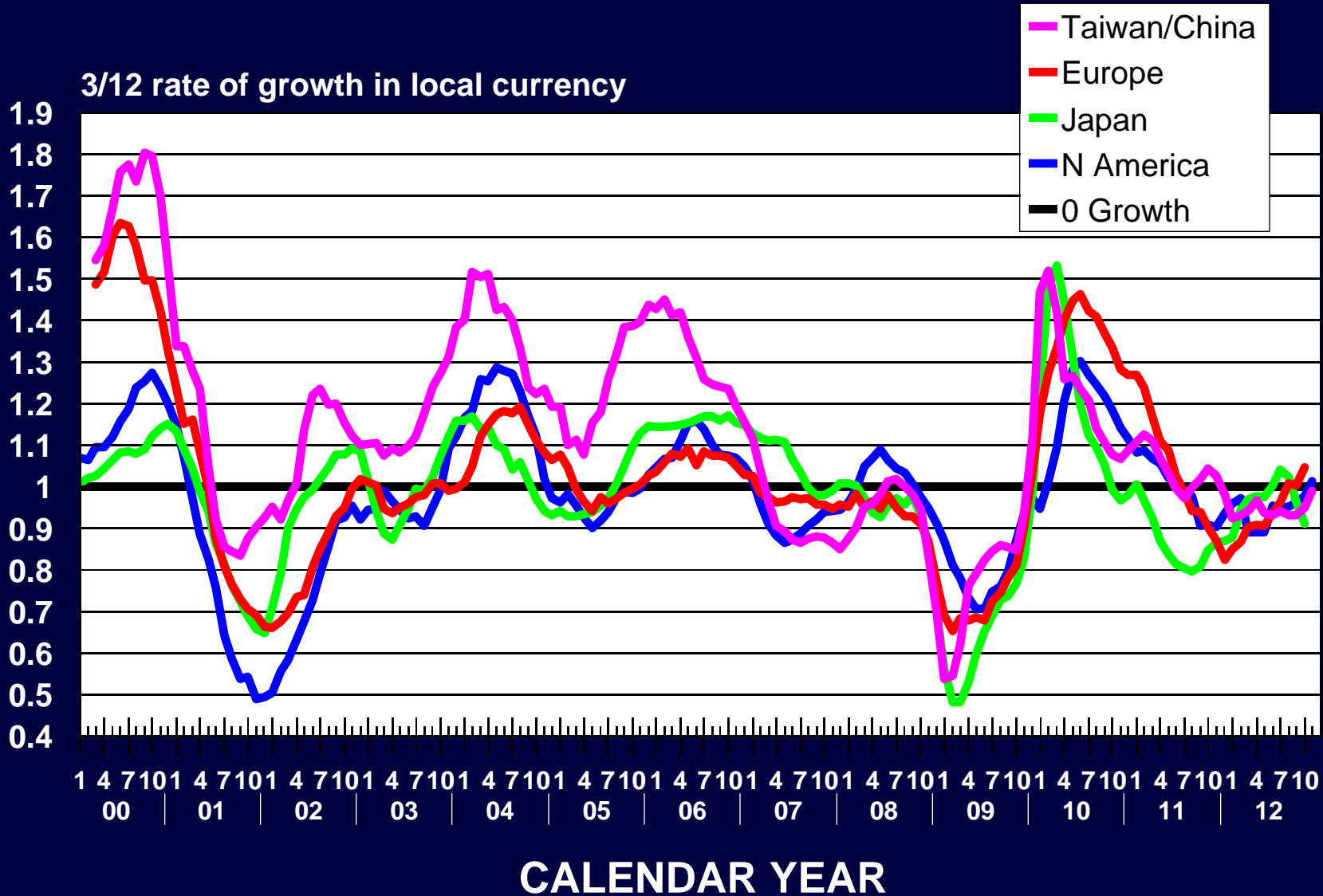
SOURCE Semiconductor Equipment and Materials International
<http://www.semi.org>

Worldwide Wafer Fab Spending



Gartner 12/2012

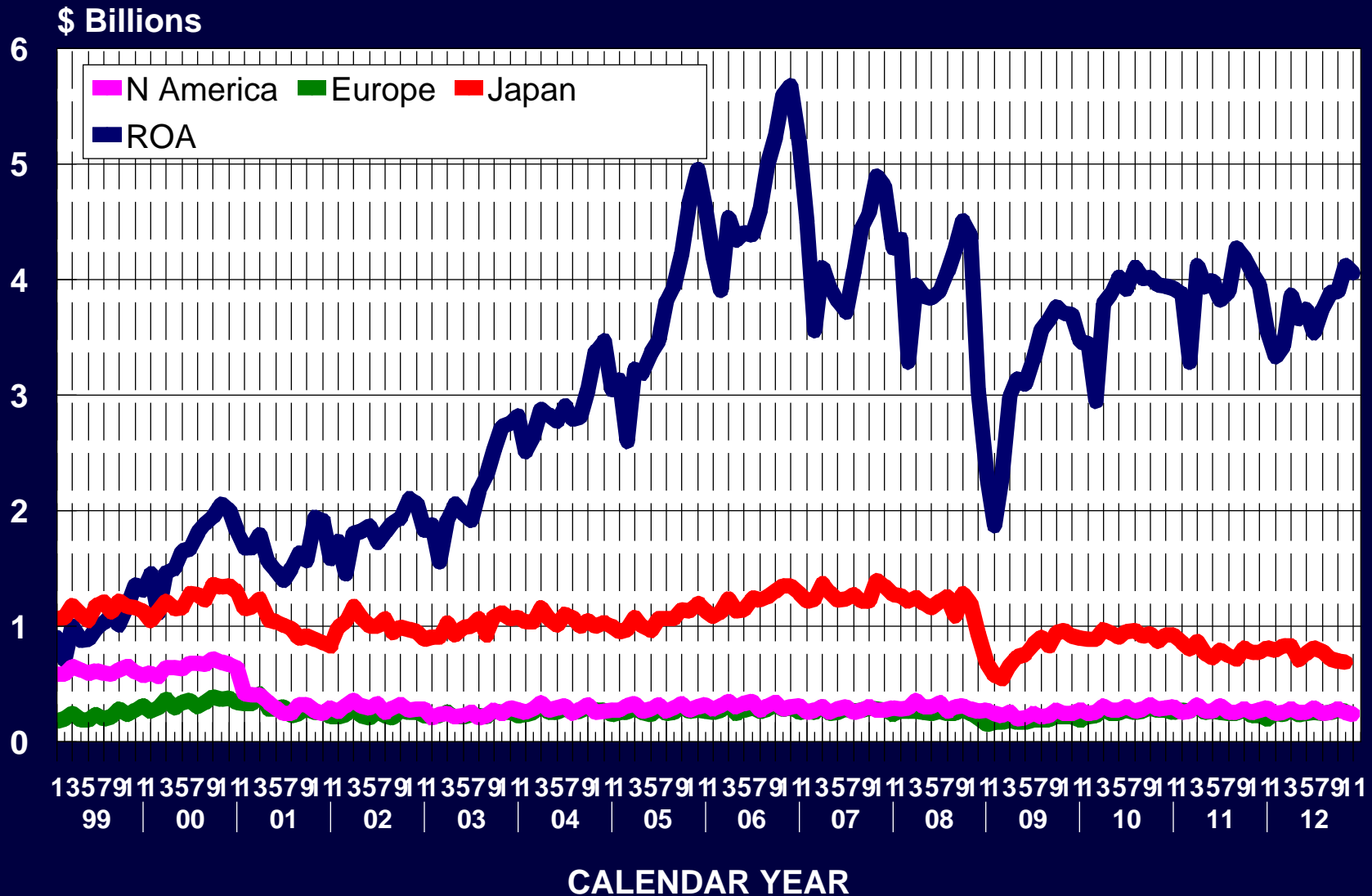
Regional PCB Shipment Growth



Sources: IPC, JPCA, Taiwan/China composite; modified SIA chip shipments to approximate Europe

World PCB Monthly Shipments

Converted @ Constant 2011 Exchange Rates

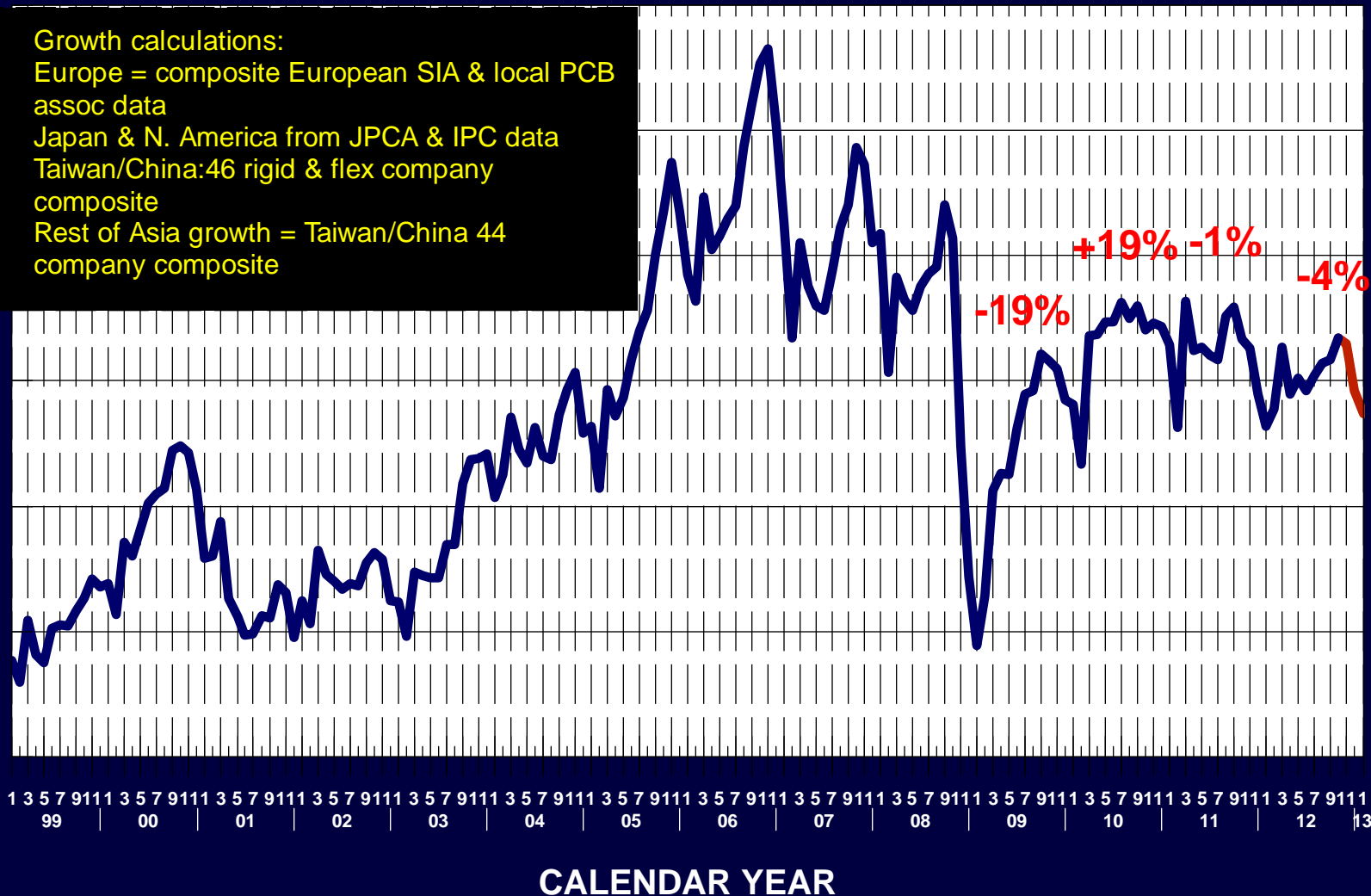


Source: Custer Consulting Group

World PCB Shipments (with forecast) converted at constant 2011 exchange rates

\$ Billion

Growth calculations:
 Europe = composite European SIA & local PCB
 assoc data
 Japan & N. America from JPCA & IPC data
 Taiwan/China: 46 rigid & flex company
 composite
 Rest of Asia growth = Taiwan/China 44
 company composite



Source: Custer Consulting Group - 2010 base year expanded by monthly growth of N. American, European, Japanese & Taiwan/China monthly PCB shipments