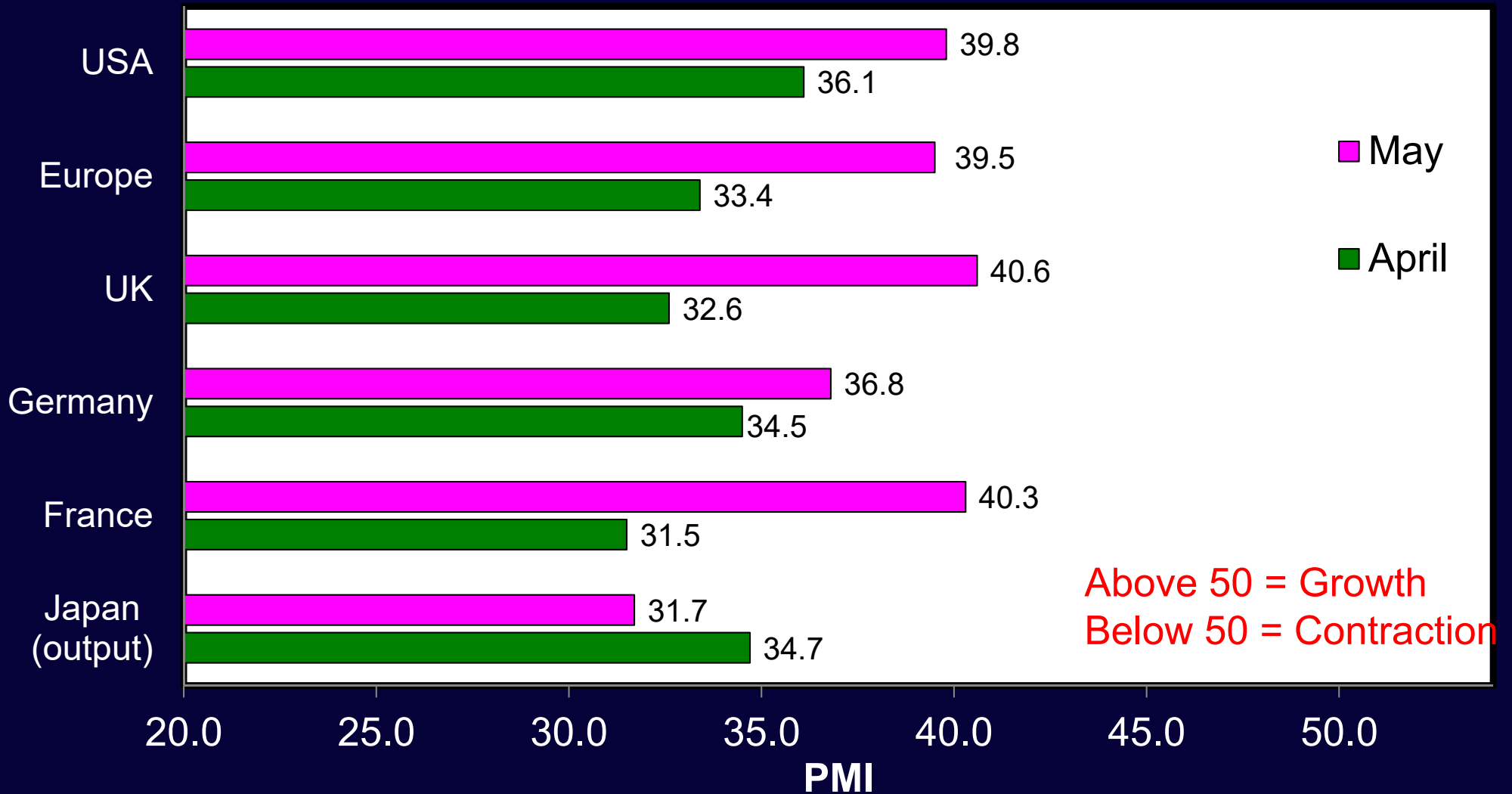


Chart 1

Purchasing Managers' Indices May (Flash) vs. April 2020



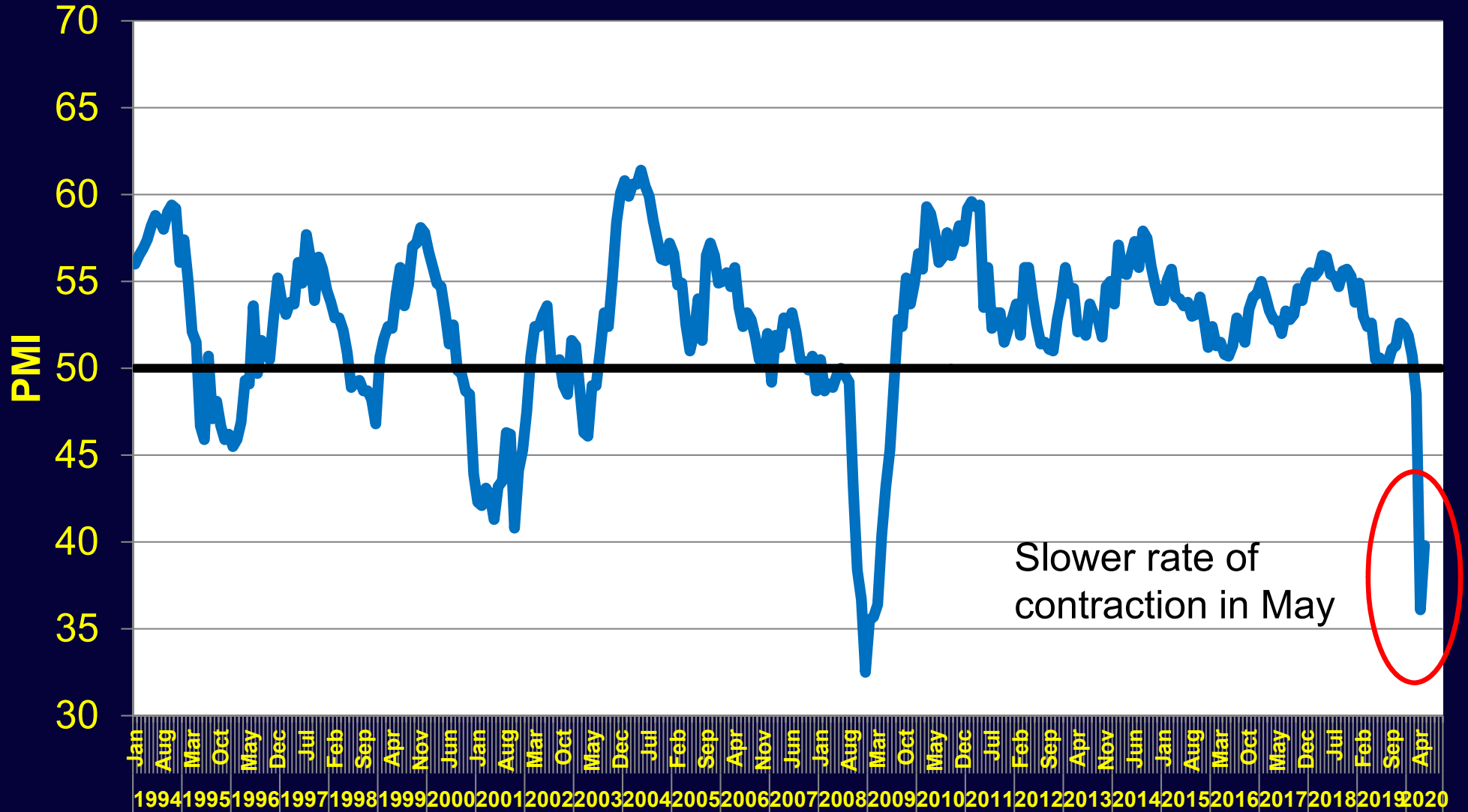
Above 50 = Growth
Below 50 = Contraction

IHS Markit

U.S "Purchasing Managers" Index

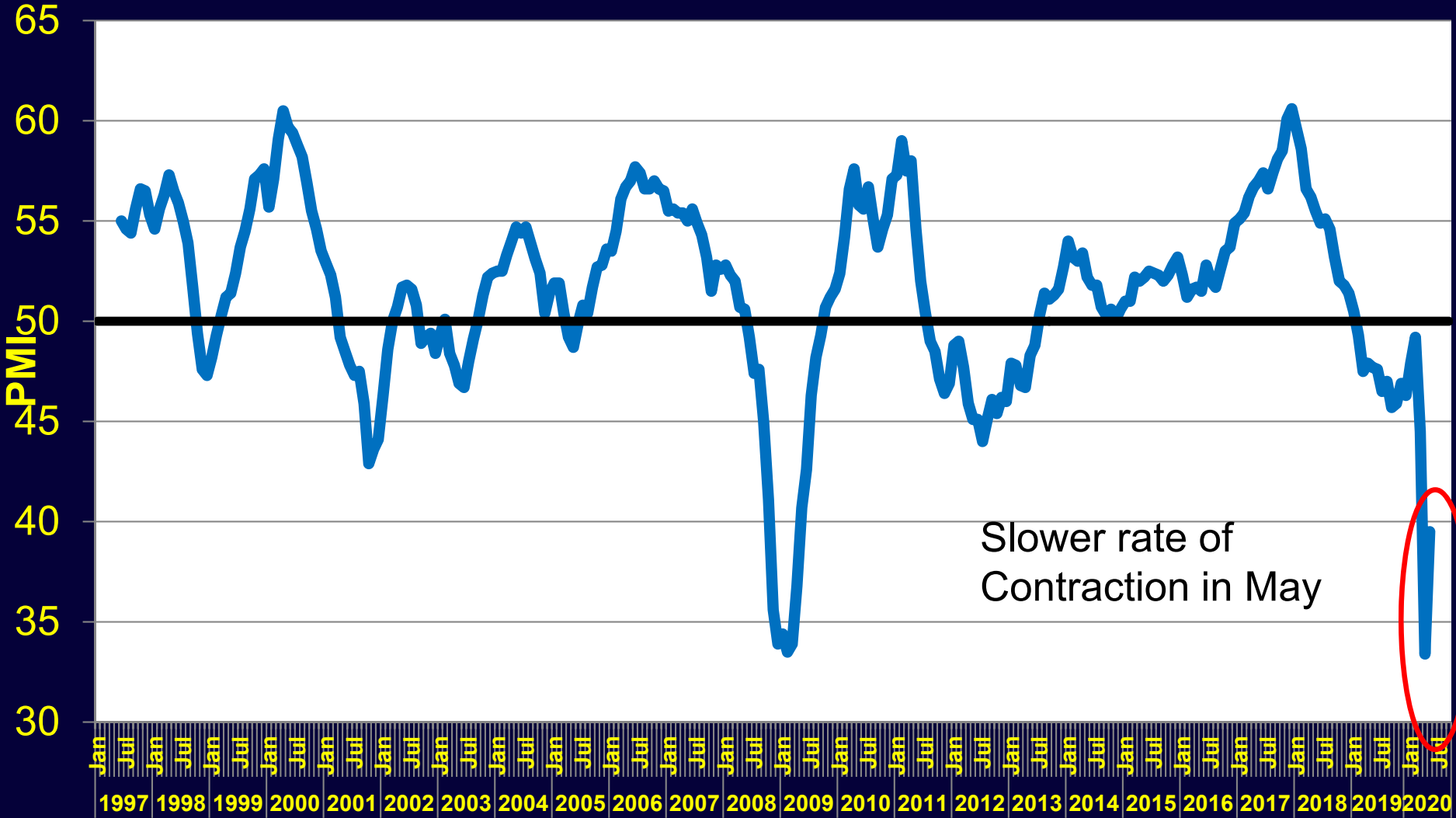
Market Economics

Diffusion Index, >50 = Growth



Eurozone Manufacturing "Purchasing Managers" Index

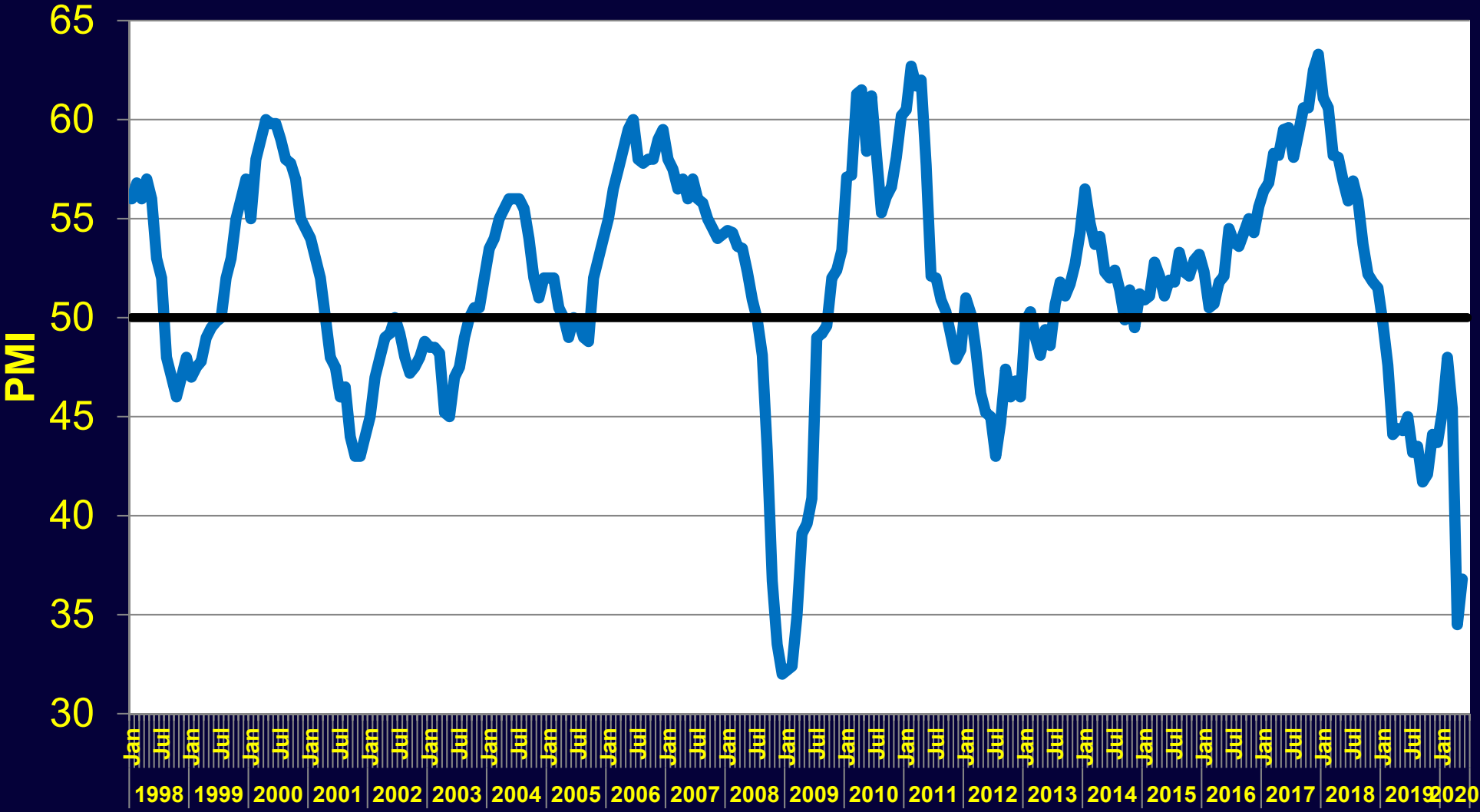
Diffusion Index, >50 = Growth



Slower rate of Contraction in May

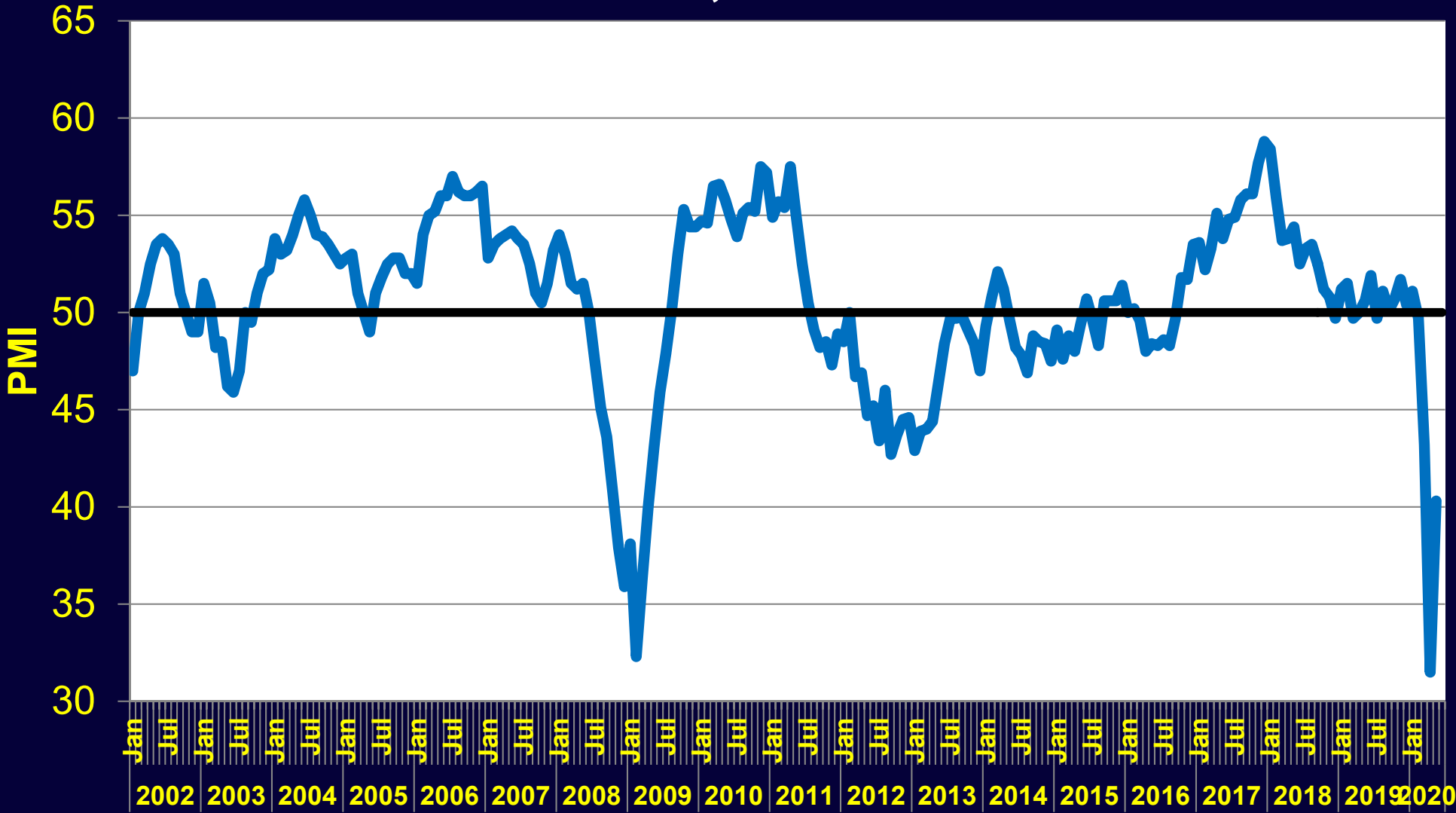
Germany Manufacturing "Purchasing Managers" Index

Diffusion Index, >50 = Growth



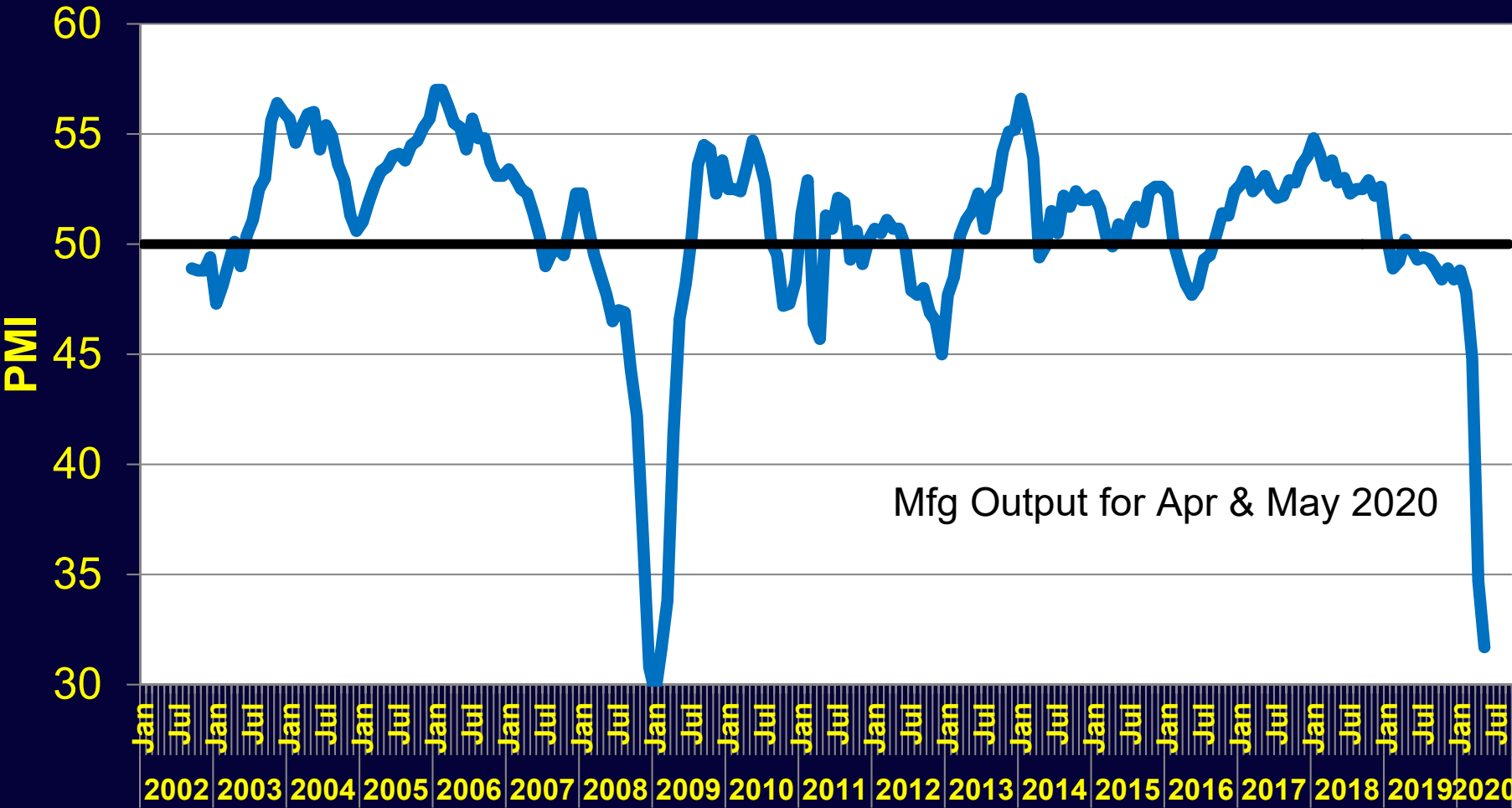
France Manufacturing "Purchasing Managers" Index

Diffusion Index, >50 = Growth



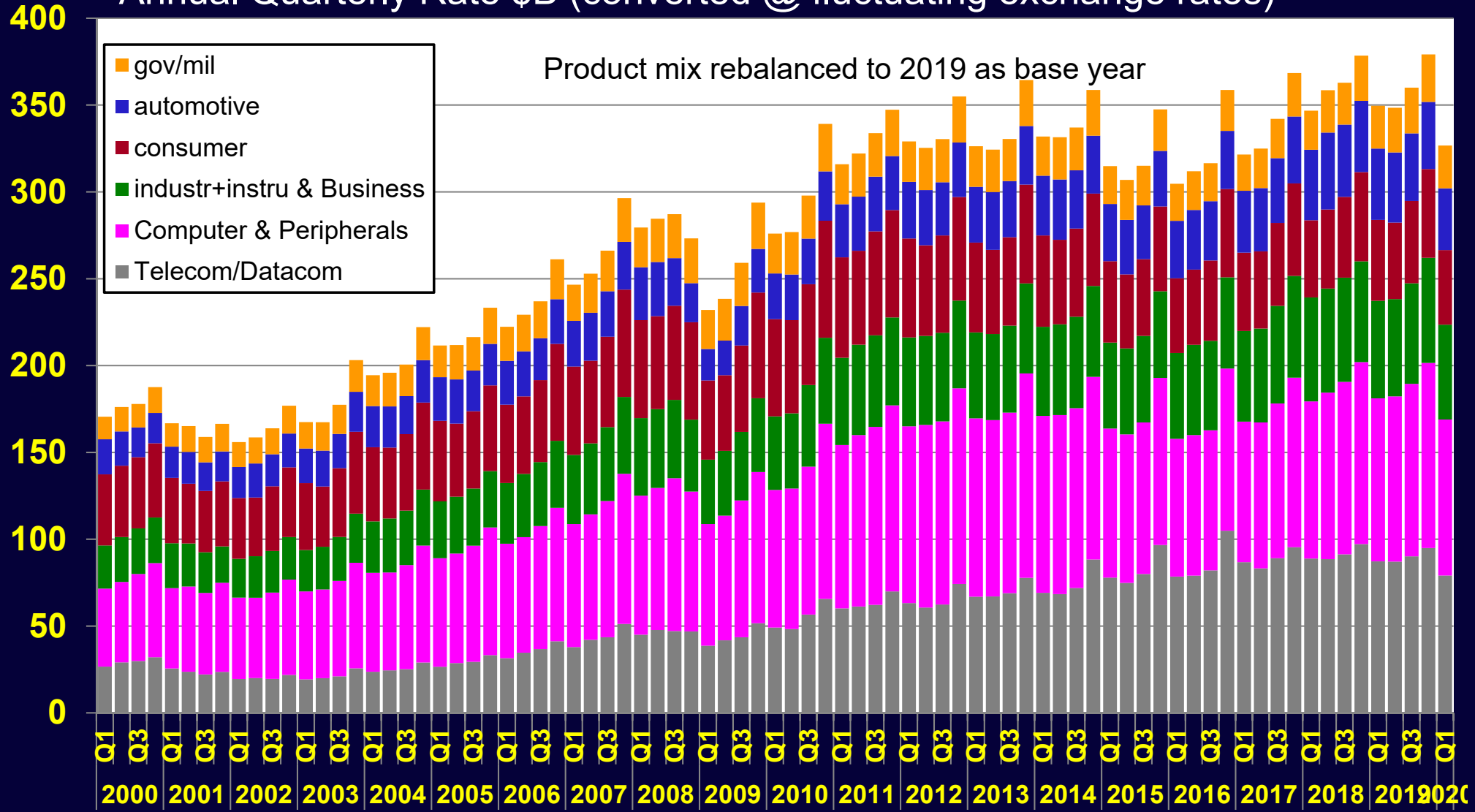
Japan "Purchasing Managers" Index

>50 = Growth



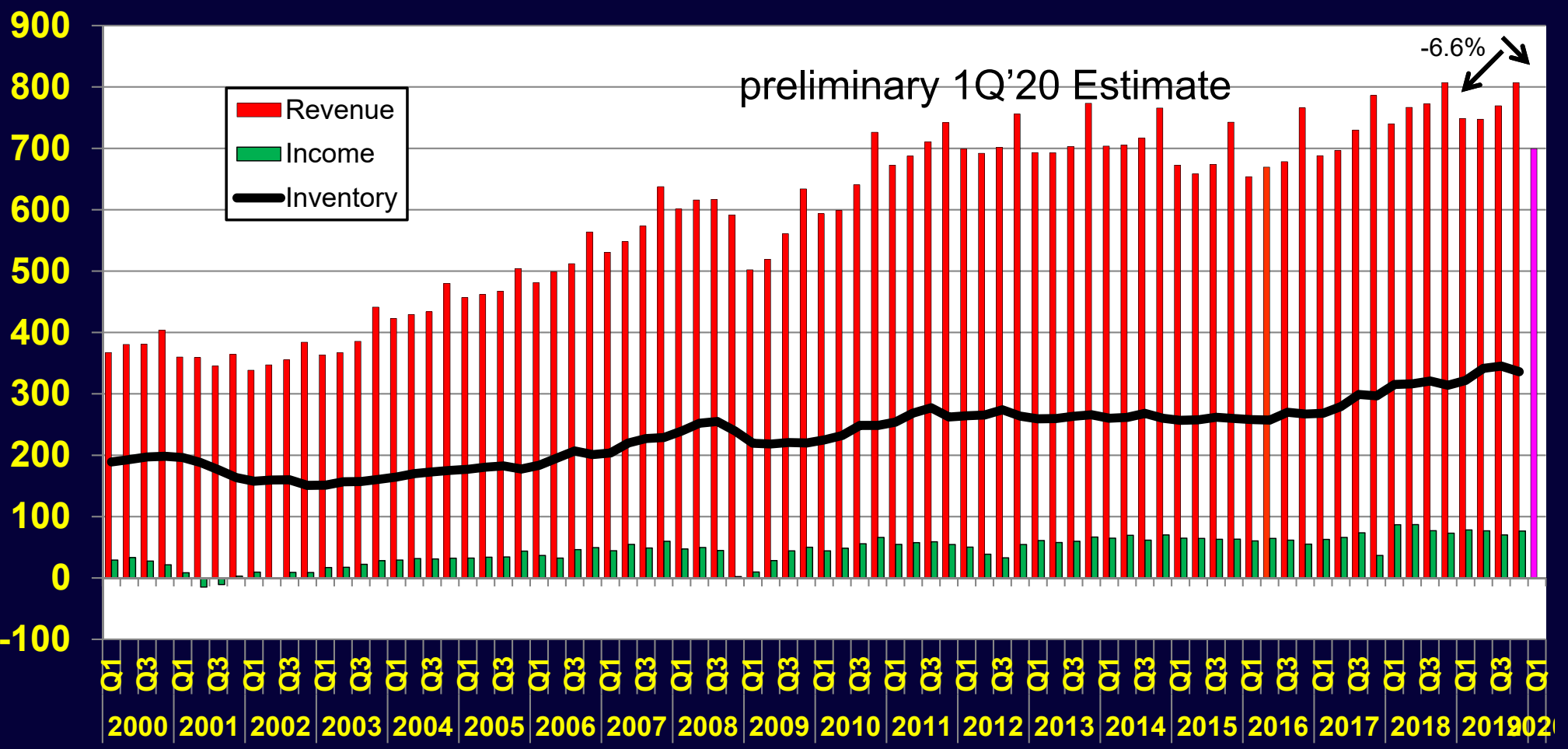
World Electronic Equipment Production By Type

Annual Quarterly Rate \$B (converted @ fluctuating exchange rates)



Electronic Equipment Suppliers Composite of 213 Public Companies

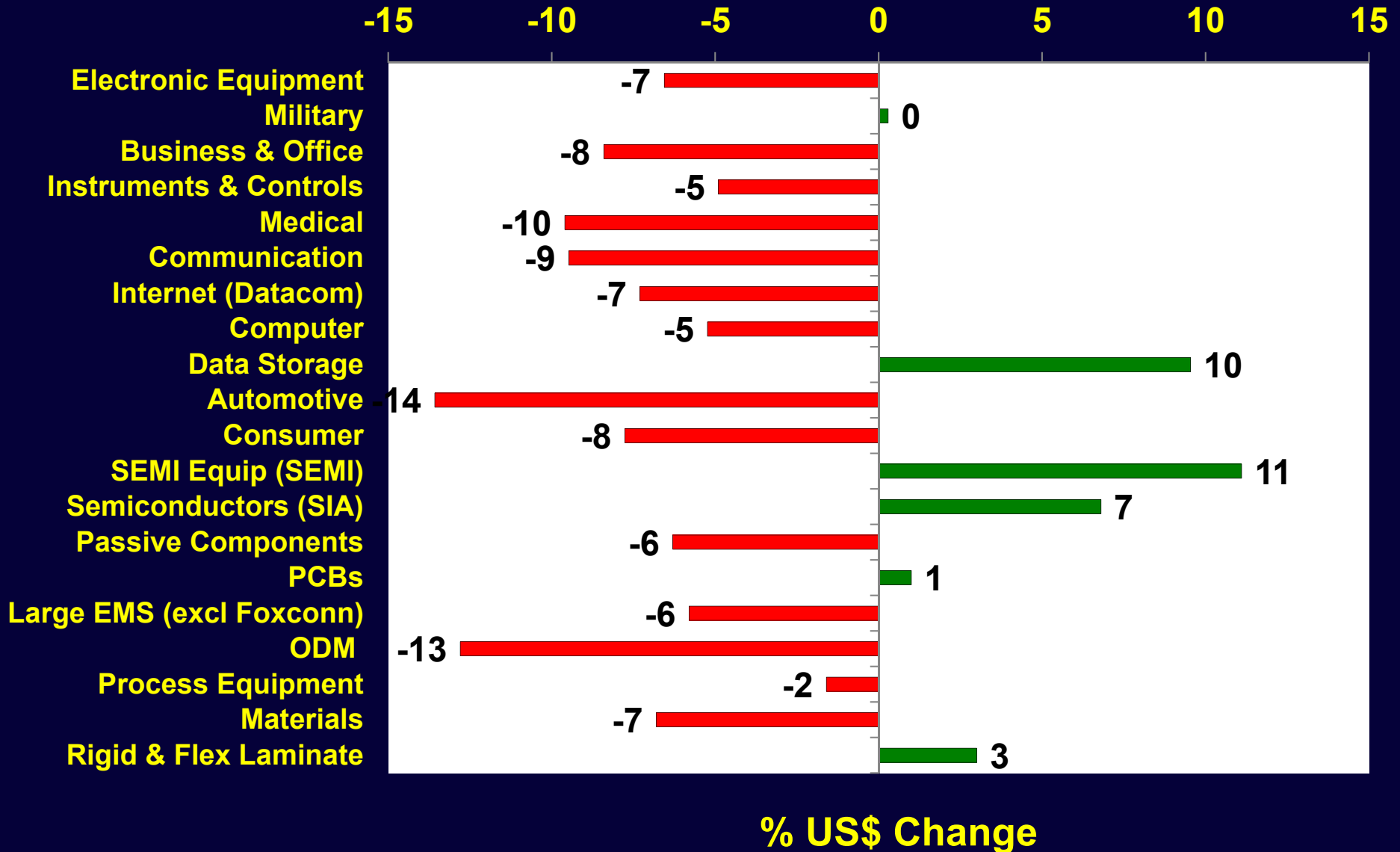
Revenue, Net Income & Inventory



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

Chart 9

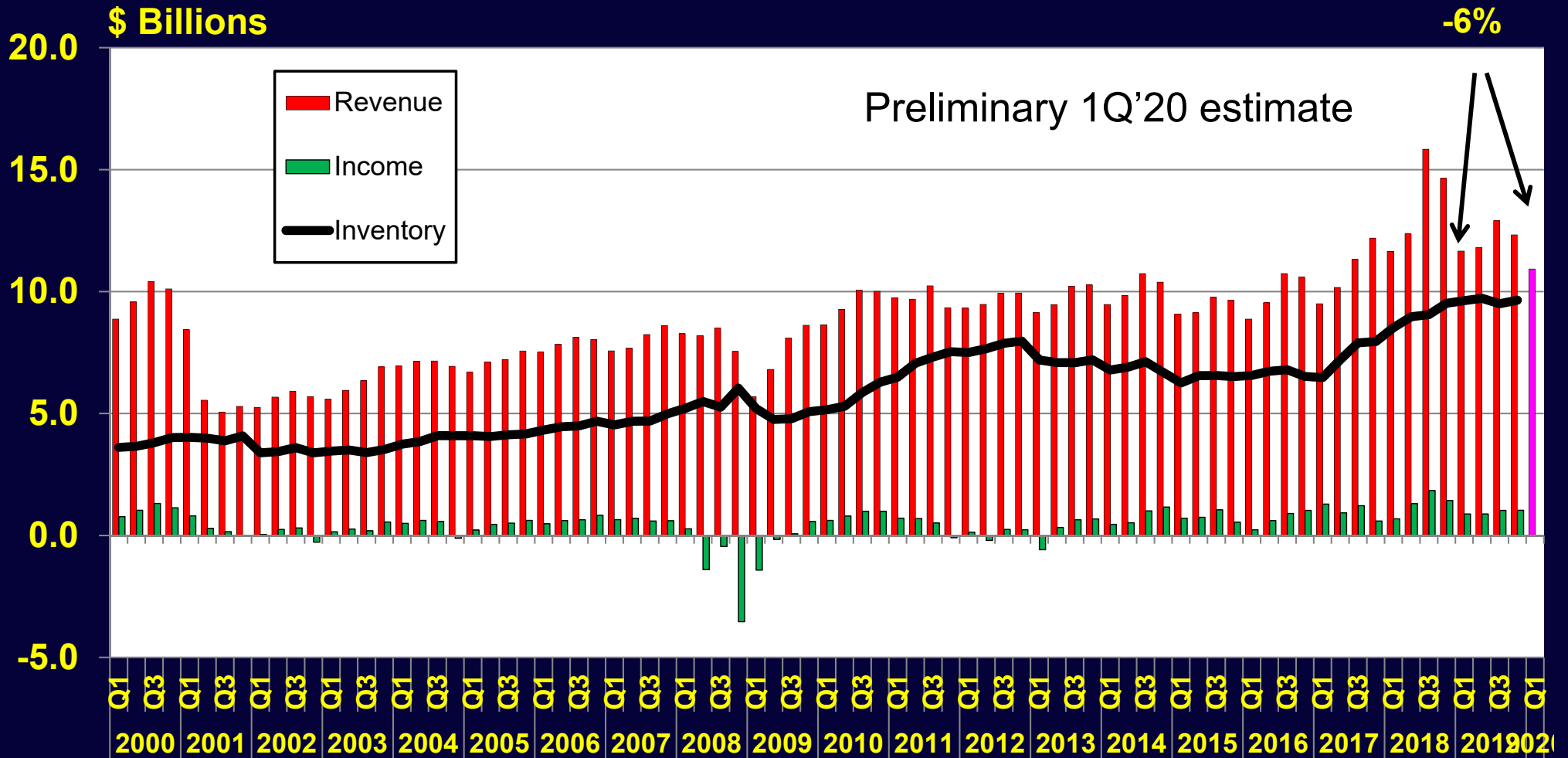
Global Electronic Supply Chain Growth 1Q'20 vs. 1Q'19 (preliminary estimate)



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

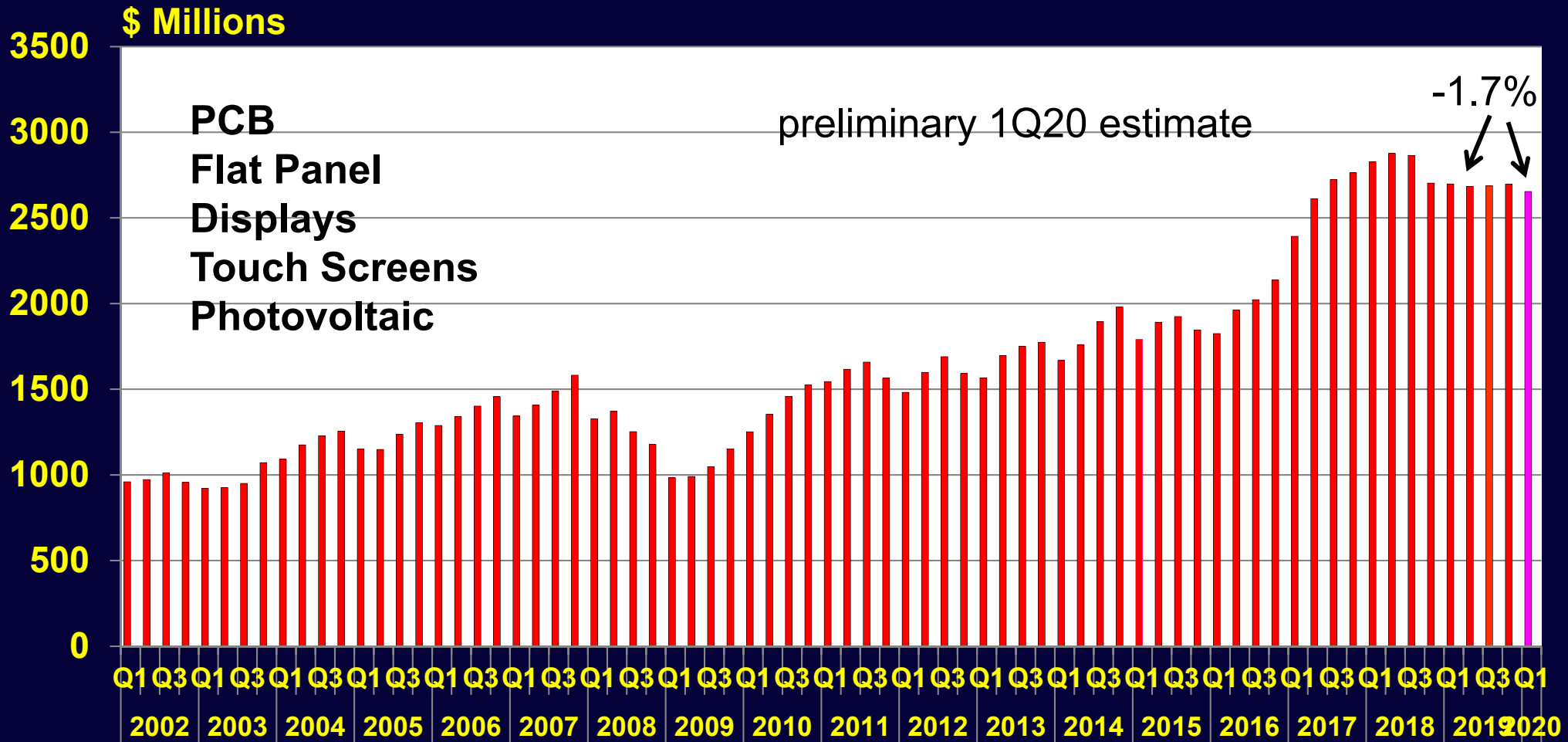
Passive Components Composite of 14 Companies

Revenue, Net Income & Inventory



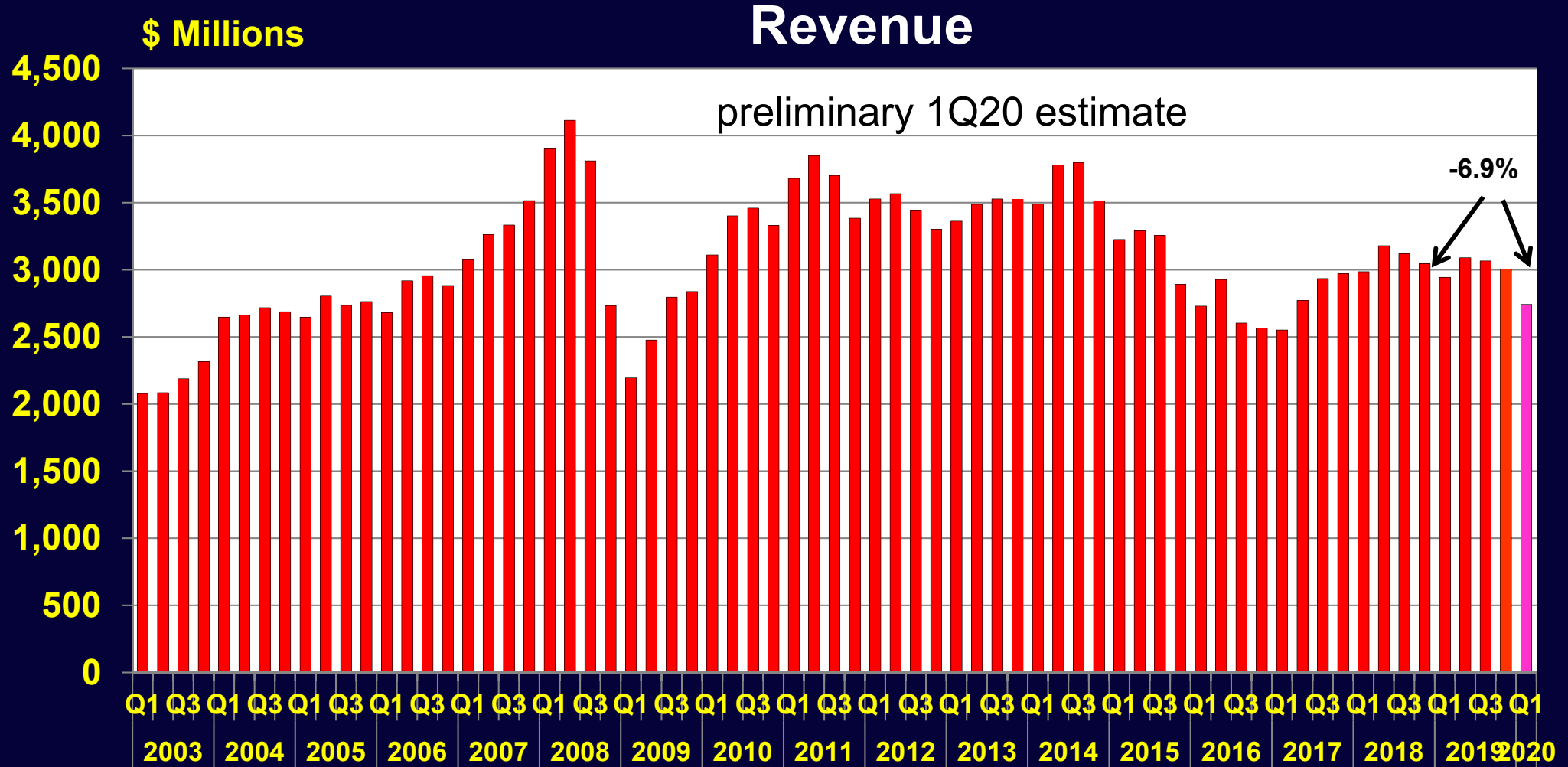
ALPS, AVX, Bel Fuse, Diodes, International Rectifier, Kemet, Knowles, Littlefuse, Murata, RF Micro, Rohm, Vishay, TDK, Yageo;
 Euro, Yen & NT\$ converted to US\$ at fluctuating exchange rates

Process Equipment Related Suppliers Composite of 12 Companies Revenue



C-Sun, Tailing Technology, Camtek, Cadence, ESI, GSI Group, Mentor Graphics, Nordson, Rofin-Sinar, Coherent, Orbotech, Data I/O

Material Suppliers (excluding laminate) Composite of 14 Companies

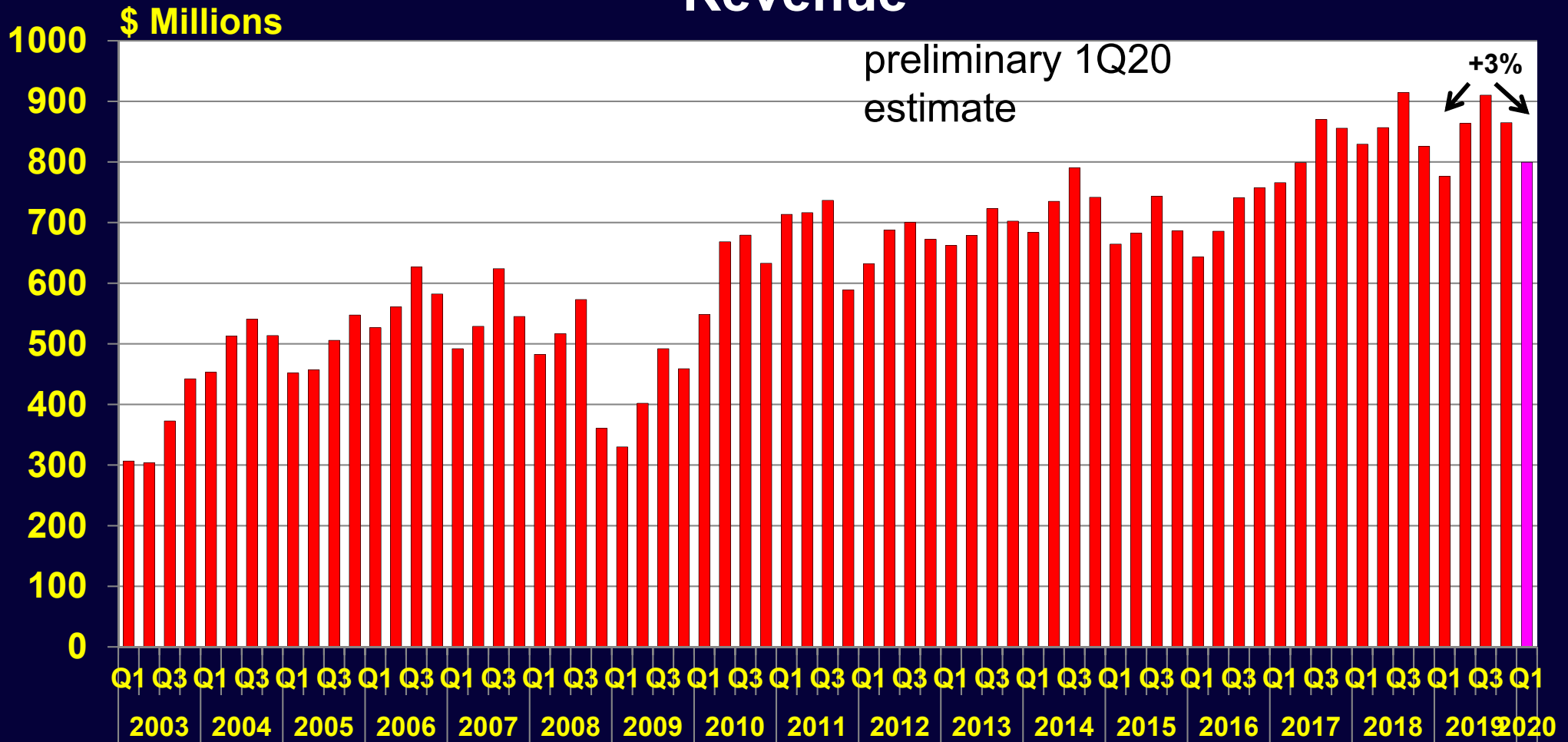


Momentive, OM Group, Taiwan Glass, Baotech, Glotech, Shenmao, Wahlee, Topoint, Cabot Micro, Cookson Elec, Eternal Chemical, Hexcel, Chang Wah, Platform Specialty Products

NT\$ & GBP converted to US\$ at fluctuating exchange

Rigid & Flex Laminate Suppliers Composite of 13 Companies

Revenue

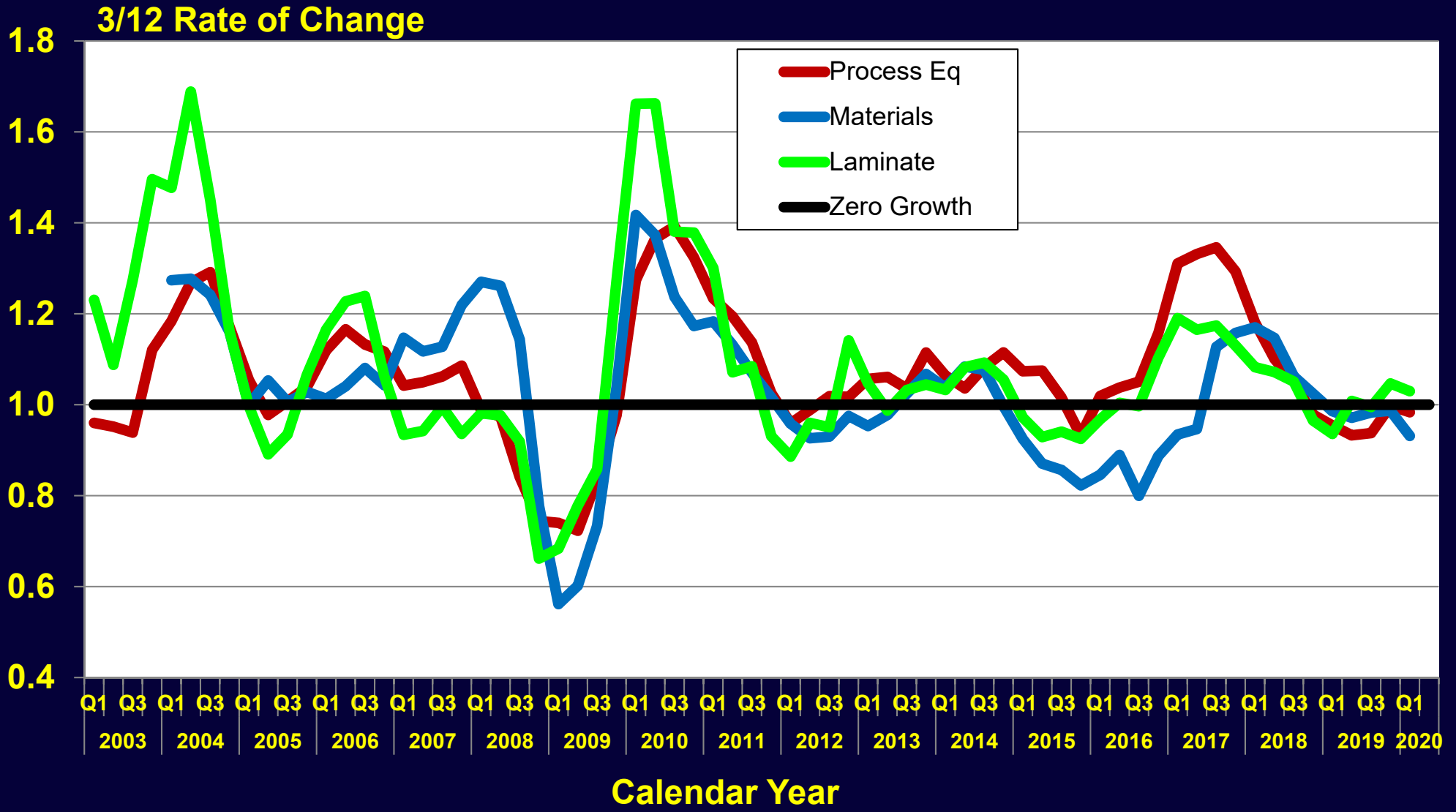


Arisawa, Arlon Electronic Materials, Elite Materials, Hwa Woei, Iteq, Microcosm, Park Electrochemical, Rogers, Shinemore, Taiflex, Thinflex, Top Union, Uniplus

NT\$ converted at fluctuating exchange

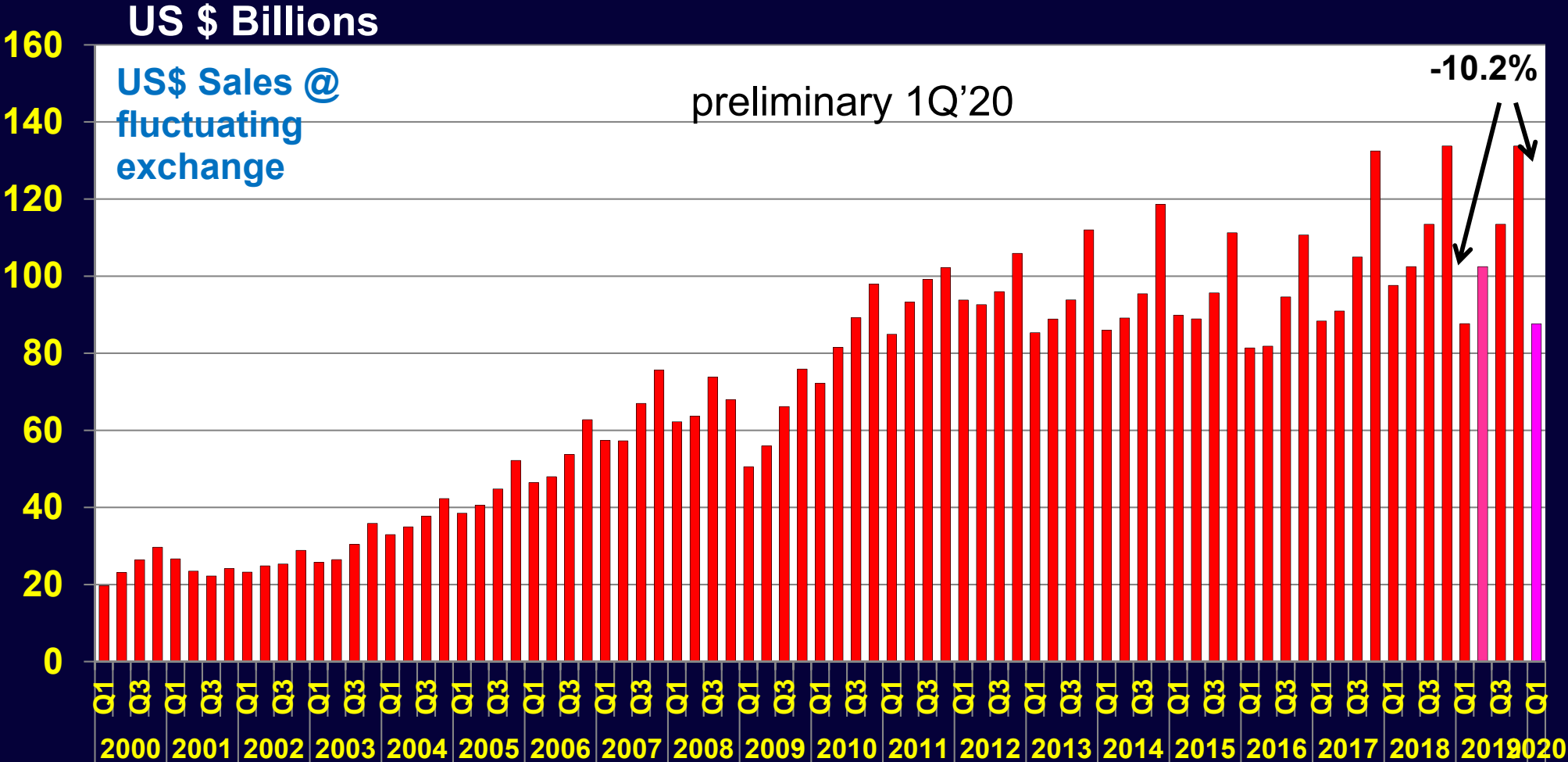
Global Growth Rates

Process Equipment, Materials & Laminate



Company Financials of 12 Laminate suppliers, 13 material suppliers & 8 Process Equipment Suppliers

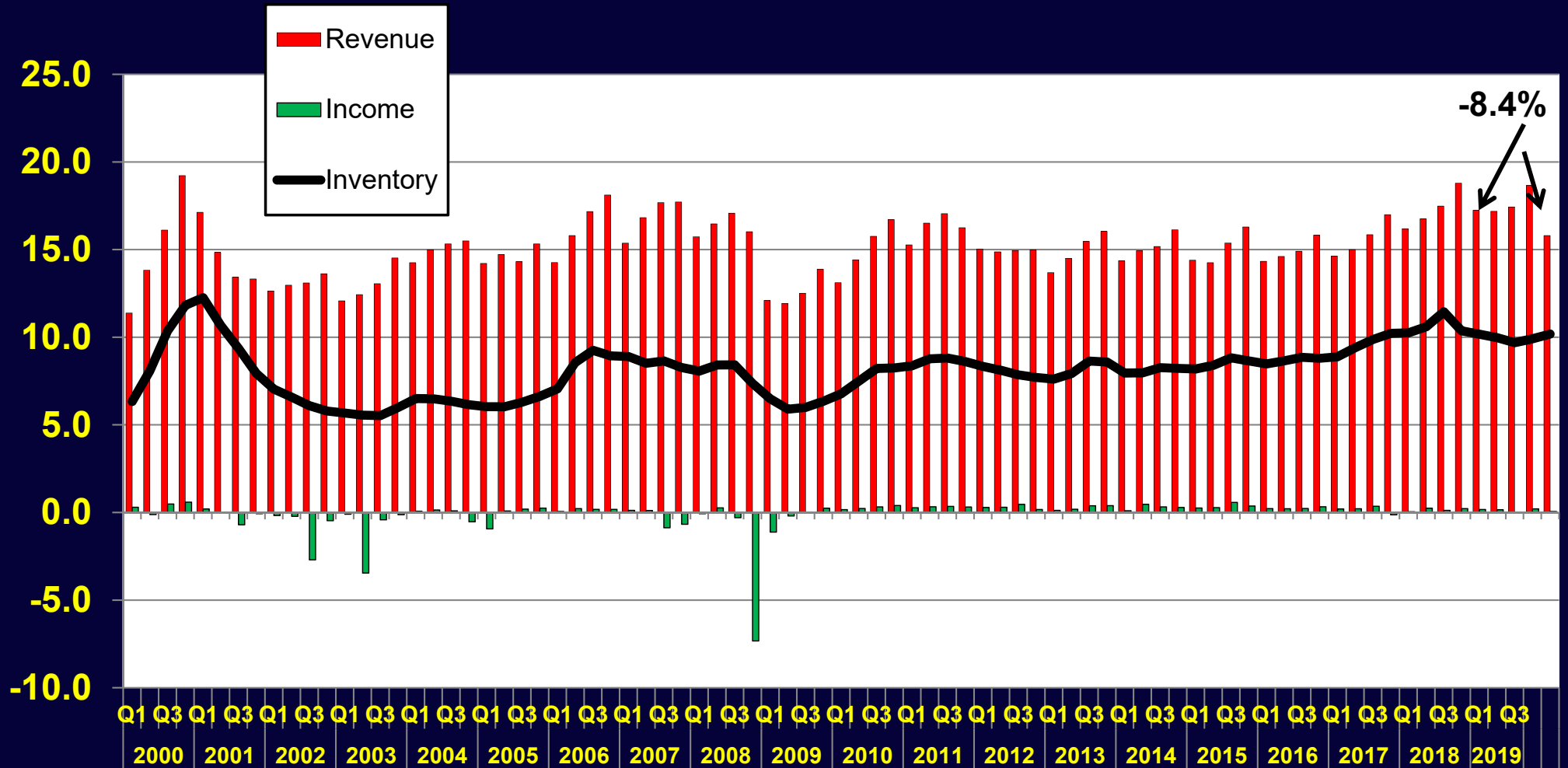
Global EMS & ODM Companies Composite of 52 Public Companies Revenue



Large U.S EMS Providers

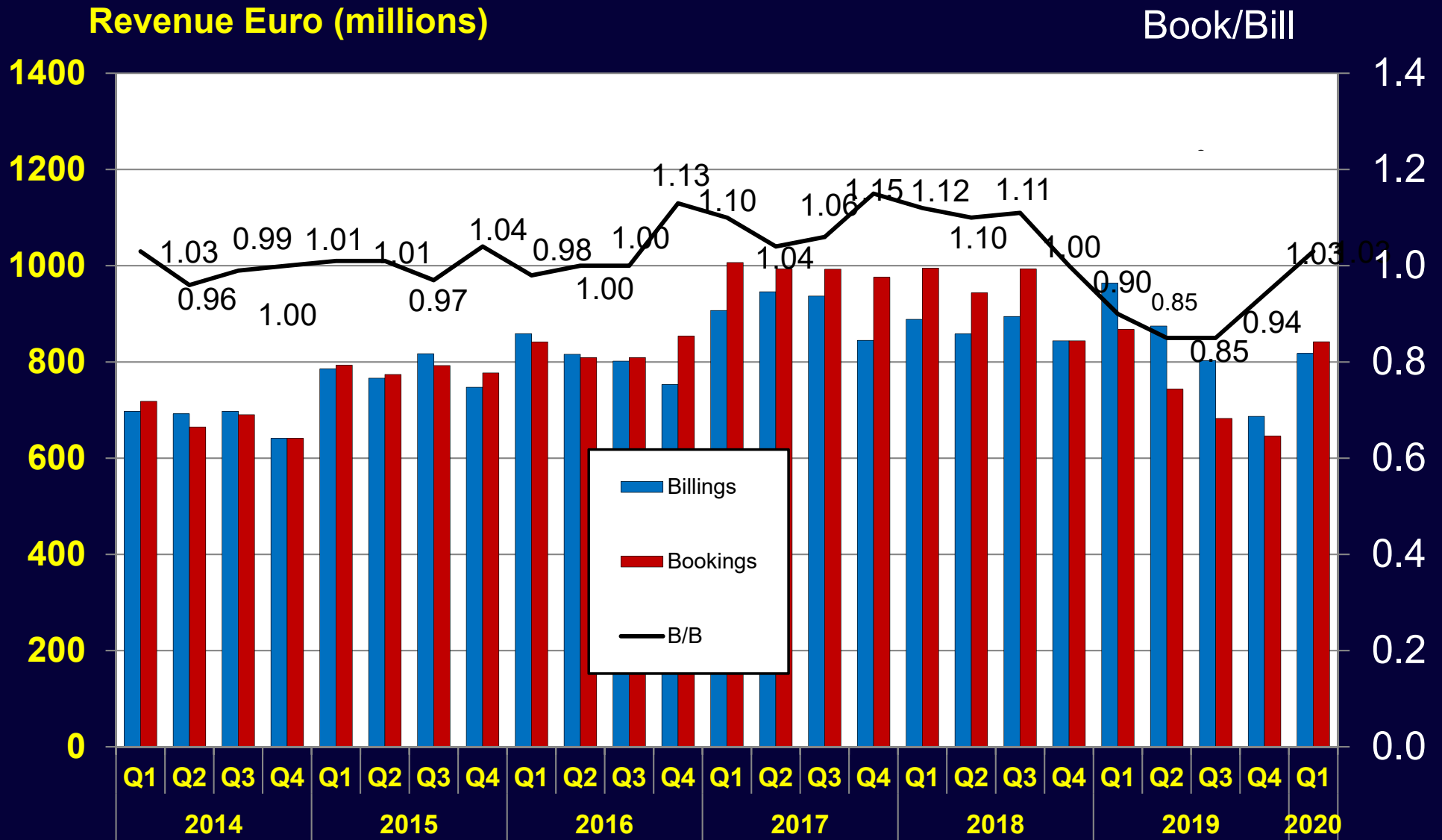
Composite of 7 Public Companies

Revenue, Net Income & Inventory

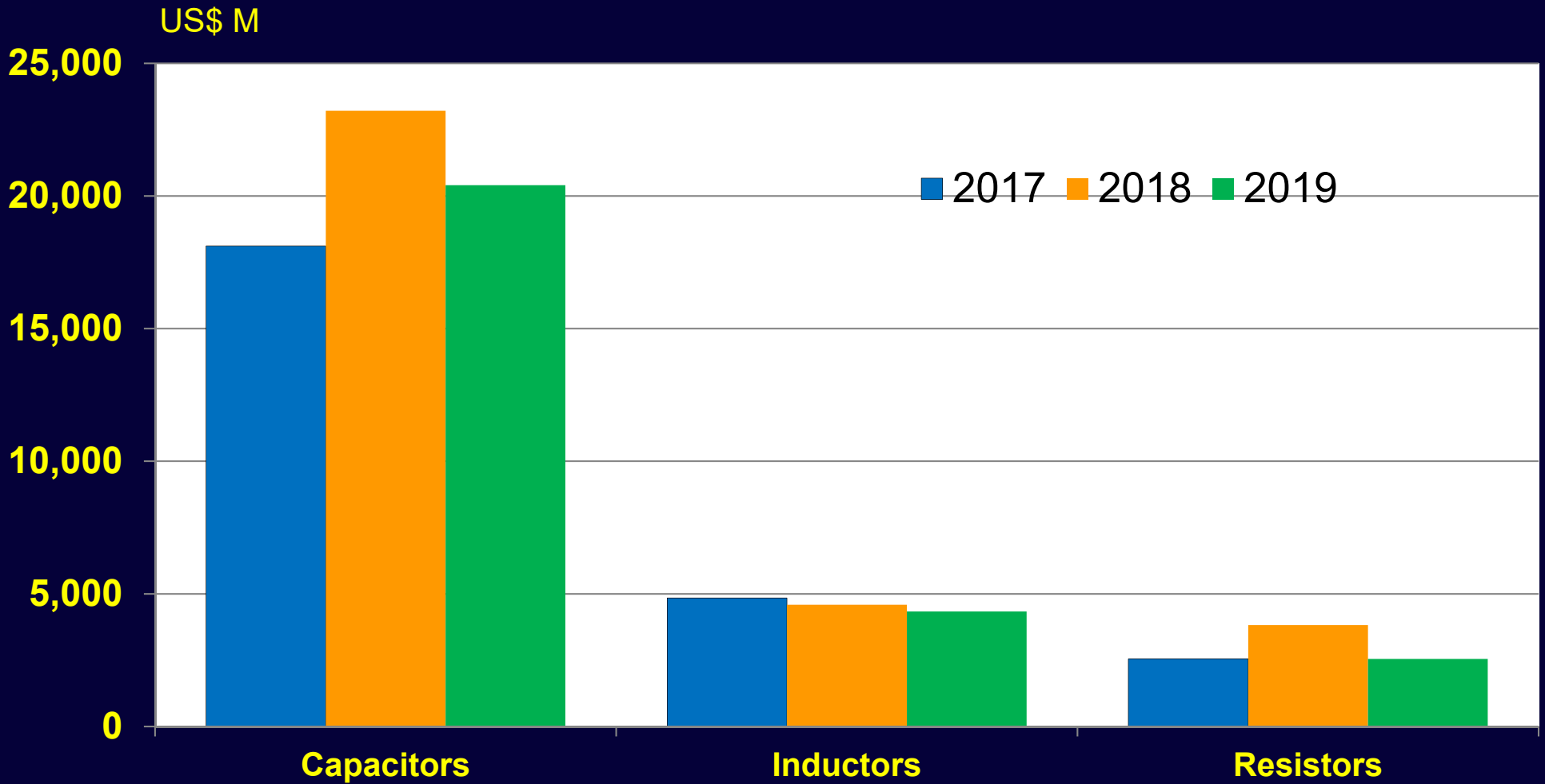


Benchmark+Pemstar, Celestica, Flex+Solectron, Jabil, Plexus, Sanmina, Sypris

Electronic Components Market Germany



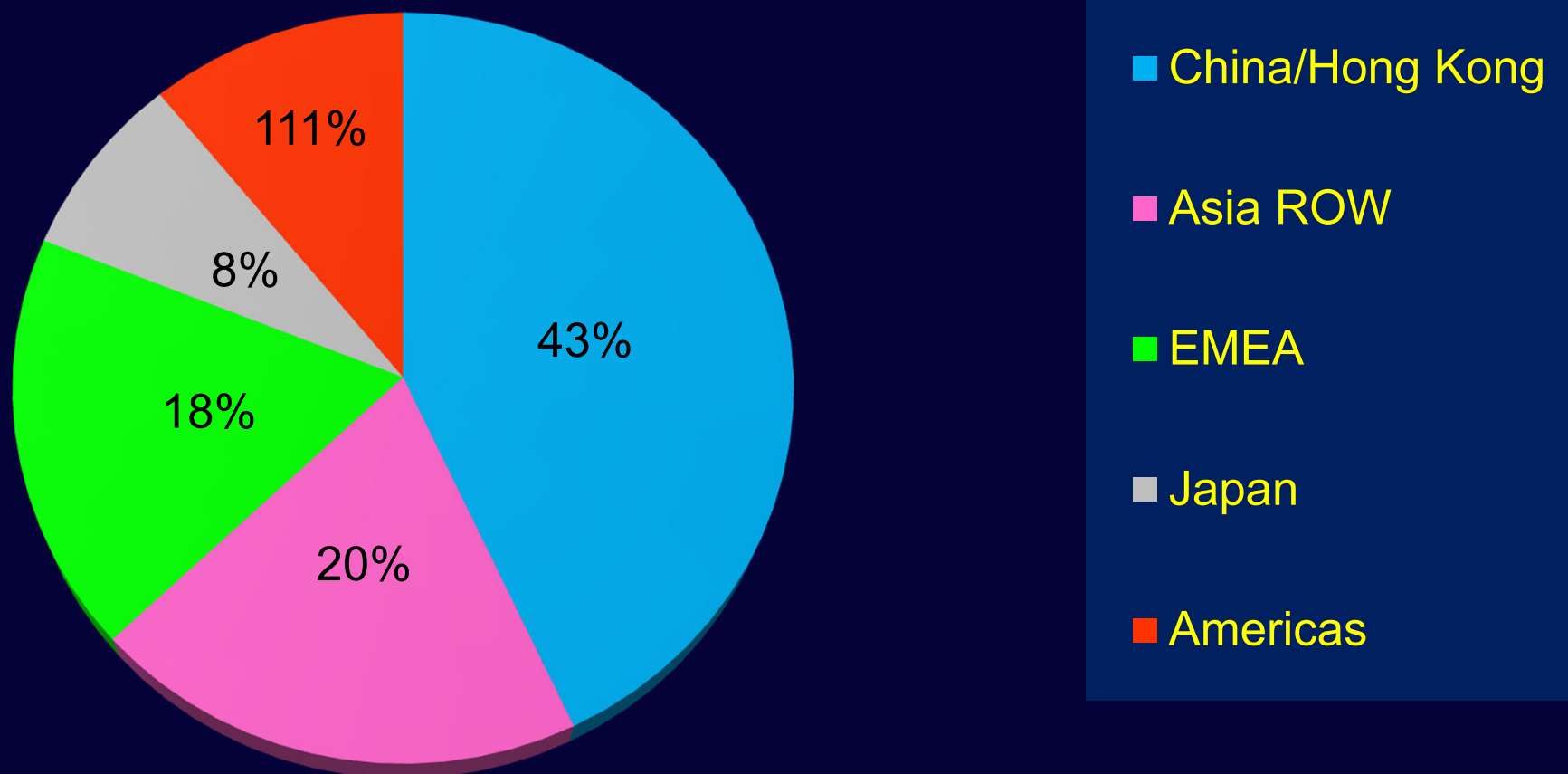
Worldwide Passive Component Sales



Passive Component Sales by Region 2019

Chart 19

Global passive sales (capacitors, inductors and resistors) declined 13.7% in dollars and declined 22.7% in units in 2019

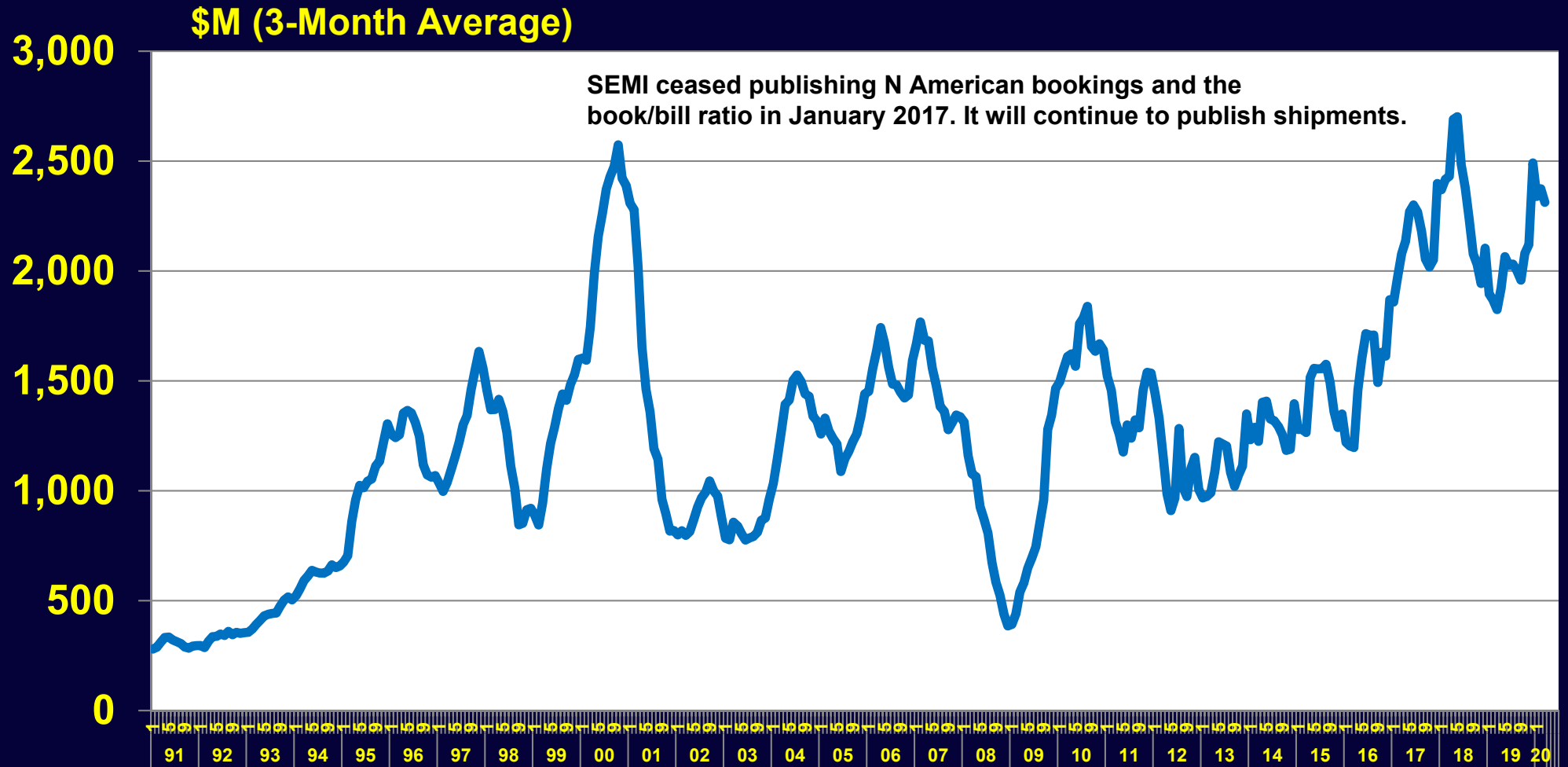


Capacitors: Sales down 18.6% in units & 12.6% in dollars; Average selling price increased 7.4%.

Inductors: Sales up 10.2% in units & down 6.8% in dollars; Average selling price decreased 15.4%.

Resistors: Sales down 42.2% in units & 28.7% in dollars; Average selling price increased 23.4%.

N American Semiconductor Equipment Industry Shipments



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