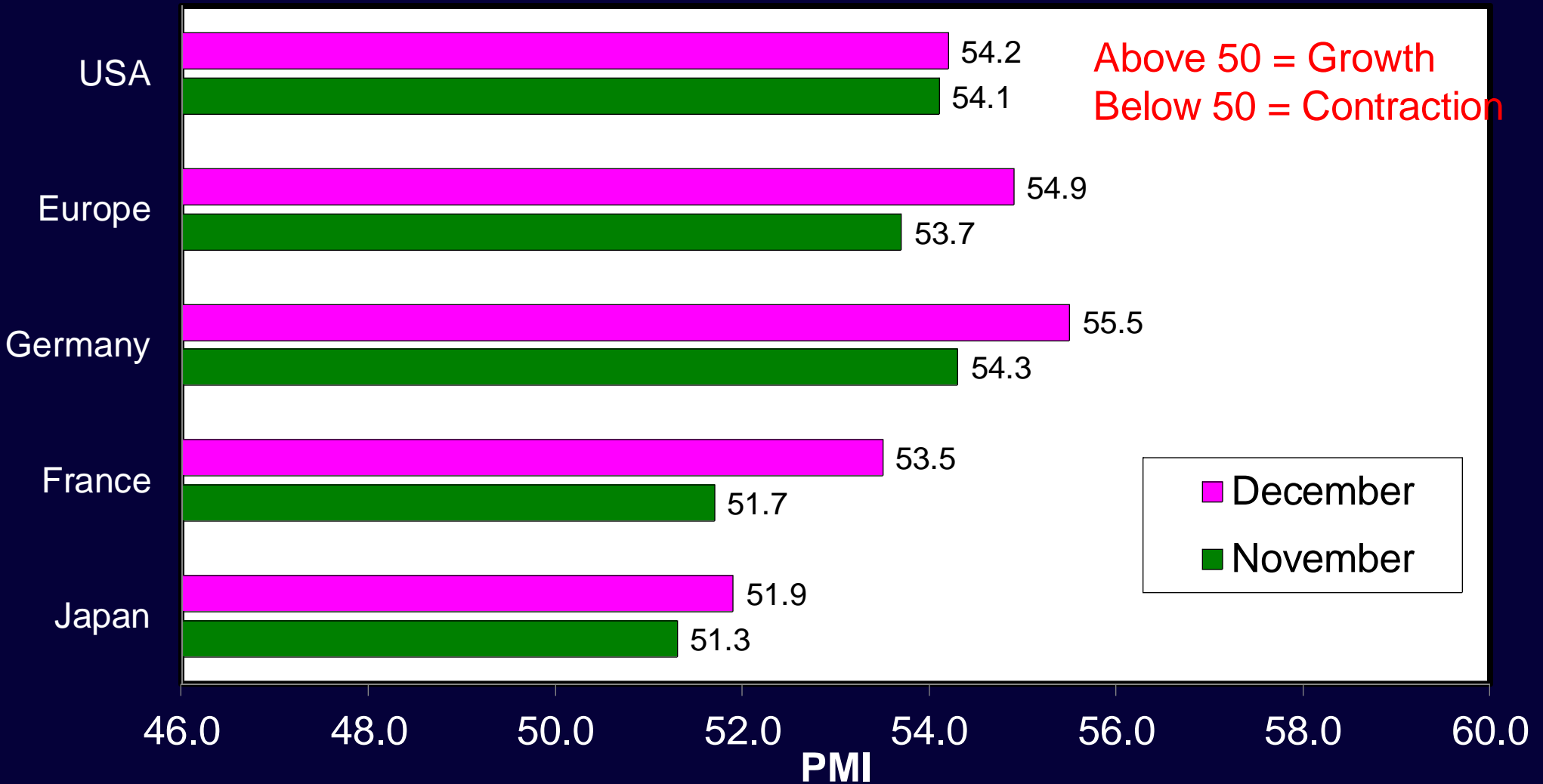


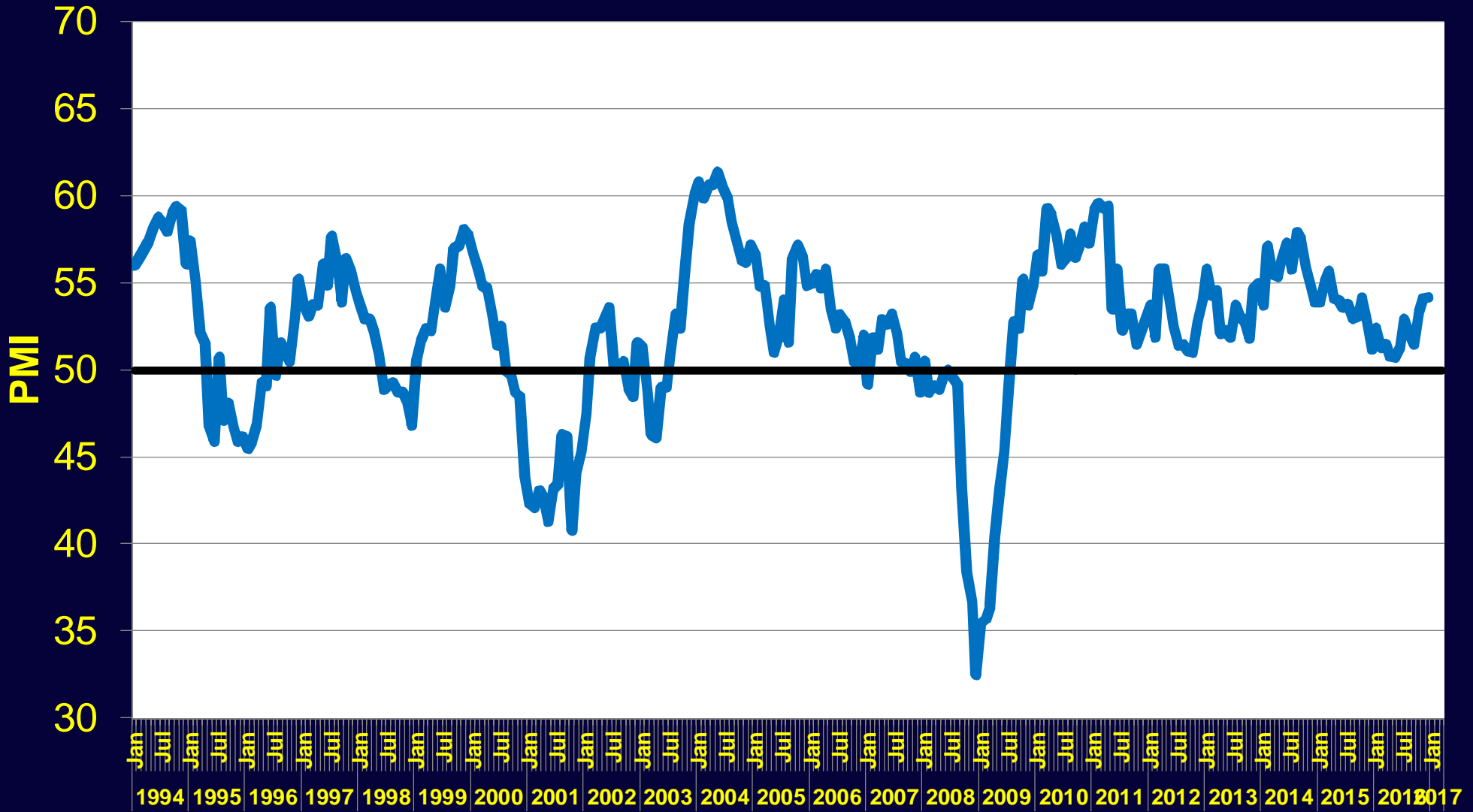
Chart 1

Purchasing Managers' Indices December (Flash) vs. November 2016



U.S "Purchasing Managers Index" Market Economics

Diffusion Index, >50 = Growth



Eurozone "Purchasing Managers" Index

Diffusion Index, >50 = Growth

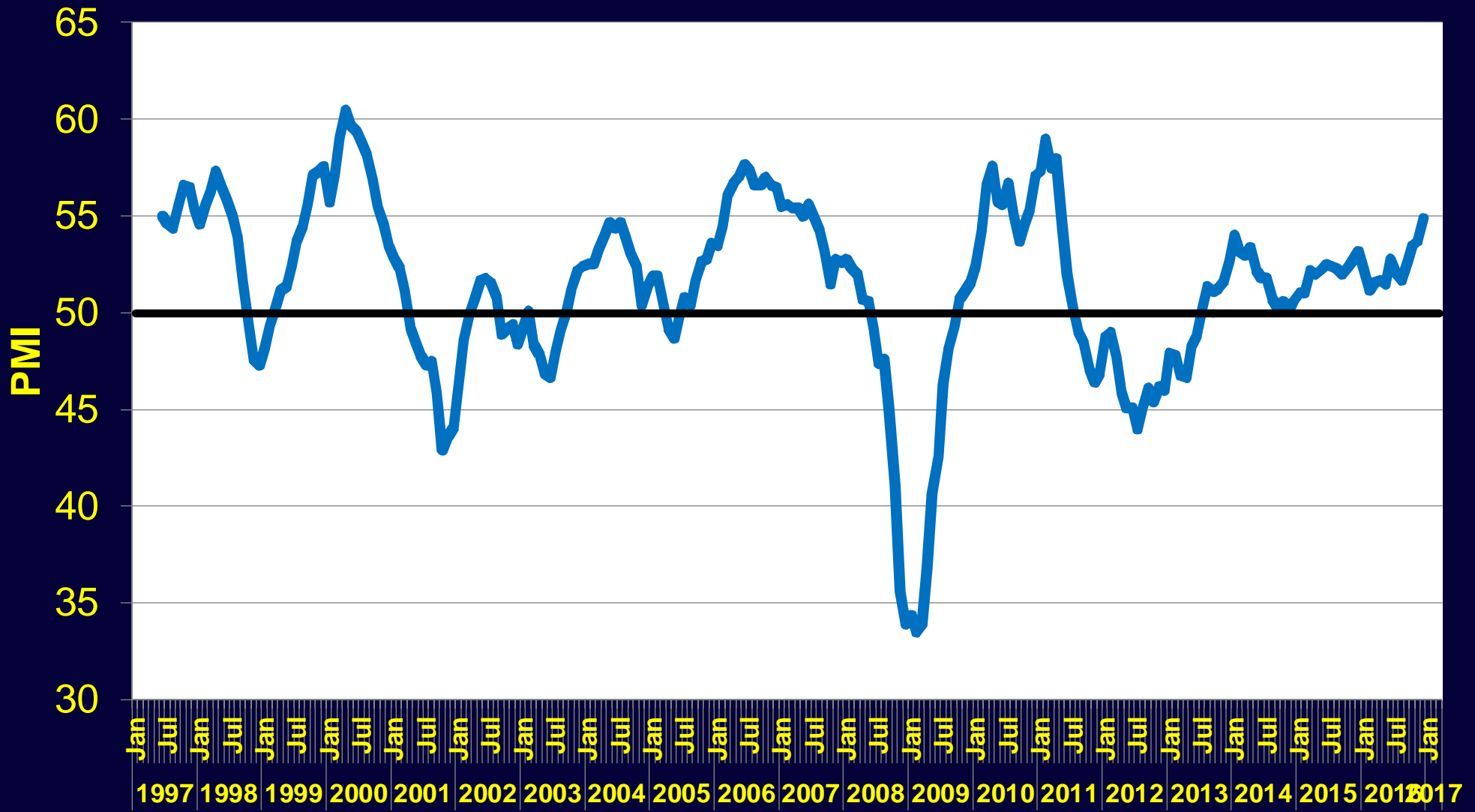
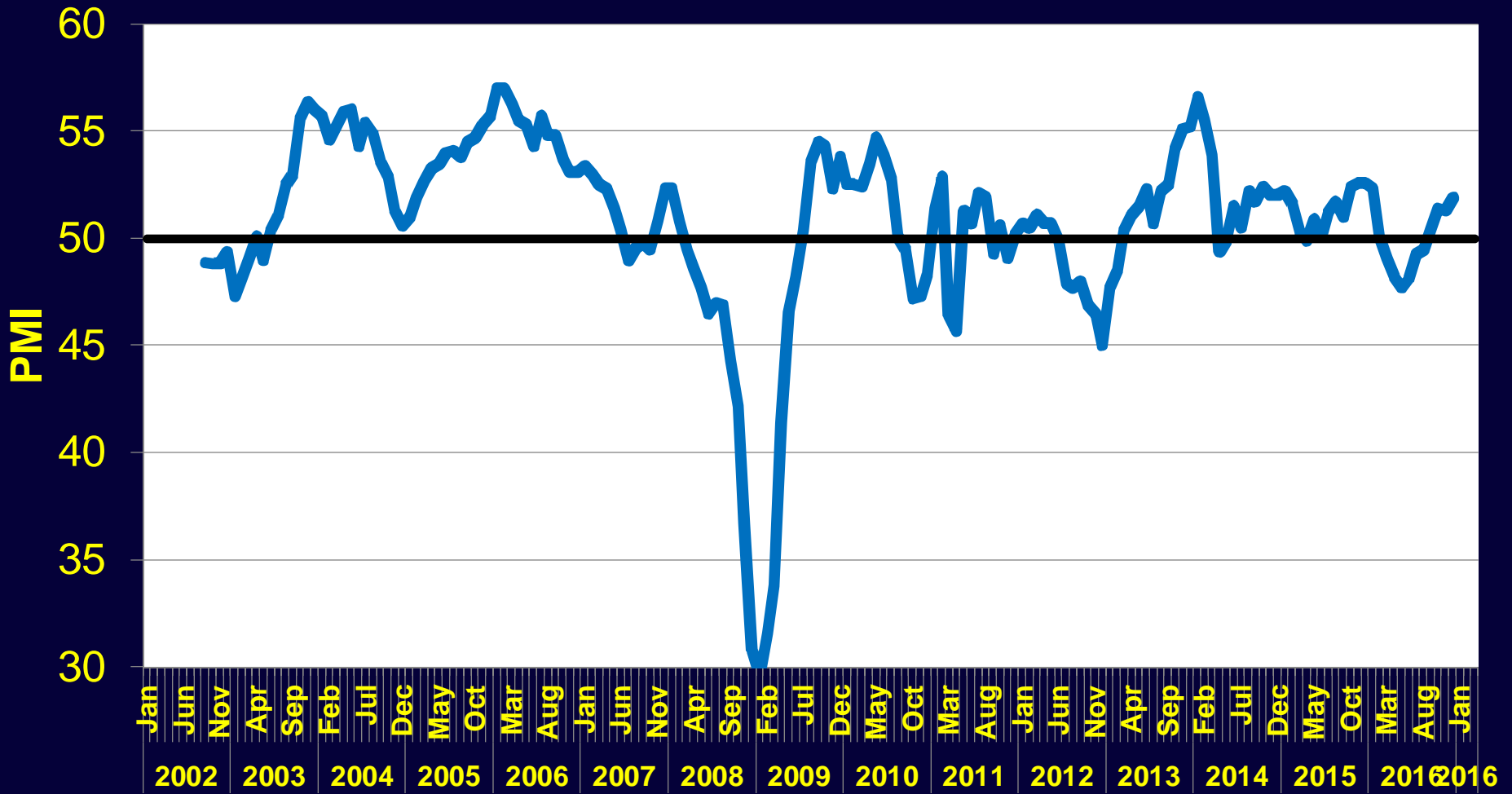


Chart 4

Japan "Purchasing Managers" Index

>50 = Growth



European Computer, Electronic & Optical Products Production

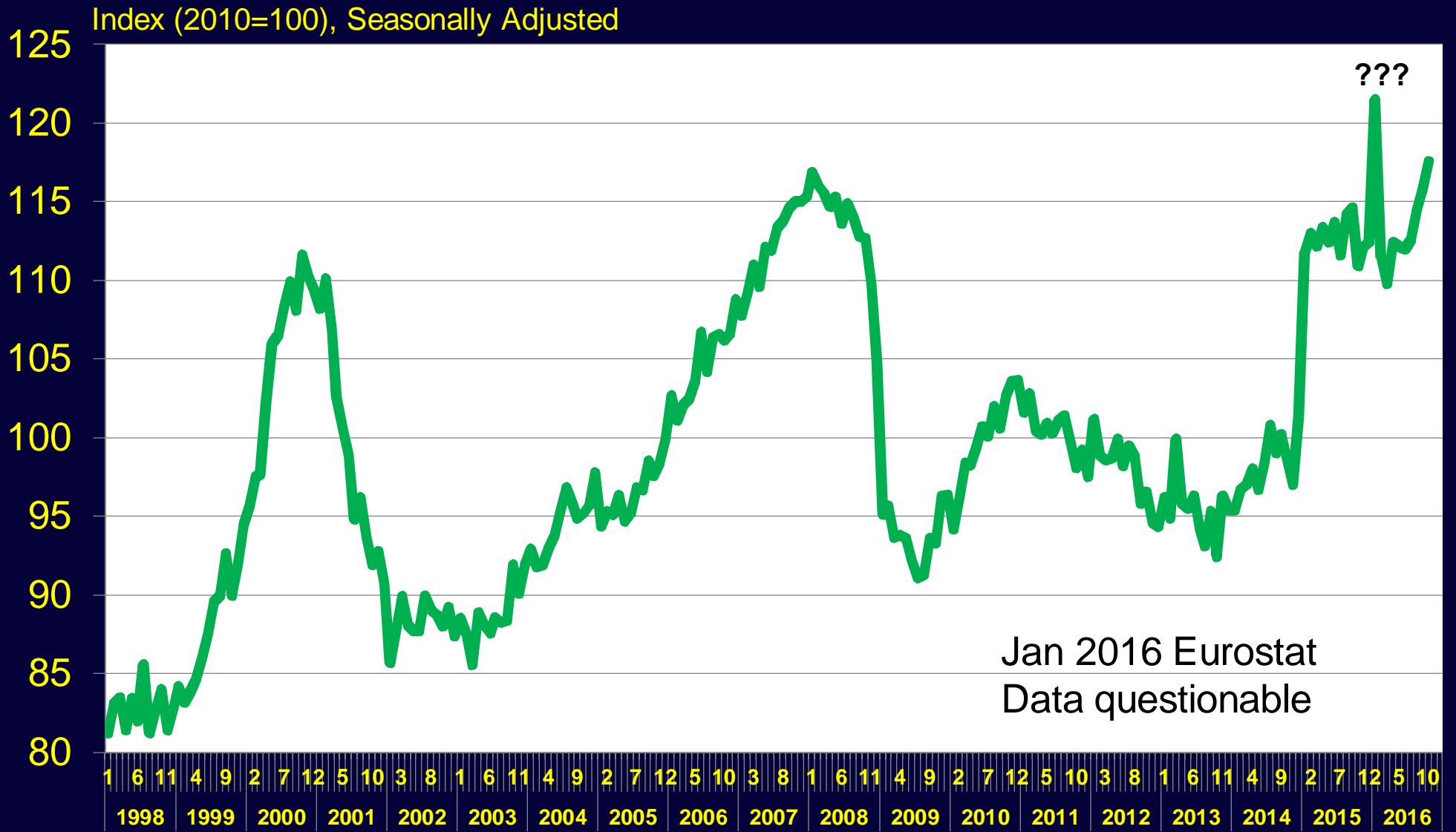


Chart 6

European Production - Instruments & Appliances for Measuring, Testing & Navigation



Chart 7

European Production - Irradiation, Electromedical & Electrotherapeutic Equipment

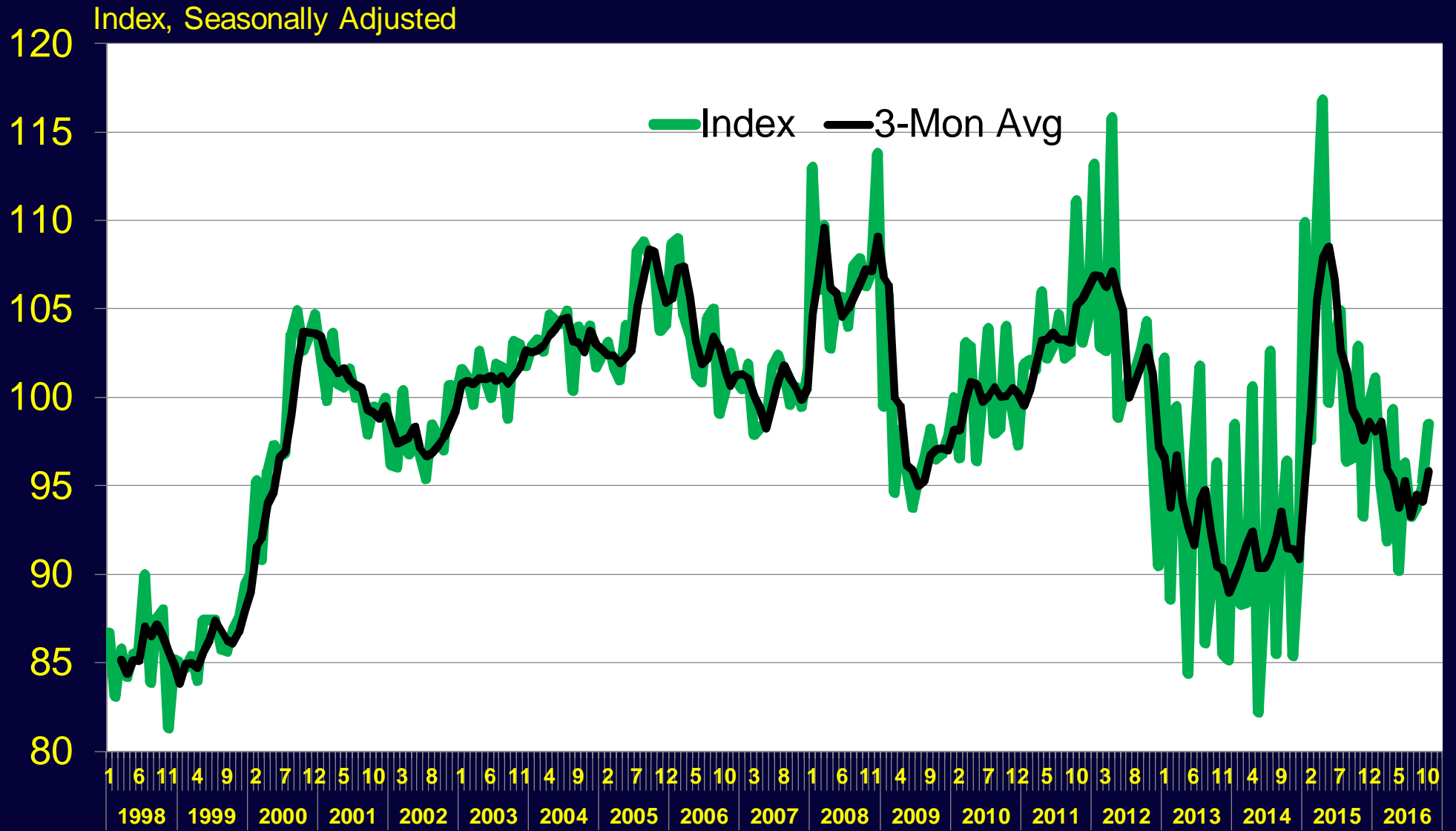


Chart 8

European Production - Aircraft, Spacecraft & Related Equipment

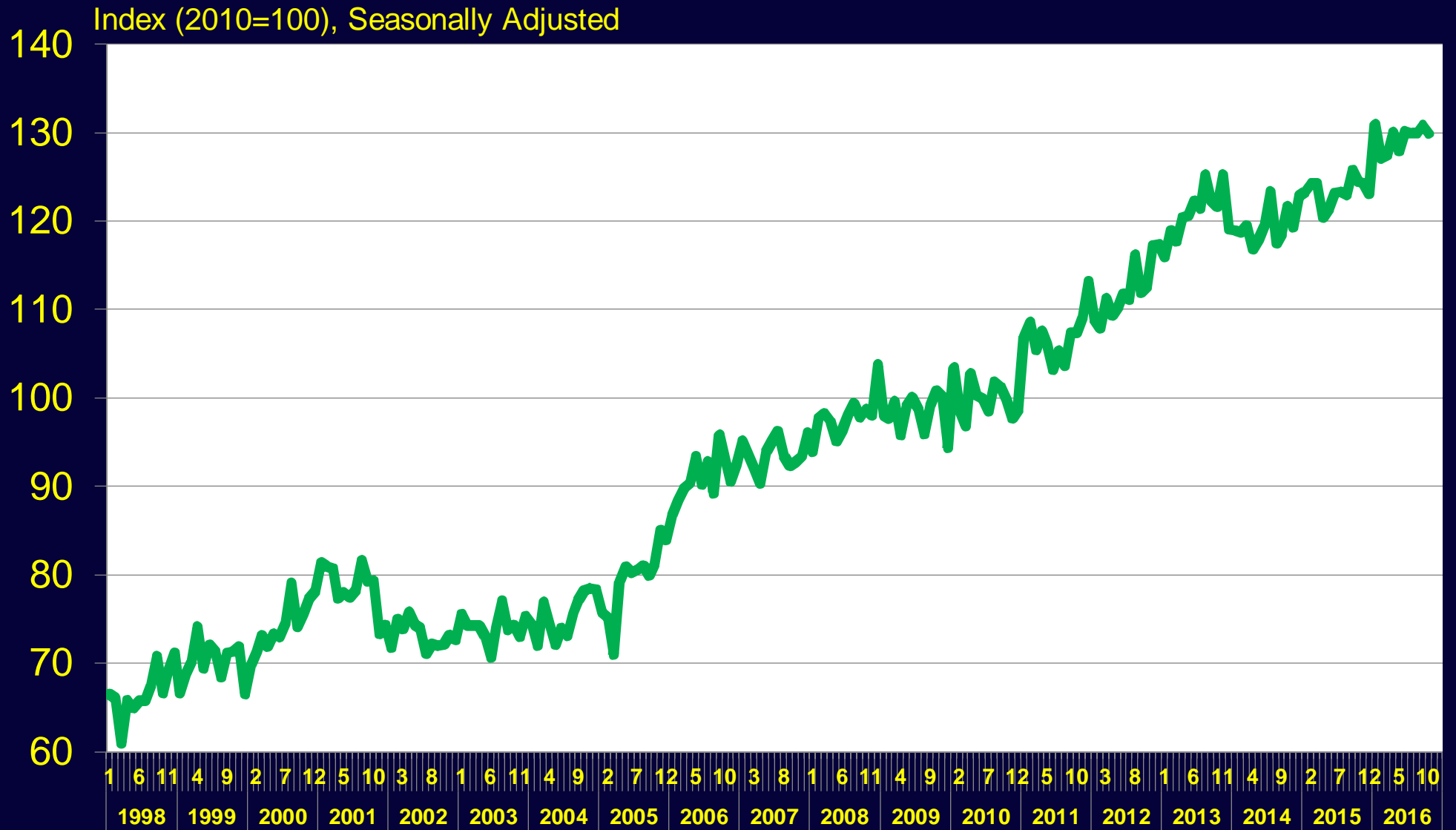
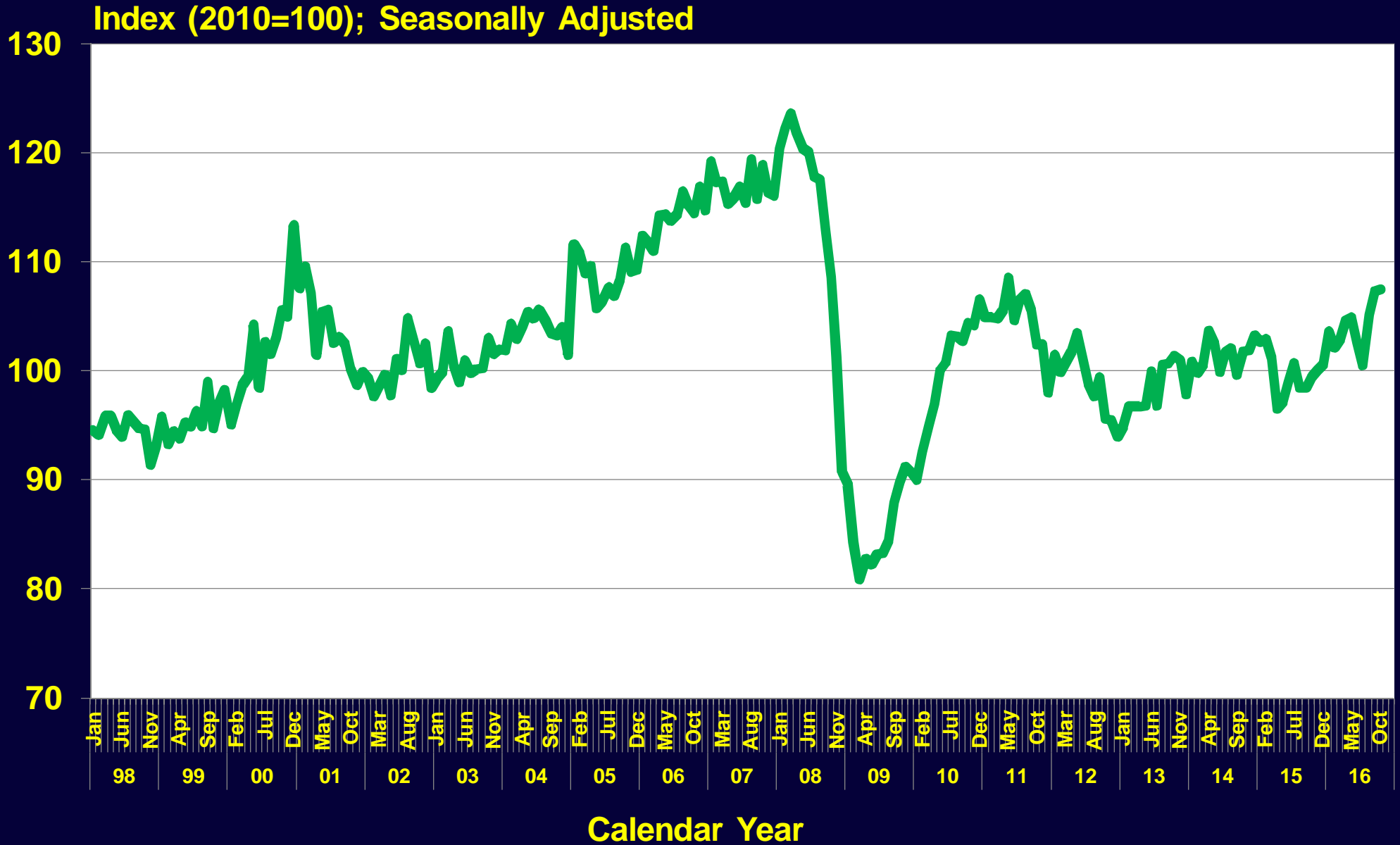


Chart 9

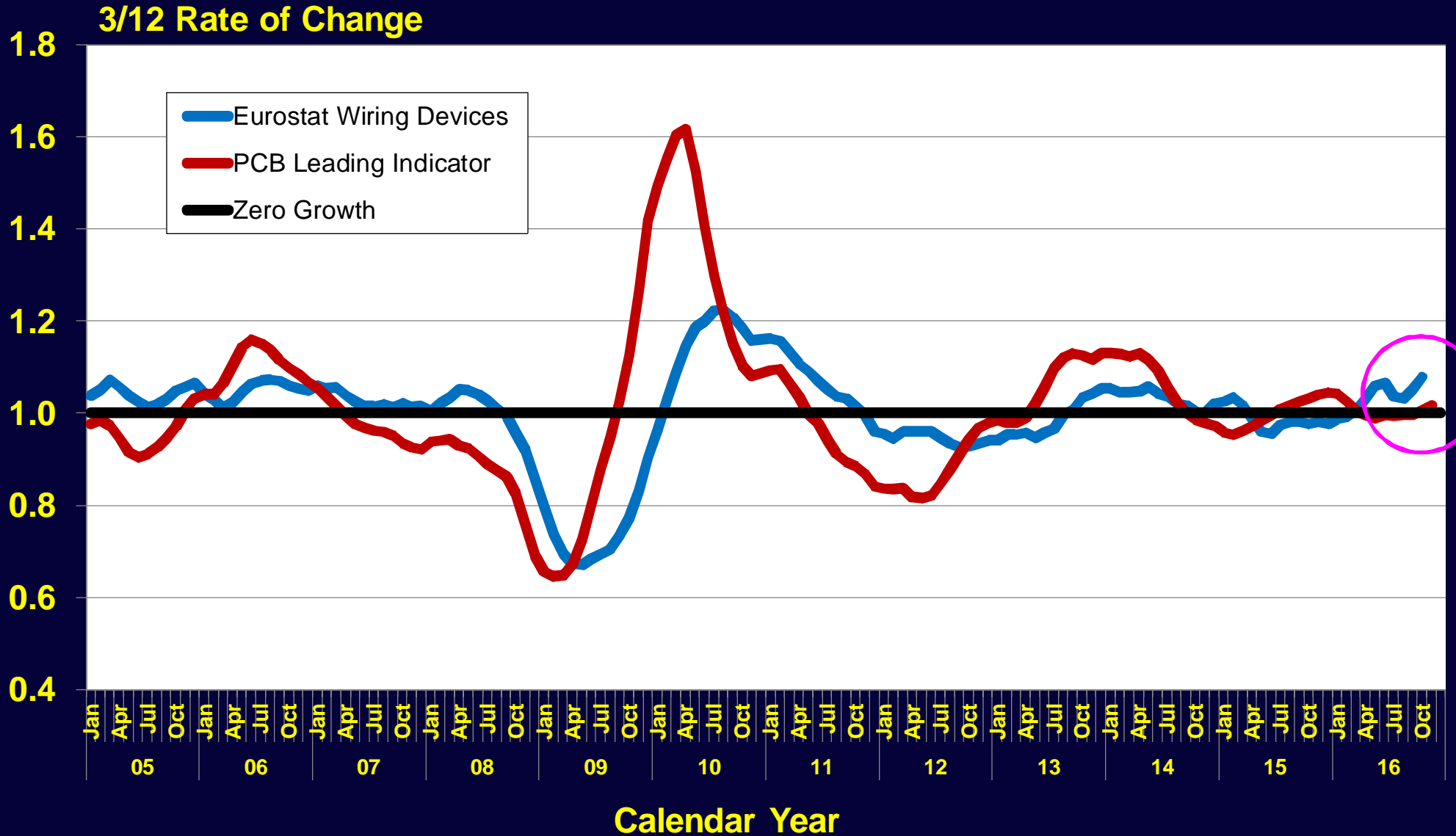
European Loaded Electronic Board Production



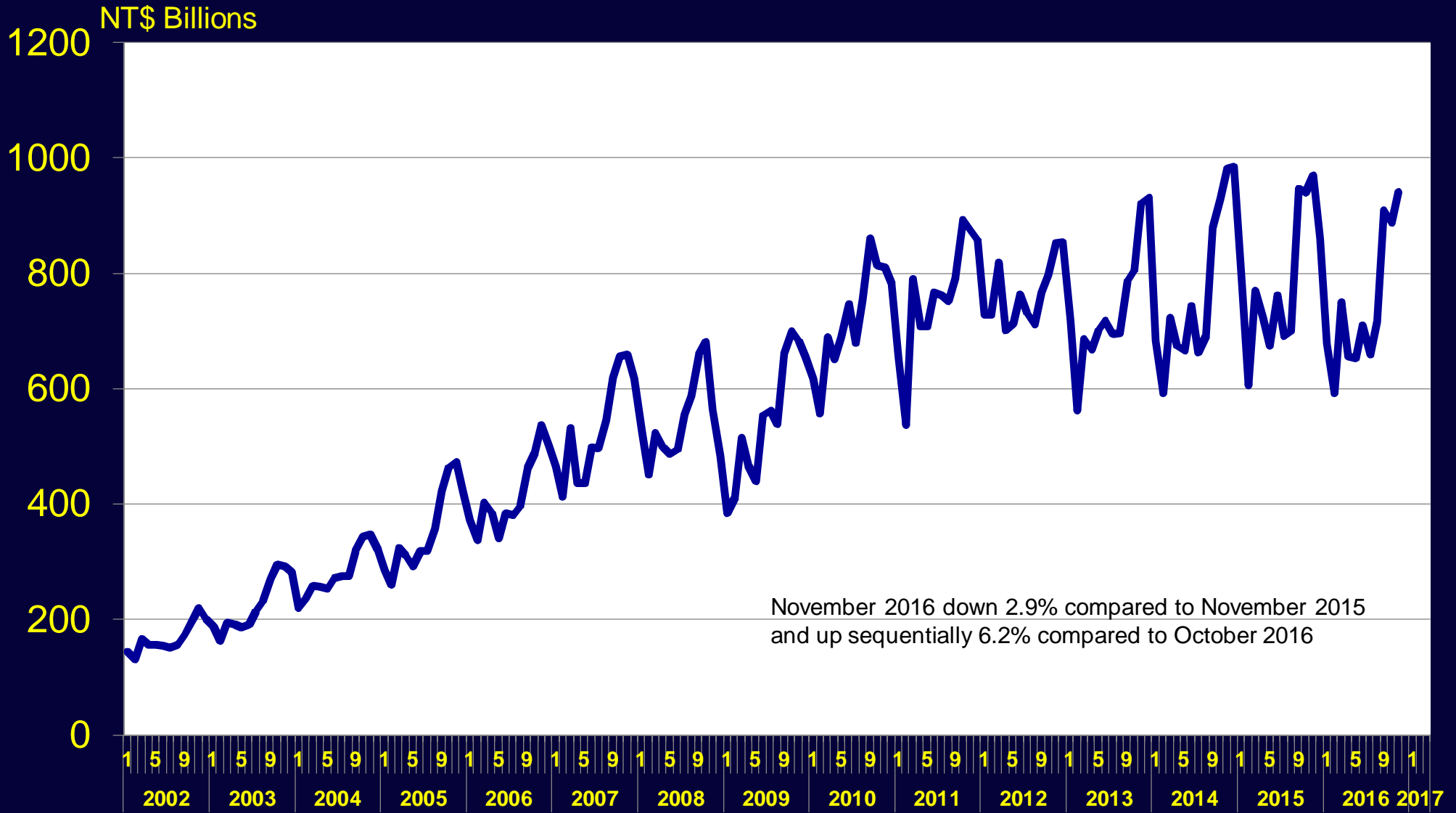
European Electronic Wiring Devices



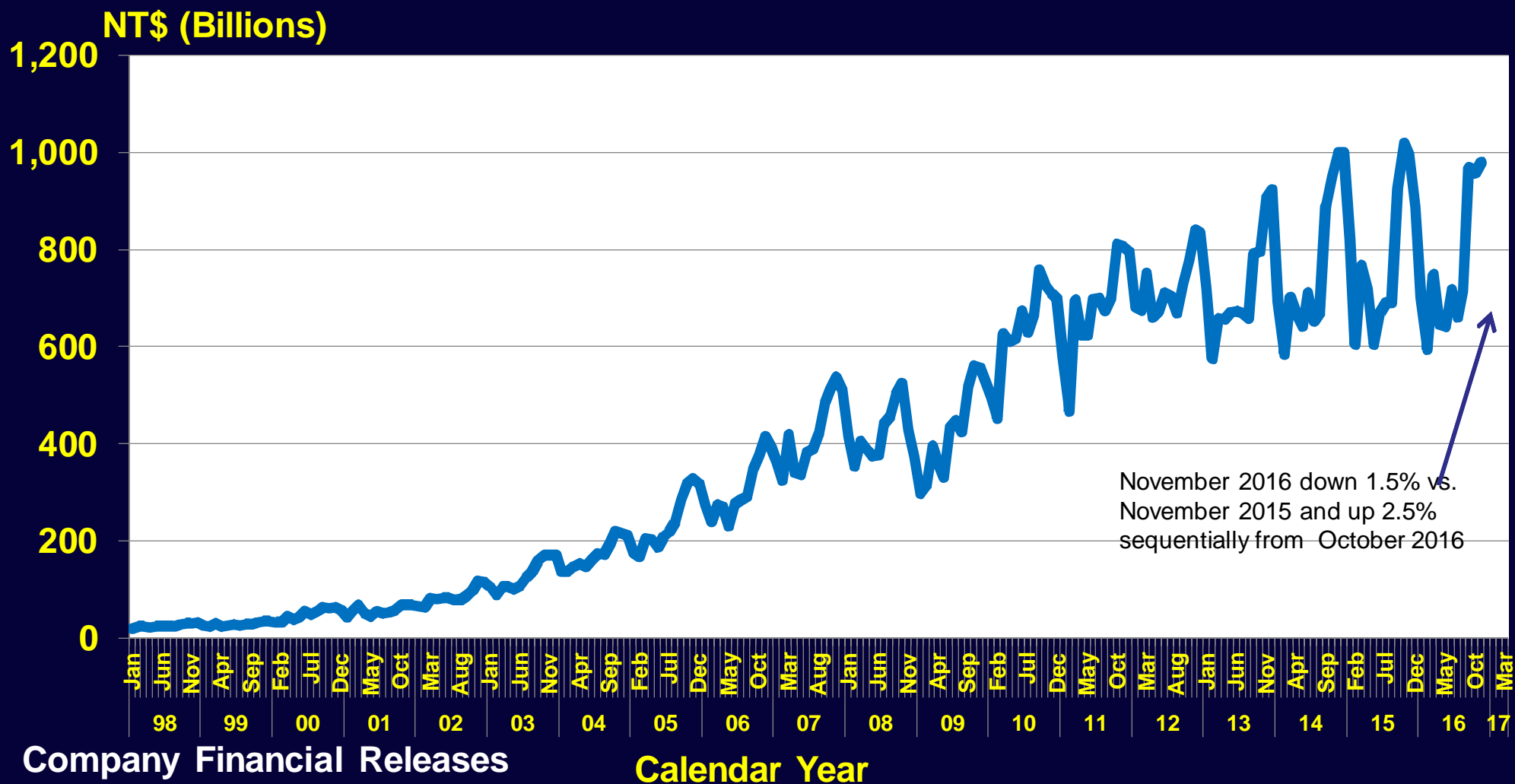
Europe PMI Leading Indicator vs. Europe Wiring Devices



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



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 14

Taiwan Display Producers Composite of 6 TFT-LCD Panel Manufacturers



Taiwan listed companies, often with significant manufacturing in China

Taiwan Wafer Foundries Composite of 14 Manufacturers



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

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

Taiwan Memory Companies Composite of 8 Manufacturers



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

Chart 18

Taiwan Passive Component Companies Composite Sales of 25 Manufacturers



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

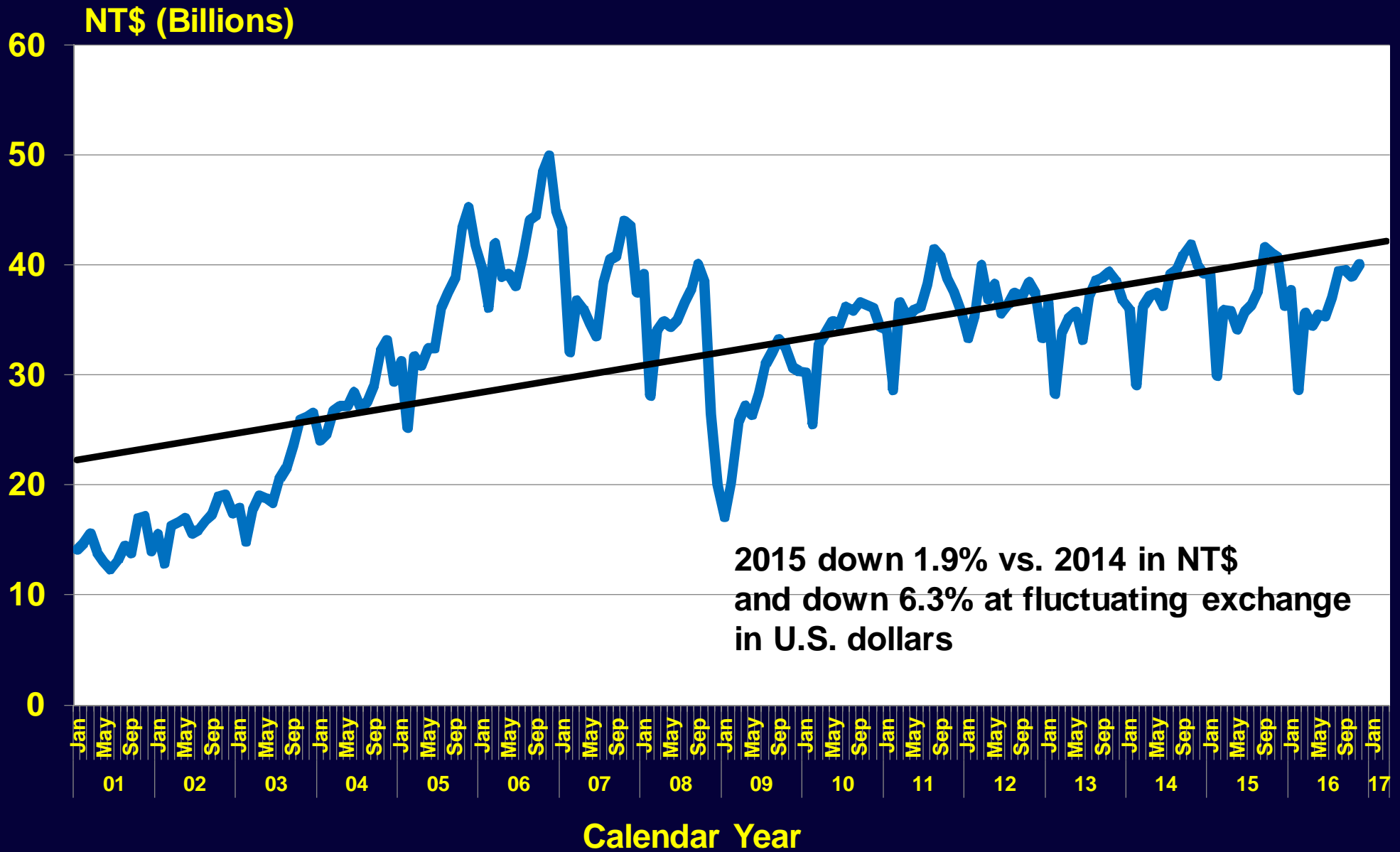
Taiwan Solar/Photovoltaic Panel Companies Composite of 27 Manufacturers



Acter, Big Sun Energy Technology, Chen Full Intl, Danen Technology, Daxon Technology, DeISolar, Delta Electronics, e_TON Solar Tec, Invetec Group, Eversol, Gigasolar materials, Gintech, Green Energy Technology (GET), Higher Way Elec, Kenmec Mechanical, Ligitek, Motech, Neo Solar Power, Phoenixtec Power Co (PPC), Powermate, Precision Silicon, Sino-American Silicon Products (SAS), Solar Applied Materials Technology, Solartech Energy Corp, Sunrise Global Solar Energy, Sysgration, Tainenergy Tech, Tera Autotec, Tyntek, Wafer Works, Wholetech System Hitech

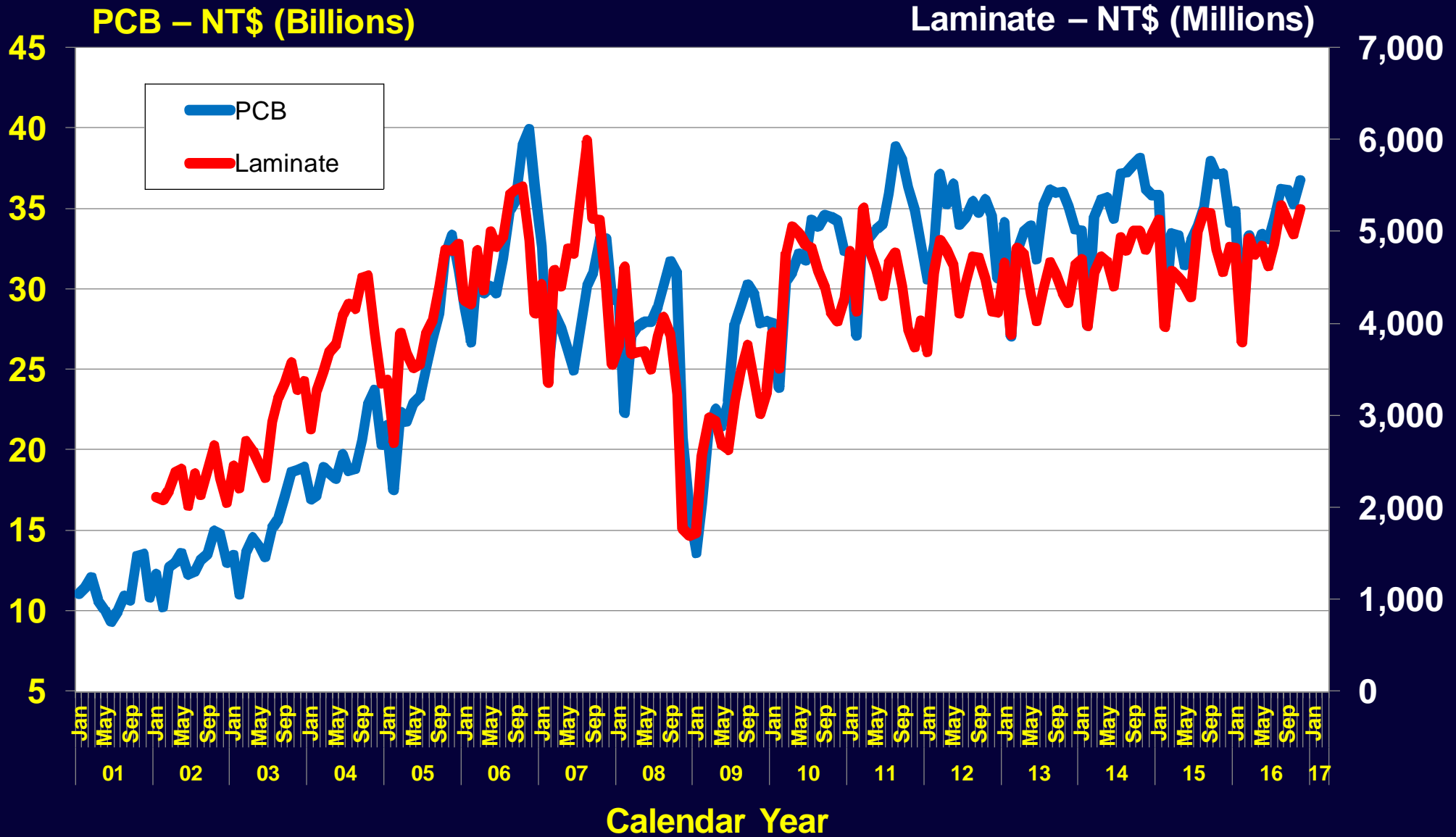
Taiwan Rigid & Flex PCB Shipments

Broad Composite of 46 Taiwan-listed Manufacturers

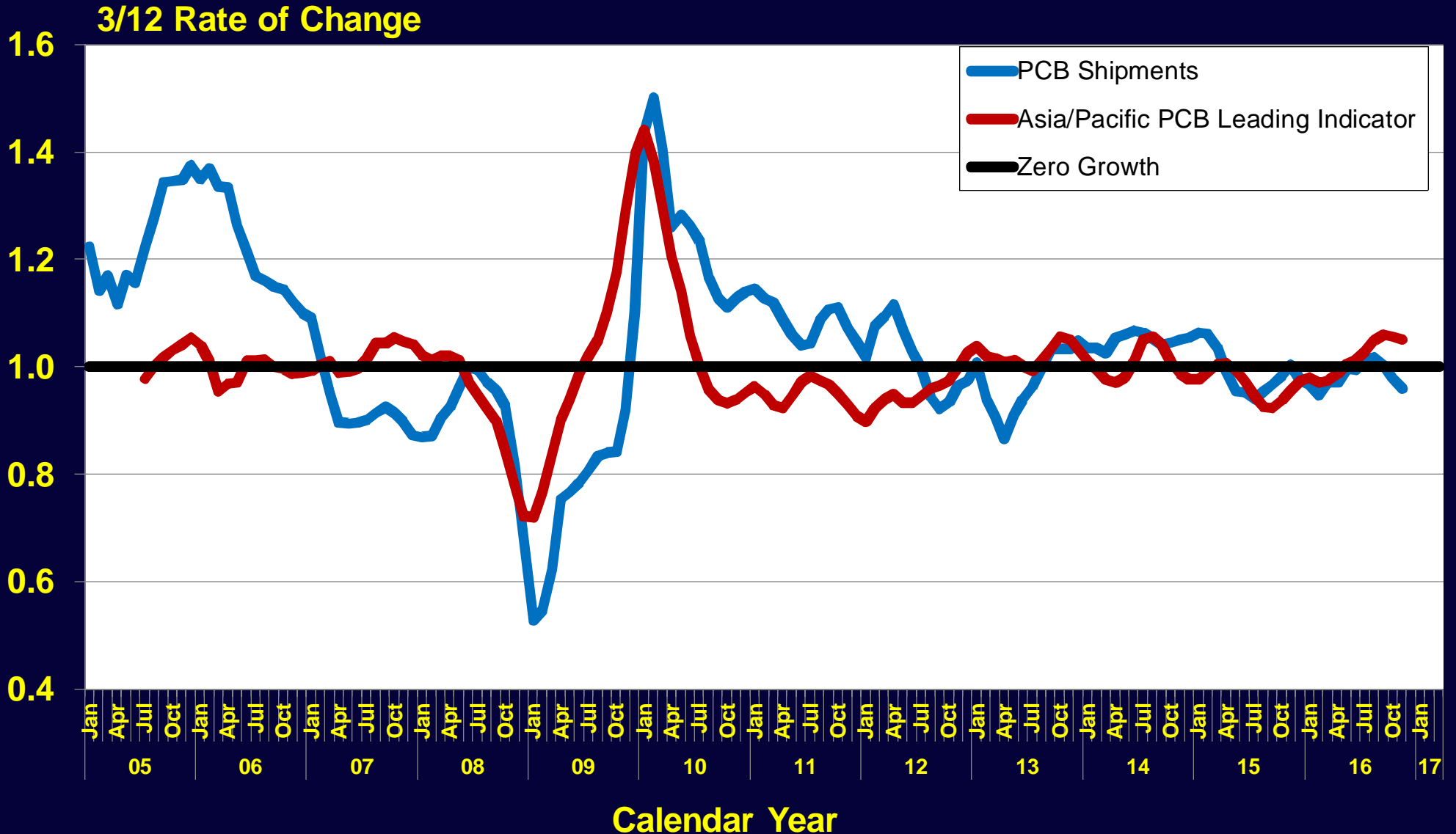


Taiwan Shipments

42 Rigid PCB & 8 Laminate Manufacturers



Asia Pacific CCG PCB Leading Indicator vs. China/Taiwan PCB Shipments @ Fluctuating Exchange



Source: Custer Consulting Group

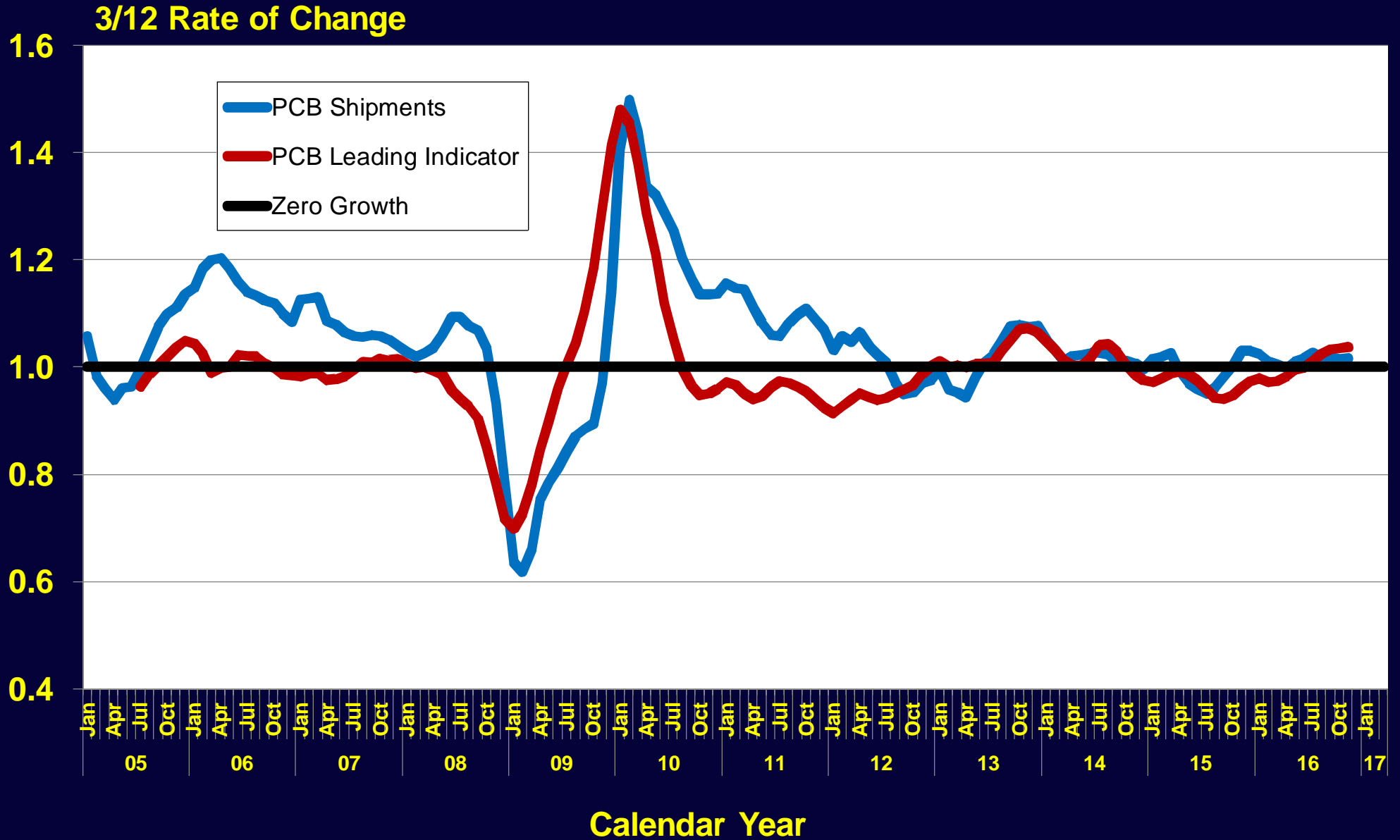
World PCB Shipments (with forecast)

Converted @ Fluctuating Exchange Rates



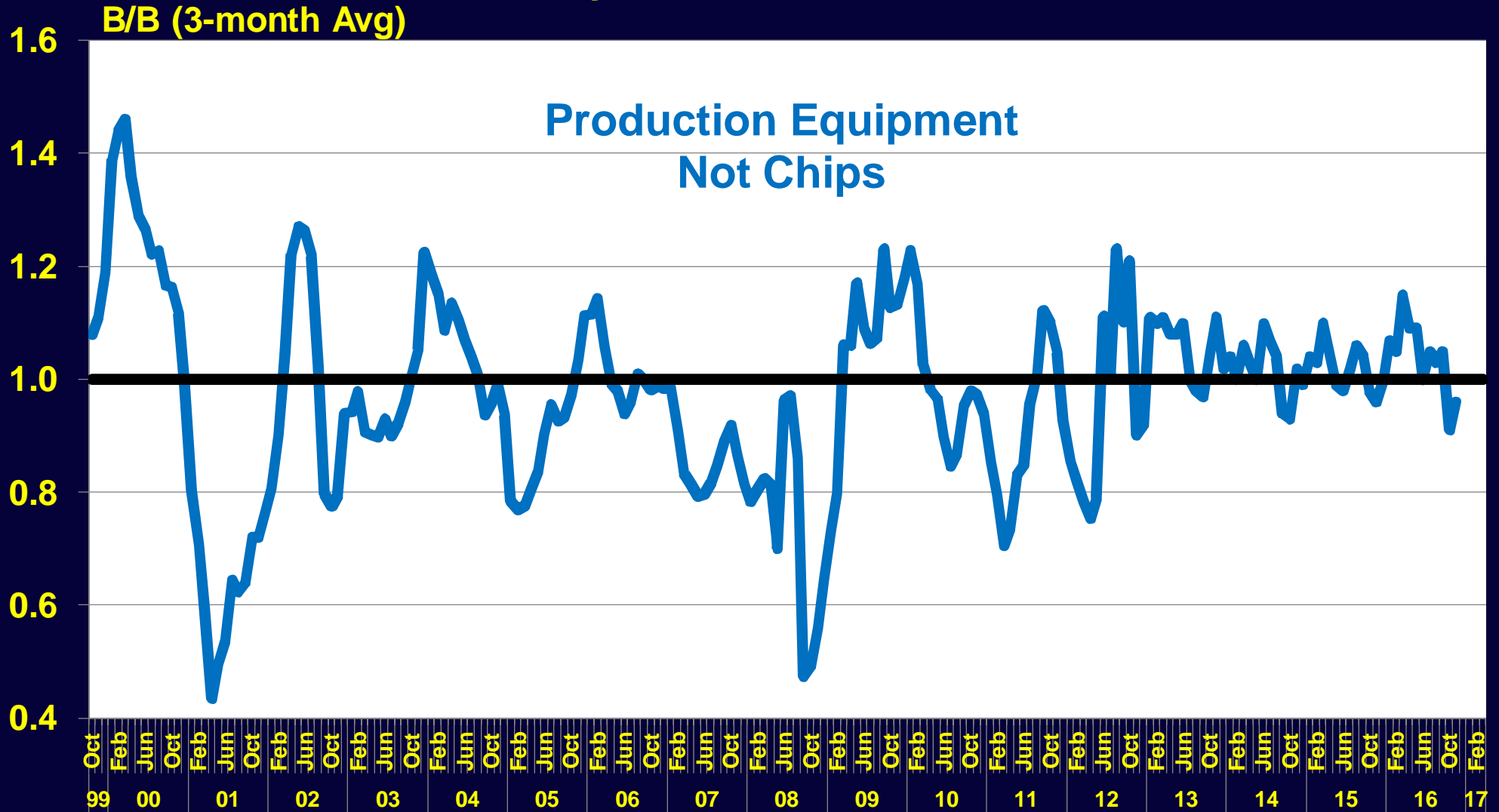
Source: Custer Consulting Group - 2010 base year expanded by monthly growth of N. American, European, Japanese, Korean & Taiwan/China monthly PCB shipments

CCG Global PCB Leading Indicator vs. Global PCB Shipments @ Fluctuating Exchange



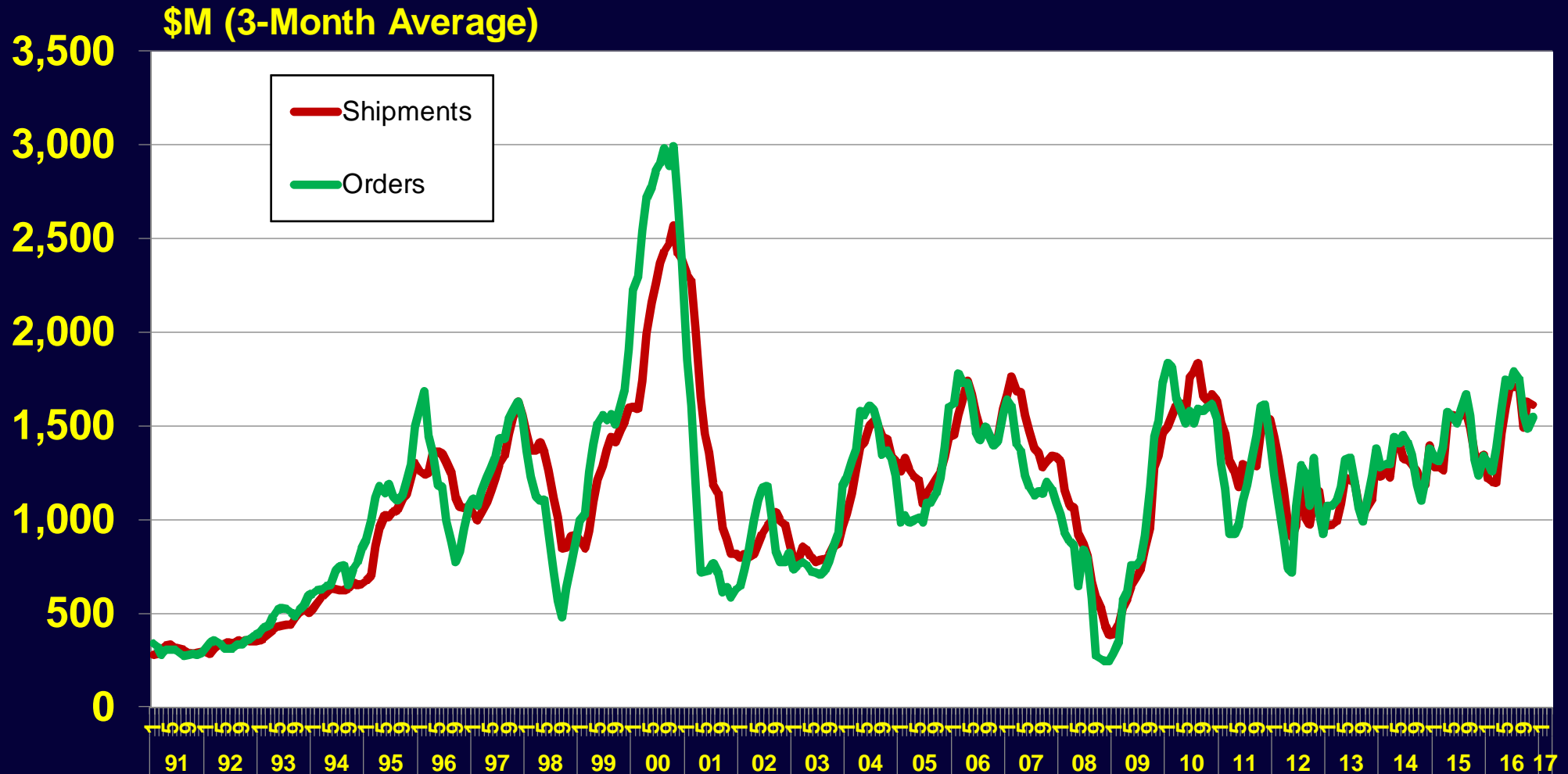
Source: Custer Consulting Group

N American Semiconductor Equipment Industry Book/Bill Ratio



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

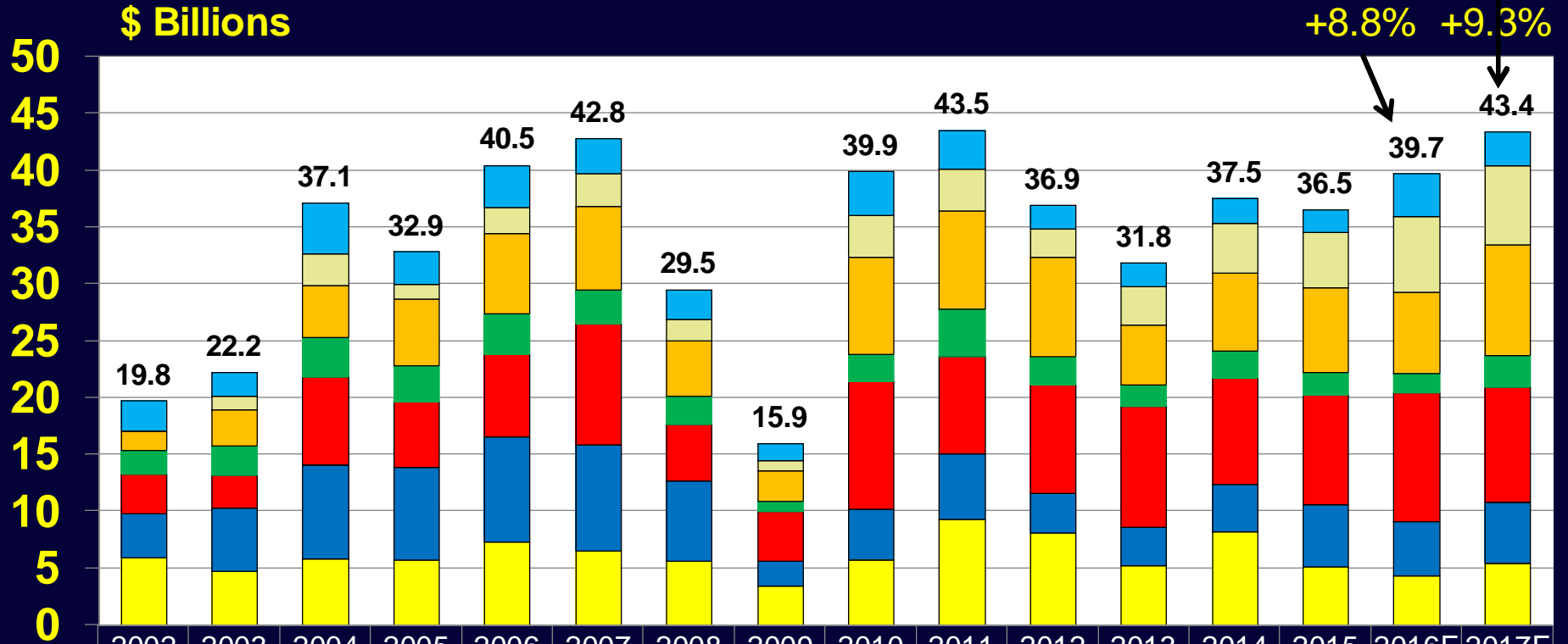
N American Semiconductor Equipment Industry Shipments & Orders



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

Chart 27

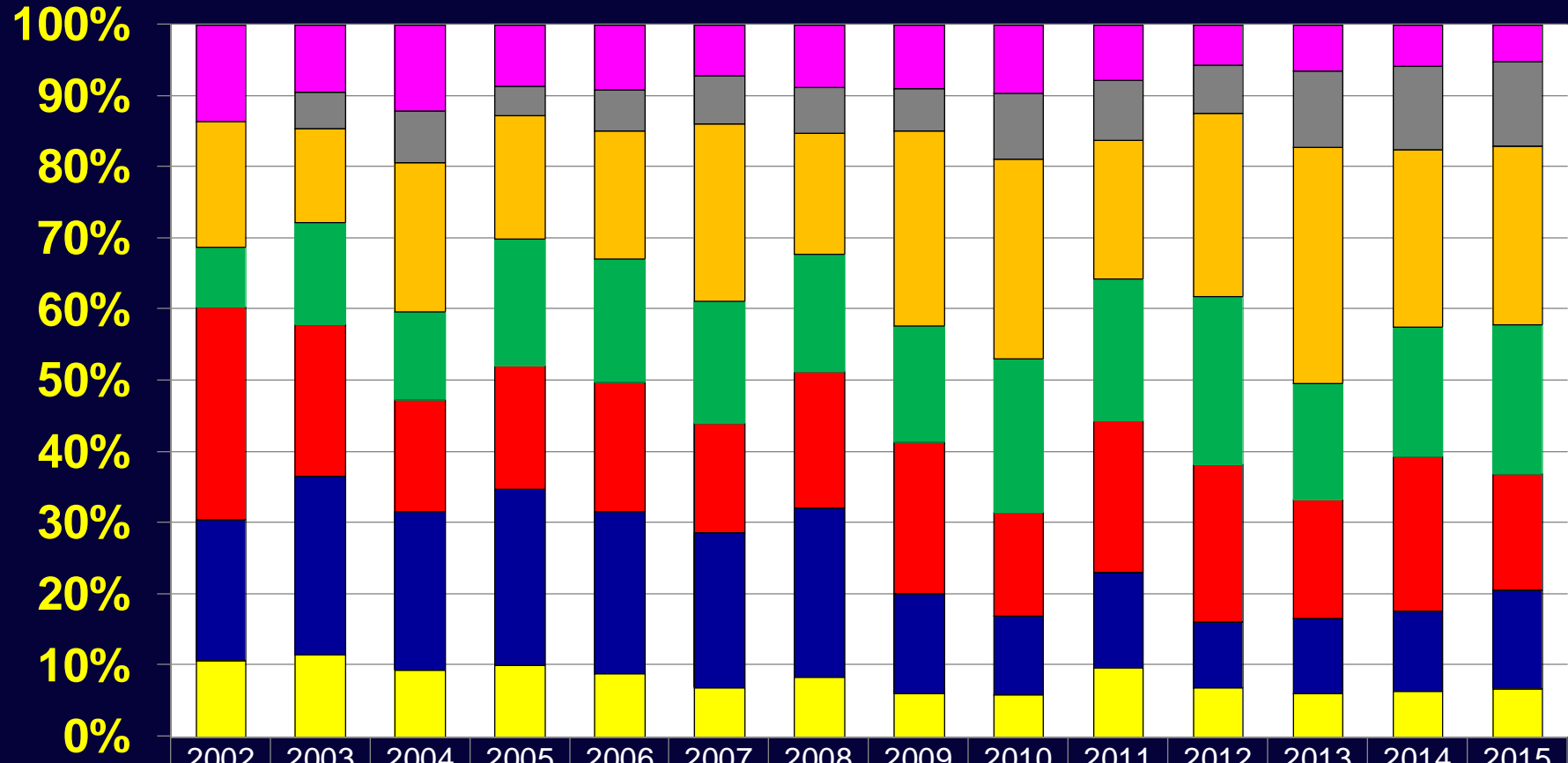
Worldwide Semiconductor Capital Equipment Market by Geography (with forecast)



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016F	2017F
Total	19.8	22.2	37.1	32.9	40.5	42.8	29.5	15.9	39.9	43.5	36.9	31.8	37.5	36.5	39.7	43.4
ROW	2.7	2.1	4.5	2.9	3.7	3.1	2.6	1.4	3.8	3.4	2.1	2.1	2.2	2.0	3.7	3.0
China		1.2	2.7	1.3	2.3	2.9	1.9	0.9	3.7	3.7	2.5	3.4	4.4	4.9	6.7	7.0
S Korea	1.7	3.2	4.6	5.8	7.0	7.4	4.9	2.6	8.6	8.7	8.7	5.2	6.8	7.5	7.1	9.7
Europe	2.1	2.6	3.4	3.3	3.6	2.9	2.5	1.0	2.3	4.2	2.6	1.9	2.4	2.0	1.8	2.8
Taiwan	3.5	2.9	7.8	5.7	7.3	10.7	5.0	4.4	11.3	8.5	9.5	10.6	9.4	9.6	11.3	10.2
Japan	3.9	5.6	8.3	8.2	9.2	9.3	7.0	2.2	4.4	5.8	3.4	3.4	4.2	5.5	4.8	5.3
N America	5.9	4.7	5.8	5.7	7.3	6.6	5.6	3.4	5.8	9.3	8.2	5.3	8.2	5.1	4.4	5.4

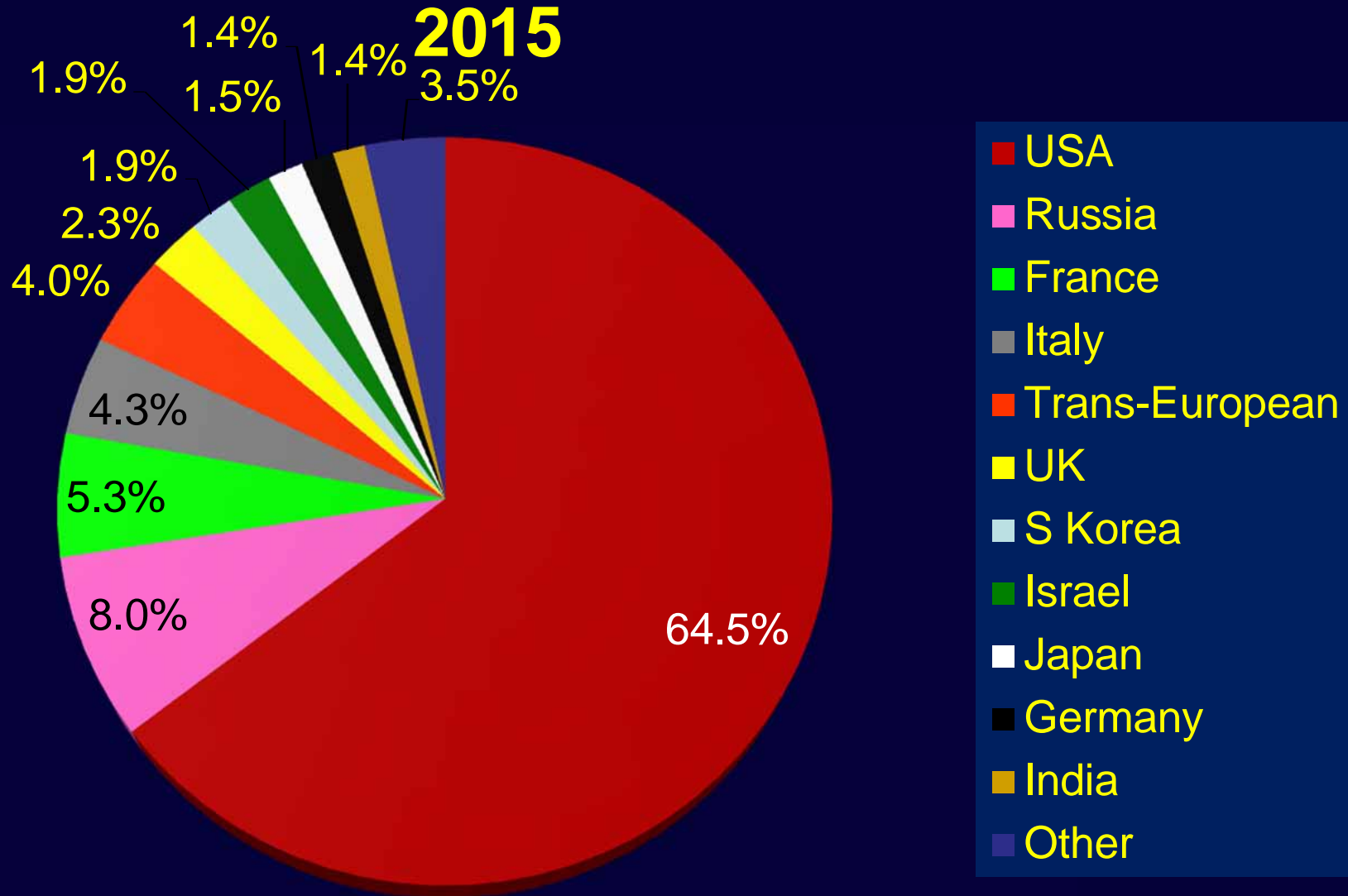
Chart 28

Semiconductor Equipment Manufacturing Market



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
SE Asia	2.7	2.1	4.5	2.9	3.7	3.1	2.6	1.4	3.8	3.4	2.1	2.1	2.2	2.0
China		1.2	2.7	1.3	2.3	2.9	1.9	0.9	3.7	3.7	2.5	3.4	4.4	4.6
Taiwan	3.5	2.9	7.8	5.7	7.3	10.7	5.0	4.4	11.3	8.5	9.5	10.6	9.4	9.6
S Korea	1.7	3.2	4.6	5.8	7.0	7.4	4.9	2.6	8.6	8.7	8.7	5.2	6.8	8.1
Americas	5.9	4.7	5.8	5.7	7.3	6.6	5.6	3.4	5.8	9.3	8.2	5.3	8.2	6.3
Japan	3.9	5.6	8.3	8.2	9.2	9.3	7.0	2.2	4.4	5.8	3.4	3.4	4.2	5.3
Europe & Mideast	2.1	2.6	3.4	3.3	3.6	2.9	2.5	1.0	2.3	4.2	2.6	1.9	2.4	2.6

SIPRI Top 100 Arms & Military Services Sales



2015 Total: US\$ 401 Billion (excluding China)

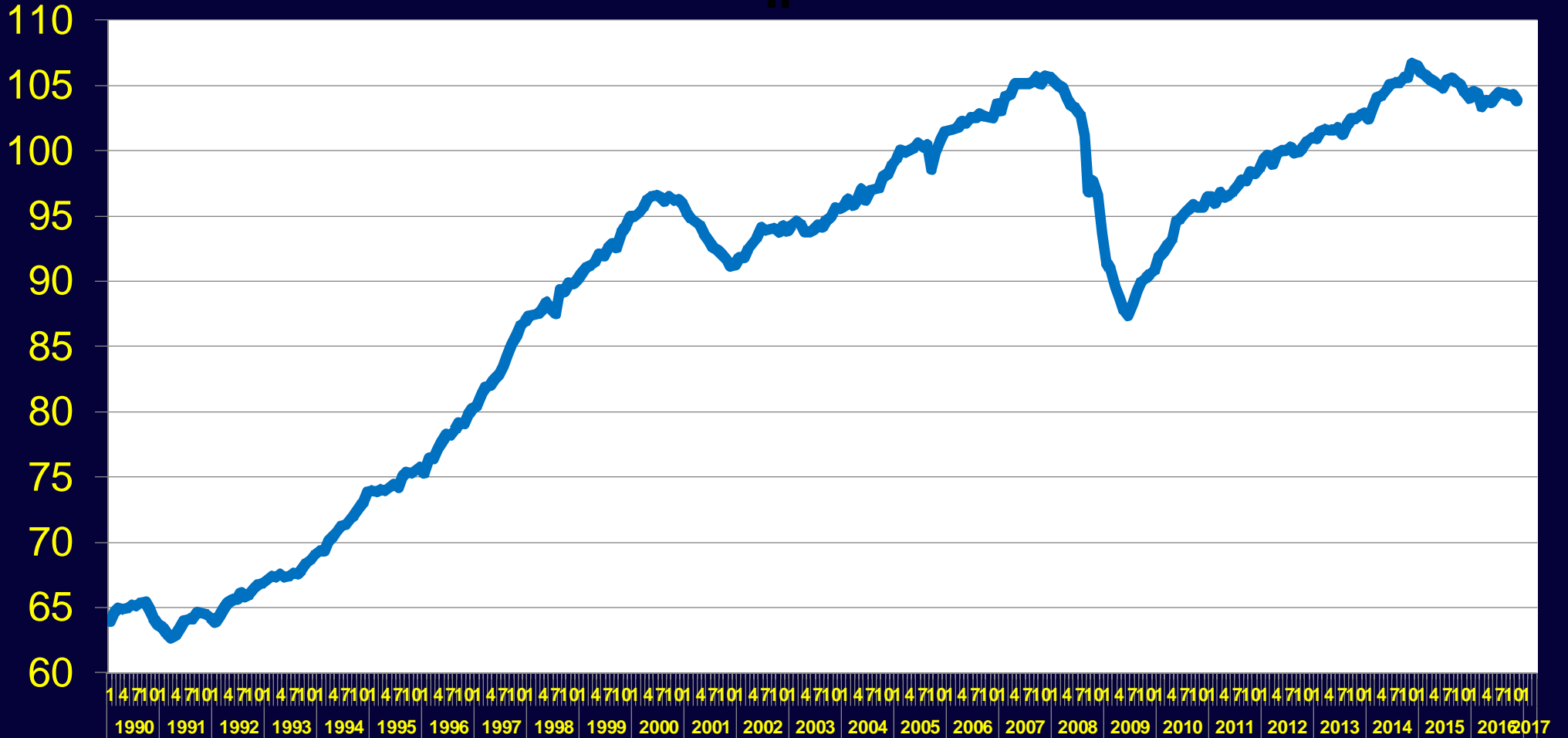
Top Arms Producing Companies 2015

Rank	Company	Country	Arms Sales	Total Sales
1	Lockheed Martin Corp.	USA	36440	46132
2	Boeing	USA	27960	96114
3	BAE Systems	USA	25510	27355
4	Raytheon	USA	21780	23247
5	Northrop Grumman Corp.	USA	20060	23256
6	General Dynamics Corp.	USA	19240	31469
7	Airbus Group	Trans-European	12860	71476
S	BAE Systems, UK	USA	9670	10400
8	United Technologies	USA	9500	61047
9	Finmeccanica	Italy	9300	14412
10	L-3 Communications	USA	8770	10466
11	Thales	France	8100	15596
12	Huntington Ingalls Industries	USA	6740	7020
13	Almaz-Antey	Russia	6620	6966
14	Safran	France	5020	19312
15	Harris Corp.	USA	4920	7467
16	Rolls-Royce	USA	4790	20403
17	United Aircraft Corp.	Russia	4610	5774
18	Bechtel Corp.	USA	4600	32300
19	United Shipbuilding	Russia	4510	5202
S	Pratt & Whitney	USA	4225	14082
20	Booz Allen Hamilton	USA	3900	5400

U.S. Industrial Production

Index (2012=100)

IP



Industrial Production – World

% Change vs. One Year Earlier

Britain	- 1.2 Oct
Czech Republic	- 1.7 Oct
France	- 1.8 Oct
Germany	+ 1.2 Oct
Italy	+ 1.3 Oct
Netherlands	+ 0.6 Oct
Russia	- 0.3 Oct
Spain	- 2.1 Oct
Euro Area	+ 0.6 Oct
Canada	+ 2.8 Sep
USA	- 0.6 Nov
China	+ 6.2 Nov
India	- 1.9 Oct
Malaysia	+ 4.2 Oct
Vietnam	+ 7.2 Nov
Singapore	+ 1.2 Oct
S Korea	- 1.6 Oct
Taiwan	+ 3.7 Oct
Thailand	+ 0.1 Oct
Japan	- 1.4 Oct