

Weak summer but encouraging signs for autumn



Walt Custer and Jon Custer-Topai

2013 has been very slow to “recover,” but the business horizon is now looking a bit brighter.

Electronic equipment shipments failed to rally through late summer (*Chart 1*) but the key countries’ PMI leading indicators finally all moved into “growth” territory in August (*Chart 2*). Looking forward these regional PMI leading indicator 3/12 growth rates are now indicating that the regional business cycles are once again in an expansion mode.

July global semiconductor sales were strong—rising 8% month-on-month and 5.1% on a 3-month average basis when comparing 2013 vs. 2012. A bit troubling however is N. America’s sharp July increase (*Chart 4*) at a time when domestic electronic equipment shipments and orders were flat. Has N. America bought more chips than needed? Is inventory building or excess ordering driving the N. America semiconductor procurement growth spurt?

SEMI equipment sales are also improving (*Chart 5*). They have not returned

to levels of a year earlier yet but they are clearly growing.

Comparing the 3/12 growth rates of world electronic equipment, semiconductors and printed circuit sales to the global PMI leading indicator, growth (3/12>1) is either upon us or imminent throughout the supply chain (*Chart 6*).

Chart 7 summarizes my colleague Ed Henderson’s recent electronic equipment production forecasts for 2013-2015. At this point it appears that we will close 2013 on an upturn with a decent expansion in 2014. Keep watching the numbers!

End markets

Mobile communications

- Smart connected device market (PCs, tablets, and smartphones) is forecast to grow 27.8% y/y to 1.6 billion units in 2013.—IDC
- Mobile phone sales to end users increased 3.6% y/y to 435 million units and smartphone sales to end users increased 46.5% to 225 million units in

2Q’13.—Gartner

- Mobile phone market is forecast to grow 7.3% y/y in 2013 and is expected to surpass 1 billion units for the first time in a single year.—IDC
- Smartphone shipments are expected to reach 950 million in 2013.—Digitimes Research

Datacom

- Enterprise router market revenues increased 12% q/q to \$945 million in 2Q’13.—Infonetics Research
- Enterprise videoconferencing and telepresence market declined 10.7% y/y to \$532 million in 2Q’13.—IDC
- Ethernet switch market revenues declined 1.1% y/y to \$5.4 billion in 2Q’13.—IDC
- Optical network hardware market, including WDM and SONET/SDH equipment, totaled \$3.3 billion in 2Q’13.—Infonetics Research
- Service provider VoIP and IMS equipment market grew 30% sequentially to \$936 million in 2Q’13.—Infonetics Research
- Service provider router and switch revenue increased 27% q/q to \$4 billion in 2Q’13 —Infonetics Research
- Computers & Peripherals
- PC shipments are likely to fall 9.7% to 315.4 million units in 2013 as consumers continue to favor mobile gadgets.—IDC
- Server shipments grew 4% y/y to 2.46 million units while revenue decreased 3.8% to \$12.35 billion in 2Q’13.—Gartner
- Tablet forecast was reduced by 0.8% to 227.4 million in 2013 and reduced by 0.7% to 407 million for 2017 on introduction of wearable computing equipment.—IDC
- White-box tablet shipments fell 26.3% sequentially to 15.9 million units in 2Q’13.—Digitimes Research

Storage

- External disk storage systems factory revenues posted a 0.8% y/y decline of just over \$5.9 billion in 2Q’13.—IDC
- Personal and entry-level storage market grew 10.7% y/y with 16.8 million units shipped in 2Q’13.—IDC

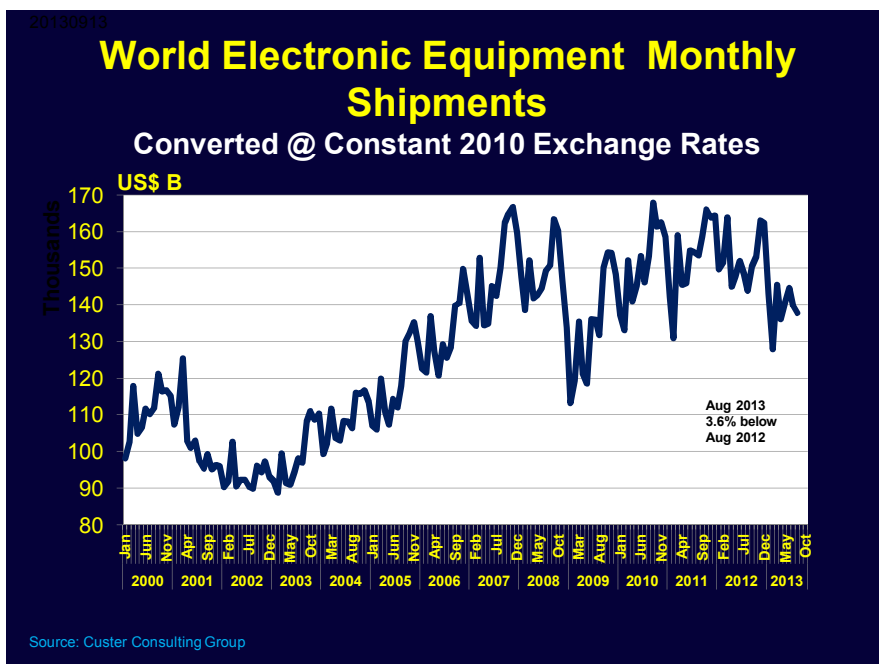


Chart 1.

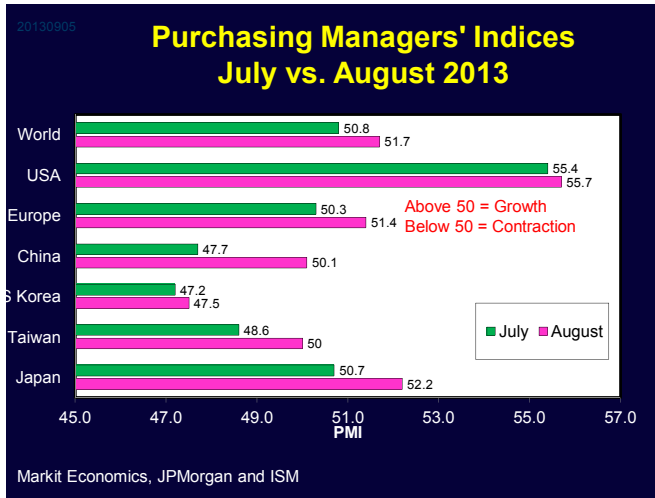


Chart 2.

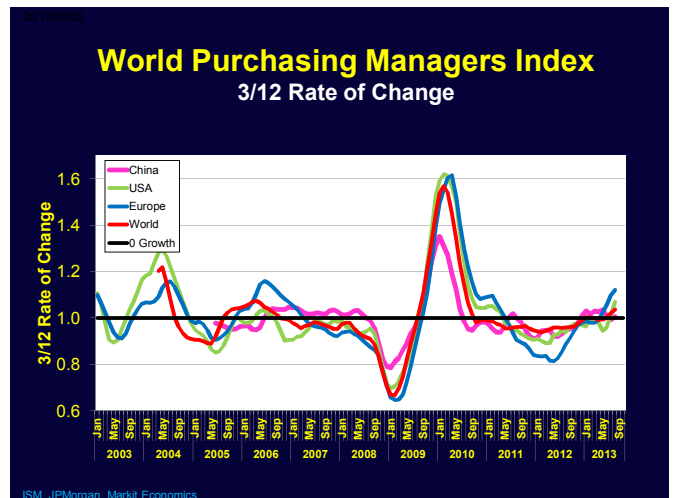


Chart 3.

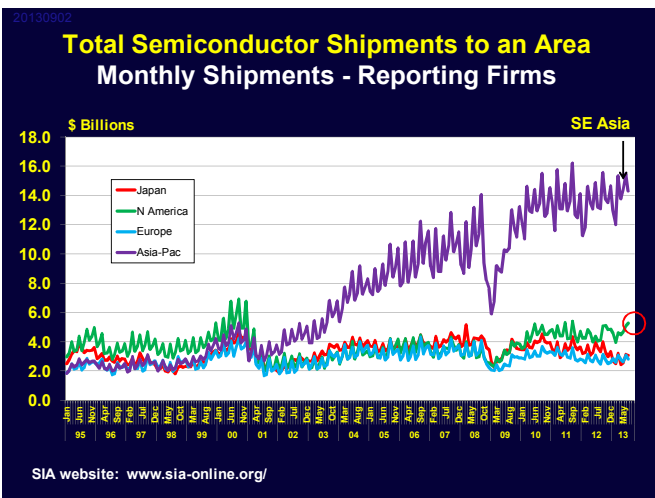


Chart 4.

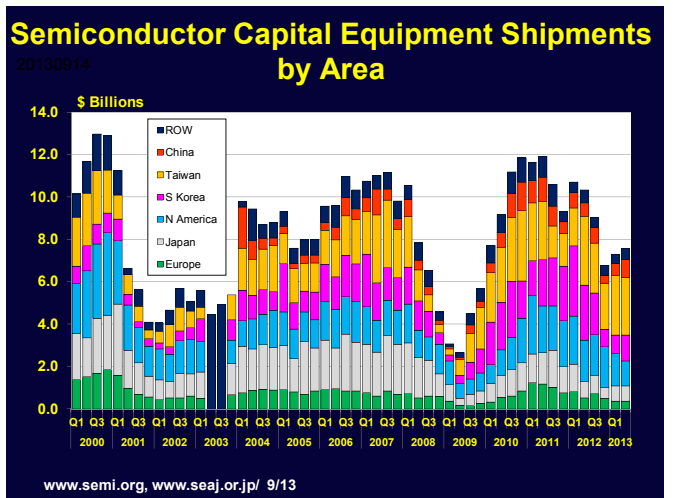


Chart 5.

Printers

- 3D printing market will triple to \$6 billion by 2018.—Citi
- Hardcopy peripherals market shipments declined 1.8% to 26.1 million units in 2Q'13.—IDC
- Large format printer market declined 4.2% y/y to nearly 73,000 units shipped in 2Q'13.—IDC

Consumer Electronics

- Consumer electronics device spending is expected to increase 9% y/y to \$555 per person in 2013.—The NPD Group
- Consumer medical devices are set to grow 4% y/y to \$8.2 billion in 2013.—IHS
- GPS (stand-alone) device market is forecast to grow from 33.3 million units in 2012 to 36.79 million in 2018.—ABI Research
- Home automation device shipments are expected to grow at 78% CAGR to 351 million units by 2018.—ABI Research

Other (LCD displays, touch screens, cameras, medical electronics, smart home, etc.)

- Capacitive touch screen displays for media tablets shipments increased 111.9% y/y to 45.2 million units in 1Q'13.—IHS
- Medical-grade display revenues are forecast to rise to US\$3.2 billion in 2017, up 29% from US\$2.5 billion in 2012 —IHS
- TFT Display production is expected to grow even more rapidly, from 3.5 million square meters to over 19 million square meters, thus exceeding that of LTPS by 2016—NPD DisplaySearch
- TV shipments fell 3% y/y to 50.4 million in 2Q'13, although LCD TV shipments managed to grow 4% y/y to 45.9 million units.—NPD DisplaySearch

Country Specific

- China IT spending for consumers and enterprises is forecast to grow 7.3% y/y to US\$323 billion in 2013.—Gartner
- China-based vendors shipped 148 million smartphones in 1H'13.—Digitimes Research
- EMEA server market revenues declined 3.3% y/y to US\$2.9 billion in 2Q'13.—IDC

- India smartphone vendors shipped a total of 9.3 million smartphones in 2Q'13 compared to 3.5 million units in the same period of 2012.—IDC
- Middle East and Africa tablet shipments increased 208% y/y to 2.79 million units.—IDC
- Russia PC shipments fell 37.3% y/y to 2.47 million units—IDC
- Western European mobile phone market grew 2.6% y/y to 43.3 million units in 2Q'13.—IDC
- UAE consumer electronics market to grow from \$3.9 billion in 2013 to \$4.3 billion by 2015; handset sales are forecast to expand from \$508 million in 2013 to \$694 million in 2017.—BMI

EMS, ODM & related assembly activity

Absolute EMS added a new Juki line that includes: KE-2070/KE-1080, IFS-X2 intelligent feeder platform, GL fully automatic screen printer and a RS800 Series lead-free hot Air/N2 reflow oven.
Absolute EMS and **Ionic EMS** partnered

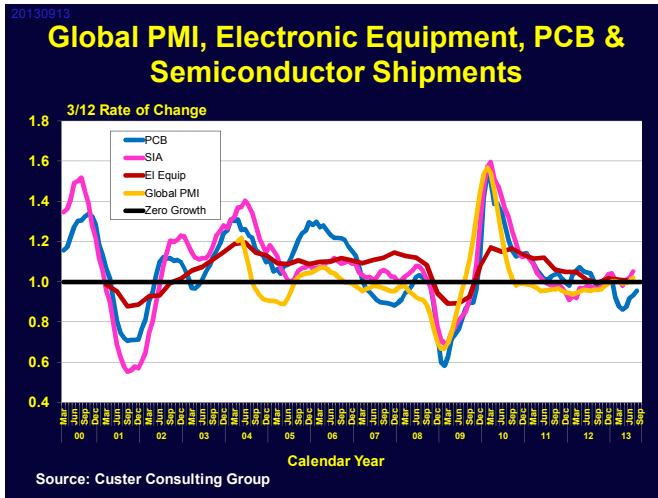


Chart 6.

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Constant \$ Growth Rates Converted @ Constant Exchange Rates

	2011	2012	2013	2014	2015
World	4.2	0.1	1.9	5.5	6.4
USA	1.5	-0.8	-3.0	3.1	5.4
EU	1.8	-2.7	-2.3	2.0	2.7
Japan	-13.5	-8.8	-12.3	3.6	4.4
Four Tigers	5.9	0.8	3.6	5.4	6.2
China	10.8	1.7	4.3	6.9	7.5

Henderson Ventures 9/2013
www.hendersonventures.com

Chart 7.

to form global one-stop-shop solution.

ACD completed ISO 13485 recertification and upgraded to ISO 13485:2012.

Auwell Electronics added a MY100LXe10 pick-and-place machine from MYDATA.

Burton Industries celebrated its 35th anniversary.

Connor Solutions added an Ersas Powerflow wave soldering line and Versaflo selective solder line from Blundell Production Equipment.

Darekon added a second Poland factory with 2,400 M2 of space in Gdansk.

Davlec (Wales) installed an Essemtec high-speed Paraquda SMT pick-and-place system.

Element Electronics opened a flat-screen television manufacturing plant in Winnboro, South Carolina.

ÉOLANE purchased fifth Speedprint automatic stencil printer from EUROPLACER Group.

Fideltronik Scandinavia acquired the Ascom Wireless Solutions Herrljunga, Sweden factory as part of assembly and repair outsourcing agreement.

Firstronic named Wally Johnson VP, Supply Chain.

Flextronics

- achieved ISO 13485 certification in Raheen, Co Limerick.
- acquired RIWISA.
- Althofen Austria facility received AS9100C aerospace and defense quality certification.
- is producing 100,000 units/ week of customized Google/Motorola Moto-X smart phones in Fort Worth, Texas.
- opened 15 “product innovation centers” around the world.
- opened an 85,000 SF facility in Chennai, China for its Global Business Services division.

Foxconn/Hon Hai

- began producing auto parts and com-

ponents for Mercedes Benz and BMW.

- is focusing R&D on automation, robots, nanometer technologies and e-commerce.
- recruited 20,000 employees in Guizhou Province.
- sold wearable technology patents to Google.

Hadelandsprodukter AS (Hapro) reduced its workforce by 125 positions.

Jabil plans to close its Tempe, Arizona electronics facility by September 2014.

Microart Services consolidated to a 40,000+ SF facility in Markham, Ontario.

Microtronix Manufacturing added two Universal Advantis® AC-90T Platforms, one Genesis GX-11S Platform with a Direct Tray Feeder and a Line Manager software module to its production facility in Johannesburg, Gauteng, South Africa.

OnCore Manufacturing achieved ISO14001:2004 certification in Tijuana Mexico.

Optimum Design Associates passed SSQA audit.

OSI Electronics acquired Briton EMS.

Plexus leased a 265,000 SF manufacturing facility in Guadalajara, Mexico.

Prime Technological Services achieved AS9100C:2009 certification.

Proto Labs added 175,000 SF of manufacturing space in Plymouth, Minnesota.

Sanmina named Chuck Kostalnick, Ex. VP and Chief Business Officer.

Stadium Group closed its sister factory in Rugby, Warwickshire and moved its integrated electronic manufacturing services division to Hartlepool, UK.

Surface Mount Technology Limited appointed Sonny Tan Hock Sun and Tan Ser Ko as Independent Non-Executive Directors of the company.

Tommy China Business Consulting began offering EMS and CEM to the electronics

industry.

Zollner Elektronik opened a \$10 million manufacturing and support services facility in Costa Rica.

PCB fabrication

World PCB output decreased 0.21% y/y to \$59.8 billion in 2012 with an estimated 3,000 fabricators. 106 fabricators exceeded \$100 million or more in revenue accounting for 83.4% of the PCB worldwide aggregate output.—Dr. Hayao Nakahara NTI-100 2013

Indian PCB market value (in August 2013) was Rs 48 billion, of which one-third is produced by domestic producers.—IPCA

Japanese circuit board shipments grew 2.5% m/m to 1.06 million M2 and revenue grew 4.1% m/m to 41.47 billion yen in June 2013.—METI

Taiwan’s PCB industry’s overall output dropped 5.3% y/y to NT\$121.1 billion in 2Q’13; PCB production value is forecast to drop 3% y/y to NT\$499.6 billion (US\$16.62 billion) in 2013.—IEK

AT&S Group is investing EUR 350 million (USD 460 million) in Chongqing to expand semiconductor package substrate manufacturing.

CML opened a technical and quality office in Shenzhen, China.

Eltek sold 3,532,655 ordinary shares (50.5% of its total shares) to Nistec for \$4.2 million.

Endicott Interconnect sold off its assets as part of bankruptcy proceedings.

Epec Engineered Technologies hired Arnold Serna as Regional Sales Manager for Northern California.

Graphic hired Colin Moss as Sr. Accounts Manager.

GSPK Circuits promoted Ian Kenyon to Sales Director.

Hallmark Circuits (Poway, CA) passed Nadcap audit.

Kyocera acquired Toppan NEC Circuit Solution.

Meiko Electronics transferred work to its affiliated factories in China, Guangzhou and Wuhan after its Vietnam plant's plating area was damaged by a fire.

MFLEX named James McCluney as an Independent Director.

Multek's rigid PCB manufacturing facility assets were auctioned off in Böblingen, Germany.

Ozark Circuits' abandoned circuit board factory in Springfield, Missouri was cleaned up by EPA.

PCB International named Amy Hwang, Marketing Director.

Precision Image pleaded guilty to illegally sending restricted U.S. Navy technical information to a Taiwanese PCB manufacturer that was subcontracted to make the printed boards.

Printed Circuits, Inc. hired Kai Warnock to accelerate production flow and improve quick turn capabilities.

Printline hired Palle Morthorst as Managing Director.

SOMACIS named Clay Christoffersen, Bryan Fish, and Dennis Whitacre as North American Sales Managers.

Teknoflex appointed Graham Temple as Director of Technical Services.

Tripod Technology added a Semblant Plasma Finish and ProVIA system.

TTM Technologies ceased operations at its Suzhou, China facility.

United Engineers is seeking a buyer for stakes in Multi-Fineline Electronix and MFS Technology.

Würth Elektronik opened an office for Circuit Board Technology in Shenzhen, China.

Materials & process equipment

Flexible substrate (thin glass, metal thin film, plastic) market is expected to grow from \$2.5 million in 2013 to \$506.7 million by 2020.—IHS

Fluoropolymer market will expand at a 5.7% CAGR from \$7.2 billion in 2013 to \$9.8 billion by 2018.—MarketsandMarkets

Organic materials' revenues used in the emission and common layers of OLED displays are forecast to grow from \$530 million in 2013 to \$3.4 billion by 2017.—NPD DisplaySearch

South Korea's photoresist market is expected to decrease to \$220 million in 2013.—IHS

Aeroflex

- appointed Rafi Albarian to VP & COO for Aeroflex Microelectronic Solutions.—HiRel

- sold its Test Equipment Services business to Trescal for \$18.7 million.

AQ Enclosure Systems acquired Arkivator Machine Systems.

BTU International promoted Paul Lancaster to Director of Sales – Americas.

CECO Environmental acquired Met-Pro. Credence acquired Multitest and Everett **Charles Technologies** from Dover for \$93.5 million.

DDM Novastar appointed Bernadette Biondi as Inside Sales Coordinator.

Dymax appointed Andrew Zimsen as Territory Sales Manager in Field Sales Department.

Enthone published an Organic Solderability Preservative Performance Guide.

Equipment Technologies/NEA completed a facilities merger.

Global Innovation named Frank Nieto, COO.

Hitachi Via Mechanics was acquired by The Longreach Group.

Insulectro hired James Kenny as Technical Account Manager for Northwest U.S.

Kuraray

- is investing 500 million yen to raise production capacity of liquid crystal-line polymer films by 150% to 1 million SM/ year in Saijo, Ehime Prefecture.

- invested 1 billion yen in its Kashima facility in Ibaraki Prefecture to add production equipment for heat-resistant polyamides.

Nan Ya Plastics Copper-Clad Laminates division appointed Bill Hargin as Director of North American Sales and Marketing.

Nordson acquired Kreyenborg Group's polymer processing companies.

OKI was unified globally under the Metcal brand.

PacTech introduced Heinrich Lüdeke as President & CEO.

Picodeon appointed Jari Liimatainen, Interim CEO.

Pillarhouse USA appointed Mexico Mequila Services for sales in Baja California, Sonora, Sinaloa, Durango, Zacatecas, San Luis Potosí, Nayarit, Jalisco, Aguascalientes, Guanajuato, Querétaro, Estado de México, México DF, Puebla, Veracruz and Morelos.

Rainbow Technology Systems named Eric McLean, European Sales Manager.

SolderStar appointed SMarTsol Technologies as its sales and support partner in Mexico.

Sono-Tek expanded and added new equipment at its laboratory testing facility in

Milton, New York.

Teledyne acquired CETAC Technologies.

Toray Industries increased Malaysian production of high-performance varieties of ABS resin.

Yamaha Motor IM appointed GPS Technologies as its sales and service distributor for pick and place machines in the German market.

Zero Defects International earned ITAR registration.

Zuken

- plans to invest \$30 to \$50 million over the next three years to expand U.S. based operations.

- opened its new Zuken innovation center in Silicon Valley.

Semiconductors & other components

Global semiconductor industry sales increased 5.1% y/y to \$25.53 billion in July 2013; sales in Americas increased 21.5% y/y.—WSTS & SIA

Chinese fabless revenue is projected to hit \$12.4 billion by 2016, fueled by growth in data processing, wireless communications and consumer electronics—IHS

European semiconductor distribution market sales grew 2.6% y/y to 1.51 billion Euro in 2Q'13.—DMASS

Fab equipment spending is expected to decline 1% to \$31.8 billion in 2013 and increase 25% to \$39.8 billion in 2014.—SEMI

Gesture sensor market is projected to grow from \$42,000 in 2012 to \$123 million in 2013 on wireless, consumer electronics and automotive applications.—IHS

Global accelerometers, gyroscopes, and IMU sensors markets are expected to grow at a 9.1% CAGR from \$5.05 billion in 2012 to \$9.30 billion in 2019.—Frost & Sullivan

Mobile DRAM sales rose 11.1% q/q to US\$2.89 billion in 2Q'13.—DRAMeXchange

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