Manufacturing Market INSIDER™
inside the contract manufacturing industry

Vol. 24, No. 10 October 2014

Global Wearable Device Market to Skyrocket?

Wearable technology has emerged as a hot topic over the last couple of years and interest in this sector accelerated in 2014 with the emergence of **Apple** products. The leading application appears to be wearable fitness trackers. Recently, mobile operators have begun to offer watches and fitness trackers as part of bundled packages. Other applications include smart watches, augmented-reality glasses, smart glasses (to assist with jet lag), home/remote patient-monitoring devices, and smart rings that do the wearer's bidding with just a gesture.

While the success or failure of the various individual devices has yet to be decided, there is general consensus that the wearable technologies trend is here to stay and will attract billions of dollars in spending in the coming years.

In early 2014, **Google** launched Android Wear for smart watches; more devices are expected to be launched later in 2014. **Motorola** and **LG** were the first ones out of the gate with products, but Google says that it is working with other partners such as **HTC** and **ASUS**. It's likely that we'll see Android Wear alongside more home-based interactive devices such as a garage door opener.

With wearable devices still making their mark on the consumer segment, the industry is beginning to see the potential of wearables in the enterprise sector. In particular, sales are a key target area, with CRM provider **SalesForce** showing considerable interest.

Wearables are defined as on-body devices for humans with digital connectivity that can communicate wirelessly with other devices. We have segmented the market into five categories:

- ***Consumer fitness***: Includes professional athletes and coaches; consumer wristbands and chest straps; smart garments; and devices issued through employee wellness programs. According to Cowen Research, the U.S. market for this segment will grow from $600 million today to over $3 billion in 2020, and the global market will grow from $1.5 billion in 2014 to nearly $17 billion in 2020.
- ***Lifestyle/entertainment***: It includes smart watches and entertainment wristbands, smart glasses, and smart jewelry. Smart watches/entertainment is the largest anticipated segment of the market. According to Cowen Research, this segment will grow in the U.S. from $2 billion today to over $18 billion by 2020, and globally from nearly $5 billion to over $67 billion.
- ***Healthcare***: It includes continuous glucose monitors for diabetes patients, heart and hypertension monitoring devices, elder care, and other remote patient monitoring. According to Cowen Research, this category could

Chart 1: U.S. Wearable Technology Market by Segment, 2014E

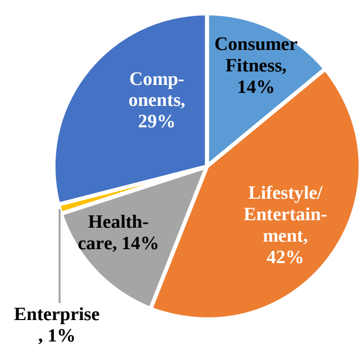
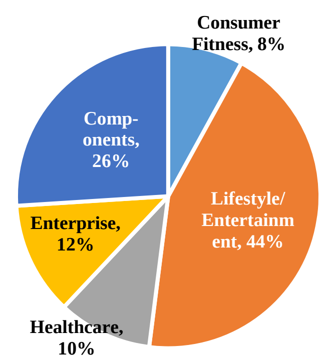


Chart 2: U.S. Wearable Technology Market by Segment, 2020E



Source: Cowen Research

Some articles in this issue

grow from $600 million in U.S. revenue today to $4 billion in 2020. Globally, it will grow from approximately $900 million to $11.6 billion.

- ***Enterprise***: This category comprises construction and manufacturing, employee training, retail, emergency and security, medical, pilots, and military organizations. Within enterprise, the largest opportunity will be in construction and manufacturing. For 2020, the segment forecast is $5 billion in the U.S. market, and nearly $15 billion in global markets.
- ***Components***: It includes certain electronics specific to the wearables market, including Bluetooth/Wi-Fi combo chips, display technologies, gyro/9-axis accelerometer combo chips, MEMS microphones, batteries, and GPS chips. This segment should grow roughly in line with wearables revenue overall, and become an estimated $11 billion U.S. market by 2020. The global market will reach nearly $60 billion by 2020.

Let's take a look at the major EMS suppliers for the wearable device industry. The launch of Apple's iWatch has stimulated the application of miniaturized system modules.

Chart 3: Global Wearable Technology Market by Segment, 2014E

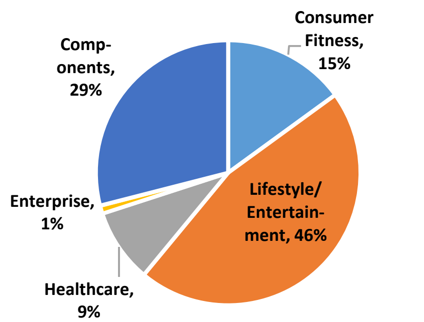
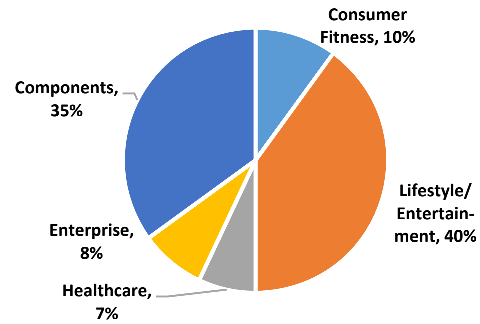


Chart 4: Global Wearable Technology Market by Segment, 2020E



Source: Cowen Research

According to our research on the wearable device industrial chain, we predict that all the system modules on the main board of the iWatch will be miniaturized ones. **Universal Scientific Industrial** (Taiwan) is the leading supplier of such modules. The main board, which is mounted with the majority of the chips, is the heart of the electronic device. Reportedly, Universal Scientific charges as much as $50 per module. Display technology companies like **LG Display** (South Korea) and **TPK Display** (Taiwan) are the top suppliers of touch panels for the iWatch and have long-term growth momentum as they continue to expand applications across new product segments that are expected to emerge next year. **Quanta Computers** (Taiwan) is the leading manufacturer of Apple's iWatch launch (**Inventec** appears to have dropped out of the picture for unspecified reasons). Quanta has reportedly started preparing for mass production to begin sometime in January 2015. Apple and Quanta have also allegedly agreed to a deal in which Quanta would not make smart watches for any of Apple's rivals. **Kinsus Interconnect Technology** (Taiwan) will join the iWatch supply chain. Kinsus is one of the few companies with the ability to supply iWatch IC parts; however, it is the only company capable of mass production of this specific product.

Some Quarterly Results

Jabil. For its fiscal 4Q14 ended Aug. 31, Jabil recorded sales of $4.1 billion and fiscal year revenue of $15.8 billion. Revenues were up 7% q-o-q and down 10% y-o-y. Non-GAAP EPS amounted to $0.05, increased from the prior quarter but decreased 89% from the year-ago period.

GAAP operating income for the August quarter was $46.6 million, down 36% year over year, while GAAP operating margin came in at 1.15% compared with 1.6% for the year-earlier quarter. GAAP net income/loss attributable to Jabil totaled a loss of $26.2 million, down 120% year on year, and GAAP EPS was ($0.13), 121.3% down from a year earlier. Included in earnings were restructuring charges of $20 million.

Representing 44% of total sales, Diversified Manufacturing Services (DMS) revenue decreased 3% year over year, driven by the Apple IPhone 6 ramp-up. Notably, DMS non-GAAP margins were at 1.7%, up 60 basis points q-o-q.

At 34% of sales, Enterprise and Infrastructure business increased 1% from the year-earlier period. The E&I segment produced a non-GAAP operating margin of 2.4%, up 40 basis points q-o-q.

Accounting for 22% of sales, Jabil's High Velocity segment decreased 32% year over year, the decline primarily driven by y-o-y declines from Blackberry. The segment's non-GAAP operating margin was 1.8%, up 160 basis points q-o-q.

The company expects revenue in the November quarter at $4.2–4.4B of revenue and non-GAAP EPS of $0.41–0.53. From a segment standpoint, the company is calling for $2.6 billion in the new Electronics Manufacturing (EM) segment and $1.7 billion in the new Diversified Manufacturing (DM) business. Given the new segment breakdown and the ramp-ups expected in the November quarter, DM will likely be a larger contributor to operating margins, as the business will represent ~40% of total revenues in the quarter.

The company guided FY15 revenue at $16.5–18.0 billion and non-GAAP EPS of $1.65–1.95, which is in line with expectations. It also provided guidance for its new business lines, DM and EM. The DM business has the following targets: FY15 revenue of $6–7 billion, with long-term operating margin targets of 5–7% and revenue growth of 8–12%. The EM business has an FY15 revenue target of $10.5–11.0 billion, with long-term targets of 2–4% operating margins and revenue growth of 0–5%.

The company generated $89.5 million in cash flow from operations (CFO) for the quarter, which was offset by $209 million in CAPEX, causing free cash flow (FCF) use to come in at $119.9 million. In addition, the company guided FY15 CFO to $700–800 million and CAPEX to $350–450 million, implying FCF of $250–450M. Finally, from a restructuring perspective, the company is on track to see total cash charges of $70 million in FY15E, resulting in benefits of $65 million for the year.

Sparton Corp. 4Q14 sales totaled $93.4 million, an increase of 15% from $81.4 million for the fourth quarter of fiscal 2013. Operating income for 4Q14 was $4.9 million, a decrease of 33%, the decline primarily resulting from $4.2 million of environmental remediation expense. This charge is expected to be realized over the next sixteen years. Net income reported was $3.0 million, a decline of 47%. Non-GAAP EPS for 4Q14 was $0.56.

Revenue for FY14 totaled $336.1 million, an increase of 27.0% compared to the prior year. Of that increase, 5% was organic and 22% was related to acquisitions. This organic growth is within management's long-term forecasted range of 3–5%. Non-GAAP EPS was $1.58, compared to $1.16 for fiscal 2013.

In the fourth fiscal quarter, the Medical group, which had $39.1 million in revenue, down 13% from the period a year ago, still had 15.5% adjusted gross profit margins. This compared to 16.5% adjusted gross margin in the period a year ago, but on lower sales.

Complex Systems (CS) had almost $23 million in revenue, up 29%, and had a strong adjusted gross margin of 12.7%, compared to 11.1% in the period a year ago.

Defense & Security Systems (DSS) had revenue of $36.3 million, up 54% over the period a year ago. Its margins were solid at 32.9%, compared to 24.7% in the period a year ago. Overall, revenue in the quarter was up 15% to almost $93.5 million. The adjusted gross margin in the quarter was 22.4%.

For the year, the Medical segment's adjusted gross margin was 15.5% compared to 14.9% in fiscal 2013. Complex Systems had adjusted gross margin of 11.2% compared to 10.5% in fiscal 2013. DSS had adjusted gross margin of 27.8% compared to 23.5% in the period a year ago. Even with the loss of some revenue in Medical due to a rebalancing of its customer **Fenwal**, revenues overall in fiscal 2014 were able to grow organically by 5% and consolidated gross margin showed improvement to 19.3% for the year's adjusted gross margin, up from 17.4% in fiscal 2013.

Over the years from fiscal 2011 to fiscal 2014, Sparton has received several awards of new business. Where new programs were 26 in fiscal 2011, they grew to 89 in fiscal 2014. Sparton had 26 new customers included in those awards. The potential annualized revenue was roughly the same as it was in fiscal 2013, or about $39 million.

Management made some adjustments to its gross margin guidance for segments. DSS is now 25–30%, which is a 5% upward revision. Medical remains 13–16%. While the Fenwal program has begun to in-source about $25 million worth of revenue (announced last fiscal year, with $19 million being removed from Sparton in the first half of fiscal 2015), management is still confident it can retain a 13–16% gross margin. Complex Systems has been 9–12% and remains so for the near term.

SigmaTron International. 1Q2015 revenues decreased to $54.9 million from $56.2 million for the same quarter in the prior year, representing a decline of 2.31%. Net income of $16,810 decreased by 98.2% compared to the same period a year ago.

In fiscal years 2013 and 2014, the company continued to see a trend of Chinese costs increasing, thereby making Mexico a more cost-competitive manufacturing location to service North America. Indications suggest that this trend will continue.

Gross profit decreased during 1Q15 to $4.7 million, compared to $6.2 million for the same period in the prior fiscal year. The decrease in gross profit was primarily the result of decreased sales to customers and continuing pricing pressures.

Fabrinet. 4Q2014 sales totaled $160.1 million, an increase of less than 1% compared to total revenue of $159.9 million for the comparable period in fiscal year 2013.

GAAP net income for the fourth quarter of fiscal year 2014 was $10.3 million, or $0.29 per diluted share, compared to GAAP net income of $15.1 million, or $0.43 per diluted share, in the fourth quarter of fiscal year 2013. Non-GAAP net income for 4Q2014 was $12.1 million, or $0.34 per diluted share, a decrease of 2.4% compared to non-GAAP net income of $12.4 million, or $0.35 per diluted share, in the same period a year ago.

For fiscal year 2014, Fabrinet reported total revenue of $677.9 million, an increase of 5.7% compared to total revenue of $641.5 million for fiscal year 2013. GAAP net income for fiscal year 2014 was $91.7 million, or $2.58 per diluted share, compared to GAAP net income of $69.0 million, or $1.98 per diluted share, in fiscal year 2013. Non-GAAP net income in fiscal year 2014 was $54.6 million, or $1.53 per diluted share, an increase of 8.1% compared to non-GAAP net income of $50.5 million, or $1.44 per diluted share, in fiscal year 2013.

Regarding its accounting investigation, the company concluded that certain consignment sales did not qualify for revenue recognition in accordance with the company's accounting policies. This was due to a lack of clarity in the associated contracts with respect to terms related to delivery, risk of loss, and title transfer. The financial impact of these consignment sales was $16.5 million and was excluded from the reported revenue in the fourth quarter of fiscal year 2014. This amount will become recognizable as revenue once the goods have been shipped in fiscal year 2015.

Management reported guidance for 1Q 2015 wherein it expects first-quarter revenue to be approximately $189 million, which includes approximately

$3 million of consigned shipment revenue excluded from fiscal 2014. GAAP net income per share is expected to be approximately $0.30, with expected non-GAAP net income per share of approximately $0.40, based on approximately 36 million fully diluted shares outstanding.

Celestica, Inc. Celestica reported 3Q2014 revenue of $1.423 billion, within the range of its guidance of $1.40–1.50 billion (announced July 24, 2014), a decrease of 5% compared to the third quarter of 2013. Operating margin (non-IFRS) came in at 3.9%, compared to 3.2% for the third quarter of 2013. It reported non-IFRS EPS of $0.26 per share, toward the high end of its guidance of $0.21 to $0.27 per share, compared to $0.22 per share for the third quarter of 2013.

Accounting for 40% of total revenue, the Communications segment contributed $568 million in 3Q2014, which declined by 5% compared to the same period a year ago. The Consumer segment, which accounts for 5% of total revenue, contributed $71 million, declining by 1 percent compared to the same period a year ago. Revenue from the Diversified segment, which includes the aerospace and defense, industrial, healthcare, semiconductor equipment, and smart energy areas, accounts for 29% of total revenue and contributed $412 million, an increase of 3% compared to the same period a year ago. The Server and Storage business segments account for 9% and 17%, respectively. The Server segment contributed $127.8 million and the Storage segment contributed $241.4 million.

Management provided guidance for 4Q2014, wherein it anticipates revenue to be in the range of $1.375–1.475 billion, and non-IFRS adjusted net earnings per share to be in the range of $0.21 to $0.27.

Benchmark Electronics, Inc. Reported 3Q2014 revenue of $731 million was an increase of 2% from 2Q2014 and 22% from 3Q2013. The company incurred a $5 million charge ($0.09 per share) for the write-down of inventory and provisions to accounts receivable associated with the bankruptcy of **GT Advanced Technologies**. The charges increased cost of sales by $2 million and SG&A by $3 million.

The non-GAAP net income was $23 million for the quarter, compared to $17 million last year. Net income was $17 million for the quarter, compared to $24 million last quarter. Non-GAAP earnings per share were $0.43 versus $0.31 in the third quarter last year. GAAP earnings per share were $0.32 compared to $0.43.

Non-GAAP operating margin was 4%, compared to 3.5% during the third quarter last year. Third-quarter operating margin was down 10 basis points compared to last quarter, attributable to revenue mix and, to a lesser degree, the impact of new program ramp-ups.

During 3Q2014, the company incurred approximately $2.2 million of restructuring and integration-related costs, primarily due to the closure of its Matamoros, Mexico facility, which was acquired in October 2013.

Accounting for 21% of total sales, computers and related products for the business enterprises segment contributed $153.5 million. The industrial control equipment segment accounted for 30% of sales and contributed $219.3 million. Accounting for 32% of total sales, the telecommunication equipment segment contributed $234 million. Accounting for 10% of total sales, the medical devices segment contributed $73.1 million. Accounting for 10% of total sales, the testing and instrumentation products segment contributed $51.1 million.

Management provided guidance for 4Q 2014 wherein it is estimating revenues to be between $710 million and $740 million and diluted earnings per share between $0.41 and $0.45.

Plexus Corp. reported 4Q2014 revenue of $666 million, which increased by 15% compared to the same period a year ago. It reported diluted EPS of $0.77 compared to $0.71 in 3Q2013. Operating performance improved quarter over quarter. Operating margin advanced to 4.8%, a 10-basis-point improvement. Cash cycle improved to 56 days and helped contribute to better-than-anticipated free cash flow of $23.8 million. Return on invested capital improved to 15.2%, a 60 basis-point improvement, representing an economic return of 4.2%.

Accounting for 35% of sales, the Networking/Communications sector was up 15% sequentially in fiscal 4Q. The Healthcare/Life Sciences sector was up 7% sequentially in 4Q. The Industrial Commercial sector was down 2% sequentially, and the Defense/Security/Aerospace sector was up 7% sequentially in 4Q.

For FY2014 the company reported revenue of $2.4 billion, an increase of 6.74% compared to FY2013. The company reported guidance for 1Q2015 of $630 million to $660 million and anticipates EPS of $0.68 to $0.74. EPS guidance reflects near-term margin pressure associated with the accelerated ramp of its new facility in Guadalajara, Mexico.

North American PCB Industry Downturn Continues in August

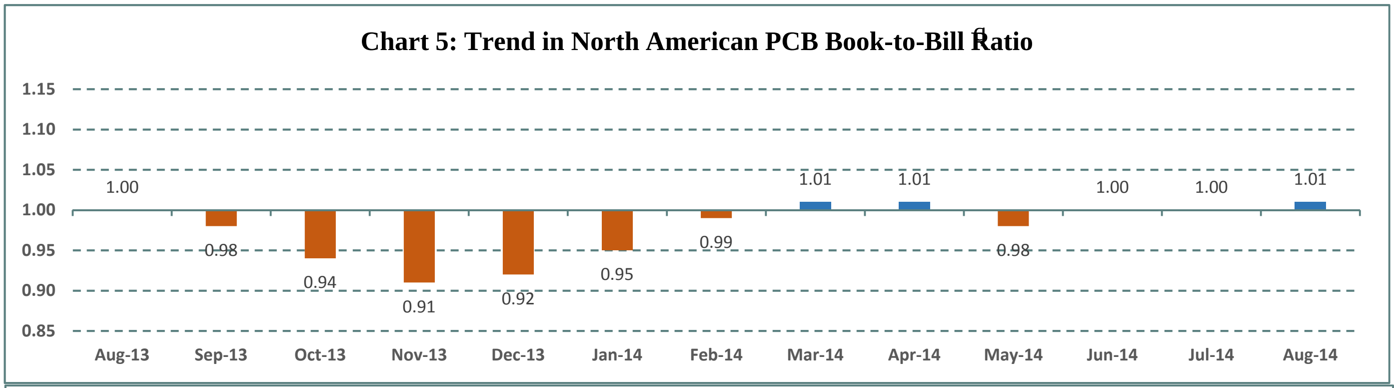
According to ***IPC***, North American printed circuit board sales and orders in August were weaker year over year, but the book-to-bill ratio strengthened slightly.

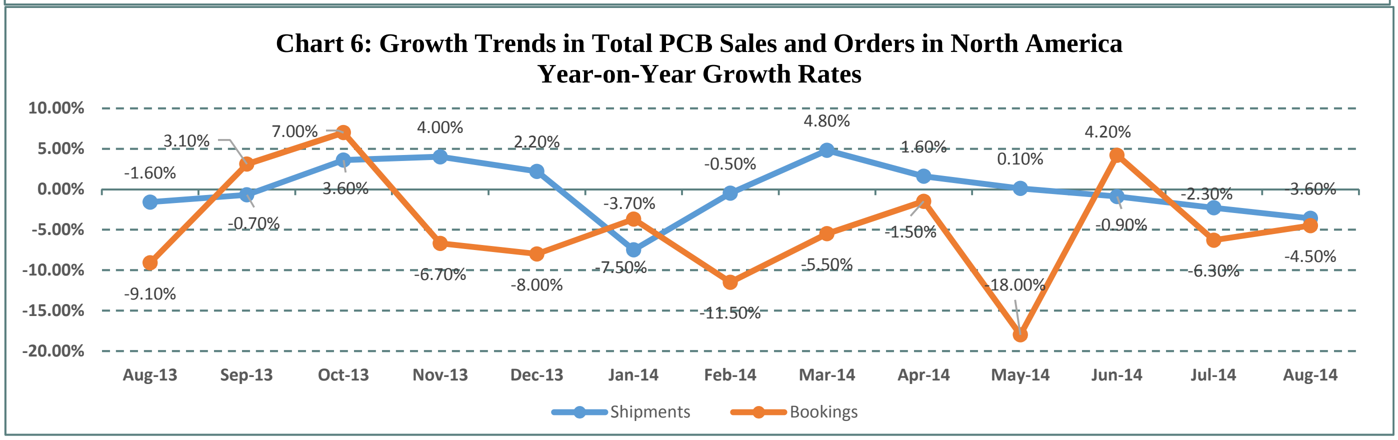
The North American PCB book-to-bill ratio edged up to just above parity at 1.01 in August.

Total North American PCB shipments decreased 3.6 percent in August 2014 from August 2013, reducing year-to-date shipment growth to –0.9 percent. Compared to the previous month, PCB shipments were up 4.9 percent.

PCB bookings decreased by 4.5 percent compared to August 2013, putting the year-to-date order growth rate at –5.9 percent. Order growth declined 5.0 percent in August compared to the previous month.

Sharon Starr, IPC’s director of market research, noted that August business results for the North American PCB industry continued slightly below last year’s levels, but the PCB book-to-bill ratio continued hovering near parity and actually strengthened a bit in August. Flat growth is still expected for the remainder of 2014.





Apple Easily Drops Suppliers If It Can Get a Better Deal

Apple (Cupertino, CA) sold 150 million iPhones last year, each carrying dozens of parts made by other companies. That's why Apple is a perennial kingmaker among component manufacturers: Each time the company releases a model, some suppliers end up winners and others losers. Apple has a reputation as a brutally tough negotiator with companies in its supply chain, demanding advanced technology at razor-thin margins, and it doesn't hesitate to drop longtime suppliers with little notice, says Francis Sideco, a senior manager at market research firm *IHS*. At least nine publicly traded companies get more than 40 percent of their revenue from Apple, per data compiled by *Bloomberg*.

Among them is touchscreen maker **TPK Holding** (Taipei), which produced the touch controls in the first iPhones. Largely on the strength of its Apple ties, the company held an initial public offering in 2010. Two years later, Apple changed the design of its iPhone screens and began buying from TPK rivals, including **LG** (South Korea), instead. To keep what Apple business it could, TPK resorted to assembling screen parts made by other companies—a less profitable task, says a former TPK executive. TPK's net income fell by 90 percent as it reported 2Q2014 results of NT$323 million, from NT$3,140 million the same quarter a year ago. Its share price has fallen 73% from its 2011 high, to NT$190 ($6.30).

Dialog Semiconductor (Germany) is the supplier most dependent on Apple's continued favor. Eighty percent of the chipmaker's $903 million in revenue last year was tied to its contract to make power-management chips for the iPhone, according to *Bloomberg*. Dialog CEO Jalal Bagherli noted that the company works with its biggest customer as if it's an extension of Apple's R&D team.

For the iPhone 6 and 6 Plus—which together drew 4 million preorders in the first 24 hours they were on sale—**Taiwan Semiconductor Manufacturing** (Taiwan) is providing Apple with processors, putting it among the expected winners. Taiwan Semiconductor posted record quarterly profit in July as production of the phones ramped up.

Some suppliers are attempting to reduce their dependence on Apple. Dialog is trying to sell fast-charging chips to Chinese laptop makers. Last month, **Cirrus Logic** (Austin, TX), a maker of audio components that gets 73 percent of its revenue from Apple, bought rival **Wolfson Microelectronics** (Edinburgh, Scotland), which has had to start selling its parts to other phone makers in earnest after getting dropped from the iPhone 3GS in 2009. Even **Foxconn Technology** (a.k.a. **Hon Hai)** (Taiwan), the company that assembles Apple's products in China, has set up a joint server venture with **Hewlett-Packard** (U.S.) and expanded into retail stores and resorts.

Table 1: Apple's Top Dependents

	Share of Revenue from Apple	Quarterly Contract Value (US$ millions)
Dialog Semiconductor	79.6%	$179.7
Cirrus Logic	73.0%	$111.4
TPK Holding	41.4%	$366.6
Pegatron	41.3%	$3,600.0
Hon Hai	41.2%	$18,000.0

Company News

Kimball International Declares Spin-Off of Kimball Electronics

Kimball International (Jasper, IN) has announced the spin-off of its Electronic Manufacturing Services (EMS) business, **Kimball Electronics**. Kimball International anticipates the completion of the separation of Kimball Electronics on October 31, 2014.

The Kimball International Board of Directors has approved the final distribution ratio and declared a pro rata dividend in the amount of three shares of Kimball Electronics common stock for every four shares of Kimball International Class A or Class B common stock. Following the distribution of shares, Kimball Electronics will be an independent, publicly traded company.

Facility Investments…**NATEL EMS** (Chatsworth, CA) recently invested in an additional state-of-the-art circuit card assembly (CCA) line and continues to lower costs for products manufactured in the United States. This represents a continuation of the NATEL EMS effort to bring outsourcing prices within a few percentage points of those of low-cost-labor countries in Asia.

This new line is located in Chatsworth, CA, and is in use building high-reliability circuit card assemblies for medical, space, and military applications.

Acquisitions…**TE Connectivity, Ltd.** (Switzerland) has announced its acquisition of **Measurement Specialties, Inc.** (Hampton, VA). Measurement Specialties is a global designer and manufacturer of sensors and sensor-based systems. The acquisition of Measurement Specialties expands TE's sensor business significantly.

Executive Changes…**DRS Technologies** (Arlington, VA), a subsidiary of **Finmeccanica**, has announced the appointment of Jim Scott as president of the company's Aviation, Communication, and Homeland Security (ACHS) business group. Prior to this appointment, Scott served as vice president and general manager for the Global Enterprise Solutions business unit of ACHS. He has spent more than 20 years in the defense industry, with particular expertise in full life cycle telecommunication systems and security and logistics operations.

Scott will oversee the DRS portfolio of satellite services, network and telecommunications, electronic and cyber security solutions, and aviation maintenance, repair, and overhaul businesses. The Aviation, Communication, and Homeland Security business is headquartered in Herndon, Virginia, with major facilities in North Carolina, South Carolina, Maryland, Florida, Montana, and Germany.

DRS Technologies to Pay Government $13.7 Million to Settle Overbilling Claim

DRS Technologies, owned by Italian defense giant **Finmeccanica**, has agreed to pay the U.S. government $13.7 million to settle charges that it knowingly overbilled the Army and the Coast Guard, the Justice Department noted.

The company won a contract with the Army's Communication and Electronics Command in 2003. Separately, the aviation arm of DRS, based in Gaithersburg, won a contract to perform aircraft maintenance for the Coast Guard in 2009.

In both cases, the contractor is accused of violating labor requirements. DRS employees who worked on the contracts did not have the required job qualifications to perform the work, but DRS billed the government for a higher labor category, the Justice Department alleged. The department accused DRS of wrongly billing the Army over a nine-year period and the Coast Guard over a two-year period. The total amount by which DRS overbilled the government was not specified, reported the *Washington Post*.

Factory closure…**Accellent, Inc.** (Wilmington, MA) announced the decision to close its Arvada, Colorado site and to consolidate its two Galway, Ireland sites into one. This decision results from a manufacturing strategy developed as part of the integration of Accellent and Lake Region Medical following Accellent's acquisition of Lake Region Medical in March 2014. Accellent will rebrand the combined companies as Lake Region Medical.

Once the closure and combinations are completed, Accellent (Lake Region Medical) will continue to operate 15 sites throughout the world.

Contract Wins…According to *Apple Daily*, **Quanta Computer, Inc.** (Taiwan) has landed the exclusive contract to manufacture the **Apple iWatch**. Quanta's Changshu plants are expected to increase their number of workers to 40,000. The supply chain rumor further states that production could start as early as January 2015.

Strategic Investments…**Foxconn Technology (**a.k.a. **Hon Hai)** has announced that it has acquired 31.974 million shares of **Taiwan Mobile** (TWM) for a 0.93 percent stake at NT$93.2 per share and a total of NT$2.98 billion (US$98.5 million) through a venture capital subsidiary.

According to market analysts, Foxconn's investment in TWM is to enhance cooperation with the 4G mobile communication operator. TWM has acquired a 14.9% stake in 4G licensee **Ambit Microsystems** (a Foxconn Group company) at NT$2.98 billion and 4G frequency band units 728–733 MHz (for upload) and 783–788 MHz (for download) from Ambit at NT$3.433 billion, as reported by *Digitimes*… **Compal Electronics** (Taiwan) announced that it will acquire a 20.54% stake in **Avalue Technology**, a Taiwan-based industrial computing device maker, to become the largest shareholder through subscribing to 14 million new shares issued by Avalue for private placement at NT$35.35 per share and a total price of NT$494.9 million (US$16.4 million).

According to Compal, this is a strategic investment to broaden and deepen Compal's business operations through extending Compal products to medical and IoT (the Internet of Things) applications via industrial

PCs, as reported by *Digitimes*.

Joint Venture…**Foxconn (Hon Hai Precision Industry)** and **21Vianet Group**, a China-based Internet data center (IDC) service provider, will invest US$25 million initially to establish Smart Time Technologies, a joint venture to provide planning, design, construction, project financing, and operation and maintenance services for IDCs in China and other markets, according to 21Vianet.

21Vianet will hold a 60% stake and Foxconn a 40% stake in the joint venture. In addition to the joint venture, 21Vianet will cooperate with Foxconn to establish a 21Vianet-Foxconn Internet Infrastructure and Engineering Technology R&D Center, as reported by *Digitimes*.

HTC Announces Return to ODM Business

Following an eight-year hiatus from the sector, **HTC Corp.** (Taiwan) CEO and President Peter Chou announced the company's bid to return to the original design manufacturing (ODM) market in addition to its pursuits toward building a distinctive handset brand.

Reports indicate that a forthcoming HTC-made device for **Google's** Nexus series of tablets may mark the company's return to the ODM business, according to *China Post*.

Google to Increase Investment in Taiwan…Will Benefit ODM Suppliers

Google, Inc. (Mountain View, CA) is planning to increase its investment in its cloud computing data center in central Taiwan to better capitalize on Asia's fast-growing Internet communications market, reported the *Economic Daily News*.

The report said that Google is expected to invest an additional US$100 million to US$200 million in the third phase of the development of the data center, which is located in the Changhua Coastal Industrial Park. Google has already invested more than US$600 million in the facility. The first phase of the data center's development was completed at the end of last year, when the center formally opened, and the report said the second phase is scheduled to be completed by the end of this year. The third phase of development, expected to cover an area of about eight hectares, could start in early 2015.

With Google increasing its investment in Taiwan, the facility in Changhua could become the high-tech giant's largest-ever cloud data center in the Asia/Pacific region, the report said. Google operates 12 data centers globally, with seven in the Americas, two in Europe, and three in Asia. Each data center is customized to its region and local climate to optimize efficiency.

The report said that contract notebook computer makers **Quanta Computer, Inc., Inventec Corp.**, and **Wistron Corp.**, which churn out servers for Google, are among the Taiwanese suppliers expected to benefit from the new round of investment. Many Taiwanese high-tech manufacturers have entered the cloud computing field to diversify their product portfolios.

Impact of HP's Split on Asia's Hardware Supply Chain

HP Inc. (Palo Alto, CA) has announced its plan to split into two separate listed public companies—HP Enterprise and HP Inc.—as it aims to provide sharper, stronger, and more focused companies; compete better against competitors; respond faster to customer requirements; and optimize each firm's financial return to provide different and compelling investment opportunities. The transaction will be closed by the end of FY2015.

Chart 7: HP Inc. Overview (4QFY13–3QFY14)

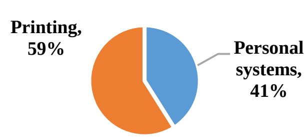
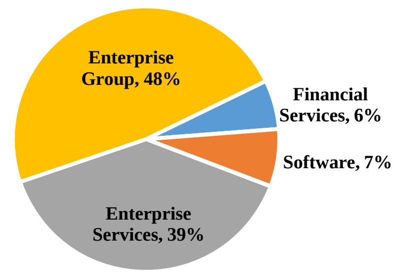


Chart 8: Hewlett-Packard Enterprise Overview (4QFY13–3QFY14)



<u>Impact:</u> HP Inc.: Potential neutral to slightly positive for Asia PC brands but likely negative for ODMs: HP Inc.'s combined revenue for 4QFY13–3QFY14 was $57.2 billion, with $5.4 billion in operating profit, or 9.4% OPM. Dion Weiser will be President and CEO of HP Inc., while Meg Whitman will be Chairman of HP Inc.

HP Inc. will include both Personal Systems (59%) and Printing segments (41%). HP Personal Systems' operating margin was much slimmer, at 3–4% versus 18–19% for the printer division, as HP Inc. aims to deliver consistent and regular returns for its shareholders (via dividends or share buybacks).

After the split, in order to maintain attractive returns for shareholders, HP's PC business will either focus more on driving profitability improvement without undercutting PC prices too aggressively or continue to cut costs, which could also put pressure on its outsourcing downstream suppliers. HP has said it could also sell its lower margin Personal Computing systems, which could further accelerate PC industry consolidation. HP ranked as the 2nd PC brand globally with an 18.3% market share, next to Lenovo, in 2Q14.

In conclusion, the split could be neutral to slightly positive for Asia PC brands, such as **Asustek**, given the potential for more rational price competition or further industry consolidation. However, it could be negative for ODM suppliers like **Hon Hai**, **Quanta**, and **Inventec**, as PC brands could have more bargaining power over their ODM suppliers.

<u>Impact</u>: HP Enterprise storage: Limited impact on Asia supply

chain: HP Enterprise generated $58.4 billion in sales, with $6 billion in operating profit, or 10.2% operating margin for 4QFY13–3QFY14. Its key focuses included server, networking, storage, software and service, cloud, and convergence devices. Meg Whitman will be CFO.

HP Enterprise will look for targeted M&A opportunities to complement its existing product portfolio. *Bloomberg* also reported that HP's split could revive **EMC** merger talks.

While HP also outsources its server/networking to Asia suppliers like **Hon Hai, Inventec, Accton**, and **Alpha Networks**, vendor relationships will likely remain largely unchanged after the split, as HP has said it will continue to focus on enhancing its software/service and cloud business investments rather than just hardware.

The split could desynergize the procurement power of the two entities, a small positive for suppliers. HP's split could reduce its bargaining power with vendors. The split will free its ODM/EMS suppliers to pursue multiple product lines with a different set of customers.

Foxconn Invests in Cloud Computing Company Hope Bay

Ingrasys Technology (Taiwan), a subsidiary of **Foxconn Technology (Hon Hai Precision Industry)**, has acquired a 40% stake in Taiwan-based cloud computing-based storage and computing solution provider **Hope Bay Technologies**.

Hope Bay said it was originally a cloud computing technology center under power supply maker and energy management solution provider **Delta Electronics**, which spun it off in May 2013.

Through Ingrasys's stake investment, Hope Bay hopes to tap the markets in Singapore, Japan, South Korea, and others via Foxconn's channels, the company indicated. Ingrasys, which produces video-recording surveillance equipment, said Hope Bay's cloud computing storage solutions can enhance application of its surveillance systems and reduce their costs, as reported by *Digitimes*.

Foxconn Optimistic about Investing in Indonesia

Foxconn Technology (Taiwan) is optimistic about kick-starting its planned investment in Indonesia and hopes to meet President Joko Widodo's new team soon, as reported by *Reuters*.

Foxconn may invest in a wide range of information and communication technology, which includes making hardware such as phones, tablets and televisions, as well as providing tele-communication services. It may invest US$1 billion (S$1.27 billion) in Southeast Asia's biggest economy. Foxconn operations in Indonesia would focus on the domestic market of around 240 million people and the company could also export to the rest of the Southeast Asian region.

Publisher: Randall Sherman

Editor: Anna Reynolds

Manufacturing Market Insider is a monthly newsletter published by New Venture Research Corp., 337 Clay St., Suite 101, Nevada City, CA 95959. Phone (530) 265-2004, Fax (530) 265-1998. Copyright 2014 by NVR™. ISSN 1072-8651

E-mail: rsherman@newventureresearch.com

Website: www.newventureresearch.com