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Taiwan Electronics Revenues Take A Nosedive

A couple of weeks ago, I wrote about the printed circuit industry in Taiwan. I reported on the industry's declining revenues, and voiced concerns about a potential domino effect for the rest of the electronics market. Unfortunately, this may become reality.

The World Semiconductor Trade Statistics (WSTS) released December shipments for global semiconductor products. During 2018, the industry recorded record growth month over month, and a 20% increase was predicted for the year. Monthly revenue exceeded 42 billion dollars in the third quarter. Business grinded to a halt during the fourth quarter; December revenues were negligible and dropped by 38 billion dollars. Semiconductors are the backbone of the electronics industry, and the slowdown will have negative impacts on all affiliated industries that include electronic materials, components and EMS manufacturing. Most of these affiliates suffered a slowdown during the fourth quarter.

Industry analysts point to the slowdown in sales for Apple's iPhone X as one of the reasons for the downturn. Some believe this may be the beginning of a recession for the global electronics industry. The global semiconductor industry enjoyed moderate growth since the 2008 recession, and posted double digit growth during 2017 and for the first three quarters of 2018. Smart phones saturated the market during this time, but sales grinded to a halt in the latter part of 2018.

Manufacturing capacities exceed demand at this time. Unfortunately, there are no new "must have" electronic devices that will drive consumers to make purchases. The industry needs products that consume a large amount of electronics materials and components. Since there is nothing on the horizon, analysts are predicting a decrease in sales for the industry that will continue through the first and second quarter of 2019. Manufacturers will reduce their own had inventory as well as a redeployment of labor.

Stock markets throughout the world have been extremely volatile during the last few months. Almost any news can affect the markets – trade wars, government shut downs, oil prices, Brexit news, the weather. I wonder why stock exchanges do not rise or fall on Semiconductor news. Its real news, with real data that can cause

ripples on the economy. It seems like investors like trading on "what if" rumors instead of real market data.

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Headlines of the week

(Please contact haverhill@dknreseach.com for further information and news.)

- 1. RIKEN & AIST (Major R&D organization in Japan) 1/24 Have succeeded to drive silicon quantum bits at 10 degree K. It is one hundred times higher than previous record. It will be valuable for sensor devices.
- 2. Tohoku University (Japan) 1/28
 Has developed a new electric power generation and storage technology using nanometer ion stream for IoT sensor devices.
- 3. TIT & Tokyo University (Japan) 1/28

 Have co-developed a new vibration electric power generator attaching the electret layer outside of the MEMS device. It makes the design freedom much larger.
- 4. Ricoh (Major electronics company in Japan) 1/29
 Has rolled out new power source IC "RP514/RP515 Series" with small package of WLCSP-9-2P for IoT devices. It consumes extremely small power with battery monitor.
- 5. Ricoh (Major electronics company in Japan) 1/29
 Has developed a new manufacturing technology of the secondary batteries of wearable electronics and IoT devices using ink jet printing. It will make the design freedom of the batteries much higher.
- 6. Tokyo University (Japan) 1/30
 Has developed a low cost thin film flexible integrated circuit based on the organic semiconductor for RFID devices. It will be valuable for IoT society.
- 7. DIC (Major color ink supplier in Japan) 2/1

Has developed a new flexible wireless sensor as the covering materials of the modern architectures. It will be a part of flexible electronics.

- 8. Hitachi (Major electric & electronics company in Japan) 2/5 Has developed an ultra sound dispatch chip for medical devices. It is mounted at the end of catheter indicating the location of the device instead of X-ray monitors.
- 9. Mitsubishi Electric (Major electric & electronics company in Japan) 2/7 Has developed world first "Sensor Security Technology" that detects conflicts of the data caused by attacks on the sensors.
- 10. Tohoku University (Japan) 2/7

Has developed a new graphene base carbon electrode for double layer capacitor devices. It has higher performances than carbon nanotube base electrodes.

- 11. JAXA (Public R&D organization of aero space technology in Japan) 2/7 Has developed a world top class small but high efficiency motor for the developments of aero space, especially, on Moon and Mars.
- 12. DNP (Major printing company in Japan) 2/7
 Will expand the business of "Wincos Architectural Film" for windows of the modern buildings. It cuts UV lights more than 99%, but visual lights.
- 13. Kaneka (Major organic material supplier in Japan) 2/8
 Will invest 1.6 billion yens to expand the manufacturing capacity of Kane Ace,
 additive compounds for epoxy resins. The company expects remarkable demands
 in use of copper clad laminates of multilayer circuit boards.
- 14. YAMAHA (Major equipment company in Japan) 2/13 Has agreed to make Shinkawa and Apic Yamada, semiconductor assembling equipment supplier 100% subsidiaries. Yamaha could make one stop service equipment for assembling of semiconductors and circuit boards.

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