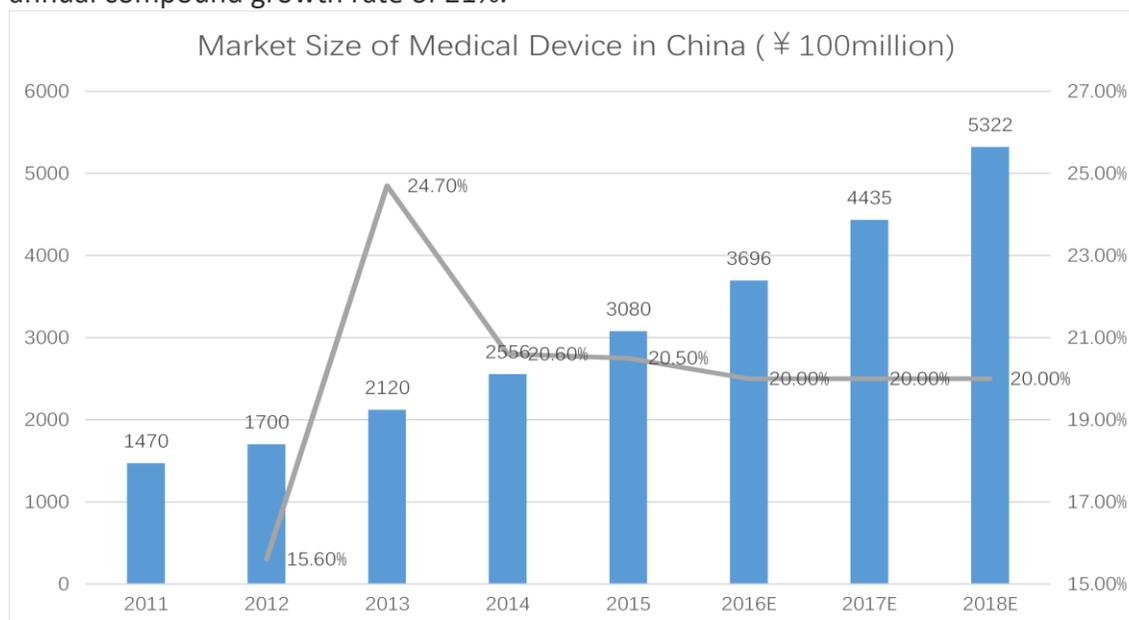


China Medtech Will Continue Its Double Digit Growth in Years to Come

The high level characteristics of medtech in China is focused here. Each of the 6 specific sectors according to SWS recommendation will be covered later. If you need any in-depth analysis of specific sector, please email us. Six sectors with top players recommended by SWS.

1. In vitro diagnostic reagents such as Kehua
2. High value consumables like stents and implantables such as KaiLiTai
3. Independent Imaging Centers such as GuangYu Group
4. Cancer Treatment Centers such as XingHe Biotech
5. Robotics systems
6. Home devices such as MengFaLi.

In 2015, the global medical device market size is \$384 Billion USD, annual growth rate 4.9%. [China medical device market](#) grew to \$42 Billion, 14 times from 2001 to 2014, annual compound growth rate of 21%.



Source: SWS report

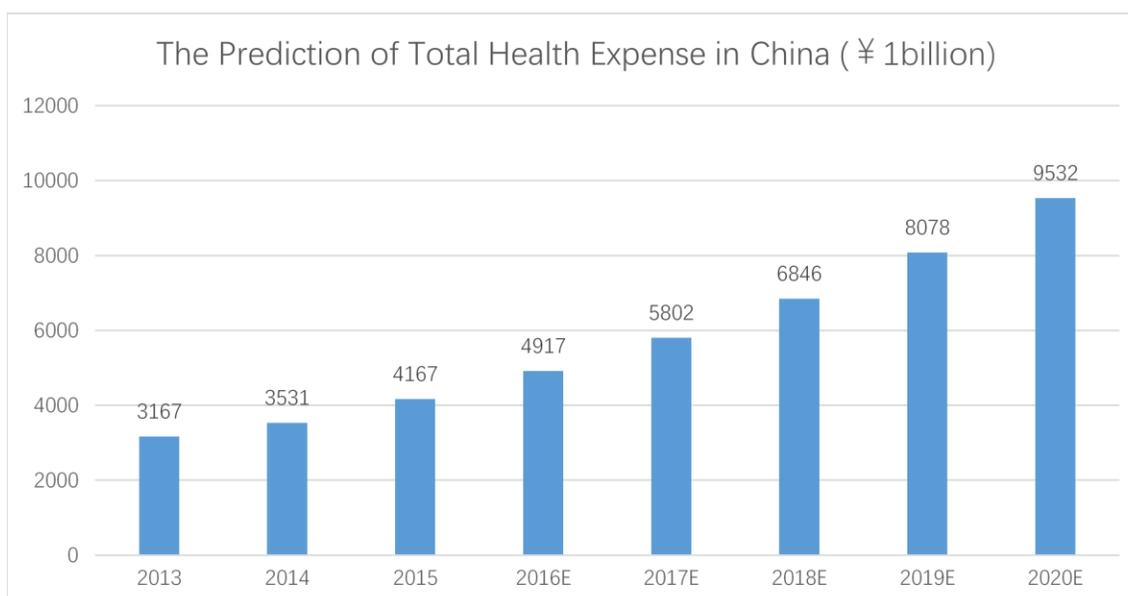
The comparison of medtech and pharma development suggests the significant growth potential in medtech in the years to come. Medical device lags behind China pharma. China pharma industry has IPO companies in the late 90s already. [Medtech companies](#) with A shares only started in 2009. In 2014, about 6,000 drug companies with 200 became publicly traded. Medtech has about 14,000 companies with only about 20 companies that were publicly traded. Medtech companies are small and very fragmented but can move and innovate fast now.

Market Concentration Comparison Between Pharma Industry and Medical Device Industry

Comparison Indicators	Pharma	Medical Device
Market Size (¥ 100Million)	13326	2556
Manufacturers	6500	14000
Average Size (¥ 100Million)	2.05	0.18

Source: SWS Report

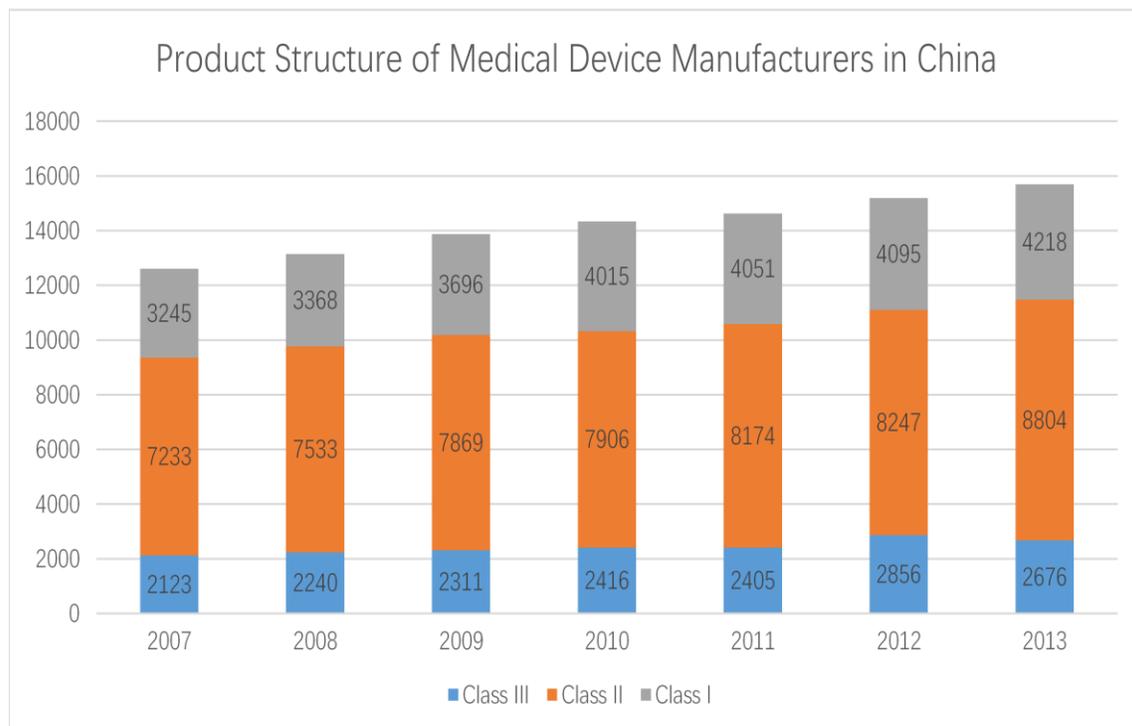
The key drivers for the medtech growth in China: 1) aging population and the increasing diseases new occurrence rate. 2) government initiatives of shifting diseases treatment to the counties' hospitals, accelerating growth of private hospitals. 3) change hospital practice of generating revenue from prescribing drugs to more diagnostic and professional services. 4) domestic medical devices gradually replacing certain imported devices.



Source: SWS Report

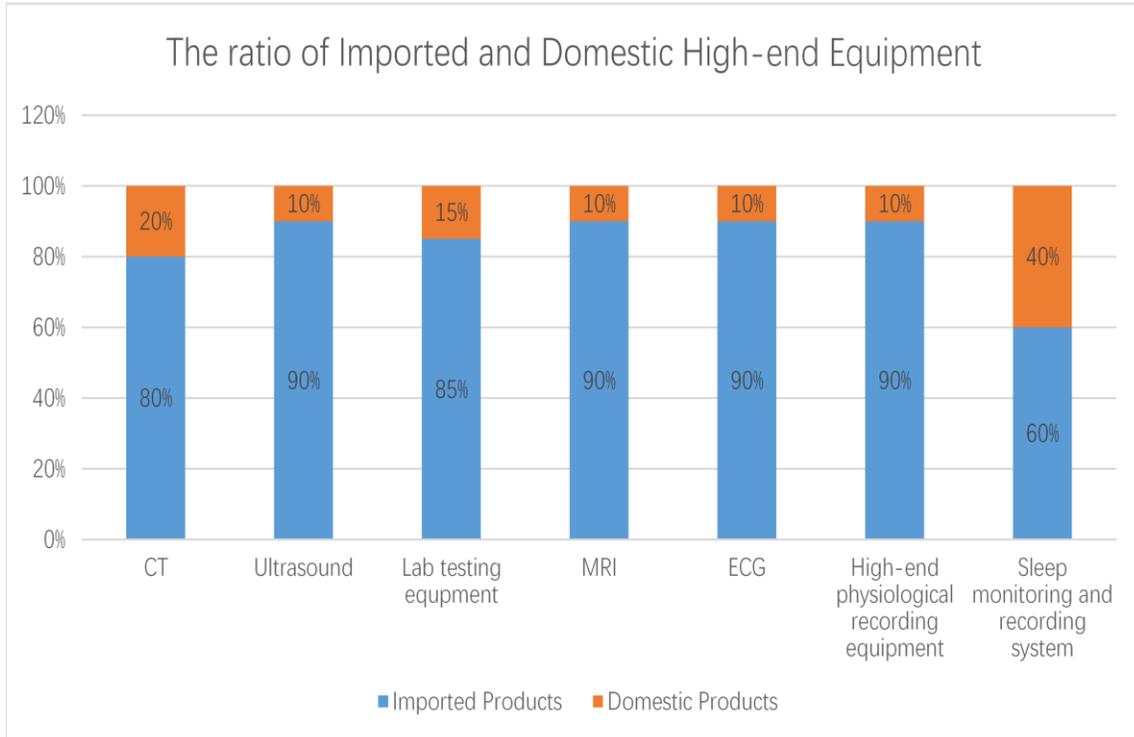
Currently China medtech space is crowded with small, fragmented and low value companies. The biggest Chinese medtech company has a market value of \$5 Billion USD vs Medtronic market value of \$120 Billion USD. Most of medtech companies in China have annual sales less than \$3M USD. Of the total number registered, the average size medtech companies has annual sales of about \$2.5M USD.

The medical device products from these manufacturers are clustered in class I and class II devices. Class III medical devices category is about 17% representing 2,676 products in 2013 CFDA registered database.



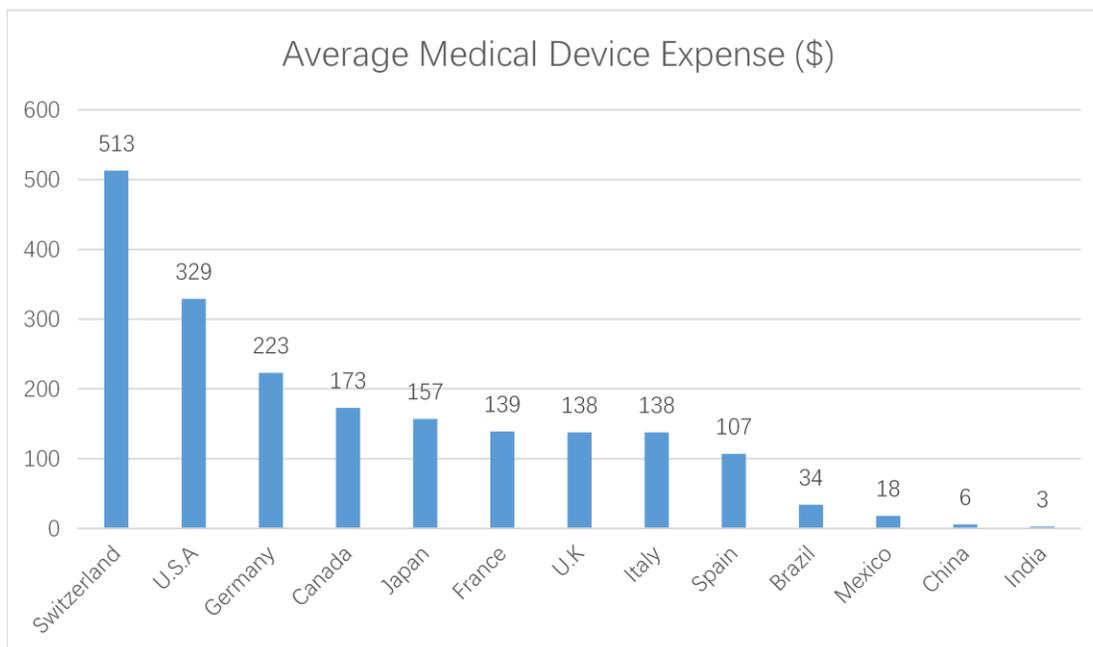
Source: SWS Report

The basic diagnostic equipment is still dominated by imported products. Imported CT, ultrasound, lab testing equipment, MRI, ECG, high end physiological recording equipment is about 90% of the market. Even the sleep monitoring and recording system is at 60% as imported equipment. This is based on sales percent. Units volume percent will be the other way around. This shows that China domestic devices are low value high volume. Domestic manufacturers have to sell a lot more volume to make up the dollar value.



Source: SWS Report

For the aging population, it is estimated that >60 years old people will reach 245 Million by 2020, 2/3 of the entire U.S. population. The total healthcare expenditure is expected to reach \$1.5 trillion. The policy issued in Jan of 2016 promoted the integration of rural and mobile population with urban population and increase the rural and mobile population coverage into the national reimbursement system.



Source: SWS Report

For the decentralization of healthcare to the local county level, the government is planning to spend \$16.5 Billion USD to the 2,000 local county hospitals and 2400 community health centres etc.

China public hospitals funding from the government is still limited. Even though they are public hospitals, they are still for profit. Hospital staff are paid based on the income they generate each year. The rebalancing of hospital revenue sources will stimulate the device growth. Currently prescription drug contributes to >50% of the hospital income. Hospitals are under the government policy pressure to reduce the percentage of drug income. Income from treatment, diagnosis and consumables are at 14.4%, 13.3% and 9.9% respectively. Their slices of the pie will increase in the future as a result, which in turn will stimulate the demand for medical devices and consumables.

The government has released a series of policies and funds to support the innovation in China and encouraging the transformation from “made in China” to “R&D in China”. The focus of the government is in high end diagnostic equipment, high value consumables, wearable devices, medical robotics, bio 3D printing, mobile healthcare solutions and multi-function stem cell.

In conclusion, China medtech industry has high growth ahead. More consolidation and platform type of companies will emerge as a result of both domestic companies and multinationals M&A, organic growth, and strategic partnership etc. Medtronic is one of

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the biggest acquirer with a long history in China. In 2007, Medtronic invested \$221 million USD in Weigao. In 2012, Medtronic acquired China Kanghui Holdings with \$816 million USD for its orthopedic business. Medtronic has made a few other small scale investments across its key focused product areas: diabetes, digestive disease, urology, neuro, cardiovascular, implantable consumables, artificial heart, pain treatment etc.

Please email us at info@chinameddevice.com for more in depth analysis of China medical device industry.