Domestic hospitals M&A review in China 2013–2018

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Introduction — Description of data used in this report

• Data used in the report are based on information provided by the Qingke Database, Thomson Reuters and PwC Analysis, unless otherwise noted;
• Qingke Database and Thomson Reuters only record transactions announced publicly, and some transactions that have been announced may not be completed;
• Some transactions’ information or amount are not disclosed, which affects the comprehensiveness and trends of our analysis to a certain extent. Especially in some hospital investments, only limited information is disclosed due to the sensitivity of the transaction information.
• The number of transactions mentioned in the report refers to the number of transactions announced, regardless of whether the transaction amount is disclosed;
• The transaction amount mentioned in the report only includes the transactions for which the amount has been disclosed (referred to as “the disclosed amount” in the report);
• “Domestic” means within the area of mainland China; and
• “Overseas” refers to the Hong Kong Special Administrative Region, the Macao Special Administrative Region, the Taiwan region and other overseas countries and regions.
Introduction — Industry description

• Hospital: A medical institution that provides medical and healthy services to the public. The hospitals in this report refer to general hospitals and specialised hospitals (including dentistry, plastic surgery, maternity and child, ophthalmic clinics, etc.), which are also the key analysis objects of this report;
• Other medical institutions refer to medical and health care institutions other than hospitals, mainly medical examination centres, medical care, rehabilitation institutions, etc.;
• Online medical services refer to Internet-based health care services, including health education, medical information inquiry, electronic health records, disease risk assessment, online disease consultation, electronic prescription, teleconsultation, and remote treatment and rehabilitation.
Hospital M&A transaction overview 2013–2018

The investment amount in this analysis does not include that of the 120 undisclosed transactions. Source: Qingke, Thomson and PwC Analysis

The average transaction size is about Rmb210 million (Rmb123 million for 2018).

The disclosed annual transaction size is Rmb132.1 billion, and 2018 saw a transaction size of Rmb224.1 billion.

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Main invested sectors

Specialised hospitals are the main category among invested hospitals.

Main investors

Domestic hospitals are invested mainly by strategic investors, with a disclosed investment amounting to Rmb26.4 billion.

Key investment locations

Main domestic areas include Beijing, Shanghai, Guangdong, Zhejiang, Jiangsu, Shandong and Fujian.

Mega-deals

13 deals were sale of over Rmb1 billion, including Rmb50.9 billion.

Number of M&A transactions

764 transactions, of which 199 were carried out in 2018.

Sources: Qingke, Thomson and PwC Analysis
Domestic M&A transactions continue to be active, despite being in the adjustment phase. The number of overseas M&A transactions grew steadily, albeit with an obvious decrease in size.

Based on M&A transactions whose amounts were disclosed, domestic M&A transaction size peaked in 2016. Within this period, the size of private hospital acquisition was larger than that of public hospital acquisition.

Domestic private hospital M&A activities began to gravitate towards specialised hospitals from 2016. During the historical period, the main M&A activities for specialised hospitals were focused on the fields of maternity, dentistry, cancer and ophthalmology.

Among the M&A transactions whose amounts were disclosed, investors consist of private equity and strategic investors. Strategic investors come primarily from hospitals, medical management groups and general enterprise.
Overview of M&A Activities in the Medical and Health Industry
After the rapid growth of M&A activities in the healthcare industry in 2016, there were only three overseas mega-mergers with a size of over Rmb2 billion in 2017-2018. Therefore, the overseas M&A amount dropped significantly in 2017 and 2018 compared to that in 2016, while only a slight reduction was observed in the size of domestic hospital M&A transactions.

- In 2018, the largest overseas M&A transaction was the offer made by Fosun Health Holdings to the Indian medical service chain giant, Fortis Healthcare, to acquire no more than 25% of the shares for less than USD350 million.
- In 2017, the largest overseas M&A transaction was the acquisition of an 80% stake in Mivip Healthcare Holdings by Hongxiao Technology, with a consideration of no more than USD300 million. The Target mainly engaged in the medical management, service and investment.

The investment amount in this analysis does not include that of the 120 undisclosed transactions. Source: Qingke, Thomson and PwC Analysis
Domestic hospital M&A has exceeded Rmb58.5 billion, with Beijing topping the charts in terms of region. Guangdong, Sichuan, Jiangsu and Zhejiang, where medical reform is underway with distinctive models, also recorded sharp increases. However, the increased competition there has caused investors to turn to Anhui, Heilongjiang, Shanghai and Hubei. In terms of outbound M&A, Hong Kong contributed largely to the number of transactions, in addition to Australia’s mega-merger in 2016.

The investment amount in this analysis does not include that of the 120 undisclosed transactions.

Source: Qingke, Thomson and PwC Analysis

The largest overseas M&A transaction in China is the acquisition of a 50%-70% stake in GenesisCare, Australia's largest cancer and cardiovascular service provider by China Resources Group in 2016, with a transaction amount of 1.7 billion Australian dollars.
Current Situation of Domestic Hospital M&A Activities
Driven by social investments and policies, hospitals’ investments can be divided into three phases: the preparation phase, the peak phase, and the adjustment phase. The preparation phase reflects mainly the effects of various favorable policies. With the increase in hospital M&A, the transaction size reached a peak in 2016, and then remained broadly stable in 2017 and 2018. The disclosed hospital M&A transaction amount totalled Rmb144 in 2018.

2013-2018 Domestic Hospital M&A Transactions (by Target System)

The investment amount in this analysis does not include that of the 84 undisclosed transactions. Source: Qingke, Thomson and PwC Analysis
After the increase in domestic hospital M&A in 2016, the transactions size (as disclosed) in 2017 and 2018 declined. Specialised hospitals, in particular, were a popular target in 2016-2018, with transaction size having reached Rmb8.2 billion in 2018. The investment amount for both the general hospital and medical management groups totalled Rmb5 billion and Rmb1.3 billion respectively in 2018, lower than that in 2017. The number of transactions in general hospitals remained stable in 2018, and while that of medical management groups fell.

2013-2018 Domestic Hospital M&A Transactions (by Target Type)

The investment amount in this analysis does not include that of the 84 undisclosed transactions.
Source: Qingke, Thomson and PwC Analysis
Unrated hospitals are mainly specialised hospitals, medical management groups, private general hospitals and smaller public general hospitals. Due to the decline in the transaction size for medical management groups and private general hospitals in 2018, the disclosed transaction amount for the unrated hospitals plunged 47% from that in the previous year. On the other hand, level 2 specialised hospitals and level 3 local central hospitals were favored by investors, evidenced by the larger disclosed transaction size in 2018.

2013-2018 Domestic Hospital M&A Transactions (by Target Rating)

The investment amount in this analysis does not include that of the 84 undisclosed transactions.

Source: Qingke, Thomson and PwC Analysis

- 2018 typical level 3 hospital transactions: 1) Fosun Pharma invested in Foshan Chancheng Central Hospital with a transaction amount of Rmb 750 million.
- 2018 typical level 2 hospital transactions: 1) Hillhouse Capital Group led the investment in Aier Eye, with a transaction amount of Rmb1.72 billion; and 2) CICC led the investment in Concord Medical with a transaction amount of Rmb1.5 billion.

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Among specialised hospitals, maternity hospitals came in top in terms of cumulative transactions in 2018. However, as investments in maternity hospitals have become saturated, other specialised hospitals with high technical barriers and high value, such as ophthalmology, cancer and brain science, have started to gain popularity among listed companies and medical groups. In contrast, investments in maternity, dentistry and plastic surgery decreased in 2018, due to the low technical barriers and fierce competition.

2013-2018 Transaction Size of Domestic Specialised Hospitals

The investment amount in this analysis does not include that of the 33 undisclosed transactions. Source: Qingke, Thomson and PwC Analysis
Financial investors and strategic investors have different purposes for investing in hospitals. Financial investment is driven by profitability. With the support of government policies, PEs are optimistic about hospitals’ profitability of disclosed transactions amounted to Rmb5.9 billion in 2018. Strategic investment, on the other hand, is driven by the integration of resources and synergy, with the intention to take control or participate in hospital management, and investors being mainly medical groups and listed entities. The disclosed transaction amount in 2018 dropped 5% from that in the previous year.

2013-2018 Domestic Hospital M&A Transactions (by Investor Type)

The investment amount in this analysis does not include that of the 84 undisclosed transactions.
Source: Qingke, Thomson and PwC Analysis
Following the increase in M&A of large medical groups in 2016, transactions driven by large medical groups fell in 2017 and 2018, due to the impact of the financing environment. In 2018, investments in domestic hospitals were mostly from small and medium-sized medical groups and the amounts remained stable compared with that in the previous year. Listed companies continued to be the key investors in hospital investment. Meanwhile, pharmaceutical groups have also become a major player in hospital M&A transactions.

2013-2018 Domestic Hospital Strategic Investment M&A Transactions (by Strategic Investors’ Industry)

The investment amount in this analysis does not include that of the 51 undisclosed transactions.

Source: Qingke, Thomson and PwC Analysis
Specialised private hospitals continue to be the major targets in 2018 due to their high profit levels and easy duplication. The number of large M&A transactions (>Rmb100 million) has increased significantly, amounting to Rmb7.7 billion. General hospitals were favored by listed companies in 2017 and 2018, with the transactions totalling Rmb3.5 billion and Rmb3.2 billion respectively. Medical groups saw a significant reduction in both deals size and numbers in 2017, due to the difficulties in integration, differentiation, and duplication.

2013-2018 Domestic Private Hospital Investments (by Private Hospital Type)

The investment amount in this analysis does not include that of the 84 undisclosed transactions.

Source: Qingke, Thomson and PwC Analysis
IPO Analysis of Hospitals
In the past six years, hospitals and other medical institutions were listed mostly on the Hong Kong Exchange (HKEX) and the National Equities Exchange and Quotations (NEEQ). In particular, the HKEX has become a popular choice for listing due to the large number of successful cases and the relatively high financing amount. In 2018, funds raised from HKEX increased by Rmb6.4 billion as compared to that in 2017, largely as a result of the listing of PingAn Good Doctor on HKEX which raised HKD8.6 billion (Rmb7.1 billion).

2013-2018 Analysis of Listing of Hospitals and Other Medical Institutions

- In 2018, PingAn Health Medical Technology Co., Ltd. (hereinafter referred to as PingAn Good Doctor, 1833.hk) was listed on the main board of the HKEX. It was announced that PingAn Good Doctor publicly offered 160 million shares priced at HKD54.80 per share, raising a total of HKD8.564 billion (Rmb7.1 billion).
The major capital market for hospitals and other medical institutions is the HK Exchange. From 2013 to 2018, a total of 15 companies went listed in HK. Influenced by the capital market movement and the cyclical fluctuations of P/E ratio in recent years, both return on investment and return on net assets were observed to decline.

2015-2018 Average P/E Ratio, Investment return and Return of Net Asset Trends of Newly Listed Hospitals and Medical Institutions on the HK Exchange

Data above refer to the semi-annual data from 2015 to 2018, including the average P/E ratio of listed companies (excluding the one with negative P/E ratio), average return on investment and average return on net assets. As most companies have not yet disclosed 2018 annual report, December 2018 data was not listed.

Source: Qingke, Thomson and PwC Analysis
The 15 medical institutions listed on HKEX in 2015-2018 experienced a decline in average P/E ratio, return on investment and return on net assets after their listing, affected mainly by the “Two-Invoice System”, “Nil margin of medicines” and “Limited Medical Insurance Fee”, resulting in an extension of hospital investment payback period. The historical acquisitions were relatively overvalued and previous investments need to be digested.

2015-2018 Average P/E Ratio, Investment Return and Net Asset Return Trends of Newly Listed Hospitals and Other Medical Institutions

Between 2015 and 2018, a total of 15 medical companies were listed on the Hong Kong Exchange: Universal Medical, Harmonicare Medical, United Medical, Kangning Hospital, MediNet Group, Human Health, Union Medical Healthcare, Kanghua Medical, Hospital Corporation of China, New Century Healthcare, Pine Care Group, Hang Chi Holdings, Fameglow Holdings, PingAn Good Doctor, and C-MER Eye Care.

Source: Qingke, Thomson and PwC Analysis
In the recent six years, medical institutions selected Hong Kong as their primary choice for accessing the capital market, while several small medical institutions chose to list on the NEEQ. Affected by the policy environment, few medical companies were listed in the A-share market, even with high valuation and high liquidity.

<table>
<thead>
<tr>
<th>Market</th>
<th>No. of companies listed between 2013 and 2018</th>
<th>P/E ratio</th>
<th>Fund raised (RMB)</th>
<th>Main advantages/ disadvantages</th>
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<tr>
<td>A-share</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>High P/E ratio; liquid market. Only a few companies have been listed on A-share in recent years as a result of special regulatory requirements.</td>
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<td>Hong Kong</td>
<td>16</td>
<td>14-72</td>
<td>17.179 billion</td>
<td>Mainly through either direct issuance of H-shares or red chip approach: 1) The red chip approach requires establishment of overseas structures mired in complicated legal and fiscal issues, but generally does not require a pre-approval by CSRC. 2) Direct H-share issuance does not need to set up overseas structure or arrange domestic restructuring, but it does require approval from China securities regulatory commission. Currently full circulation of H-shares is still in the pilot stage, which is a disadvantage for H-share issuance.</td>
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<tr>
<td>USA</td>
<td>1</td>
<td>37</td>
<td>652 million</td>
<td>The US has a highly mature capital market. As the world's largest medical industrial market, the United States has a large number of listed medical concept shares. However, cost of listing and compliance is typically high. Also, there is uncertainty in market attitude towards Chinese concept stocks.</td>
</tr>
<tr>
<td>NEEQ</td>
<td>37</td>
<td>N/A</td>
<td>N/A</td>
<td>Relatively high listing speed; the listing standard is lower than that of other markets. It is a potential option for those not yet qualified to go IPO on other capital markets. However, the capital raised is usually limited and liquidity is relatively poor.</td>
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Note: Due to the limited liquidity of NEEQ, P/E ratio is not easily comparable, we also excluded them from the table above.
Considerations and Expectations
Considerations of hospital investment

Private hospital investment is still in the primary stage

• Unless there is a significant change in external environment or policy, the current hospital investment is in the adjustment period and will continue for a while;

• The use of market capital to develop hospitals and enhance the quality of medical treatments still has a long way to go.

• Private hospitals have to focus on improving quality and conduct for development. Pure capital injections may not work in the short term.

Current situation and weak points of hospital investments

With the reform of the medical system, people’s demand for medical care is changing. As the main body of medical services, public hospitals are in a struggling phase, and market capital is still in the stage of development and adjustment. Although all parties actively participate in the establishment of hospitals, they still need to follow the rules of market-oriented development in the process of hospital construction, and focus on the following points:

• With the advance of the medical reform policy, there are some bottlenecks in the reform process. The reform of public hospitals, the development of social capital running hospitals and the health service industry make up the trends of the medical reform.

• It is necessary to establish an effective mechanism to deal with the contradiction between hospital operation and investment return.

• At present, most of the directors of domestic public hospitals are professional and technical personnel, who lack experience in hospital operation and management. It is necessary to strengthen management training of the hospital leadership;

• The core of medical quality and medical service is doctors and medical staff. In the current practice of medical reform, insufficient attention has been paid to improving the satisfaction of medical staff.

• Medical services need to be extended. Hospitals involve patients, doctors, general hospitals and specialised medical institutions at all levels, pharmaceutical enterprises, insurance, etc. The current medical or health services are separated from each other, lacking overall treatment and one-stop service for patients, as well as an effective mode of hospital group management.
Considerations of hospital investments

The following have to be considered in hospital investments:

• Contradiction in management process: Investors' expectations on the process of hospital investment and integration are simplified, but the actual operation and management process of the hospital are complicated, and the investment and integration costs may exceed investors' expectations.

• Contradiction in concept: Investors usually consider the profitability, return on investment and payback period. However, hospital management is usually focused on public welfare, popularity, number of patients and income.

• Contradiction in goal: The investor's goal is to make profits. Hospital management, on the other hand, seeks hospital goodwill and development. Medical personnel aim at increasing their professional level and career development. Patients look for efficacy, while the government works to provide social support and aims for contribution of hospitals to the city. In short, all parties may have a certain conflict of interest in their goals.

• Continuous capital investment and harvesting mechanism: Investors hope to invest less capital and obtain higher returns at short period. The hospital management, in contrast, would require higher capital investments to improve the overall level of the hospital and equipment construction. Investors hope to get their money back in the short term, but hospital investments tend to be long-term and permanent.
2019 Expectations

- We believe that unless there are major changes in the economic environment and policies, the investment in the hospital industry will be in a continuous period of adjustment. The investment focus is on the private specialized hospitals, the divest of state-owned hospitals, and the re-transaction of hospitals (resell, investment disputes, poor operation of main business and bad assets caused by capital problems).
  - Amid the increased competition in specialised hospitals and the deepening of social capital investment, more investors have begun to focus on the specialised service fields such as cancer, ophthalmology and brain with high technical barriers, long service cycle and high added value of services.
  - Non-medical enterprises (such as real estate, insurance and internet technology companies) and financial investors will become the main force of investment in the medical industry.
- With the government's promotion of private medical institutions, the growth of private medical institutions and the intensification of market competition, along with the pilot transformation of old and new driving forces by the nation, mergers and acquisitions of private and specialised medical and health industries are expected to become more active in the future.
- Hospital acquisition trend has been shifting from the medical care industry to hospital management and integration, and the concept of value investment has become more popular. Some listed pharmaceutical groups build or acquire hospitals to achieve their optimal cost after laying the foundation of medicine, logistics distribution, medical equipment and medical technology. We also see that private equity funds pay more attention to the profitability and professionalism of hospitals, so specialized fields with high technical barriers will be favored in 2018 and the future.
- Due to the scarcity of high-quality hospitals in the M&A market, the acquisition premium is high and affects the fluctuation of the transaction volume/amount of hospital M&A. We expect that in the future, thanks to the increase in the proportion of private hospitals and the support of national policies, the resources of hospitals entering the merger and acquisition market will expand, and the number of reorganized and re-transactive hospital mergers and acquisitions will increase. The overall number of hospital mergers and acquisitions will continue to grow, and there may be large transactions, but the average transaction volume may decrease.
- The addition of artificial intelligence technology will have an in-depth impact on medical technology and diagnosis, and provide more investment space for the investment in the medical industry.
Data collection methods and disclaimers

The data in this presentation and press release may differ from those in previous press releases. There are three main reasons: when the deal is finalised or completed, the Qingke Database and Thomson Reuters regularly update their historical data; PwC excluded deals that were not, in essence, a transfer of control but closer to an internal restructuring; PwC's previous data came from a different source.

### Transactions include:
- Change of control resulting from acquisition of listed and unlisted companies
- Investments in listed and unlisted companies (an at least 5% ownership)
- Company merger
- Leveraged buyouts, management buyouts, management sales
- Privatisation of enterprises
- Offer
- Spin-off
- Splitting of wholly owned subsidiaries through listing
- The divestment of companies, departments and operating assets has led to changes in control rights at the parent company level
- A reverse takeover
- Re-capitalisation
- The joint venture was bought as a whole
- A joint venture
- Receivership or receivership and auction
- Tracking stock

### Transactions exclude:
- Real estate in a property/individual property
- Rumored deal
- The option to acquire additional equity issued without the acquisition of a 100% equity
- Purchase of the right to use trademark
- Land acquisition
- Fund market share raising
- The purchase of shares in a mutual fund
- In the process of non-enterprise privatization, shares of listed companies are repurchased or cancelled in the open market
- Balance sheet restructuring or internal restructuring
- Investment in new projects
- Delisting of listed companies
Thanks