

THE FUTURE DEVELOPMENT OF THE GLOBAL PHARMACEUTICAL CLUSTERS

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We estimate that the three largest pharmaceutical clusters today (measured by employment in pharmaceutical headquarters, offices and research facilities) can be found in the areas around London, New York and Zurich/Basel. The large pharmaceutical firms tend to have offices and distribution facilities all around the world but currently they base the majority of head office functions in these clusters.

We expect that the key global trends affecting the pharmaceutical industry will be rising prosperity and demographic shifts. The former will provide a growing market for pharmaceutical products as wealthier households especially in emerging markets will buy more healthcare or demand greater government provision.

The effects of demographic shifts will be more complex. Aging populations in the developed world and increasingly China, South Korea and other emerging nations will increase overall demand for health related products and services considerably. The mixture of demand will also change. Currently much care is focussed on control of infectious diseases (which disproportionately affect the young and developing nations). This will shift to a focus on management of chronic disease (which affect older people and developed nations more).

Management of chronic disease tends to be far more costly than control of infectious disease (which can often be eliminated through a vaccination costing a few dollars). In a world where the population will be larger, older and wealthier; management of chronic disease will provide an enormous market for pharmaceutical companies.

The world's current largest clusters in New York, London and Zurich/Basel may be well placed to benefit from these shifts – they are already geared to serve the older and wealthier consumers in the developed world; the type of customers who will become more common in the developing world over the next 30 years. The pharmaceutical majors are already increasing their access to emerging markets through direct investment or strategic alliances with, and acquisitions of, generic medicine producers based there.

Another reason we expect the developed world to retain the largest clusters is the importance of linkages between world class tertiary education and pharmaceutical's facilities. Whilst emerging nations are mak-



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ing great strides in developing world class educational facilities, the best university in China is ranked 226th in the world and only one BRIC university makes the top 100 (Moscow State in 77th).

The exception to this rule could be Shanghai. With a growing complement of pharmaceutical offices, and some of the few major facilities outside of the developed world, we believe Shanghai is well placed to be the key cluster serving Chinese and wider regional markets. Investors also share this sentiment; Shanghai has attracted over US\$1 billion in pharmaceutical foreign direct investment over the last five years.

London, New York, and Zurich/Basel will remain major clusters and centres of research excellence in the pharmaceutical industry – however a new centre will be needed closer to the largest markets in Asia. We expect Shanghai to be this centre.

We expect strong growth in each of the pharmaceutical clusters on account of the older and wealthier world population. London and Zurich/Basel are projected to roughly double in size by 2040. We see New York more than doubling in size as its strong academic linkages and ability to attract both foreign and domestic investment in the sector mean that it is the best placed of the three developed market clusters.

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