

Life Science Sector: US vs EU

By Enrico Braglia

A revolution is taking place in life sciences, opening up new applications, as well as new scientific discoveries. This is happening globally. Novel applications, such as gene testing (the use of genetic tests to determine genetic conditions or the chances of developing or passing on a disorder) and tissue engineering/regenerative medicine (the combination of scaffolds, cells and biologically active molecules into functional tissues or organs) will profoundly impact our life by either providing "spare parts" for damaged tissues or whole organs, but most importantly providing artificially created organs to be used as proving grounds for new therapies.

The world's population is living longer and needs innovative healthcare approaches. There are still no known cures for half of the diseases, and even present treatments such as antibiotics are becoming less effective due to bacterial resistance.

Life sciences, and biotechnology in particular, are shifting disease management towards both personalized and preventive medicine, targeted screening, diagnosis and innovative drug treatments. Pharmacogenomics, which applies information technology to the human genome, is helping drug design, discovery and development and will further support this radical change.

Cancer immunotherapies, gene therapies and rare diseases (a disease or disorder is defined as rare when it affects fewer than 1 in 2000 people) (define a little more) treatments have gained greatest investor interest. The life science market grew steadily in the last 20 years (+5% y/y in 2016). Thousands of companies and hundreds of new ventures are entering this arena every year, making it a very complex environment. Moreover, the financial crisis and the government pressure on healthcare costs boosted even more the volatility of the market.

The United States and Europe have been amongst the leading players in the field of biotechnology. However, the profile of the biotechnology sector in these two continents remains deeply different, as a result of distinctive regulatory systems and public attitudes. The majority of European biotechnology companies are located in Germany, the UK, France, Benelux, Switzerland and the Scandinavian countries.

Overall, the European biotechnology industry still lags behind that of the United States. In the US, life sciences and biotechnology have grown vigorously and have found an enthusiastic uptake. Over the past few years we saw emerging countries, such as China, India and Singapore, invest heavily in life sciences and quickly closing the gap.

Regarding the life science sector in Europe, the following factors have contributed to the lag behind the US:

- Lower level of government investment in basic research and grants
- Higher growth rate of the healthcare markets and higher pricing policy in US versus Europe
- European social security systems pushing for cheaper generics
- Complex and fragmented regulatory environment in

Europe

- Investors higher risk aversion and the lack of risk capital

Much of this can be explained by the fact that it is easier for US companies to raise money from the US financial markets and especially in the form of venture capital, equity and debt financing.

The differences in sales growth between the two continents are attributable to market conditions and the willingness of pharmaceutical companies to invest, sustained by higher pricing and reimbursement.

The European life science is also hit by increasing governmental interference and a changing regulatory framework. By contrast, in the United States there has been a steady growth in domestic demand, which the industry has been able to exploit. US companies have been better than their European counterparts at marketing their products internationally.

The impact of the recent global financial crisis on the life science sector is likely to differ between the EU and the US. Many European companies are much younger and less profitable than their US counterparts. The surge of IPO, peaked in 2014 when a total of 106 life sciences companies completed IPOs on US exchanges and only 18 companies did so on European exchanges, confirm this trend. The increased US investor risk acceptance has allowed companies to go public at earlier stage.

These differences confirm the US life science equity market as the most dynamic and rewarding. Of course, picking the right investment needs great expertise that only specialists can guarantee. Evaluating biopharmaceutical companies, especially early stage companies, requires sector and scientific knowledge to correctly factor-in clinical studies data, standard-of-care practices and disease incidence that most of the times make traditional financial indicators deceptive. This is why investors without in-depth knowledge of the industry should be careful in investing or use professionals to drive their decisions.

Life sciences and biotechnology will be, together with information technology, the next wave of the knowledge-based economy, creating great potential opportunities for investors.

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