

The Impact Of The Financial Crisis On The Pharma And Biotech Industries

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The financial crisis currently spreading around the world has exerted negative impacts on both the pharmaceutical and biotech industries. However, the damages it has caused to the two are different. It appears that biotech has been hit harder than pharma. A number of biotech companies have been significantly weakened as the investment shortage resulting from the financial crisis forced them to scale down all activities.

Also, a large number of R&D programs have been either cut or put on the shelf. On the other hand, even though they are not directly affected financially by the crisis, many major pharma and biotech companies have been vigorously strengthening their capabilities and paying more attention to efficiency, cost-effectiveness, and productivity as demonstrated by many of the latest megamergers. For both industries, a common consequence of the current financial crisis is that a large number of professionals have lost their jobs or are under the threat of restructuring actions.

As the impacts of the crisis are presently spreading wider, professionals in all related industries have become more and more anxious. What damages the crisis has caused to these two industries and whether the crisis is close to the bottom have become the two major concerns of all of these professionals.

ARE WE SEEING THE BOTTOM OF THE CRISIS YET?

Table 1 summarizes the number of pharmaceutical and biotech companies that announced restructuring plans between September 2008 and April 2009. According to our study, in these eight months there were a total of 120 companies in both biotech and pharma industries that announced restructuring plans. The lowest monthly number of companies that announced restructuring plans occurred at the beginning of the crisis (only one company). The highest occurred in January (about 30 companies). It appears that the most significant panics displayed by the whole industry about the impacts of the crisis are over now.

However, although the number of companies that announced restructuring actions has been gradually decreasing since January, mergers between major companies and small

biotech companies, as well as acquisitions of small companies by big ones, are actually increasing. This is also confirmed by the latest literature data in which the number of mergers and acquisitions and the combined values of these activities in the first quarter of 2009 far exceeded those in the whole year of 2008.

According to our results, during these eight months, there were a total of 120 companies that announced restructuring plans, including reprioritizing their programs and reduction of workforce. The percentage of workforce reductions ranged from as low as 3% to as high as 93%. In addition, 7 companies also filed for bankruptcy protection. Among the 120 companies, 100 are small biotech companies and 20 are major pharma or biotech companies. In addition, about 10 of them are outsourcing service providers.

Table 1

Month Observed	No. Of Companies That Restructured
Sept. 2008	1
Oct. 2008	8
Nov. 2008	14
Dec. 2008	13
Jan. 2009	30
Feb. 2009	23
March 2009	19
April 2009	12
TOTAL	120

DAMAGES CAUSED SO FAR

It seems small biotech companies, in particular those still in the early stages of discovery and development, were hit hardest by the financial crisis. Due to the nature of their business, R&D-oriented small biotech companies are most sensitive to the change in the financial/funding environment. This is well reflected by the following numbers:

- Much higher percentages of biotech companies announced restructure than major pharma or biotech companies. For example, there were 32 out of 36 biotech companies (89% total) that announced restructuring actions in the last four months of 2008, whereas only 4 (or 11%) major companies announced restructuring plans during the same time period (see Table 2).
- More small biotech companies announced big cuts of workforce. For example, in the last four months of 2008, 6 (or 16%) biotech companies announced more than a 50% reduction of their workforces and 10 companies (or 27%) cut more than 1/3. (None of those major ones would cut that much!)
- The high percentages of workforce reductions by small biotech companies still continued in the first four months of 2009. For example, 9 (or 11%) of them announced more than a 50% reduction of their workforces, and 21 companies (or 26%) cut more than 1/3 during that time period.

As the economic crisis dragged on, more and more companies — both small biotech and major pharma — were feeling the impact. For example, in the first four months of 2009, the total number of small biotech companies that announced restructuring plans was doubled compared with the last four months of 2008 (33 in 2008 vs. 66 in 2009). The number of major companies that announced restructuring plans was even quadrupled during the same time period (4 in 2008 vs. 16 in 2009).

Also as the crisis was going deeper, more job positions in both industries were eliminated or slated for elimination. However, major companies began to cut much more than the small biotech. For example, in the last four months of 2008, the total workforce loss was only about 6,500, but it jumped to more than 42,000 in the first four months of 2009, an increase of 543% (Table 3). The main contributions were from the announcements by big companies including AstraZeneca (6,000 announced in early January), Pfizer (10,000 announced in early January), Roche (1,500 announced in early March), Hospira (1,400 announced in late March), Cardinal Health (1,300 announced in early April), Johnson & Johnson (900 announced in early April).

R&D REPRIORITIZATIONS

In addition to the workforce reduction, almost all these affected biotech companies also took actions to reprioritize their R&D programs. Most of them completely cut early stage programs, including those still in discovery and preclinical research. Some even planned to close their R&D facilities or put their programs on idle. Their focus now is only on those programs in development stages. However, the degree of focus on the development programs still varies, totally depending on how much cash reserves each

has on hand. Most companies also cut early stage clinical research such as phase I trials and now focus on middle stages such as phase II. As for phase III, because it is the most expensive research, some companies just suspend it and seek codevelopment with a big pharma or biotech company.

Table 2: Analysis Of Damages By The Financial Crisis

Items Observed		Sept.- Dec. 2008	Jan.- April 2009	Total No. of Companies (%)
Type of company	Major	4	16	20 (17%)
	Small Biotech	32	68	100 (83%)
	Total no. of companies (%)	36 (30%)	84 (70%)	120 (100%)
Number of companies announcing workforce reduction of > 50%		6 (16%)	9 (11%)	15 (13%)
Number of companies announcing workforce reduction of > 1/3		10 (27%)	21 (26%)	31 (26%)
Number of companies having filed bankruptcy protection		4 (11%)	3 (4%)	7 (6%)

In addition to R&D prioritizations, seven companies filed for bankruptcy protection. A similar number of companies are seeking alternative business strategies including liquidating.

ACQUISITIONS OF DRUG CANDIDATES

In stark contrast to the cutting of programs by small biotech companies, major pharma companies are planning to acquire more drug candidates that are in advanced development stages from biotech companies. Three reasons can explain this phenomenon: 1) These major companies still have strong cash reserves; 2) those small-sized but financially troubled biotech companies are now forced to give up their ownership; 3) these interesting drug candidates now become much cheaper than before as these cash-short biotech firms have lost their bargaining power. Consequently, the drug pipelines of these major companies will have become significantly enriched in the near future. A typical example is the latest acquisitions by BMS of two late-stage cancer drug candidates, XL184 and XL281, from Exelixis, which announced a 10% workforce reduction one month prior to the acquisitions.

Table 3: Workforce Loss During Sept. 2008 - April 2009

Items Observed		Sept.- Dec. 2008	Jan.- April 2009	Total no. of Positions lost (%)
Type Of Company	Major	5,190	37,974	43,164 (89%)
	Small Biotech	1,355	4,096	5,451 (11%)
Total Number Of Positions Lost (%)		6,545 (14%)	42,070 (86%)	48,615 (100%)

WHAT CAN BE LEARNED FROM THE CRISIS?

Although a financial crisis like this is rare, it provides a great opportunity to all professionals in the pharma and biotech industries to seriously think about how they could do things differently and better in the future. Our studies revealed the following lessons may be learned from this crisis:

In the near future, many VCs (venture capitalists) will become more skittish about investing in R&D-oriented drug discovery companies because they realize the high risk of this business. Instead, they will be more inclined to invest in less risky sectors such as molecular diagnostics and biomarkers as it takes much less time and money to commercialize a product in these areas. These investors will also show more interest in outsourcing service providers as these companies generally have strong revenue performance. This situation should serve as a strong reminder to R&D-oriented biotech companies to more diligently plan their budgets and use funds more wisely than in the past.

The ultimate goal for pharma and biotech companies will be to get a drug discovered faster, developed quicker, manufactured more cheaply, and marketed more widely. To this end, large companies should pursue more cost-effective and productive operation models, whereas small biotech companies should pursue virtual or semivirtual operation models to avoid building fixed facilities and save as much cost as possible at the beginning of their operations.

Megamergers between major pharma/biotech companies will create fewer but bigger companies. They will become more capable in R&D and stronger in product pipelines. The widespread restructuring actions taken by many small biotech companies and the subsequent mergers and acquisitions between them will also dramatically change the landscape of the entire biotech industry. There will be fewer biotech companies, R&D

programs, drug candidates in early discovery and/or development stages, and technically experienced researchers in the field. In the near future, major pharma companies will very likely again have found it hard to find ideal drug candidates to acquire/license. A cycle of drug candidate shortage may occur again by then. Therefore, while putting more efforts on development at present time, major pharma/biotech companies should also pay attention to cultivating those early discovery programs, as it will take time for these programs to become fruitful.

In summary, both the pharmaceutical and biotech industries have been significantly altered by the current financial crisis. However, questions still remain unanswered as to how long the recovery process of these two industries will take, whether they will be able to return to their original state, and, if not, what they will become.

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