Viewpoint: Pharma Industry Myths

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Amidst the voluminous commentaries, blogs, tweets, panels and papers about the future of the pharma industry, in some circles certain thoughts seem to be becoming articles of faith:

1. Pharmaceuticals will always remain a growth industry.
2. Use of novel therapies reduces health care costs.
3. Investment in innovation is the route to salvation.

We believe the first of these to be simply wrong, the second to be disingenuous and the third to be potentially correct but only in limited circumstances.

Will pharma always remain a growth industry?

It is clear that the era of global double-digit growth of Rx markets is behind us, but current (2011) IMS forecasts still predict growth in the 3-6% per annum range over the next five years. This is down from the 5-8% IMS forecast issued one year previously. In parallel, forecasts of global GDP growth have been trimmed with World Bank estimates of 3.2% in 2011 before firming to a 3.6% pace in each of 2012 and 2013.

For over 60 years, pharmaceutical industry growth has comfortably exceeded GDP growth, both on a global and a developed country basis. Similarly impressive growth is being experienced in the BRICs and other developing markets, although the profitability of that growth is said to be a fraction of that enjoyed during the 'golden years' of western pharmaceutical markets, not least due to the greater prominence of generics in the product mix.

Some argue that the fundamentals for growth remain intact: there are very high unmet medical needs, growing elderly populations with escalating health issues and burgeoning middle classes around the world with the resources to pay for modern healthcare. All this is, of course, quite correct, but we still believe that it is no more sustainable for a single industrial sector such as pharma to show consistent growth above GDP than it is for a single national economy to maintain a fiscal deficit over the long term. At a certain point, basic economic principles override exuberant spending, and for pharma this means that at some point growth will no longer be assured.

To set this into context, according to OECD figures overall US healthcare expenses (i.e. not just pharma) have grown virtually linearly from 5.1% in 1960 to 17.4% of total GDP in 2009. A recent news report stated that it reached 18.2% percent in June 2011. Unchecked at this rate, healthcare would account for over 50% of the total US economy well before the end of this century. This is a scenario that no one believes could be tenable, and it is accepted that we are at (or possibly past) a maxing-out point. Within this, say the pharma optimists, are opportunities for the pharma industry to gain a higher relative share of the total healthcare bill. In other words, healthcare as a whole may stand still or shrink, but within it, the pharma sector will prosper because the use of novel therapies can reduce overall healthcare costs so will substitute for more costly resources.

Do novel therapies reduce health care costs?

The answer to this question is both 'yes' and 'no'. Yes, there are many examples where new treatments are much more cost effective than

their predecessors. Historically, introduction of H2 antagonists such as cimetidine and ranitidine in the 1970s/80s replaced inefficient, risky and costly gastric surgery for treating stomach ulcers. There was a very favourable cost-benefit ratio.

In the cardiovascular field, analysis of the Framingham Heart Study quantified the impact of antihypertensive therapy changes on blood pressures and the number and cost of heart attacks, strokes and deaths. Without antihypertensive therapy, 1999–2000 average blood pressures (at age 40+) would have been 10–13% higher, and 86,000 excess premature deaths from cardiovascular disease would have occurred in 2001. This generated a benefit-to-cost ratio of at least 6:1, supporting the premise that novel therapies can reduce costs.

On the flipside, however, the healthcare system only reduces overall costs if, in the example of ulcer surgery, the introduction of drug therapy led to a reduction in the number of surgeons employed and closure of operating theatre capacity. If the effect of removing ulcer patients from surgeons' workloads is simply to liberate the surgeons to perform operations on other patients (e.g. on a waiting list), no money will have been saved overall – in fact, there will have been a net increase in the total budget!

Similarly, the argument that spending $50-100,000 on cancer therapeutics saves more expensive healthcare support costs could be convincing – if the levels of oncology drug efficacy matched that of cardiovascular drugs. But simply extending overall survival by three to six months and merely postponing the expensive healthcare support costs is not going to save anybody's healthcare budget.

Is innovation the route to salvation?

We firmly believe that innovation in pharmaceuticals can pay handsome rewards – providing that the level of innovation is high enough. Much of the furore around oncology drugs stems from companies selling drugs with 'incremental' benefits at 'radical' price levels.

Innovation will only pay in the future if it is genuinely radical. In practice, this means that pharma and biotech companies should stop work on all projects as soon as it becomes apparent that benefits will fall short. Put simply, if phase II results are anything other than spectacular, it is not worth thinking about phase III – there has never been a product where the signal became stronger between phases II and III.

This would save a vast fortune of late-stage development and product launch expenses, would unclog regulatory pipelines and could offer a genuine salvation to the 21st century pharmaceutical industry.