

Valuation in portfolio management

Throughout the course of my career, I have been involved in a wide range of portfolio decisions and continue to be involved in them today. Over the years, it has been observed that despite cultural differences, pharma teams face similar problems. Portfolio management includes multiple challenges surrounding capital allocation, optimisation and prioritisation. As portfolio activities fundamentally rise above decisions across the entire organisation, decisions in this matter turn out to be critical.

By Dr Michel Azoulay

The shift in big pharma's resource allocation to improve operational and capital efficiency is entirely reflected in portfolio management (PM). Following the imperative to transform pharma business models, companies now focus on revenue growth and profitability and overcoming the complexity of portfolio management.

The valuation and uncertainty of innovation

In recent times, valuation became the holy grail of portfolio management with financial maximisation being the ultimate goal. Valuation in the pharma industry is most of the time based on rNPV (risk adjusted net present value). Other techniques such as ECV (Expected Commercial Value) or scoring model are not commonly used in pharma.

To calculate the rNPV we have to model potential costs and revenues over the lifetime of the drug and also take into account the probability that the drug will succeed in getting on to the market by employing a risk adjusted discount rate. There are other ways to adjust the NPV for risks via Monte Carlo simulation or by employing probabilities to uncertain estimates. The enormous pressure to focus on valuation comes also because valuation brings a rational and quantitative appraisal for each strategic option. It helps to dispassionate the discussion and maintain discipline. There are too many examples of developmental programmes being continued for the wrong reasons (eg, emo-

tional attachment, top management desire, flattering to the investors).

Above all, valuation offers the possibility to have a complete vision of the pipeline on one board and to compare different development programmes and strategic options easily. It helps to 'kill' programmes early and establish pipeline decisions, mile markers along with ROI metrics.

However, valuation is still a representation of the projected reality as we foresee it and not the exact reality. It is easy to take things for granted! Thus, valuation is based on sales forecast approximation, an estimate of market share, competition prediction and above all discounting rates from industry average. Parameters that are difficult to clearly determine early in the life of the compound and which are subject to change in a very fast-paced environment.

Relying only on valuation models can crowd out real innovations for patients, while blocking underappreciated, in-depth examination of other parameters. Do not fall into this trap; it is critical to be cognisant of model limits and remain strategic and smart about resource allocation.

Pure financial approach leads to the poorest portfolio

The portfolio manager should be a value creator, able to inform in-depth the decision-making process on a continuous basis while accepting and embracing uncertainty. He promotes critical

thinking and stimulates ideas about what the numbers actually mean. At the same time he needs to maintain a balance between many different factors and sometimes discriminate between the corporate strategy and drug development strategy.

To better inform and optimise drug development activities, the PM must be able to understand the development process, capture the big picture and question it. Are there biases we should eliminate? Are we able to leverage the right data into actionable insights? Portfolio management is a multiple variable equation that behaves in concert and includes:

Commercial potential

To maximise this factor it is important to consider all the potential indications, regulatory pathways and reimbursement scenarios. Then again don't get hypnotised by the commercial potential. Ask the team; What are the probability of the commercial assumptions and the potential dangers? What is the real value proposition to us?

Probability of success

Depends on the accessibility of technical skills, people and facility and the complexity of the project. For example, without recruiting the right number of patients for the clinical trials it is impossible to meet the programme goals.

Competitive landscape

Breakthrough techniques in drug discovery are giving rise to an unprecedented number of therapeutic opportunities that compete against each other. Sometimes it is very alarming how the management just want to ignore the competition obstinately. Knowing that the durability in the therapeutic arsenal of the drug is directly impacted.

Strength of the science

For example, if you have an established mechanism of action, a deep understanding of how your drug works. You can determine whether there are signs that the mechanism it targets is present in a particular patient and then enrol only those patients in clinical trials. That allows for significantly smaller, less expensive trials – and a higher chance of success. Sustainable portfolio management requires investments in the fundamental science work that drives innovation.

Cost

Pharmaceutical companies are facing pressure from ballooning R&D costs and shrinking health-care budgets at the same time. However, solutions exist; for example using predictive biomarkers may

improve efficacy signals while reducing drug development costs and timelines.

What are the right projects?

Patient need

Differentiation is critical for success in a changing commercial landscape. This necessitates emphasis on innovative targets for unmet patient needs. At the top of the consideration hierarchy for all developmental candidates are fundamental questions, such as “What is its comparative effectiveness to the standard of care?” and “Is there an opportunity for developing the best value proposition?”

How innovative the drug candidate is

There is an increasing occurrence and crowding of innovative activities concentrated on common targets, reflecting capital inefficiency. This dynamic is best illustrated by the oncology area where the industry's developmental efforts are focused on a limited number of cancer targets. Innovation is knowing we do what is right, not what is popular and explored at the same time by 10 competitors.

Development stage

Projects in the portfolio are at different stages and compete against each other for resources. For example when you look at the valuation of different biotechs today, it is interesting to remember that the cumulative probability to reach the market when you start Phase I is 11.7% established by JA DiMasi, *Journal of Health Economics* 2002. It is also a discriminant factor to make choices. Ask the question: Does this project fit in our portfolio?

The scope of rights disposed

Prepare for the fight when competition is testing your progresses, your revenues or your market shares every day.

Time

And last, but not least, time is an essential component of any strategy.

The analytical integrated assessment of the different factors is crucial. When understood thoroughly and used judiciously these factors can improve the diversification of a portfolio and help companies attain the best possible return for a minimum amount of risks.

Given the consequences of these interlinked factors the manager needs not only to recognise the diverse risks, synthesise inputs, drive alignment in complex situations, but also propose contingency plans.

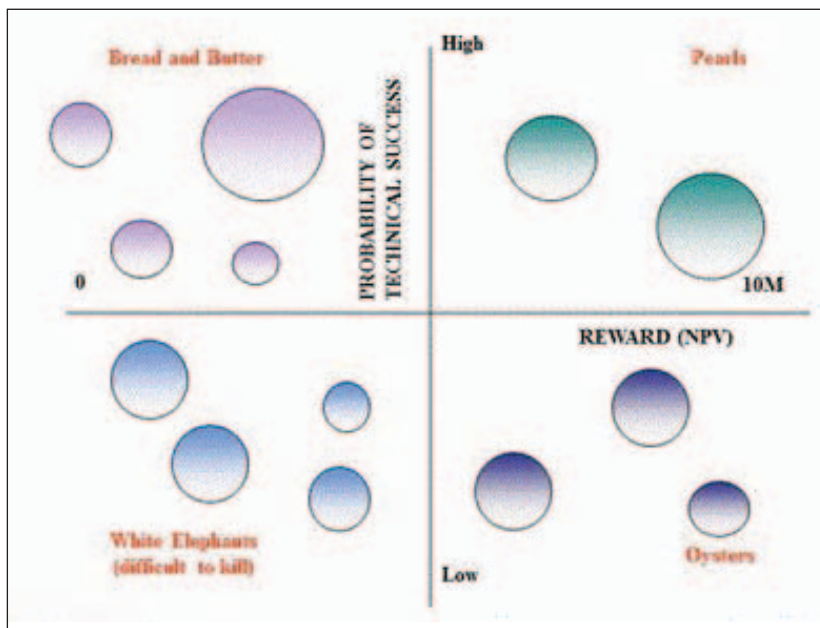


Figure 1
The Risk/Reward/Resources diagram

Shift the dialogue from Go/NoGo to how to mitigate risks

For this purpose he develops constructive relationships across the organisation and external community to provide expert guidance to cross-functional multi-disciplinary teams and senior management. He ploughs the ecosystem to drag the ‘efficient frontier’ and unlock value.

The portfolio needs also to have the right number of projects and a balance between low and high risks projects, across markets and molecular pathways. Otherwise, we are planting the seeds to delay truly innovative science.

Biogen, with \$250 million in savings after cutting 850 jobs, is planning to pour funds into three risky programmes in one of biopharma’s most distressed fields of development, Alzheimer’s disease. Leading the way is aducanumab, a Phase III beta-amyloid antibody that has been criticised by a large part of the scientific community. Behind that is BAN2401, a Phase II antibody with the same target and E2609, a BACE inhibitor so very controversial that Boehringer Ingelheim and many others have put it on hold. In this case, have we struck the right balance of risk? Portfolio management is a dynamic decision process that needs to be constantly updated and revised as new information becomes available.

Means allocation of resources from underperforming to outperforming

This highlights the need to better correlate resource allocation to changing environment (eg, science, patient needs and competitive landscape).

How to balance the portfolio

Another technique that is recommended is to segment the portfolio into different streams depending on different combinatorial factors, challenged by other people from different departments. Figure 1 can be the combination of two to four factors in the same time that may include: Risk/Reward/ Feasibility/Competitive position/Cost/Timing/ Strategic leverage etc...

Moreover, run a sensitivity analysis or what if? analysis. Are we trying to predict something we cannot influence or something we can control, at least in part? Always consider at least three alternatives in all strategic decisions, integrate the trade-off between different scenarios and consider your opportunities to influence the outcome.

Conclusion

The portfolio is the expression of the corporate strategy. Strategic decisions have become more consequential. Strategists must find ways to extract the signals from the noise to leverage data into insights and understand what is over the horizon.

AZ uses an evaluation framework called ‘The 5 Rs’ to assess its R&D projects. “At every stage of every project they ask: ‘Are we pursuing the right target, the right exposure, the right safety, right patient and right commercial opportunity?’”

Multiparameters-driven drug development helps to protect your portfolio and mitigate three key risks:

- Discontinuation in Phase III due to lack of efficacy.
- Failure to win regulatory approval when drug benefits believed not to outweigh risks.
- Commercial disappointment.

These new challenges require a clear portfolio goal, and a willingness to learn the new skills required. We need to build a better partnership between finance and strategy. We need the right balance of shared risk, short-term investment, collaboration and partnerships and to yield the long-term rewards. New perspectives in portfolio management will combine comprehensive risk and scientific acumen to transform operating models and align patient outcomes with financial gains. Companies that feature a systematic and holistic portfolio management process will prevail.

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