
Editorial

The impact of the global financial crisis on biotechnology development

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Most US states and many countries have long been dedicating resources to supporting the growth of local biotechnology industries. Why have they been investing billions of dollars and offering generous tax abatements? To realise the significant societal and economic benefits of biotechnology product development and commercialisation. In times of relative economic strength there may be support to dedicate resources for future returns, but in challenging economic times difficult resource-allocation decisions must be made, and one must question how committed governments and their constituents will be to investing in biotechnology development initiatives.

I was first introduced to the concept of supporting domestic biotechnology for societal gain at a biotechnology conference in a small south-Asian country where a government official was explaining how their budget only permitted the import of a limited quantity of vaccine, produced elsewhere by higher-wage workers. Domestic production promised lower prices (and therefore the ability to purchase a greater quantity of vaccine and protect the health of more citizens) while employing domestic workers and promising knowledge and economic spillovers. In another example, Cuba has been able to obtain much-needed foreign cash through the production and export of valuable drugs. These efforts have not focused on simply pirating drugs patented elsewhere; Cuba developed the world's first meningitis vaccine. Significant benefits also exist for wealthier countries. Knowledge and economic spillovers from biotechnology commercialisation can seep into other industries, and corporate and income taxes from biotechnology companies and their relatively high wage-earning employees can yield returns on government investments to support socially beneficial programmes. Foreign sales of biotechnology products can also remedy trade deficits and therapeutic product sales can be acyclic, supporting the economy when other sectors are weak.

But, in the face of an economic crisis, governments must make difficult resource-allocation decisions. Facing economic and potential political collapse, legislators must make these decisions knowing that their political futures may be at stake. Additionally, tax-paying institutions and individual taxpayers may question giving extensive subsidies dedicated to others at a time when they are facing an acute crisis. Tax abatements for biotechnology companies, for example, effectively mean that other taxpayers are subsidising these firms. For companies at the brink of bankruptcy, and for workers who have been laid off, what is their incentive in supporting companies that may never mature to profitability? As governments face these difficult questions, it will be interesting to see if biotechnology support levels are maintained, increased or withdrawn, and if supportive mechanisms are redesigned to change focus (for example, local

investment by mature foreign firms vs. domestic entrepreneurial growth) or to be more conservative by backing lower-risk businesses.

The biotechnology industry has always faced dynamic challenges. From bans on genetically modified crops and funding bans for embryonic stem cell research to therapeutic price controls and questions about the very patentability of biotechnology products, the commercialisation of biotechnology has always been tested. However, strong companies and strong ideas have persevered over time. It is also important to consider that some corporate churn can also be beneficial. The mass exodus of Hybritech employees following its acquisition, freeing them to start new ventures, is partially credited for seeding the San Diego biotechnology cluster – one of the world's largest.

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