

## The Pharmaceutical Industry of Bavaria

### *Die Pharmazeutischen Industrie in Bayern*

The pharmaceutical industry is a central factor of the German high-technology economy. Research-based pharmaceutical companies are taking a leading role. With 24,000 employees Bavaria's pharmaceutical industry evolved to one of the most valuable German locations of production and research.

Challenging is the cost-containment by the health care reform laws of the last three-and-a-half years. The study, commissioned by Bavarian pharmaceutical companies, investigates their economic impacts via a Satellite account of the System of National Accounts (SNA).

#### Introduction

This study marks the first fact-based analysis of Bavaria's pharmaceutical industry in the context of the Bavarian economy. Its contribution to value added is quantified, its innovativeness is examined and the impact of the latest health reform laws on Bavaria and also the whole of Germany is analyzed and assessed.

That covers data on the overall economic development of pharmaceutical production, as well as foreign trade, the number of employees and price trends, as well as quantification of the economic benefits/costs of the government price reductions for innovative medicines, which are to apply for three-and-a-half years.

The focus is on the following questions:

#### Health industry

*What is the structure and development of the pharmaceutical industry in Bavaria within the framework of the health industry and overall economy?*

Its position in the economic policy context can be defined and the special circumstances of Bavaria compared with Germany as a whole or regionally can be revealed with reference to key economic indicators such as production, employment, value added, and foreign trade. Due to Bavaria's high and increasing economic output, the ratio of expenditure on health and medicines to Bavaria's GDP is below the national average.

Die Pharmazeutische Industrie ist ein zentraler Bestandteil der deutschen Hochtechnologie. Forschende Arzneimittelhersteller nehmen dabei eine führende Rolle ein. Mit rund 24.000 Beschäftigten ist Bayern einer der wertvollsten deutschen Pharmastandorte.

Eine Herausforderung ist allerdings die Kostendämpfung durch die Gesundheitsreformgesetze der letzten dreieinhalb Jahre. Die Studie untersucht deren wirtschaftliche Auswirkungen mittels eines Satellitenkontos der Volkswirtschaftlichen Gesamtrechnungen (VGR) im Auftrag bayerischer Pharmaunternehmen.

The pharmaceutical industry in Bavaria is growing. Unlike in Germany as a whole, its workforce and capital spending are increasing. Nevertheless, its potential share of production, value added and employees relative to the population has still not been used up. As regards revenue growth, Bavaria's pharmaceutical industry has benefited above-proportionately from world market trends. For example, growth in its drug exports was above the national average, resulting in a considerable export surplus. Since there is a rising demand for pharmaceutical and medical engineering products on the world market, there is further growth potential here.

#### Research

*How do research and development expenditures and innovation in the Bavarian health industry differ from those in Germany?*

Research and innovation are the key to international competitiveness. Pharmaceutical companies are the most important funders of R&D in the health economy. Unlike the public sector, the pharmaceutical industry overall has continued to invest despite the financial and economic crisis and has stabilized the research sector.

Around one fifth of the research in Germany is carried out in Bavaria. However, that is not true to the same extent for clinical research by the pharmaceutical industry. Bavaria has the potential to expand research further thanks to its excellent university hospitals and broad scientific capacities.

## Government intervention in prices

*What is the economic impact of cost-containment legislation on the health industry and drug research in Bavaria?*

Under the influence of various cost-containment legislation, in particular the higher compulsory discount and price freeze, the pharmaceutical industry has “lost ground” in the German “growth market of healthcare.” Cost containment impedes investments in the development of innovations, especially at companies with large domestic revenue. Bavaria is particularly hit by that, since the share of domestic sales is higher than the national average.

Although the number of employees in Bavaria’s pharmaceutical industry has risen despite the economic crisis and cost-containment legislation, the growth was much lower than planned. Stagnation in domestic revenues, coupled with the effects of cost containment on cash flow, have significantly curbed research and development expenditure.

In the long term, the negative multiplier effect of cost containment between 2010 and 2013 on the economy will exceed the savings of GKV of an amount of €5.6 billion (above the base amount) and €801 million for Bavaria alone. There will be a negative impact on employment affecting around 99,400 jobs in Germany and 15,700 jobs in Bavaria in the economy as a whole. In other words, without the statutory discounts, Bavarian pharmaceutical companies would have had around €800 million more to invest in research and development and in expanding.

Allowing for direct and indirect value added effects, the sum of €800 million results in a reduction in growth of €1.009 billion. Calculated in relation to the additional burden of €800 million, the direct and indirect effect for Bavaria corresponds to around 6,700 employees. Moreover, negative value added effects also induce negative fiscal effects.

Since the target markets for Bavaria’s pharmaceutical industry are more in Germany than abroad, discounts and the price freeze hit the Bavarian industry above average. If, for example, the burden on companies is seen in relation to gross value added, the burden on them in Bavaria is approximately 30 percent greater than in the rest of Germany.

A further aggravating factor is that, due to the nationwide system of solidarity-based fi-

ancing of statutory health insurance funds, considerable funds flow out of Bavaria because more is paid into the health insurance funds there, than is paid out in the form of benefits and services.

## Conclusion

Intervening in the pricing of patented drugs by means of compulsory discounts and price freezes has only seemingly reduced the burden on the social welfare system (surplus of around €28 billion in the statutory health insurance funds). These measures have hurt Germany’s economy substantially.

The impacts on R&D expenditure and capital formation not been undertaken as a result of cost containment must be put at a total of more than €5 billion. That means a chance to expand Germany and Bavaria as a research and production location has been squandered.

To withstand global competition in the field of high-tech products, it is necessary to increase investment in research and development in the pharmaceutical industry in the research location of Germany and to improve its institutional framework.

So that the pharmaceutical industry in Bavaria can benefit better from rising demand for pharmaceutical products on the world market, it is necessary to map out a fundamental agenda, such as an interdisciplinary, cross-sector strategy for the health industry in Bavaria and nationwide.

## Reference

*Schneider, M.* (2013), Die gesundheitswirtschaftliche Bedeutung der Pharmazeutischen Industrie in Bayern, Gutachten für eine zukunftsorientierte Standortpolitik, BASYS: ISBN 3-930077-21-3, Augsburg.