

Pharmaceutical pricing in Europe: is differential pricing a win-win solution?

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Context: European Union (EU) Member State use of International Reference Pricing

Most European Member States, particularly the former EU15 countries, have national systems providing universal access to health care, including pharmaceuticals. Given pressure on public budgets and rising expenditure for healthcare, national governments have introduced mechanisms to regulate healthcare services provision and set prices of pharmaceuticals. As pointed out by the 2008 OECD Report on Pharmaceutical Pricing Policies (OECD, 2008), one of the policies pursued to constrain pharmaceutical prices is International Reference Pricing (IRP). This uses prices paid in other countries as a benchmark for setting domestic price levels. For example, in Spain the Ministry of Health set prices based on, among other factors, the price of the same medicine established in the other 26 EU countries.

Traditionally, there has been only limited use by higher income countries of lower income countries' prices. However, there is evidence that this is changing, mainly due to the increasing financial difficulties faced by some EU Member States. The objective for governments is to "import" low pharmaceutical prices from other countries to reduce their own health care expenditures.

Greece, in its response to economic crisis in 2010, introduced a series of new regulations to decrease pharmaceutical prices. After initial temporary price cuts, causing two pharmaceutical companies to withdraw their products (Watson, 2010), Greece implemented an IRP system where prices are reviewed and set three times per year based on the average of the three lowest prices available in 22 EU countries (the EU 27 excluding Denmark, Estonia, Malta, and Sweden) leading to an average price reduction of the reviewed products of 20% (IMS Pharma Pricing and Reimbursement, November 2010).

At the other end of the economic spectrum, Germany, the EU Member State with the strongest economy, in an effort to reduce its health budget, has endorsed a series of proposals to reform the market for pharmaceuticals and, in particular, its price-setting system. The bill endorsed by the German parliament in late 2010 will significantly limit the ability of companies to set the price of newly approved pharmaceutical products by introducing, among other measures, the use of IRP.

The European Commission is trying to support the interest of Member States in IRP by facilitating the exchange of information on prices paid for pharmaceuticals amongst Member States.

The likely effects of IRP on access to medicines and R&D investment

Even if IRP achieves a price reduction in the EU countries implementing it, it does at the expense of other countries because of spillover effects. In the short term, the policy provides an incentive to companies to delay launch in low price countries until higher prices have been established elsewhere. This is shown in a study by Danzon and Epstein (2008) analysing a set of countries inside and outside the EU. These low price countries will, in the future, be less able to provide new

medicines within their health care systems in a timely manner as compared to other EU countries. In more extreme cases, companies might opt out of, or refuse to negotiate with some national health systems to avoid knock on effects on prices in other countries.

IRP can also lead to higher prices in referenced countries relative to their income. Empirical evidence (Danzon and Epstein, 2008) shows that in 2005 some countries with strict price regulation, such as Spain, Portugal and Greece, had relatively high drug prices given their per capita income as compared to other, higher income, countries. Because of IRP, the impact of pharmaceutical expenditure on healthcare budgets will be higher in lower income countries than in higher income countries, where prices are not so high relative to their ability to pay. Lower income countries may thus lose out when their prices are subject to IRP by higher income countries for two reasons. Firstly, because of delays to access to new medicines, as explained above, and, secondly, because of the higher prices sought by companies which do not reflect the local per capita income.

The anticipated effects of IRP therefore include spillover effects leading to higher prices, restricted use of and delayed access to new products for patients (especially in lower income countries), lower revenues for research and development (R&D) based pharmaceutical companies and, as a consequence, less resources to invest in innovation. A reduction in innovation hits all countries, including those who are seeking short term benefits from lower prices through the use of IRP.

There is a need to identify a policy option which could address short term concerns of budgetary restrictions of national governments and, at the same time, provide incentives in the long term for pharmaceutical R&D.

Why is differential pricing a solution?

Pharmaceutical companies need to recoup their R&D costs, which represent a large share of total pharmaceutical costs (approximately 31% on a time adjusted basis as indicated by Danzon, 1997). The cost of R&D does not vary with the number of patients using the final product worldwide (it is therefore a “joint cost”). As it is not possible to attribute R&D costs to a particular national market or a particular patient, companies require contributions from markets in different countries to this R&D cost enabling them to obtain a return on investment and so keep developing new products. In the long term, if individual countries perceive themselves as having a negligible impact on global R&D for pharmaceuticals, they have an incentive to address their budgetary concerns and force pharmaceutical prices down, for example by using IRP to reference low price countries. Europe, as a whole, is one of the largest markets for pharmaceuticals, and the European economy has a strong position in bioscience R&D, albeit one under pressure (Pammolli and Riccaboni, 2007). Using IRP to reference low price countries will have a negative impact on incentives for R&D and ultimately will reduce the availability of innovative products to all EU citizens and the competitiveness of Europe in bioscience.

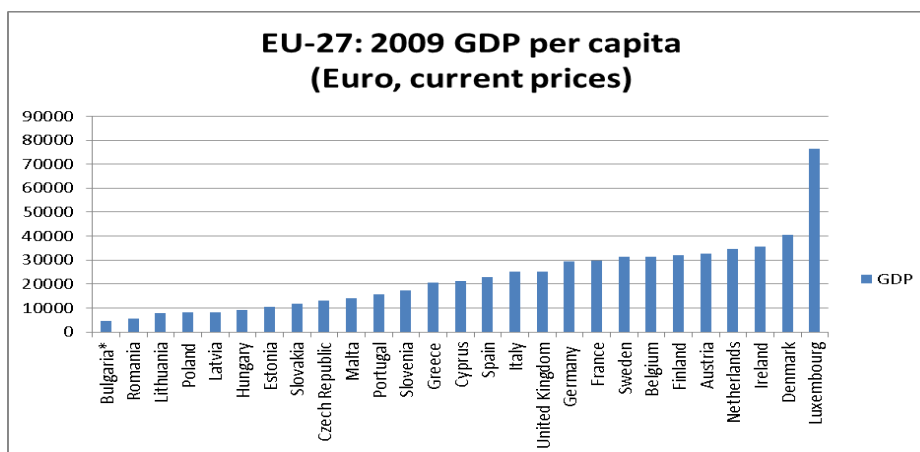
In these circumstances, economic theory supports the use of differential pricing, that is different consumers should pay different prices rather than the same price. This will benefit society overall, including patients, governments and private companies in Europe as compared to a single uniform price, which is the potential result of IRP. With a single, uniform price, profit-maximising firms are

incentivised to set this price high, and sell the drug only in richer segments of the European market. If poorer segments of the market cannot afford to buy the good at this price, they will remain without access to the drug. On the other hand, with differential pricing, companies can sell at a lower price to lower income markets which are more price-sensitive (that is, they have a lower ability and hence willingness to pay for the product). The objective for companies is to achieve additional volume and so revenues from poorer segments without losing the revenues from sales in richer and less price-sensitive segments. The benefits for European patients are that more will gain access to drugs. Hence differential pricing will yield overall benefit to European society as it leads to higher drug utilization, larger company revenues and more R&D investment.

The European Commission endorses free trade within the EU and has seen parallel trade as a means to achieve this. The assumption is that cross border movement of goods will promote efficiency gains in production. However, price differences in pharmaceuticals do not reflect underlying differences in cost or efficiency and so trade will not reduce production costs or increase efficiency. Instead it is likely to reinforce the tendency for any single European price to be one that is only affordable to richer countries, reducing access to drugs in many EU Member States.

Although it is difficult to estimate how exactly national market demand for drugs varies with price changes, under plausible assumptions it can be expected to vary with country per capita income as well as factors such as disease burden and proximity to death (both of which may lead to a greater willingness to pay for health gain). On this basis, higher income countries within the EU should pay higher prices and lower income countries lower prices¹.

Given the very substantial differences in the per capita income across European Union Member States, as shown in the figure below, differential pricing within Europe would be more efficient and equitable than a single pan-European price.



Source: Eurostat

¹ Other national pharmaceutical policies, including the level of co-payments by patients, can have an impact on the optimal level of prices. However, in this paper we focus on the price sensitivity (ability and willingness to pay) of governments/payers, which should reflect the ability to pay of their populations, prior to the introduction of any healthcare insurance coverage, and take account of pooling and redistribution to enable all patients to get access to health care within national priorities.

How can differential pricing be implemented?

A report by the Belgian Presidency published in September 2010 (“A call to make valuable innovative medicines accessible in the European Union”) endorsed differential pricing as a way to deliver equity of access to patients across the EU.

To implement differential pricing, companies need to be able to achieve different prices across different markets, with wealthier countries accepting that they should pay higher prices than lower income countries. Transferring low prices from low income countries to high income countries by the use of arbitrage (for example with parallel trade) or copying other countries’ prices (via IRP) undermines the application of differential pricing.

Per capita income, which is a proxy of countries’ ability to pay, should be a key driver in setting differential pricing. However, other demand preferences may matter, including the assessment of the health gains and, more widely, wider social benefits delivered by new medicines and the associated willingness to pay of different countries or groups of countries for these benefits.

A dialogue around methods to implement differential pricing across the EU, linked to the report of the Belgian Presidency, can offer Europe a way of combining current public health needs for access to innovative medicines with the need for more innovation in the future. Such a dialogue needs to respect the rights of Member States to operate national health care systems that reflect the needs and resources of their populations. Differential pricing, in principle, enables this to happen.

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