

# Is EU competition policy an obstacle to innovation and growth?

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## Introduction

Free markets are not always efficient. Left to their own devices, firms will attempt to limit competition so as to boost profits. Competition needs to be protected and promoted; it does not arise spontaneously. Independent competition policy is needed to ensure that firms are unable to earn monopoly profits by preventing potential competitors from entering the market. In properly contested markets, firms must strive to be innovative and to maximise their productivity if they are to flourish.

Although it is incomplete, the EU's single market has done much to extend competition into many sectors where monopolies had previously earned excessive profits. In the process, it has boosted the competitiveness of European firms and delivered a much better deal for consumers. The European Commission deserves far more credit than it is given for facing down recalcitrant governments and for championing economic openness against the protectionist instincts of many member-states.

The focus of this paper is on high-tech firms. Both competition law and intellectual property rights are designed to promote innovation and economic efficiency. But they pull in different directions, at least superficially: competition policy seeks to maximise competition, while the granting of a patent provides an innovator with a temporary monopoly. High-tech companies need to benefit from the development of their intellectual property, while newcomers need to be able to challenge incumbents and spur them to innovate. It is up to competition authorities to strike the right balance.

The Commission's tough line against market abuse by dominant firms is undoubtedly the right one to take in established, slow-growing industries characterised by a number of firms producing similar but competing products. But it is less clear that it is the right approach to take to companies in high-tech sectors. For example, high-tech firms often create whole new markets for products, which they inevitably dominate, at least until a rival company comes along and challenges them. It is this temporary market power and the associated profits that help justify heavy investment in research and development (R&D).

Critics of the Commission's approach to dominant high-tech firms allege that if they are forced to share their intellectual property with competitors, or are prevented from controlling the price at which their products and services are sold, they will innovate less. This, in turn, will slow the development of new goods and services and hence competition, to the detriment of consumers and broader economic performance. Indeed, the EU has regularly been accused of failing to understand the nature of competition in these markets, and of favouring the interests of 'competitors' rather than 'competition'.

Europe's future prosperity will depend to a large extent on its success in developing and sustaining successful high-tech businesses. The reasons for Europe's lack of innovation relative to the US are complex, as the EU recognised when it launched the Lisbon agenda of economic reforms in 2000. An insufficiently skilled workforce is one problem; others are fragmented markets and a lack of venture capital. But competition policy can also influence the ability of firms to reap the rewards of investment in R&D. As such, it could

have a bearing on Europe's ability to produce and sustain big high-tech businesses. This paper will examine this issue with reference to the Microsoft case and the EU's sectoral inquiry into the pharmaceuticals sector.

## Defining competition

Technological progress and the diffusion of new technologies are essential for sustained economic growth. But the EU's record in recent years of bringing new innovations to market has been mixed. European firms are still technological leaders in some sectors – such as mobile telephony – and share leadership in industries such as aerospace and pharmaceuticals. But the EU's record in producing fast-growing high-tech businesses is poor, certainly compared with the US, but also increasingly with Asia. In the past 40 years, five new high-tech US start-ups have made it into the list of the 100 biggest companies in the world (by market capitalisation): Microsoft, Sun Microsystems, Intel, Cisco and Oracle. No European firm has achieved such growth over the same period. The one that comes closest is SAP, a German producer of business software.

There are plenty of small high-tech European firms. The problem is that very few of these small companies grow into big businesses. One explanation is the lack of venture capital. There is no pan-European equivalent of Nasdaq, the stock exchange for start-up companies established in 1971. All five of the US firms mentioned above were listed and continue to float on Nasdaq. However, the fragmentation of EU markets, combined with still insufficient levels of competition in some sectors and under-investment in human capital, are further reasons for Europe's poor record of producing large, high-tech businesses. Competition law may not be the most important explanation for Europe's relative dearth of innovation, but it deserves more attention. After all, firms will only invest in R&D if they are confident that they will reap the rewards of that investment. Competition policy can affect their ability to do so, and as such is far from being an esoteric concern.

There is no doubt that the European Commission's directorate general (DG) for competition is driven by a determination to ensure competitive markets. Indeed, it has done an enormous amount to open them up across the EU, doggedly facing down protectionist pressures in member-states. It is worth remembering that most EU countries have limited experience with independent competition authorities. In most member-states, the setting-up of independent competition policies lagged behind the establishment of EU competition law. One notable exception was Germany, which established the Deutsches Kartellamt (German Cartel Office) in 1957. By contrast, the US Sherman Act, which introduced federal laws forbidding businesses from monopolising a market to earn unfair profits or restrain free trade, dates from 1890.

The Commission's approach to competition policy has traditionally been more mechanistic or formalistic than that of its US counterparts. For example, if a proposed merger between two firms would give the combined company a dominant market position, the Commission would decide against it on competition grounds. It has placed little emphasis on analysing whether the proposed tie-up could be beneficial to consumers by, for example, allowing the merged company to exploit greater economies of scale or other synergies. It simply deduced that a position of market dominance must lead to less competition and hence anti-competitive behaviour. By contrast, the US authorities have always been more reluctant to intervene against dominant firms for fear of undermining innovation, and more trustful of the markets to punish anti-competitive behaviour. They have tended to believe that if a dominant firm exploits its position by overcharging its customers, other firms will enter the market in search of a share of its 'excess' profits.

The Commission's attitude partly reflects the influence of post-war German thinking. Because Germany was the only major member-state that had developed an independent competition policy, its approach strongly informed EU competition law. German competition policy was driven by a determination to prevent concentrations of power, be they political or economic, and hence prevent any return to the monopolies and cartels that dominated the economy under the Nazis. It was based on the belief that markets could only be considered competitive where no firm could influence the price of its product. Although this was conceptually problematic even in the 1950s (most companies have some degree of market power), there is little doubt that Germany's determination to ensure markets were properly contested explains much of the country's post-war success. Whereas other EU countries, notably Britain and France, were seduced by industrial policies that put the interests of producers first, Germany's Cartel Office ensured such policies had no place in Germany.

However, there were also more practical reasons for the Commission's approach. The EU economy was much less integrated than the US one, and firms therefore found it harder to enter new markets in the EU. Because markets were generally less competitive and more fragmented than in the US, there was less chance that anti-competitive behaviour by firms would quickly be challenged by new competitors entering the

market. The task facing the EU's competition authority was therefore more demanding than that confronting their US counterparts, and a more interventionist approach to competition policy was justified.

### Reforms of EU competition policy

However, EU competition policy has undergone significant reform in recent years, with the Commission modernising merger policy and reforming its interpretation of article 81 of the EC treaty, which deals with cartels and restrictive vertical agreements.<sup>1</sup> This modernisation was the Commission's response to several developments: empirical work on what makes a market competitive; a number of European Court of Justice rulings against the Commission; and the gradual liberalisation of many sectors across the EU, which has increased the likelihood that the market would punish anti-competitive behaviour.

<sup>1</sup> *Vertical agreements are arrangements between two or more companies operating at different levels of the production, distribution or supply chain.*

The Commission now applies more economic analysis when considering its decisions, studies the actual effects of a proposed merger on the consumer, and accepts that in certain circumstances mergers can be good for competition. Certainly in the area of merger policy, it is unfair to accuse the Commission of putting the interests of 'competitors' ahead of 'competition'.

But one area where the Commission's approach has not really evolved is its treatment of dominant firms. Under article 82 of the EC treaty (which covers market abuse by dominant firms), they have a special obligation to avoid behaviour which can 'restrain, distort or hinder competition.' This means that commercial strategies that would be legal for firms that do not have a dominant market position are deemed unlawful when pursued by a firm that does. The Commission defines a dominant firm as one that controls more than 50 per cent of the market for a particular product.

On the face of it, the Commission's interpretation of article 82 looks to be robust and pro-competition. How can market dominance possibly be in the interests of the consumer or competition? After all, unless firms have to stay ahead of the competition, what incentive will they have to innovate? The Commission's approach is undoubtedly the right one to take in established, slow-growing industries characterised by a number of firms producing similar but competing products, such as manufacturers of cars or household goods. The question, however, is what constitutes market power. For example, it is less clear that the Commission is right where a firm's dominant position has come about through heavy investment in R&D and the accumulation of valuable intellectual property. When applied to these companies, EU competition policy may be less favourable to competition than its advocates believe.

An understanding of the nature of competition in high-tech industries needs to recognise the role of temporary market power as a driver of innovation. Firms in high-tech industries with high R&D costs and hence exposure to risk, such as those in the pharmaceuticals and information and communication technologies (ICT) sectors, often preside over a large share of the market for a particular product. This does not necessarily indicate a lack of competition. Many high-tech companies cannot help but have a dominant market position, because they have often created whole new markets for a product they have developed. But market leadership in high-tech sectors tends to be short-lived compared with more mature industries. A new product from a rival firm can very quickly make the dominant technology redundant. The opportunity to charge high prices – for a while at least – is often what drives companies in these sectors to innovate.

A high degree of market concentration and substantial profits should not necessarily be taken as a sign that competition is failing. The profits of the dominant firm offset the losses of the many losers and act as an incentive for others to innovate and supplant the dominant technology. For its part, the incumbent usually has to invest heavily to retain its lead. Most economists believe this dynamic process drives innovation and benefits the consumer. If firms are forced to share their intellectual property with competitors, or prevented from controlling the price at which their products and services are sold, there is a risk that they will innovate less. This, in turn, can slow the development of new goods and services and hence competition and productivity growth, to the detriment of consumers.

In 2005, the Commission published a consultation paper which suggested that reform of article 82 should build on the reinterpretation of article 81, and lead to greater use of economic analysis to understand the nature of competition in markets for high-tech products, such as ICT and pharmaceuticals. The paper suggested that the Commission should look much more closely at whether the actions of a dominant company actually benefit consumers. For example, if consumers profit from the dominant firm's economies of scale or the ubiquity of its product, and if the dominant company cannot prevent potential competitors from entering the market, this would make action against it much less likely. A more economic

interpretation of article 82 would mean the Commission only intervening where a firm could disregard customers and suppliers with impunity.

However, since the publication of the consultation paper the Commission has been reluctant to be drawn on how its approach will evolve. Indeed, if the stance it has adopted in relation to the ICT and pharmaceuticals industries is anything to go by, the likelihood of significant change in the interpretation of this key aspect of competition policy appears to be receding.

The ICT and pharmaceuticals sectors are crucial to Europe's economic growth prospects. It is of pivotal importance that the right environment exists for investment in these technologies. Both are fast-growing, R&D-intensive industries, in which innovation can lead to huge new markets and rapid productivity growth. The development and efficient use of ICT and the growth of successful firms in this sector would do much to help Europe close the gap in productivity with the US. While the diffusion of ICT across the EU has accelerated in recent years, EU spending on ICT-related R&D is

<sup>3</sup> *Submission to the European Commission in relation to the pharmaceuticals sector inquiry, European Federation of Pharmaceuticals Industries Associations, June 2008.*

running at a little over a third of US levels.<sup>2</sup> In 1990, the global research-based pharmaceutical industry still invested roughly 30 per cent more in Europe than in the US. Today it invests roughly 50 per cent more in the US than in Europe.<sup>3</sup> If the gradual erosion of the EU's position in pharmaceuticals persists, the EU will be poorly placed to profit from new industries, such as genomics, nanotechnologies and cognitive and neuro-sciences.

<sup>2</sup> *Main science and technology indicators, OECD, 2008/1 edition.*

The next two sections will look in more depth at the ICT and pharmaceuticals sectors, because it is here that the tension between innovation and EU competition law is at its most stark. Both industries are very competitive, but inevitably tend towards a high degree of market concentration. In the case of pharmaceuticals, this is because of the financial costs of developing new medicines. Only a small proportion of drugs under development ever reach the market, so firms have to be very big in order to sustain the necessary investment in R&D. In both industries, firms are often creating whole new markets for their products, which inevitably leads to some degree of market power. In addition, there are powerful network effects at work in the ICT sector.<sup>4</sup> It makes sense for firms to agree on an industry standard, so that equipment and software are compatible. However, this confers monopolies on the firm that owns the patents on the industry standard.

<sup>4</sup> *Network effects mean that a service becomes more valuable as more people use it, thereby encouraging ever more people to adopt it.*

### Information and communication technologies – just like any other industry?

Two of the most controversial issues in competition law today are the extent to which a dominant firm can be compelled to share its intellectual property with competitors, and the right of a dominant company to bundle the sale of one product along with others. These tensions have been graphically illustrated in the case of Microsoft, the supplier of over 90 per cent of the world's computer operating systems (Windows).

Following a series of complaints by the firm's competitors, the European Commission launched an investigation into Microsoft's commercial practices. In 2004 it imposed a record fine on the company for abusing its dominant position in the market for computer operating systems. The Commission ruled that the firm must share more technical information with rival makers of computer servers, to ensure that rivals'

<sup>5</sup> *The Court of First Instance was created in 1989 and is attached to the European Court of Justice. It gives rulings on certain cases, particularly those brought by private individuals, companies and some organisations. It also deals with competition law.*

server software works smoothly with Microsoft's Windows software. The Commission concluded that the company was attempting to exploit its dominant market share in one market – computer operating systems – to cement its dominant position in the market for company servers. For the same reason, the Commission also demanded that Microsoft offer a version of Windows without a media player for playing and listening to music and videos downloaded from the internet. The Commission's decision was subsequently upheld by the EU's Court of First Instance (CFI) in September 2007 and cannot be appealed to the European Court of Justice.<sup>5</sup>

Supporters of the Commission's tough line against Microsoft, such as the Free Software Foundation, argue that the decision will lead to greater competition, which will benefit consumers and be a catalyst for more innovation in the industry.<sup>6</sup> They are dismissive of arguments suggesting that high-tech sectors are different from other industries because of the importance of intellectual property, or that the ubiquity of Microsoft's products could benefit consumers and businesses. They allege that Microsoft's control of crucial intellectual

<sup>6</sup> *The Free Software Foundation is a charity with a mission to promote computer user freedom and to defend the rights of all free software users.*

property entrenches its



monopoly position and undermines innovation: Microsoft itself has little incentive to innovate because its market share is guaranteed, whereas potential competitors have little incentive because they have no hope of challenging Microsoft.

Critics of the EU action against Microsoft, such as the US Association for Competitive Technology, maintain

<sup>7</sup> *The Association of Competitive Technology is an international organisation representing more than 3000 small and mid-size information technology firms from around the world.*

that the firm is being punished for being successful. They argue that compromising Microsoft's intellectual property by forcing it to share with competitors will stunt innovation at the company and in potential competitors (who will innovate less for fear they will be unable to maintain control of their intellectual property).<sup>7</sup> The result, critics allege, will be weaker growth in productivity and hence economic growth.

The Commission's tough line against Microsoft is not motivated by protectionism or anti-US bias: most of the firms that stand to gain from the EU's action are also American ones. There is no reason to suspect Microsoft would have been treated any differently had it been a European company. The reason why US companies have been in the firing line is that US firms dominate the ICT sector. Rather than reflecting EU bias, the action against Microsoft has served to highlight how few major European firms are active in ICT.

It is not our purpose to judge the merits or otherwise of the EU's case against Microsoft. It is, of course, perfectly possible that Microsoft's commercial strategy has been anti-competitive, and that it has been exploiting its dominant position in one market to thwart potential competitors, to the detriment of consumers and competition. Rather, we are interested in the Commission's reasoning for the action it took against the firm (and the justifications the CFI gave for upholding the Commission's action), and the implications for innovative businesses operating in the EU.<sup>8</sup> A number of the points that underpin the Commission's analysis and the CFI's judgement require clarification.

<sup>8</sup> *The Court of Justice of the European Communities, usually called the European Court of Justice (ECJ), is the highest court in the EU. It has the ultimate say on matters of EU law in order to ensure equal application across the various member-states.*

<sup>9</sup> *Robert O'Donoghue, 'Microsoft v. European Commission: sounds good in theory but...', Global Competition Policy, September 2007.*

As it stands, the CFI's ruling appears to provide a legal foundation for the Commission to force a dominant company to share its intellectual property with its rivals.<sup>9</sup> In its ruling the CFI implies that a dominant company cannot refuse to share its intellectual property by citing the damage this could do to its incentive to innovate. Yet it cannot be right to claim that every intellectual property that potential rivals need in order to be able to challenge a dominant

company should be shared. If that were really the law, those assets that were most valuable would be the ones that dominant firms would be forced to share. It is puzzling that there is no meaningful analysis by the Commission of the long-term effects on innovation and investment of a general requirement for dominant firms to share intellectual property.

In industries such as ICT and pharmaceuticals, where R&D largely determines which firms are competitive and which are not, a general obligation to share valuable intellectual property could discourage innovation and ultimately damage competition. Once a firm has created valuable intellectual property that allows it to maintain a temporary monopoly, rivals will obviously have an interest in forcing it to share. But a dominant firm should be entitled to refuse to share its intellectual property if this is the fruit of significant investment. After all, the purpose of intellectual property rights is to reward risk-taking and spur innovation.

This issue was alluded to in the Commission's 2005 draft paper on reform of article 82, but the Commission has not subsequently clarified its position. In its ruling, the CFI does not spell out that companies should only be forced to share their intellectual property with competitors in truly extraordinary circumstances, nor does it recognise that Microsoft is an extraordinary case. It is essential that the Commission moves quickly to spell out its position. Otherwise, the accusation that it is more interested in protecting competitors than competition could start to ring true.

The Commission also needs to indicate more clearly how the ubiquity of a company's products could benefit the consumer. For example, the Commission and CFI do not acknowledge the potentially positive power of network effects in telecoms, computing and other digital industries. Standardisation around a dominant operating system normally creates benefits for consumers, including greater availability of software written in standard computer code (which would not be developed in a fragmented market). Of course, such network effects confer monopolies on the makers or patent holders of the dominant technology. However, so long as consumers benefit and so long as barriers to entry into the industry are relatively low, it is not clear that intervention by the competition authorities is warranted.

Instead of engaging in a period of reflection, there are signs that the Commission feels emboldened by its success against Microsoft. In the aftermath of the CFI ruling, the Competition Commissioner, Neelie Kroes, called for a big fall in Microsoft's market share: "You can't draw a line and say exactly 50 per cent is correct, but a significant drop in market share is what we would like to see." Moreover, without naming Microsoft specifically, Commissioner Kroes, came out very strongly in April 2008 in favour of open-source software, arguing that no business should leave itself dependent on one software supplier.<sup>10</sup> She even questioned the sense of purchasing proprietary software.<sup>11</sup> The Commission appears to be going beyond its remit – to set ground rules for competition – by seeking to determine actual market outcomes.

<sup>10</sup> Unlike commercial (proprietary) software, open-source software can be easily studied by other programmers and improved upon.

<sup>11</sup> Proprietary software is computer software on which the producer has set restrictions on use, private modification, copying, or republishing.

The Microsoft case and the CFI's ruling suggest that the Commission needs to employ more economic analysis in its assessment of what makes for competitive markets in high-tech goods. It also suggests that the Commission has little confidence in the power of markets to tame monopolies. This scepticism is justifiable in mature industries, but not necessarily in high-tech sectors. It still shows little recognition that monopoly positions in these businesses are often transitory because entry barriers are low, and that taking action against dominant high-tech firms could do more harm than good. The Commission appears ready to risk stunting innovation, and perhaps the economic efficiencies that would stem from network effects, rather than accept a high degree of market dominance.

There is an urgent need for guidelines that clearly lay out the circumstances in which a dominant company can be considered to have abused its market position and what action it can expect from the Commission. The established case law does not provide sufficient clarity. At present, intervention is largely being driven by the complaints of competitors, but the interests of competitors are sometimes not the same as those of consumers. The Commission needs to reaffirm that it is committed to taking a more economic approach in this area, and clarify how it intends to enforce article 82. If laws are not clear or the nature of competition misunderstood there is a risk that firms will not invest.

### Pharmaceuticals: the wrong target?

EU-based firms are much more active players in the pharmaceuticals industry than in the ICT sector. Indeed, European firms compete more successfully in this high-tech industry than in any other, with France, Germany and the UK home to some of the world's most successful pharmaceuticals companies. But the future of the EU's research-based pharmaceuticals sector cannot be taken for granted. Twenty years ago, Europe was the centre of this industry. Since then there has been a steady shift from Europe to the US. Between 1990 and 2005, spending on pharmaceuticals R&D in the US grew by 4.6 times; in Europe the figure was just 2.8. In 2005, North America accounted for 47 per cent of world pharmaceuticals sales, compared with 30 per cent in Europe.<sup>12</sup>

<sup>12</sup> EFPIA submission to the European Commission in relation to the pharmaceuticals sector inquiry, European Federation of Pharmaceutical Industries Associations, June 2008.

The reasons for this shift are complex, and include Europe's eroding science base and popular attitudes to new technologies. However, the main reason is the economic and regulatory framework in the EU. Pharmaceuticals prices are much higher in the US and the market for new innovative drugs is now much bigger in the US than in the EU. According to market analysts IMS Health, the US market now accounts for around two-thirds of the sales of medicines launched since 2001; the EU accounts for barely a quarter.<sup>13</sup> Drugs companies tend to do their R&D where they do their clinical trials, which is in their biggest and most profitable markets.

<sup>13</sup> 'US prescription sales grew 3.8 per cent in 2007, to \$186.5 billion', IMS Health press release, March 2008.

Despite this loss of supremacy, the pharmaceuticals industry remains hugely important for Europe, accounting for 15 per cent of private sector R&D in the EU. Indeed, successful R&D determines whether pharmaceutical firms thrive or fail to a greater extent than in any other industry. Pharmaceuticals companies argue that big profits are needed to fund research on a large range of potential products, most of which never make it to market. They stress that they will only be able to maintain their current levels of investment in R&D if they can satisfy their shareholders that it will be sufficiently profitable. Shareholders are certainly sceptical about the future profitability of the pharmaceuticals industry. Expected returns on shares in pharmaceuticals firms have declined steadily since the turn of the century, and until the onset of the financial crisis their shares had underperformed the stock-market as a whole.

On January 15<sup>th</sup> 2008 the European Commission announced a sectoral inquiry into the pharmaceuticals sector. It accompanied its move with a dawn raid on the offices of a number of European and US

pharmaceuticals companies. As evidence that the EU pharmaceuticals market is not working efficiently, the Commission cited an alleged slowdown in the number of innovative medicines being brought onto the market and delays in the introduction of generic (and hence cheaper) alternatives to patented drugs. In particular, the Commission stated that it wanted to determine whether agreements between pharmaceuticals firms were slowing the introduction of new medicines and whether firms were using patent disputes and so-called ‘ever-greening’ (extending patent protection for existing medicines) and vexatious litigation to shut generic drugs out of the market. The Commission noted that generic medicines account for 42 per cent of the EU market compared with 63 per cent in the US.

Although the Commission was at pains to stress that it had not drawn any conclusions about what, if any, action would need to be taken to address the problems cited in the terms of the inquiry, this was the first time dawn raids have been used in an inquiry of this kind.

The terms of the inquiry are troubling, because they omit any mention of the impact that the structure of the pharmaceuticals market could have on competition. There is no doubt this market is distorted, but a major reason for this lies with member-state governments, rather than the firms themselves. EU member-states control prices of prescription medicines through extensive national regulation comprising controls on prices or profits. In most EU countries, national regulatory bodies also effectively determine the demand for a particular drug because healthcare budgets are capped. Pharmaceuticals firms have very little pricing power and very little scope to influence demand for their products. The market for pharmaceuticals in Europe is not a competitive one, and as such it is questionable whether firms can be considered to be ‘dominant’ if they control the market, or a large share of it for a particular treatment.

Faced with intense pressures to limit the growth in healthcare spending, the average prices paid for medicines across the EU have been falling at a time of steep rises in the costs of R&D, squeezing the profitability of sales in the EU. Moreover, prices paid for the same medicines vary hugely across the EU. They tend to be lowest in member-states that do not have a research-based pharmaceuticals sector, such as Spain and Italy. The Spanish and Italian governments do not have to balance the need to contain healthcare spending with the need to ensure that pharmaceuticals firms have incentives to innovate, and are free to concentrate on negotiating the lowest prices possible. They have little to lose from European firms shifting their R&D out of the EU. The UK, Germany, the Netherlands and Sweden are the high price countries. This is no coincidence, as they (along with France) are the EU countries with significant research-based pharmaceuticals industries, and they need to ensure that the drugs companies have sufficient incentives to do R&D in the EU.

By omitting the structure of the market from the terms of its inquiry, the Commission is effectively arguing that these national regulatory regimes have no impact on the readiness of pharmaceuticals firms to develop new medicines. The Commission does not recognise that dominant buyers could be exploiting their position; the focus is on alleged abuse of dominance on the part of the firms. But any market characterised by a dominant buyer should cause the Commission as much concern as one dominated by a single supplier. Of course, the Commission can do little about the distortions created by national pricing regimes – it has no competence in the area of healthcare – but it must at least recognise that the various national regulatory frameworks can distort the market and that the prices paid for medicines influence the readiness of firms to innovate and to supply particular markets. Pharmaceuticals companies will only introduce the medicines if they are confident it will be profitable.

### **An innovation strike?**

The Commission’s inference that pharmaceuticals companies are engaged in some kind of innovation strike and that they are purposely slowing the introduction of new drugs is puzzling. Unless the pharmaceuticals firms bring new products onto the market they have little future. It is far from clear that there has been a decline in innovation, if by that we mean a decline in the number of drugs being brought onto the market.<sup>14</sup> But even if this had occurred it would not necessarily reflect collusion between pharmaceuticals suppliers. It is as likely to reflect the increased costs of developing drugs and doubts on the part of the companies that they will be able to charge sufficiently high prices on EU markets to justify the investment.

<sup>14</sup> *Submission to the European Commission in relation to the pharmaceuticals sector inquiry, European Federation of Pharmaceuticals Industries Associations, June 2008.*

There is little doubt that the rate of growth of R&D spending by pharmaceuticals companies in the EU has slowed and that, combined with the increased costs of developing new medicines, this will lead to a decline in the number of innovative drugs being developed in the EU. But the principal reason for the weaker growth of R&D is the price the firms receive for the medicines, rather than a lack of competition

between firms. If innovative drugs are not coming onto the market it is likely to be because EU governments are not paying sufficiently high prices for it to be worthwhile for pharmaceuticals companies to supply the drugs or because national regulatory bodies are unwilling to give clearance to new drugs that they decide they cannot afford.

<sup>15</sup> US Department of Commerce, 'Pharmaceutical price controls in OECD countries', October 2004.

The prices of patented drugs are much lower in the EU than the US. According to a US Department of Commerce study published in 2004, the average price of patented medicines in the EU was little over half that in the US.<sup>15</sup> Although the figures are not strictly comparable (firms have to spend much more on marketing medicines in the US than in the EU) there is no doubt that the pharmaceuticals firms are increasingly dependent on the US for profits. As mentioned earlier, the prices paid for patented drugs also vary widely across the EU. It is no coincidence that more new medicines are available in the US than the EU or that medicines become available more quickly in higher price EU countries than in lower price ones. The Commission should recognise how price controls could have an impact on the speed at which drugs come to market.

The Commission could be on stronger ground with its suspicion that the pharmaceuticals firms are attempting to extend the lives of the patents on their existing drugs. But any assessment of whether or not pharmaceuticals firms are engaged in ever-greening cannot be made in isolation, and must also recognise the impact that national regulatory frameworks and pricing structures have on the incentives to develop and introduce new drugs in the EU. If attempts to artificially prolong the lives of patents are a reaction to low prices and other regulatory issues, punishing firms for it will further undermine the market environment for innovation. The maintenance of prevailing price structures and national regulatory structures, combined with a dilution of patent rights, risk upsetting the balance of incentives and could lead to an accelerated decline in R&D spending in the EU.

### Parallel trade and dual pricing

Parallel trade refers to wholesalers buying medicines in an EU market where prices are low, selling them in another EU market where prices are high, and earning a profit in the process. For example, the prices of patented medicines are very low in Greece and Spain, which do not have research-based pharmaceuticals industries. GlaxoSmithKline, a British firm, was found guilty by the Commission in 2004 of dual pricing. It had refused to supply a drug to Spanish wholesalers at the drug's standard price on the Spanish market, instead demanding that the wholesalers pay prices similar to those in the EU markets to which the wholesalers intended to re-export the drugs.

In other markets, such as those for cars or other consumer goods, parallel trading has contributed to price convergence across the EU, usually by forcing companies to lower prices, and helped to deepen the single market. However, these are markets where prices are set by the companies. In the pharmaceuticals sector in Europe they are set by the governments; unlike car manufacturers, pharmaceuticals companies are 'price-takers' (they have to accept what public bodies are prepared to pay).

The Commission claims that a refusal to supply wholesalers in low price countries "interferes with the commission's objective of integrating domestic markets and restricts price competition for the company's products", and that "dual pricing cannot be justified on economic grounds since there is no evidence that partitioning the common market would encourage investment on innovation".<sup>16</sup> The Commission analysis implies that there is a single EU market in pharmaceuticals and that the pharmaceuticals companies are responsible for partitioning it. But there is no such integrated EU market and no price competition for the firms to undermine because prices are set by national bodies. This is the principal reason for the lack of integration in the pharmaceuticals industry, not the actions of firms.

<sup>16</sup> Directorate General for Competition, European Commission, 'Sectoral inquiry into the pharmaceuticals industry', January 2008.

<sup>17</sup> World Health Organisation, 'Priority medicines for Europe and the world', November 2004.

The Commission's claim that its ruling against GlaxoSmithKline would impact on innovation is also debatable. Even the World Health Organisation (WHO) believes otherwise. According to the WHO, the current system of EU price controls "has a direct effect on what medicines are produced by innovator companies".<sup>17</sup> This is understood by the EU's High Level Pharmaceutical Forum, composed of the 27 EU ministers responsible for the pharmaceuticals industry along with the Commissioner for Enterprise and Industry, Günter Verheugen, and the Commissioner for Health, Markos Kyprianou. In its second progress report published in 2007, it argued that member-states needed to "create the right environment for price competition" and ensure innovation by providing firms with the "right signals to companies on what innovations are expected and valued".<sup>18</sup>

<sup>18</sup> 'Guiding principles for good practices implementing a pricing and reimbursement policy', Annex A to the pharmaceutical forum second progress report, June 2007.



The ECJ ruled on the GlaxoSmithKline case on September 16<sup>th</sup> 2008, with both sides claiming victory. The Commission claimed that the ruling meant that firms refusing to supply would be breaking EU law. But the ruling was more nuanced. The ECJ went some way to meeting the concerns of the research-based pharmaceuticals firms, arguing that a firm should be able to be able to “counter in a reasonable and proportionate way” trade where a wholesaler was importing large quantities of a drug with a view to re-exporting it to member-states where the price of the medicine was higher.

If the sectoral inquiry fails to take into account the issue of pricing structures when looking at parallel trade, it will come to the wrong conclusions. It is far from clear that firms should be found guilty of abuse of market dominance for refusing to supply wholesalers in low price markets, because the firms are price takers, and because prices in some member-states are set at artificially low levels. Very low prices may provide some short-term benefits to the Greek and Spanish taxpayers, but are too low to make investment in new drugs worthwhile. If prices are too low in markets such as Spain and Greece, they have to be higher elsewhere in order to ensure that firms have the incentive to develop new drugs. Essentially, low-priced countries are free-riders. If prices were bid down to the level of the lowest price market in the EU, the decline of the EU pharmaceuticals industry would accelerate. The Commission’s reasoning appears to confuse low prices with a competitive market. In the case of the pharmaceuticals sector, low prices mean that firms have weaker incentives to develop the drugs to challenge the incumbent treatments.

### **Too few generics**

There is no doubt that the share of the EU pharmaceuticals market accounted for by generic medicines is too low in the EU. It is possible that pharmaceuticals firms are using patent practices to place obstacles in the way of generic competitors. But any analysis of why the penetration of generics in the EU is lower than in the US needs to consider the ways in which the segmented structure of the EU pharmaceuticals market and the national pricing structures slow the introduction of generic alternatives to patented medicines. First, many national markets are too small for it to be worthwhile for generic companies to enter them. Second, there is again the issue of price. In countries where the prices for innovative drugs are low, penetration of generics is low. For generics makers to consider it worthwhile entering a market, there has to be a big enough difference between the price of a patented drug and the price that will be paid for a generic alternative. As noted earlier, this difference is much lower in the EU than the US, with the result that generics makers have fewer incentives to enter EU markets.

Indeed, what the debate over generics shows is that the EU currently suffers the worst of both worlds: EU countries are not paying enough to ensure that the EU remains a central base for pharmaceuticals research, but are not benefiting from cheaper generic alternatives as quickly as the US because their markets are not attractive enough for generic manufacturers. Ironically, the countries that are essentially free-riding on the health budgets of other member-states by paying artificially low prices – Spain, Italy and Greece – do worst when it comes to benefiting from cheaper generic alternatives. They might be paying low prices for patented drugs, but these financial benefits are offset by the fact that they make less use of generics.

The sectoral inquiry needs to consider how the EU can build a genuine single market in pharmaceuticals products. A genuinely integrated market would be much more predictable for firms, who would not have to contend with so many different regulatory structures and pricing regimes. It would also open the way for much more efficient use of generic medicines. The market penetration of generic medicines would improve because companies would be selling into one large market rather than 27 segmented ones, and operating according to one pricing regime.

### **Conclusion**

Europe will not be able to compete in the global economy on the basis of its current specialisation in medium-technology sectors, such as car manufacturing and electrical engineering. As was explicitly recognised in the EU’s Lisbon agenda of economic reforms launched in 2000, European countries need to improve their record of developing high-tech businesses if they are to prosper. The reasons for Europe’s poor record of innovation are complex, but one rather neglected factor is competition policy. Competition policy needs to foster rather than deter high-tech innovation.

The rules of competition policy should apply to high-tech sectors, just as they do to all others. But EU competition policy needs to take into account the special characteristics of high-tech industries as well as the regulatory environments in which firm operate when deciding whether to take action against them for pursuing allegedly anti-competitive practices. The presence of a dominant company does not necessarily point to an uncompetitive market.

The very nature of competition in high-tech sectors creates barriers to entry and positions of market power. High-tech firms often create whole new markets for products, which they inevitably dominate, at least until a rival company comes along and challenges them. It is this temporary market power and the associated profits that help justify their heavy investment in R&D. Forcing innovative companies to share their intellectual property in order to foster competition will lower prices in the short-term. But it will not necessarily be in the interests of competition or the consumer in the longer-term if it undermines incentives for companies to innovate and develop new products.

This paper looked at these issues with reference to the Commission's action against Microsoft and its sectoral inquiry into competition in the pharmaceuticals sector. The Commission's position vis-à-vis Microsoft (along with that of the EU's Court of First Instance), implies that a dominant company should be forced to share its intellectual property in order to enable other firms to compete with it. In a sector such as ICT where firms compete by investing in R&D, this is problematic. Such a general requirement to share the intellectual fruit of this investment threatens to weaken competition, not strengthen it, to the detriment of consumers.

The Commission's sectoral inquiry into the pharmaceuticals industry highlights the risks of basing competition policy on an incomplete understanding of the nature of competition in a particular market. Pharmaceutical prices are set by the government or public healthcare body in each of the 27 member-states, and often at levels that are too low to justify investment in innovation. Unless the EU can do something to address the fragmented and unpredictable nature of the market for pharmaceuticals in Europe, it needs to be careful about any action it takes against the pharmaceuticals firms for allegedly anti-competitive practices. Taken in isolation, there is a risk that such action will further undermine R&D expenditure by pharmaceuticals firms in Europe.

Both the Microsoft case and the sectoral inquiry into the pharmaceuticals industry suggest that the Commission needs to employ more economic analysis in its assessment of what makes for competitive markets in high-tech goods. It should provide greater clarity about what constitutes a dominant market position, the circumstances in which a dominant company can be considered to have abused its market position, and what action it can expect from the Commission. It needs to recognise that temporary monopoly positions in high-tech businesses are often inevitable and that taking action against dominant high-tech firms can do more harm than good. If the rules are not clear, or the nature of competition is misunderstood, innovation will suffer.



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