

*Cartels, spontaneous price
discrimination and international
pharmacy retailing*

by

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Foreword

FMF *Occasional Papers* are designed to make available to a wider audience essays on particular matters of moment or currency.

The word “cartel” has extremely negative connotations, with good reason writes Professor Duncan Reekie, when the label is applied to the retail pharmacy business in South Africa and several other countries. He cites George Stigler’s contention that cartels will inevitably collapse in the absence of government support and goes on to describe the decades-long regulatory protection South Africa’s governments have given to independent pharmacies. Retailers have persistently influenced regulations¹ and legislation, have managed to use “legal processes to slow down advances in distribution”, and have hampered developments ranging from “cost-reducing devices, such as attainment of scale economies, to more recent innovations designed explicitly to contain the costs of medicines”.

A potential exception to the Stigler rule is the case of cost-reducing co-operation between pharmaceutical manufacturers in the distribution of their products. “Potential” because such distribution arrangements would not fit Stigler’s definition of a cartel, which is an arrangement between suppliers or producers to reduce supply and increase prices. The purpose of pharmaceutical manufacturer co-operation in distributing their products, as evidenced by the recent International Health Care Distributors (IHD) case in South Africa, is to reduce distribution costs and reduce prices to end users. The finding by the Competition Commission² that the IHD distribution arrangement was anti-competitive is typical of findings in American anti-trust cases. Invariably complaints are lodged by competitors who are being out-competed in providing services to consumers, and almost without fail, the benefit to the consumers is subordinated to the interests of the less competitive firms. One reason for such perverse decisions is that competition law is based on suspect economics. Another is that the “voice” of the consumers is confined to the manner in which they spend their rands whilst that of less competitive firms is clearly heard at Competition Commission hearings.

In June 1999, 240 distinguished American economists signed an open letter to former president Clinton calling for an end to speculative anti-trust enforcement efforts. The letter was prompted by a growing number of anti-trust cases instigated by rival firms, as in the IHD case in South Africa. The letter pointed out that such anti-trust efforts, based upon speculative rather than actual harm to consumers, “short-circuit” market forces and replace consumer choices with bureaucratic and political decisions.

Pharmaceutical manufacturers and distributors have to contend with a great deal more than competition law in managing their businesses. Other legislation and regulations, often motivated by interest groups such as retail pharmacists, prevent them from seeking the most efficient methods of pricing and distributing their products. Consumer choice is reduced in the process and consumers ultimately pay the cost of the resulting inefficiencies.

Price discrimination has been an unfortunate casualty of regulatory intervention in many cases. As the author shows, patients as consumers have been the ultimate beneficiaries of this business mechanism. It has led to new methods of distribution of pharmaceutical products and has encouraged the retail pharmacy profession to adjust to changing circumstances.

The FMF offers this *Paper* to further discussion on pharmaceutical pricing among policy makers in government and elsewhere. Neither the FMF nor its Directors, members or staff, necessarily agree with Professor Reekie’s analysis. Nevertheless we believe this essay can contribute to the important debate on the effects of government intervention on the pricing and availability of pharmaceutical products.

Eustace Davie
Director, FMF

- ¹ Reekie, WD (March 1998) A View on the Treatment of Collusive and Restrictive Practices in Competition Policy, *South African Journal of Economic and Management Sciences* NS Vol.1 No.1 pp.8-15.
- ² Competition Commission Case No.25/IR/Dec 99.

The author

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Introduction

Change is widespread in channels of distribution for pharmaceutical products. In the US, independent pharmacies have steadily gone down in numbers. Between 1985 and 1997, community pharmacies declined by 14,341, while chain outlets increased by 18,229. By 1996, independent pharmacies were responsible for only 20.6% of dollar prescription sales, compared with 27.9% for chain drug-stores. Mail-order, mass-merchandisers and other food-stores, clinics, hospitals and staff-model HMOs (Health Maintenance Organisations) made up most of the remainder¹. In South Africa in the early 1980s, nearly all private-sector sales passed through conventional retail pharmacies, but by 1993 this proportion had fallen to 41.33% by value. 42.89% of this was paid out to dispensing doctors, the balance being accounted for by private hospital usage and the newly-emerging mail-order distributors².

The US trend away from the traditional pattern of distribution is thus not unique. Scherer (1997) has described the novel developments in America. There is sophisticated intervention between patients, prescribers and reimbursers on the one hand, and manufacturers on the other. Managed care organisations (MCOs), pharmacy benefit managers (PBMs) and the concept of total disease management (TDM) are examples of these innovations and novelties in distribution. To succeed, these developments must both satisfy a market demand and be acceptable within existing institutional and legal frameworks. Scherer suggests the latter requirement is not being met. Recent legal decisions (as well as more distant legislation including the Robinson-Patman Act) affected by the retail pharmacy cartel's political influence have hampered innovation.

Here we provide evidence, from countries in Europe and from South Africa, which indicates that the retail pharmacy cartel has enjoyed a similar influence elsewhere. The next section briefly discusses two aspects of price theory. It first asks why and when cartels exist and persist. Second, it examines some welfare effects of spontaneous as opposed to regulation-induced price discrimination. It will then be shown in the third section of the paper that the retail pharmacy industry's behaviour in other countries has been similar to that in the USA. It has attempted to obtain political support for regulations which bolster cartel structures and behaviour, and which deter or discourage innovation in distribution. One way in which it does this is by lobbying for the suppression of spontaneous price discrimination by manufacturers. Success in such an activity reduces the variance in retail input prices, i.e. retailer costs, and so increases cartel cohesion.

¹ See Pharmaceutical Research and Manufacturers of America (1997: 30-1).

² See Melamet Report (1994: 41).

Some simple price theory

Cartels

Stigler (1966) argued that cartels cannot long persist¹. Absent government support, they will soon collapse. There are three main reasons. One is that existing firms will be tempted to ‘chisel’ on the agreed price structure and so ‘free-ride’ on the anti-competitive behaviour of others. Since all firms will so reason, unless a sufficiently powerful body such as the law can act as monitor or inhibit new entry the cartel will crumble. A second reason is that if cost differences exist between cartel members, output should be allocated at the equi-marginal cost level. Again, unless some powerful third party enforces that allocation – or alternatively enforces similar cost structures and schedules – the cartel will tend to disintegrate.

Finally, if a cartel does successfully establish a ‘floor’ price then rivalry is likely to break out in some other dimension. The cost curves of each firm will rise. In the case of a successful cartel, profits may then be eliminated by cost increases and not by price rivalry. Thus free medicine-delivery services, lavish provision of credit to patients, long opening hours and a greater number of outlets than the market requires may arise. As Bach (1968) put in another context:²

Such a cartel arrangement with free entry, it might be argued, is not a halfway point between competition and monopoly, but rather an arrangement that combines the worst characteristics of each and the benefits of neither.

We will discover below that the retail pharmacy cartel has indeed managed to engender political support in several countries. We will find that it has succeeded in generating anti-chiselling legislation and encouraging the drawing up of rules requiring similar cost schedules, and that the outcome has been one of Bachian perversity.

Price discrimination

Scherer (1997) reports on how, in the American antitrust case, one of the charges laid against the manufacturers was that of practising price discrimination. This charge has been made in other countries and indeed anxiety has been officially expressed in at least two (the UK and South Africa). Scherer argued that it is difficult to ascertain – without empirical data – whether price discrimination harms the interest of the final consumer. Economists have given a hostage to fortune by their use of an emotive adjective for a technical situation. Just as ‘perfection’ in competition should not necessarily be seen as desirable – it describes market characteristics – neither should ‘discrimination’ in price automatically be regarded negatively. It simply means that non-identical price:marginal-cost ratios are set when a firm sells products to different market segments. Whether this is welfare-enhancing is dependent on the case.

The term ‘price discrimination’ should not be immediately regarded as pejorative. Firstly, when linear demand curves are used for analysis the outcome is either one of no change or of an increase in output. Since monopolistic abuse generally implies lower outputs it is not necessarily true that price discrimination has resulted in an inefficient outcome (indeed equity may have improved since more price-sensitive buyers may have been drawn into the market). Secondly, price discrimination results in producers appropriating additional consumers’ surplus. This may be a prerequisite if the product is to be produced *at all*. As with Dupuit’s Bridge, where short-run marginal cost is zero – a *non-discriminating*, toll-charging monopolist might consider building to be a bad investment³. Analogously, in pharmaceuticals, price discrimination may be necessary, *inter alia*, to permit firms to recoup their research and development costs.

A variant of this point is to ask how such common costs should be recovered? A regime of either uniform pricing, Ramsey pricing or spontaneous price discrimination could be adopted. The first two alternatives could be imposed by regulation. With a uniform mark-up on short-run margin-

al costs, overheads could indeed be met. Given different demand elasticities, however, the reduction in quantity demanded would be greater with the more price-sensitive product or segment. The total dead-weight loss is then substantial. But if a situation of Ramsey pricing is imposed, the same value of common costs can be recouped although the mark-up must be greater where demand is relatively price-insensitive. The optimal situation of minimum overall dead-weight loss is then achieved. Ramsey pricing implies that the ‘inverse elasticity’ rule is followed. That is, the ratio e_1/e_2 should equal Z_2/Z_1 where elasticities are denoted by e and mark-ups by Z . Schankerman⁴ argued that this optimal rule will tend not to be followed. Even if the cost and demand data were available it is doubtful if any regulatory body would so employ them. High demand elasticity generally means ready availability of substitutes. Low demand elasticity, conversely, tends to mean that people who want a certain product have few alternatives available or regard the product as a ‘necessity’. When this is the case, vocal objections to a relatively high price are likely to be raised.

An unregulated profit-maximising firm, however, will adopt spontaneously a pricing scheme at least qualitatively similar to the socially optimal one. In the short run, common or overhead costs will be regarded as sunk and the firm will set marginal revenue equal to marginal cost for all products. The outcome of spontaneous price discrimination for a two-product or two-market-segment firm can then be shown to be $(1 + e_1)/(1 + e_2) = Z_2/Z_1$. This is not the same as Ramsey optimality but is certainly closer to it in terms of dead-weight losses which *must* be sacrificed to cover common costs than is the frequently-observed legislative alternative of a ban on discriminatory prices.

¹ See Stigler (1996: Chapter 13).

² See Bach (1968: 364).

³ See Dupuit (1967).

⁴ See Schankerman (1976: 3-45).

Chapter 3

Empirical evidence: Cartel success and failure

To recapitulate, we have argued that:

- a. cartels tend to fail; but
- b. they seek regulatory protection to offset this tendency; and do so by:
 - i. lobbying for protection against ‘chisellers’ whether the rivals are existing or new firms; and by
 - ii. lobbying for protection against rivals with different cost structures or schedules; and
- c. they have a tendency to move towards a high degree of non-price rivalry. In addition, and linked with b.ii,
- d. they argue for regulatory protection against the activity of price discrimination by suppliers. This, if successful, ensures similar input costs. It is a case they make as if price discrimination was an activity with prejudicial consequences for the public interest. That case is unproven. Worse, if the lobbying is successful, the cartel will be strengthened and the consumer interest damaged.

The current author (1996) made a study of manufacturer pricing activity and distribution channel activity in six different markets – the USA, South Africa, the UK, Germany, Holland and Denmark. We draw on it and on Scherer’s (1997) paper to contrast retail-pharmacy lobbying behaviour and regulation with the predictions above.

The crumbling cartel

The initial premise is that retail pharmacy is indeed an example of a failing cartel.

The data given at the beginning of this paper on the shrinking market share of independent retailers in the USA and South Africa support this view.

Protection from ‘chisellers’

Does the cartel lobby for protection against chiselling, whether from existing or new forms of retailing? In the US the lawsuit against the manufacturers, where the complaint was lodged that PBMs and PPOs had commercially harmed retailers, suggests an affirmative answer. In the UK there have been tentative movements towards distribution innovations of the sort seen in the USA (particularly TDM packages and PBM programmes). The response of government in terms of protecting traditional retail outlets has been highly conservative. An Executive Letter (EL(94)94) was sent from the National Health Service (NHS) Executive Headquarters on 8 December 1994 instructing all tiers of NHS management responsible for pharmaceutical purchases down to general practitioners that they “must not make commitments to purchase drugs” on ‘preferential’ terms or from “companies offering disease management packages”. The reasons given for this ban included the detrimental “*bypassing of community pharmacy*” (emphasis added) and the ‘undermining’ of the information required by government for its price-regulation scheme.

In South Africa, retailers have successfully lobbied against “closed” PPOs regarding retail pharmacists selected by reimbursers¹. Any success by a closed-panel PPO in reducing costs to patients, claims the Competition Board, has to be weighed against the harm to retailers excluded from the PPO. Only PPOs open to all retailers received Competition Board approval. In Denmark, Holland and Germany regulations exist prohibiting the emergence of chain-stores or corporately-owned retailers. There the cartel is still dominant. Although in South Africa corporate ownership is also banned, innovation has arisen from dispensing doctors and mail-order outlets, both of which have significantly encroached on the cartel’s former pre-eminence. Predictably these activities are strongly opposed by retailers.

Lobbying for similar cost structures

The continued and widespread lobbying against corporate ownership, and hence large scale retailing, in Denmark, Holland, Germany and South Africa illustrates how retailers aim to minimise differences in their cost levels and so facilitate cartel cohesion. The existence of chain-store retailing elsewhere, as in the UK and USA, indicates that its absence is hardly necessary for consumer protection. Consumers, of course, are not deprived of the professional services, skills and advice of qualified pharmacy professionals in chain-stores. Protection of the traditional distribution mode is not necessary to protect that role. To practise as a pharmacist does not imply that one should simultaneously be a conventional storekeeper. Yet the profession's reliance on trading *qua* trading results – in these markets – in its lobbying for costs to be constrained at the near-identical levels imposed by legal compulsion of small-scale operations.

High levels of non-price rivalry

Entry to pharmacy as a profession is relatively unrestricted in many countries (a professional qualification is a requirement but trading licensure rules are liberal). Thus given similar costs due to a ban on corporate ownership, over-trading tends to be one outcome. (For example, Germany, where chain-stores are banned, has 21,000 outlets; while the UK has only 12,300 outlets which service a population only slightly smaller.) Government Reports in South Africa have frequently reiterated the view that the country has too many outlets with too small a turnover to produce a profit². Yet the retailers in turn frequently and collectively advertise their special services of home delivery and credit, all provided at no extra charge – such services bolstered, in turn, by a compliant wholesale industry willing to make several deliveries per day to each retailer, as the retailers find it too costly to carry much breadth or depth of stock in a low turnover setting.

Lobbying against price discrimination by suppliers

Scherer (1997) indicates the success with which the cartel has lobbied against the practice of manufacturers awarding discounts to innovative forms of drug distribution in the USA. The South African government³ takes a similar view. As a consequence of retail lobbying it intends to legislate for a “single exit price” (jargon for a single list price) by manufacturers for “equivalent transactions”. Moreover, Department of Health officials favour a “transparent” pricing structure and imply that transaction prices should not deviate from list prices.

Prospective South African legislation directed against such pricing practices is essentially of a *per se* nature. It is not aimed at *abuse* of the particular practice. *Abuse* criteria would rather examine current or proposed market practices in the light of their ultimate impact on consumer welfare. For example, the questions might be asked – do current or proposed pricing practices strengthen and improve the efficiency of the existing retail sector? Do the practices encourage innovation in the existing distribution chain which would be to the benefit of the consumer (in terms of lower final prices or a better service)? Do the practices facilitate or hinder the development of more efficient means of purchasing and paying for products by the consumer or others acting on the patient's behalf? By and large, the South African proposals to ban price discrimination (as defined above) would make it illegal to negotiate discounts on prescription medicines with retailers (or others in the distribution chain) who can offer services to manufacturers that justify discounts. They would strengthen the cartel's *status quo*.

The South African cartel also argues for *transparent* pricing structures. But transparency *per se* is neither desirable nor undesirable in the public interest. For example, unnecessarily high (but transparent) price levels are undesirable. *Appropriate* or *competitive transparency* is where buyers, whether patients, insurers, PBMs, MCOs or others, can easily obtain information on the alternative offers of lower-price suppliers. This results in lower prices and better services as higher-cost, less-satisfactory suppliers are forced to cut prices to gain or retain business. *Inappropriate* or *anti-competitive transparency*, such as guaranteed buy-in prices, where negotiation between buyer and seller is illegal, discourages this rivalry and preserves and conserves existing high prices and distribution modes.

- ¹ See Competition Board Report (1996: 32).
- ² See Snyman Report (1962: paragraph 912); Browne Report (1985: 9); Melamet Report (1994: 38-40).
- ³ See Reekie (1996: Chapter 2).

Conclusions

The retail pharmacy cartel has recently proved that it continues to possess political clout in the US market-place. The USA, however, is not unique. The cartel's influence is pervasive in other parts of the globe as well. Retailers have influenced regulation and legislation in many other countries. Their success includes using legal process to slow down advances in distribution. Developments which are hampered range from conventional cost-reducing devices, such as attainment of scale economies, to more recent innovations designed explicitly to contain the costs of medicines.

The consequence has been that competition which might 'shift share' from one manufacturer to another has been dampened. This outcome is partly a result of the well-known difficulty of deciding whether price discrimination is pro- or anti-competitive. In South Africa it was proposed¹ that differences in manufacturers' prices would only be 'justifiable' if they are required "to provide for the cost or *probable cost* in the manufacture and/or distribution of the medicine" (emphasis added). The policy problem here, as the drafters understood, is that costs are subjective. When the manager of a firm takes a decision only she knows, or believes she knows, the benefit she is foregoing – the cost – of the decision. Hence the adjective "probable".

Another difficulty with uniform prices for equivalent transactions is the meaning of "equivalence". A manufacturer may wish to raise his share of the market. Should he price at the same level today to two different distribution channels if he anticipates one channel has a much higher growth-potential tomorrow? If he believes one channel has more efficient (lower cost) methods of reaching the patient and can expand more rapidly tomorrow than the other, how can he encourage this for his own (and also the final patient's) benefit? The answer is to price *ahead of demand* by lowering price to the channel with high potential – a common business practice but one with *prima facie* evidence of unjustifiable price discrimination. Yet closer inspection, taking account of *probable costs*, might render any price differences 'justifiable'.

These problems and others help explain the strength and influence of the pharmacy cartel. It can always point to the competitors who may go out of business if competition holds sway. Proponents of suppressed competitive alternatives cannot define the unknown future and its benefits with such precision.

¹ See Notice 1136 (Amendment to Competition Act, Government Printing Office, Pretoria, 1993).

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