The TSX Gives a Short Course in Health Economics: It's the Prices, Stupid!

Le TSX donne un cours d'appoint en économie de la santé : C'est une question de prix, ignorant!

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Abstract

The fall in Shoppers Drug Mart shares last April 8 gave a crystal-clear demonstration of the link between health expenditures and health incomes. Reacting (finally) to the excessive retail prices of generic drugs, the Ontario government effectively halved the rate of reimbursement of ingredient costs and banned the "professional allowances" (kickbacks) paid to pharmacies by generic manufacturers. Taxpayers and private payers will save hundreds of millions of dollars, and pharmacy revenues will fall by an equivalent amount. Patients will still get their drugs, with no loss of quantity, quality or even convenience; no one's health is threatened. But investor profits will fall. There are similar savings opportunities throughout the health system. Health costs are primarily a political, not an economic, problem.

Résumé

La baisse des actions de Pharmaprix, le 8 avril dernier, a été une démonstration claire du lien entre les dépenses de santé et les résultats en matière de santé. Réagissant (finalement) aux prix de détail excessifs des médicaments génériques, le gouvernement ontarien a réduit de moitié le remboursement du coût des ingrédients et a interdit les « ristournes » (ou pots-de-vin) accordées aux pharmacies par les fabricants de produits génériques. Les contribuables et les tiers payant privés économiseront des centaines de millions de dollars tandis que le revenu des pharmacies baissera proportionnellement. Les patients continueront d'obtenir leurs médicaments, sans perte de qualité, de quantité ou même de commodité; nul ne verra sa santé mise en danger. Cependant, les bénéfices des investisseurs chuteront. Il existe des possibilités d'économies semblables dans tout le secteur de la santé. Les dépenses de santé sont d'abord et avant tout un problème politique, non pas économique.

Wednesday, April 7, 2010. The shares of Shoppers Drug Mart (SC-T) closed on the Toronto Stock Exchange at just under $44. The next morning they were trading below $37. Nearly a fifth of the company's market value, about $1.6 billion, had vanished literally overnight. It got worse. On June 29, Shoppers bottomed at $32.57 a share. The company had lost a quarter of its market value since the evening of April 7. (Shoppers has since recovered somewhat; on October 1, it closed at $38.82.)

Lesson One: *Every dollar of expenditure on health services (or anything else) is a dollar of someone's income.*

There is no mystery about where the money went. The Minister of Health of Ontario announced, on that Wednesday evening, that as of July 1 the Ontario Drug Benefit (ODB) Plan would change the rate at which pharmacies were reimbursed for the ingredient costs of generic drugs dispensed to beneficiaries. By June 29, it was clear that they were going ahead as planned. Pharmacies had previously been receiving 50% of the price of the corresponding branded and originally patented drug; henceforth they would receive only 25%. At the same time, the "professional allowances" (less politely, kickbacks) paid by generic manufacturers to pharmacies would be banned. Shoppers, the largest chain pharmacy in Canada, would see this change come straight off its bottom line – as indeed would every other pharmacy in Ontario – and the stock market reacted accordingly.

The Ontario government estimated that this change would reduce ODB outlays by about $500 million per year, or 12% of the estimated $4.1 billion that the Ontario

government spent on drugs in 2009 (CIHI 2009). But private payers in Ontario, both insurers and individual patients, spent another $7.6 billion, and as of April 1, 2012, they too will be paying no more than 25% of the price of the originally patented drug.

Nationally, about a quarter of private spending is for non-prescription drugs and related items. So if one assumes an equivalent 12% saving on generics for private payers, that would amount to 7.6 x 0.75 x 0.12 = $684 million. The numbers are rough, but the total savings look "not unadjacent to" $1.2 billion per year.[1]

That's an average of nearly $100 for every resident of Ontario. It is also an estimate of the annual revenue lost by Ontario pharmacies. The savings and the loss are opposite sides of the same coin. And the savings/lost revenue will increase over the next few years as several high-volume "blockbuster" drugs come off patent and more generic alternatives become available (Picard 2010; Cutler 2007). The fall in Shoppers' capitalization represents Bay Street's (rather unstable) guesstimate of the present value of its share of that lost stream of future revenue. No wonder Jürgen Schreiber (CEO of Shoppers) was upset.

Lesson Two: *Winners and losers are always unevenly distributed.*

The gainers from this policy change are Ontario taxpayers, patients and (eventually) privately insured workers and their employers. Patients benefit immediately, taxpayers will gain as the debt burden is lessened and workers/employers will gain as, if and when, private insurance premiums fall (or rise less rapidly), leaving more cash on the table to be divided between them.

Investors, in and out of Canada, will lose; the market has already made a preliminary calculation of their loss. Shoppers Drug Mart is a blue-chip stock, popular with mutual funds and exchange-traded funds offering steady growth with good dividends. (It has a beta of 0.40.) These folks have had a nasty surprise. Overall, the net effect has probably been to shift wealth down the income distribution because stock ownership is highly correlated with income and pharmaceutical use is not.

Pharmacists, *qua* pharmacists, will probably be little affected. The steady up-trend in prescriptions to be filled will not change, and failing significant technical changes in the dispensing process, pharmacists will be needed to fill them. Assuming that the market for pharmacists' services is reasonably competitive, and chains like Shoppers pay no higher wages and hire no more pharmacists than they have to (they are, after all, for-profit corporations, not charities), then pharmacists' wages and employment are unlikely to change.[2]

Those pharmacists who own their own stores, however, definitely will lose – their profits will fall along with those of corporate pharmacies. They are, in a sense, their own shareholders. But it is the return to store ownership, not the wages of pharma-

cists, that will fall.[3] Expressions of distress by pharmacists' organizations will reflect this impact on pharmacy owners.

Lesson Three: *It's the prices, stupid!*

Health expenditures are driven by prices as well as quantities: E = P x Q. Q is unchanged; Ontarians are still getting their prescriptions filled. The reforms have cut the prices paid for generic prescriptions, not the quantity provided. Pharmacies have had their profits cut but have not gone out of business, and it appears that Bay Street has significantly reduced its June 29 estimates of the impact of the reforms. As the price cuts are extended to private payers, there could be some reduction in the numbers of pharmacy outlets, but Ontario is heavily over-endowed with pharmacies, especially in urban areas.[4] Indeed, this density is likely a consequence of the overpricing of generic drugs.

The ODB reforms do contain provisions to protect access to pharmacy services in regions with low dispensing volumes, where lower reimbursement might really threaten patients' access to drugs, but this is a small fraction of the Ontario population. Because the vast majority of prescriptions are filled in markets densely populated with pharmacies, there seems no good reason to let the rural tail wag the urban dog.

Shoppers initially threatened to terminate free delivery services and other benefits to patients, but this move seems questionable. Providing such services is a marketing decision, not an act of charity. If they add to profits, they continue. If not, well, the pharmacy can always offer these services for a price to those willing to pay.[5]

Lesson Four: *Rising health costs are not a law of nature, like the tides. They are responsive to well-crafted policy.*

This episode gives the lie to those who allege that containing health costs must necessarily impose unacceptable cuts to the quantity and/or quality of health services, threatening Canadians' health. Such claims are the basis for the argument that universal public health insurance is "fiscally unsustainable." They are also false.

The interests driving these claims are not difficult to discern; see Lesson One, above. But the implicit assumptions are twofold, and both are wrong. First, they assume that the prices currently paid for health services are determined through some market or other process such that they reflect the real costs of production. Imposed reductions must therefore result in reduced quantity or quality of services. The Ontario reform demonstrates that this is incorrect. The second assumption is that the services currently being provided are all necessary and effective in promoting patients' health. This assumption flies in the face of a vast literature on prescribing appropriateness and clinical variations; for the merest scratch on the surface of the latter, see Evans (2009).

Lesson Five: *Cost containment is primarily a political, not an economic, problem.*

The shares of Jean Coutu, the large Quebec pharmacy chain, also fell on April 8, from $10 to $9, and bottomed on June 29 at $7.88. Investors expected Quebec to follow Ontario's lead. More generally, Ontario is only about 40% of Canada. If its reforms rolled across the country, could we be seeing national savings – pharmacy revenue losses – in the $2–$3 billion range? The answer appears to be no, not so much, and the reasons are quite instructive.

The government of British Columbia did react, very quickly. Health Minister Kevin Falcon announced that PharmaCare would negotiate a mutually acceptable agreement with pharmacies to reduce the reimbursement rate for generic drugs. Reductions will apply to private payers as well. But the reimbursement rate was reduced only to 35% of the corresponding previously patented drug, phased in over three years. There would also be additional payments to pharmacists for various other services, of possible value to patients but of clear benefit to pharmacies.

Alberta had, in fact, acted earlier to reduce payments for generic drugs, first for new generics and then, effective April 1, 2010, all generic drugs. But the cuts were from 75% to 56% of the corresponding branded product (45% for new generics), so that Albertans after their reform are still paying higher prices than the ODB was paying before July 1, 2010.

As the Alberta government's press release notes, disingenuously: "The pharmacy industry indicated it had some concerns with reductions to generic drug prices. … Government recognizes that reducing the price of generic drugs will impact revenues of pharmacy businesses" (Alberta 2010). Well, duh! (Yet again, see Lesson One, above.)

Unlike Ontario, neither Alberta nor British Columbia eliminated kickbacks from generic manufacturers to pharmacies. And both left in place maximum dispensing fees well above Ontario's rate of $8.50 (Alberta, $11.93; BC, $10.50). In short, while recognizing that generic drug prices were too high, both Alberta and British Columbia struck a political compromise between the financial interests of taxpayers and private payers on the one hand, and pharmacies on the other.

There is no economic reason why governments in both Alberta and British Columbia could not have followed Ontario and gone for 25% or even less. The government of British Columbia, in particular, seems proud that they achieved a "negotiated" rather than an imposed settlement. But pharmacies negotiated with a gun at their heads. By leaving so much money on the table, these governments in effect bought ideological comfort and, presumably, political advantage with other people's money. (In BC, some of mine.)

Well, it isn't the first time *that* has happened. The point that comes through loud and clear, however, is that had they wanted to cut drug costs still further, they could easily have done so. Both the previous and the new lower costs of generic drugs are the result of political choices, not economic forces.

Quebec is more involved. Current legislation requires the provincial government to pay no more for a drug than the lowest price available in any other province. That would force them to match Ontario's 25%, and the government says they will. But:

> This same law prohibits private plans from adopting the same control approach as the RAMQ [Quebec's health insurance plan]. Indeed, private plans are obligated to reimburse an original drug at a minimum of 68% of the amount claimed, even if the generic drug is sold to the pharmacist at a maximum of 25% of the price of the original. (Tagsa 2010)

In effect, the government of Quebec is trimming its own costs while leaving private payers exposed to higher charges. And in Quebec, employer-based insurance is *de facto* compulsory. Employers and employees are thus being milked to subsidize pharmacies – a distinctly perverse approach to cost control!

Nonetheless, pharmacy owners are said to be outraged that they were not consulted. (What, exactly, might they have said? It's a zero-sum game.) They have demanded various forms of compensation, and have taken a page from the Big Pharma playbook. Current or planned generic production in the province will be suspended if their prices fall.

That argument makes no economic sense. Generics are an internationally traded commodity. What possible benefit would there be to Quebeckers at large from paying a premium, directly or indirectly, for local production – and supporting the price of Jean Coutu shares?

But that is an economist talking. The political calculation is likely to be different – as it was in Alberta and British Columbia. At time of writing, the Quebec poker game was still in session. The important point is that it *is* a political poker game. Whatever emerges, any suggestion that Quebeckers will pay prices for generic drugs that approximate their real economic costs, or are determined by competitive market forces, would be incredibly naïve or simply dishonest.

Lesson Six: *In the health services sector, regulation works. Markets don't.*

In October 2007, the Canadian Competition Bureau released a report on generic drug prices (Canada 2008). Bay Street analysts are paid to assess the profit potential of publicly traded corporations. They ignored the Competition Bureau report, if they noticed it at all. A small prize will be given to the reader who can find a response in Shoppers Drug Mart share prices during October 2007.

Yet, the Bureau clearly stated that retail prices for generic drugs were too high. Competition among generic suppliers was effective in holding down prices paid by pharmacies, but not prices charged by pharmacies; the benefits of competition were

being appropriated before reaching the retail payer (and hence were capitalized in, e.g., Shoppers share prices). The Competition Bureau's report contains thoughtful discussion of the ways in which the competitive market forces of the economic textbooks have been subverted in this market, and hopeful suggestions as to how they might be strengthened and made more effective. The TSX apparently did not fancy their chances.[6]

The report ends on a rather wistful note:

> Individual plan members and persons paying out of pocket can also play a key role in helping to obtain the benefits from competition by being effective shoppers. The more that consumers compare prices and services when shopping for drugs, the more incentive the pharmacies will have to make lower prices and better services available to patients. (Canada 2008)

Indeed. And if wishes were horses, beggars might ride. In the real world:

> it is the cash-paying customer without a drug plan who typically pays the highest price for prescription drugs. Sullivan says many pharmacy computers are set up so that if a regular pharmacy client loses their employer-paid benefits, and that information is entered on the screen, "a completely different" higher price for the prescription automatically pops up. (Silversides 2009)

The central point is that over half of prescription drug costs (55% in 2009), generic and patented, are paid privately and always have been. Yet, this private market has not restrained prices. Conceivably, an activist provincial government might try to restructure the drug dispensing process to create genuine market competition, but such restructuring would have to be extensive, complex, politically costly and highly uncertain of outcome.

Why would any rational government take on such a dubious task when regulatory alternatives are ready to hand? Such a quixotic enterprise might please ideological marketophiles and congenital economists, but the more realistic folk who decry regulation and champion "the market" in health services typically do so precisely because they understand how little threat markets pose to existing price and income patterns.[7] The Ontario government has instead chosen to cut the Gordian Knot. Its example has forced other provinces, perhaps half-heartedly and despite ideological reservations, to follow along.

Lesson Seven (extra credit): *All six of these lessons apply across the whole health system.*

Prescription drugs account for only 13.9% of Canadian health spending, and generics for less than half of that. Even if provinces could pick up, for their residents, all of the

$2–$3 billion in annual savings that might be on the table, that is small change compared to last year's estimated total of $183.1 billion, increasing about $10 billion a year.

But wait! There's more!

When Canada's Medicare was extended to cover physicians' services in the late 1960s, the rate of escalation of physician and hospital costs was dramatically reduced. The universal public system both avoids the very large administrative overheads generated by private insurance (Woolhandler et al. 2003) and possesses a significant degree of bargaining power in negotiating with providers. The sectoral price inflation endemic to private or mixed financing systems – over and above general inflation rates – is substantially reduced. A universal pharmacare program could do the same.

But in Canada, we still finance prescription drugs on the American Plan – multiple public and private payers, very expensive and highly inequitable. Commentators have noted for years that we incur substantially higher costs as a result. Most recently, Gagnon (2010) calculates that a true pharmacare system similar to medicare – universal, first-dollar, tax financed, with a single public payer – could reduce total drug costs by as much as $10.7 billion per year, even assuming a 10% increase in utilization. That begins to sound like serious money.

About $1.5 billion could be saved by eliminating most of the administrative overhead, the extra paper pushing (and the tax-expenditure subsidies) associated with private insurance. But the big money comes from aggressive price negotiating with the pharmaceutical industry. When governments are themselves on the hook for drug costs – directly accountable – it concentrates the political mind wonderfully. Promoting industrial policy by giving away their citizens' money to Big Pharma is likely to look less attractive.

These savings are not imaginary; examining New Zealand's Pharmac program for drug purchasing, Morgan (in Evans et al. 2007) has calculated potential savings for Canada of a similar magnitude. So fierce opposition to a medicare-type Pharmacare program from Big Pharma and the private insurance industry is a given. The potential savings are their revenues – once more, see Lesson One, above.[8]

But there is another source of resistance. In cutting about $10 billion from Canadians' total drug bill, genuine pharmacare would also double the public share. Opposition thus comes not only from anti-tax ideologues and assorted libertarian loonies, but also from quite clear-eyed occupants of the upper income brackets. Tax-financed pharmacare, like medicare, would transfer some of the overall payment burden from the unhealthy and unwealthy to the healthy and wealthy. The latter are thus natural allies of Big Pharma and the private insurers in protecting our high-cost drug financing system. And they make their dollars count, politically.

Pharmaceuticals are not the only sector where prices are out of line. Payments to physicians account for the same share of health spending ($25.6 billion in 2009) as pharmaceuticals ($25.4 billion), and they have been on a bit of a tear lately. According

to the Canadian Institute for Health Information (2009), per capita expenditures have risen 45% in the last 10 years, after adjusting for general inflation. This increase is second only to pharmaceuticals (a whopping 74%). But in the last five years, the escalation of payments to physicians has accelerated – 24% above inflation and population growth since 2004, compared with 16% in the previous five years – while in all other major expenditure categories the growth, while still very significant, has slowed. (Pharmaceuticals fell from 46%, 1999–2004 to 19%, 2004–2009; hospitals are down to a mere 11%.)

These are very big numbers. If payments to physicians had merely kept pace with inflation and population growth over the last decade, our annual doctor bill would now be $7.9 billion lower. Similar restraint in prescription drugs would have saved us $11.0 billion.[9]

Research currently nearing completion at the Centre for Health Services and Policy Research at UBC suggests that the growth in physician expenditures is, like that of pharmaceuticals, largely a consequence of increasing relative prices – sector-specific inflation. There is thus considerable scope for cost containment in physicians' services, as in prescription drugs, by focusing on the prices being paid. The real problem is, as always, the political difficulty of containing the income aspirations of powerful actors on the supply side.

The economics is, by comparison, easy.

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NOTES

[1] The cut to 25% is not the whole story; there are to be a variety of other compensatory payments to pharmacies to cushion the shock. On the other hand, the proportionate savings to private payers may be even greater than those to the ODB.

[2] This prediction assumes that because the overall volume of dispensing work will not be reduced, requirements for pharmacists will not change, i.e., the average number of prescriptions filled per pharmacist will remain constant. Conceivably, however, efforts to restore the profitability of pharmacies could lead to fewer pharmacies and higher dispensing rates per pharmacist – reducing the demand for pharmacists. Introduction of "robo-pharmacy" could have even more dramatic effects.

[3] If the option of opening one's own pharmacy enables pharmacists to bargain for higher wages than the market would otherwise provide for work of similar effort and knowledge, then any such premium would be reduced as store ownership becomes less attractive.

[4] A recent analysis of the supply and geographic distribution of pharmacies in Ontario (Law et al. 2010) shows that the majority of the population (63.6%) live within an 800-metre walk of one or more pharmacies, and nearly all (90.7%) live within a five-kilometre driving distance. A randomly

distributed cut of 20% in the number of outlets (conservative, since closures would be more likely in pharmacy-dense areas) would have virtually no impact on these access measures.

[5] The announcement by Loblaws that they were considering opening dispensaries in their stores took some of the wind out of Shoppers PR sails, though that may have been just a shot across the bow in response to Shoppers' intrusion into the grocery market.

[6] Still, the clear message, from a disinterested public agency, that Canadians were paying too much for generic drugs can only have strengthened the political position of the Ontario government.

[7] There are examples of successful cost containment through competition – New Zealand's Pharmac and Medicaid in the United States, or, for that matter, hospital or pharmacy purchasing in Canada. But these are competitive tendering processes at wholesale, by a single buyer or a coordinated group, not a fragmented retail market. Even very large private insurers have been remarkably ineffective, worldwide, in mobilizing their potential market power to restrain price inflation in the health sector.

[8] When the United States introduced the Medicare Part D coverage of prescription drugs for the elderly, the pharmaceutical industry lobbied successfully to have the legislation specifically prohibit the Social Security Administration from negotiating drug prices with suppliers. They were well aware of the potential impact on prices of a large public buyer.

[9] Of course, the population is also aging. Demography would account for an increase of about 5%.

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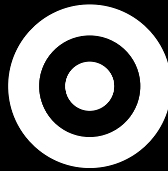

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