Highlights from

Do Drug Makers Lose Money on Canadian Imports?

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Drug makers and others persistently assert that importing prescription drugs from Canada would damage drug makers' profits and their capacity to finance research. This view is widely accepted. Importing proponents have not generally questioned this view but instead focus attention on the clinical and financial benefits of lower drug prices.

But what if importing drugs from Canada does not harm drug makers' profits? This data brief questions and explores the premise that importing necessarily means lower profits.

Lower Canadian prices let some Americans fill prescriptions that otherwise go unfilled. ***We find that if new prescriptions' share of imports is 45 percent or more, importing actually increases drug makers' profits.*** This is the point at which the profit lost by drug makers when patients fill existing prescriptions at lower Canadian prices is exactly offset by the profit drug makers gain by selling new prescriptions through Canada. (Note: Some numbers shown in the full report are rounded here.)

The share that are new prescriptions is not yet known empirically, but should be ascertained. New prescriptions' share of imports may be high enough today to prevent a loss of profits owing to importation.

This finding offers reason to hope that a combination of lower drug prices and higher volumes could address patients' and payers' needs for affordable prescription drugs while satisfying drug makers' needs for adequate profits and research financing.

Background

Spending on prescription drugs in the U.S. has doubled every five years since 1994.

Roughly one-quarter of Americans have no insurance for prescription drugs, and this share appears to be growing. According to a recent survey, one-third of Americans report that paying for medications is a problem.

This year alone, we estimate, Americans would save some $60 billion by paying Canadian prices for brand name drugs (before taking into account any rise in the number of prescriptions filled in response to the lower prices).

Do Drug Makers Lose Money on Canadian Imports?

The answer to this question depends on several factors, including these:

Comparative prices of brand name prescription drugs in the U.S. and Canada

- U.S. prices for brand name drugs were 67 percent above those prevailing in Canada in 2002. In other words, Canadian prices are 40 percent below those in the U.S. As we showed elsewhere, the international price gap has been actually widening.

What is the old/new division of prescriptions bought in Canada?

- What share are replacements or substitutes for old prescriptions, those previously purchased in the U.S. that are now bought in Canada?
- What share are new sales, prescriptions that patients were previously unable or unwilling to buy at the higher U.S. prices but now buy in Canada?

The incremental cost of making and distributing higher volumes of prescription drugs

- It appears that the incremental cost of manufacturing and distributing more pills, once the research is done and the factories are built, is very low.
- Because the cost of providing additional medications is so low, any rise in volume of sales—any new prescriptions sold—will be highly profitable for drug makers.

The Core Analysis

We follow $C1 billion (Canadian) in brand name drug purchases from Canada by Americans. We also calculated the effect of various splits of the $C1 billion between new and replacement/old prescriptions.

We concluded that ***drug makers' profits will rise if no more than 55 percent of drugs bought from Canada by Americans are replacement prescriptions***. Of that $C1 billion, those replacement purchases would total $C555 million, as shown in Exhibit 1 on the next page. Since U.S. prices average 67 percent above Canadian prices, drug makers would forgo $C371 million (67% of $C555 million equals $C371 million) in revenue.

The other 45 percent of prescriptions sold from Canada to Americans—the new prescriptions—would translate into $C445 million in revenue.

Against this must be offset the added or incremental costs of making and distributing the additional volume of medications. We estimate these at 6.6 percent and 3.3 percent, respectively, of drug makers' prices in the U.S., or $C74 million. Subtracting these higher costs from the $C445 million in higher revenue yields $C371 million in added profit on new prescriptions.

So the profit loss of $C371 million on replacement prescriptions is exactly offset by the profit gain of $C371 million on new ones. Drug makers break even when the new/old split is in this 45 / 55 proportion.

Drug makers' gains or losses on importing from Canada depend crucially on the split between replacement/old prescriptions and new prescriptions. Exhibit 2 (see next page) displays the calculated gains and losses on $C1 billion in Americans' purchases of Canadian drugs at different splits. For example, drug makers' profits would fall by $C670.0 million if 100 percent of prescriptions sold to Americans replaced prescriptions formerly filled in the U.S. At the other extreme, drug makers' profits would rise by some $C834.7.0 million if 100 percent of prescriptions sold to Americans were new prescriptions.

Exhibit 1

Drug Makers Break Even on Canadian Imports—
If New Prescriptions Are 45 % of Imported Drugs

Item	Canadian Dollars or %	Explanation
1. Imported from Canada	$C1.0 billion	Projected for 2004, at manufacturers' prices
2. % replacement prescriptions	55%	Break-even replacement prescription share
3. profit loss on replacement prescriptions	$C371 million	Buying in U.S. would have generated 67% more revenue (67% of $C555 million = $C371 million)
4. % new prescriptions	45%	Break-even new prescription share
5. profit gain on new prescriptions	$C371 million	$C445 million in new revenue, less $C74 million in costs to manufacture and distribute the additional volume of medications
6. Change in drug makers' profits	$C0.0	Line 3 minus line 5.

Exhibit 2

Drug Makers' Profits Rise and Fall with the Old/New Prescription Split

Share of Americans' Purchases from		Rise or (Fall) in Drug Makers' Profits
Replacement/Old Prescriptions in Canada	New Prescriptions from Canada	In Millions of Canadian Dollars
100%	0%	(670.0)
75%	25%	(293.6)
67%	33%	(173.5)
55%	45%	0
50%	50%	82.3
33%	67%	338.1
25%	75%	458.5
0%	100%	834.7

Learning More about the Old / New Split

The split of drugs currently bought by Americans from Canada between new prescriptions and replacement/old prescriptions is not known. It will depend, essentially, on the extent to which American patients fill more prescriptions in response to lower prices, what economists call the price-elasticity of demand.

The RAND Health Insurance Experiment, conducted during the 1970s, estimated that a ten percent drop in price would result in a 3 percent rise in volume of drugs purchased. We suggest a number of reasons why the RAND estimate of price-elasticity of demand for prescription drugs from the 1970s is too low today.

The drug makers' lobbying group, PhRMA, seems to agree that price cuts can markedly raise volume. PhRMA wrote, "A 1993 study by Heinz Redwood and a 1994 study by David Gross comparing international pharmaceutical-spending controls across countries found that while price controls produce lower prices, they do not reduce pharmaceutical expenditures (price times volume) or contain health care costs." (*Industry Profile 2000*)

In arguing against price controls, PhRMA thus endorsed findings that price controls will not save buyers money because the price cuts will boost sales volume enough to replace the revenue lost to lower prices. If that applies to price controls, it also applies to importing drugs from Canada, since both mechanisms achieve lower prices.

Conclusions

Importing medications from Canada would allow substantial numbers of Americans to obtain prescription drugs they cannot afford today. And the financial harm to drug makers may be surprisingly low. Drug makers could even benefit. The split between new and replacement prescriptions would largely determine whether profits rise or fall.