Mr. Chairman, members of the Senate Finance Committee, and fellow panelists, my name is Gerard Anderson and I am a professor in the Bloomberg School of Public Health and a professor of Medicine in the School of Medicine at Johns Hopkins University.

In my testimony this morning I will make five points:

- First, other industrialized countries, have committed considerable political capital and developed sophisticated programs to determine the appropriate use of pharmaceuticals and to control pharmaceutical prices. The U.S. has not.
- Second, our analysis shows that the U.S. pays twice as much for a market basket of 30 commonly prescribed pharmaceuticals as other industrialized countries.
- Third, if other countries paid more for pharmaceuticals; prices in the U.S. would not necessarily go down.
- Fourth, the attempt by the U.S. trade representative to encourage other countries to raise their pharmaceutical prices suggests that there is one single price that all industrialized countries should pay. Enforcing this policy would lead to pharmaceutical price fixing on an international scale.
- Fifth, the U.S. should use prices in other countries as a benchmark for the prices it pays for pharmaceuticals, especially in the Medicare program. Lower prices for pharmaceuticals would improve access to

pharmaceuticals and could be used to eliminate the “doughnut hole” in the Medicare program.

Cost Comparisons

An article I coauthored last year in Health Affairs entitled “Its Prices, Stupid: Why the United States Is So Different From Other Countries” explains that compared to other industrialized countries, the U.S. pays considerably more for all health care goods and services, including drugs. I have attached the full article to my testimony and have included the final paragraph of the article in my testimony here:

> “In 2000 the United States spent considerably more on health care than any other country, whether measured per capita or as a percentage of GDP. At the same time, most measures of aggregate utilization such as physician visits per capita and hospital days per capita were below the OECD median. Since spending is a product of both the goods and services used and their prices, this implies that much higher prices are paid in the United States than in other countries. But U.S. policymakers need to reflect on what Americans are getting for their greater health spending. They could conclude: It’s prices, stupid.”

The data presented in the article show that the U.S. pays twice as much per capita for hospital care, physician services, pharmaceuticals, and other health services as other industrialized countries. Pharmaceuticals are only one

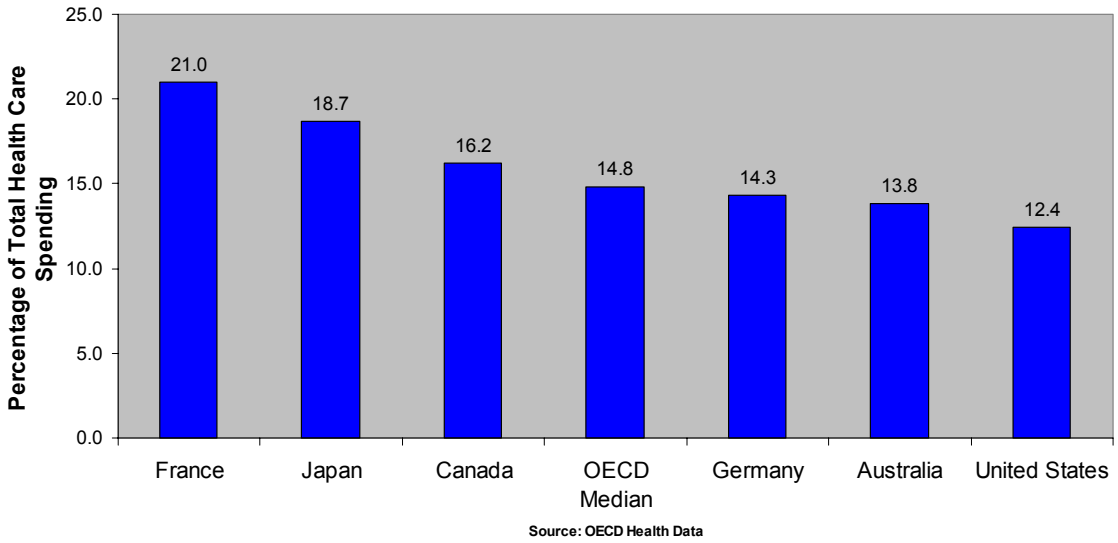
area where the U.S. is in outlier in terms of prices. However, since the focus of this hearing is pharmaceuticals, I will concentrate my comments there.

Other Countries Efforts To Control Pharmaceutical Spending

As part of the Commonwealth Fund grant I have the opportunity to meet with the health ministers from the U.S., Canada, Australia, New Zealand, and the United Kingdom every October for two days in Washington, DC. As part of this meeting, I have learned how much effort these other countries place on controlling pharmaceutical spending. These countries have been operating programs to reduce pharmaceutical prices and determine appropriate utilization for over 20 years. I have also learned that the health ministers spend considerable political capital keeping their programs working.

One reason for their considerable attention to pharmaceuticals is that these countries spend a higher percentage of their healthcare resources on pharmaceuticals than the U.S. (Exhibit 1). As a result, pharmaceutical spending in these countries commands greater policy attention. It is for this reason that these countries have developed a wide range of programs designed to control both pharmaceutical utilization and prices.

Exhibit 1. Percentage of Total Health Care Spending on Pharmaceuticals in 2001



Source: OECD Health Data

The programs in these countries have adopted a number of strategies to monitor pharmaceutical utilization and prices. Some of the programs determine what drugs are therapeutically equivalent and then pay the lowest price of all equivalent drugs. Some compare the prices paid for the same pharmaceuticals in other countries. Other programs regulate profits or provide an explicit allowance for research and development.

This is in contrast with the U.S. which has no national strategy for determining appropriate utilization, comparing prices to what other countries pay, setting a reasonable research and development level, or reasonable profit level. Because of this it is not surprising that the U.S. pays considerably more for pharmaceuticals. Because we have done little, it seems unfair to ask other countries to dismantle their programs.

I will now briefly summarize the ongoing programs in Canada, the United Kingdom, Australia, and France.

Canada. In Canada, pharmaceutical prices are controlled through policies at both the federal and provincial level. At the federal level, price controls are negotiated between pharmaceutical manufacturers and the Patented Medicines Prices Review Board (PMPRB), an independent quasi-judicial body. The PMPRB's five members are appointed by the government; the five current members include a neurosurgeon, an accountant, a lawyer, and two economists.

The criteria used by the PMPRB are the price of the same drug in other countries (specifically, the median price in France, Germany, Italy, Sweden, Switzerland, the United Kingdom, and the United States) and the Canadian prices of other drugs in the same therapeutic class. After the initial price of a drug is determined, subsequent price increases are limited to 1.5 times the forecast change in the annual Consumer Price Index.

Pharmaceutical companies are required to report the prices of their patented products to the PMPRB upon release and every six months thereafter. Products that appear to be priced excessively high are subject to an investigation, which is terminated by either (a) determination that the product is priced within guidelines; (b) voluntary compliance by the manufacturer to lower the price; or (c) a public hearing to determine the acceptable price. All drugs under review, including new products and those undergoing an investigation, are listed on the PMPRB's web site and in their annual report for transparency. Of

the 1027 patented drugs in Canada in 2002, 875 were within guidelines, 82 were still under initial review, 67 were under investigation, and 3 (all related to Nicoderm) were in public hearings.

While the PMPRB determines the maximum prices paid for drugs in Canada, provinces also administer their own policies. All but one province use a formulary to determine which drugs are available for public reimbursement. Two provinces, British Columbia and New Brunswick, use reference pricing systems which limit reimbursement for drugs to the lowest price of any drug in a particular therapeutic class. Under these reference pricing systems, the provincial governments will only reimburse patients for the price of the lowest-price drug in each therapeutic class. If patients choose to purchase a more expensive drug, they must pay the difference out-of-pocket.

United Kingdom. The United Kingdom does not set the prices of individual drugs, but instead he National Health Service (NHS) controls allowable profit margins in the pharmaceutical industry. The profit margin is set through agreements that, while voluntary, have been made with every pharmaceutical manufacturer. The allowable profit margin with each company is based mainly on the level of research and development and other domestic investment and the level of long-term risk. The negotiations are confidential but are limited to the range of 17-21 percent rate of return on capital. They are based on confidential financial reports that allow calculation of total sales to the NHS and research and development investment. Companies that earn profits above or below the agreed levels must adjust their prices or reimburse the NHS. Within these profit

controls, pharmaceutical companies have freedom in pricing new products. After the initial price is set, subsequent price increases must be approved by the NHS, except for new drug presentations or formulations.

The terms of these agreements are negotiated every five years between the NHS and the Association of the British Pharmaceutical Industry. As part of this agreement, the government may institute direct price controls as well as the profit controls.

Several other policies influence drug spending in the United Kingdom. The NHS maintains a “negative list” of drugs that are not eligible for reimbursement.

These are drugs with limited clinical efficacy. The National Institute for Clinical Excellence also furnishes providers with guidance on the cost-effectiveness of treatments, which can influence provider behavior. These recommendations are made by an Appraisal Committee, appointed by the government and comprising physicians, other health professionals, the NHS, economists, and industry representative. Each guideline is based on reviews of existing evidence by an independent, commissioned group of experts. For transparency, many aspects of the review, including selection of the topic, evidence review, and guideline, are published on the Web. Each review also includes stakeholder consultations.

Finally, all drug spending is capped by global budgets to physician organizations (Primary Care Groups). Every citizen is enrolled in one of these

Primary Care Groups. The physicians are required to manage their pharmaceutical budgets to provide drugs for their enrolled population.

Australia. Prices for drugs that are reimbursed under Australia's Pharmaceutical Benefits Scheme are controlled by the Pharmaceutical Benefits Advisory Committee. The Committee is an independent statutory body established in 1954 with appointed members including physicians, economists, pharmacists, and an industry and consumer nominee. The criteria used for setting prices includes (1) the cost-effectiveness of the drug; (2) comparative Australian prices of drugs in the same therapeutic class; (3) prices of the drug in other countries; (4) projected prescription volume of the drug; (5) research and development investment in Australia by the manufacturer (high investment can lead to financial incentives).

Australia was the first country to include cost-effectiveness analysis in its pricing decisions. Advice on the cost-effectiveness evidence supporting each candidate drug is provided to the Committee by the Economics Sub-Committee, consisting of physicians and economists. The transparency of these pricing decisions will be increased, partly as a result of the recent trade agreement between Australia and the United States. The new transparency measures include public release of the outcomes of each drug review, reasons why drugs are included for reimbursement or not, and a review mechanism for decisions.

France. In France, pharmaceutical prices are negotiated between the government and drug manufacturers. The criteria used are (a) the therapeutic

benefit of the drug, judged in relation to existing products by an expert group, the *Commission de Transparence* (Transparency Commission); (b) prices of other drugs in the same therapeutic class; and (c) the expected sales volume of the drug. The Transparency Commission comprises 18 government-appointed members, including representatives of the government, physicians, pharmacists, insurers, pharmaceutical companies, and clinical and economic experts. They advise the *Comité Economique du Médicament* (CEM) on the therapeutic value of drugs. The CEM also considers prices of the similar drugs in other European countries, although these are not formally used in pricing decisions (French drug prices are generally lower than in other European countries).

Drug sales are monitored periodically by the government and if volume and expenditures are higher than expected, the drug companies are required to lower their prices or have the drug removed from the reimbursable drug formulary. The CEM plans to increasingly use cost-effectiveness evidence to guide its pricing decisions. In addition to prices, the French government also regulates many other aspects of pharmaceutical sales, including wholesale and retail markups and marketing expenditure by pharmaceutical companies.

In talking with the health ministers and reading the academic literature, there appears to be evidence that the programs in these countries are effectively controlling pharmaceutical prices and promoting appropriate utilization. Access to pharmaceuticals is not a political issue in these countries.

Our own research supports this conclusion. In the *Health Affairs* article that is attached, we compared the levels and the rates of increase in pharmaceutical spending from 1990 to 2000 for the 30 industrialized countries that are members of the Organization for Economic Cooperation and Development (OECD). Exhibit 2 (reproduced from Health Affairs) shows that the U.S. spent the most per capita on pharmaceuticals of all 30 OECD countries and twice as much per capita on pharmaceuticals as the median than any other (OECD) country ($556 versus $262) in 2000. The U.S. rate of increase in per capita spending on pharmaceuticals from 1990 to 2000 was 6.0%. Only Sweden, Norway, and Australia had more rapid increases during this period and in spite of this more rapid growth all three countries spent half as much as the U.S. on pharmaceuticals per capita in 2000. These three countries were simply catching up to international norms during the 1990s.

Exhibit 2. Pharmaceutical Spending in OECD Countries

	Spending on pharmaceuticals in 2000		Average Annual Growth in Pharmaceutical Spending per Capita
	percent of GDP	per capita spending ($PPP)	
Australia	1.0	252	6.9%
Austria	-	-	-
Belgium	1.4	352	4.1%[e]
Canada	1.4	385	4.8%
Czech Republic	1.8	260	5.8%
Denmark	0.8	223	3.9%
Finland	1	259	5.2%
France	1.9	473	4.2%
Germany	1.4	375	1.7%
Greece	1.5	258	5.2%
Hungary	1.8	193	-0.1%
Iceland	1.3	382	2.3%
Ireland	0.6	187	4.9%
Italy	1.8	459	2.1%
Japan	1.2	314	0.6%
Korea	0.8	110	-0.4%
Luxembourg	0.7	317	1.4%
Mexico	1.1	93	-
Netherlands	1.0	264	4.5%
New Zealand	1.1	210	3.0%
Norway	0.7	217	7.4%
Poland	-	-	-
Portugal	2	334	5.7%
Slovakia	-	-	-
Spain	1.4	264	4.8%
Sweden	1.0	244	6.8%
Switzerland	1.1	345	3.0%
Turkey	-	-	-
United Kingdom	1.1	253	6.0%
United States	1.6	556	6.0%
Median	1.2	262	4.5%

Source: Health Affairs

Politicians in these countries utilize considerable political capital to create and maintain these programs. Because of the apparent success of these programs and the political capital already invested, it would be a difficult negotiation for the U.S. trade representative to require other countries to make significant policy changes. They have developed criterion which justifies the prices they are setting. This is not something the U.S. has done.

Perhaps the U.S. should try some of these programs instead of asking other countries to dismantle their programs.

The next question is whether it is even necessary. Are pharmaceutical prices really higher in the U.S.?

Price Comparisons

There is some disagreement among experts regarding how much more (if any) Americans pay for pharmaceuticals. Patricia Danzon and Michael Furukawa wrote an article in *Health Affairs* last winter that compared the prices U.S. consumers pay for pharmaceuticals to prices in other countries. They found rather small differences between what the U.S. pays and what other countries pay. The abstract of their article is presented below.

> "This study compares average price levels for pharmaceuticals in eight countries- Canada, Chile, France, Germany, Italy, Japan, Mexico, and the United Kingdom- relative to the United States. Our most comprehensive indexes, adjusted for U.S. manufacturer discounts, show Japan's prices to be higher than U.S. prices. The decline of the Canadian dollar and rise of the U.K. pound contribute to the finding of lower Canadian prices and higher U.K. prices in 1999 than in 1992. Our findings suggest that U.S. - foreign price differentials are roughly in line with income and smaller for drugs than for other medical services. "

My colleagues and I took a similar approach using the same data set but updated the numbers to the first three quarters of 2003 and reached a very different conclusion. Data on the prices of pharmaceuticals in Canada, France, the United Kingdom, and the United States for January to September 2003 were obtained from IMS Health. These data have been used in several previous international comparisons of pharmaceutical prices including the Danzon and Furukawa study. These four countries were chosen because they are similar in terms of economic development.

We compared the prices of a basket of the 30 pharmaceutical products with the highest total spending (including both branded and generic drugs) in the United States that are also sold in the other countries. Each of the 30 items used to construct the index represents a specific manufacturer, compound, and form (e.g., tablet). For example, the top-selling pharmaceutical product in the U.S. was Lipitor, manufactured by Pfizer in tablet form. The price of a 10-mg. tablet of Lipitor was $1.81 in the United States, $0.99 in Canada, $0.67 in France, and $0.90 in the United Kingdom in 2003. Prices were adjusted from each country's currency units to U.S. dollars using January 1, 2003 exchange rates.

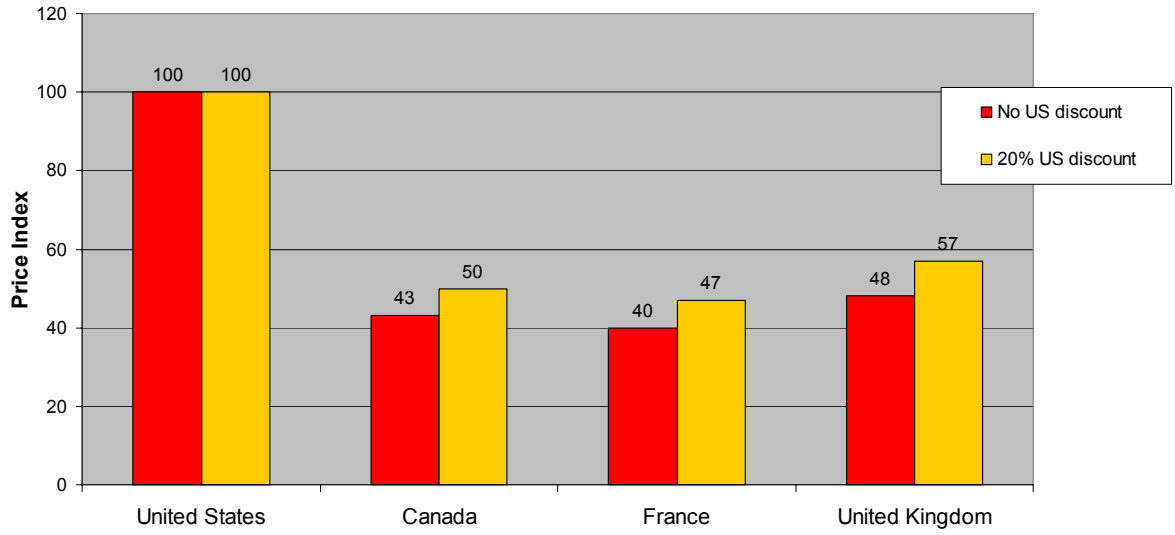
We first averaged the prices for each specific product (e.g. Lipitor) over all available dosage strengths for each country. We then calculated a price index by taking a weighted average of the prices of these 30 products, using the units sold in the U.S. as the weight. The prices compared are the average wholesale prices – those faced by major U.S. purchasers, not individual consumers at pharmacies. Since U.S. purchasers rarely pay the average wholesale price, we

also calculated the price index assuming a 20% discount given to large purchasers. This figure is in the midrange of the estimates of the discount that the private insurers administering the Medicare drug benefit will be able to negotiate with pharmaceutical companies.

These methods differ slightly from those used in the comparison by Danzon and Furukawa. The construction of any price index involves a tradeoff between the representativeness of the basket of good used and the standardization of the market basket across countries. Danzon and Furukawa opted for greater representativeness, while we opted for greater standardization. Danzon and Furukawa used the "molecule-indication" as the unit of analysis, which averages the prices for each pharmaceutical compound over the various available dosage strengths and forms. Since countries have different prescribing patterns for different dosages and forms of the same compounds, this methodology leads to a more comprehensive index – the units comprising the index are more representative of the prescribing patterns in each country. However, since the index averages different dosages and forms, it is not standardized as closely as our methodology. We opted for greater standardization so that we could simulate the prices that would be paid in the U.S. for the most-commonly used products if U.S. utilization were fixed but prices were the same as those in other countries. Danzon and Furukawa addressed a different question, comparing prices broadly across the entire market and testing the effects of income, exchange rates, and other factors on these differences.

The results of the price comparison are shown in Exhibit 3. Prices for the basket of pharmaceutical prices in the U.S. are given a value of 100. Averaged over the market basket of 30 pharmaceutical products, prices were 57% lower in Canada, 60% lower in France, and 52% lower in the United Kingdom compared to the United States. Assuming a 20% discount for U.S. purchasers, prices were 46% lower in Canada, 50% lower in France, and 40% lower in the United Kingdom compared to the United States.

Exhibit 3. Relative Prices of Thirty Pharmaceuticals in Four Countries, 2003



These price differences are greater than those reported by Danzon and Furukawa. One reason is the methodological differences described above. However, the more important difference may be our use of more recent data (2003 vs. 1999). Pharmaceutical prices in the U.S. have risen much more rapidly in the 1999 to 2003 period compared to other countries.

Knowing the relative price of pharmaceuticals in the U.S. compared to other countries is critical for good public policy. If Danzon and Furukawa are correct and there is minimal difference between what the U.S. pays and what other countries pay for pharmaceuticals, then what is the reason for the U.S. trade representative to argue that the other countries should raise their prices.

However, if our numbers are correct, then a strategy for equalizing drug prices is worth considering. Because of the difference in the findings among experts in the extent of the price differential, this is an issue the GAO should investigate further.

Assuming that the U.S. trade representative believes our numbers and concludes there are large differences between what the U.S. pays and what other countries pay, the question becomes what action to take. One suggested approach is to have the U.S. trade representative argue for higher pharmaceutical prices in other countries.

International Price Fixing

One approach is for the U.S. trade representative to negotiate with other countries to raise their pharmaceutical prices in order to equalize the support for research and development internationally. The argument is that all industrialized countries should share equally in the research and development costs. In order

to implement this approach, the U.S. trade representative would need to have a target price for each drug and encourage each country to pay this target price.

I am uncertain what standard should be used to negotiate pharmaceutical prices on an international scale. Two metrics commonly used in other countries to set pharmaceutical prices are: (1) a desired level of research and development or (2) a desired profit margin.

As part of their political process, other countries appear to have decided on significantly lower levels of pharmaceutical research and development and/or profit. As part of a trade negotiation, would the U.S. be willing to accept a lower level of research and development or a lower level of profits if an international standard were adopted? I doubt it. I also doubt the other countries would accept the U.S. level.

In any case the trade negotiation approach strikes me as price fixing on an international scale with pharmaceutical profits and research and development determined by trade negotiation. Trade negotiations would need a standard and that that standard would become the international price.

Free Market Approach

Another approach is the free market.

This is the approach that some have advocated for the U.S. to take. A free market approach works best for certain goods and services. Economic theory provides some guidance when a free market approach works best. One situation where a free-market approach does not work is when there are multiple purchasers and only one seller. This is known as a monopoly.

Pharmaceutical companies are given patents on brand name drugs. These patents do not allow other firms to manufacture drugs with similar chemical compounds. There are legitimate reasons for pharmaceutical companies to receive patents, perhaps the most important is the fostering of research and development. Pharmaceutical companies would not invest in research and development if their competitors could immediately gain access to the clinical compounds and begin mass production. The cost in producing pharmaceuticals is mostly in the research and development and not in the manufacture.

Because of patent protection, it is misleading to state that brand name drugs in the U.S. are purchased in a free market environment. The situation is one of a single manufacturer of brand name pharmaceuticals selling to diverse purchasers. Patents have created individual monopolies for name brand drugs.

Generic drugs are different. There is competition for generic drugs because other manufacturers can compete on the basis of price and quality. It is

not surprising, therefore, that generic drugs are often less expensive in the U.S. than other countries. Competition brings down prices in the proper circumstances.

Economic theory tells us that prices will be high in the situation where there is only one supplier because the manufacturer has no incentive to lower prices. It is a classic example of market failure. The manufacturer has no economic incentive to lower prices even if prices are raised in other markets. Economic theory suggests that even if the U.S. trade representative were able to negotiate lower prices in other countries that pharmaceutical companies would maintain their prices in the U.S. for brand name drugs. They will set the price in the U.S. which maximizes their profits.

There are numerous ways to minimize market failure in this case. One possibility is to remove all patents. This, however, would also eliminate nearly all pharmaceutical research and development.

A second option is to create two monopolies- a monopoly supplier (the pharmaceutical company) and a monopoly purchaser (the government). This is effectively what other countries are doing. Economic theory cannot predict the final negotiated price in this situation. Empirical data from other countries, however, gives a good indication. Pharmaceutical prices are twice as high on average in the U.S. compared to these other countries.

The U.S. may want to pursue a free market approach in spite of economic theory. The free market may be able to determine a reasonable price. We have a way of determining how much extra we are paying with the free market system. We can compare the prices we are paying in the U.S. to prices in other countries. The prices paid in the other countries form a reasonable benchmark for the U.S.

Opportunity Costs

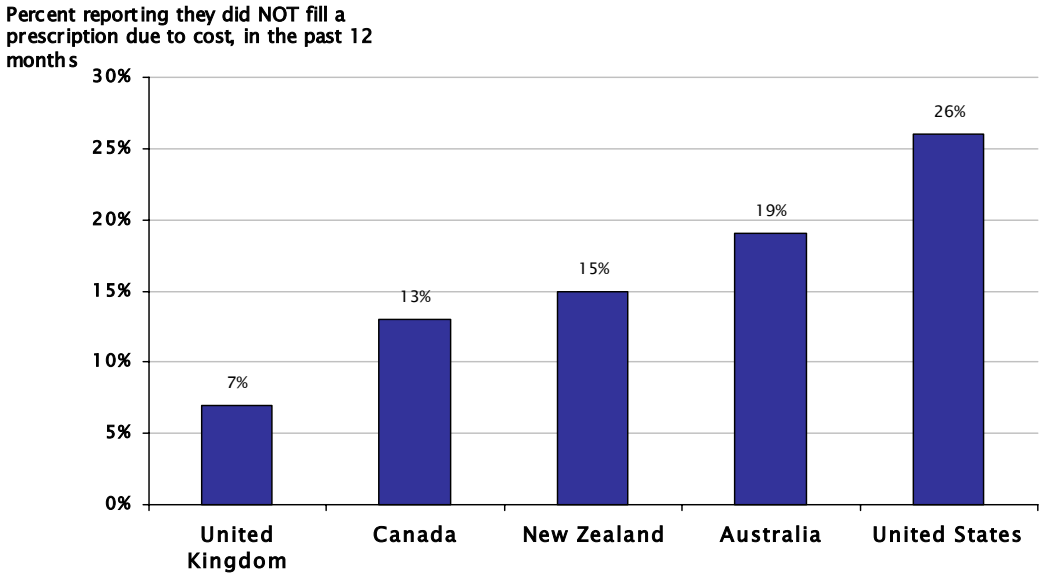
Does it matter that the U.S. pays higher prices for pharmaceuticals? A fundamental tenet of economics is opportunity costs. There are alternative uses for available resources. When we pay higher prices for pharmaceuticals we get more pharmaceutical research and development which is good. However, there are tradeoffs.

Currently, the U.S. has a choice. One opportunity is to continue to pay high prices for pharmaceuticals and get more research and development. A second option is to pay lower prices and improve access to pharmaceuticals.

I have attached a chart which shows the result of a survey conducted by the Commonwealth Fund in 2001 (Exhibit 4). A nationally representative sample of the adults in the United Kingdom, Canada, New Zealand, Australia and the United States were asked if they did not fill a prescription due to cost in the past

12 months. The survey results show that U.S. citizens are most likely to not fill a prescription because of cost. Higher prices reduce access to pharmaceuticals.

Exhibit 4. Financial Barriers To Pharmaceuticals



Note: Taken from the 2001 Commonwealth Fund International Health Policy Survey, a survey of 1400 adults in each of the five countries.

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"Doughnut Holes" and Price Controls

Access to pharmaceuticals could be a problem in the recently enacted Medicare Modernization Act because of the "doughnut hole". Lower prices for pharmaceuticals could allow the Medicare program to eliminate the "doughnut hole" in the Medicare drug benefit. This is a clear choice for the Congress.

In order to determine how much lower pharmaceutical prices would have to be in order to eliminate the "doughnut hole", we developed a microeconomic

simulation of the effects of Medicare Part D on Medicare beneficiary behavior. The model uses data from the 1999 Medicare Current Beneficiary Survey (MCBS) to simulate a scenario for 2006 by adjusting income, population weights, and drug spending based on data from the Medicare Trustees' Reports, Census Bureau and National Health Accounts. The model simulates the choices made by Medicare beneficiaries as they evaluate their options. The choice is based upon whether the new plan offers net benefits to the beneficiary in the form of reduced premiums, reduced out-of-pocket drug costs, or greater protection from risk compared to their existing coverage. Once an individual chooses a plan, the effects on spending are estimated based upon an assumed spending elasticity of -.3, with adjustments for the effects of deductibles, "doughnut holes", and stop-loss protection.

The model was run using an alternative assumption about prices for prescription drugs to see how much lower prices would need to be in order to eliminate of the "doughnut hole". The original Medicare plan was simulated with a coinsurance rate of 25%, deductible of $250, and a doughnut hole beginning at $2,250 and ending at $5,100 with 5% coinsurance after that point. A premium subsidy of 74.5% was assumed for all Medicare beneficiaries. Deductibles, coinsurance and premium subsidies were adjusted for low-income beneficiaries to match as closely as possible the features of the bill passed. An alternative benefit was then modeled with the doughnut hole eliminated and assuming a 50 percent price discount. This price reduction is what other industrialized countries have been able to achieve.

Overall Effects

Exhibit 5 shows the overall effects of the simulations on total spending and the distribution of spending among payers (Medicare, out-of-pocket costs, and other third-party payers). The model indicates that total spending on pharmaceuticals by Medicare beneficiaries in 2006 will be $101.9 billion, $44.5 billion of which will be financed by the Medicare program.

Exhibit 5. Spending on Medicare Prescription Drug Benefits in 2006

	Model Assumptions		Drug Spending by Medicare Beneficiaries in 2006 (Billions of Dollars)			
Model Version	Stop-Loss Level	Price Discount	Total Drug Spending (Billions)	Medicare	Out Of Pocket	Third Party Payers
A. Current legislation	$5,100	20%	$101.90	$44.50	$31.00	$26.40
B. Alternative benefit	$2,250	50%	$67.70	$46.20	$15.00	$6.50

Under our alternative scenario, pharmaceutical prices were reduced 50 percent and the doughnut hole was closed. Under this model the total spending in 2006 would be $67.7 billion. Medicare spending would remain nearly unchanged in 2006, at $46.2 billion. In other words, in the scenario of 50 percent lower prices and “no doughnut hole” Medicare spending would be equivalent to Medicare spending in the current legislation. The major spending reductions would be in out-of-pocket spending and other spending.

Our microsimulation model is for 2006 only. Using estimated growth in per capita drug spending from the National Health Accounts and estimated

growth in the Medicare population from the Medicare Trustees' Reports, we estimate that total Medicare drug spending during the period from 2006 to 2013 would equal $667 billion for the current legislation. This is higher than the projections of the Congressional Budget Office ($408 billion) and the Administration ($534 billion). Our out-year projections for Medicare spending for the period from 2006 to 2013 would decline to $551 billion under the scenario of lower pharmaceutical prices. The Congressional Budget Office and the Administration have incorporated assumptions about beneficiary behavior that are more complex than our simple extrapolation of the Medicare actuaries' spending and population projections. This could explain their lower estimates in the out years.

There are opportunity costs to higher pharmaceutical prices. Congress has a real choice - higher pharmaceutical prices and more research and development or elimination of the doughnut hole in the Medicare program. The choice could be between doughnut holes and price controls.

Thank you Mr. Chairman, and members of the Committee for this opportunity to testify this morning. I would be happy to answer any questions.