A Tale of Two PBMs: Express Scripts vs. Medco

By
Lawrence W. Abrams, Ph.D.

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Abstract

A statistical comparison of the business models of Express Scripts and Medco is presented. While both have similar rebates retention rates, Medco extracts significantly higher rebates per prescription. The source of the difference is due to different approaches to formulary compliance, rather than formulary design. We present the case that Medco appears to abstain more from discretionary brand to generic therapeutic interchange than Express Scripts. If any PBM is committing “sins of omission”, it is Medco.

Lawrence W. Abrams, Ph.D.
Nu-Retail
P.O. Box 1285
Watsonville, CA. 95077
831-254-7325 (C.)
labrams@nu-retail.com

Disclosures:

I have not received any remuneration for this paper nor have I financial interest in any company cited in this working paper.

I have a Ph.D. in Economics from Washington University in St. Louis and a B.A. in Economics from Amherst College. Other working papers on PBMs can be accessed at www.nu-retail.com.

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"It was the best of times. it was the worst of times…"
Charles Dickens, **A Tale of Two Cities**

The management of the drug benefit portion of healthcare plans has become the domain of contracted specialists called pharmacy benefit managers (PBMs). The three largest, independent PBMs –Caremark Rx, Medco Health Solutions, and Express Scripts, (known as "The Big 3") -- have come under attack in the past few years for not acting in the best interest of their clients. The source of the problem is attributed to a business model that is dependent on rebates retained from brand name drug manufacturers.

The purpose of this paper is to highlight the differences between the business models of Express Scripts and Medco Health Solutions. In addition, we attempt to locate the source of such differences in terms of discretionary choices with respect to formulary design and compliance.

Until recently, none of the Big 3 PBMs disclosed any detail about the share of gross profits derived from drug rebates. On March 28, 2003, Express Scripts, Inc. made a change in the way it accounted for rebates. Instead of accounting for rebates on a net basis, it accounted for them as a reduction in costs. This required them to revise their financial statements for the past three fiscal years by reducing revenue and cost of sales by gross rebates received. Express Scripts stated that: [1]

> Therefore, our 2002, 2001 and 2000 revenues have been reduced by $926,750,000, $740,782,000, and $810,393,000, respectively. Cost of revenues has been reduced by the same amounts. These amounts represent the gross amount of rebates and administrative fees received from pharmaceutical manufacturers. Our client's portion, a majority of such amounts, which represents in excess of 50%, will continue to be classified as a reduction of revenues. Our consolidated gross profit was not impacted as a result of this adoption.

The key statistic to understanding the PBM business model is what we have called the rebate retention rate – the percent of rebates from drug manufacturers that it retained as gross profits.[2] Based on the Express Scripts disclosure, we were able to estimate with some degree of confidence that in 2002, its rebate retention rate was 38% and that retained rebates contributed to 35% to its gross profits.

On October 28, 2004, Medco Health Solutions, Inc. first disclosed that its rebate retention rate was 40.5% of $754 Million in gross rebates received from pharmaceutical manufacturers during the 3rd quarter of 2004. [3] Based on that disclosure, it is possible to derive with certainty that 71.7% of Medco's gross profits in 3rd quarter of 2004 came from retained rebates.

The Rebate Bargain as a Source of Business Model Differences

Even though these two PBMs had similar rebate retention rates, the contribution of rebates to gross profits was significantly different. Exhibit 1 presents key statistics that summarize the business model differences of Express Scripts and Medco. The full derivation of these statistics has been presented in previous papers. [4] [5]

Exhibit 1: Business Model Differences

	Express Scripts FY 2002	Medco 3Q2004
Rebate Retention Rate	38.0%	40.5%
Gross Rebates Received as of % of Reimbursement	6.1%	10.1%
Gross Profit Margin	6.7%	4.9%
Share of Gross Profits:		
Rebates	35.0%	71.7%
Mail Order	34.9%	11.9%
Spread + Claims Fees	21.1%	4.7%
Other Services	9.0%	11.7%
Total	100.0%	100.0%

The summary table indicates that Medco was able to extract more per brand than Express Scripts. Gross rebate received as a percentage of all reimbursements was 10.1% for Medco in 3Q2004 while it was only 6.1% for Express Scripts.

Why was Medco able to extract more on average from Pharma than Express Scripts? Bargaining theory offers some guidance as to the source of this difference. One reason is simply that Medco is about two times larger than Express Scripts in terms of prescriptions managed.

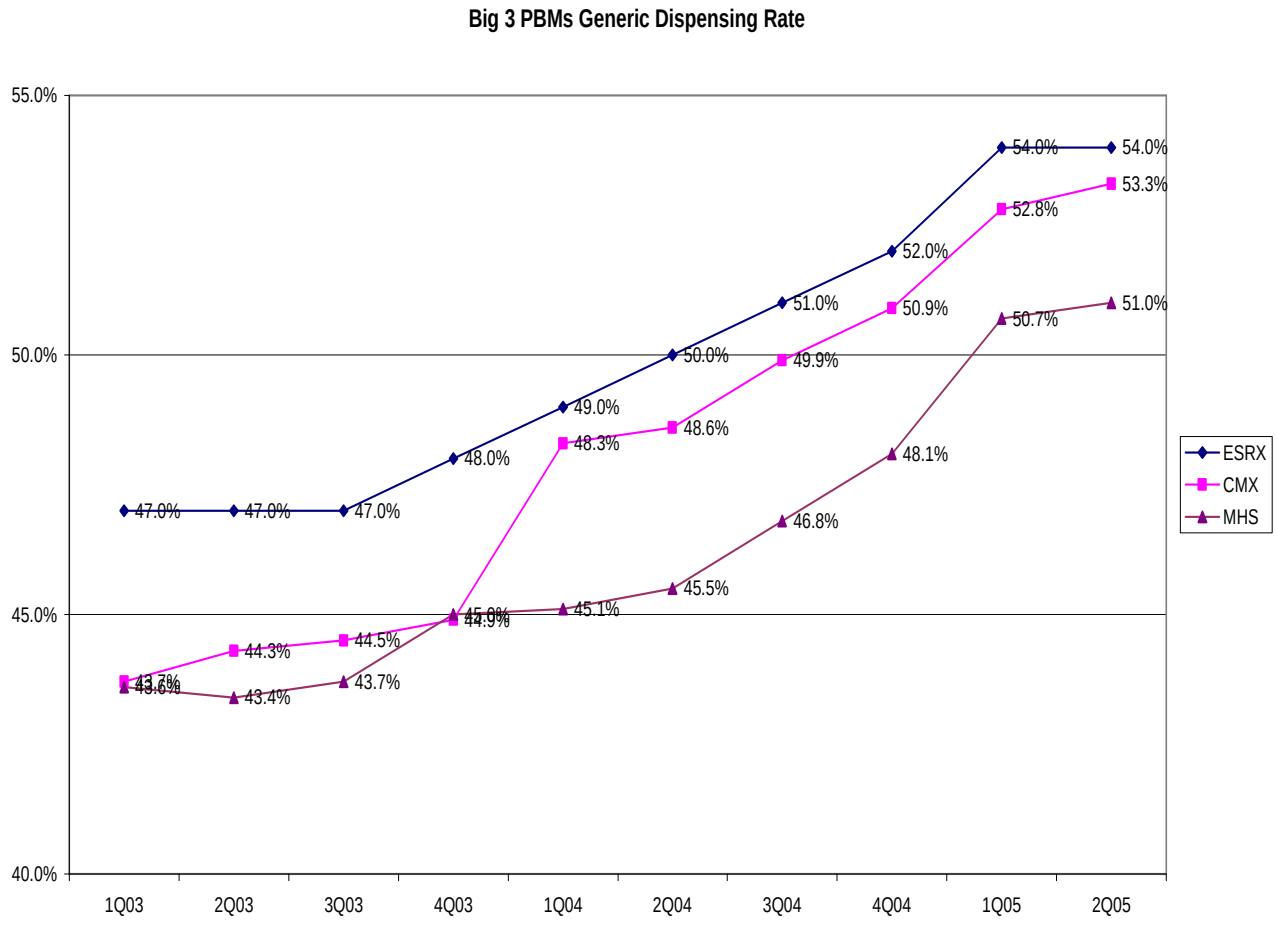
The other reason is that it is likely that Pharma gave more rebates to Medco because Medco gave more to Pharma in terms of favorable formulary designs and compliance. Pharma gave Express Scripts less rebates because Express Scripts gave less in return.

Prior work tends to rule out differences in approach to the design of national formularies as a source. We found in an earlier paper no significant differences among the Big 3 in the number of brands given "Tier 2" preference in highly rebatable therapeutic classes.[6]

This leaves differences is discretionary formulary compliance as the source of business model differences. There are three possible types of discretionary choices: (1) advantaging a drug through brand for brand therapeutic interchange; (2) not disadvantaging a drug by abstaining from brand for brand therapeutic interchange; and (3) not disadvantaging a drug by abstaining from brand to lower cost generic therapeutic interchange. This last choice is what we have labeled as "sins of omission". [7]

It is unlikely that data would ever be available to shed light on differences in approaches taken by PBMs in the areas of retrospective therapeutic interchange. We have to look for performance differences as indicative of differences in approaches. The aggregate generic dispensing rate is a measure of PBM performance that can be viewed as reflecting how motivated a PBM is in favoring generics over brands. To be fair, plan sponsor and their members' "taste" for freedom of choice also may be an important factor in explaining differences in dispensing rates.

The generic dispensing rate is the number of generic prescriptions divided by the number of all prescriptions. The graph below tracks this rate for Medco (MHS), Caremark RX (CMX), and Express Scripts (ESRX) over the past two and a half years.[8] The data show clearly that Express Scripts has delivered a consistently higher rate than the other two PBMs. And, according to Express Scripts, every percentage point increase in the rate translates into one percentage point decrease in overall plan drug costs.[9]



Certainly, differences in client preferences regarding freedom of choice for members may be a significant cause of these differences.

But, differences in generic dispensing rates are correlated with difference in the way Medco and Express Scripts approach therapeutic interchange. Express Scripts has recently made two public announcements indicating their intent to pursue brand to generic therapeutic interchange. Medco has made no such announcements.

Express Scripts recently completed a study of the potential savings that could be obtained if all potential brand to generic therapeutic interchange were realized. This is from their press release announcing the results of the study: [10]

> We have only scratched the surface in taking advantage of the money- saving potential of clinically sound generic drugs," said Steve Miller, MD, Express Scripts Vice President, Research, and a study author. "As additional generics come to market and the use of prescription drugs grows, the opportunity to lower healthcare costs becomes even more significant. Best of all, using more generics simply requires better education and awareness of alternatives, not a big-dollar up-front investment."

Exhibit 2 summarizes Express Scripts' estimate of the potential for cost-saving switches to generics.

Exhibit 2: Potential Savings Through Generic Therapeutic Interchange

Therapeutic Class	Actual 2004 Generic Dispensing Rate	Target Generic Dispensing Rate	Potential Savings if Target is Met
Gastrointestinal	31%	95%	$5.4 Billion
Anti-cholesterol	7%	70%	$5.1 Billion
Anti-depressants	41%	75%	$3.2 Billion
NSAIDs	47%	85%	$3.9 Billion
Anti-hypertensives	48%	75%	$2.0 Billion
Calcium channel blockers	43%	90%	$0.5 Billion
Total Potential Saving			$20.0 Billion

Source: Express Scripts, Inc, 2004 Generic Drug Usage Report

Express Scripts' second announcement outlined its plan to handle the loss of patent protection by Zocor, an anti-cholesterol drug.[11] Zocor ranks second in drug sales after its archrival, Lipitor. It is also one of the top three rebatable drugs along with Lipitor and Nexium. Express Scripts announced that it would aggressively work to switch users from Lipitor to Zocor a full six month before generic Zocor –simvastatin – would be available. The plan included removing Lipitor from preferred status on Express Scripts' national formulary and directing its call center personnel to begin calling physicians to request prescription switches. As expected, Pfizer, the manufacturer of Lipitor, immediately canceled its rebate contract with Express Scripts. Switching users to Zocor now will make the switch to simvastatin go faster in six months because generic substitution – Zocor to simvastatin – can be done automatically without physician approval. On the other hand, therapeutic interchange – Lipitor to simvastatin – requires physician approval.

This aggressive move to sacrifice current profits for future client cost savings is indicative of a difference in orientation between Express Scripts and Medco.

Bundle Pricing Strategy as a Source of Business Model Differences

Medco has used its ability to extract rebates from Pharma, coupled with secrecy surrounding its rebate retention rate, to win contracts through low bids on mail order and claims processing. It recoups service margin deficiencies though rebate retention. The epitome of Medco's strategy was its bid on the mail order only contract for the FEHBP, which we believe was a case of predatory pricing.[12]

Exhibit 1 highlights the significant differences between Medco and Express Scripts with respect to the share of gross profits contributed by rebates, mail order, and claim processing fees. Express Scripts has the more balanced business model whereas Medco has been heavily dependent on rebates.

While business models of the Big 3 in general are not aligned with clients' interests, Medco stands out as the PBM that has most pursued rebates and employed a deceptive bundle pricing strategy to win contracts. And it is Medco that will have to change the most to meet client requests for a more transparent business model characterized by 100% pass-through of rebates.

Medco's lagging generic dispensing rate is circumstantial evidence of its relative lack of interest in pursuing brand to generic therapeutic interchange.

If any PBM is committing "sins of omission", it is Medco.

Since 2004, Medco has been shifting its business model toward generics and away from rebate retention, but not necessarily rebate receipts.[13] Like the characters in Dickens' **Tale of Two Cities**, Medco seeks redemption and resurrection. But, before Medco can get there, it must face its Madame Defarge (the original whistle-blower) with a sweater full of charges. And Medco must still face legal authorities seeking monetary damages, but thankfully not the guillotine. For Medco, these are the best of times, but they also are the worst of times.

Notes:

(1) Securities and Exchange Commission, Express Scripts, Inc, 10-K for the Year Ending December 31, 2002.

(2) LW Abrams, "Estimating the Rebate-Retention Rate of Pharmacy Benefit Managers," April 2003. Available at http://www.nu-retail.com/rrr.pdf

(3) Medco Health Solutions, "2004 Analyst Day Presentation," November 11, 2004, slide show available at http://media.corporate-ir.net/media_files/NYS/MHS/presentations/MHS111104.pdf pp. 79–80.

(4) LW Abrams, "Estimating the Rebate-Retention Rate of Pharmacy Benefit Managers," April 2003. Available at http://www.nu-retail.com/rrr.pdf

(5) LW Abrams, "Quantifying Medco's Business Model, "Working Paper, April 2005. Available at www.nu-retail.com/quantifying_Medco_business_model.pdf

(6) LW Abrams, "The Effect of Corporate Structure on Formulary Design: The Case of Large Insurance Companies, "Poster Presentation Paper, ISPOR 10th Annual International Meeting, May 2005. Available at http://www.nu-retail.com/PBM_Corporate_ Structure_Formulary_Design.pdf

(7) LW Abrams, "Sins of Omission: A Review of the FTC Study of PBM Conflict of Interest," October 2005. Available at http://www.nu-retail.com/pbm_sins_of_omission.pdf

(8) RM Willoughby, "Pharmacy Benefits Management: An Investor's Perspective, Bank of America Securities, October 24, 2005. p. 10 Available at http://www.pcmanet.org/events/presentation/PBM%20Annual%20Meeting%20Presentations/Robert%20Willoughby%20-%20Banc%20of%20America%20Securities.pdf

(9) Forbes, "Express Scripts to Raise Costs for Lipitor," October 5, 2005. Available at http://www.forbes.com/associatedpress/feeds/ap/2005/10/04/ap2260350.html

(10) Express Scripts, "Press Release: Study Reveals $20 Billion in Untapped Generic Drug Savings, " October 25, 2005. Available at http://biz.yahoo.com/prnews/051025/cgtu012a.html?.v=1

(11) Gloria Lau, "Decision on Lipitor Sets Express Scripts Apart from the Field," Investors' Business Daily. November 4, 2005. Available at http://www.investors.com/editorial/IBDArticles.asp?artsec=22&issue=20051104

(12) LW Abrams, "Exclusionary Practices in the Mail Order Pharmacy Market, "Working Paper, September 2005. . Available at http://www.nu-retail.com/mail_order_pharmacy_market.pdf

(13) LW Abrams, "Medco's Transition to a Transparent Business Model," September 2005. Available at http://www.nu-retail.com/medco_transition.pdf