Quantifying a Pharmacy Benefit Manager (PBM) Fee-For-Service Business Model

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By

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Summary:

Using CVS's 2018 10-K reports to the SEC and its 2018 Drug Trend Report, we convert its PBM segment (a.k.a. Caremark) **reseller** gross profits business model to a single transparent fee-for-service expressed in terms of dollars per member per year (PMPY).

The following table summarizes our results:

Estimate of a Fee-For-Service Equivalent Business Model For CVS PBM Business Segment - 2018		
		CVS
	Gross Profits - PMPY	$ 98
	Replaced by	
a1	Fee-For-Service (FFS) - PMPY	$ 98
a2	Drugs Trend - PMPY	$ 1,060
	FFS as % of Trend	9.2%
a3= (a2 / (a1+a2)	Calculated Medical Loss Ratio	91.5%
Financial Source: CVS 2018 Annual Report, p. 22		
Covered Lives Source: CVS 2018 10-K p.1		
Trend Source: PMPY Trend Report 2018		

The summary above was derived from a full conversion of CVS' 2018 reported PBM (Caremark) segment P&L:

Converting PBM Gross Profts to a Fee-for Service Equivalent

CVS PBM Segment -- 2018

	Millions	PMPY	% Rev				
Revenue	$ 134,128	$ 1,458	100.0%				
Less: Cost of Sale	$ 125,107	$ 1,360	93.3%				
				% GP			
Gross Profits	$ 9,021	$ 98	6.7%	100.0%	**FFS equivalent**	**$ 98**	a1
Less: SG&A	$ 4,145	$ 45	3.1%	45.9%	Drug Spend - PMPY	$1,060	a2
Operating Income + Taxes	$ 4,876	$ 53	3.6%	54.1%	FFS % of Trend	9.3%	=a1/a2
PBM Covered Lives- Mil		92			"Medical Loss Ratio"	91.5%	=a2/(a1+a2)

Financial Source: CVS 2018 Annual Report, p. 22

Covered Lives Source: CVS 2018 10-K p.1

Trend Source: PMPY Trend Report 2018

Our estimated FFS equivalent of $98 PMPY is a relatively small 9.3% of CVS's $1,060 PMPY drug spend delivered. This small percent is not surprising given that Rx drugs are a relatively homogenous healthcare benefit compared to hospital procedures or even office visits.

The relatively ease of managing a drug benefit versus a medical benefit is reflected in CVS's SG&A expense ratio of 3.1% of sales. In contrast, the SG&A expense ratio in 2017 for healthcare insurance companies Aetna and Cigna was 24.5% and 19.5%, respectively.

We end this paper with a cautionary note to those looking to disrupt the Big 3 PBMs via a transparent FFS business model. It begins with the reminder that total pharmacy

benefit costs is the sum of FFS for managing the benefit plus trend delivered as measured by PMPY.

It is certainly possible to compete with the Big 3 PBMs by offering a lower, transparent FFS to their opaque gross profits converted to a PMPY FFS equivalent. But, it will be hard for smaller PBMs to compete with them on trend. This is because however misaligned the Big 3 PBM formularies are -- preferring high list brands over lower net price therapeutic equivalents -- the Big 3 rebate bargaining power exercised in aligned formulary choices -- choosing lowest net price among equivalents -- is sufficient to overcome this power exercised in misaligned choices -- choosing highest list price but not lowest net price equivalents.

Here is a comparison of the total pharmacy benefit plan costs -- FFS + PMPY trend --for CVS in 2018 versus a small, innovative plan designed by an internal team at the University of Michigan and administered by MedImpact.

Comparison of Total Plan Pharmacy Benefit Plan Costs -- FFS + PMPY					
Between CVS and U. of Michigan (MedImpact)		2018	2017		
		CVS (Carmark)	U. of Michigan (MedImpact)	Difference	
a1	Fee-For-Service (FFS) or Equivalent	$ 98	$ 17	$ (81)	U of M Lower
a2	Drugs Trend - PMPY	$ 1,060	$ 1,246	$ 186	U of M Higher
	FFS as % of Trend	9.2%	1.4%		
				$ 105	Overall U of M Higher
Financial Source: CVS 2018 Annual Report, p. 22		Source for U of M:	University of Michigan Rx Plan Annual Report - 2017		
Covered Lives Source: CVS 2018 10-K p.1					
Trend Source: PMPY Trend Report 2018					

Introduction

PBMs have come under attack since the early 2000s for not acting in the best interest of their clients. We have written a number of papers since 2004 pinpointing an opaque **reseller** business model as the source of this misalignment.

Over the course of the last 15 years, we have observed dramatic shifts in the distribution of PBM gross profits. These radical shifts in source of gross profits in such a short period of time is unprecedented among Fortune 50 companies. It is indicative of the opaqueness of the PBM business model to their downstream customers — health care plan sponsors.

It is also indicative of PBMs' relative power to negotiate rapid changes in payment streams from upstream suppliers — the Big 3 retail pharmacies and pharmaceutical drug companies. These upstream suppliers and the Big 3 PBMs make up two sides of intermediate market bilateral oligopolies.

Our paper Three Phases of the Pharmacy Benefit Manager Business Model is an attempt to deduce motives for these shifts.

We believe that motive is key to determining whether it is Pharma or PBMs who should be blamed for the gross-to-net drug price bubble since 2010. Based on our analysis of

the shifting sources of gross profits presented in our paper cited above, we place the blame on PBMs.

In February, 2019, Health and Human Services Secretary Alex Azar called on Congress to eliminate anti-kickback safe harbors for rebates as a mechanism for making formulary (insurance coverage) choices by private sector PBMs who manage Medicare Part D drug plans. This has been followed up by a bill introduced by Senator Mike Braun (R-Ind) to extend the elimination of rebates to commercial plans in the private sector.

In order to have any meaningful reduction in drug list price, we strongly believe that two interrelated changes need to be embedded in government or private sector initiatives:

1. PBMs need to convert to a transparent fee-for-service business model
2. PBMs need to find an alternative the high list - high rebate market design for formulary placement

Despite our fifteen year critique of PBMs and their misaligned business model, we are not supportive of rebate-ending initiatives if they fail to include alternative PBM business models and alternative formulary market designs.

Studies by consultants of the impact of eliminating PBM rebates on Medicare Part D varies greatly depending on assumptions about Pharma list price reductions. To us, this variability in outcomes suggest that it would be dangerous to implement such

changes without more specifics about what alternative business model and market design PBMs are likely to adopt.

The purpose of this paper to take the first steps forward in “a world without rebates” by presenting an estimate a single transparent FFS to replace reseller gross profits using data from the largest PBM -- CVS’s pharmacy segment (a.k.a. Caremark).

The financial data comes from their 2018 annual 10-K report to the SEC: Financial Source: CVS 2018 Annual Report, p. 22 The PMPY drug trend expenditures comes their 2018 annual drug trend reports:Trend Source: PMPY Trend Report 2018 . The number of covered lives comes from another annual reports: Covered Lives Source: CVS 2018 10-K p.1

The Current PBM Reseller Business Model

PBMs provide a bundle of managed care services designed to provide a cost-effective prescription (Rx) drug benefit to plan sponsors and their members. The current PBM business model is a **reseller** business model where the PBM earns margins on prescription drug fills at retail and mail order and retains a percentage of rebates paid by brand drug manufacturers in return for preferred formulary placement.

Specifically, the current PBM business model features five major streams of revenue and gross profits flowing through their financials:

1. “spread margins” on top of retailers’ own margins and lately, direct and indirect reimbursement (DIR) fees that are collected from retail pharmacies in return for being included in their networks;
2. claims processing and data fees;
3. rebates given by Pharma on small molecule brand drugs in return for preferred status on formularies;
4. rebates give by Pharma on speciality (biotech) drugs in return for preferred status on formularies;
5. profit margins on 90-day generic Rx filled by captive mail order operations.

The PBM reseller business model is in stark contrast to the two other transparent business models used by managed care companies:

1. a self-insurance agency model with 100% pass through of claims expenses to plans accompanied by per-member-per-month (PMPM) management fees;
2. a risk-based insurance model with capitated premiums paid by plans.

Converting CVS’s Business Model to a Single Fee-for-Service

Currently, PBMs such as CVS actually buy prescriptions, mark them up (i.e. “spread margin”), and then resell them to plan sponsors that contract with them for drug benefit management. This spread margin is on top of a dispensing pharmacy fill margin.

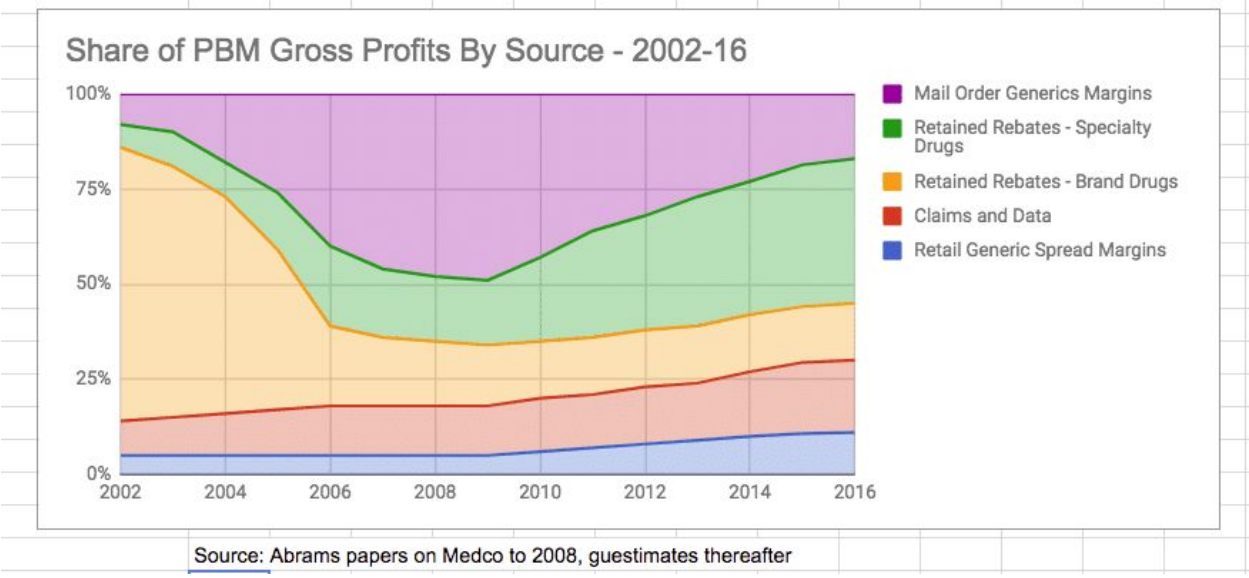
Separately, PBMs negotiate with brand name drug manufacturers for the payment of rebates, of which they retain a percent, in return for preferred formulary placement.

As principals in these transactions, these flows are accounted for on PBMs' income statement. An interesting accounting question would be raised If PBMs converted customers to a single FFS business model with 100% pass-through of pharmacy claims and Pharma rebates. Here PBMs become agents, and generally accepted accounting practices (GAAP) might dictate that these flows by-pass the PBM income statements to be posted first on their balance sheets as client receivables and payables. The account balances would be relieved as they are paid to / by clients.

Today, we estimate that a majority of Big 3 PBMs profits comes from retained rebates. We still have retail spread margins at 7% of gross profits, which is surprisingly low given the attention to this source of PBM profit at the state level driven by independent pharmacists.

Estimate of Distribution of PBM Gross Profits By Source	
Year	2017
Retained Rebates - Specialty Drugs	50%
Retained Rebates - Brand Drugs	13%
Retail Rx Spread Margins	7%
Mail Order Generics Margins	17%
Claims and Data	13%
Gross Profits	100%

Details of our disaggregation of PBM gross profits by source over the past 15 years can be found at [Three Phases of the Pharmacy Benefit Manager Business Model](). Here is the summary graph from that paper:



We propose an alternative business model featuring a single fee-for-service equivalent to PBM gross profits. It would entail 100% pass through of all Rx claims without any spread margin and 100% pass through of all rebates and drug inflation guarantees. It would also entail elimination of all miscellaneous claims processing and data fees.

Instead of gross profits, the transparent FFS would be used to cover corporate indirect sales, general, and administrative (SG&A) costs. What is left over, “falls to the bottom line” as operating profits and taxes. As we said before, all other flows would be 100% pass-throughs and no longer have any impact on gross profits.

Whether 100% pass-through would flow through the income statement or by-pass it and flow directly to the balance sheet depends on whether PBM auditors decide to keep PBMs current classification as principals with legal liability in these transactions or re-classify them as agents.

Below is our calculation of a single FFS equivalent for CVS pharmacy segment (Caremark) for 2018.

Converting PBM Gross Profts to a Fee-for Service Equivalent							
CVS PBM Segment -- 2018							
	Millions	PMPY	% Rev				
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Financial Source: CVS 2018 Annual Report, p. 22							
Covered Lives Source: CVS 2018 10-K p.1							
Trend Source: PMPY Trend Report 2018							

Discussion of Results:

Our estimated FFS equivalent of $98 PMPY is a small 9.3% of the average $1,060 PMPY trend management. But, it must be remembered that Rx drugs are a relatively homogenous healthcare benefit compared to a hospital and outpatient procedures, or even physicians' office visits.

Plus, most of claims managed come from only 3 drug store chains including CVS's own whereas healthcare benefit managers need to manage thousands of hospital, outpatient, and physician accounts.

The relatively ease of managing a drug benefit versus a medical benefit is reflected in CVS's SG&A expense ratio of 3.1% of sales. In contrast, the SG&A expense ratio in 2017 for healthcare insurance companies Aetna and Cigna was 24.5% and 19.5%, respectively.

The relative size of a plan's drug benefit management cost -- $98 PMPY -- versus its cost of the drug benefit itself -- $1,060 PMPY -- suggests plans pay more attention to trend delivered. So what, if a smaller PBM charges 20% higher FFS -- increasing management costs by $20 PMPY --if it can deliver a 10% reduction in trend -- saving $106 PMPY.

This leads into cautionary note to those looking to disrupt the Big 3 PBMs via a transparent FFS business model. It begins with the reminder that total pharmacy benefit costs is the sum of FFS for managing the benefit plus trend delivered as measured by PMPY.

It is certainly possible to compete with the Big 3 PBMs by offering a lower, transparent FFS to their opaque gross profits converted to a PMPY FFS equivalent. But, it will be hard for smaller PBMs to compete with them on trend. This is because however misaligned the Big 3 PBM formularies are -- preferring high list brands over lower net price therapeutic equivalents -- the Big 3 rebate bargaining power exercised in aligned formulary choices -- choosing lowest net price among equivalents -- is sufficient to overcome this power exercised in misaligned choices -- choosing highest list price but not lowest net price equivalents.

The University of Michigan has been at the forefront at playing an active role in the design of their drug benefit plan at the highest level (formulary and copay design) while contracting out to a small PBM -- MedImpact -- for claims and rebate management.

Here is a comparison of the total pharmacy benefit plan costs -- FFS + PMPM trend -- between the Big 3 PBM CVS in 2018 versus the University of Michigan.

University of Michigan, Rx Drug Benefit Plan - 2017

Self-Administered, with claims processing and rebate negotiations managed by MedImpact - 100% pass-through Fee-for-Service Basis

	Millions	
Covered Lives	0.1089	**PMPY**
100% Pass-Thru of Rx Costs Less Rebates	$135.6	**$1,246**
MedImpact Fee-for-Service	$1.8	**$17**
State Health Claims Assessment Taxes	$1.0	
Less: Member Costs	-$12.0	
Total Plan Cost	$126.4	
Fees-for-Service as % of Rx Cost	1.33%	

Source for U of M: University of Michigan Rx Plan Annual Report - 2017

Comparison of Total Plan Pharmacy Benefit Plan Costs -- FFS + PMPY
Between CVS and U. of Michigan (MedImpact)

		2018 CVS (Carmark)	2017 U. of Michigan (MedImpact)	Difference	
a1	Fee-For-Service (FFS) or Equivalent	$ 98	$ 17	$ (81)	U of M Lower
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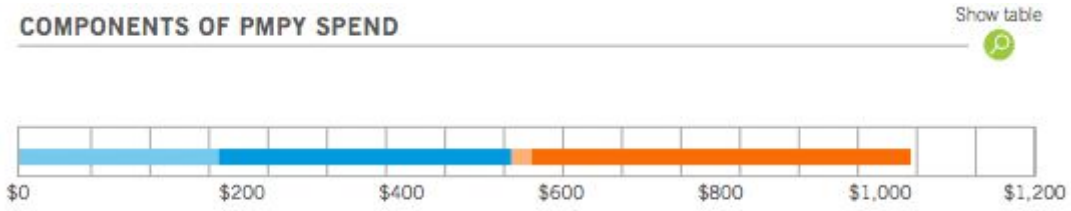
Source for U of M: University of Michigan Rx Plan Annual Report - 2017

Is the University of Michigan 17.5% higher trend the result of relatively weak rebates bargaining power of MedImpact or a more expansive formulary? More work needs to be done separating out the factors --- formulary exclusions versus bargaining power -- affecting delivered PMPY trend.

The movement toward demanding more PBM transparency culminating in significant switches to a FFS business model just might be the beginning of a movement toward more attention being paid by plan sponsors to trend delivered.

Express Scripts and CVS Caremark do disclose average drug spend ("trend") in their annual Trend Reports. They are proud of their delivered trend reductions and the importance of formularies in managing trend. But, they do not compete outwardly on that basis.

Source: CVS Trend Report, 2017



Source: Express Scripts Trend Report, 2017

About the author:

I have a B.A. in Economics from Amherst College. I have a Ph.D. in Economics from Washington University in St. Louis.

My writings are at the intersection of economics, accounting, financial analysis, and high tech.

I have received no remuneration for these articles. I have no financial relation with any company written about in these articles.

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