Pharmacy Benefit Management (PBM)

Healthcare Sector

**Investment Thesis**

We recommend an overweight rating for the PBM industry despite regulatory concerns increasing in recent years. Companies representing U.S. consumers must ensure they are covered for medical/prescription expenses under the Affordable Care Act. Healthcare expenditures and the age of the U.S. population continue to rise, along with a steady decline in the uninsured and unemployed population in the United States.

**Drivers of Thesis**

- The use of better analytical tools and more accurate predictive models could represent a significant inflection point for certain companies operating in the PBM industry. Quick-acting companies could dramatically eat up share from competitors as contracts typically renew every 3 years.

- Record-breaking ACA enrollment could continue to drive the uninsured rate (7.7% in 2023) lower, fueling growth to a PBMs top line as they acquire more membership through new or existing contracts.

- Healthcare expenditures are expected to continue to outpace GDP with a CAGR of 5.4% through 2031. Firms that position themselves better than others could have opportunities to continue to gain share.

**Risks to Thesis**

- In November and December of 2023, high levels of medical services utilization increased medical costs throughout the industry. There is potential for this trend to continue in the coming months.

- As the PBM industry continues to face intense regulation and oversight from the DOJ, FTC, and state and local governments, PBMs could see a decline in revenue and margin compression as requirements are placed on rebates and spread pricing.

- Contracts within the PBM industry are up for renewal every 3 years, which implies that a company could lose roughly 33% of its business each year. It could prove challenging to pick a management team that not only retains current business but also takes share away from competitors.

**Key Industry Metrics**

<table>
<thead>
<tr>
<th>Market Cap ($B)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UnitedHealth Group, Inc.</td>
<td>$452.5</td>
</tr>
<tr>
<td>CVS Health Corp.</td>
<td>$97.4</td>
</tr>
<tr>
<td>The Cigna Group</td>
<td>$102.9</td>
</tr>
<tr>
<td>Humana, Inc.</td>
<td>$41.9</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>P/E (NTM)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UnitedHealth Group, Inc.</td>
<td>17.5x</td>
</tr>
<tr>
<td>CVS Health Corp.</td>
<td>9.3x</td>
</tr>
<tr>
<td>The Cigna Group</td>
<td>12.4x</td>
</tr>
<tr>
<td>Humana, Inc.</td>
<td>21.5x</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EV/EBITDA</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>UnitedHealth Group, Inc.</td>
<td>12.4x</td>
</tr>
<tr>
<td>CVS Health Corp.</td>
<td>9.1x</td>
</tr>
<tr>
<td>The Cigna Group</td>
<td>10.0x</td>
</tr>
<tr>
<td>Humana, Inc.</td>
<td>12.1x</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROE (TTM)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UnitedHealth Group, Inc.</td>
<td>25.0%</td>
</tr>
<tr>
<td>CVS Health Corp.</td>
<td>11.3%</td>
</tr>
<tr>
<td>The Cigna Group</td>
<td>11.8%</td>
</tr>
<tr>
<td>Humana, Inc.</td>
<td>15.7%</td>
</tr>
</tbody>
</table>

**Market Performance**

The Pharmacy Benefit Management (PBM) industry serves as an intermediary between healthcare payers and the U.S. healthcare system. A PBM’s overarching goal is to lower the costs borne by consumers, specifically by lowering prescription drug costs. The industry is highly concentrated, with the majority of market share coming from four companies (CVS, Cigna, UnitedHealth Group, and Humana). It’s a highly regulated industry, with policymakers shifting to a continued focus on transparency in the industry.

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**Important disclosures appear on the last page of this report.**
INDUSTRY OVERVIEW

The Pharmacy Benefit Management industry plays an extremely critical role in the healthcare system by acting as an intermediary between health insurers, pharmacies, drug manufacturers, and patients. Several PBMs possess significant influence in negotiating prescription drug prices with pharmaceutical manufacturers by leveraging their bargaining power to secure discounts and rebates to reduce costs for the clients they serve. PBMs also manage formularies, determining which medications are covered under certain insurance plans and at what cost, while also overseeing other facets such as claims processing and pharmacy network management.

As with most industries in today’s day and age, data analytics serves as the backbone of the industry, enabling PBMs to decipher and understand complex patterns with prescription claims and healthcare utilization. The analytical tools used provide a granular view of spending habits, identify cost drivers, and pinpoint opportunities for cost reduction. It is crucial to note that the analytics used within the industry not only examine cost trends, but also unveil patterns in medication adherence, detect potential gaps in patient care, and forecast potential health risks.

To continue to gain share in the future, firms within this industry must leverage the use of artificial intelligence and machine learning algorithms to continuously get ahead of the curve and deliver results for their clients.

Below, we lay out the largest PBMs within the industry, along with their market capitalization and total medical membership:

<table>
<thead>
<tr>
<th></th>
<th>Market Cap ($B)</th>
<th>Membership (MM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNH</td>
<td>$452.5</td>
<td>52.8</td>
</tr>
<tr>
<td>CI</td>
<td>$102.9</td>
<td>19.8</td>
</tr>
<tr>
<td>CVS</td>
<td>$97.4</td>
<td>25.7</td>
</tr>
<tr>
<td>HUM</td>
<td>$41.9</td>
<td>16.9</td>
</tr>
</tbody>
</table>

Source: FactSet, Company 10Ks

How do PBMs make money?

The Pharmacy Benefit Management industry saw revenues of $512.8 billion in 2023 and earned a total profit of $21.5 billion, representing a 4.2% profit margin. Below we display the historical and projected revenue of the PBM industry, along with the YoY percentage change:

Revenues are driven primarily by 4 streams industrywide: rebates, pharmacy spreads, mail order pharmacy, and admin and DIR (direct and indirect remuneration) fees.

1. **Rebates**: Volume-based incentives provided by drug manufacturers. This revenue stream is often criticized for a lack of transparency, which is discussed below in the industry regulation sub-section of Recent Developments/Trends.
2. **Pharmacy Spreads**: The difference between what is paid to pharmacies and the negotiated payment with health plans.
3. **Mail Order Pharmacy**: Many PBMs operate retail and mail-order pharmacies that provide delivery services to clients’ doorsteps. The revenue generated largely consists of delivery fees passed down (processing, fulfillment, and delivery).
4. **Admin/DIR fees**: These fees are charged by PBMs for the electronic processing of each claim they receive. Generally, a set fee is charged per script plus a transaction fee. This stream is often criticized for a lack of transparency, with a notable increase in profits of 300% over the last decade.

Source: Nephron Research, PhRMA
The image above displays the shift in PBM profits from 2012 to 2023. The primary reason for the dramatic increase in fees comes through PBMs shifting their business model to rely less on commercial rebates while focusing more on opaque fees and driving patient traffic to the pharmacies they control. As this increase in fees continues to face scrutiny, we expect PBMs to begin utilizing more transparent pricing models that offer companies and individuals more insight into how they are being charged.

Industry revenue can also be broken down into 3 key markets: Businesses, Federal Government, and State and Local Governments.

1. **Businesses**: As shown in the graph above, businesses represent 46.0% of the total market. PBMs work to create relationships with businesses to design and implement customized benefit plans that are provided to a business’s respective employees. Demand is largely driven by corporate profits, investor confidence levels, and the level of employment.

2. **Federal Government**: The federal government is the 2nd largest market for PBMs, representing 40.6% of the total market. Demand from the federal government is largely driven by the level of funding available to the Medicare and Medicaid programs.

3. **State and Local Governments**: State and local governments represent 13.4% of the total market. Similarly to the federal government market, demand is driven by the availability of government funds and the number of individuals enrolled in the Medicaid program.

It is important to note that the PBM business is often referred to as “sticky”. Contracts are typically structured as three-year agreements and can be updated via amendments throughout the contract term. One can imply through these three-year agreements that roughly 33% of a PBMs business is up for renewal each year. Negotiating power dramatically increases during the renewal period as businesses and governments fight for their employees. In 2022, Foot Locker dropped Optum Rx (UnitedHealth Group’s PBM) for Caremark (CVS Health’s PBM), citing increased costs as the deciding factor. To continue to gain share in this incredibly competitive industry, PBMs must continuously strive for lower costs for their clients.

**How did we get here? How will the industry move forward?**

The PBM industry first began when insurance companies started offering prescription drugs as a health plan benefit in the 1960s. Soon after the industry arose, considerable horizontal and vertical integration began as companies attempted to gain share relative to their peers. The first instance of this was in 1972, when McKesson acquired PCS, marking the first step toward vertical integration in the pharmaceutical supply chain. The industry as we know it today began to form in the late 1990s, as vertical integration emerged in a different way as seen previously, with national pharmacy chains acquiring PBMs and starting to shape the industry. The most notable acquisitions include CVS Health acquiring Caremark in 2007, and UnitedHealth acquiring PacifiCare (later rebranded as OptumRx).

As we look towards the future, companies operating within this industry will continue to seek M&A activity as a source of growth. It should be expected that with the continuing trend of this activity, that the US Department of Justice and the US Federal Trade Commission will keep a careful eye on the industry. The graphic shown below makes note of historical activity and displays the most recent blocked mergers:

![Source: JAMA Health Forum](image-url)
Major Player Metrics

Below is a table displaying a few metrics of the publicly traded companies that make up roughly 87% of the PBM industry. It is important to note that all of these companies have certain segments that represent their respective PBMs. For example, CVS’s PBM is commonly known as Caremark and is reported on the company’s annual 10K as Pharmacy Services. UnitedHealth Group’s PBM is commonly known as OptumRx and is reported as such on the company’s annual 10K. For this reason, the table below displays revenue that is representative of each company’s revenue within the PBM industry. All other metrics are displayed as a firm-wide metric.

<table>
<thead>
<tr>
<th>Ticker</th>
<th>*Revenue</th>
<th>Market Cap ($B)</th>
<th>P/E (NTM)</th>
<th>EV/EBITDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNH</td>
<td>94,135.9</td>
<td>452.5</td>
<td>17.5</td>
<td>12.4</td>
</tr>
<tr>
<td>CVS</td>
<td>148,833.7</td>
<td>97.4</td>
<td>9.3</td>
<td>9.1</td>
</tr>
<tr>
<td>CI</td>
<td>118,555.1</td>
<td>102.9</td>
<td>12.4</td>
<td>10.0</td>
</tr>
<tr>
<td>HUM</td>
<td>24,521.0</td>
<td>41.9</td>
<td>21.5</td>
<td>12.1</td>
</tr>
</tbody>
</table>

Source: FactSet  *Indicates Industry Revenue

The metrics chosen are meant to provide an individual with a way to quickly assess which companies are “cheaper” valuation wise compared to its peer group. Based on an initial glance, an individual can conclude that CVS appears to be potentially undervalued, as the firm has the lowest price-to-earnings (P/E) estimate over the next twelve months, along with a lower enterprise value (EV) to earnings-before-interest-taxes-depreciation-amortization (EBITDA) ratio. CVS also generates the most revenue within this industry and has been gaining share amongst its peers in recent years.

MARKETS AND COMPETITION

Threat of Substitutes

The threat of substitutes in the PBM industry remains at a moderate level2. If firms choose to not contract with a PBM, they mainly have two options: (1) direct contracting with pharmacies and drug manufacturers, or (2) in-house management of their benefit plans. If a firm chooses to go the first route, their management teams will be negotiating directly with pharmacies and drug manufactures, essentially skipping the middleman. This can lead to potentially securing more control over the formularies provided, while also securing better prices for their employees. The second route is less common, as many companies simply do not have the resources and knowledge to make the effort worthwhile.

Barriers to Entry

The barriers to entry in the PBM industry are extremely high2. Many existing PBMs have cemented their reputation and developed crucial industry connections. To gain share amongst the major PBMs, one would have to possess significant industry knowledge to have success in this business. Along with this, the start-up costs/capital intensive nature of this business provide a huge barrier for existing firms. As many firms manage claims for millions of clients, significant investment in infrastructure to support claims processing and formulary management is required. Additionally, as discussed further below, increasing regulation and oversight within the industry may turn away firms looking to expand into this space.

Power of Suppliers

The power of suppliers in the PBM industry is high and is increasing2. Although the major PBMs within the industry generally have large books of business and use this as leverage to negotiate with drug manufacturers to secure discounts or rebates, it ultimately comes down to the drug manufacturers to set prices and the level of availability of certain drugs on the formulary. The four largest providers of prescriptions drugs in terms of revenue in 2022 are: Pfizer ($101.1 billion), Johnson & Johnson ($95.6 billion), AbbVie ($57.4 billion), and Merck & Co. ($57.2 billion)8.

Lastly, we believe it is important to provide insights into the supply chain of the Pharmacy Benefit Management industry. The following graphic displays the flow from suppliers to buyers:

![Supply Chain Diagram](Source: IBISWorld)
Pharmacy Benefit Managers serve as the “middleman” of the supply chain, negotiating drug prices with pharmaceutical manufacturers. They negotiate lower prescription drug prices due to the large membership they possess, which in turn are provided to the individuals they contract with.

**Peer Comparison**

As noted previously, the PBM industry is highly competitive and extremely concentrated. Four firms (CVS Health, Cigna Group, UnitedHealth Group, and Humana) represented 87% of the total industry market share in the United States in 2023. Below is the distribution of market share within the industry:

![Market Share Distribution (2023)](source: Drug Channels)

**CVS Health Corp. (CVS)**

CVS Health Corp. is the largest player in the PBM industry. It operates through four segments: Pharmacy Services, Health Care Benefits, Retail/Long-Term Care, and Corporate/Other. The company employs 300,000+ individuals and operates 9,160 stores throughout the United States as of 2023.

![CVS Revenue Decomposition (2023)](source: CVS 10K)

CVS also has a strong management team in place, with the average tenure for the Board and management being 6 and 9 years, respectively. Additionally, 79% of the Board is an independent director.

**The Cigna Group (CI)**

The Cigna Group, together with its subsidiaries, is a global health company. It operates through three segments: Evernorth Health Services, Cigna Healthcare, and Other. The company employs 71,300+ individuals as of 2023 and was founded in 1792.

![The Cigna Group Revenue Decomposition (2023)](source: The Cigna Group 10K)

The Cigna Group generates an overwhelming majority of its revenue from its Evernorth Health Services segment, which represents the company’s PBM. It includes a broad range of coordinated and point solution health services and capabilities. The Cigna Healthcare segment provides comprehensive medical and coordinated solutions to members in the United States (Commercial and Government) and international businesses. Below displays
the breakdown of total membership under the Cigna Healthcare segment:

![The Cigna Group Membership Breakdown (2023)](chart1)

Source: The Cigna Group 10K  *Membership in Thousands

The Cigna Group also has a strong management team in place, with the average tenure for the Board and management being 7 and 8 years, respectively. Additionally, 92% of the Board is an independent director.

**UnitedHealth Group, Inc. (UNH)**

UnitedHealth Group is a diversified health care company, providing patient-centered care, pharmacy services, and data consultancy services. It operates through four segments: UnitedHealthcare, Optum Rx, Optum Health, and Optum Insight. The company employs 400,000+ individuals as of 2023 and was founded in 1977.

![UnitedHealth Group Revenue Decomposition (2023)](chart2)

Source: UnitedHealth Group 10K

UnitedHealth Group generates the majority of its revenue from its UnitedHealthcare segment, which provides a full range of health benefits, enabling affordable coverage and delivering access to high-quality care. Optum Rx, UnitedHealth Group’s 2nd largest segment, is the PBM segment of the business and contracts with more than 67,000 retail pharmacies nationwide. Below displays the breakdown of total membership under the UnitedHealthcare segment:

![United Health Group Membership Breakdown (2023)](chart3)

*Membership in Thousands

In terms of management and the Board, UnitedHealth Group is positioned similarly to CVS and The Cigna Group. The average tenure for the Board and management is 7 and 6 years, respectively. Additionally, 73% of the Board is an independent director.

**Humana, Inc. (HUM)**

Humana, Inc. is a leading health and well-being company focused on delivering the best healthcare solutions to its medical and specialty members. In December 2022, the company realigned its business into two distinct segments: Insurance and CenterWell. The company employs 67,100+ individuals and was founded in 1961.

![Humana Revenue Decomposition (2023)](chart4)

Source: Humana 10K

Humana generates an overwhelming majority of its revenue from its insurance segment, of which contains revenues attributable to its PBM business. Management believes the realignment of its business in 2022 will create greater collaboration and will accelerate work that is underway to centralize and integrate operations within the organization. Below displays the breakdown of total membership under the Insurance segment:
Humana has a similar Board and management makeup compared to its peers, with the average tenure of the Board and management being 7 and 6 years, respectively. Additionally, 100% of the Board is an independent director.

Financial Metrics

The following table provides insight into two valuation metrics (EV/EBITDA, P/E), margins, and ROE for each of the firms in the peer group:

<table>
<thead>
<tr>
<th>Ticker</th>
<th>EV/EBITDA</th>
<th>P/E</th>
<th>Op. Margin</th>
<th>NPM</th>
<th>ROE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNH</td>
<td>12.4</td>
<td>17.5</td>
<td>8.1%</td>
<td>6.0%</td>
<td>25.0%</td>
</tr>
<tr>
<td>CVS</td>
<td>9.1</td>
<td>9.3</td>
<td>3.7%</td>
<td>2.3%</td>
<td>11.3%</td>
</tr>
<tr>
<td>CI</td>
<td>10.0</td>
<td>12.4</td>
<td>4.5%</td>
<td>2.7%</td>
<td>11.8%</td>
</tr>
<tr>
<td>HUM</td>
<td>12.1</td>
<td>21.5</td>
<td>0.2%</td>
<td>2.3%</td>
<td>15.7%</td>
</tr>
</tbody>
</table>

While comparing peers in the PBM industry, we can see UnitedHealth Group nearly doubles CVS, Cigna, and Humana in terms of operating margin, profit margin, and return-on-equity. One thing to note is that UnitedHealth Group does appear to be slightly overvalued compared to peers while looking at the EV/EBITDA and P/E metrics. Out of the four peers shown, CVS looks the most attractive, as it has the lowest multiples, while hovering in the middle for the other metrics displayed.

The following table provides insight into two leverage metrics (Total Debt/Total Capital, Total Debt/Equity) and debt ratings for each of the firms in the peer group:

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Total Debt/Total Capital</th>
<th>Total Debt/Equity</th>
<th>Debt Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNH</td>
<td>43.2%</td>
<td>76.0%</td>
<td>A3</td>
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<tr>
<td>CVS</td>
<td>50.9%</td>
<td>103.8%</td>
<td>Baa2</td>
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</table>

Operating Metrics

The following table provides insights into three key operating metrics for each of the firms in the peer group:

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Generic Dispensing Rate</th>
<th>Pharmacy Claims Volume</th>
<th>Medical Cost Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNH</td>
<td>N/A</td>
<td>1,542</td>
<td>83.2%</td>
</tr>
<tr>
<td>CVS</td>
<td>87.6%</td>
<td>2,344</td>
<td>86.9%</td>
</tr>
<tr>
<td>CI</td>
<td>86.7%</td>
<td>1,585</td>
<td>81.3%</td>
</tr>
<tr>
<td>HUM</td>
<td>N/A</td>
<td>528</td>
<td>88.0%</td>
</tr>
</tbody>
</table>

Generic Dispensing Rate

The generic dispensing rate (GDR) measures the percentage of prescriptions filled with generic drugs compared to the total number of prescriptions. A higher ratio indicates greater utilization of lower-cost generic medications, which can reduce total costs for consumers. As shown in the table above, CVS comes ahead in this metric compared to its peer, The Cigna Group. It is important to note that UnitedHealth Group and Humana do not report this metric on their 10K’s.

Pharmacy Claims Volume

Pharmacy claims volume is a metric that measures the total amount of drug claims/scripts processed by a PBM. The higher this number, the more revenue a PBM is able to generate. As shown in the table above, CVS comes ahead by roughly 800 (in millions) compared to its peers. The range of volume in the provided table makes sense given the market share of each company (CVS with 33%, The Cigna Group with 24%, UnitedHealth Group with 22%, and Humana with 8%)².
**Medical Cost Ratio**

The medical cost ratio represents the ratio of medical expenses to earned premiums. This ratio is commonly used to provide insights into the efficiency and profitability of a health insurance company’s medical operations. The lower the ratio, the better a company is at cost management, leading to higher profitability. We can see that The Cigna Group has the lowest medical cost ratio, while Humana has the highest of the peer group.

**Revenue per Member**

Revenue per member can provide valuable insight into how efficient a company in the peer group is at generating revenue. It is important to note that the revenue used in this calculation is not the net revenue for the company, but rather the revenue attributable to the segment in which the company reports its membership. The following is a graph that compares this metric among the peer group:

![Revenue per Member Graph](image)

**Who is best positioned?**

CVS appears to be the best positioned within the industry. In the most recent earnings call (Q4 2023), management cited impressive growth in medical membership, up 1.3 million members to a total of 25.7 million. Additionally, revenues in the health services segment increased more than 8%. Management also cited that the pharmacy services segment remains strong, with retention in the high 90s, and has successfully captured over 60% of employers changing PBMs.

**RECENT DEVELOPMENTS & TRENDS**

**Mergers and Acquisitions (M&A)**

M&A has been a common way for companies to fuel top and bottom-line growth, gain share amongst peers, and diversify revenue streams. The main drivers of this activity we identified are increasing scale and efficiency (leveraging size to negotiate better terms with drug manufacturers) and diversification of services. Below, recent M&A activity is provided for each company in the peer group:

**CVS Health Corp.**

*CVS acquires Oak Street Health*

In May 2023, CVS Health announced that it had completed its acquisition of Oak Street Health. The companies entered into a definitive agreement in February 2023, with a total transaction value of approximately $10.6 billion, financed with borrowings of $5 billion and existing cash. The acquisition reiterates CVS’s continued efforts to improve the long-term health of its customers by improving outcomes and reducing costs.

*CVS acquires Signify Health*

In March 2023, CVS Health announced that it had completed its acquisition of Signify Health. The companies entered into a definitive agreement in September 2022 with a total transaction value of approximately $8 billion, funded with cash. CEO Karen Lynch explained, “This transaction advances our value-based care strategy by enhancing our presence in the home.”

*CVS acquires Aetna*

In November 2018, CVS completed debatably one of the most significant acquisitions in recent years within the industry. The companies entered into a definitive agreement in December 2017 with a total transaction value of approximately $78 billion, funded through a $40 billion debt issue and existing cash. The acquisition provided CVS with access to Aetna’s existing membership of roughly 22 million individuals. CVS’s previous CEO stated, “By fully integrating Aetna’s medical information and analytics with CVS Health’s pharmacy data, we can develop new ways to engage consumers in their total health and wellness... leading to improved health outcomes and lower medical costs.”

**The Cigna Group**

*The Cigna Group sells Medicare Business to HCSC*

In January 2024, HCSC signed a definitive agreement to acquire The Cigna Group’s Medicare Advantage, Medicare
Supplemental, Medicare D, and CareAllies business. The total transaction value was approximately $3.7 billion, with both companies agreeing to enter into a four-year service agreement. Under the agreement, Evernorth Health Services (The Cigna Group’s PBM) will continue to provide pharmacy benefit services to the Medicare businesses.

The Cigna Group acquires Express Scripts

In December 2018, The Cigna Group completed debatably one of the most significant acquisitions in recent years within the industry. The deal gave The Cigna Group access to one of the largest PBMs in the country, with a total transaction value of $67 billion. The acquisition positioned The Cigna Group to deliver more health care options, deliver better care for its customers, and drive down costs for consumers.

UnitedHealth Group, Inc.

UnitedHealth Group Acquires Change Healthcare

In October 2022, UnitedHealth Group completed its acquisition of Change Healthcare for a total transaction value of $13 billion after a long battle with the Department of Justice. Grounds for the lawsuit were discussed by Attorney General Doha Mekki, “The proposed transaction threatens an inflection point in the health care industry by giving United control of a critical data highway through which about half of all Americans' health insurance claims pass each year.”

Humana, Inc.

Humana acquires Inclusa

In August 2022, Humana announced that it will acquire the assets of Inclusa, a Managed Care Organization that provides long-term care to older adults and adults with disabilities. The terms and value of the acquisition were not disclosed.

Humana acquires One Homecare Solutions

In June 2021, Humana announced that it signed a definitive agreement to acquire One Homecare Solutions. Management cited that the acquisition would help advance their goal of providing a value-based home health offering. The terms and value of the acquisition were not disclosed.

Industry Regulation

As one would imagine after reading about the large amounts of M&A activity, Federal and State Governments have started to crack down on the competitiveness and lack of transparency within the industry. Between the years of 2017 and 2023, laws regulating PBMs accounted for more than half of all enacted prescription drug legislation. Furthermore, all 50 states in the U.S. have enacted at least one law on PBMs, accounting for more than 150 in total.

In 2022, the Federal Trade Commission (FTC) launched an investigation into the industry, requiring the six largest players within the industry to provide records relating to their business practices. The goal of the investigation was to determine the impact of vertically integrated PBMs on the cost of prescription drugs.

In 2023, the Senate introduced the PBM Transparency Act of 2023, which aims to stop deceptive business practices plaguing the industry. Specifically, the Act would make it illegal for PBMs to engage in spread pricing, require PBMs to pass along 100% of rebates, and require PBMs to file annual reports with the FTC. Although this has been introduced, it is unlikely to pass as attempts in prior years have been unsuccessful.

The driving force behind this regulation is to increase transparency in the industry regarding spread pricing, rebates, and the various administrative fees that have been introduced in recent years. At the state level, regulation has been geared towards prohibiting gag clauses on pharmacies (44 states), limiting patient cost-sharing (30 states), and requiring PBM licensure/registration (29 states). While this should cause caution for investors looking for opportunities in the industry, our view is that companies operating within this space are likely to continue to introduce models and produce documentation that aims to alleviate the effect of this legislation. Recent examples of this include CVS introducing CostVantage and Caremark TrueCost, along with UnitedHealth Group introducing Cost Clarity and Cost Advantage.

GROWTH CATALYSTS

As mentioned previously in the Industry Overview, data analytics is becoming increasingly popular among companies operating within the industry. PBMs have
recognized the need to use predictive models to analyze and optimize medication use. For example, CVS invested roughly $3 billion in 2022 to help optimize its digital systems\textsuperscript{39}, while UnitedHealth Group invests up to $5 billion annually to enhance innovation, R&D, and technology\textsuperscript{40}. We believe that for the major PBMs to hold true to their mission of providing high-quality, low-cost formularies, they must continue to leverage this technology. In the future, we foresee more active M&A in this space. Firms that recognize this trend will reap the rewards not only by holding true to their mission but also through increased share as businesses and government bodies switch contracts to lower-cost alternatives.

Biosimilars also have the potential to transform the PBM industry. A biosimilar is a biologic that is extremely similar to another biologic that is already FDA-approved but is often a less expensive version\textsuperscript{26}. In 2023, biological drugs were expected to surpass 25% of all manufactured prescription drugs, marking an excellent opportunity for PBMs to further reduce costs\textsuperscript{2}. The following image displays the potential savings from biosimilars through a low, base, and high-case scenario:

![Savings from biosimilars](source: IQVIA)

**ECONOMIC OUTLOOK**

**Consumer Price Index (CPI)**

While we acknowledge the efforts the Federal Reserve of the United States has made in managing severely heightened inflation from Q1 2021 through Q2 2023, Fed Chair Jerome Powell reiterated that the job is not done. In a recent interview, Chair Powell reaffirmed the Fed’s dedication to restoring price stability and achieving its 2% target\textsuperscript{28}. As cited in CVS’s recent 10K, elevated levels of inflation and high interest rates can materially impact a PBMs business as existing customers reduce their workforce to manage costs, which could result in reduced revenues and membership\textsuperscript{10}. Below is a graphic displaying the inflation rate in the United States from December 2019 to December 2023:

![Inflation rate](source: Statista)

The Henry Fund team forecasts CPI in the near term (6 months) to lower to 3.1%, coupled with a Fed Funds Rate of 5.00 – 5.25%. Long term (2 years), our CPI forecast is 2.7%, coupled with a Fed Funds Rate of 3.25 – 3.50%. If these forecasts hold true, the PBM industry could see heightened cost and consumer spending pressures returning to a fairly normal level.

**CPI vs. Medical Care Inflation**

Although CPI is a common measure to track the inflation rate in the U.S., we view it as important to compare this measure to inflation seen in medical care. The below image displays the annual percentage change in all goods and services vs. medical care:

![Annual percentage change in medical care](source: Peterson-KFF Health System Tracker)

An individual looking at the image above might come to an initial conclusion that medical care inflation is lower than CPI; however, that is not entirely the case. Medical care inflation is generally based on lagged data and does not immediately reflect certain components such as prescription drugs and health insurance price increases\textsuperscript{37}. In fact, the health insurance component of CPI through September 2022 reflects issuers’ margins in 2020\textsuperscript{37}. To gain insights into how this lagged data might show up in the years ahead, we can formulate an assumption through the following image which displays the uptick in prescription drug price increases from 2016 to 2022:
Given the sharp uptick from 2020 to 2022 in the graph above, we believe that medical care inflation is not yet incorporating these drug price increases. Usually, medical care inflation is above overall CPI in the U.S., and we believe this trend will continue as lagged data becomes incorporated into the measure.

**Unemployment Rate**

The unemployment rate is extremely important for the PBM industry. If the number of unemployed individuals in the United States increases, PBMs are likely to experience declines in their commercial membership. This decline could potentially be offset as laid off individuals may be eligible for coverage through Medicaid. Although there is potential for offsetting to take place, it is important to keep in mind that an individual may be assigned a plan with a competitor.

As of January 2024, the unemployment rate remained at 3.7%. Below is a graphic displaying the seasonally adjusted unemployment rate from January 2022 – January 2024:

The Henry Fund team forecasts the unemployment rate to remain within the range shown in the previous graph in both the near-term (6 months) and long-term (2 years).

**Uninsured Rate**

The uninsured rate measures the percentage of the U.S. population without health insurance. Our focus revolves around the idea that a higher uninsured rate can lead to a reduction in the volume of prescriptions processed through PBMs. This reduction has potential to greatly impact revenue streams for PBMs, as they have fewer transactions to manage and fewer opportunities to leverage rebates and discounts with manufacturers. Below is a graphic displaying the uninsured rate from 2010 – 2023:

The Henry Fund team expects the uninsured rate to remain within the range from 2016 – 2023 in the short-term, supported by tax credits that help Americans purchase Marketplace insurance within the American Rescue Plan and Inflation Reduction Act. We do not have an outlook in the long-term, as the factors influencing this rate are typically viewed as political and fluctuate depending on which party holds office.

**U.S. National Healthcare Expenditure**

National Healthcare Expenditure is an important metric to consider when looking at any industry within the Healthcare sector, as it provides an estimate for the total spending for healthcare in the United States. This metric can be broken down to determine what types of services/categories are receiving more funding than others.

In 2022, National Healthcare Expenditures grew 4.1% to $4.5 trillion, equating to roughly $13,493 per person, and accounted for 17.3% of GDP. Of this $4.5 trillion,
Medicare and Medicaid spending made up roughly 39%, with spending of $944.3 billion and $805.7 billion, respectively\(^3\). Additionally, on a positive note for PBMs, prescription drug spending increased 8.4% to $405.9 billion in 2022\(^3\). Below is a graphic that displays the total share of healthcare spending per category:

Looking forward, healthcare expenditures are expected to continue to outpace GDP with a CAGR of 5.4% through 2031, which would result in a share of 19.6% of total GDP\(^3\). It is also important to note that due to the Inflation Reduction Act passed in 2022, lower out-of-pocket spending on prescription drugs is expected in 2024 and beyond. This is primarily due to the spending cap of $2,000 on out-of-pocket expenses\(^3\). Below is a graphic that displays the projected growth in total healthcare expenditures through 2031:

### Aging U.S. Population

As the U.S. population continues to grow older and increasing medicalization becomes more prevalent, we expect prescription drug usage to rise. Currently, the United States population sits at just under 340 million, of which 125 million adults are aged 50 and older. Total filled prescriptions reached a staggering 6.7 billion in 2022, up from 6.1 billion in 2018\(^7\). As the U.S. population continues to grow older and increasing medicalization becomes more prevalent, we expect prescription drug usage to rise. Currently, the United States population sits at just under 340 million, of which 125 million adults are aged 50 and older. Total filled prescriptions reached a staggering 6.7 billion in 2022, up from 6.1 billion in 2018\(^7\). Given this, we believe that as more Americans cross the threshold into senior adulthood, PBMs could see favorable increases in revenues and filled prescriptions. In the graph below, we can see just how relevant the aging population has become in terms of prescription drug use:

The above graph shows that from 2023 to 2031, U.S. national healthcare expenditures are expected to increase by nearly 54%. This could represent a major opportunity for PBMs to fuel top-line growth.

### CONCLUSION

We believe it is important to keep a close eye on the PBM industry in the upcoming years. Although the industry has faced scrutiny and regulation previously, we believe the industry serves a major purpose within the healthcare sector. It has become extremely integrated into the broad landscape of the sector, and with the continued increase in healthcare expenditures and the U.S. unemployment rate hovering around its lowest level since 1969, we recommend an overweight rating on the industry. Looking forward, we believe the companies and management teams that recognize the need for continuous
improvement in data analytics, adoption of biosimilars, and increased transparency in their businesses will present the best opportunities going forward. After all, it is crucial that a company’s management team executes on its mission, and we believe the points mentioned above are the way to do it.

What companies are the best opportunities going forward?

We believe CVS and UNH provide the best investment opportunities going forward. Both companies have diverse revenue streams, allowing them to combat potential headwinds if one stream performs worse in a given year. Additionally, the two serve the most members out of any PBM and are expected to continue to add membership through Medicare Advantage. Aside from this, we lay out below a few key reasons that further support our thinking:

**CVS Health Corp. (CVS)**

In December 2023, CVS announced two new pricing models: CVS CostVantage and CVS Caremark TrueCost. These models aim to increase transparency concerning their pricing and business practices, allowing insights into the administrative fees and the true net cost of prescription drugs on their formularies. Additionally, CVS remains committed to introducing biosimilars with the recent announcement of a Humira biosimilar being placed on its formularies effective April 1, 202410.

**UnitedHealth Group, Inc. (UNH)**

Our view on UNH follows a similar thinking as CVS. In January 2023, UNH announced Price Edge, a tool that ensures that their members always get the lowest cost prescription drug available33. They also introduced two new payment solutions: Cost Clarity and Cost Advantage. Similarly to CVS, these models aim to increase transparency concerning their pricing, while also driving costs lower for their clients34. UNH has also implemented crucial biosimilar alternatives for Humira. In July 2023, they announced that clients will now have access to three Humira biosimilars.

We believe these announcements represent a signal that CVS and UNH are getting ahead of looming industry regulation and attempting to drive greater usage of biosimilars, both of which could benefit their top and bottom lines in the future.
REFERENCES

1. PBM Data Insights
2. IBISWorld
3. NAIC
4. Milliman
5. The Wall Street Journal
6. PhMRA
7. JAMA Health Forum
8. Statista: Pharmaceutical Industry
9. FactSet
10. CVS Investor Relations
11. The Cigna Group Investor Relations
12. UnitedHealth Group Investor Relations
13. Humana Investor Relations
14. CVS Earnings Transcript
15. CVS/Signify Acquisition
16. CVS/Oak Street Acquisition
17. CVS/Aetna Acquisition
18. PR Newswire
19. The Cigna Group Newsroom
20. UnitedHealth Group Newsroom
21. Department of Justice
22. Humana Newsroom
23. NASHP
24. PBM Transparency Act of 2023
25. Federal Trade Commission
26. U.S. Food & Drug Administration
27. IQVIA
28. Interview with Jerome Powell
30. Centers for Disease Control and Prevention
31. Centers for Medicare and Medicaid Services
32. Top PBMs by Market Share
33. UnitedHealth Group Price Edge
34. UnitedHealth Group Payment Solutions
35. National Library of Medicine
36. United States Census Bureau
37. Peterson-KFF Health System Tracker
38. PwC: Medical Costs Trend
39. CVS's Transformation in Data Analytics
40. UnitedHealth Group: Innovation in Healthcare
41. State PBM Legislation

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