



Structured Royalties Offer Greater Upside in Health Care Debt

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KEY TAKEAWAYS

- Structured health care royalties can potentially offer better returns and greater downside protection than traditional royalties in the current economic environment via blended credit products that may include floating rate loans, equity warrants, fees, and royalties.
- Health care is a resilient segment with a robust pipeline of innovative products and a history of strong performance across market cycles.
- Structured royalties could add greater upside to existing fixed income allocations while diversifying exposure to the health care sector.

Royalties are a growing but niche approach to private financing for the health care industry, with completed deal value of roughly \$33 billion across more than 130 transactions since 2012.¹ These agreements allow intellectual property (IP) holders to monetize that IP via contractual and/or lump sum payments.

As the health care royalties market has grown and evolved, a newer approach that blends the annuity-like regular income of traditional royalties with lending structures familiar to private credit investors is gaining prominence. This approach, known as structured royalties, still offers non-dilutive growth capital for health care companies seeking liquidity, but with the possibility of greater return potential for investors in an increasingly competitive space.

In this paper, we examine the value proposition for structured royalties, the market opportunity for structured royalty investors, and the growth opportunity presented by the health care sector.

THE STRUCTURED ROYALTY VALUE PROPOSITION

Investors are facing higher portfolio break-even rates in real terms given the recent surge in inflation: the Consumer Price Index hit 7.9% in February—the highest reading in over 40 years.² This challenge is particularly acute in the fixed income component of portfolios. Even high yield public debt is producing negative real returns in the current inflationary environment, with sub-investment grade bonds offering nominal yields of just 3.77% at the end of February.³

Structured royalty investments, which target companies with commercial health care products or services in the biopharmaceutical, medical device, or diagnostic tool spaces, could be part of the solution. They offer regular income from loan interest, augmented by equity warrants and fees, and sometimes royalty payments. This blend of attributes could potentially boost total returns, yet includes several sources of downside risk protection.

First, structured royalty lending is typically senior secured debt collateralized against all company assets, including patents. This is higher in the capital structure than equity, and investments usually include substantial underlying asset value to protect against potential capital loss. More technical, negotiated protections may also include:

- Liens on underlying assets by amending license agreements
- Financial covenants to monitor risk
- Tranched funding to link incremental investment to revenue growth or other operational milestones
- Guaranteed minimum payments, which seek to ensure a minimum level of return
- Isolating assets in a bankruptcy remote special purpose vehicle

In addition, as with other private credit lending, loans are typically extended with floating rates, historically against the London Inter-Bank Offered Rate (LIBOR) until that was supplanted by the Secured Overnight Financing Rate (SOFR) at the end of 2021. This offers lenders and investors protection against interest rising rates, reducing duration risk—the possibility that changes in interest rates over the duration of the loan may hurt its market value.

icapitalnetwork.com for a comprehensive primer on healthcare royalty investing.' The white paper cover itself is visible on the left, showing the title and a brief introduction."/>

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However, the flip side is that rising rates may place greater strain on the borrower, increasing the risk of default. That said, private credit default rates have historically been relatively low, despite the fact that private lending is usually to smaller companies with an arguably higher risk profile.⁴

This reflects a combination of factors. First, smaller companies typically use (or are limited to) less leverage than bigger firms. Second, private credit lenders typically implement stronger covenants than public lenders. Third, private financing solutions can be tailored to the specific situation and needs of the borrower, unlike standardized bank loans and public debt issuances.

Any additional risk is also typically compensated for with higher returns. Total returns from senior secured direct lending were an annualized 8.1% over the five years ended September 30, 2021, while the S&P U.S. High Yield Corporate Bond Index produced total returns of 6.3% over the same period.⁵

Structured royalty investments in health care specifically have unique additional defensive attributes.

First, these investments are usually made after target companies' products or services have received U.S. Food and Drug Administration (FDA) approval, when revenue streams are more predictable. This approach dramatically reduces certain risks, most obviously regulatory risk, but also sidesteps potentially significant costs related to research and development (R&D), manufacturing, and sales and marketing, as well as liability and product commercialization risk.

Second, investments in health care innovation are relatively secure. Commercial drug and medical device IP is typically protected for 20 years from the date of filing, which helps limit competition for several years. Competitors can, of course, innovate sufficiently to get a new patent, but it takes a significant amount of both time and investment to reach the approval stage, particularly in the medical field.

THE OPPORTUNITY IN STRUCTURED ROYALTY INVESTMENTS

For recipient companies, a significant benefit of structured health care investments is that they are non-dilutive. That is to say, the business owner is not required to give up equity or ownership up front in exchange for capital. Investments via structured royalties may also help better insulate smaller companies from valuation fluctuations and other short-term market trends.

On the lender side, regulations passed in the wake of the Global Financial Crisis have discouraged lending by banks to middle-market companies—typically those with an EBITDA⁶ of less than \$100 million. Most public market financial institutions prefer large, liquid corporate loans.

Furthermore, barriers to entry for health care royalties are relatively high. Executing deals in this market typically requires a strong, established network to source opportunities. Many traditional Wall Street lenders are not equipped to compete in this market due to the complexity of the necessary diligence processes. A due diligence team must be equipped to understand the proposed investment from not just a financial perspective, but from a scientific and regulatory one too, including:

- Examining historical clinical developments (including failures) in the specific subsector
- Understanding the potential regulatory risk in the subsector
- Assessing the clinical data and the mechanism of action of the product
- Analyzing the severity of the treatment area and the prevalence of the unmet medical need
- Examining the safety profile and adverse event history of the specific product
- Clarifying the reimbursement process for the product or service, which vary within health care but are often triparty (patient, provider, third-party payer)

As such, there is a relatively limited universe of experienced institutional managers of scale competing in this space.

SECULAR GROWTH AND DEFENSIVE CHARACTERISTICS OF THE HEALTH CARE SPACE

The health care sector is unique in that it has fundamentally defensive characteristics but is also highly innovative.

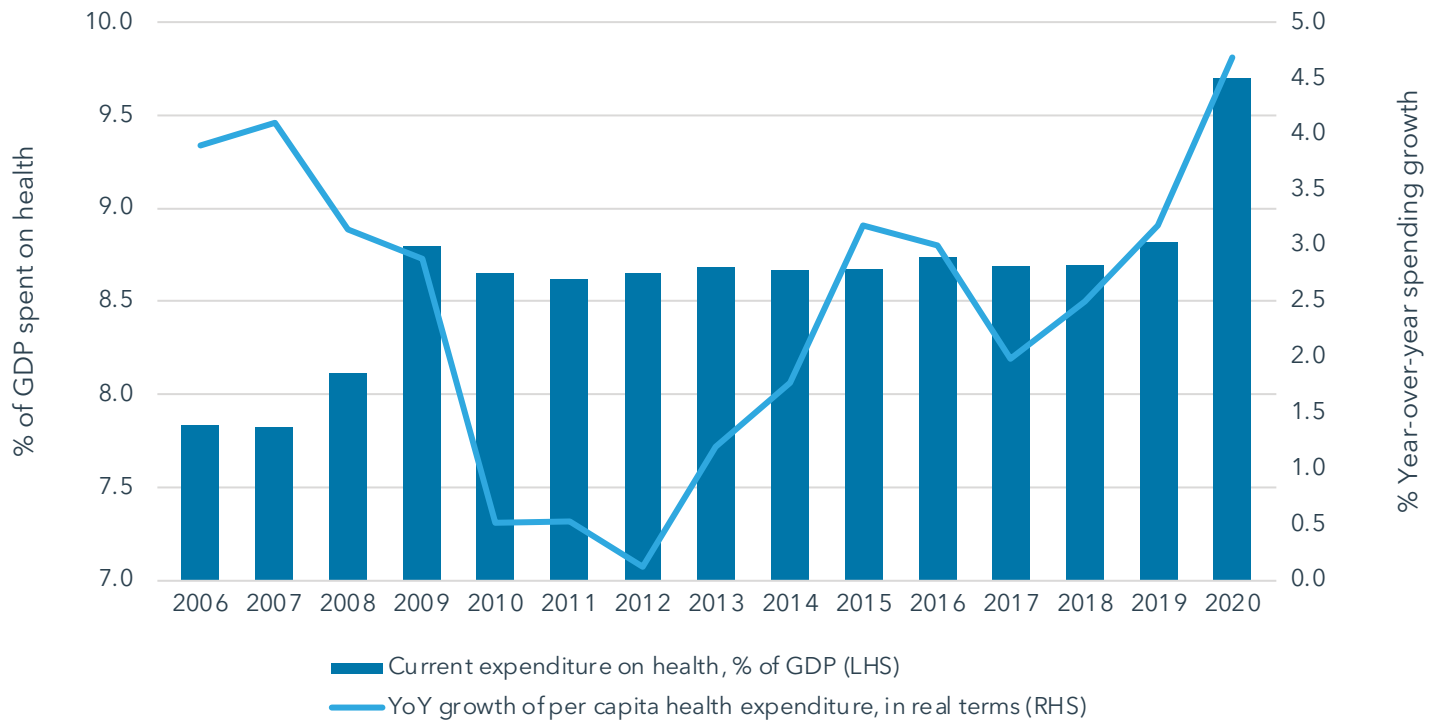
Overall, health care spending continues to grow globally year-over-year (See Exhibit 1), and it more than doubled in real terms from 2000 to 2019.⁷

In the United States alone, spending reached \$4.1 trillion in 2020, up 9.7% year-over-year.⁸ This rise was partly driven by public spending due to COVID-19, but the trend has been consistently upward, and is expected to reach \$6.2 trillion by 2028.⁹

Health care sector growth is closely linked to broader demographic trends, including an aging population, rising

Exhibit 1: Health care spending continues its consistent growth

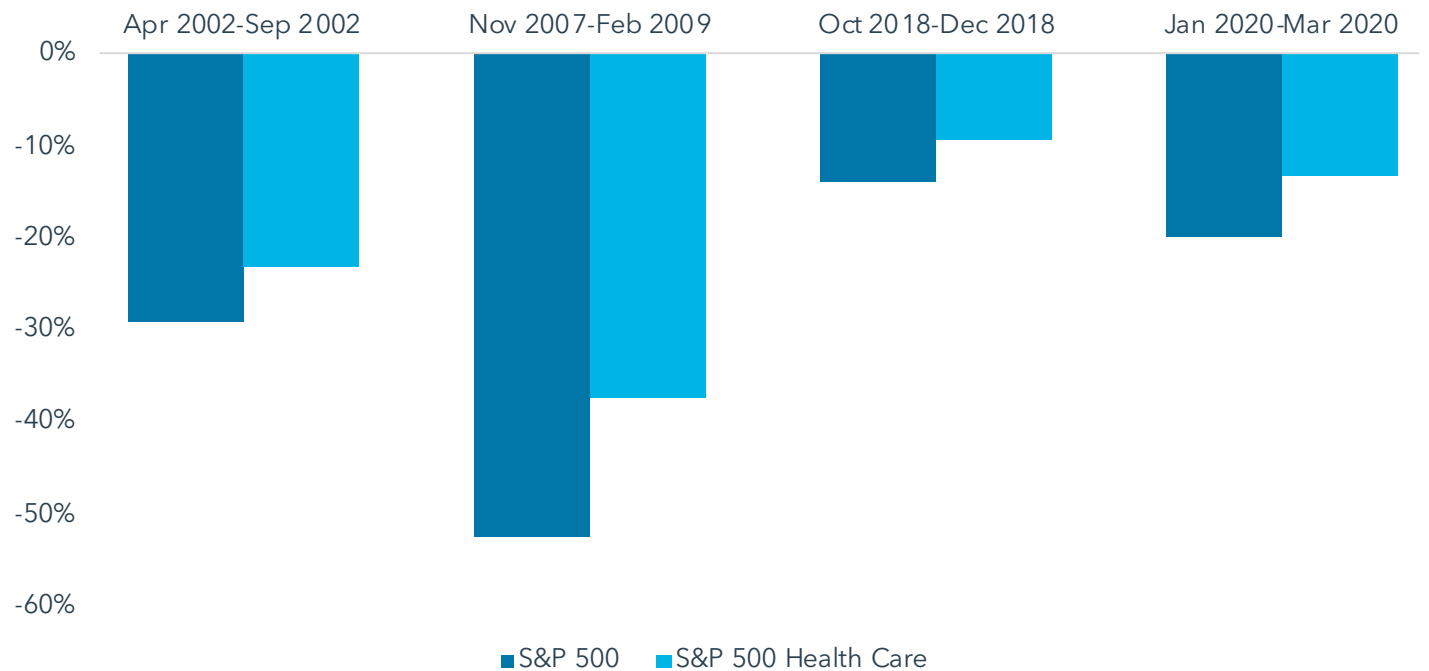
OECD average health spending as a percentage of GDP, and annual per capita health spending growth



Source: Organisation for Economic Co-operation and Development Health Statistics 2021. For illustrative purposes only.

Exhibit 2: Health care has proven relatively resilient in down markets

Total drawdown during recent market downturns



Source: Bloomberg, as of March 1, 2022. Based on monthly returns. For illustrative purposes only. Past performance is not indicative of future results.

global wealth, and ongoing increases in the prevalence of chronic diseases. With health care expenditures disproportionately incurred by the elderly, the aging trend—particularly in wealthier markets—portends secular growth for the health care sector. In the United States, for example, health care spending is roughly seven times higher among those aged 85 or higher than for those aged 19 to 44.¹⁰

The confluence of these trends makes the health care sector more resilient to economic downturns. On the public market side, health care stocks have exhibited defensive characteristics, falling less than the broader market during recent market downturns (See Exhibit 2). Over the past 20 years, the S&P 500 Health Care Index—measuring the performance of health care stocks on the S&P 500—has exhibited a moderate beta to the broader market of 0.73.¹¹

These defensive attributes are also evident on the private market side, with health care and life sciences investments exhibiting some of the lowest rates of loan defaults (See Exhibit 3).

INNOVATIVE POTENTIAL IN THE HEALTH CARE MARKET

On the other side, the innovative potential in the health care market is substantial.

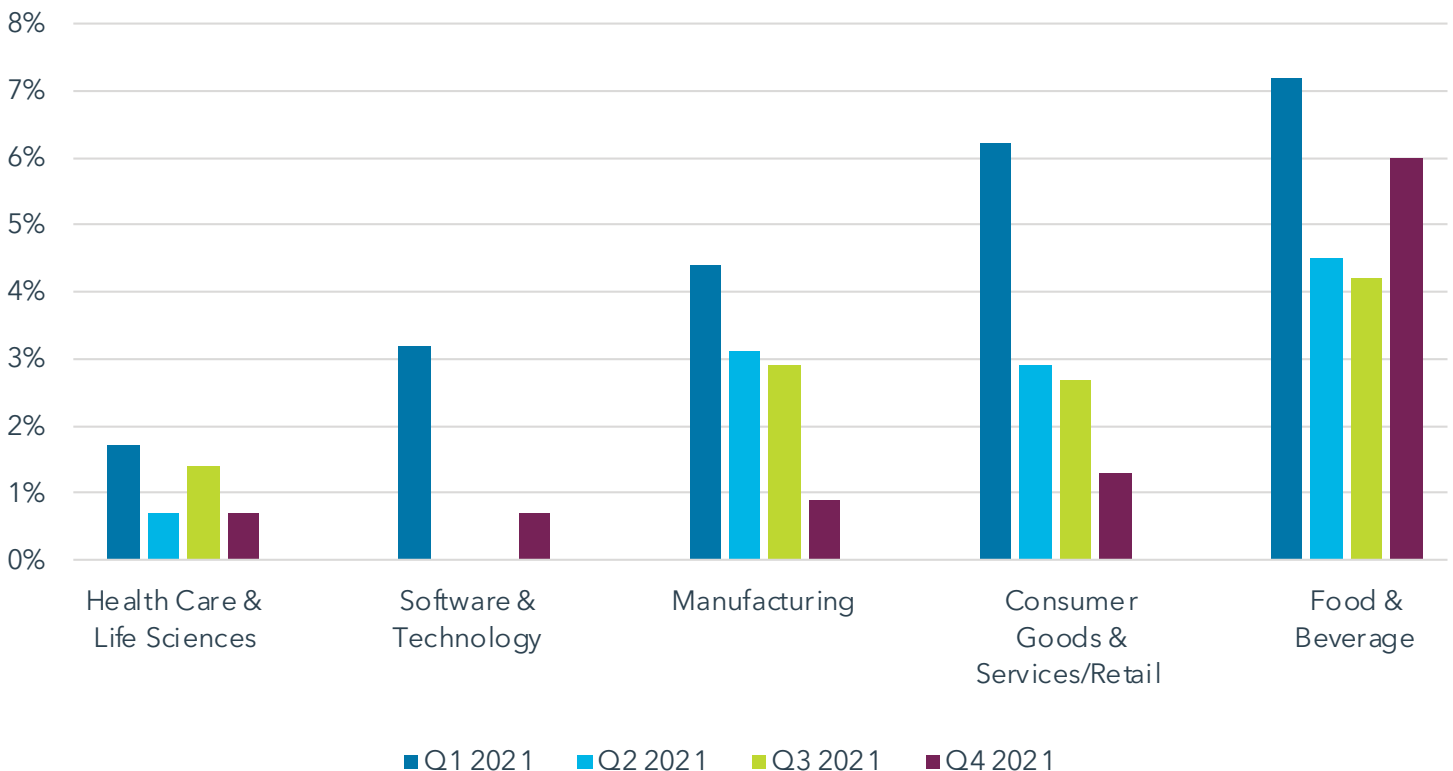
Spending on R&D in the health care sector is expected to have surpassed that in computing and electronics in 2020, making it the number one industry for R&D spend globally.¹² Medical and health care R&D investment in the United States alone reached \$245.1 billion in 2020.¹³

This investment has supported technological innovation in areas such as biotechnology, drug design, technologies expediting development and review timelines, and the decentralization of clinical trials.

This innovation is helping bring forth and commercialize an exciting array of new products and services, including the major sectors to which structured royalties may offer exposure, such as biopharmaceuticals, medical devices, and diagnostics (See Exhibit 4).

Exhibit 3: Default rates low for private credit health care investments

Quarterly default rates for private credit investments, by industry



Source: Proskauer Private Credit Default Index, as of January 27, 2022. For illustrative purposes only. Past performance is not indicative of future results.

Exhibit 4: By the numbers: Growth in sectors to which structured royalties offer exposure

Biopharmaceuticals

\$856.1B: expected size of global biopharmaceutical market in 2030

12.5%: predicted annual growth rate of global biopharmaceutical market from 2021 to 2030

\$297.2B: estimated size of global biopharmaceutical market in 2021

23.8%: estimated share of global pharmaceuticals market accounted for by biopharmaceuticals in 2021

Medical Devices

\$434.2B: size of global medical device market in 2021

\$625.3B: estimated size of medical device market in 2027

6.3%: predicted annual growth rate of medical device market from 2022 to 2027

Diagnostics

\$73.9B: size of global in vitro diagnostics market in 2021

\$97.1B: estimated size of in vitro diagnostics market in 2026

5.6%: predicted annual growth rates of in vitro diagnostics market from 2021 to 2026

Sources: Biopharmaceuticals—Precedence Research, "Biopharmaceutical Market Size to Hit US\$ 856.1 Bn by 2030," December 22, 2021. Research and Markets, "Pharmaceuticals Global Market Report 2021: COVID-19 Impact and Recovery to 2030," February 2021. Medical Devices—Research and Markets, "Global Medical Device Market to 2027 - by Product, Application, End-user and Region," February 14, 2022. Diagnostics—Market Data Forecasts, "Global In-Vitro Diagnostics Market Size, Share, Trends, COVID-19 Impact and Growth Analysis Report (2021 to 2026)," April 2021.

RISK FACTORS

While the outlook appears positive, there are several risk factors that investors should consider before committing to structured royalty investments.

For example, most candidates for structured royalty investments are smaller companies that are not yet profitable enough to access traditional debt markets. Credit risk may be higher than for larger, better-established companies. Even though structured royalty investments hold debt that is senior in the capital structure to equities, the danger of bankruptcy and default remains.

Certain structured health care funds may also assume greater execution risk and lend to companies in the pre-approval phase. Only around 60% of phase-three trials are successful,¹⁴ but the lending terms should reflect this risk via, for example, higher interest rates, a larger equity warrant component, and/or higher fees. Cash returns from these more speculative investments will obviously be limited in the short term, but the potential upside should be commensurately greater. The inclusion of warrants can ensure that, should the company successfully go public, investors also benefit—though this is not typically viewed as a key driver of returns, more a potential upside surprise.

Finally, the level of specialist knowledge and depth of competitive analysis required to execute these transactions can be a risk. The health care market has very little margin for error, which could potentially punish even small omissions or mistakes during the due diligence process.

INTEGRATING STRUCTURED ROYALTIES INTO A PORTFOLIO

Structured health care royalties could serve a complementary role in a fixed income allocation. They help provide attractive cash yields at floating rates with some potential upside, which is especially appealing in the current context of high inflation, in which many public fixed income instruments provide negative real yields. These attractive returns are balanced with structural mechanisms that help limit risk, including potentially a variety of negotiated contractual protections and a senior position in the capital stack.

In conjunction with their exposure to a resilient and innovative market, both traditional and structured health care royalties can offer meaningful diversification benefits for a well-balanced portfolio with return drivers distinct from both other sectors and investment strategies, reflected in low market beta and differentiated performance during downturns.¹⁵

END NOTES

1. Source: Royalty Pharma.
2. Source: Bloomberg, as of March 11, 2022.
3. Source: ICE BofA US High Yield Index Option-Adjusted Spread.
4. Source: Managed Funds Association, "The Role of Private Credit in U.S. Capital Markets," March 31, 2022.
5. Source: Cliffwater CDLI-S Index, S&P U.S. High Yield Corporate Bond Index.
6. EBITDA = Earnings before interest, taxes, depreciation, and amortization.
7. Source: World Health Organization, "Global expenditure on health: Public spending on the rise? 2021."
8. Source: Centers for Medicare and Medicaid Services, "National Health Expenditure Projections 2019-2028."
9. Source: Centers for Medicare and Medicaid Services, "National Health Expenditure Projections 2019-2028."
10. Source: The Brookings Institution, "A dozen facts about the economics of the US health-care system." In the United States, per capita health care spending for individuals aged 19-44 averaged roughly \$5,000/year in 2018, versus \$18,000 for the 65-84 age bracket and \$35,000 for the 85+ age bracket.
11. Source: Bloomberg, as of March 1, 2022. For period April 2002 to February 2022. Based on monthly returns. For illustrative purposes only. Past performance is not indicative of future results. Future results are not guaranteed.
12. Source: PwC, "The Global Innovation 1000 study," 2018.
13. Source: Research America, "U.S. Investments in Medical and Health Research and Development, 2016-2020," January 2022.
14. Source: Chi Heem Wong, Kien Wei, and Andrew W. Lo, "Estimation of clinical trial success rates and related parameters," Biostatistics, Volume 20, Issue 2, April 2019.
15. Source: Bloomberg, as of March 1, 2022. For period April 2002 to February 2022. Based on monthly returns. For illustrative purposes only. Past performance is not indicative of future results. Future results are not guaranteed.

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