



# Pharma Market Drivers Part One: Hey! Big (Pharma) Spender

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BY EDWIN ELMHIRST AND AMY BROWN | JUNE 2022



# Introduction

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Big pharma spent £183bn on R&D, M&A and licensing deals in 2021. Huge though that figure is, it's actually a slight dip in overall spend compared to the previous couple of years. Why a dip? Mainly it's down to reduced deal making as, despite low valuations for many companies, there's been a distinct lack of bargain basement-style shopping activity. Meanwhile, overall R&D spend amongst the biggest players tipped over the \$100bn mark for the first time.

So what is driving the spend and who is getting the best bang for those billions of bucks? In this report, we look at the top spenders in the big pharma space and consider which strategies show the strongest signs of paying off in the long term. We're seeing few signs of the mega-merger activities of the past with signs of a rather more cautious approach to growth from most of the big players.

Where is this investment in R&D going? Well, inevitably we stumble across the C-word here, with Covid being a big driver of spend for several of the big players over the past couple of years. However, that's not all there is to it as aging pipelines for a number of companies call for a boost in investment to mitigate looming patent expiries.

Of course, there's more to boosting a big pharma pipeline than simply developing novel treatments. Thousands of small biotechs are having a rough time in a pretty gruesome market and with the recent buyout agreement between Biohaven and Pfizer, we take a look at some of the other licensing deals that might be subject to an upgrade that wouldn't have appealed a year ago.

Finally, we end with another big figure. This time, the \$110bn dollars that the big 11 spent on share buybacks and dividends last year. Yes, before you scan back up, that's more than the R&D figure. What does this safe but rather dull behaviour mean for investor support and the all-important share price performance?



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# Big pharma's biggest spenders revealed

BY EDWIN ELMHIRST AND AMY BROWN

Bristol Myers Squibb has spent the most on M&A, R&D and licensing since 2017, and Eli Lilly the least. Guess which strategy is working best.



The world's largest drug developers invested a combined \$183bn on R&D, M&A and licensing deals in 2021. While this is a huge sum, it also represents a fairly sizeable dip versus the previous two years.

A jump in spending on in-house development last year – boosted by Covid-related R&D bills – failed to offset a pullback in deal-making. Signs are growing that 2022 could be another down year for these sector giants, with much pandemic-related clinical work ending and a muted start to the year for big pharma's business development teams.

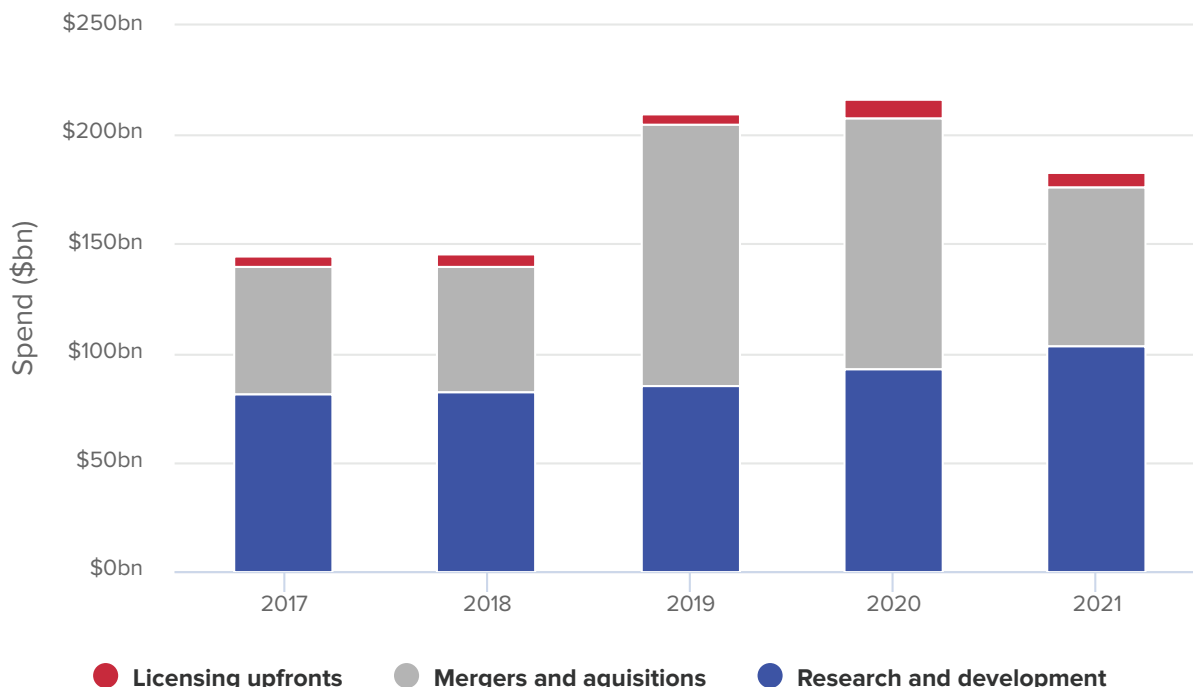
The chart below shows the combined spend of the sector's 11 big pharma companies – named in the second chart below – based on reported figures and deal data collected by Evaluate Pharma. The analysis includes these developers' three major areas of investment: R&D, where costs include exceptional items; licensing deals, tallying up-front fees only; and M&A transactions, where only the initial fee is counted for deals with downstream or contingent payments.

All numbers are adjusted for inflation.





## Big pharma's combined annual spend



Source: Evaluate

Spending on business development is typically opportunistic, so deal investment trends, in terms of dollars spent, will always be lumpy year to year. Still, it is interesting that up-front licensing costs have hovered around the \$5bn mark for this group over the five years (toggle the chart's legend to deselect categories).

A big uptick in R&D spend over the pandemic years is also readily apparent, and a closer look at this cost line [can be read here](#).

The second chart here splits out this combined spend by company. Those that have struck sizeable acquisitions in this period lead the pack, of course. Bristol Myers Squibb's \$74bn takeover of Celgene and the \$63bn move on Allergan by Abbvie were the two mega-mergers of this period.

Licensing fees are, comparatively, a tiny area of investment, though it is clear that some big pharma groups are keener on this bet hedging than others.

For example, Sanofi is the fourth-largest spender on M&A over the period, but paid the least in licensing up-fronts, deploying only \$1bn.

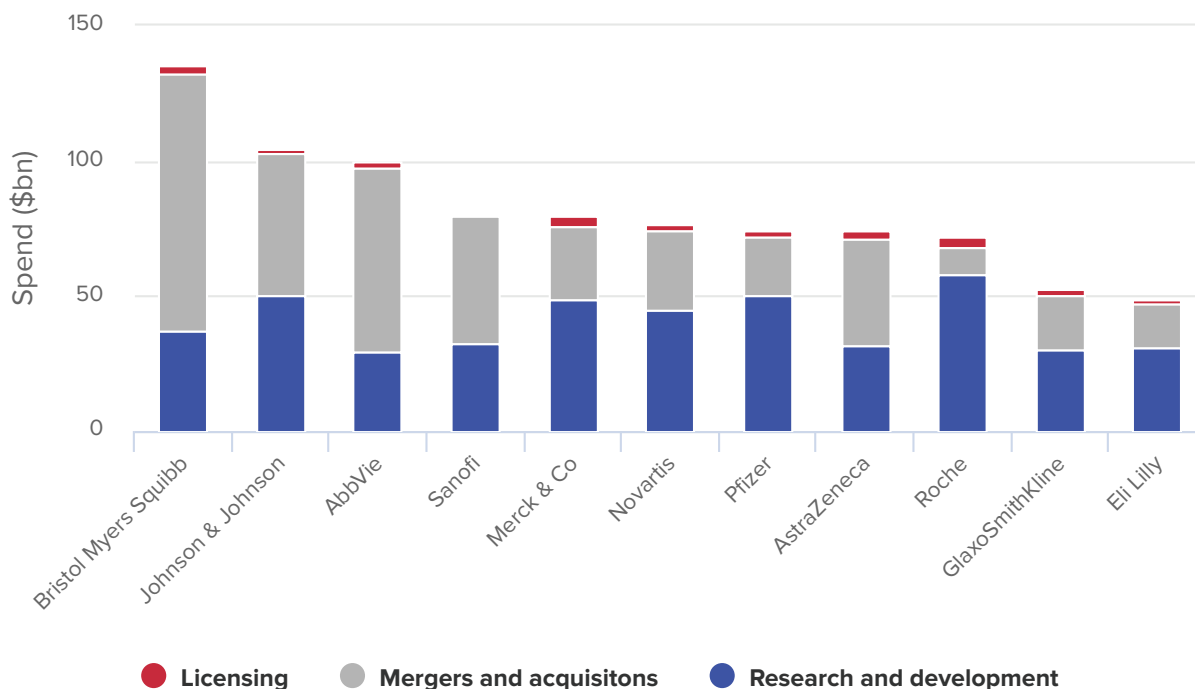
Roche has taken the opposite approach, spending the least on M&A but footing a \$4bn licensing bill, one of big pharma's highest, over the five years in question.

And, make no mistake, these patterns of cash allocation are the result of strategic decisions made by executive teams. J&J's chief executive, Joaquin Duato, recently pointed out that this company's investments in organic R&D and externally sourced innovation had been about equal over the past five years.

This means that it is also important to measure what these various approaches are delivering. This can be done in many ways; the final chart below uses forecast sales growth, according to sellside consensus, plotted against the historic spend above.



## Big spenders? Five-year investments by company



Source: Evaluate

Rapid future growth for minimal investment is clearly the ideal scenario, which would put companies in the top left hand side of the chart below. Kudos to Lilly, then, a company that has not indulged in major M&A while extracting [substantial clinical success from internally developed assets](#).

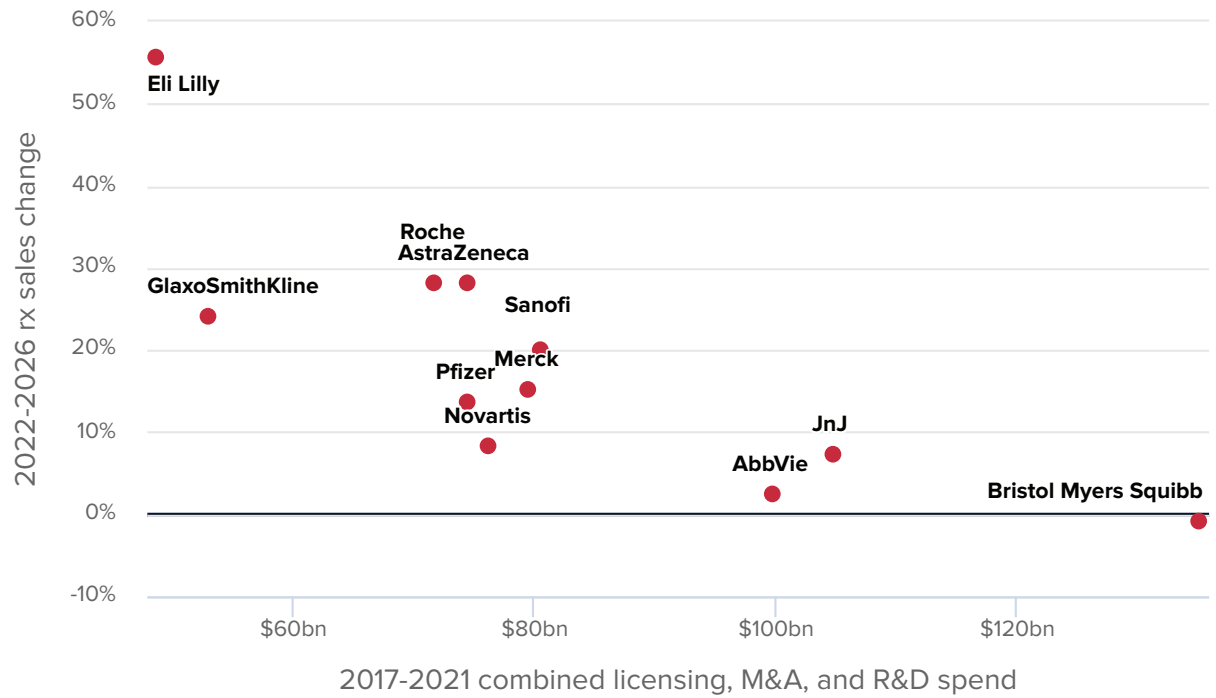
Bristol Myers appears to be in the worst position, although the recent patent expiry of Revlimid, which was a large motivation for the costly Celgene deal, arguably makes its situation look worse than it is. The company could certainly use more revenue drivers, however, as another recent Vantage analysis, [looking at freshness](#), concluded.

This is a picture that can quickly change, of course, with fresh business development deals or clinical successes. And as long as these groups' investments deliver valuable assets, investors are probably not too concerned about whether the source is internal or external.

Splashy spending for minimal return is a problem, however, and the sector seems to have concluded that mega-mergers risk this exact scenario. With executives almost across the board claiming to be focused on small bolt-ons – which recent deal data seem to bear out – perhaps more prudent times are here for big pharma.



## 5-year combined spend vs. future sales growth



Source: Evaluate



# Covid drives a record jump in research spending for big pharma

BY EDWIN ELMHIRST AND AMY BROWN

A second year of pandemic investments helped big pharma's combined R&D bill surge above \$100bn for the first time.



The world's largest developers spend huge amounts on research and development each year, and the outbreak of Covid has added substantial sums to those endeavours. The 11 big pharma firms saw their combined R&D investments jump 11% in 2021 on the previous year, the biggest annual rise in at least five years.

A substantial uptick in investment from 2020 by the big pandemic vaccine names – Pfizer, AstraZeneca and Johnson & Johnson – is clearly visible in a 10-year view of these companies' R&D outlays. Roche,

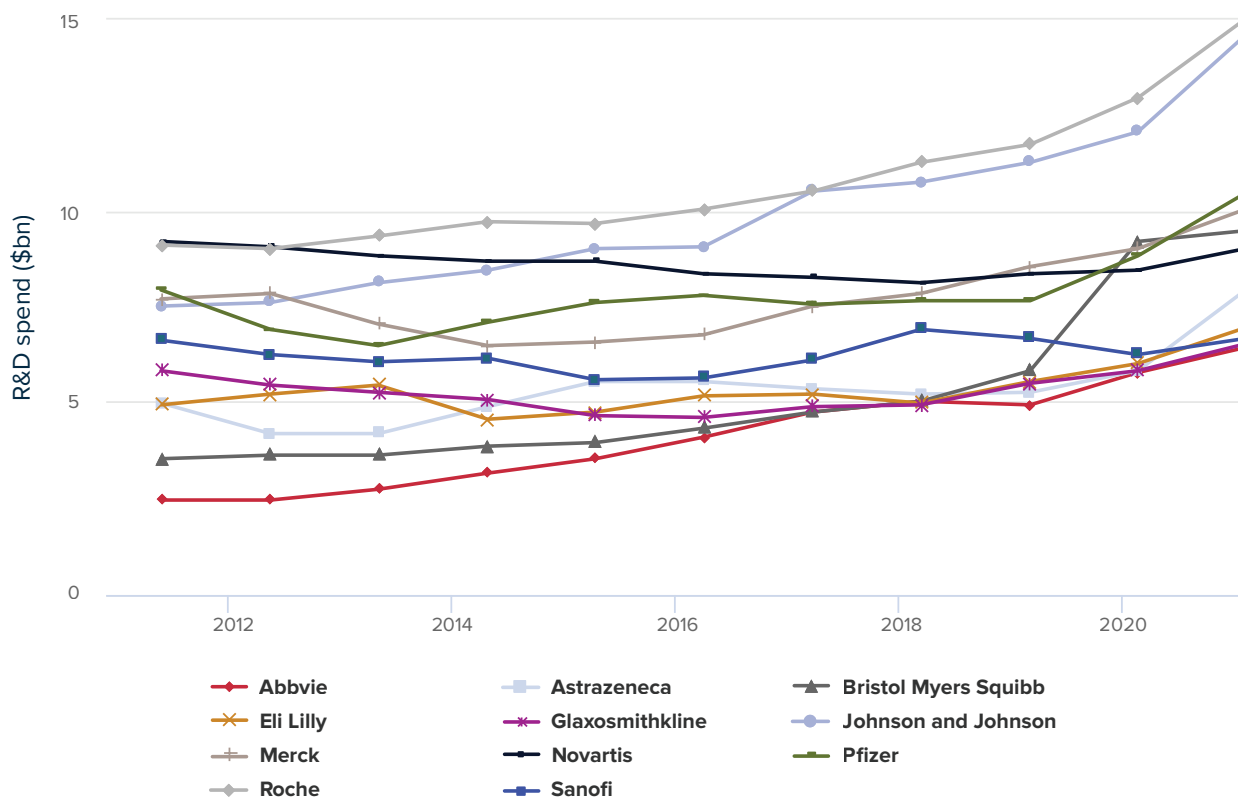
which also made substantial contributions to Covid research, has also accelerated its spending recently, although it is interesting to note that this is not true for all big pharma groups.

These four companies are also supporting substantial pipelines, of course, so this expansion will not all be down to Covid. The addition of Alexion R&D boosted AstraZeneca's numbers last year, for example, while J&J made no apologies about its record bill, insisting that it had a strong portfolio of products on which it was prepared to make big bets.





## Big pharma's R&D bill: a 10-year view



Note: Excludes exceptionals

Source: Evaluate

The 11 companies here might all be considered big pharma but they are actually very different sizes when it comes to their earnings and, therefore, the sums they are able to invest. This means that a more insightful comparison can be R&D spend as a proportion of sales, a ratio that allows insight into these developers' strategic approach to this spend line.

The caveat to remember here is that big topline moves, caused by acquisition or patent expiry, will influence this ratio year-to-year. So a big swing does not necessarily reflect any strategic shift in approach to in-house development.

Take Abbvie, whose R&D spend has increased in real terms but as a percentage of sales has plummeted, by almost three percentage points over the decade. Last year this came in at almost 12% of sales, by far the lowest of the big pharma pack.

This is down to Humira's huge sales, which are about to start falling as the mega-blockbuster loses US exclusivity, a decline that will have the opposite effect on the company's ratio.

Pfizer is in a similar position thanks to the Covid vaccine Comirnaty, the huge sales of which caused that company's spend per sales to plummet last year.

Companies that are driving R&D spend higher, both in absolute terms and as a percentage of sales, are also interesting to note. This includes Merck & Co, which is presumably investing heavily to find a replacement for Keytruda.

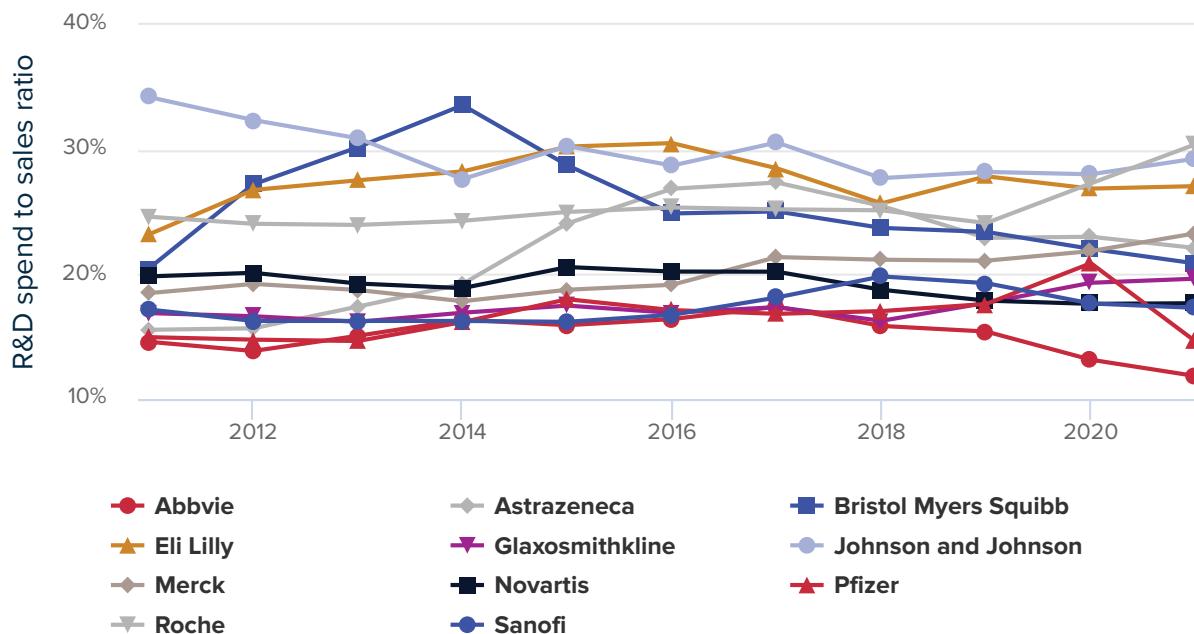
Roche is another example. The Swiss firm is fairly consistently big pharma's biggest R&D investor on both of these metrics, with its spend to sales ratio topping 30% in 2021, a threshold that is infrequently breached by any group.



And what about those dialling back? Step forward Novartis, which has held its R&D spend pretty flat over the past decade, with its spend to sales ratio dropping to at least a 10-year low last year. With

the group's pipeline in need of a boost, this is a number that will need to climb. Unless, of course, the company has other plans for its cash.

## R&D spend as a % of Rx sales



Source: Evaluate



# Opportunities arise for once-spurned partners

BY AMY BROWN

Following the Pfizer-Biohaven blueprint, could other licensing deals turn into buyouts?



The ability of a small developer to retain ownership of a prized asset has a lot to do with wider market conditions. And right now those conditions are terrible.

The Biohaven board would certainly have considered this fact while weighing up whether to sell out to Pfizer, presumably having rejected such a proposal six months earlier. Which begs the question – which other groups might be regretting an earlier independent streak, and would now look favourably on an offer from a larger partner that had once seemed too cheap?

Aurinia is a prime example. [If rumours were true](#) Aurinia attracted the interest of Bristol Myers Squibb last year, talk that caused shares in the small biotech to almost double. The stock is now trading at a third of that price, and the company's market cap is struggling to stay above \$1bn.

As a small company undertaking a solo launch Aurinia is considered a high-risk proposition by investors, many of whom would applaud a buyer emerging. Whether they would be happy with a deal struck at these depressed levels, having enjoyed a substantially higher valuation only six months ago, is another question.



## WELCOMING THE LAND GRAB?

The problem for small companies, and their investors, is that the stuttering stock markets and wider economic malaise could easily deteriorate further. Calling time sooner rather than later could prove a wise move ([Six months on, Biohaven succumbs to Pfizer](#), May 10, 2022).

Larger developers do not always want to buy an entire company, of course, particularly when interesting assets are early stage, and still high risk. But if they are on the hook for significant payments down the road, and a project is looking promising, a slump in the target's valuation could make a land grab a no-brainer.

The table below calls out a few possible candidates, where parties on both sides of the table could find themselves considering their options.

Some of these projects probably represent too much

of a bet at this stage for the bigger partner to make a move. Gilead is surely happy to have Arcus at arms length after [Roche's anti-Tigit blow-up](#) yesterday.

Others might look more tempting. The [potential of Sarepta's SRP-9001 and Sage's depression assets](#) remains under debate, but both of these companies have seen serious valuation declines. And, if Glaxosmithkline is really serious about mRNA as a modality, Curevac also looks considerably cheaper now than 12 months ago.

Seres and Morphosys in particular look very beaten down. Investors would probably not object if their larger partners made a move.

Conditions are perhaps not dire enough for these smaller developers to give up just yet. But propositions of full marriage will certainly be taken more seriously now than when these licensing deals were first struck.

Consummation potential? Licensing deals with potential for an upgrade			
Deal partners	Project(s)	Deal details	Current market cap of licensee
Biogen/Sage	Zuranolone/SAGE-324	<a href="#">Biogen buys WW rights and 50% of US for \$1.5bn in up front and equity; \$3bn+ in milestones</a>	\$1.7bn (-61% since Nov '20 deal)
Roche/Sarepta	SRP-9001	<a href="#">Roche buy ex-US rights for \$1.5bn in up front and equity; \$3bn in milestones</a>	\$5.5bn (-52% since Dec '19 deal)
Gilead/Arcus	Three I-O projects, including anti-Tigit	<a href="#">Gilead buy WW rights and 50% of US for \$750m; \$4bn+ milestones</a>	\$1.2bn (-53% since Nov '21 deal)
Roche/Blueprint	Gavreto	<a href="#">Roche buy WW and 50% of US for \$775m in up front and equity; \$927m milestones</a>	\$3.1bn (-32% since Jul '20 deal)
Pfizer/Myovant	Orgovyx/Myfembree	<a href="#">Pfizer buys 50% of US and Canada rights and ex-US oncology rights for \$650m up front; \$4.2bn in milestones</a>	\$788m (-64% since Dec '20 deal)
Incyte/Morphosys	Monjuvi	<a href="#">Incyte buys ex-US and 50% of US for \$900m in up front and equity; \$1.1bn in milestones</a>	\$598m (-87% since Jan '20 deal)
Abbvie/Regenxbio	RGX-314	<a href="#">Abbvie buys WW and 50% of US for \$370m up front; \$1.4bn in milestones</a>	\$840m (-41% since Sep '21 deal)
Nestle/Seres	SER-109	<a href="#">Over two deals, Nestle buys WW rights and 50% of US &amp; Canada for \$295m up front; \$2bn+ milestones</a>	\$327m (-85% since Jul '21 deal)
Incyte/Syndax	Axatilimab	<a href="#">Incyte buys ex-US and 50% of US for \$152m in up front and equity; \$450m in milestones</a>	\$833m (-26% since Sep '21 deal)
Glaxo/Curevac	CVnCoV + other mRNA vaccines	<a href="#">Glaxo pays ~\$300m up front + ~\$400m in milestones for WW rights ex certain European countries</a>	\$2.9bn (-83% since Feb '21 deal)

Source: Evaluate Pharma & company statements.



# Investors bite the big pharma hands that feed them

BY EDWIN ELMHIRST AND AMY BROWN

Spending heavily on buybacks and dividends does not mean sector-leading share price performance, Evaluate Vantage finds.



The world's 11 largest drug developers spent \$110bn on share buybacks and dividends last year, with this investment hitting least a five-year high, according to Evaluate Vantage's latest analysis of big pharma investment trends.

That is more than these companies' combined R&D bill, which in recent years has typically been the higher number. Certain one-off events played a role to boost buybacks last year, but it is worth remembering that [in-house research spending is also at a record high](#).

It was [Novartis's sale of its stake in Roche](#) back to

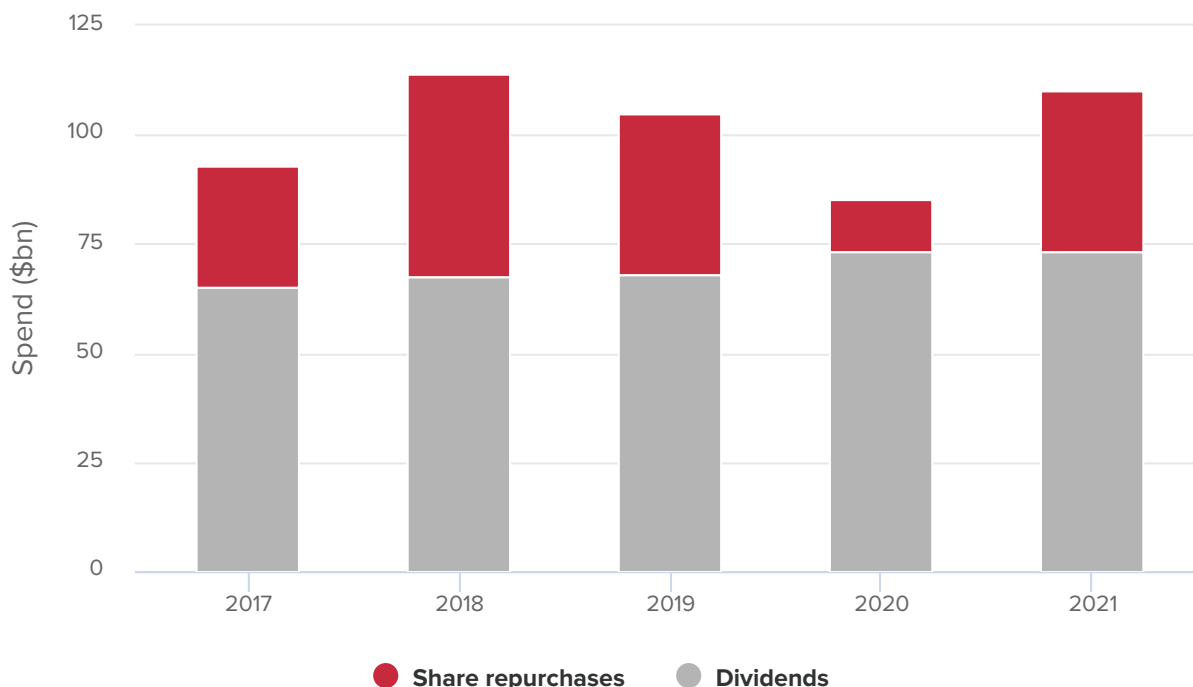
its Swiss rival, followed by Roche's massive share repurchase, that substantially swelled big pharma's combined buyback spend last year. Roche's annual results show that share repurchases cost it \$22.3bn in 2021, the largest annual expenditure over the last five years by any of these groups, by some margin.

The last time big pharma splashed out on buybacks was in 2018/19, when the Trump administration [temporarily cut tax on the repatriation of foreign earnings](#). US developers including Abbvie, Merck & Co and Pfizer subsequently spent much of their windfalls on repurchases, ploughing more than \$10bn each into these programmes.





## Big pharma spend on dividends and buybacks



Source: Evaluate

This analysis is constructed from annual reports, which detail the sums spent on share repurchases and dividends each year. R&D and deal investments were previously detailed by Evaluate Vantage ([Big pharma's biggest spenders revealed](#), May 16, 2022).

Dividends will always be the main way in which these companies distribute profits, though some investors are in favour of buybacks as a tax-free way to boost earnings per share. The opposing view is that management teams should instead be investing in the business – and in the drug development sector, this means R&D or deal-making.

These hugely cash-generative businesses are mostly able to pursue both business development and redistribute excess profits, of course. The chart

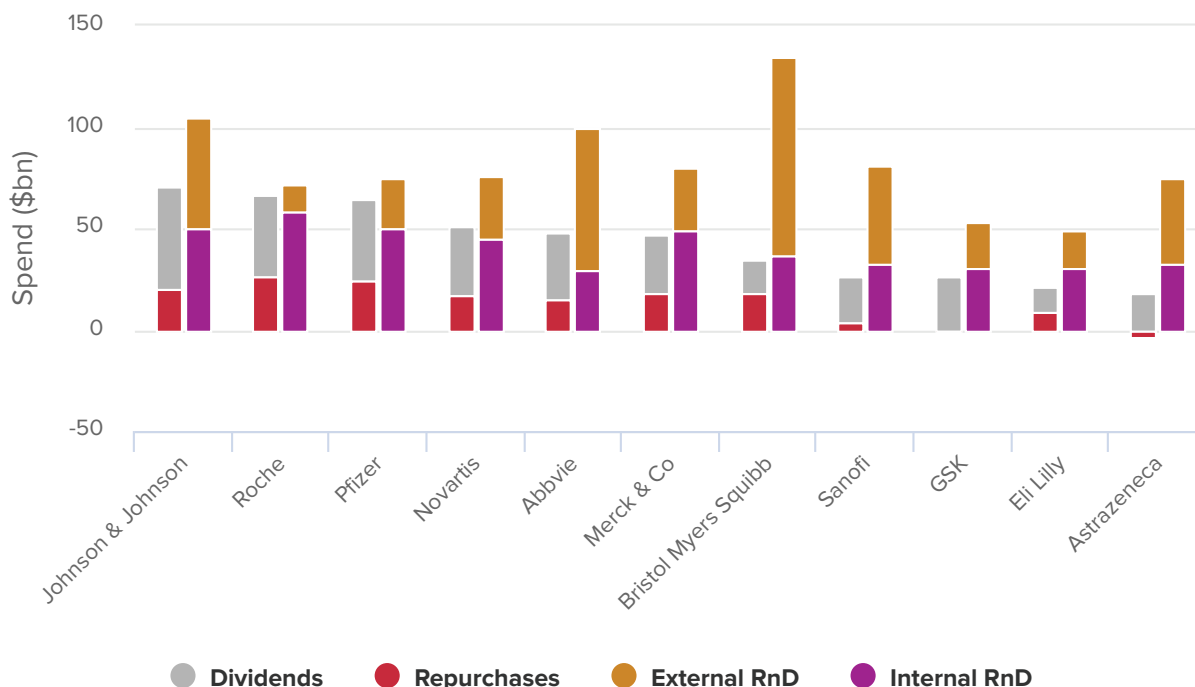
below illustrates the various cash deployment strategies adopted by these big pharma groups.

Roche and Pfizer, two of the largest companies in this cohort, stand out as having spent the same sort of sums over the last five years on their shareholders as they have on internal and external R&D (where external R&D consists of licensing deals and M&A). Johnson & Johnson, another huge corporation, has invested roughly the same on dividends as it has on internal R&D.

For the remainder of the pack internal development and external business development has been the priority, in terms of where the cash has been deployed.



## Splashing the cash: where big pharma spends its money



Source: Evaluate

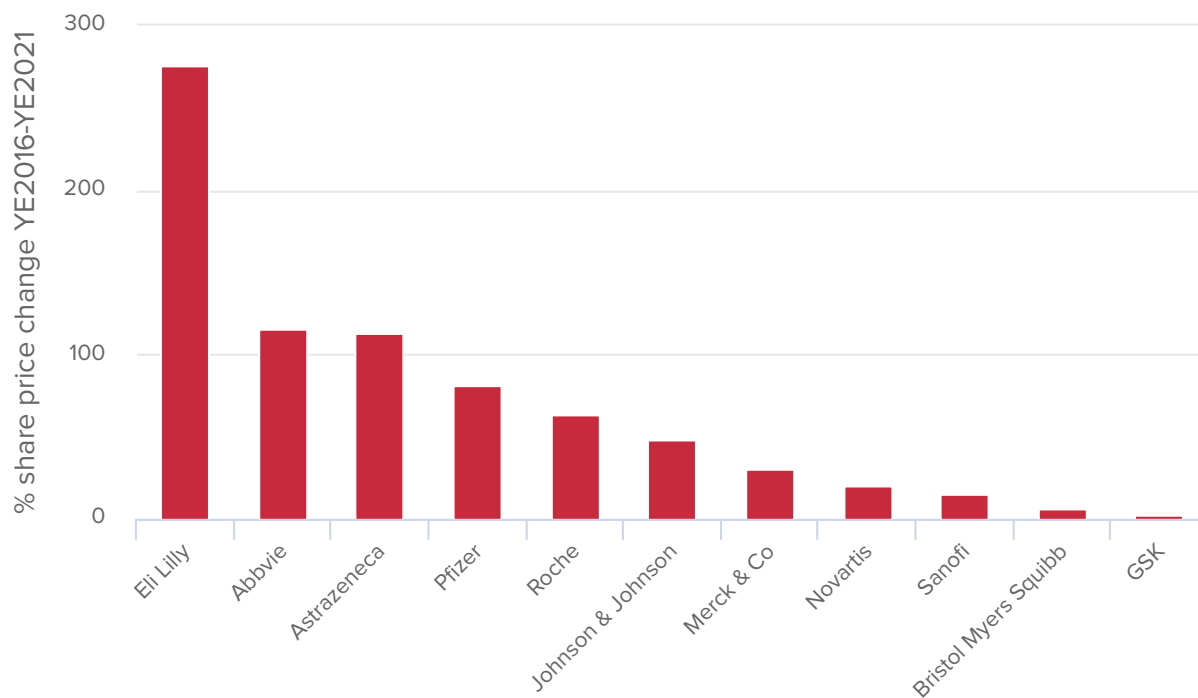
So, does a generous shareholder return policy correlate with strong investor support, in the form of share price appreciation? Not always, the chart below suggests, although big pharma stocks are of course influenced by many other factors.

Pipeline progress, or otherwise, is the main influence; hence Lilly and AstraZeneca are sitting

pretty in terms of strong stock gains relative to their peers. These groups are also among the least generous to investors in absolute terms – Astra has actually issued more shares than it bought back over the period – though it should also be remembered that these two companies are among the smaller of these big pharma names.



## Share price performance



Source: Evaluate

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