

Private gains we can ill afford

The financialisation of Big Pharma



Rodrigo Fernandez & Tobias J. Klinge

April 2020

Colophon

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SOMO

Rodrigo Fernandez & Tobias J. Klinge

Amsterdam, April 2020

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Abbreviations

| | |
|----------------|---|
| DNB | Dutch Central Bank |
| GDP | Gross Domestic Product |
| IMF | International Monetary Fund |
| IPR | Intellectual Property Rights |
| M&A | Merger and Acquisition |
| NFC | Non-Financial Company |
| R&D | Research and Development |
| SEC | United States Securities and Exchange Commission |
| SOMO | Stichting Onderzoek Multinationale Ondernemingen (The Centre for Research on Multinational Corporations) |
| UNCTAD | UN Commission on Trade and Development |
| QE | Quantitative Easing |

1 Executive summary

The affordability of and access to medicines has become a controversial topic. One of the key arguments put forward in defence of high drug prices is the cost of developing new products. In this report, we examine the role of a financialised business model in justifying the cost of medicines and the profit margins of pharmaceutical companies. This business model revolves around maximising payouts to shareholders at the expense of making productive investments that might benefit the population at large.

For the purposes of this report, we have measured corporate financialisation along the lines of three indicators that we identified in the academic literature:

1. the size of the balance sheet (financial reserves and debt);
2. the size of shareholder compensation (dividends and share buybacks); and
3. the size of intangible assets (intellectual property rights (IPRs) and goodwill) in proportion to total assets.

What these manifestations of corporate financialisation have in common is that the strategic interest of a company shifts from producing goods and services to securing financial gains.

The corona virus pandemic has exposed many of the vulnerabilities created by the financialised business model of Big Pharma. As well as the financial risks, this model has also left the world less prepared for the healthcare crisis we are facing today. The growing debt liabilities of pharmaceutical companies have not been invested in productive capabilities or R&D but have instead been largely distributed to shareholders. Now that the world is turning to healthcare systems and pharmaceutical companies to defend the world from this pandemic, the price of a business model that is balanced in favour of shareholders is revealing itself all too clearly. The current system has been set up to line the pockets of shareholders rather than helping patients around the world – and now we are seeing all too clearly the failings that this system has created.

Our research focuses on the financial accounts of 27 of the world's largest pharmaceutical companies (known as "Big Pharma") from 2000 to 2018. In addition, the current report also examines the 10 largest firms as a subgroup to understand whether size is related to the business model used.

1.1 Key findings

The main conclusion we have been able to draw by delving into the financial accounts of the largest pharmaceutical companies is that we can identify strong signs of financialisation for all three indicators.

Financial reserves have grown

The financial reserves of the 27 companies have increased from US\$83 billion in 2000 to US\$219 billion in 2018. The 10 largest companies alone had more than US\$135 billion of liquid assets at their disposal in 2018.

Growth of payouts to shareholders

Total payouts to shareholders (dividends and share buybacks combined) have increased from 88 per cent of total investments in research and development (R&D) in 2000 to 123 per cent in 2018. In nominal terms, payouts to shareholders have increased by almost 400 per cent – from US\$30 billion in 2000 to US\$146 billion in 2018 (US\$73 billion in dividends and US\$74 billion in share buybacks). This represents a rise in the share of payouts from 10 per cent of net sales to 20 per cent. The 27 companies' payouts amount to a total of US\$1,540 billion during the period analysed.

To pave the way for pharmaceutical companies to make such huge shareholder payouts, essential investments have not increased, but the price of drugs has increased exponentially. Pricing medicines at such high prices for the sole purpose of maximising shareholder value is indefensible, especially in the context of ageing societies and rising overall healthcare costs around the world. In short, our society cannot afford Big Pharma's private gains.

Increasing debt is not used to generate future income

In order to sustain the extractive model of low investment in fixed capital (such as buildings and machinery), modest increases in research and development (R&D) expenses and extremely high payouts to shareholders, Big Pharma has resorted to debt. Compared to net sales, the indebtedness of 27 of the largest pharmaceutical companies has increased steadily from 20 per cent in 2000 to 72 per cent in 2018.

Despite this surge in debt from US\$61 billion in 2000 to over US\$500 billion in 2018 (with more than US\$300 billion carried by the top 10 companies alone) and sustained high profit margins, investments in fixed capital have decreased as a share of net sales from 6 per cent in 2000 to 5 per cent in 2018. During the same period, the share of R&D has grown moderately from 12 per cent of net sales to 17 per cent. These numbers indicate that the incurred debt was not primarily used to generate future productive capacity but was instead disproportionately transferred to shareholders. To some extent, Big Pharma has been used as a cash machine by shareholders.

Rise of intangible assets

An important element to consider is the shift in the underlying business model of Big Pharma from producing and selling products to the buying of other businesses. Big Pharma companies buy up competitors and biotechnology companies to replenish pipelines, diminish competition and acquire intellectual property rights (IPRs). As a result, Big Pharma increasingly operates as a private equity fund with exceptional abilities to acquire, develop, market and extract value out of monopolised knowledge, also known as 'intangible assets'.

The unique abilities of Big Pharma companies are at the heart of their financialisation strategies. In this model that revolves around mergers and acquisitions (M&As), the price of drugs increasingly depends on the cost of acquiring new IPRs. This cost, in turn, is subject to financial cycles because

M&As are highly correlated to liquidity conditions on capital markets and stock market valuations. Among Big Pharma companies, we identified a rising bubble of goodwill and other intangible assets more broadly.

While the data on intangible assets data for all companies is only available for recent years, its share of total assets has risen dramatically. The combined value of all intangibles on the balance sheet of the 10 largest pharmaceutical companies has increased from 13 per cent of total assets in 2000 to 49 per cent in 2018 (more than US\$520 billion), reflecting the change in the sector as a whole.

Of these intangibles, the largest 10 companies have increased the value of their goodwill from virtually nothing in 2002 to over US\$270 billion in 2018. The expansion of intangibles is an important aspect of the financialisation of Big Pharma. It illustrates how the sector has transformed itself from generating revenue through developing, producing and selling drugs to deriving income from owning and monopolising intellectual property.

1.2 Conclusions

This report shows that large pharmaceutical companies are generating profits for shareholders on a scale that is economically fragile and socially unaffordable. Their payouts to shareholders crowd out essential investments and drive up the price of drugs at a cost that society can ill afford. Their business model, which relies on cheap debt and monopolistic rent income from intangible assets, is ultimately unsustainable because productive investments and R&D have not kept pace. Large pharmaceutical companies have become ever more dependent on global capital market conditions. The sharp increase in debt in recent years – and the companies' dependence on mergers and acquisitions to replenish the pipeline of new drugs – has amplified the impact of financial market cycles on corporate behaviour.

2 Introduction

2.1 Background

Over the last four decades, there have been mounting signs of the process of financialisation affecting economies. As a historical development, financialisation processes originated jointly with globalisation and neo-liberalism and have evolved from the late 1970s onwards. Together, these developments have produced a wide-ranging transformation of our societies.

This shift has been characterised by a decline in the wage share and an increase in private debt. The other side of the coin has been a rise in corporate profits, heightening income and wealth inequality and expanding the balance sheet of non-financial companies (NFCs). The global balance sheet (consisting of global financial assets and global debt) has increased relative to global income, empowering the financial sector (as intermediaries) and shareholders (as capital owners) in the process. This is the new financialised model of capitalism that has taken hold over the last few decades.¹ In this new landscape characterised by financialisation, the strategic focus of NFCs has shifted from producing goods and services to securing purely financial gains. This has resulted in the redirection of investments from real 'productive' investments to financial activities, forming the background of this report.

2.2 Research objectives

This report explores the financialisation of large pharmaceutical companies (referred to as 'Big Pharma'²). In the academic literature, we identify different interpretations of what the financialisation of companies entails and how to measure it. The different analyses of corporate financialisation revolve around three distinct issues, each of which results in redirecting investments from productive to primarily financial purposes.

The first issue is the *expansion of the balance sheet* relative to income, both in terms of financial reserves and debt. Basically, when a company's financial reserves grow, operational profits are redirected into investments in financial markets or stashed away for later financial operations like M&As, which may result in declining productivity.

The second issue is the *reorientation towards shareholder compensation* by means of dividends and share buybacks, resulting in high shareholder compensation packages to the detriment of productive investments. Maintaining high drug prices is one way for large pharmaceutical companies to pay for high shareholder compensation schemes.

1 C. Lapavistas, *Profiting without producing: how finance exploits us all* (London: Verso, 2013).

2 Julie Froud, Johal Sukhdev, Adam Leaver, Karel Williams, *Financialization and strategy. Narrative and numbers* (London: Routledge, 2006, p. 202).

The third issue is the *change in companies' asset structures*, which occurs when intangible assets like IPRs and goodwill make up a greater share of total assets. This change between earning income from productive assets versus intangible assets signifies a shift from generating profits derived from producing and trading products and services to rentier income derived from the market power of company.

The research objectives of this report are to discuss these different approaches to corporate financialisation and to examine empirically how they relate to the pharmaceutical sector as represented by 27 of the largest companies by revenue.

2.3 Methodology

All the data used in this report has been provided by Refinitiv's Datastream database. The methods used to acquire, structure and analyse the data were jointly developed with Tobias J. Klinge and Manuel Aalbers from KU Leuven's research project on corporate financialisation. This section provides details on the method and data used to calculate the different indicators of financialisation in the second part of the report.

First, we compiled a list of the 30 largest public pharmaceutical companies by revenue in 2018 (see Table 1 in the Annex). Second, we downloaded standardised financial account data (i.e. balance sheet, income statement and flow of funds data)³ for the years 2000-2018 from the Refinitiv Datastream database.⁴ Third, we kept only those companies that reported total assets throughout the period, indicating operating activity. The companies Abbvie (founded as a spin-off of Abbott Laboratories in 2013), China Resources Pharmaceutical (taken public in 2016) and Otsuka (taken public in 2010) were thus excluded. This reduced the number of companies to 27.

Fourth, we selected only those 13 variables from the financial accounts that we considered useful to construct the indicators used above (see Table 2 in the Annex). Fifth, of all 6,669 variable values (= 27 companies * 13 variables * 19 years), a total of 91 values were missing (of which 61 for goodwill, 20 for total intangibles, eight for share operations and one each for dividends and short-term debt).

In an attempt to complement some of these missing values, we consulted the actual annual reports published on companies' websites, 10-K Securities and Exchange Commission (SEC) filings as well as business news archives and through this we were able to retrieve 13 additional values. The total number of missing values was therefore reduced to 78 (of which 59 for goodwill, 18 for total intangibles, and one for short-term debt – see Table 2 in the Annex), or 1 per cent of all values.

3 All values were automatically converted into US dollar terms based on Thomson Reuters' historical exchange rates.

4 The potential coverage of variables is comprehensive, which is why this database is widely used in economic studies, most recently by: Daniele Tori and Özlem Onaran, "The effects of financialization on investment: evidence from firm-level data for the UK," *Cambridge Journal of Economics*, 42 (5), (2018), p. 1393-1416.

Finally, we calculated the indicators above only on the basis of complete cases for all used variables and summed up the different data items for all companies in an attempt to present a statistical picture of the large pharmaceutical company sector as a whole, occasionally contrasting this with the combined numbers for the 10 largest companies.

2.4 Outline of this report

The report is structured as follows. First, we introduce the concept of financialisation and focus on different theoretical approaches to the financialisation of NFCs. Second, we focus in on the pharmaceutical sector to assess how general theorisations of corporate financialisation apply to this sector. Third, we walk through the different expressions of financialisation and compare them to the financial accounts of Big Pharma companies. We conclude by combining all corporate statistics to show that Big Pharma exhibits significant signs of financialisation across three different indicators.

3 Financialisation

3.1 What is financialisation?

Before concentrating on the financialisation of the pharmaceutical sector, we need to understand the wider process of financialisation. The most cited definition describes financialisation as “the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies”.⁵ This definition combines the structural change of the economy with changing motives and behaviours of actors. We can thus distinguish between different levels of analysis: first, financialisation as a macro-economic development and, second, as a micro-level development, focusing on the objects and actors of financialisation including households, financial companies, NFCs and public institutions.⁶

At the macro-level of analysis, the shift from the post-war wage-led economic model into a debt-led model has been the dominant transformation. This shift, characterised by a decline in the wage share and an increase in private debt, has empowered financial agents and (institutional) investors. These trends have been mirrored by an increase in corporate profits and rising financial assets on the balance sheet of NFCs.⁷ Essentially, the global balance sheet (consisting of global financial assets and global debt) has increased in relation to global income, empowering the financial sector in the process. Total global debt (excluding financial sector debt) has increased from US\$12 trillion (equalling 110 per cent of global Gross Domestic Product (GDP)) in 1980 to US\$300 trillion in 2018 (equalling 395 per cent of global GDP). Global assets have increased from US\$14 trillion in 1980 to US\$199 trillion in 2018.⁸

Financialisation has co-evolved with globalisation and neo-liberalism as a historical process. Bundled together, these developments have produced a wide-ranging transformation of our societies and continue to do so.⁹ The break with the post-war Keynesian regime – which was characterised by a low degree of capital mobility – opened the scope for finance to operate across borders on global markets and for large financial institutions and banks to expand their operations and enter new markets.

The increased commodification of society and daily life has been strengthened by the increase in capital mobility, the deregulation of markets, market-expanding policies through privatisation and the overall retrenchment of the welfare state as neo-liberalism was consolidated as the guiding

5 G. A. Epstein, (ed) *Financialization and the World Economy* (Cheltenham: Edward Elgar, 2005), p. 3.

6 For a general overview of financialisation see: N. Van der Zwan, “Making sense of financialization,” *Socio-Economic Review*, 12 (1), 2014, p. 99–129.

7 C. Lapavistas, *Profiting without producing: how finance exploits us all* (London: Verso, 2013).

8 Boston University, Global development Center & UNCTAD, *A New Multilateralism for Shared Prosperity: Geneva Principles for a Global Green New Deal*, 2019, <https://www.bu.edu/gdp/files/2019/04/A-New-Multilateralism-GDPC_UNCTAD.pdf>.

9 E. Engelen, *The case for financialization*. *Competition & Change*, 12(2), (2008), p. 111–119.

political philosophy.¹⁰ At the intersection of these broader socio-political transformations, we find financialisation.

3.2 Financialisation of non-financial companies

There are several manifestations of corporate financialisation. First, there is the expansion of the balance sheet (financial reserves and debt) of NFCs relative to income. The rise in financial reserves signifies a redirection of profits away from operational activities to be re-invested in financial markets or hoarded for later (financial) use like M&As. Second, there is the turn towards prioritising shareholders over stakeholders, resulting in exceptionally high shareholder compensation at the expense of productive investments. Third, there is the increase in intangible assets, which portends a change in the composition of companies' asset structures from fixed capital to IPRs and goodwill. This change signifies a shift from generating profits derived from producing and trading products and services to rent income derived from companies' market power.

What all these manifestations of corporate financialisation have in common is that the strategic focus of a company shifts from producing goods and services to securing financial gains. This repositioning affects productivity growth as investments into fixed capital, R&D and the wage share are curtailed.¹¹ The Austrian economist Engelbert Stockhammer argued that one of the striking effects of the model of financialisation is this 'slowdown of accumulation'.¹²

3.2.1 Corporate financialisation: expanding the balance sheet

The US sociologist Greta Krippner highlighted the shift within the corporate sector in the 1990s to generate a larger share of profits through financial activities rather than through operational activities. She defined financialisation as 'pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity'.¹³ This take on corporate financialisation focuses on the increased income companies generate by means of financial assets (such as bonds and shares) compared to income derived from operational activities like the production and sales of goods and services. Krippner presented compelling figures for the US economy, showing how revenues from financial activity relative to overall cash flows had remained stable throughout the 1950s and 1960s, before they began to grow in the 1970s, and to rise sharply in the 1980s to achieve a new stable period at four times the levels typical of the immediate post-war decades.¹⁴

10 Gerald F. Davis, *Managed By the Markets. How Finance Re-Shaped America* (Oxford/New York: Oxford University Press, 2009).

11 For an early discussion of the macro-economic consequences of this economic regime, see: R. Boyer, "Is a finance-led growth regime a viable alternative to Fordism? A preliminary analysis," *Economy and Society*, 29(1) (2000), p. 111–145.

12 E. Stockhammer. "Financialisation and the Slowdown of Accumulation," *Cambridge Journal of Economics* 28 (5), (2004), p. 719–41. <<https://doi.org/10.1093/cje/beh032>>.

13 Greta R. Krippner, "The financialization of the American Economy," *Socio-Economic Review* 3, (2005) p. 174.

14 Greta R. Krippner, "The financialization of the American Economy," *Socio-Economic Review* 3, (2005), p. 185.

One of the hypotheses behind these observations is that the rise of income from financial reserves was caused by the redirection of profits from operational investments (such as fixed capital and R&D) to financial investments. The Italian economist Daniele Tori used company-level data to empirically assess the shift in European Union (EU) countries and emerging countries and found a significant rise in the share of financial assets relative to fixed capital across different economies. In the United Kingdom, for instance, fixed investments relative to operating income have declined from 85 per cent in 1985 to 55 per cent in 2013.¹⁵ This has been accompanied by an increase in the ratio of financial assets relative to fixed assets from 0.5 in 1985 to 3 in 2013.

For most developed economies, the International Monetary Fund (IMF) documented the rise in corporate savings from the 1980s onwards.¹⁶ In some small open economies with a large number of multinational companies (like the Netherlands), the rise in corporate savings was much more pronounced than in larger developed economies.¹⁷ According to the IMF, the rise of corporate savings has led to a fundamental change in the relationships between companies, financial intermediaries and banks. NFCs have gone from being net debtors to net creditors: instead of issuing debt, they have become large investors in financial assets themselves. The IMF describes this new configuration as follows:

*'The corporate sector in the G-7 countries has moved from being a net borrower to a substantial net saver in recent years. This has followed the earlier move by emerging market countries to a net saver status following the financial crises of the late 1990s. Taken together, these developments have substantially altered the financial landscape of the global economy – two sectors that have traditionally been sources of demand for financing are now lending to other countries/sectors.'*¹⁸

Since the financial crisis of 2007/2008, and as a result of the unconventional ensuing monetary policy of quantitative easing (QE) that saw central banks purchasing corporate bonds, corporate debt has rapidly increased. An abundance of liquidity and extremely low interest rates have resulted in increasing numbers of corporate bonds.¹⁹ Since NFCs' financial reserves are largely parked offshore in tax havens, they are not used to pay dividends to shareholders. They would be taxed if they were – which, strategically, is to be avoided. This dilemma is one of the main motivations for NFCs with large financial reserves to go into still more debt in order to maintain high dividend payments and share buyback schemes. Put simply, it is cheaper to use debt to pay off shareholders than to use a company's financial reserves that are sitting offshore. The combination of low interest rates and taxation on the use of financial reserves has thus resulted in an increase in debt-financed shareholder payouts. Some estimates show that roughly 50 per cent of all share buybacks by US corporations

15 Daniele Tori and Özlem Onaran, "The effects of financialization on investment: evidence from firm-level data for the UK," *Cambridge Journal of Economics*, 42(5), (2018), p. 1403.

16 IMF, *Awash with cash: why are corporate savings so high?* Chapter 5 in *World Economic Outlook*, (April 2006), p. 135-159.

17 DNB, "Het nationale spaaroverschot ontleed," *Occasional Studies*, 12-6 (2014), <https://www.dnb.nl/binaries/416746_DX0_OS_Vol12_6_NL_WEB_tcm46-310092.pdf>.

18 IMF, *Awash with cash: why are corporate savings so high?* Chapter 5 in *World Economic Outlook* (April 2006), p. 153.

19 For an overview of the recent explosive growth of corporate debt and how this relates to the post-crisis monetary policy, see: IMF, *Global Corporate Vulnerabilities: Riskier Business*. Chapter 2 in *Global Financial Stability Report*, (October 2019), <<https://www.imf.org/en/Publications/GFSR/Issues/2019/10/01/global-financial-stability-report-october-2019#Chapter2>>.

were financed by debt.²⁰ The result is a combination of large financial reserves with outsized debt levels in relation to revenue. All in all, the growth of debt and financial assets in relation to income (the expansion of the balance sheet) is one of the most common mechanisms of corporate financialisation, resulting in a shift from operational to financial activities.²¹

3.2.2 Corporate financialisation: shareholders take it all

A second mechanism of corporate financialisation is prioritising shareholders.²² Instead of corporations taking a long-term perspective and integrating a wider set of interests (focusing on employees, the environment or customers, for example), corporate strategies have become geared towards short-term stock market fluctuations and excessive payments to shareholders and management, often by the same means. This manifestation of financialisation centres on how financial metrics and calculative practices that govern stock markets have become the central guiding principles in corporate strategies.²³ The result is that companies ‘invest’ in share buybacks, reducing the number of outstanding shares and temporarily generating higher earnings per share at the expense of, for instance, investing in R&D or expanding production.

A key contributor to the study of buybacks – in particular in relation to pharmaceutical companies and how excessive shareholder payouts have undermined their productive capacity – is the Canadian economist William Lazonick. In a number of publications, Lazonick has discussed the scope, political origins and effects of share buybacks and dividend payments.²⁴ For him, share buybacks are part of a broader transformation in corporate governance that has resulted in a shift in the business model of large companies with major implications:

‘Stock buybacks are an important part of the explanation for both the concentration of income among the richest households and the disappearance of middle-class employment opportunities in the United States over the past three decades. Over that period the resource-allocation regime at many, if not most, major U.S. business corporations has transitioned from “retain-and-reinvest” to “downsize-and-distribute”. Under retain-and-reinvest, the corporation retains earnings and reinvests them in the productive capabilities embodied in its labor force. Under downsize-and-distribute, the corporation lays off experienced, and often more expensive, workers, and distributes corporate cash to shareholders.

20 See Larry Light, “More than Half of All Stock Buybacks are Now Financed by Debt. Here’s Why That’s a Problem,” *Fortune*, (20 August 2019). <<https://fortune.com/2019/08/20/stock-buybacks-debt-financed/>>.

21 Cédric Durand, *Fictitious Capital: How Finance Is Appropriating Our Future* (London ; New York: Verso, 2017).

22 W. Lazonick and M. O’Sullivan, “Maximizing Shareholder value: a new ideology for corporate governance,” *Economy and Society*, 29, (2000), p. 13–35.

23 For an extended overview of how the notion of shareholder value was created and became dominant in corporate strategies see: Julie Froud, Sukhdev Johal, Adam Leaver and Karel Williams, *Financialisation and Strategy: Narrative and Numbers*, (Routledge: London and New York, 2006).

24 For an overview of the main transformations that the shareholder orientation entails see: William Lazonick and Mary O’Sullivan, “Maximizing Shareholder Value: A New Ideology for Corporate Governance,” *Economy and Society* 29 (1) (2000), p. 13–35. <<https://doi.org/10.1080/030851400360541>>.

*My research suggests that, with its downsize-and-distribute resource-allocation regime, the “buyback corporation” is in large part responsible for a national economy characterized by income inequity, employment instability, and diminished innovative capability – or the opposite of what I have called “sustainable prosperity”.*²⁵

3.2.3 Corporate financialisation: profits without producing

A third manifestation of corporate financialisation is the increase in intangible assets relative to total assets. It indicates a change in the composition of companies’ asset structures from fixed capital (like buildings and machinery) to intangible assets (like IPRs and goodwill). This adjustment signifies the shift from generating profits derived from producing and selling goods and services to rent income derived from the market power of companies. The United Nations Commission on Trade and Development (UNCTAD) defines rent as ‘income derived solely from the ownership and control of assets, rather than from innovative entrepreneurial activity and the productive use of labour’.²⁶

Profits are derived from risk taking and entrepreneurship, which is the use of capital to produce and trade goods and services. Rent income, in contrast, is the result of ownership and scarcity. Such scarcity can be natural (as in the case of land or resources) or artificial (as in the case of IPRs) and is often backed by state institutions. Some examples from feudal times were the exclusive ownership of land by a small class of landowners who received rent without adding value, and the trading monopolies of merchants who could dictate prices to both producers and consumers. For classical economists, these rents were consequently deemed unproductive. The Italian-American economist Mariana Mazzucato noted the following when she discussed the production boundary (the boundary of what is perceived as value producing activities):

*‘Rents, as understood by the classical economists, are unearned income and fell squarely outside the production boundary. Profits were instead the returns earned for productive activity inside the boundary.’*²⁷

The re-emergence of rent income – and the rentier – is closely related to the concentration of corporate power that enables companies to create the ideal rent conditions. Here, UNCTAD warned that ‘the growing market power of large corporations more generally has led to a proliferation of non-financial corporate rent strategies and to the emergence of a new generation of rentiers’²⁸ and ‘if the corporate rent strategies described above are widely seen as unproductive, an important reason is that these result primarily from corporate regulatory capture in the wake of growing market power’.²⁹

25 William Lazonick, Stock buybacks: From retain-and-reinvest to downsize-and-distribute, Center for Effective Public Management at Brookings, (2016), p. 2, <<https://www.brookings.edu/wp-content/uploads/2016/06/lazonick.pdf>>.

26 UNCTAD, Trade and development report 2017: Beyond austerity: towards a global new deal. Chapter 6: Market power and inequality: the revenge of the rentier, (2017), p. 120.

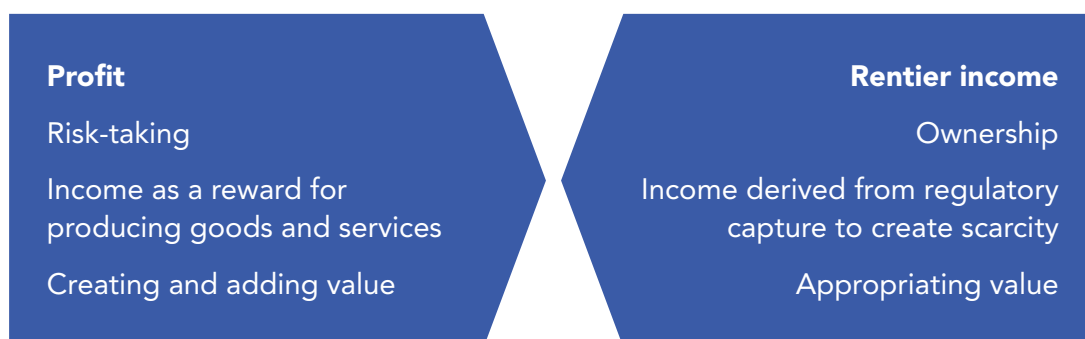
27 Mariana Mazzucato, The Value of Everything: Making and Taking in the Global Economy (Allen Lane 2018), p. 9.

28 UNCTAD, Trade and development report 2017: Beyond austerity: towards a global new deal. Chapter 6: Market power and inequality: the revenge of the rentier, 2017, p. 121.

29 UNCTAD, Trade and development report 2017: Beyond austerity: towards a global new deal. Chapter 6: Market power and inequality: the revenge of the rentier, 2017, p. 123.

According to UNCTAD, current rent income thus originates in the ability of companies to artificially create scarcity and/or favourable conditions through regulatory capture. In this way, rent income flows from the ability to influence regulation. This ability to create scarcity is most easily achieved by the largest companies and corporate concentration, and is therefore directly related to rent income. Accordingly, it is appropriate to be wary of the massive wave of M&As that produce ever-larger concentrations of corporate power in the age of globalisation.

Figure 1 Contrasting profit and rentier income



4 Financialisation of pharmaceutical companies

If we focus on pharmaceutical companies, we find a distinctive form of financialisation with unbalanced market structure where a number of large pharmaceutical companies dominate the value chains. This dominance enables them to generate rent income to the detriment of research companies located at one end of the value chain and at the expense of consumers located at the other.³⁰ Apart from goodwill, rent income is generated from the IPRs of pipeline drugs and drugs already sold on the market by the pharmaceutical company. This rent income is increasingly passed on to shareholders and hence partly unavailable to fund R&D at different stages, as will be shown in the next part of the report.

From 2000 to 2018, the overall compensation of shareholders by 27 of the largest pharmaceutical companies totalled US\$1,540 billion (US\$864 billion in dividends and \$676 billion in share buybacks) while R&D expenses were US\$1,482 billion.³¹ The compensation of shareholders thus slightly exceeded total R&D expenses. However, the compensation of shareholders as a percentage of these expenses has been growing since the financial crisis of 2007/2008, from 99 per cent in 2006 to 147 per cent in 2018.

At the one end of the value chain, we see how public investments, public guarantees and publicly-funded research in universities dominate basic R&D.³² This collective and incremental knowledge production in the foundational stage is then enclosed, commodified and valorised by means of IPRs. The Austrian economic geographer Christian Zeller made the following observation:

*'The markets created by the extension of the intellectual property monopolies connect the academic research institutes, the biotech companies often set up by university researchers, and the large pharmaceutical companies. The firms pursue different strategies to extract rents. In principle, monopolistic property rights can be established along the whole value-added chain. This market structure is important for the type of financialisation that evolved in this sector.'*³³

The unequal distribution of market power in the pharmaceutical value chain is a key characteristic of the contemporary pharmaceutical sector. In essence, Big Pharma has come to resemble private equity funds by acquiring, developing, marketing and extracting value out of monopolised knowledge. The Argentinian economist Cecilia Rikap recently compared scientific co-publication

30 For a discussion of the unbalanced market structure and how this relates to rent income see: Baranes, Avraham I, An Original Institutionalist Approach to the Structure, Conduct, and Performance of the Pharmaceutical Industry: The Importance of Intangible Assets (Kansas City: University of Missouri. PhD Thesis, 2016).

31 All numbers in this section are researchers' own calculations based on Worldscope data (see methodology).

32 For an overview of the role of public funding and risk taking at the stage of fundamental research see: Irene Schipper, Esther de Haan and Roberta Cowan, Overpriced: Drugs Developed with Dutch Public Funding (SOMO, Amsterdam, 2019), <<https://www.somo.nl/nl/wp-content/uploads/sites/2/2019/05/Report-Overpriced-def.pdf>>.

33 Christian Zeller, "From the gene to the globe: Extracting rents based on intellectual property monopolies," Review of International Political Economy. 15:1 (2007), p. 102.

and patent co-ownership and identified 'a subordination of the universities, public research organisations and start-ups that have a fundamental role in the former, but an almost negligible participation in the latter'.³⁴ Internally, actual laboratory research only accounts for a fraction of Big Pharma's own R&D expenses, which tend to cover product testing instead.³⁵ The dominant business model that drives large pharmaceutical companies – to buy up smaller firms for their present or future IPRs in order to boost the drug pipeline – thus lies at the heart of their rent income and financialisation strategies.³⁶

Another aspect of the sector, where Big Pharma companies compete with each other for the acquisition of monopolised knowledge, is the commodification of IPRs themselves. Companies that own IPRs become commodities or takeover targets in a marketplace for M&As and their value is directly related to their IPR portfolio. Potentially successful drugs are scarce and pharmaceutical companies are under constant pressure to replenish their pipelines and replace patents that are approaching the end of their lifespan.³⁷ This means that the valuation of a smaller research company (pharmaceutical or biotech) will vary at different stages of development and increase with the prospect of a successful and marketable final product.

For the purpose of acquisition, Big Pharma is equipped with large financial reserves that can be used to drive up the market prices of smaller firms. Financial reserves of 27 of the largest pharmaceutical companies have increased from US\$83 billion in 2000 to US\$219 billion in 2018 with the 10 largest companies alone having more than US\$135 billion of liquid assets at their disposal in 2018. As future success remains uncertain, this inflation of prices for firms intensifies risk in the sector. However, Big Pharma depends on future rent income from IPRs and is thus willing to pay rising prices. As UK accountants Tord Andersson et al. argue:

*'In this financialized business model, the investor is not participating in a marathon but instead, competing in a relay where handing the baton on to the next investor secures a (possible) realized gain on invested equity funds. Bio-pharma investment is a speculative bet on scientific discoveries and is similar, in this respect to oil, gas and mineral exploration where Federal Drug Administration (FDA) regulatory approval is like striking oil or finding the seam.'*³⁸

One of the most notable consequences of the competition between Big Pharma companies has been the increase in goodwill on their balance sheets. Goodwill represents the difference between the purchasing price of a company and the fair value of the assets and liabilities of the corporation. Essentially, goodwill reflects the premium paid in the acquisition and, being an intangible asset,

34 Cecilia Rikap, "Asymmetric Power of the Core: Technological Cooperation and Technological Competition in the Transnational Innovation Networks of Big Pharma," *Review of International Political Economy*, 26(5), (2019), pp. 1006-1007.

35 Julie Froud, Johal Sukhdev, Adam Leaver, Karel Williams, *Financialization and strategy. Narrative and numbers* (London: Routledge, 2006). p. 173.

36 This does not, however, imply that these strategies are the only driver of industrial change in the pharmaceutical sector. See: Montalban, Matthieu and Sakinç, Mustafa Erdem, "Financialization and productive models in the pharmaceutical industry," *Industrial and Corporate Change*, 22(4), (2013), pp. 981-1030.

37 Christian Zeller and Andreas Van-Hametner, "Reorganizing value chains through foreign direct investment: Austria's pharmaceutical industry international expansion," *Competition and Change*. Volume: 22 issue 5, (2018), p. 529-557.

38 Tord Andersson, Pauline Gleadle, Colin Haslam, Nick Tsitsianis, "Bio-pharma: A financialized business model," *Critical Perspectives on Accounting*, 21, (2010), p. 632.

is formally justified by any potential future income that can be generated. If this income is not generated, the value of the goodwill needs to be adjusted. A downward adjustment of goodwill is recorded as a loss in the income statement (and thus induces a loss in the asset value of the company). This means that the growing premiums paid by Big Pharma in the process of acquiring other companies results in direct pressures to generate higher profit margins. In this way, goodwill becomes a self-fulfilling prophecy, its outlook on potential future income shapes the actual business model.

5 Financialisation of Big Pharma: a closer look at the financial accounts

In the second part of this report, we dissect the financial accounts of 27 of the largest pharmaceutical companies (in terms of market capitalisation) from 2000 to 2018.³⁹ However, we occasionally focus on the 10 largest companies to either verify commonalities or highlight differences. In this way, the financial accounts help us to assess how the theoretical approaches about corporate financialisation apply to Big Pharma. First, we examine the financial reserves and debt levels to assess the expansion of the balance sheet relative to net sales and fixed capital. Second, we investigate shareholder payouts (dividends and share buybacks) to understand the degree to which shareholders have benefitted from the financialised business models that the companies increasingly adopt. Finally, we focus on intangible assets in general and on the value of goodwill in particular to provide evidence for the existence of these models.

5.1 The expansion of the balance sheet

5.1.1 Increasing the stash: the rise of financial reserves

To approximate financial reserves, we tracked the development of cash and short-term investments.⁴⁰ These encompass all financial assets that mature in less than three months. By this measure, we can say that Big Pharma accumulated large financial reserves in accordance with the literature, as discussed in sections 3 and 4. More precisely, the 27 companies have grown their financial reserves from US\$83 billion in 2000 to US\$219 billion in 2018, peaking at US\$237 billion in 2014 (see Figure 2). The 10 largest companies alone held more than 60 per cent of these reserves in 2018. This trend is in line with developments in other sectors like Big Tech where Apple's financial reserves largely consist of cash holdings.⁴¹

39 The names of the 27 companies are given in the Annex.

40 Recent academic work has shown that measuring financial reserves can be challenging, depending on what assets on corporate balance sheets are deemed 'financial' or 'liquid'. Only taking the most simple category into account, our approach here is conservative and might well underestimate actual financial reserves. For further reference, see: Costas Lapavistas, *Profiting Without Producing. How Finance Exploits Us All*, (London ; New York: Verso, 2013); Leila E. Davis, "Identifying the 'Financialization' of the Nonfinancial Corporation in the U.S. Economy: A Decomposition of Firm-Level Balance Sheets," *Journal of Post Keynesian Economics* 39 (1) (206), pp, 115–41; Daniele Tori and Onaran Özlem, "The Effects of Financialization on Investment: Evidence from Firm-Level Data for the UK," *Cambridge Journal of Economics* 42 (5) (2018), pp. 1393–1416. <https://doi.org/10.1093/cje/bex085>; Joel Rabinovich, "The Financialization of the Non-financial Corporation. A Critique to the Financial Turn of Accumulation Hypothesis," *Metroeconomica*, March 2019, meca.12251, <<https://doi.org/10.1111/meca.12251>>.

41 Rodrigo Fernandez and Reijer Hendrikse, *Rich Corporations. Poor Societies: The Financialisation of Apple* (Amsterdam: SOMO, 2015), <<https://www.somo.nl/wp-content/uploads/2015/10/Rich-corporations-poor-societies.pdf>>.

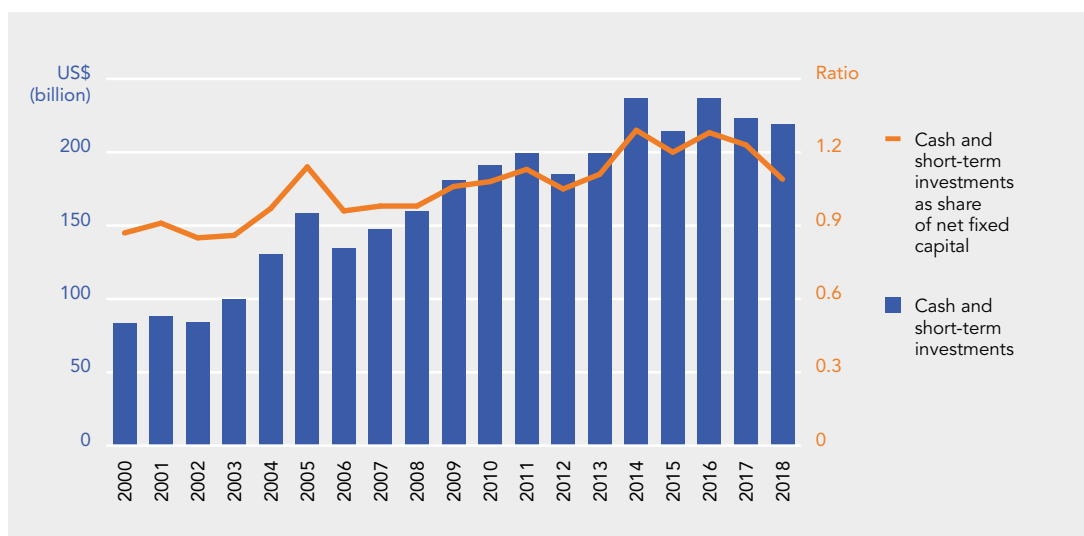
Table 1 Rise of financial reserves comparing top 10 Big Pharma companies and top 27

| | Top 10 | Top 27 |
|------|---------------|---------------|
| 2000 | \$59 billion | \$83 billion |
| 2018 | \$135 billion | \$219 billion |

Table 2 Ratio of financial reserves/fixed capital comparing top 10 Big Pharma companies and top 27

| | Top 10 | Top 27 |
|------|--------|--------|
| 2000 | 0.79 | 0.87 |
| 2018 | 0.98 | 1.09 |

Figure 2 Absolute holdings of cash and short-term investments in US\$ billion and as a share of net fixed capital (27 largest pharmaceutical companies)



If we place financial reserves next to fixed capital, we can identify a shift on the balance sheet from the latter to the former. For all 27 companies, the ratio has risen from 0.87 in 2000 to 1.09 in 2018, peaking at 1.29 in 2014 (see Figure 2). While this evolution happened at a slightly lower level for the top 10 companies, the trajectory has been almost identical, with the ratio moving from 0.79 in 2000 to 0.98 in 2018. This rise means that the largest pharmaceutical companies increasingly hold more financial reserves than physical means of production for drug manufacturing. These results largely confirm the analysis of existing studies, which argue that the share of investments into fixed capital has declined relative to the accumulation of financial reserves. Cash flows have been used to amass financial reserves rather than enhancing physical capacities to produce goods.⁴²

5.1.2 Leveraging the company: the rise of debt

Moving on from one side of the balance sheet to the other, we can detect a concomitant hike in corporate debt levels. In 2000, total debt for the 27 companies stood at US\$60 billion. By 2007, this figure had already more than doubled to US\$140 billion, only to escalate further, reaching almost US\$520 billion in 2018 (see Figure 3). During the past decade, the rise in debt has thus easily exceeded the rise in financial reserves. In 2018, total debt stood at more than 230 per cent of financial reserves. However, it is not merely the growth of debt as such that is remarkable but also the composition of this debt. Breaking it down into two major categories, most accumulated debt within the pharmaceutical sector can be traced back to long-term debt (corporate bonds) piling up during the recent years of QE (see Figure 3).⁴³ Focusing in on the 10 largest companies provides a comparable picture with total debt swelling from US\$50 billion in 2000 to US\$310 billion in 2018. During this time, short-term debt has only multiplied roughly by the factor of 2 but long-term debt by the factor of 9.

Table 3 Total debt comparing top 10 Big Pharma companies and top 27

| | Top 10 | Top 27 |
|------|---------------|---------------|
| 2000 | \$50 billion | \$60 billion |
| 2018 | \$310 billion | \$520 billion |

42 Daniele Tori and Onaran Özlem, "The Effects of Financialization on Investment: Evidence from Firm-Level Data for the UK," *Cambridge Journal of Economics*, 42 (5) (2018), pp. 1393–1416. <<https://doi.org/10.1093/cje/bex085>>.

43 Rodrigo Fernandez, Pablo Bortz and Nicolas Zeolla, *The Politics of Quantitative Easing. A Critical Assessment of the Harmful Impact of European Monetary Policy on Developing Countries*, (Amsterdam: SOMO, 2018).

Figure 3 Absolute levels of short- and long-term debt in US\$ billion (27 largest pharmaceutical companies)

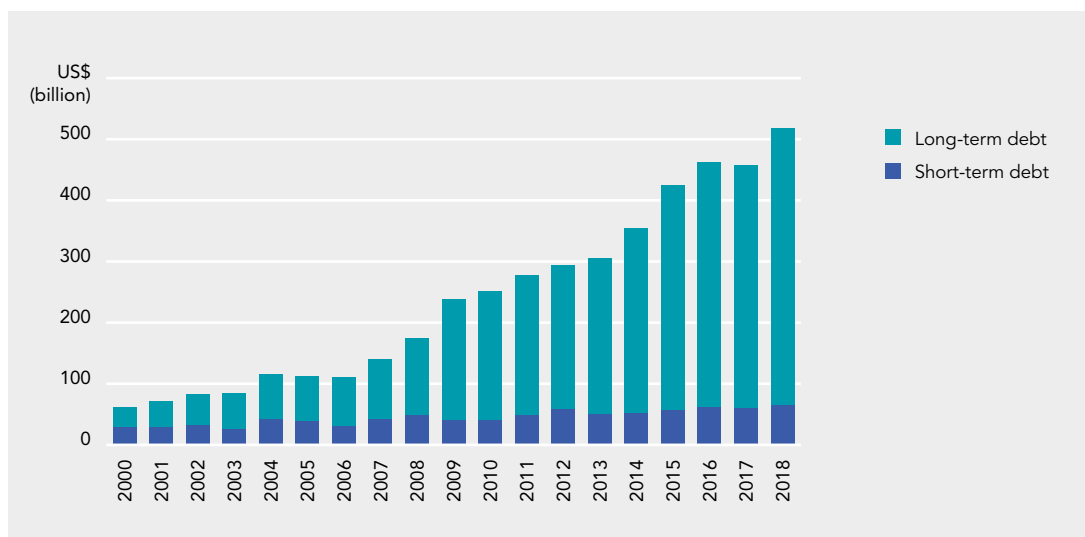
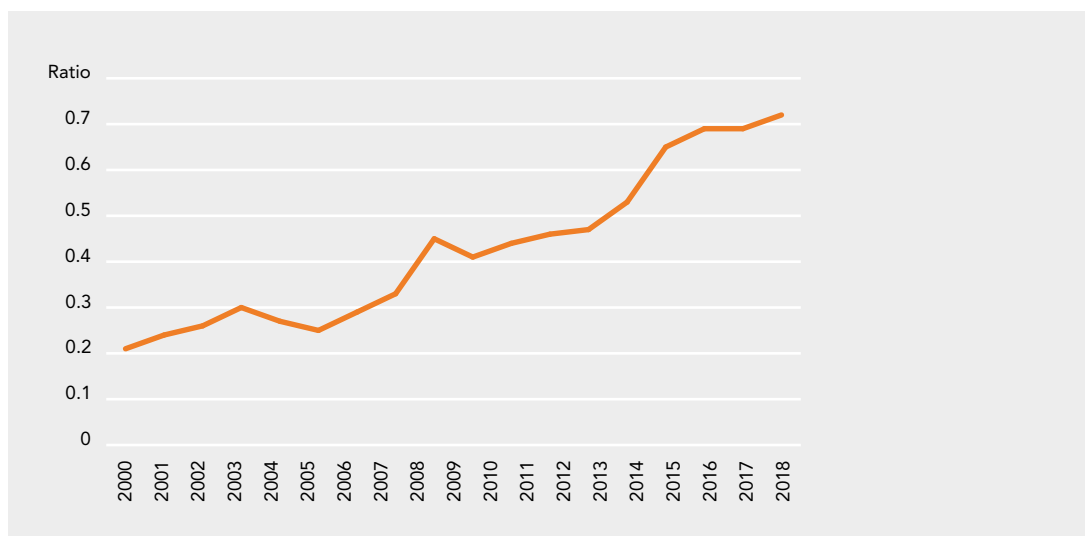


Figure 4 Short- and long-term debt as a share of net sales (27 largest pharmaceutical companies)



However, absolute levels of corporate debt need to be measured against some metric of corporate performance in order to assess whether they might indicate financial fragility. Here, we place them in relation to net sales to contrast it with the cash flows that enter the company and could possibly be used to repay debt. While the latter has risen from US\$290 billion in 2000 to almost US\$720 billion in 2018, this growth has proven insufficient to maintain the same leverage ratio over time. On the contrary, the ratio (debt in relation to net sales) has risen notably from 0.21 in 2000 to an astonishing 0.72 in 2018 (see Figure 3). These observations are indicative of a wider economic trend that, as discussed in section 3, even raised the IMF's alarm bells. Recently, the IMF warned that falling interest rates in the wake of post-crisis monetary policies in the US and in the EU (from 2008 and 2015 onwards, respectively) has caused corporate debt to increase around the globe. This newly incurred debt (especially for US companies) has fuelled risk-taking in the form of M&As and higher payouts, most likely fostering systemic risks:

*'Financial risk-taking by US companies in the form of payouts and M&As has increased – in contrast with subdued capital expenditures. Surges in financial risk-taking usually precede economic downturns. Payouts – dividends and share buybacks – at US large firms have grown to record high levels in recent quarters.'*⁴⁴

Unfortunately, the IMF did not provide examples from specific sectors. Next, we will examine whether payouts in the pharmaceutical sector have, indeed, grown in the way that the IMF predicted.

5.2 Channelling funds to shareholders: the rise of payouts

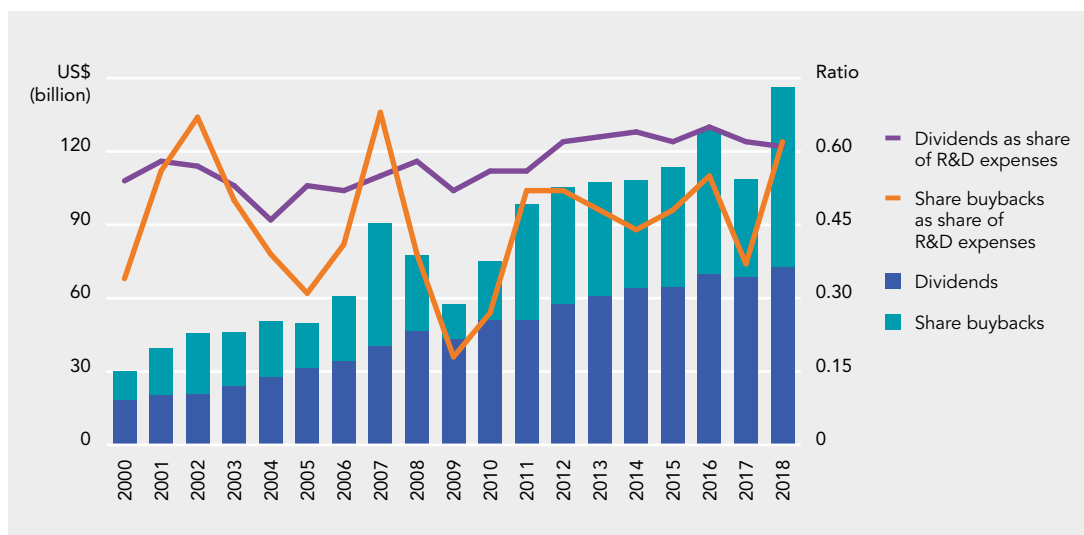
Financial payouts to shareholders consist of both dividends and share buybacks. As a whole, payouts have expanded from US\$30 billion in 2000 to US\$146 billion annually in 2018 (see Figure 5). However, while dividends have been rising almost consistently, share buybacks have fluctuated. Only since 2011 have they consistently amounted to more than US\$40 billion per year. These figures indicate that share buybacks move in tandem with stock market valuations. Importantly, payouts to shareholders have been more pronounced for the largest 10 companies since they alone were responsible for more than US\$1,142 billion of the total US\$1,540 billion in payouts of the top 27 companies.

Table 4 Total payouts comparing top 10 and top 27 Big Pharma companies

| | Top 10 | Top 27 |
|---------------------------|------------------------|------------------------|
| 2000 | \$23 billion | \$30 billion |
| 2018 | \$108 billion | \$146 billion |
| Total 2000 to 2018 | \$1,142 billion | \$1,540 billion |

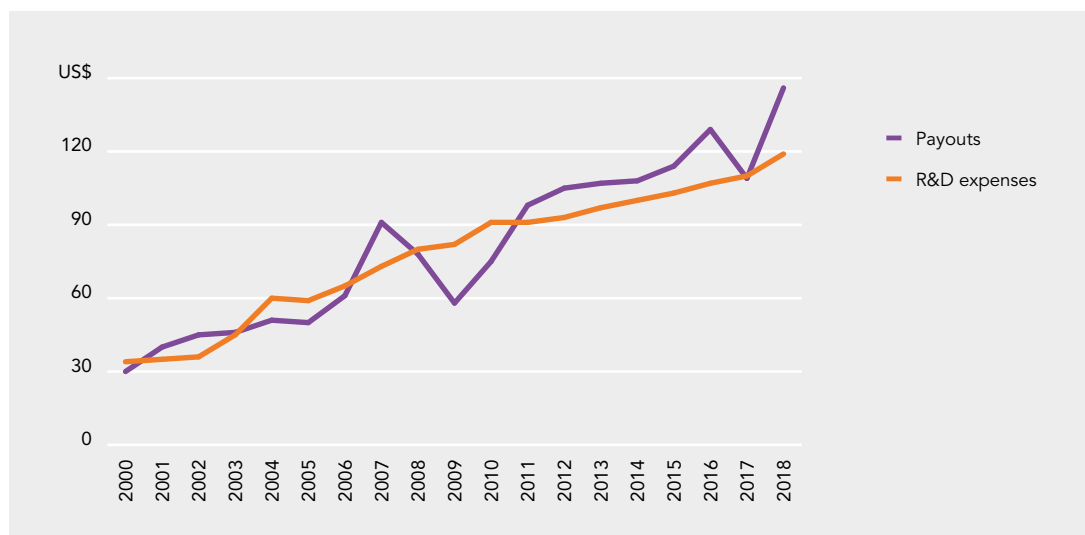
44 IMF, Global Corporate Vulnerabilities: Riskier Business, Chapter 2 of The global financial stability report October 2019 (2019), p. 28, <<https://www.imf.org/en/Publications/GFSR/Issues/2019/10/01/global-financial-stability-report-october-2019>>.

Figure 5 Absolute levels of dividends and share buybacks in US\$ billion and as a share of R&D expenses (27 largest pharmaceutical companies)



Again, absolute levels need to be contextualised to provide meaningful insights. If we assume that one guiding aim of pharmaceutical companies should be the R&D of profitable new drugs, comparing payouts to related expenses would allow us to evaluate which of these uses of cash has been prioritised. Here, it is important to bear in mind that R&D expenses have indeed nominally grown in recent years, from US\$34 billion in 2000 to US\$119 billion in 2019 for the 27 companies. Despite this rise, however, dividends have steadily risen as a share of R&D expenses while share buybacks have remained volatile. In total, we can identify a notable disconnect between these two uses of available funds since, due to recent buoyant years, total payouts (US\$1,540 billion) have exceeded R&D expenses (US\$1,482 billion) by US\$58 billion since 2000. On their own, these observations do not yet illustrate recent changes in Big Pharma’s business model. For this, we need to turn to the importance of intangible assets.

**Figure 6 Total payouts and R&D expenses in US\$ billion
(27 largest pharmaceutical companies)**



5.3 The rise of intangible assets

Intangible assets (such as IPRs and goodwill) can be as difficult to measure as financial reserves because the category might be used for a multitude of items on the balance sheet. In this regard, we therefore have to contend with the total amount of intangible assets for reasons of data availability. Despite small differences in coverage,⁴⁵ we can see a pronounced increase over time. In 2000, intangible assets only accounted for US\$48 billion of the 27 companies' assets. In 2018, they already stood at a staggering US\$857 (see Figure 5), of which the 10 largest alone held more than US\$522 billion. The importance companies have placed on intangible assets is underlined by their rising share of total assets. This has exploded from 13 per cent in 2000 to 51 per cent in 2018. Although the reliability of data for goodwill alone is limited, what the available data suggests is that it has accounted for roughly half of the companies' intangible assets over the years. The result is almost identical regarding both the absolute levels of total intangible assets and goodwill as well as their share of total assets (see Figure 8).

⁴⁵ Intangible assets have only evolved into a 'standard' category for accounting quite recently, which partly explains the small changes in coverage. The number of observations for total intangible assets were 23 (2000), 25 (2001-2002), 26 (2003-2012) and, finally, 27 (2013-2018). For goodwill, where coverage is less reliable, they were 18 (2000), 21 (2001-2002), 23 (2003, 2005), 24 (2004, 2006-2007, 2013-2014), 25 (2011-2012, 2015-2018) and 26 (2008-2010).

Table 5 Total intangible assets comparing top 10 and top 27 Big Pharma companies

| | Top 10 | Top 27 |
|------|---------------|---------------|
| 2000 | \$38 billion | \$48 billion |
| 2018 | \$522 billion | \$857 billion |

Figure 7 Absolute levels of intangible assets in US\$ billion and as share of total assets (27 largest pharmaceutical companies)

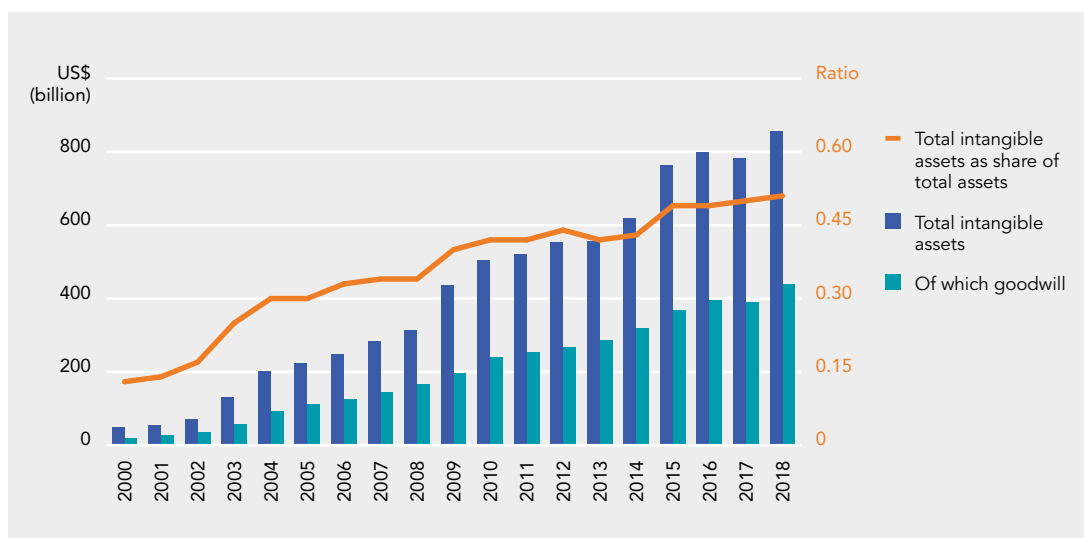
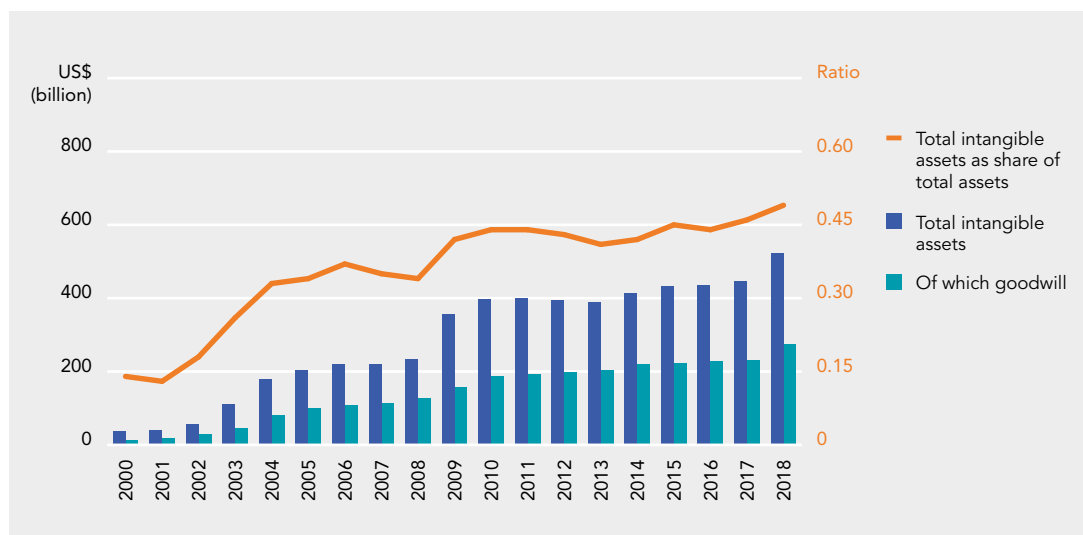


Figure 8 Absolute levels of intangible assets in US\$ billion and as a share of total assets (10 largest pharmaceutical companies)



The prominence of goodwill requires further explanation, as it represents the most important component of intangible assets and is related to the shift in the business model of large pharmaceutical companies towards a reliance on M&As. When Big Pharma companies with access to sizable financial reserves and easy credit compete for the acquisition of smaller (most likely IPR-holding) companies and thus propel prices upward, goodwill increases on the balance sheet following successful acquisition. Goodwill then represents the difference between the purchasing price of a company and the fair value of the assets and liabilities of the company. This thus reflects the premium paid in the process of acquisition.

If we examine investments into the gross fixed capital formation, or the growth of physical productive capacity, we see a decline as a share of total assets, from 26 per cent in 2000 to 12 per cent in 2018 (see Figure 9). As discussed in section 3, this aspect of corporate financialisation is prominently featured in the literature and often considered a sign of the 'slowdown of accumulation'.⁴⁶ As profits are redirected to financial reserves, larger payouts to shareholders and the rising premiums on M&As, fixed capital formation declines as a share of the capital stock. This relative decline of investment, or 'investment-less growth', is visible across the corporate landscape and is not limited to the pharmaceutical sector, but rather is part of the more generalised financialised business model.⁴⁷

Having thus investigated different indicators of a financialised business model among Big Pharma companies, what conclusions can we draw?

46 Engelbert Stockhammer, "Financialisation and the Slowdown of Accumulation," *Cambridge Journal of Economics* 28 (5) (2004), p. 719–41, <<https://doi.org/10.1093/cje/beh032>>.

47 Germán Gutiérrez and Thomas Philippon, *Investment-less growth: an empirical investigation*, (NBER Working Paper 22897, 2017).

Figure 9 Total intangible assets and fixed capital as a share of total assets
(27 largest pharmaceutical companies)

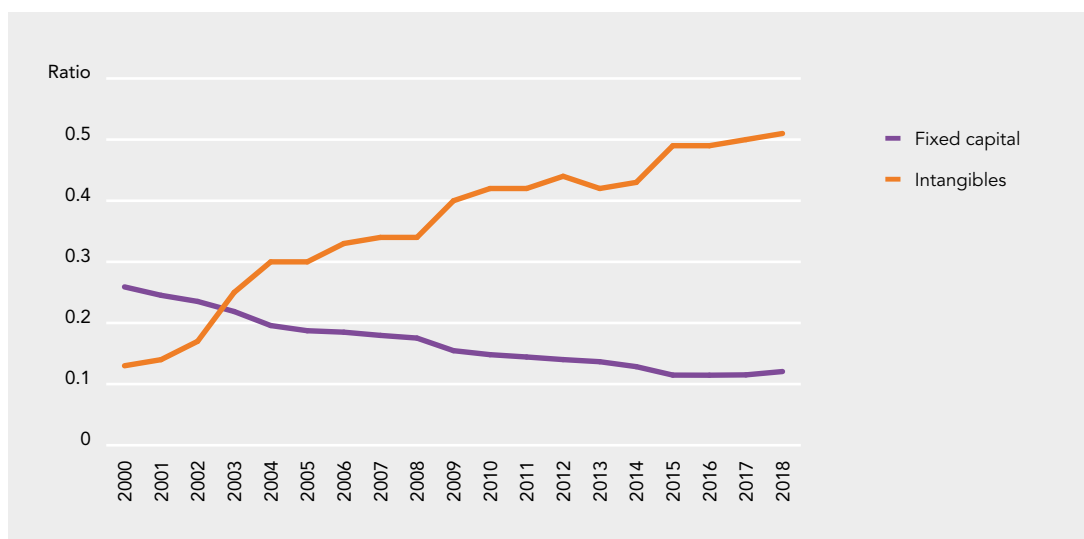


Table 6 Total intangible assets compared to fixed assets as a share of total assets
(27 largest pharmaceutical companies)

| | Total intangible assets | Fixed capital |
|------|-------------------------|---------------|
| 2000 | \$48 billion | \$95 billion |
| 2018 | \$858 billion | \$202 billion |

6 Conclusion: Big Pharma creates profits for shareholders on a scale that is socially unaffordable

Clear signs of financialisation on all three dimensions

The main conclusion we can draw from delving into the financial accounts of Big Pharma is that they show strong signs of financialisation for all three dimensions identified in the literature. The expansion of both sides of the balance sheet (indicator 1) is clearly visible and the rise in long-term debt since the financial crisis in 2008 is particularly strong and worrisome. This increase in indebtedness, as well as the enduring surge in financial reserves, has produced an abundance of cash that is not primarily being used to increase productive investments in fixed capital or R&D. Instead, we have seen a rise in intangible assets as companies acquire each other, paying hefty premiums in expectation of future income (indicator 3). The largest proportion of resources, however, has been used to pay shareholders (indicator 2).

Growth of payout to shareholders at the expense of productive investments and higher medicine prices

If we look at 27 of the largest pharmaceutical companies, we find that payouts to shareholders (comprising dividends and share buybacks) have grown from 88 per cent of net sales in 2000 to 123 per cent in 2018. In nominal terms, they have flourished from US\$30 billion in 2000 to US\$146 billion in 2018. In order for Big Pharma companies to pay for such vast shareholder payouts, investments that are essential and productive have been sidetracked. Investments in fixed capital have decreased as a share of net sales from 6.3 per cent in 2000 to 5.0 per cent in 2018, dipping as low as 3.7 per cent in 2010. The level of payouts relates to an excessive rise of drug prices. Pricing medicines at such high prices for the sole purpose of maximising shareholder value is indefensible, especially in the context of ageing societies and rising overall healthcare costs around the world.

Growing debt is not used to generate future income

To sustain the extractive model of prioritising high payouts to shareholders over investments in fixed capital and R&D, Big Pharma has increasingly resorted to debt. As a share of net sales, the indebtedness of the 27 companies we analysed has skyrocketed from 21 per cent in 2000 to 72 per cent in 2018. Despite this surge in debt to over US\$500 billion in 2018 and reliably growing sales, productive investments have declined. Unlike these, R&D expenses have grown from 12 per cent of net sales in 2000 to 17 per cent in 2018 but have still been outperformed by the growth in shareholder payouts. These numbers show that the mounting debt has not been invested to generate future income and provide affordable drugs but has instead increasingly been transferred to shareholders.

Expansion of intangibles shows transformation of the pharma sector towards private equity

The combined value of all intangible assets on the balance sheet of 27 of the largest pharmaceutical companies has increased from 13 per cent of total assets in 2000 to 51 per cent in 2018, standing at a staggering US\$857 billion dollars. This expansion of intangibles is an important

aspect of the financialisation of Big Pharma. It shows how the sector has transformed itself from generating revenue through developing, producing and selling drugs to receiving income from owning and monopolising intellectual property. The large companies have spent years buying up competitors and biotechnology companies to boost pipelines, diminish competition and secure IPRs. As a result, Big Pharma increasingly operates more like a financial actor than an industrial sector.

Growing goodwill dictates drug prices

In Big Pharma's business model, which revolves around M&As, the prices of drugs increasingly depend on the costs of acquiring new IPRs. These costs are subject to financial cycles as M&A activities are highly correlated to volatile liquidity conditions on capital markets and stock market valuations. A growing bubble of goodwill and other intangible assets more broadly is the corollary of a model that crucially depends on M&As. The example of the 10 largest pharmaceutical companies driving their goodwill up from US\$27 billion in 2002 to more than US\$270 billion in 2018 provides glaring evidence for this thesis.

Big Pharma's profits are socially unaffordable

Taking these observations together, we find that Big Pharma creates profits for shareholders on a scale that is socially unaffordable. The payouts to shareholders crowd out essential investments and stifle the conditions for affordable drug supplies. The underlying business model, which relies on cheap debt and rent income from intangible assets, is ultimately unsustainable as productive investments and R&D have not kept pace.

Pharma's vulnerability to capital market developments threatens future drug development

As a result of their higher level of indebtedness and strategic dependence on M&As, pharmaceutical companies have become more exposed – and thus vulnerable – to capital market developments as they pursue their financialised model. The current environment of extremely low interest rates and rising stock market valuations has fuelled a boom in M&As. However, the effects of a reversal of these market conditions may have a much more significant impact on pharmaceutical companies than in the past.

The financialised business model has emerged out of a specific historical environment as part of the broader process of financialisation that has taken shape in contemporary societies. Since the financial crisis, however paradoxically, financialisation has intensified rather than weakened. The conditions of extremely low interest rates have helped companies across sectors to increase their borrowing and embarking on new cycles of M&As and share buybacks. This tightening connection between finance and Big Pharma has increased systemic risk by promoting a fragile business model that generates high profits and rewards shareholders and management generously at the expense of the future drug development.

The corona virus pandemic, which pushed the global economy towards an abyss in March 2020, has revealed many of the underlying vulnerabilities of the financialised business model of Big Pharma. As well as the financial risks, this model has also left the world less prepared for the healthcare crisis we are facing today. The growing debt liabilities of pharmaceutical companies have not been invested in productive capabilities or R&D but have instead largely been distributed to shareholders. Now that the world is turning to healthcare systems and pharmaceutical companies to defend

society from this pandemic, the price of a business model that is balanced in favour of shareholders is revealing itself all too clearly. The current system has been set up to line the pockets of shareholders rather than helping patients around the world – and now we are seeing all too clearly the failings that this system has created.

7 Annex: Methodology

Table 1 Largest 30 pharmaceuticals and biotech companies worldwide based on 2018 revenue

| Company name | Global Industry Classification Standard Name | Revenue in US\$ billion | Market capitalisation in US\$ billion |
|---|--|-------------------------|---------------------------------------|
| Johnson & Johnson | Pharmaceuticals | 81.58 | 347.51 |
| Roche Holding AG | Pharmaceuticals | 57.92 | 258.46 |
| Pfizer Inc | Pharmaceuticals | 53.65 | 212.23 |
| Novartis AG | Pharmaceuticals | 53.17 | 219.96 |
| Bayer AG | Pharmaceuticals | 45.40 | 72.34 |
| Merck & Co Inc | Pharmaceuticals | 42.29 | 221.88 |
| Sanofi SA | Pharmaceuticals | 40.92 | 115.40 |
| GlaxoSmithKline PLC | Pharmaceuticals | 39.32 | 113.83 |
| Abbvie Inc* | Biotechnology | 32.75 | 117.64 |
| Eli Lilly and Co | Pharmaceuticals | 24.56 | 109.41 |
| China Resources Pharmaceutical Group Ltd* | Pharmaceuticals | 24.22 | 5.92 |
| Amgen Inc | Biotechnology | 23.75 | 126.71 |
| Bristol-Myers Squibb Co | Pharmaceuticals | 22.56 | 93.84 |
| Gilead Sciences Inc | Biotechnology | 22.13 | 80.69 |
| AstraZeneca PLC | Pharmaceuticals | 22.09 | 126.95 |
| Takeda Pharmaceutical Co Ltd | Pharmaceuticals | 18.92 | 58.37 |
| Teva Pharmaceutical Industries Ltd | Pharmaceuticals | 18.85 | 8.92 |
| Novo Nordisk A/S | Pharmaceuticals | 17.18 | 101.71 |
| Merck KGaA | Pharmaceuticals | 17.02 | 15.40 |
| Allergan PLC | Pharmaceuticals | 15.79 | 57.78 |
| Celgene Corp | Biotechnology | 15.28 | 76.57 |
| Biogen Inc | Biotechnology | 13.45 | 53.90 |
| Otsuka Holdings Co Ltd* | Pharmaceuticals | 11.79 | 23.04 |
| Astellas Pharma Inc | Pharmaceuticals | 11.79 | 32.18 |
| Mylan NV | Pharmaceuticals | 11.43 | 9.88 |
| CSL Ltd | Biotechnology | 8.54 | 80.92 |
| Daiichi Sankyo Co Ltd | Pharmaceuticals | 8.39 | 45.03 |
| Bausch Health Companies Inc | Pharmaceuticals | 8.38 | 8.76 |
| Regeneron Pharmaceuticals Inc | Biotechnology | 6.71 | 33.07 |

* Means the company was unable to report data throughout the period and was therefore excluded from the research

Table 2 Coverage of the variables used in the report

| Variable | Description | Coverage (%) |
|------------------------------------|---|--------------|
| Balance Sheet - Assets | | |
| WC02001 | Cash and Short-Term Investments | 100 |
| WC02501 | Property and Plant Equipment Net | 100 |
| WC02649 | Total Intangible Other Assets Net | 96.5 |
| WC18280 | Goodwill/Cost in Excess of Assets Purchased | 88.5 |
| WC02999 | Total Assets | 100 |
| Balance Sheet - Liabilities | | |
| WC03051 | Short-Term Debt and Current Portion of Long-Term Debt | 99.8 |
| WC03251 | Long-Term Debt | 100 |
| WC03255 | Total Debt | 100 |
| Income Statement | | |
| WC01001 | Net Sales or Revenues | 100 |
| WC01201 | Research and Development Expenses | 100 |
| WC04601 | Capital Expenditures – Additions to Fixed Assets | 100 |
| Funds Flow Statement | | |
| WC05376 | Common Dividends (Cash) | 100 |
| WC04751 | Com. Pfd. Purchased. Retired. Converted. Redeemed | 100 |

