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THE GLOBAL WEALTH CHAINS OF PRIVATE-EQUITY-RUN PHYSICIAN PRACTICES

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ABSTRACT

Currently, numerous physician practices in industrial and emerging countries are being taken over by private equity firms and integrated into novel physician corporations. This involves private equity firms producing a global wealth chain (GWC) between their investors and the target asset, using offshore financial centres to facilitate tax-avoiding reflux of capital. Moreover, they are opening up ambulatory health care as an asset for capital investment by overcoming previous market barriers to ambulatory health care via a legal construct. In this paper, we trace the spatial links of these finance-side and sector-specific corporate chains based on a capital flow analysis of private equity takeovers of Medical Care Centres (MCCs) in Bavaria, Germany. With our heuristics of a double-layered GWC, which enables the extraction of value from the German health system, we contribute to the emerging GWC debate that aims to conceptualise the complex and often opaque spatialisations of financialisation processes.

Key words: private equity; global wealth chains; health care; offshore financial centre; Germany; financialisation

INTRODUCTION

The health care sector in many countries is increasingly influenced by financial actors, motives and mechanisms (Hunter & Murray 2019; Bain & Company 2021). For example, this entails the commodification and assetisation of pharmaceuticals (Zeller 2008; Birch 2017; Klinge *et al.* 2020), the privatisation and marketisation of medical public institutions (André & Hermann 2009), the provision of financial resources for public health care institutions (Cordilha 2021) and the acquisition of care homes by investment funds (Horton 2022). For care homes, one can trace the strategies of financialisation, e.g. debt-financing (leveraging), reduced staffing levels, asset-stripping, and the far-reaching consequences, for example the negative impacts on clients' well-being,

intensified exploitation of care workers and corporate insolvencies (August 2021; Strauss 2021; Horton 2022).

For several years, processes of financialisation have also expanded to ambulatory health care, mostly through the acquisition of US physician practices by financial investors (Casalino *et al.* 2019; Zhu *et al.* 2020). The same process is also unfolding in Europe, for example in Germany (Scheuplein *et al.* 2019; Bobsin 2021). Here, ambulatory health care has to date been run by independent physicians operating in a profit-driven but strictly regulated environment for medical treatment. The new buyers are often private equity firms (PEF), which recently discovered the health care sector as an investment field (Bos & Boselie 2018). Although private equity prefers investments in big corporations, this special market for

ambulatory health care has been opened up as an investment opportunity through the creation of corporate physician chains.

In this paper, we investigate the organisational and legal changes that enable private equity to take over medical practices. In these takeovers, different locations pertaining to the regulation of financial instruments, physician activities and taxation have to be linked. The development of ambulatory health care as a profitable asset thus involves a spatial dimension in which capital and legal titles circulate. This paper aims to unveil the geographies of the financialisation of physician practices, which are often neglected in public debates on takeovers by financial investors (Knieps 2021). Here, the regulatory approaches of private equity's corporate activities and profit-maximizing strategies must be foregrounded (Bryan *et al.* 2017). This process is examined using the example of Bavaria, the largest German federal state by area.

Conceptually, we mobilize two strands of literature. First, we ground literature from business economics on private equity in financialisation approaches from political economy (cf. Erturk *et al.* 2008; Mader *et al.* 2020) to outline why private equity is active in this complex field. Second, to investigate how physician practices are produced as an investment field for private equity, we draw on the emerging debate on global wealth chains (GWCs) (Seabrooke & Wigan 2017) in (geographical) political economy. The GWC approach analyses the transactions of capital between multiple locations and demonstrates the financial incentives for these locational choices. The GWC lens helps unveil the strategic production of relational spaces through which financial investors capitalise on legal ambiguities (Christensen *et al.* 2020; Grasten *et al.* 2021).

With private equity as a particular actor, we provide an empirical example of how abstract tendencies of political-economic shifts towards financialisation concretely unfold in the highly regulated German health care sector. We bring the literature on private equity research and the emerging debate on GWCs into fruitful dialogue to provide a geographical analysis of the transnational private equity business model and contribute a case study from the health care sector as an additional empirical

application of the GWC framework. Our theoretical contribution is dedicated to the latter. We show that a GWC, which unlocks the health sector as a source of wealth, is based on a double-layered structure. This specific GWC consists of global flows of intangible capital (financial layer) and an operational structure of value creation (sector-specific layer), located in diversely regulated functional spaces. Thus, with our model of the double-layered GWC, we contribute a new heuristic to understand the complex spatial reorganisation processes of corporate financialisation in highly regulated sectors.

In the following, we first describe the investment type of the PEF as a form of the financialisation of the economy and introduce the concept of the GWC. Based on an overview of our empirical data and a reconstruction of capital flows, we outline how a global wealth chain in ambulatory health care is constituted functionally and geographically. We then delineate the concrete spatial structure of this GWC in ambulatory health care by showing where the diverse functions are located along the chain. In conclusion, we discuss further research implications.

SPATIALISING FINANCIALISATION: THE PRIVATE EQUITY BUSINESS MODEL AND ITS GLOBAL WEALTH CHAIN

Financialisation can be described as 'the increasing dominance of financial actors, markets, practices, measurements, and narratives, at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states, and households' (Aalbers 2019, p. 3). According to van der Zwan (2014), financialisation can be understood as a macro-economic phenomenon (Krippner 2012), as the intervention of asset owners in corporate governance (Lazonick 2014; Klinge *et al.* 2021) or as the incorporation of diverse spheres of social reproduction, for example housing, education, health care or retirement provision by financial industry actors (Langley 2008).

The process of the construction of a GWC of private-equity-run physician practices we describe in this paper is located at the

intersection of the second and third levels of financialisation, that is corporate restructuring in health care by a specific actor, the PEF. From the variety of other aspects discussed in the political economy debate on financialisation, we refer to value extraction (Lapavitsas 2013), corporate acquisition as speculation (Fine 2013) and the assetisation of use-values (Birch & Muniesa 2020).

Financialisation and the (geographical) proliferation of the private equity business model – The special investment field for PEFs is the market for corporate control in which they acquire established companies – in contrast to venture capitalists – with the aim of a profitable resale (Cumming 2012; Wright *et al.* 2018). Financial investors usually seek to obtain a majority stake in a company to enforce their operational and strategic goals. PEFs raise most capital through closed-end funds. Investors in these funds pay a fee to the private equity managers for fund management. Otherwise, the fund investors remain passive and uninvolved in corporate governance. Most of the profit is generated by income during the holding period of the company – partly through direct profit withdrawals. Through the resale price, this flows back to the fund investors. Several techniques of ‘financial engineering’ like leveraging are employed in order to maximise returns and financial flows from the portfolio companies to their financial owners (Appelbaum & Batt 2014). The private equity business model can thus be interpreted as a form of value extraction, which is regarded the main characteristic of financialised accumulation (Lapavitsas 2013). Private equity funds are set up for 10 years (Talmor & Vasvari 2011, p. 321). Companies are held on average for 5–6 years (Scheuplein 2022). As many companies pass through a second or third sale to a financial investor, overall private equity ownership may last considerably longer (Scheuplein 2020a).

We have so far described the functioning of private equity within a single national economy. However, a twofold spread of this business model is important. First, the model emerging in capital market-oriented financial

systems (US, UK) was copied into bank-based financial systems (e.g. Germany). Second, private equity investments can now include several countries, which take on different functions for the fundraising and investment of capital. This is based on the specific forms within which financialisation has evolved over the past decades:

1. The private equity business model is rooted in the US capital market-oriented financial system, where the institutional settings for both the accrual of capital (e.g. through capital-based pension schemes) and acquisition of companies through leveraged buyouts have been facilitated (Appelbaum & Batt 2014). By the time of the global financial crisis of 2008/09, private equity had become established in many more countries, although the expansion process was greatly influenced by the various national institutional backgrounds (Andres *et al.* 2012). Accordingly, in Germany, the business model evolved very slowly. It was only policy interventions from the 1990s onwards, aiming to align Germany more closely with the capital market-oriented financial system, which caused the first private equity boom (Jowett & Jowett 2011). In recent years, private equity funds have globally set records for the number of acquisitions, volumes of fundraised capital and generated returns (Preqin 2020). This trend is also reflected in increasing private equity business activity in Germany (Scheuplein 2020b).
2. Political shifts towards financial deregulation and the privatization of public assets since the 1980s have created new opportunities for capital investment (Epstein 2005), supporting the rise of private equity as a financial innovation. Novel investment fields, for example in public infrastructures, and new techniques of capital investment led to so-called alternative investment funds (Gospel *et al.* 2014). Apart from private equity, real estate investment trusts and hedge funds are particularly relevant here (Fernandez & Aalbers 2016). These investment funds acquire capital from institutional investors, that is pension funds, insurance companies and asset managers (Rutterford & Hannah 2017). On the one hand, the increasing volumes of monetary assets administered by institutional investors are a result of neoliberal policies of privatisation and deregulation, on the other hand, they constitute an efficacious instrument for the further expansion of such policies. In any

case, institutional investors have increasingly turned to alternative asset classes such as private equity (Preqin 2020), also encouraged by decreases in investable assets, for example due to corporate buybacks in public markets (Lazonick 2014) and monetary policies of quantitative easing, which have led to low-interest rates and increased competition for investment spheres (Mader *et al.* 2020).

As private equity employs a fund-based approach, these capital flows between increasing monetary assets and new international investment fields – among other financial intermediaries, non-financial corporations and sovereign wealth funds (Palan *et al.* 2010; Zucman 2015) – contributed to the rise of offshore financial centres (OFCs). These spaces offer regulative jurisdictions where tax on investment earnings is minimised, the regulation of investment vehicles is lean and the anonymity of fund investors is protected (Shaxson 2011; Seabrooke & Wigan 2017). Furthermore, OFCs are beneficial to ease fundraising or accelerated and cheap company formation (Clark *et al.* 2015, p. 238). Offshore financial centres are external to the conventionally established financial market authorities in industrialised countries and are particularly supported by actors from the UK and the US. While the affiliation of states as OFCs and their ranking is controversial (García-Bernado *et al.* 2017), it is significant in the context of the present research field that a number of OFCs are subject to British sovereignty as crown colonies or overseas territories.

Consequently, private equity is not only established in many developed and emerging markets, but private equity transactions have become a transnational operation. To understand the geographical implications of this quantitative and institutional expansion of private equity, we consider debates in economic geography, which conceptualise the spatial distribution and flow of (financial) value and embed the geography of private equity operations within the GWC framework.

Global wealth chains – Economic geography provides a broad set of concepts to delineate value creation as a spatially expansive relation between producers and service providers (Coe & Yeung 2015). These approaches

identify different characteristics of goods and competences of the actors involved (Gereffi *et al.* 2005) or the institutional context of particular locations (Coe *et al.* 2008) as causing the characteristics of production chains. The funding of these production chains is, in turn, connected with *global financial networks*, which include financial services (banks, insurance companies, asset managers) and advanced business services such as accountancy, law firms and business consultancies (Coe *et al.* 2014).

Yet, money capital not only circulates in processes of production but can generally act as capital and be traded as ‘commodity sui generis’ (Harvey 1982). This ‘double-life of capital’ (Bryan *et al.* 2017, p. 59) constitutes the abstract foundation of the process of financialisation, which is associated with the empowerment of finance vis-à-vis the sphere of production. Hence, financial actors have increasingly gained power also in commodity chains, allowing them to influence the strategies of manufacturing enterprises and their supply chains (Palpacuer 2008; Froud *et al.* 2014). Against the backdrop of rising monetary assets, the polarisation of incomes and economic globalisation, ever more sophisticated financial strategies of quantitative significance have been developed for the wealthy classes. *Financial chains* in this sense refer ‘to the ways in which firms, financial institutions, states and households in a financialised economy are interconnected through [...] channels of value transfer’ (Sokol & Pataccini 2020, p. 409). Financial or investment chains relate to credit–debt relations (*ibid.*), the impact of private equity strategies of value extraction on tenants and urban displacement (Janoschka *et al.* 2020) and ‘the multiplicity of actors and relations linked to a[n investment] project, and the flow and distribution of value among those actors’ (Cotula & Blackmore 2014, p. 1). Arjaliès *et al.* (2017) scrutinise the sets of intermediaries in the asset management industry that establish the links between savers and the investment fields of their capital.

From this perspective, global financial networks are not merely understood as simple intermediation of commodity flows or as value-producing activity, but also as

construction by the financial industry that allows profit appropriation from manufacturing and services (Dörry 2016). A complex network of financial corporations is established at onshore and offshore locations to exploit the diversity of fiscal and tax laws within these jurisdictions, that is to separate the generated profit from the asset and minimise the transparency of beneficiaries, and avoid national taxation (Wójcik 2013).

This 'dark side' of financial networks is particularly discussed in the emerging global wealth chain approach (Seabrooke & Wigan 2014, 2017). 'GWCs are defined as transacted forms of capital operating multi-jurisdictionally for the purposes of wealth creation and protection' (Seabrooke & Wigan 2017, p. 2). Global wealth chains connect different institutional contexts in different spaces to fiscally optimise investments for the financiers' benefit. This involves the differentiated exploitation of tax reductions in favour of investors, investment managers and assets, for example corporations (Christensen *et al.* 2020). While much of the value produced within global value chains is redistributed in favour of capital owners (Quentin & Campling 2018), global wealth chains ensure that realised profits are retransferred to the asset owners at minimum loss. From this perspective, the financial flows of commodity chains primarily relate to the creation of value, whereas the global wealth chain moves capital between the owners of wealth and the sites of investment. In other words, whereas value chains stress the spatialities of value creation (and capture) in production, wealth chains highlight the efforts by financial intermediaries to link the sites of value creation/extraction with sites of wealth proliferation by linking multiple jurisdictions to exploit 'legal affordances' of market access and profit maximization (Garsten *et al.* 2021). Hence, the logics of the GWC's stations and conjunctions follow utterly different requirements in the institutional contexts than in commodity chains. Necessarily reverse structures and tensions occur 'between the location of value creation and the geographical allocation of profits and wealth' (Seabrooke & Wigan 2017, p. 2). The analysis of GWCs must thus always refer to the 'double-life of

capital' as both fluid money capital and as a productive asset (Bryan *et al.* 2017, p. 59) and highlight its intersections and transitions.

GWC analyses are thus 'an analytical tool to disentangle the complex ownership structures that are designed to minimise tax liabilities and accelerate profit rates' (McKenzie & Atkinson 2020, p. 25), thereby unveiling the arrangements of value extraction and wealth circulation and distribution through opaque transnational networks of (offshore) parent companies (*ibid.* p. 28). The GWC approach attempts to open 'the black box of strategies of capital expansion' (*ibid.* p. 35).

The GWC research agenda is 'to establish taxonomies of wealth chains and specify, via thick descriptions, the role of wealth chains in the evolution of global capital flows' (Seabrooke & Wigan 2014, p. 261). Several case studies thus investigate financial centres as elements of the wealth chain (Sharman 2017; Garcia-Bernardo *et al.* 2017), concrete investment fields or corporations (Wigan 2021), the professional actors and their strategies (Bryan *et al.* 2017; Christensen *et al.* 2020; Grasten *et al.* 2021; Ajdadic *et al.* 2021) and the opportunities for policy intervention (Morgan 2021).

We contribute to this strand of research with the description of the GWC of private equity in the investment sphere of ambulatory health care. We start in the investment field itself, asking which (corporate) organisational and legal changes are used to transform physician practices into an appropriate asset for private equity investment.

DATA AND METHOD

To investigate how physician practices are transformed into financial assets for private equity, we traced the specific GWC created by the new financial owners. To this end, we used a data set from the Association of Statutory Health Insurance Physicians (ASHIP) in Bavaria ('Kassenärztliche Vereinigung Bayerns') which included all 606 Medical Care Centres in their territory approved by March 2020. The federal state of Bavaria is identical to the district of the ASHIP of Bavaria, which is the largest German ASHIP

by area and population (15.8% of the population) and also has the most MCCs in Germany (KBV 2021, p. 6). As the population of MCCs otherwise shows no irregularities, the region is highly representative of the situation in Germany.

For each MCC, we collected the locations of the medical practices (including branch practices) and the number of employees, accessing the MARKUS database by Bureau van Dijk and the homepages of the MCCs. Additionally, the legal operator of each MCC was identified. Taking up Christophers' (2011) call to 'follow the money' compared to GCC analyses, the legal structure was investigated all the way up to an 'ultimate owner'. For us, the ultimate owner of the private-equity-led medical chains is the fund, which in turn is controlled by the PEF. The owners of the fund, that is mainly institutional investors such as pension funds, insurance companies and family offices, have no influence on the corporate strategy. Given the multiplicity of fund investors and the difficulties in identifying them, this part of the GWC cannot be presented here.

The corporate structure of non-financial ownership types tends to follow the rather mundane ownership structure of German ambulatory health care providers. However, for private equity owners, a spatially expansive and opaque investment chain was traced. This means that we could identify a fund location for each physician chain. Sometimes, there is a whole chain of fund companies located in different OFCs in order to pursue different advantages (e.g. Delaware, the Cayman Islands, Luxembourg). In these cases, we listed the OFC with the highest degree of transparency (e.g. Cayman Islands instead of Luxembourg). We also drew on the MARKUS database by Bureau van Dijk and on already identified ownership structures of private-equity-led physician chains from our own preliminary studies (Scheuplein *et al.* 2019). Information on the private-equity-owned MCCs was added regarding country of origin, foci of investment fields and fund volumes. This capital flow approach was also carried out for those PEFs that had purchased MCCs in Bavaria and had already exited from the investment.

Based on the analysis of 17 private-equity-run physician chains in Bavaria (Section 4), we deduced a model of a sector-specific GWC for private-equity buyouts in German ambulatory health care, which contributes to the GWC framework.

INTEGRATING BAVARIAN AMBULATORY HEALTH CARE IN GWCS

Private equity takeovers of Bavarian MCCs – By March 2020, with 60 Medical Care Centres owned by PEFs, financial investors had established themselves as significant owners holding approximately 10 per cent of Bavarian MCCs (Scheuplein & Bůžek 2021). Other ownership types are physicians, who operate 47 per cent of the 606 MCCs in the area of ASHIP Bavaria, public corporations (19%), other private operators (18%) and non-profit organisations (6%) (*ibid.*).

This relatively recent entry of private equity into the German system of ambulatory health care has sparked debate in German health policy (Knieps 2021). Critics view the new physician chains in the hand of profit-maximising financial owners as threatening patients' wellbeing and the funds of the German statutory health insurance (Kolominsky-Rabas 2021). The hefty critique of private equity as an operator of physician practices must be understood against the backdrop of the governance of German ambulatory health care, which is – similar to other realms of the German health care system – characterised by a complex constellation of state, market and associations (Gerlinger 2021).

While mechanisms of market and competition like private out-of-pocket treatments were implemented during the 1990s and 2000s (Gerlinger 2021), the market-based governance of German ambulatory health care remains severely limited. This is due to the continuing strict nature of legal regulations regarding the funding of ambulatory health care facilities, their compensation and quantity as well as the professional ethics of medicine as a fundamental principle of physicians.

Accordingly, the German sector of ambulatory health care has traditionally been protected from access by external capital

through the strict regulation of social legislation. Initially, physicians were only permitted to apply to the ASHIP to set up practice, that is for permission to conduct ambulatory medical activities. In 2004, the organisational form of the Medical Care Centre (*Medizinisches Versorgungszentrum*), which had a predecessor in the ‘polyclinics’ of the former German Democratic Republic (Janura 2018), was approved. With this organisational form, the legislator aimed to blur the traditionally strict boundaries between the ambulatory and inpatient sectors, allowing (specialised) physician competences to be bundled into one physician’s practice (Knieps & Amelung 2010). The number of MCCs has steadily evolved but still accounts for just 4 per cent of physician practices in Germany (KBV 2022). The distinct characteristic of MCCs is that they can also be purchased by other institutions – apart from physicians – such as hospitals. As these hospitals – the parent companies of the MCCs – can be acquired by private investors, investors indirectly gain access to ambulatory health care. However, it was several years until private equity investors actively turned towards this sector. Although the first takeover in the territory of ASHIP Bavaria occurred as early as 2008, it was 2011 before private equity ownership of MCCs reached double figures. Since 2015, MCCs are no longer obliged to include different types of medical specialists, paving the way for the buyouts of dental offices (where generally only one type of medical specialist is represented). In 2016, there were 25 MCCs and ever since a constant increase of MCC takeovers has been registered.

Yet, the stark increase of private equity takeovers of Bavarian MCCs cannot simply be understood as a causal consequence of the 2015 shift in MCC legislation allowing the construction of integrated physician chains. Rather, the takeover activity has been strongly influenced by the demand side, that is the market for private equity acquisitions. A high influx of capital to the funds of PEFs has increased the ‘firepower’ of financial investors and scarced the supply on the market for corporate control or raised the prices for portfolio companies. In Germany

a ‘sellers’ market’ has also been diagnosed (Garbs 2017), forcing PEFs to open up new investment fields (such as health care), which were previously considered too complex and strictly regulated. As soon as the know-how for takeovers in a special investment field was developed, a learning curve was initiated among the PEFs concerned, followed by the flocking behaviour of competitors. Thus, the health care market was discovered as a ‘golden opportunity’ (McKinsey 2017), explaining the recent boom. Consequently, although creating legal access for private equity buyouts to ambulatory health care was a crucial precondition, the takeover boom was triggered by the private equity business model itself.

However, the takeovers of physician practices/MCCs in Bavaria – the location where medical services are actually provided and physician chains are built up – constitute but one end of the corporate structure that private equity creates to transform German ambulatory health care into a viable financial asset. In line with our capital flow approach, we traced the geographically expanding ownership structure installed by financial investors and connected the emerging investment field of physician practices with the funds of investment capital. In the following, we analyse this specific corporate structure using the GWC approach.

GWC links: Connecting the Caymans with Bavaria – Having described the background of MCC takeovers by private equity in Bavaria, we turn to an in-depth analysis of the GWC that emerged with private equity in German ambulatory health care.

As the private equity investment cycle is about the acquisition, restructuring and profitable resale of companies, it is relevant that PEFs aim to develop integrated physician chains with their buy-and-build strategy. Accordingly, this study focuses less on single MCCs as main actors, but rather on ownership groups as constructions of operating companies and MCCs. The private equity owners thus create physician chains, each of which has one holding as a strategic centre and one particular medical specialisation. The distinctive nature of the physician chains

Table 1. Private-equity-led medical chains in Bavaria*, March 2020.

Professional field	Number of chains and examples	MCCs**	Locations**	Employees**
Special medical area (including ophthalmology, radiology, reproductive medicine, general medicine)	12 chains, e.g. OberScharrer (Veonet), Sanoptis, Meine Radiologie, Sanecum	39 (65%)	109 (74%)	1930 (80%)
Laboratory medicine, cytostatics	Three chains, e.g. Synlab, Amedes	13 (22%)	30 (20%)	380 (16%)
Hospital companies with ambulatory supplement	Two chains: Ameos, Schön Klinik	8 (13%)	9 (6%)	110 (5%)
Sum	17 private-equity-led chains	60 (100%)	148 (100%)	2420 (100%)

*In the area of the Association of Statutory Health Insurance Physicians of Bavaria.

**Share of MCCs, locations and employees per professional field of all private-equity-led MCC chains.

Source: the authors, based on MARKUS/Bureau van Dijk and internet research.

in such holding structures also means that a PEF may be involved in constructing two or more integrated physician chains simultaneously. In our analysis, out of 60 individual private-equity-owned MCCs, we identified 17 private-equity-led ownership groups active in Bavaria.

Physician chains that focus on one medical speciality actively dominate. This type covered the overwhelming shares of MCCs, practice locations and employees at the private-equity-led MCCs in Bavaria in March 2020 (Table 1). In contrast, MCCs operated by laboratory chains and by hospital groups are less represented. The number of locations and employees appears small, but it should be noted that each of these chains is also active in other German regions.

Of the chains operating in Bavaria in 2020, six only entered the ambulatory care market in Germany between 2018 and 2020, and five groups entered between 2013 and 2017. The chains are thus still very young and some only started acquiring MCCs a few months before the time of observation. Another six chains entered the market before 2013 (the oldest is 2007), and all of these chains went through at least one secondary buyout by 2020 (see further below).

For each of these groups, we identified a specific double-layered structure, distinguishing between a 'sector-specific layer' and a 'financial layer' of the GWC (see Figure 1).

Related to the takeover processes discussed above, we first focus on the sector-specific layer, that is the sophisticated structure that is established by sector-external private financiers to gain legal access to ambulatory health care due to the aforementioned regulatory barriers.

In our investigation of ownership groups, we found a functional separation between MCCs and headquarters in all 17 physician chains. In each case, there were two corporate units responsible for governing the MCCs: a medical unit holding the formal licence for the MCC (operating company) and a separate acquiring company carrying out the management functions. These companies were usually spatially separate and always involved different personnel. There were examples of other companies being located above the acquiring company, for example to allow differentiated credit

facilities. In at least two cases more than one operating company existed, as the operator had to adjust to changed regulations regarding access to MCCs.

Therefore, private equity's sector-specific GWC layer, which provides legal access to ambulatory healthcare, comprises a chain construction of three entities under corporate law:

- An acquiring company, which controls the MCCs as operative entities and delivers central services for them.
- An operating company, that is a firm from the health care sector that is qualified to purchase MCCs, generally a hospital. The hospital's medical specialisation or location is irrelevant; the main concern is to minimise costs.
- The MCC, where ambulatory health care is provided.

The sector-specific layer must be located in the same target country as the business operation that is the target of investment, in this case Germany. It should be noted that the acquiring company and to some extent also the

operating company has to be established or acquired for the purpose of capital investment by investors external to the health care sector.

The acquiring company likewise governs the financial flows in the country of investment and is in close exchange with the PEF. However, this exchange takes place within a second structure defined by company law, namely the 'financial layer' of the global wealth chain. This GWC layer of ownership and control, that is of fund investors and PEFs, has to meet several requirements. Along this layer, capital must flow from the fund investors to the target country, and the returns of investment have to flow back to the investors with a minimum tax burden and the lowest possible transparency for the tax authorities. Additionally, the PEFs must establish control over the funds and a return flow of fees and profit sharing to the private equity managers with similarly low tax exposure.

At the heart of this GWC financial layer is the private equity fund, which operates as the legal owner of the sector-specific layer. From this fund location, payouts are triggered both to the fund investors and to the PEFs. In order

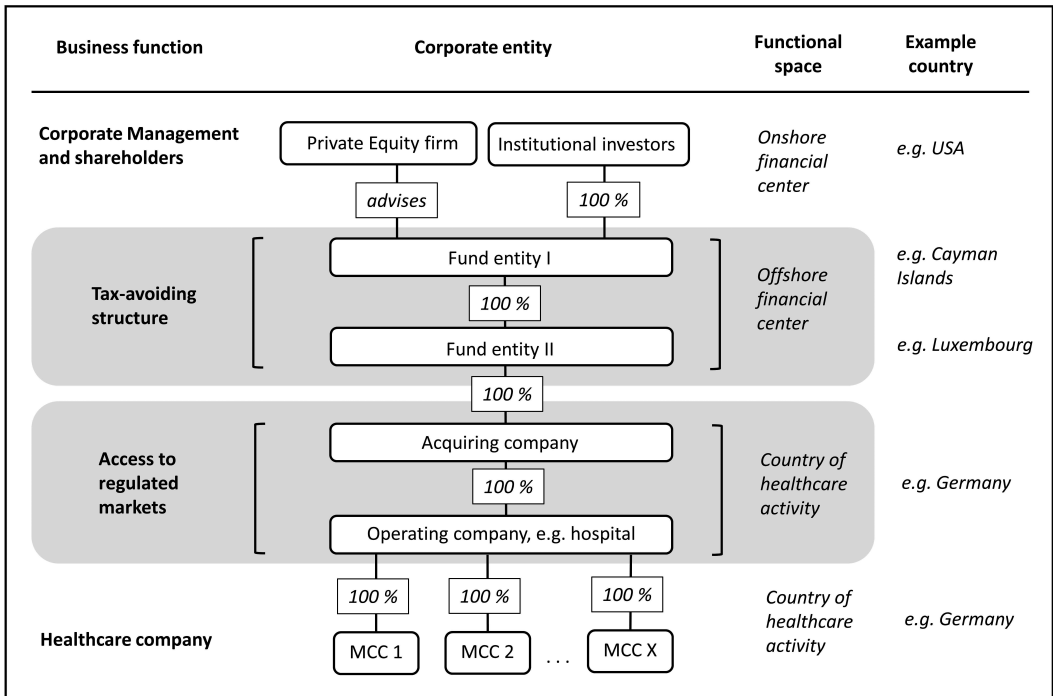


Figure 1. Global wealth chain of a private-equity-led physician chain. Source: the authors.

to meet the various actors' interests, the advantages of diverse offshore financial centres are oftentimes combined by domiciling one or more corporations in these locations.

In all 17 physician chains in Bavaria, a fund was employed as an independent entity, that is separate from both the PEF and the fund investors. For cost reasons, offshore locations are usually only chosen for funds with more than €150–200 mn (empirical observation from our investigations of private equity funds operating in Germany), so the capital volume is considered here. The funds are predominantly well capitalised. Nine funds had a fund volume of over 1 bn euros, three funds were between €200 mn and 1 bn and two funds were below the limit of €200 mn. (For another two funds, the capital volume could not be verified.) Fourteen of these funds were located in one or more OFCs, which are additionally attractive due to the low standards of the financial market authorities and weak transparency regulations (Shaxson 2011). Seven funds are domiciled in the Channel Islands (Guernsey and Jersey), four funds in Luxembourg and three funds in the Cayman Islands. (Two funds are domiciled in Germany and the domicile of one fund could not be identified.) As this financial layer primarily exists to use diverse tax jurisdictions (Aalbers 2018), we call it a tax-avoiding structure. Such instruments are not employed exclusively by private equity funds but also by other alternative investment funds.

Through this tax-avoiding structure, contact is established between the fund investors, who are predominantly institutional investors, and the PEF. The PEF governs the whole corporate structure, operating as its mastermind. Formally, however, the PEF only consults on the funds and therefore receives a fee and a profit share. Only through combining the sector-typical and the financial structure of the GWC is a closed investment chain created allowing for external institutional capital to access the regulated German ambulatory health care sector.

Therefore, as suggested in Section 2, the construction of a GWC involves the production of space as spatial conjunctions are actively created with the sector-specific and financial layer. This allows bundling of the different functional spatial and institutional contexts of market

access and tax avoidance within the investment chain produced by private equity. Thus, the GWC is an organisational accomplishment by the private equity owners enabling their profit-driven investment in MCCs.

To illustrate this, we draw on the schematic representation from Figure 1 and simplistically differentiate four locational groups. These are (i) the service area (here: Bavaria), (ii) the institutional space where market access to medical facilities has been established (here: Germany), (iii) additional countries without this market access (here: four European countries and the US) and (iv) OFCs with their tax-avoiding and veiling characteristics (here: Jersey, Guernsey, the Cayman Islands, Luxembourg).

The share of MCC employees that can be attributed to the physician chain companies was chosen as the quantitative measure to indicate the significance of a locational group. The five layers in Figure 2 repeat the outline of Figure 1, although the acquiring company and the operating company are depicted as two separate layers. On each layer, the companies of the 17 physician chains were attributed to one locational group and the proportion of employees controlled by these companies was summarised. Consequently, on all five layers, 100 per cent of the employees and their distribution among the four locational groups are displayed.

On the lowest level of ambulatory health care, Figure 2 shows the MCCs in Bavaria. In contrast, 30–40 per cent of the companies in the sector-specific layer are located outside the region. It must be noted that the shares of companies external to the region might be higher in other ASHIP territories in Germany, as Bavaria constitutes the largest ASHIP area in size, while some older private-equity-led physician chains are also headquartered there. Moreover, Bavaria's provincial capital Munich is one of the two leading private-equity centres in Germany, which encourages operating and acquiring companies to locate in the region. It can be seen that the financial layer has almost entirely shifted towards OFCs where 14 of 17 funds are registered. While the funds of three physician chains are located in onshore financial centres, their small MCCs play a negligible role.

Finally, the layer of PEFs exhibits a shift of decision-making powers to other European countries and the US. Only 16 per cent of MCC employees, thereof 12 per cent in Bavaria, are governed by financial investors with a parent company legally registered in Germany.

When turning things into new assets for investment, the temporal dimension is always crucial (Birch & Muniesa 2020, p. 6–7). The time horizons of investors and the investment field have to be coordinated by the central actor, here the PEF. Private equity funds are usually established as closed funds and provide a time-frame of several years within which investors relinquish the liquidity of their invested capital. Thereby, a maximum fund duration and the necessary divestment are simultaneously

fixed. In the investment field of ambulatory health care, this means that the financial layer of the GWC dissolves by the time of divestment, whereas the sector-specific layer remains, that is the creation of physician chains with access to private investors. This layer can be understood as the actual ‘product’ of the financial investors, which is rewarded with a mark-up by the buyers. Indeed, the legal construct allows the economic and medical integration of MCCs, although this is only partially realised by the PEFs and remains a task for future buyers from the health care sector. It appears that the temporary investment of private equity in probably all physician chains will lead to long-term effects on the market structure of ambulatory health care: The currently predominant form

		Locations of the global wealth chain			
		Bavaria (region)	Germany* (target country)	Europe+, USA (non-target)	Channel I., Cayman I. (OFCs)
Share of employees across the links of the global wealth chain	Private Equity firm	17	53	30	0
	Funds	0	1	1	99
	Acquiring company	71	29	0	0
	Operating company	60	40	0	0
	Medical Care Centers	100	0	0	0

Figure 2. Significance of the links in the global wealth chain by share of employees in the MCCs. *without Bavaria, +without Germany. Source: the authors.

of the individual practice with an independent practice owner will incrementally be replaced by the MCC, which in turn will be integrated into corporate structures. This will presumably also increase the number of physicians per practice location. Here, a similar market structure as in the hospital sector can be expected, wherein the wake of hospital privatisation four big private hospital corporations have evolved in Germany over the past three decades (Schmid & Ulrich 2013). In view of an under-supply of doctors and qualified practice staff in Germany, the newly created positions will increasingly be filled with medical care workers from abroad. Additionally, more part-time jobs will be created in the new form of practice and the feminization of ambulatory care will increase. The linking of physician chains with a hospital and the larger structures also facilitates the integration of ambulatory and inpatient care.

For the physician chains, however, it should be added that the 'financial layer' does not disappear after an investment period: Of the 17 chains, eight had already passed through an exit by March 2020. Three exits took place after a maximum of 2 years; the average holding time was something over 5 years. This corresponds to the average holding time of private-equity-led companies in Germany (Scheuplein 2019). It is noteworthy that all these exits involved sales to other PEFs (secondary buyouts). This frequency of secondary buyouts applies to all exits in the German health care sector (Bobsin 2021), which is considerably higher than the average share of 40 per cent in the economy as a whole (Scheuplein 2019). Whereas secondary buyouts are controversial in private equity research (Wang 2012), they follow the clear strategy of continuing the buy-and-build strategy. Since the largest chains in Germany have only reached a size of 1500–2000 employees (own observation), this seems rational and will certainly be continued.

In short, for the 17 investigated physician chains, we demonstrated how private equity enables investments in ambulatory health care through the construction of a GWC. Hereby, the structure comprises a financial and a sector-specific part, characterised by different purposes, locational ties and time horizons. Whereas the tax avoidance layer in

offshore centres is liquidated by the end of the investment cycle, the structure of market access is likely to remain. Consequently, the physician chains thus established for profit-driven capital investment of institutional capital will shape ambulatory health care in the long run.

CONCLUSION

Currently, health care facilities in many industrial and emerging economies are being taken over by financial actors. This process is boosted by investment pressure exerted by globally increasing volumes of private assets. As the spatial distribution of this private wealth is uneven, and the professional asset managers – like all financial service providers – are concentrated in specialised financial centres, the sites of wealth and the sites of health care providers must be interconnected in a complex manner.

In this paper, we investigated this process for a particular financial actor, the PEFs. This form of investment company creates a temporal bridge for capital through time-limited company acquisitions, and a spatial bridge through its transnational investments, which we conceptualised as a double-layered GWC. The empirical basis of our analysis was takeovers in a particular sector (ambulatory health care) in a bounded territory (Bavaria, Germany). Although legal access for private investors to the market of ambulatory health care was established in 2004, empirical evidence of significant private equity activity in Bavaria has only been seen since 2016/17. We have shown how – with a decreasing supply of acquirable companies and an increase in investment capital in the context of low-interest rates – the ambulatory health market has been unlocked. The PEFs have succeeded in this through a legal structure consisting of acquiring companies and operating companies in the country of investment (Germany). Besides this sector-specific layer of a GWC, we also detected a financial GWC layer since the capital flows to the target country are primarily organised via offshore financial centres. We demonstrated that the funds are almost entirely located in

OFCs and provided information on the specifically chosen OFCs. We have thus significantly increased the transparency of private equity's GWC without being able to eliminate the opacity of the capital flows entirely (cf. McKenzie & Atkinson 2020), mainly regarding the anonymity of fund beneficiaries protected by the secrecy of private equity funds registered in OFCs. It remains questionable whether we were able to identify all OFCs employed. Moreover, further investigations are necessary to show the links between funds and fund investors. The well-known difficulties in identifying private equity funds and their locations have already led to demands for an MCC register that would make investors in MCCs public (Bundesärztekammer 2021).

While capital is transferred via a financial layer of the GWC from the investor to the target country, a sector-specific layer of the GWC facilitates the investment process in the target country. Ultimately, the PEFs emerged as the strategic actors controlling both layers of the global wealth chain, thus connecting the site of value creation with the sites of investors. This strategic production of space can lead to, for example sites of health care provision in rural areas being operatively governed from headquarters in a metropolitan region, while property rights are relocated to an appropriate financial centre.

We consider this distinction between a sector-specific and a financial layer as a feature of many GWCs, where investments in the target country have to meet extensive regulatory requirements. While comparative research on different uses of financial flows already exists (e.g. Haberly & Wójcik 2015), future research should also compare sector-specific structures.

The two GWC layers differ regarding their time horizons. The financial layer is built up for just a few years and dissolves with the future sale of private equity to a long-term owner of MCC chains. In contrast, the sector-specific layer with its conjunction of MCC, operating company and acquiring company constitutes permanent access to the highly regulated market of ambulatory health care. This layer is the actual 'product' of PEFs, which remains after the sale to other private investors and might even be expanded with growing economies

of scale and scope. The focus on the sector-specific structure thus enables predictions of long-term consequences on the activities of financial investors in the corporate sector.

This double-layered structure is also relevant for locating private equity chains of physician practices in the five ideal types of GWCs presented by Seabrooke and Wigan (2017). Since the conditions of a private equity fund are highly standardised, numerous players compete both on the supply and on the demand sides of private equity funds, the financial GWC layer has the characteristics of a market GWC. Here, the use of OFCs serves mainly to create an 'information asymmetry [...] between the client and the regulator' (ibid., p. 13). In contrast, the sectoral GWC layer rather has the characteristics of a 'hierarchy', as the entire service company is controlled by the private equity fund.

Finally, the speculative transformation of physician practices into profitable financial assets should be underscored. Since every private equity transaction is associated with the expectation of a higher price when resold, private equity reinforces the speculative character of the market processes (cf. generally Fine 2013, p. 55). While we did not examine the effects on cost structures or the quality of patient care in this paper, the effects of private equity in other sectors in Germany (Scheuplein 2020a) lead us to assume that 'value extraction' (Lapavistas 2013) from the German health care system may occur.

Thus, future GWC research could help to identify current corporate takeovers in the health sector – but also in other public services – as a dramatic restructuring of care structures. Today's changes are fragmented, often hidden and appear only as short-term actions. However, they result in a long-term restructuring and financialisation of the health care system and should be placed immediately on the agenda of scientific and political discussion.

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