Article

EUROPEAN URBAN AND REGIONAL STUDIES

European Urban and Regional Studies
2024, Vol. 31(3) 230–244

DOI: 10.1177/09697764231201568
journals.sagepub.com/home/eur
Sage

Financialization, dependence, and state regulation: The accumulation strategies of German energy companies in Hungary

Márton Czirfusz
Periféria Policy and Research Center, Hungary; Centre for Economic and Regional Studies, Hungary

Abstract

In recent years, geographical scholarship has paid an increasing amount of attention to the accumulation strategies of energy and public utility companies. This article contributes to these debates by emphasizing the multiscalar nature of profit extraction by transnational energy companies through financialization, dependent power relations, and state regulation regarding transnational energy companies. Empirically, this article analyzes German energy companies' activities in Hungary. These energy giants bought Hungarian gas and electricity providers, networks, and power plants during the privatization waves of the 1990s, and largely left the Hungarian market after the 2010s re-nationalization process. Previous literature emphasized nation-state agency in the Hungarian energy sector's development. This study—based on an analysis of companies' annual reports, media coverage, and financial statements—draws attention to firm-level strategies in understanding techniques and strategies of accumulation by German energy companies in Hungary.

Keywords

Accumulation, energy companies, Germany, Hungary, scale

Introduction

The accumulation strategies of companies in foreign ownership have been on the agenda of geographical scholarship in recent years; this has resulted in a growing amount of literature focusing on energy and public utility companies. This focus has, however, largely overlooked Hungary and in particular its energy sector. This article argues that the specificities of the Hungarian energy sector's privatization and subsequent re-nationalization warrant more analytical attention, specifically because of the defining role parent company–subsidiary relations play in this constellation.

In the second half of the 1990s, all 12 regional electricity and gas monopoly providers in Hungary were privatized, with German companies acquiring ownership in eight of them. According to the companies' annual reports, between 2001 and 2020 dividends of more than €1.2 billion (in nominal terms) were paid by Hungarian energy companies to their German owners. After 2010, the Hungarian government initiated regulatory changes and buybacks to

Corresponding author:
Márton Czirfusz, Periféria Policy and Research Center, Orczy út 46–48., 1089 Budapest, Hungary.
Email: czirfusz.marton@periferiakozpont.hu

quell the flow of profit leaving the national territory. As a result, a Hungarian state-owned enterprise currently provides gas for all households, and electricity for most. German companies either left the Hungarian market or reduced their operations considerably.

Previous academic scholarship has only partially covered the radical transformation of Hungarian energy. The literature has focused on the description of the privatization and re-nationalization processes (Mihályi, 2010, 2019), the geopolitics of dependence on foreign—mostly Russian—energy sources, the role of European Union (EU) energy policies (Szabo and Deák, 2021; Szabo et al., 2020), changes in terms of energy governance (Kerekes et al., 2019), the scalar changes of electricity provision (Fabók, 2018), and households' energy vulnerability (Bouzarovski et al., 2016). Less attention was paid to the company level (Felsmann, 2014, 2019), which meant firms' accumulation strategies were also not properly studied. Furthermore, existing company-level analyses have confined themselves to the national scale, ignoring Hungarian energy providers' history as subsidiaries of transnational energy corporations.

Existing literature on energy companies and public utility firms has revealed three main scales and modes of accumulation. Research has explored how corporations extract value from local households, mediated by state regulation at the national level (Becker and Naumann, 2017; Furlong, 2020b; Harrison, 2022; Juwet and Deruytter, 2021). Scholarship has analyzed also the transnational scale of value appropriation through geographically uneven development and dependent structures of global capitalism, similar to the dependencies upon which extractive industries and manufacturing value chains are built (Parker et al., 2018; Pavlínek, 2022). Finally, the research has looked at how firms' operations are deeply embedded in global financial markets and accumulate capital through the financialization of companies (Allen and Pryke, 2013; Bayliss, 2014; Klagge and Anz, 2014; Loftus and March, 2016). This article furthers existing literature by combining the analysis of these three modes of accumulation. Extending previous research, the article calls attention to empirical cases where pressures from shareholders and global financial markets to households, as well as pressures from utility providers to households are mediated through parent company–subsidiary relations.

The Hungarian case is enlightening because of the rapid succession of two strikingly different institutional and spatial configurations in regard to energy provision. The first phase, starting in the second half of the 1990s, was marked by the privatization and liberalization of energy markets in Hungary and the formation of energy giants through mergers and acquisitions on a global scale. Starting in 2010, the second phase featured a re-nationalization of public utilities in Hungary, a changing European regulatory environment, and new pressures on energy firms from their shareholders in a context of increasingly financialized capitalism.

The article is structured as follows. The first section discusses recent literature on accumulation strategies of corporations in the energy sector, focusing on financialization, dependence, and state regulation. The next section outlines the research design. The empirical part's two subsections compare the two periods of accumulation in Hungary. The first traces the privatization and the expansion of German companies on the Hungarian market until 2010. The second phase recounts the re-nationalization of energy companies in Hungary and a rapidly changing global environment, including energy transition and growing financialization. The analysis ends in 2021, that is before the European energy price hikes of 2021/2022. The article concludes with some remarks on the analysis of accumulation strategies of transnational energy firms and outlines prospects for further research.

Multiscalar accumulation strategies of energy companies

The analysis builds on a multiscalar understanding of accumulation strategies, that is, the production and extraction of value in energy provision. Value is extracted from households and transferred through a chain of companies to global financial markets in the form of profits. The schematic structure of the analytical framework—with the relevant foci of existing literature—is summarized in Figure 1.

The first group of geographical scholarship on accumulation strategies of energy and public utility

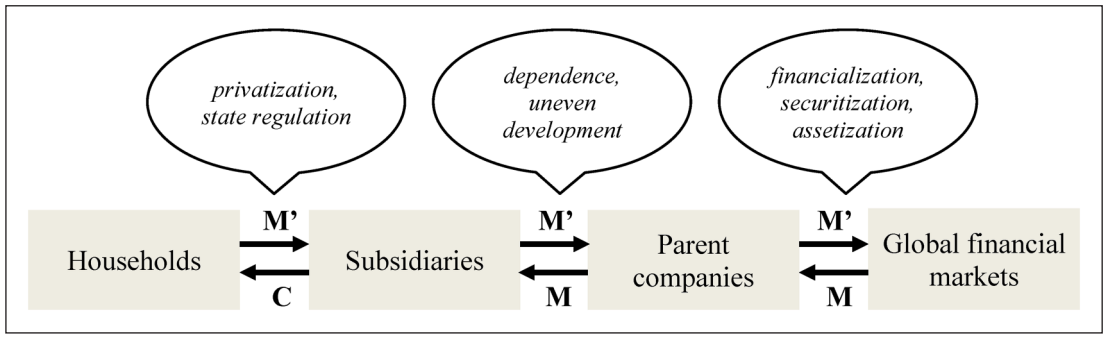

Figure 1. Accumulation processes in energy companies and corresponding keywords as per existing literature.
Source: Author's compilation.
Abbreviations used in Figure 1 use Marxian terms, with some specificities.
C: energy provided for households as commodities; M: money in different forms (such as direct investments, acquisitions, or loans); M': money flowing back toward global financial markets, with the associated profits and dividends.

firms has focused on processes of financialization, securitization, and assetization (as seen in the right segment of Figure 1). In this understanding, financialization signifies the increased extraction of value through financial products, such as exchange-traded funds (Bayliss, 2014) and bonds (Pryke and Allen, 2019). Such research documents how financial capital from global financial markets enters publicly-owned utility companies (Furlong, 2020b), particularly in non-core countries. As a result, financial investors' and shareholders' expectations of short-term returns have led to intensifying pressures on company management to increase profits and revenues. In this type of case, accumulation is based on the appropriation of nature as an asset (Birch and Muniesa, 2020; Furlong, 2020a; Langley, 2021); it materializes in shareholder values reflected by share prices and dividend payments (Zeller, 2011). Further ways of appropriating value include engineering monopoly provision of loans and the securitization of revenue streams for energy and utility companies (Allen and Pryke, 2013; Loftus and March, 2016; Purcell et al., 2020). This relation between companies and global financial markets does not include commodity flows, as global financial investors both provide and receive capital in the money form.

While financialization, securitization, and assetization also occurred in energy companies in Hungary, the institutional setting differed from the arrangement found in many core countries. Transnational energy companies' activities in Hungary have largely been financed from parent companies' resources—ranging from parent company loans to concern-level cash pools—without direct financing from global financial markets. This warrants a sharpened analytical focus on the importance of parent–subsidiary relations.

The second group of the literature on accumulation strategies addresses parent company–subsidiary relations; these are represented in the middle part of Figure 1. This process of creating and extracting value within company structures is widely discussed in the global value chain and global production networks literature (Werner, 2016), which has also focused on dependence and geographical uneven development (Hadjimichalis, 1984; Smith and Timár, 2010).

The integration of Hungary and Eastern Europe into global value chains led by German companies has been scrutinized primarily in the field of the automotive industry (Gerőcs et al., 2021; Jipa-Muşat and Prevezer, 2023; Pavlínek, 2022; Pavlínek et al., 2009). Energy companies and public utilities have not been the focus of the global value chain literature on Eastern Europe; they have also featured less prominently in works on German energy geography (Becker and Naumann, 2017; Klagge and Anz, 2014). What makes this oversight puzzling is that German energy companies have been dependent on shareholdings in other countries for the past 25–30 years. For example, during the early 2000s—the early phase of their internationalization—already

20 percent of E.ON's revenue came from outside Germany and 10 percent of RWE's revenue was provided by Eastern Europe (Rudnick, 2004; Sendner, 2003). Thus, infrastructure providers of the European core have depended on geographical expansion to Eastern Europe. In turn, given the general lack of capital to finance larger infrastructural investments (Becker, 2014), Eastern European companies have depended on investments from the European core. This section of the value chain is characterized by money exchanged between parent companies and their subsidiaries. Parent companies extract profits from subsidiaries' locations in the form of dividends and other money forms, capitalizing on geographical unevenness. Contrary to core country case studies, in which local utility companies are directly owned by global financial investors (Allen and Pryke, 2013; Loftus and March, 2016), Hungarian energy companies contributed to accumulation indirectly, through the intermission of parent companies.

The third group of literature on accumulation in energy and public utility firms has focused on the relationship between households and companies. Major fields of research have been privatization processes (which analyze who appropriates value) and state regulation (which discuss how and to what extent accumulation can take place).

The privatization of infrastructures and public utility providers has excluded citizens from ownership and access to scarce resources (Höhne and Naumann, 2018; Swyngedouw, 2005). As this scholarship emphasizes, privatization leads to the capture of value by private companies and global financial actors. It also reveals how, in cases in which public utilities remained in state ownership, these firms have nevertheless been recalibrated with the aim of turning households into revenue streams for increased profit (Becker et al., 2015). This phenomenon has been exacerbated by state indebtedness, lack of investments in public infrastructure, austerity measures, and economic crises, which have all piled pressure on publicly-owned utility companies to increase the amount of money extracted from households (Engartner, 2016; Furlong, 2020b).

Previous literature has also underlined the agency of the nation-state in regulating profits in the energy sector. In some cases, state actors allied with energy providers to ensure the profitability of the sector (Haas, 2016), while in others states have intervened to curb the profit margins of energy companies (Felsmann, 2019). Hungary provides an interesting example since several state regulation strategies were used in the past decades that affected both the profitability of local companies and the strategies of foreign parent firms.

In most empirical cases, the relation between households and energy or public utility providers is the only part of the chain where commodities are exchanged for money. Electricity or natural gas sold for households is often a non-local resource bought by utility providers from various sources—and rarely from the parent company. European integration of national electricity and gas networks in the past decades (Fabók, 2018) as well as market liberalization have made it easier to transfer energy across borders. Nevertheless, several factors (including state regulation) limit companies in this respect.

This article builds on the existing geographical scholarship on accumulation processes in the energy and public utility sector outlined above. The review identified three relations in which profits are created and channeled toward global financial markets. While most of the previous literature studied these relations separately, this article extends existing research by analyzing these accumulation processes in parallel.

Research design and methodology

In order to properly understand the accumulation strategies of German energy companies in Hungary, this article relies on a multimethod analysis.

To quantify money flows along the chain identified in Figure 1, I analyzed financial data and the companies' ownership structures. Publicly available official financial statements and annual reports of Hungarian companies were downloaded from the Ministry of Justice database (https://e-beszamolo.im.gov.hu/) for a period running from 2001 to 2020. German parent companies' financial data were primarily gathered from the Aktienführer Data Archive (https://doi.org/10.7801/aktienfuehrer). Most of the data in this analysis covers the years between 1995 and 2020. Data from missing years were appended

from published annual reports. Financial data in Hungarian Forints and Deutsche Marks were converted to Euros using Eurostat yearly exchange rates.

This article's main argument relies on the evaluation of the Hungarian subsidiaries' profits and dividends—as these are the main forms through which value is transferred from households toward global financial markets. As German parent companies' shareholder structures became increasingly splintered during this research's timespan, there is a high level of latency in terms of who receives dividends at the end of the chain. Share prices were also taken into consideration in the case of German parent companies since owners have also profited from buying and selling shares and generating income through shareholder value (Zeller, 2011).

To better understand German parent companies' strategies in Hungary and gather contextual information, I also evaluated the firms' annual reports. Annual reports reflect a corporate narrative destined for shareholders (Tokatli, 2015); as such, they provide information on the importance of Hungarian shareholdings in a given parent company.

In addition, I carried out an analysis of German media sources to decipher financial markets' and energy-sector experts' evaluation of German parent companies' presence in Hungary. For this part, I turned to the Nexis Uni database (for a similar usage, see Dannenberg et al., 2020), zooming in on two sources: Börsen-Zeitung (a German daily focusing on financial markets) and Energie & Management (a magazine on the energy sector and energy policy aimed at an expert readership). The two newspapers represent two different perspectives, are extensively archived in the database (Börsen-Zeitung since 1995, Energie & Management since 2000), and provide the most articles featuring Hungarian and German energy companies active in Hungary. The two sources contained articles of various sorts, spanning from interviews with CEOs to reports on the annual general meetings of the companies to background analyses by experts and journalists. The final sample contains 178 articles. The coding process relied on predefined categories which were eventually refined; keywords relating to company strategies and company finances, descriptors of wider market processes, and geographical metaphors (for a similar approach, see Juwet and Deruytter, 2021; Parker et al., 2018).

Accumulation strategies of German energy companies in Hungary: a tale of two periods

The empirical part of the article discusses two periods of accumulation strategies of German energy companies in Hungary. The first period follows the story of German companies' takeover of Hungarian energy providers in the electricity and natural gas sector during the mid-1990s and how they stabilized their profit flows from Hungary. The second period starts around 2010 and ends with the partial exit of the German companies from the Hungarian market. The accumulation strategies of the companies are analyzed based on the three relations introduced in the conceptual part and shown in Figure 1.

Privatization and stable accumulation (1995–2010)

Large, vertically integrated Hungarian energy trusts of state socialist times were rearranged as joint-stock state-owned companies after the political change in 1989/1990. This included their dissolution into regional monopoly providers, six in the electricity sector and six in the gas sector. Regional monopolies provided electricity and natural gas for local consumers and owned the network infrastructures as well.

Privatization took place in the second half of the 1990s. In the electricity sector, minority shares (with an option of expanding to majority ownership) were privatized following a 1995 government decision, for a sum totaling USD 1 billion (Mihályi, 2010). The tendering procedure simultaneously resulted in oligopolistic structures and aimed to dampen the powerful presence of German companies. Minority shares (46–49%) of four of the six regional electricity monopolies went to four different German companies (RWE, Energie-Versorgung Schwaben—EVS, Isar-Amperwerke, Bayernwerk), with French Electricité de France (EdF) taking another two (Figure 2). In the gas sector, four German companies

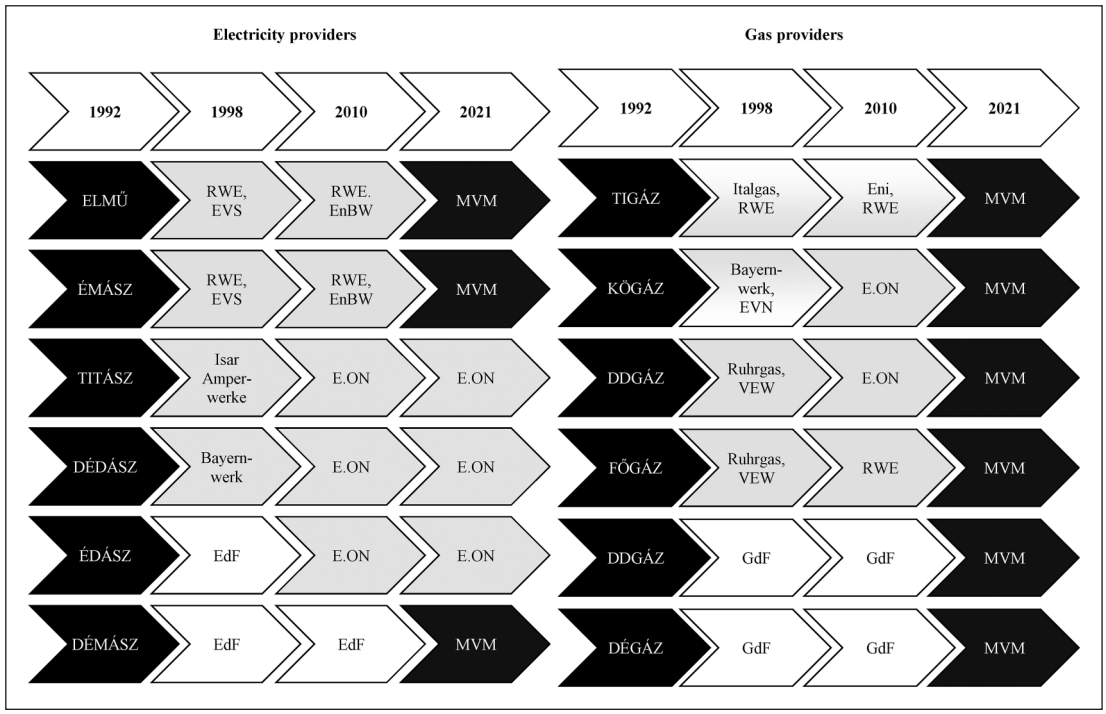

Figure 2. Major owners of Hungarian regional electricity and gas providers in four cross-sections. (The black background indicates Hungarian state-owned enterprises, gray background German companies, white background other foreign companies.)
Source: Author's compilation.
As most companies use the acronyms in official communication (that is the abbreviations are the official company names), the historical origins of the abbreviations are not disclosed in Figure 2, having no explanatory power for the decades discussed in this article.

(RWE, Bayernwerk, Ruhrgas, Vereinigte Elektrizitätswerke Westfalen—VEW) bought shares of four regional enterprises, in two cases together with an Italian (Eni) and an Austrian (EVN) company. The French Gaz de France swooped up another two regional gas companies (Mihályi, 2010) (Figure 2). Geographically, gas and electricity holdings of the same German companies did not overlap.

In the electricity sector, all power plants were privatized with the exception of the country's single nuclear power plant. The consortium of RWE and EVS bought 38 percent (and then 70%) of shares of the largest lignite power plant. The power transmission system remained in state ownership. In the gas sector, natural gas production and import remained in the hands of the domestic oil and gas company MOL (itself partly privatized), from which company providers had to source most natural gas. Strategic gas storage capacities were also retained by MOL (Kerekes et al., 2019; Mihályi, 2010).

Given the Hungarian economy's dependence on international investments (Éber et al., 2014), creating a favorable environment for international investors was seen as crucial. This explains why the motives for privatization were different from Western European utility privatizations, where dependence on foreign capital was less characteristic (Bakker, 2003; Engartner, 2016).

Ensuring stable but limited profits for the state was an important regulatory measure. In order to ensure the profitability and attractiveness of investing in Hungary in the eyes of international investors, 8 percent returns on equity were guaranteed by law—although the concrete formula for calculating returns changed several times (Felsmann, 2019). Returns on equity were capped at 12 percent; half of profits

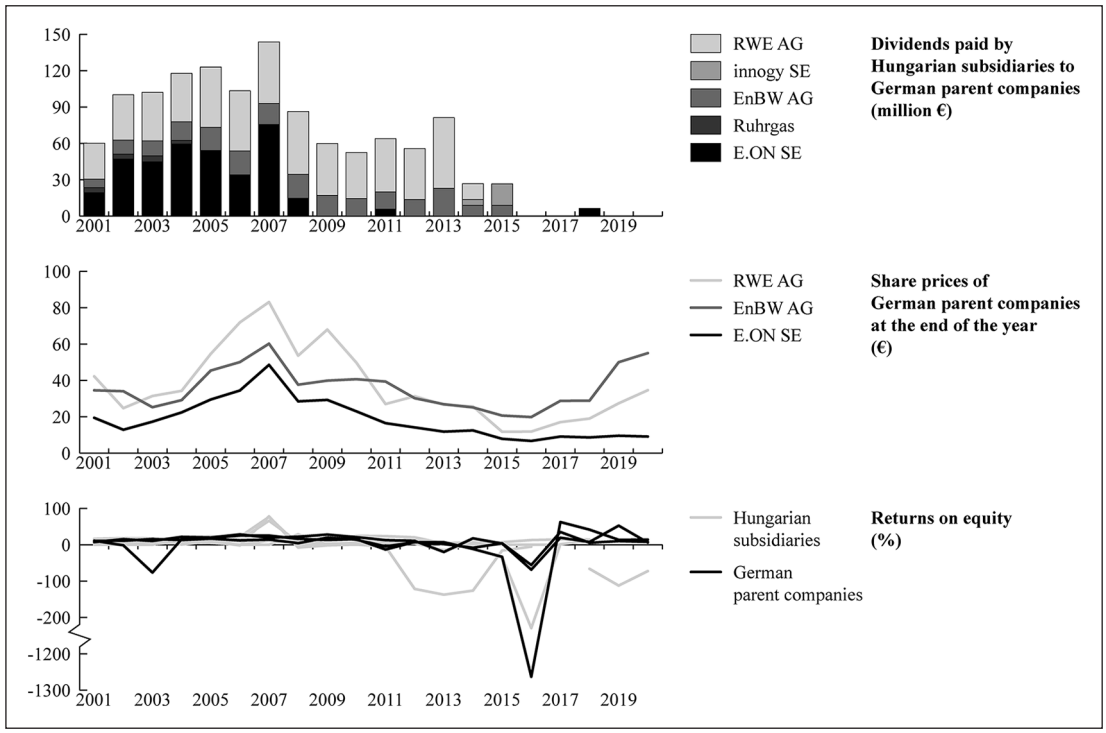

Figure 3. Financial data of Hungarian energy providers and their parent companies.
Source: Annual financial statements of the Hungarian and German companies, Hoppenstedt-Aktienführer.
In Figure 3, dividends are shown as annual values in current prices. Dividends paid to non-German shareholders of the Hungarian companies are not represented. Share prices are those at the Frankfurt Stock Exchange (Xetra).

above this limit had to be returned to consumers (Mihályi, 2010).

Second, profits of foreign companies were secured by long-term contracts between both state-owned wholesale traders and privatized gas and electricity providers. The takeover of produced electricity by the wholesale trader was guaranteed for the owners of power plants. In the gas sector, long-term contracts for Russian gas imports stabilized the supply for gas provider companies. As Mihályi (2010) notes, price regulations assured profitability for energy companies, while the risks linked to inflation and changing energy prices on the world market were borne by the state-owned wholesale trader. On the flip side, foreign companies had to cope with a devaluation of their assets because of the perpetual devaluation of the Hungarian Forint vis-à-vis the Deutsche Mark and the Euro.

State regulation also ensured stable profits by subsidizing household energy prices. In the early 1990s, energy prices were largely untethered from market prices and were directly subsidized by the state. The rise in prices after privatization—exceeding inflation and wage increases—was mitigated by the government with widespread subsidies for gas and district heating (Bouzarovski et al., 2016). Profits of foreign-owned energy providers were secured through such political arrangements, which also managed to tame potential social unrest resulting from rising energy prices. Part of the price subsidy was paid out as dividends to foreign parent companies.

Between 2001 and 2010, dividends reaching approximately €950 million were paid by Hungarian subsidiaries to German parent companies, with a peak in 2007 (Figure 3). Dividends were generally higher in the electricity sector than in the gas sector. Returns on equity (also shown in Figure 3) did not fluctuate considerably; this alone underlines the stable profitability and constant accumulation that took

place during this period. To put these figures into the context of parent companies' strategies and finances, I will now turn to the dependence of German energy companies on their Hungarian assets—and vice versa.

In a significant development in terms of state regulation, the German domestic energy market was thoroughly liberalized during the 1990s. Regional monopolies were dissolved which decreased profits for energy companies. As the chairman of the board of the energy company Bayernwerk put it: "Old friendships, alliances and partnerships no longer bear fruit. 1997 was the last year for monopoly yields" (Koen, 1998). In parallel to the "economies of density" strategy pursued on the domestic market through mergers and acquisitions, the internationalization of German energy companies also started (Becker, 2021; Maier et al., 2006), to secure profits from abroad. At the scale of the European Union, liberalization was also seen as a way to strengthen competition, decrease prices, and eradicate monopolies.

Although some West German energy companies entered new markets during the privatization of former East German energy companies in the 1990s (Becker, 2021), Eastern Europe was more promising in terms of geographical expansion. Because the existing gas networks in Hungary were better—and thus necessitated less investments (RD, 1996)—both VEW and Ruhrgas expected higher returns from Hungarian investments than from East German ones. Hungary's privatization process outpaced neighboring countries'; as such, it became the site of RWE's first large international expansion and paved the way for later investments in other countries. According to the company's annual report, in 2005 Hungarian consumers represented a 13 percent share in RWE's overall electricity consumers and 26 percent in natural gas consumers. Steady accumulation was also ensured by growth rates in Eastern Europe significantly higher than those in Western Europe.

Financially speaking, expansion to Eastern Europe was a rational step. For example, Hungarian guaranteed yields of 8 percent were similar to German market yields and exceeded what financial institutions expected from companies (6.5% or more) when providing acquisition loans in the 2000s (Sendner, 2004). High (and ever-rising) share prices (Figure 3) contributed to this geographical expansion. Returns on equity in German parent companies and their Hungarian subsidiaries were similar in the 2000s (Figure 3), with the exception of EnBW's losses that followed an aggressive acquisition strategy and price dumping on the German market around 2005 (Becker, 2021).

Widespread mergers in the German market marked the second half of the 1990s, which in turn led to a concentration on the Hungarian market: this is reflected in the ownership changes between 1998 and 2010 highlighted in Figure 2. As a result, three of the four largest energy giants on the German domestic market (E.ON, EnBW, and RWE) became major energy players in Hungary too. International business represented a significant share in all three companies. For example, in 2003 40 percent of E.ON's EBIT (earnings before interest and taxes) came from outside Germany (Pecka, 2005). In parent company dividend payments, however, Hungary represented a relatively minor share (Figure 4).

International expansions ensuring stable revenue streams and mergers within Germany were seen as an effective means of preventing a hostile takeover by French and Italian energy giants. The fear was particularly present in German energy companies with public ownership (VEW, EnBW). Shareholding municipalities, districts (Landkreise), and states (Bundesländer) put pressure on company leaders to increase earnings and dividends, in a wider context of austerity that made their budgets dependent on stable revenue streams from utility companies (Terliesner, 1999). This meant in effect that profits extracted from Hungary ended up partially financing German municipalities and other public owners. These financial streams can be seen in the bottom part of Figure 4. In Germany, market concentration was also facilitated by the Bundeskartellamt (Federal Cartel Office) and the federal government (Becker, 2021; Haas, 2016).

European Union regulation was of particular importance for German energy firms' strategies in Hungary. The association agreement between Hungary and the European Union entered into force in 1994 (with accession taking place in 2004); this guaranteed German investors that regulations would mirror the ones found across old member states.

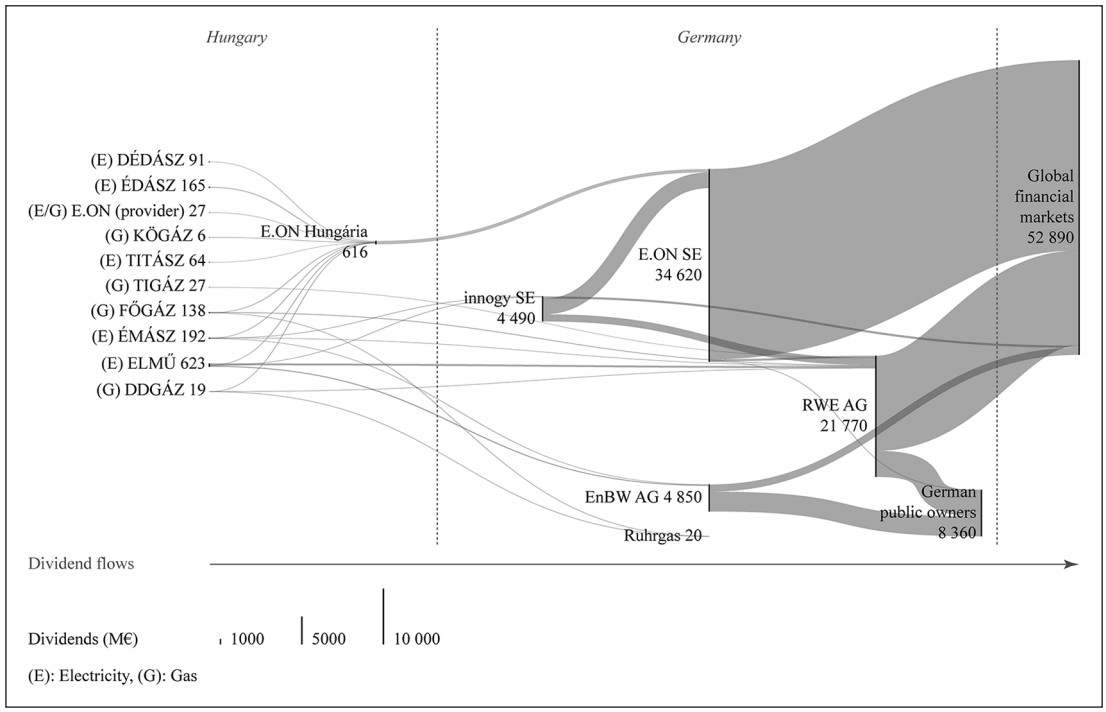

Figure 4. Dividend flows from Hungarian energy companies to German companies and global financial markets (million €, 2001–2020).

Source: Annual financial statements of the Hungarian and German companies, Hoppenstedt-Aktienführer.

Dividend flows in Figure 4, are represented similarly to those in Figure 1, flowing through subsidiary chains from left to right. Line widths are proportional to dividends paid. For example, Hungarian provider DÉDÁSZ paid 91 million € dividends to its parent company E.ON Hungária between 2001 and 2020. E.ON Hungária paid 616 million € dividends over the 20 year period to its only shareholder, E.ON SE. This represented a small fraction of dividends E.ON SE paid to its shareholders (which totalled 34 620 million €). The combined amount of dividends that cross the dashed line of the Hungary-Germany "border" equals dividends paid by Hungarian companies to German companies in the top diagram of Figure 3. For this study, only Hungarian utility provider companies were considered—but one should note that these might contain profits from other business activities before unbundling. Dividends are sums of annual values in current prices. Dividends paid to the Hungarian companies' non-German shareholders are not represented. Subsidiary structures are simplified. "Global financial markets" represent institutional investors and free-float shares.

Particularly in the electricity sector, simplified access to the Hungarian market was facilitated as part of a wider process: in 1995, four Eastern European countries—including Hungary—synchronized their electricity grids with Western Europe. This enabled an easier transport of electricity across borders, and accumulation strategies built on uneven development of the energy sector across Europe.

In addition to mergers and acquisition, securing and geographically diversifying gas sources led to stable profits in the 2000s. During this period, the share of natural gas in the energy supply has increased and was forecasted to grow in the following decades. This is why securing natural gas supplies (primarily from Russia) gradually became a key factor in stabilizing revenues for both Germany and Hungary. German energy companies founded joint ventures with Russian (and other) companies to exploit Russian gas fields and build pipelines. E.ON invested in gas storage facilities in multiple locations during the 2000s in order to decrease intra-annual price volatility risks; in the process, it also bought the strategic gas storage business from the Hungarian domestic oil and gas company MOL in 2005/2006—the company's largest investment at the time.

In sum, privatization and state regulation enabled German investments in the Hungarian gas and electricity market. While company profits were secured, money extracted directly from households was partially substituted with price subsidies. The Hungarian economy was dependent on foreign capital in the energy sector; German parent companies were dependent on revenue streams and dividends stemming from non-domestic markets. At the time, the financialization of the energy sector was still in its initial phase, with securing loans for international acquisitions being the main concern of parent companies.

Re-nationalization and the disappearance of profits (2010–2021)

The effects of the 2008 economic crisis on energy markets in Hungary and Germany as well as a changing political regime marked by the ascent of right-wing prime minister Viktor Orbán (in power since 2010) ushered in a new era of accumulation.

The major regulatory change at the national level was the re-nationalization of utility companies in Hungary which was carried out as part of a wider re-nationalization focusing on strategic non-tradable sectors (Éber et al., 2019). Profits of foreign-owned companies decreased, resulting in a partial exit of German companies from Hungary. Policies implemented before the buybacks included special, turnover-based taxes in the energy sector (Voszka, 2018) as well as price capping—which led to losses for shareholders. The regulatory changes eroded the dividend payments of utility providers (Figure 3). For example, these changes in energy policy were expected to cost RWE 60 million € in 2012 (in a year when 40 million € were handed out as dividends). State buybacks thus happened at a time when Hungarian subsidiaries offered already less valuable profit streams. Buybacks proceeded in several phases between 2013 and 2021 (Figure 2).

The total value of the buybacks was approximately 1 billion €; this included the gas storage and gas trade business of E.ON, as well as the RWE shares in Főgáz. In terms of electricity provision, E.ON handed back the household provision monopoly to the national regulator, who in turn, gave it to a state-owned company. Later, the provision of both electricity and natural gas was concentrated under the state-owned MVM Group; by 2020, it had become the third largest company in Hungary and was planning to expand to the Eastern European energy market. Nevertheless—as expert calculations showed—German and other international companies were largely able to exit from their Hungarian businesses having overall turned a profit during their time in the country (Mihályi, 2019).

The re-nationalization and re-municipalization of utility companies across Europe have commonly been driven by the goal of turning them into non-profits—but this has not been the case in Hungary (Becker et al., 2015; Voszka, 2018). In Hungary, state ownership did not eliminate dividend payments until 2020, and democratic control over the management of state-owned enterprises is also lacking. The state-owned energy company MVM remains a capitalist enterprise to this day, without plans for turning energy provision into commons. What is more, the energy sector became a field in which the state has actively contributed to the enrichment of the national bourgeoisie. One of the processes' key figures in the past years has been Lőrinc Mészáros, a friend of Prime Minister Viktor Orbán and currently the third richest person in Hungary (*Hungary Today*, 2022). The Mészáros-controlled Opus Global enterprise took over gas and electricity networks in Eastern Hungary (the latter from German E.ON) and bought the country's only lignite power plant from German EnBW and RWE in 2018. Later, this power plant was sold to the state-owned MVM Group with Opus Global turning a profit on the deal.

Interestingly, German exits from the Hungarian market were significantly less covered in the two German media outlets under study—in particular, compared to the abundance of Hungary-related articles during the 1990s and 2000s. It is also striking that the few articles that do address the topic feature neutral statements about a "difficult market" or "increasing regulation," without mentioning company losses in Hungary and the circumstances surrounding these events. Annual reports of the parent companies spoke about a "strategic realignment" (E.ON) of company activities or about a "deteriorating economic environment" (EnBW) when referring

to buybacks by the Hungarian state, with only RWE being more explicit about regulatory pressures being the cause of its exit.

The price regulation of utility costs for households is the last important factor in the changing regulatory environment at the national level. Contrary to the previous era, in which the state directly paid providers the difference between household energy prices and market prices, the Orbán government reduced utility costs by 23–25 percent for household consumers in 2013 and 2014 and froze prices until 2022 (Szép and Weiner, 2020). Energy providers in foreign ownership suffered losses and dividend payments declined rapidly (Felsmann, 2014), as can be seen in Figure 3. As such, price regulation was a decisive factor in paving the way for buybacks.

The consumer price reduction has been a popular government decision, but it did not solve energy poverty issues (Bouzarovski et al., 2016). In addition, as Szabo et al. (2020) emphasize, losses resulting from household provision cannot be easily cross-financed from energy prices for business consumers since Hungary necessitates low energy prices as a cheap manufacturing location in global value chains. Serious tensions related to the financing of infrastructural investments and the energy transition—already exacerbated during the energy price hike of 2021/2022—can already be foreseen. Contrary to the previous three decades, during which energy provision was a profitable business, electricity and gas price capping resulted in losses in the range of 1 billion € for the state-owned MVM Group in 2022 (Weinhardt, 2022); this is to be recovered from the state budget in the form of capital injection.

German parent companies' shifting strategic objectives and changing profit outlooks in different business units also played an important role in their partial exit from Hungary. The most decisive factors in the German domestic market were the transition to renewables, the closure of coal mines and coal-based power plants, as well as the exit from nuclear power (see also Quitzow and Thielges, 2022). The 2010s were marked by divestment from fossil and nuclear power production and investments in renewables (Becker, 2021; Haas, 2016). Renewables promised higher, but less certain profits according to market experts (CRU, 2019). The natural gas sector accrued losses, because of decreasing demand (Focht, 2013). Therefore, the takeover of the Hungarian gas storage by MVM in 2013 was embedded in a Europe-wide development that saw E.ON sell its less profitable business units. This strategic decision took place amid decreasing share prices and volatile returns on equity, as seen in Figure 3.

On the European and global scale, financialization and assetization have been influencing German companies' strategies, particularly in the case of RWE and E.ON, both listed companies with a high share of institutional investors among their owners. Increasing shareholder value has become more prominent in the annual company reports and media sources analyzed as part of this research. CEOs were emphasizing the companies' credit ratings as the main drivers behind strategic decisions during the rapid expansion of the 2000s, but this markedly increased in the 2010s. The annual reports also discussed how to cover losses and decrease risks of currency exchange rates (including in terms of Hungarian investments) with derivatives and other financial instruments.

Financialization and assetization determined the importance of Eastern European markets for the German parent companies. During the expansion of the previous decades, Eastern Europe was a market that brought relatively high profits. In the 2010s, the geographical specificities of markets were often hidden in company structures, as previously separate holdings in different countries were merged into holding companies (Beteiligungs-GmbH). This obscured the geographical disparities of profits for shareholders. For example, from the mid-2010s onwards, E.ON did not report on Hungarian developments in its annual reports. In doing so, the abstract shareholder value of the company as a whole replaced the sale of electricity and gas or growth outlooks in specific geographical locations as a source of profit.

Dependence on different geographical markets was also reduced as the result of E.ON and RWE carving out European markets among themselves in a concerted effort. This was the result of an effort to stabilize shareholder values of the two companies after questionable company strategies in the 2010s

(Becker, 2021) shown by a rapid decrease in share prices (Figure 3). Former RWE subsidiary Innogy SE was taken over by E.ON, in a move approved by the European Commission on the condition that E.ON divests from Hungary (European Commission, 2019)—in effect paving the way for the takeover by the Hungarian state-owned company in 2021 (Figure 2). Analyzed media sources show that in the wake of the deal, both companies hoped that future profits would be secured by extending monopolistic relations in European markets.

Divestment from the Hungarian lignite power plant by RWE and EnBW was also driven by the 2017 EU emission trade reform. As a result, the two German parent companies divested from fossil fuels internationally. Therefore, a takeover by the Hungarian Opus Global (and later by the state-owned MVM Group) was in effect a good operation for the German companies—which, furthermore, generated consequent profit given the high selling price reported by media (Stubnya, 2019). This was less the case for Hungarian taxpayers, however, who are paying the price of the transformation to a gas-powered plant and the environmental rehabilitation of the lignite mine after the takeover by MVM.

In sum, state regulation paved the way for re-nationalization and a halt to profits and dividends siphoned off from Hungary by energy companies' German parents. The importance of uneven development and dependence changed in the context of parent companies: reshuffling holdings across countries to reclaim revenue streams has contributed to divestment from Hungary. Financialization has become more prominent, and global financial markets and increasing shareholder values have become crucial considerations for German parent companies.

Conclusion

The early 2020s marked the end of an era during which transnational energy companies dominated electricity and natural gas provision in Hungary. This moment thus offered a good opportunity to re-evaluate why these companies found it profitable to invest in Hungary in the 1990s and 2000s, and why this has changed in the 2010s.

On a surface level, both the privatization of Hungarian energy providers in the 1990s and the re-nationalization of the 2010s show similarities to European and global examples of privatization, re-nationalization, and re-municipalization. However, as this analysis shows, the Hungarian case was different in several crucial aspects. This study underlines that parent companies' strategic decisions and the international context of financialization have influenced windows of opportunity for the state to privatize and re-nationalize public utilities.

Analytically, this article sheds light on the importance of a multiscalar understanding of energy companies' accumulation strategies. In previous literature, financialization, dependence, and state regulation have often been treated as different aspects of accumulation within transnational companies. The article shows that forces of global financialized capitalist accumulation, the mutual dependence of core countries' and Hungary's energy markets, as well as European and national level regulations, all contributed to the shifting strategies of German energy companies operating in Hungary. The study provides empirical evidence on when, how, and to what extent profits were accumulated in and siphoned off from Hungary by German energy giants. In doing so, the article offers an alternative reading to existing analyses on Hungarian privatization (Mihályi, 2010) and re-nationalization (Mihályi, 2019), as well as extended recent narratives about Hungarian energy policies (Szabo et al., 2020) and energy companies' financial analyses (Felsmann, 2014).

Methodologically, the analysis extends firm-level analyses of energy and public utility companies by looking at transnational flows of profits and dividends in order to understand geographically uneven development. In previous studies, direct linkages between households and global financial markets were emphasized (Pryke and Allen, 2019), but power relations between firm headquarters and subsidiary companies were not taken into account. By combining a multiscalar analysis of the financial data of companies with media analysis and the evaluation of a variety of textual sources, the Hungarian case study highlights the importance of granular research into intra-company developments with a mixed-method research design. The article extends the

global value chain literature on Eastern European dependent development (Pavlínek, 2022) by arguing that value has not only been extracted from the region by manufacturing companies but also through utility providers.

Considering further research: first, to critically examine the effects of re-nationalization of energy provision in Hungary. Contrasting and comparing the democratic re-municipalization of utilities with how our relations with nature and natural resources were rearranged in different geographical contexts (Becker et al., 2015; Swyngedouw, 2005) would enable the ability to contest current Hungarian trends of re-nationalization in which the state furthers the logic of accumulation (despite public ownership of the companies). Second, the energy crisis of 2021/2022 in Europe, ongoing political debates, and steps toward detaching the European Union from Russian energy sources all mark the end of the previous energy era built on Russian oil and gas. This new period poses new challenges for firms, states, and households, in particular in a wider context of moving toward carbon neutrality.

As the Hungarian case study shows, a simple eradication of German owners' profits through re-nationalization does not necessarily entail an end to accumulation, nor does it necessarily contribute to equal and cheap access of households to energy. Embedding the analysis of the energy sector into an understanding of dependencies in geographically uneven capitalist development would also help in providing democratic and radical alternatives to ever-present calls for an eradication of profits driven by the extension of market forces.

Acknowledgements

The author thanks Lilla Jani-Dán for research assistance. Valuable comments for a previous version of the manuscript were shared by members of the Critical Geography Working Group at the Goethe University Frankfurt am Main, colleagues at the Department of Social and Economic Geography at Eötvös Loránd University, Budapest, as well as Márton Fabók, Csaba Jelinek, Zsuzsanna Pósfai and John Szabó. Áron Rossman-Kiss helped with language editing. The author also thanks the anonymous reviewers for their valuable comments on the article.

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by a short-term research stay at the Department of Human Geography, Goethe University, Frankfurt am Main, provided by the German Academic Exchange Service (DAAD).

ORCID iD

Márton Czirfusz https://orcid.org/0000-0002-5118-5661

References

Allen J and Pryke M (2013) Financialising household water: Thames Water, MEIF, and "ring-fenced" politics. *Cambridge Journal of Regions, Economy and Society* 6(3): 419–439.

Bakker KJ (2003) A political ecology of water privatization. *Studies in Political Economy* 70(1): 35–58.

Bayliss K (2014) The financialization of water. *Review of Radical Political Economics* 46(3): 292–307.

Becker J (2014) Finanzialisierung und globale Peripherie. In: Heires M and Nölke A (eds) *Politische Ökonomie der Finanzialisierung* (Globale Politische Ökonomie). Wiesbaden: Springer, pp. 181–196.

Becker P (2021) *Vom Stromkartell zur Energiewende: Aufstieg und Krise der deutschen Stromkonzerne* (3rd edn). ZNER-Schriftenreihe. Frankfurt am Main: Fachmedien Recht und Wirtschaft.

Becker S and Naumann M (2017) Rescaling energy? Räumliche Neuordnungen in der deutschen Energiewende. *Geographica Helvetica* 72(3): 329–339.

Becker S, Beveridge R and Naumann M (2015) Remunicipalization in German cities: contesting neo-liberalism and reimagining urban governance? *Space and Polity* 19(1): 76–90.

Birch K and Muniesa F (2020) Introduction: assetization and technoscientific capitalism. In: Birch K and Muniesa F (eds) *Assetization: Turning Things into Assets in Technoscientific Capitalism*. Cambridge: MIT Press, pp. 1–41.

Bouzarovski S, Herrero ST, Petrova S and Ürge-Vorsatz D (2016) Unpacking the spaces and politics of energy poverty: path-dependencies, deprivation and

fuel switching in post-communist Hungary. *Local Environment* 21(9): 1151–1170.

CRU (2019) Eon und RWE rücken enger zusammen; Brüsseler Kartellwächter erlauben Innogy—Milliardendeal unter geringen Auflagen—RWE-CEO Schmitz wird Eon-Aufsichtsrat. *Börsen-Zeitung*, 18 September: 7.

Dannenberg P, Fuchs M, Riedler T and Wiedemann C (2020) Digital transition by COVID-19 Pandemic? The German food online retail. *Tijdschrift Voor Economische en Sociale Geografie* 111(3): 543–560.

Éber MÁ, Gagyi Á, Gerőcs T and Jelinek C (2014) 1989: szempontok a rendszerváltás globális perspektívájú politikai gazdaságtanához. *Fordulat* 21: 10–63.

Éber MÁ, Gagyi Gerőcs ÁT and Jelinek C (2019) 2008–2018: Válság és hegemónia Magyarországon. *Fordulat* 26: 28–75.

Engartner T (2016) *Staat im Ausverkauf: Privatisierung in Deutschland*. Frankfurt: Campus Verlag.

European Commission (2019) Commission conditionally clears E.ON's acquisition of innogy. Available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_19_5582 (accessed 15 July 2021).

Fabók M (2018) Materiális infrastruktúrák és társadalmi térbeliség: a hazai áramellátás átalakulásai. In: Faragó L (ed.) *Kortárs térelméletek közép-kelet-európai kontextusban*. Budapest: Dialóg Campus Kiadó, pp. 383–397.

Felsmann B (2014) Winners and losers in the liberalized energy retail sector in Hungary: a co-evolutionary approach. *Theory, Methodology, Practice* 10(2): 25–36.

Felsmann B (2019) Az elismert eszközértéken alapuló megtérülés kérdései a magyarországi gázelosztás példáján. In: Valentiny P, Nagy CI and Berezvai Z (eds) *Verseny és szabályozás 2018*. Budapest: MTA KRTK Közgazdaság-tudományi Intézet, pp. 184–209.

Focht P (2013) Ärger mit dem Spread. *Energie & Management*, 22 February.

Furlong K (2020a) Geographies of infrastructure 1: economies. *Progress in Human Geography* 44(3): 572–582.

Furlong K (2020b) Trickle-down debt: infrastructure, development, and financialisation, Medellín 1960–2013. *Transactions of the Institute of British Geographers* 45(2): 406–419.

Gerőcs T, Meszmann TT and Pinkasz A (2021) Uneven development in the european automotive industry. Labor fragmentation and value-added production in the Hungarian semi-periphery. In: Komlosy A and Musić G (eds) *Global Commodity Chains and Labor Relations*. Leiden: Brill, pp. 274–296.

Haas T (2016) Die Energiewende unter dem Druck (skalarer) Kräfteverschiebungen. Eine Analyse des EEG 2.0. *PROKLA. Zeitschrift für kritische Sozialwissenschaft* 46(184): 365–381.

Hadjimichalis C (1984) The geographical transfer of value: notes on the spatiality of capitalism. *Environment and Planning D: Society and Space* 2(3): 329–345.

Harrison C (2022) Electricity capital and accumulation strategies in the U.S. electricity system. *Environment and Planning E: Nature and Space* 5(4): 1716–1737.

Höhne S and Naumann M (2018) Infrastruktur. Zur Analyse sozio-technischer Netzwerke zwischen altem und neuem Materialismus. In: Vogelpohl A, Michel B, Lebuhn H, et al. (eds) *Raumproduktionen II. Theoretische Kontroversen und politische Auseinandersetzungen*. Münster: Westfälisches Dampfboot, pp. 16–37.

Hungary Today (2022) Richest Hungarians revealed with a change in first place. *Hungary Today*, 29 December. Available at: https://hungarytoday.hu/richest-hungarians-revealed-with-change-in-first-place/

Jipa-Muşat I and Prevezer M (2023) Trajectories of value capture, strategic coupling and labour regime reconfiguration: coal mining, automotives and business services in post-socialist Romania. *European Urban and Regional Studies*. Epub ahead of print 10 April. DOI: 10.1177/09697764231165200.

Juwet G and Deruytter L (2021) Territorial and institutional obduracy in regional transition: politicising the case of Flanders' energy distribution system. *Cambridge Journal of Regions, Economy and Society* 14(2): 301–320.

Kerekes L, Szörényi G and Diallo A (2019) Volt és van feszültség—a villamosenergia-szektor szabályozásának fordulópontjai Magyarországon. *Vezetéstudomány/Budapest Management Review* 50(1): 4–18.

Klagge B and Anz J (2014) Finanzialisierung der Windenergienutzung in Deutschland? In: Heires M and Nölke A (eds) *Politische Ökonomie der Finanzialisierung (Globale Politische Ökonomie)*. Wiesbaden: Springer, pp. 241–257.

Koen (1998) Bayernwerk mit Rekordergebnis; 2, 2 Mrd. DM verdient—Letztes Abschöpfen der Monopolrenditen. *Börsen-Zeitung*, 18 March: 7.

Langley P (2021) Assets and assetization in financialized capitalism. *Review of International Political Economy* 28(2): 382–393.

Loftus A and March H (2016) Financializing desalination: rethinking the returns of big infrastructure. *International Journal of Urban and Regional Research* 40(1): 46–61.

Maier K-D, Petz M and Cord M (2006) Der Stau des großen Geldes. *Energie & Management*, 26 January.

Mihályi P (2010) *A magyar privatizáció enciklopédiája*. Veszprém: Pannon Egyetemi Könyvkiadó and Budapest: MTA Közgazdaságtudományi Intézet.

Mihályi P (2019) Votes, ideology and self-enrichment: the campaign of renationalization after 2010. In: Kovács JM and Trencsényi B (eds) *Brave New Hungary. Mapping the System of National Cooperation*. London: Lexington Books and Rowman & Littlefield, pp. 185–210.

Parker R, Cox S and Thompson P (2018) Financialization and value-based control: lessons from the Australian mining supply chain. *Economic Geography* 94(1): 49–67.

Pavlínek P (2022) Relative positions of countries in the core-periphery structure of the European automotive industry. *European Urban and Regional Studies* 29(1): 59–84.

Pavlínek P, Domański B and Guzik R (2009) Industrial upgrading through foreign direct investment in central European automotive manufacturing. *European Urban and Regional Studies* 16(1): 43–63.

Pecka M (2005) Vision vom weltweit führenden Energieversorger. *Energie & Management*, 17 March.

Pryke M and Allen J (2019) Financialising urban water infrastructure: extracting local value, distributing value globally. *Urban Studies* 56(7): 1326–1346.

Purcell TF, Loftus A and March H (2020) Value–rent–finance. *Progress in Human Geography* 44(3): 437–456.

Quitzow R and Thielges S (2022) The German energy transition as soft power. *Review of International Political Economy* 29(2): 598–623.

RD (1996) Kein schnelles Geld mit Gas in Ungarn; Ruhrgas und VEW begreifen sich als strategische Investoren. *Börsen-Zeitung*, 8 May: 17.

Rudnick B (2004) Die Versorger haben die Startlöcher in Osteuropa längst verlassen; Eon und RWE haben ein Netz von Beteiligungen gezogen—Know-how aus der Liberalisierung wird transferiert. *Börsen-Zeitung*, 28 April: 12.

Sendner H (2003) Teyssen: "Emission Trading hat strategische Sprengkraft." *Energie & Management*, 7 October.

Sendner H (2004) E.ON Energie: Teyssen verteidigt hohe Strompreise. *Energie & Management*, 22 June.

Smith A and Timár J (2010) Uneven transformations: space, economy and society 20 years after the collapse of state socialism. *European Urban and Regional Studies* 17(2): 115–125.

Stubnya B (2019) Ha megveszi az állam a Mátrai Erőművet, nagy eséllyel évi sokmilliárdos veszteség hullik a nyakába. *G7*, 27 November. Available at: https://g7.hu/vallalat/20191127/ha-megveszi-az-allam-a-matrai-eromuvet-nagy-esellyel-evi-sokmilliardos-veszteseg-hullik-a-nyakaba/

Swyngedouw E (2005) Dispossessing H2O: the contested terrain of water privatization. *Capitalism Nature Socialism* 16(1): 81–98.

Szabo J and Deák A (2021) The CEE energy transition: recurring fifty-year-old dynamics? In: Mišík M and Oravcová V (eds) *From Economic to Energy Transition: Three Decades of Transitions in Central and Eastern Europe. Energy, Climate and the Environment*. Cham: Springer, pp. 63–96.

Szabo J, Weiner C and Deák A (2020) Energy governance in Hungary. In: Knodt M and Kemmerzell J (eds) *Handbook of Energy Governance in Europe*. Cham: Springer, pp. 1–32.

Szép T and Weiner C (2020) The Hungarian *utility cost reduction programme. an impact assessment*. Working paper no. 259, 22 April. Budapest: Institute of World Economics, Centre for Economic and Regional Studies. Available at: http://real.mtak.hu/id/eprint/108270

Terliesner S (1999) VEW sieht sich selbst nicht als Uebernahmekandidat an; Komplizierte Aktionaersstruktur—Verbundangebote an Kommunen—Starke Position bei Gas. *Börsen-Zeitung*, 10 August: 21.

Tokatli N (2015) Single-firm case studies in economic geography: some methodological reflections on the case of Zara. *Journal of Economic Geography* 15(3): 631–647.

Voszka É (2018) Nationalisation in Hungary in the post-crisis years: a specific twist on a European trend? *Europe-Asia Studies* 70(8): 1281–1302.

Weinhardt A (2022) Kiszámoltuk: több százmilliárd forintba kerül a rezsicsökkentés az adófizetőknek, sok múlik Putyin ukrajnai lépésén is. *Portfolio*, 26 January. Available at: https://www.portfolio.hu/gazdasag/20220126/kiszamoltuk-tobb-szazmilliard-forintba-kerul-a-rezsicsokkentes-az-adofizetoknek-sok-mulik-putyin-ukrajnai-lepesen-is-523039

Werner M (2016) Global production networks and uneven development: exploring geographies of devaluation, disinvestment, and exclusion. *Geography Compass* 10(11): 457–469.

Zeller C (2011) Verschiebungen der Krise im globalen Rentierregime. *Zeitschrift für Wirtschaftsgeographie* 55(1–2): 65–83.