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Idiosyncrasies of the oligarchic elite: On the political economy of wealth concentration in Austria

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January 2025

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Abstract

The increasing concentration of income and wealth on the national and international level is a topic that has received increased attention both in social science research as well as public policy debates. While data availability is a well-known and often-lamented problem in wealth studies, especially the group of HNW-households remains largely unexplored. In this study, we aim to contribute to a deeper understanding of the impact of HNW-households and their networks on current wealth distributions. Based on an extensive data set of company ownerships of a sample of the 62 wealthiest Austrian HNW-households, we apply a social network analysis of two-mode networks (institutions & persons) to highlight networks of corporate ownership and (indirect) control. An overall finding is that numerous HNW-networks involve a multitude of legal entities, creating complex and opaque control structures that complicates the tracing of economic ownership. Besides this, our findings show several idiosyncrasies of the super-rich.

Keywords: Super-rich, High Net Worth individuals and families, Wealth Concentration, Social Network Analysis, Austria.

1. Introduction and Motivation

The increasing concentration of income and wealth on the national and international level is a topic that has received increased attention both in social science research and public policy debates. Even severe crises such as the GFC in 2008 or the recent Covid-Pandemic have not led to any trend reversal in this respect. On the contrary, the wealth of the top 1% has continued to rise throughout these crises. The crisis-resilience of wealth concentration can be observed for almost all countries and is again particularly strong for the top 1% or even more for the top 0,001% of the wealthiest households, a very small group of an “oligarchic elite” (Beckert 2024). In this paper, we particularly focus on the latter group of the top ‘person per million’ (ppm) and the example of Austria, a country with a high concentration of wealth. While due to different data availability issues, it is challenging to come up with exact data on the wealth share of very wealthy individuals and households, other authors and studies estimate the wealth share of the top 1% in Austria from 25% to 41%. The very ambitious and widely-used World Inequality Database estimates this group's wealth share in Austria to be about 30% in 2022. And from a comparative perspective, Pfeffer and Waitkus (2021) show that wealth concentration among the wealthiest percentiles is exceptionally high in Austria and argue that this is mostly driven by inequalities in the housing sector.

Yet, not only the mere concentration of wealth and economic power in the hands of the top 1 ppm of the wealth distribution but even the huge “capacities of wealth” (Beckert 2024) raise academic but also political concerns for democratic societies. HNW-households “can exercise significant economic, ideological, and political power, through which they can secure their material interests and gain exceptionally privileged status positions” (Beckert 2024, 482). Thus, the extreme concentration of wealth has created a privileged parallel reality largely detached from the broader society.

1.1. The increasing policy relevance of the top ppm

Despite the super-rich often remaining a blind spot in modern capitalism, the public debate on wealth inequality has gained momentum in Austria and beyond in recent years.

First, the crisis-resilience of HNW individuals and households is at the center of a moral debate and has led to several calls to introduce wealth taxes. Since the net wealth tax was abolished in 1994 and the inheritance and gift tax in 2008, Austria has one of the lowest wealth tax rates in international comparison (OECD 2022; Chancel et al. 2022). The real estate transfer tax, the only remaining wealth tax in Austria, therefore only leads to a share of wealth taxes of 1.4% of total tax revenue in 2020, which is far below the OECD average of about 5.5% (OECD 2022). Accordingly, comparative European studies have shown that the effect of inheritances is particularly strong in Austria, and thus, intergenerational economic mobility is very low in Austria. More concretely, Fessler and Schuerz (2015) have shown that, on average, inheritances increase the position in the wealth distribution by 52%. However, the inter-generational persistence of wealth concentration, particularly among the top ppm was also shown for other national contexts (Korom, Lutter, and Beckert 2017; Hansen and Toft 2021; Beckert 2022)

Second, several authors have argued that a high concentration of wealth also bears some non-

trivial societal consequences, as HNW-households can often use their economic power to influence political decisions and thus enlarge public power (Shaxson and Godfrey 2024; Tait 2019; Grewal 2014). They do this either directly by making generous donations to individual politicians or political parties (Page, Seawright, and Lacombe 2019) or indirectly by owning or holding shares of prominent and influential media companies to influence public debate according to their interests (Grisold and Preston 2020). While such phenomena have been observed and documented in various countries, Austria has been the focus of several corruption scandals involving the right-wing conservative government in recent years (Austrian Parliament 2023; Kurier 2024; Friedrichs 2024). In this context, the involvement of several wealthy individuals and the potential impact on economic and financial policies were at the center of controversial debates. However, besides these recent scandals, wealthy individuals have also made several other attempts to gain political impact. The most prominent example was the political engagement of the Austro-Canadian billionaire Frank Stronach, who funded and financially supported a political party which made it into the Austrian Parliament in the 2010s.

Another Austrian example is the industrialist Hans Peter Haselsteiner, who initially sat in Parliament for the 'Liberal Forum' and then, over the last few years, donated several million euros to their successor party, 'NEOS.' Similarly, Heidi Goess-Horten, Stefan Pierer, Klaus Ortner, and many more donated vast amounts of money to the Austrian People's Party (ÖVP) (Austrian Court of Audit 2024). Against this background, wealth concentration can also be discussed as a severe threat to democracy, as it provides a very small number of people privileged access to political power and allows them to impact public debates.

Third, there is also an increasing debate on the ecological dimension of wealth discrepancy, i.e., the very unequal distribution of carbon emissions among world regions, especially between HNW-households and the rest. Besides the obvious fact that the highly luxurious lifestyles of super-rich people in general are also associated with a high ecological impact (Otto et al. 2019), private space tourism is yet another particular case. The estimated carbon dioxide emissions resulting from the fuel consumption required for a private space flight are approximately 300 tons (Dallas et al. 2020; Gammon 2021), which equates to roughly 25,000 times the average daily per capita global emissions.

To sum up, wealth discrepancy is a multi-dimensional societal challenge that still increases in most countries, even throughout crises. Yet, as we will show in this paper, there are several blind spots in the academic literature, particularly concerning the upper group in the wealth distribution and the small fraction of very wealthy high net worth individuals.

1.2. A network perspective on the top ppm

While a growing body of research is trying to measure the wealth of the top ppm of the wealth distribution, there is still very little information about how their wealth is structured and how they are connected. Therefore, our paper provides an explorative network analyses approach to map the complex connections among HNW-households. Like Rossier et al. (2021), in their paper on Swiss elites, we compiled a unique data set of Austrian HNW-households and apply a social network analysis to uncover the structure of their corporate ownership and their influence

across corporate and political landscapes. Network analysis is particularly well-suited for this study as it allows for the visualization and quantification of complex interrelationships and dependencies among HNW-households, offering insights into their connections' structure, influence and control. While this paper is influenced by the approach of Rossier et al. (2021) to use network analyses to look at HNW-households our focus and methodological approach differ. Rossier et al. examine the century-long dynamics of Swiss elite networks through network analysis, focusing on integration and fragmentation over time. In contrast, this study centers on contemporary Austrian wealth elites, using a case-specific approach of analyzing a unique dataset of company data.

More precisely, we look at the wealthiest 62 HNW-households in Austria as defined by the Trend list of the richest Austrians (Trend.at 2023). We are able to show that the wealthiest HNW-households in Austria are part of huge networks that span across sectors and are often connected among each other. By applying a cluster analysis, we illustrate how HNW-networks differ based on the sources of wealth and the composition of their networks of different legal forms of companies, cooperations, and trusts. Different network measures and tools, such as community detection, allow highlighting of central figures within and between HNW-networks, acting as key players and gatekeepers who can influence multiple other actors. The control over widespread networks allows HNW-households to gain potential political and societal impact. In light of this context, this paper seeks to contribute to the discourse on wealth concentration by providing a comprehensive network analysis highlighting various channels of influence of HNW individuals and families across different societal sectors in Austria. Our focus on the wealthiest Austrian individuals and families allows us to illuminate the typical arenas of connection among HNW-households and the structural dimensions of wealth concentration. By aiming to highlight the idiosyncrasies of the super-rich, we seek to address the following research questions: First, what are the typical structures of company networks within each HNW-household? How are these households interconnected with each other? What kinds of institutions, individuals, and foundations are integral to their networks? Second, how and to what extent do the super-rich in Austria endeavor to exert influence across different social fields (e.g. economy, politics, media, sports, and society)? Which legal forms and constructs play a significant role in the networking of HNW individuals and families?

The remainder of the paper is structured as follows: Section 2 presents results from an extensive literature review related to HNW-households. Section 3 describes the data and data collection strategy we used in our study. Section 4 describes our methodological approach, and section 5 discusses our main results. Finally, section 6 provides some conclusions.

2. Literature Review

A review of the literature on HNW-individuals and families and extreme wealth concentration shows a growing interest in studying the super-rich in recent years (Beckert 2024; Savage 2021; Saez and Zucman 2022; Chancel et al. 2022). However, there are still a lot of research gaps that need further investigation, such as accounting for missing wealth data, analyzing the main common characteristics of super-rich in different national contexts, and examining the structures and networks that enable them to gain wealth and political influence (Koh, Wissink, and Forrest 2016).

Much of the challenges associated with research in this field are due to a severe lack of statistical data. Macro-economists have developed different mathematical methods to account for worldwide capital and wealth distribution and estimate the wealth of the ‘missing rich.’ Studies use various statistical correction methods to address the problem of super-rich households either not being part of the sample in official wealth surveys (‘non-observation-bias’), are unwilling to participate (‘differential non-response bias’) or estimating their wealth as too low (‘underreporting’) (Chakraborty and Walzl 2018; Wildauer and Kapeller 2022; Hope and Limberg 2022). However, since the degree of wealth concentration is extremely high, even a small number of HNW-households significantly distort the distribution. In Austria, for instance the estimations for the top 1% share of total wealth vary between 25% without statistical correction (Fessler, Lindner, and Schürz 2019) and 41% with statistical correction (Wildauer and Kapeller 2022).

Other works analyze the socio-demographic characteristics of super-rich: Freund and Oliver (2016) describe changes in extreme wealth and find that half of Europe’s billionaires inherited their wealth, which is particularly relevant for the Austrian case, where inheritance taxes were abolished entirely in 2008. Anand and Segal (2017) provide a global perspective on inequality by showing that in 2012, advanced economies comprised only 14% of the world’s population but 77% of the global top 1%. At the same time, other studies, such as Wai and Lincoln (2016), chose more individual, psychological explanations for wealth and drew a connection between elite education, cognitive ability, and the super-rich. Moreover, they found that ‘[s]mart and more educated people tended to be wealthier, give more, and have wider, wealthier, and more powerful social networks.’ (Wai and Lincoln 2016)

Another research strand that systematically studies networks of powerful individuals is elite studies (Bühlman et al. 2017; Hartmann, 2018; Lunding, Ellersgaard, and Larsen 2020). Korom (2013), for instance, conducted a study about Austria’s economic elites, where he analyzed the background, political affiliations, and networks of Austria’s top managers. However, the target group of elite studies differs from our paper because ‘elites’ are not to be equated with ‘super-rich’. In many studies, the criteria for being part of the elite is whether individuals have the power to influence society through their (societal) position, which does not necessarily include being super-rich (Hartmann 2018). Nevertheless, recent studies stress the practical implications of wealth stratification and argue that, particularly, the wealth concentration among the oligarchic elite, the top ppm of the wealth distribution, is closely linked to societal power. In this vein, Beckert (2024) differentiates between six dimensions of capacities of wealth: Wealth provides the oligarchic elite with security, opportunity (Hansen and Toft 2021), capital income, inter-generational long-term persistence of extreme wealth via gifts and inheritance (Clark 2014; Korom, Lutter, and Beckert 2017; Beckert 2022), social status (Tait 2019; Grewal 2014), and especially personal, economic and political power. With regard to this latter capacity, which is also the main interest of this paper, the top ppm of the wealth distribution can impact politics via several direct and indirect channels, from party donations to political campaigns, but also by using their social networks of power to influence regulatory and legal frameworks in the field of wealth (Beckert 2024).

However, there is still a lack of comprehensive studies on the interconnections and networks of HNW-households. Quantitative research on inequality has demonstrated that official data often underestimate the wealthiest segment of the population. However, this body of literature fails

to provide explanations and consequences for wealth concentration. It does not concentrate on the very small number of the top ppm who significantly influence wealth distribution. Conversely, qualitative ethnographic studies on socio-economic elites do not fully capture the hidden networks within and between HNW-households, as wealth is not always the sole relevant criterion, and power through capital is often exercised indirectly and informally. While characterizing the super-rich and their behavior, qualitative studies such as Freund and Oliver (2016) or Wai and Lincoln (2016) do not identify concrete networks, which can become crucial for exercising power in different societal fields. To sum up, although there are many indications that the group of super-rich are a relevant and influential factor for the organization of economy and politics there is a current research gap on this issue, particularly regarding the personal, economic, and political networks of power associated with the top ppm. The literature review shows that combining data on corporate ownership structures and SNA is a very new and promising approach to shed light on these hidden networks.

3. Data and data compilation strategy

In this section, we describe the data sources that we use for our empirical analysis. For the selection of HNW-households we use a ranking of the wealthiest Austrians for the year 2022 created by the Austrian Trend magazine and select a sample of the 62 wealthiest individuals or families in this list. The set threshold of 62 depicts persons or families with assets of more than 500 million euros (see table 2 in the appendix for an overview).

For the examination of the structures of corporate ownership and control, we use company data from the ‘Wirtschafts-Compass’ (hereafter WiCo). This platform provides business information about Austrian companies (with company headquarters/registered offices in Austria). It allows us to collect data on the organizational structure of firms, ownership structures, and individuals in top management positions of these companies. WiCo uses and compiles data from the Register of Beneficial Owners (WiEReG) provided by the Austrian Ministry of Finance. The WiEReG was established ‘for the purpose of preventing money laundering and terrorist financing, and contains data on the beneficial owners of companies, foundations and trusts’¹. A beneficial owner is defined as ‘those individuals to whom a company, foundation or trust can ultimately be economically attributed’². Using WiCo (instead of directly using WiEReg) has three advantages: First, it allows for searching individual persons (not only companies). Second, it provides additional information on whether persons who are involved in these structures might have (potential) links to ‘politically exposed persons’ (PEP) (e.g. members of the Parliament, persons in public office nominated by political parties, etc.)³. Third, WiCo also provides information on individuals’ past positions (e.g., previous positions in companies or linkages with companies that have been liquidated), which adds an important (intertemporal)

¹ <https://www.bmf.gv.at/en/topics/financial-sector/beneficial-owners-register-act/Register-of-Beneficial-Owner.html> (accessed on 17th June 2024)

² see *ibid.*

³ According to § 1 Abs. 6 ff Geldwäschegesetz (GwG), a PEP is a natural person who hold a high-ranking, important office or exercise a public office whose political significance is comparable. Family members or persons with a close economic relationship to a PEP may themselves be classified as PEP-related (‘PEP-Bezug’). Our study does not distinguish between these two categories.

dimension to our analysis of the network structures among the super-rich.⁴ The data from WiCo was downloaded manually in HTML format and compiled with Python code into a large data table.⁵

Gathering and compiling the data for our study does not come without several conceptual and practical challenges. First, identifying the main source of wealth (as shown in table 2 in the appendix) is not always clear (which, however, was also a main motivation in conducting this study). In the first step, we thus relied on a mix of formal (e.g. Trend ranking, Munzinger archive online) and informal sources (e.g. Newspaper, Wikipedia) and decided on a case by cases basis from where to start the data gathering procedure (i.e. the company or institution that is most responsible for the wealth creation of an HNW-household; see also below). Second, WiCo includes only PEP persons who were exposed at the time of data collection, which is an important limitation when analyzing potential political links of the super-rich⁶. To address this limitation, we manually classified persons as politically exposed whenever we found such cases (i.e. mostly (family members of) former politicians). Furthermore, we compiled a list of Austrian politicians based on the information available from the website of the Austrian Parliament⁷, which includes past members of the Austrian Parliament, the Federal Council (Bundesrat), and the regional state parliaments (Landtage) and matched it with the names of the individuals that are listed in the WiCo dataset.

Finally, we also applied a categorization scheme based on a dictionary that defines seven types of institutions and companies listed in WiCo. For the categorization of the companies, we used a search-string of the most commonly used terms associated with each category (see appendix for a description) and manually corrected this categorization⁸:

- Private foundations
- Real Estate companies
- Investment management companies
- Asset and wealth management companies
- Media companies
- Lawyers & trustees
- Uncategorized institutions

⁴ Former positions ('gelöschte Funktionen'), however, are not available for those HNW households which were collected during an initial pretest between April 2022 and December 2022 (denoted with an asterisk (*) in table 2). The remaining 57 households were collected between January 2023 and January 2024 and include full information as described above.

⁵ With the exception of the data collected during the pretest which was compiled and added manually.

⁶ The most prominent examples for individuals that are not classified as 'politically exposed' are the former Austrian chancellor and politician Alfred Gusenbauer or the wife of the former minister of economic affairs Martin Bartenstein (a HNW individual in our sample), Ilse Bartenstein.

⁷ See https://www.parlament.gv.at/recherchieren/personen/parlamentarierinnen-ab-1848/parlamentarierinnen-ab-1918/index.html?WFW_008%D0%9C=M&WFW_008W=W&WFW_008R_WF=FR&WFW_008GP=ALL (accessed on 17th June 2024)

⁸ However, since a substantial share of companies in some HNW households in our sample used completely random names such as 'Laura 2019 Zwei GmbH' some of our categories may slightly underestimate their total share

We refer to real estate companies when their names indicate involvement in some form of real estate management and housing development. Involvement in the real estate sector is a source of mega-wealth. Still, it also offers lucrative and often speculative opportunities to secure wealth over generations and to concentrate wealth further.

The category of Investment management companies ('Beteiligungsgesellschaften'), per definition, provides an opportunity to manage and control small to huge networks of companies, often in the private equity and venture capital sector, and therefore is interpreted as a form of institutionalized corporate control of subsidiary companies within HNW-household networks. Furthermore, the legal form of the holding company provides tax advantages, such as the use of loss carryforwards and the reduction of withholding taxes.

Private foundations ('Privatstiftungen') are a very commonly used legal form for Austrian HNW-households. These entities have become increasingly significant in managing large inheritances and ensuring family wealth continuity across generations since their establishment in 1993.

Since we are also interested in the various channels, through which HNW-households and super-rich individuals aim to gain political and public impact, we included the category media companies. We define them as any kind of company engaged in media management, media broadcasting, and publishing, such as TV, print, radio and digital media companies. Potential forms of impact via corporate ownership or financial participation include marketing for companies and influence on the editorial guidelines to prevent unwelcome reporting. Furthermore, the media industry itself provides a very lucrative business sector in which to accumulate and further increase wealth.

Finally, we included the categories of asset and wealth management companies ('Vermögensverwaltungsgesellschaften') and lawyers and trustees ('Rechtsanwälte und Treuhänder'). The latter often function as legal and financial experts for various companies simultaneously and therefore, play a crucial role in the connection within and between HNW-households.

4. Methodological Approach

In this paper, we apply a mixed-methods approach by combining qualitative and quantitative analyses of various forms of HNW-households' connections within the business environment in particular and society in general. More precisely, we rely on social network theory⁹ to examine the social structure and networks of HNW-households in Austria. In social science, there is a long tradition of employing social network analysis for capturing a great variety of relations (e.g. friendship, communication, control, etc.) between different actors (e.g. individuals, companies, institutions, countries, etc.) (Freeman 2004; Granovetter 1983; 1985). Against this background, we apply Social Network Analysis (SNA) to map networks of ownership and control around HNW-households. Therefore, we construct two-mode networks

⁹ We use the software Pajek, which was developed for the analysis and visualization of graphs and large networks (Mrvar & Batagelj, 2016; Nooy et al., 2018).

(Latapy, Magnien, and Vecchio 2008), where individual persons (including HNW-individuals) and business institutions represent different classes of nodes and individuals' company positions (i.e. shareholders, CEO, board of directors) represent the edges of the network. Furthermore, we make use of the categorization of institutional nodes as well as the categorization of individuals as PEP.

Our empirical research strategy is based on a snowball sampling procedure in order to analyze company ownership and control on two levels (starting from the HNW-household group of individuals comprising each HNW-household or family). We focus on interlocking directorates (i.e. multiple positions of individuals in different companies) as a proxy for *indirect* control across companies, sub-companies and other legal forms of corporate connections. For the interpretation of the social network structures, we make use of three main network measures. First, we interpret overall degree centrality, i.e. the number of edges (directed arcs) connected to one node as an indicator of involvement and control in a network. Second, we interpret network density, i.e. the number of edges between nodes within a network divided by all possible networks, as an indicator for cohesion and proximity within a sub-network. Third, we interpret the level of degree centrality – but particularly betweenness centrality – of individuals (and institutions) as a measure of their relevance as 'interlocking directorates' for connecting different HNW-household networks. In doing so, we aim to highlight typical patterns of network structures in extreme wealth concentration. Eventually, we use our categorization of nodes as an indicator for patterns and clusters within our overall network. In the visualization of the HNW-household networks in section 5, the size of the nodes depends on the number of companies that are under control and/or ownership (degree centrality).

5. Results

The remainder of this chapter presents these findings in two steps: First, section 5.1. provides an overview of the entire sample of HNW-households and takes a bird's eye view by focusing on the issue of interconnectedness (i.e. network linkages *within* our sample of individual HNW-households; section 5.1.1) and a cluster analysis (5.1.2) that aims to substantiate our hypothesis of different 'modes' of wealth accumulation (5.1.3). Second, section 5.2. presents various idiosyncrasies of the super-rich in Austria that deserve a more detailed discussion, in particular, the special role of real estate companies (5.2.1), media companies (5.2.2), private foundations (5.2.3) and the central role of political proximity via the discussion of politically exposed persons (5.2.4)

5.1. The political economy of wealth concentration in Austria

The basic information derived from our data sample (see table 2 in the appendix) already conveys the first results regarding the structure of the super-rich in Austria. First of all, super-wealth is extremely concentrated even among the wealthiest HNW-households. The wealthiest household (Porsche & Piëch) possesses more than a fifth (22%), and the top 5 households possess almost half (44%) of the total net wealth of the 62 households under study. Second, the super-rich in Austria are strongly male-dominated. Within the 62 richest households, we find 55 listed male individuals (and other family members) but only seven female individuals (and

other family members). Third, an overview of the primary sources of wealth creation in table 2 already points toward different biographies or ‘modes’ of wealth accumulation that can roughly be divided into a classic ‘industrial’ and a more ‘discrete’ mode. The former comprise sources of wealth derived from the ownership of various industrial companies. The latter often draw from the ownership of real estate, various financial/company shareholdings, large-scale inheritances or assets from previous company sales. Fourth and final, some past politicians are part of our sample (Ministers and Members of the Austrian Parliament), which indicates that some super-rich are also part of the political elite.

5.1.1. Overall network of the super-rich in Austria

To achieve a deeper understanding of the typical areas of connection and the connectivity within the network of the super-rich in Austria, we first compiled the overall network of all high-net-worth HNW-households in our sample comprising a total 65,449 edges and 22,526 nodes (see table 2 in the appendix). Notably, by applying our two-level methodological approach of corporate ownership and control structures, we found that almost all HNW-households in our sample are interconnected via personal or institutional interlocking directorates; in fact, only one HNW-network is not connected to the overall network. Approximately 21.8% of all nodes in our sample are linked to more than one HNW-household (represented as red nodes in Figure 1). Additionally, about 11.0% of all connections among HNW-households appear in more than one HNW-household. Figure 1 demonstrates a significant level of connectivity among super-rich households in Austria, especially given that our sample includes only the networks of 59 HNW-households.

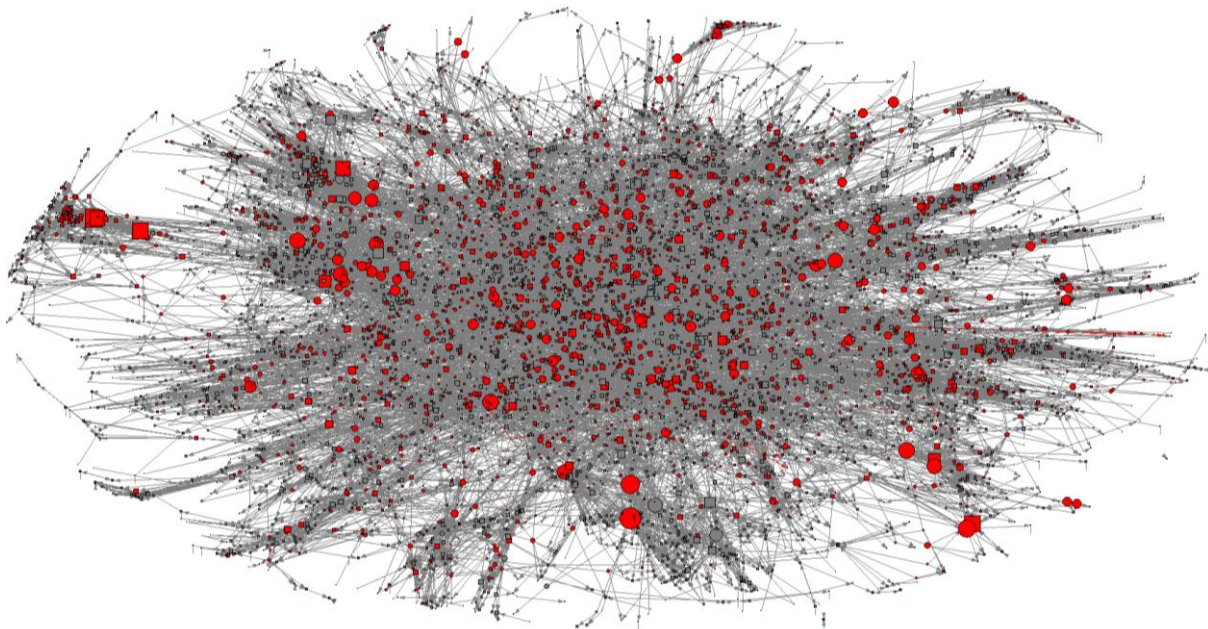


Figure 1: network of the 59 richest HNW-households in Austria. Size represents the degree centrality of nodes, red indicates ‘connecting nodes’. Nodes with one connection are not included.

Our network analysis shows that central key linking nodes between various HNW-households, are represented particularly by individuals who hold or have held multiple positions across

different companies and foundations as managing directors, shareholders, board members, and supervisory board members. These individuals facilitate numerous synergies. In total, we identified 13 examples of individuals with over 100 positions or corporate roles in over 100 companies (with a peak of 488 positions in 277 and more than 500 when including former roles)¹⁰ (see Table 1). This extraordinary number alone clearly indicates that it is arguably impossible for any individual to perform any actual operational role in these companies. However, while in most cases these central agents are not part of the super-rich in our sample, there are also three members of the super-rich list. The analysis of betweenness centrality shows similar results. Again, specialized wealth management lawyers are among those nodes with the highest betweenness centrality and thus play a core role in the connection within and between HNW-households¹¹.

Table 1: Top 20 Interlocking directorates with the highest degree centrality. Members of the Trend-list of Austrian super-rich are printed in bold.

Name	Degree centrality (including former positions)	Number of corporate positions (including former positions)
Pirolt Manuel, Mag.	249 (277)	488 (520)
Stadler Claus, Dipl.-Ing.	116 (185)	230 (308)
Haring Karl	190 (225)	213 (264)
Winkler Christian	191 (231)	207 (270)
Möstl Michael, Ing.	97 (150)	193 (255)
Jost Bernhard	133 (133)	133 (133)
Fletzberger Heinz	64 (126)	127 (206)
Kneussl Maximilian	104 (122)	121 (142)
Breiteneder Johann	109 (146)	116 (166)
Mühlberger Marcus, Dr.	111 (111)	112 (112)
Harsich Christian, Dr.	101 (180)	110 (203)
Jelitzka Daniel, Mag. Dr.	93 (151)	110 (198)
List Hans Christoph	74 (85)	108 (126)
Aghdam Reza Akhavan	76 (130)	91 (161)
Lerner Christoph	82 (88)	85 (96)
Pistotnik Karl, DDr.	39 (158)	82 (236)
Breiteneder Bettina, Mag.	69 (127)	79 (148)
Kirschner Alexander, MSc.	40 (58)	79 (97)
Tojner Michael, DDr.	56 (129)	76 (192)

¹⁰ There are many examples of interlocking directorates with multiple positions in one company or foundation, which explains the differences between the number of positions and the number of institutions. Degree centrality is based on the number of connections between two nodes, regardless of how many positions establish this connection.

¹¹ It should be noted that we found two companies with a high betweenness centrality ('Wiener Börse AG' and 'Einlagensicherung Austria GmbH'). However, we decided to exclude them from our analysis, since a connection to these institutions is based on a legal obligation for companies.

Stadlhuber Christoph, DI	37 (224)	75 (270)
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However, within the sample of companies analyzed, three companies also have a degree of centrality of more than 100: ‘WINEGG Realitäten GmbH’, ‘Red Bull GmbH’, and ‘Speedinvest X GmbH’. ‘WINEGG Realitäten GmbH’ serves as a prototypical instance of nested real estate firms characterized by extensive connections to smaller real estate enterprises. ‘Red Bull GmbH’ functions as the central node within the transnational Red Bull corporation. In contrast, the various ‘Speedinvest’ companies represent a distinctive example of the network structures typical of HNW-households in Austria. Founded in 2011 as a venture capital firm, the company has raised over one billion dollars in total and focuses on a wide array of tech startups. While the firm now has international institutional investors such as New Enterprise Associates and the European Investment Fund (EIF) as its main backers, wealthy Austrians such as Dietrich Mateschitz and the Dichand family were among the earliest significant investors in ‘Speedinvest’.

In our analyses, we found that the different funds and sub-companies are intensely woven into the investment activities of the families and the foundations we examined. Three of the seven institutions with the highest betweenness centrality belong to the ‘Speedinvest’ network. This illustrates the complex role of ‘Speedinvest’ in Austrian HNW networks.

5.1.2. Cluster analysis

In the next step, we used our categorization of institutions and companies for a simple cluster analysis of patterns of wealth biographies in order to develop a better overall understanding of the various ways in which HNW-households store, manage and expand their wealth. We also included a selection of network variables (see Table 4 in the appendix). The analysis suggests the existence of nine different clusters (see Figure 16 in the appendix). However, roughly half of all households are grouped within one cluster (cluster #1 on the left side in Figure 16), while four other clusters consist of only one household each (clusters #3, #6, #8 and #9). For a more detailed inspection of the cluster properties, we refer to Figure 17 in the appendix, which displays boxplots for each variable per cluster. Although this analysis reveals a significant level of heterogeneity among the super-rich, two main patterns of wealth accumulation become visible: First, there is a strong negative correlation between the ownership of real estate companies and uncategorized companies (which serve as a proxy for more classical manufacturing companies). This supports the abovementioned division between an industrial mode (clusters #1, #7 and partially also #5) and a more ‘discrete’ mode based on real estate assets (cluster #2 and partially also cluster #4 and #5; see Figure 3 and Figure 18 in the appendix which shows a similar picture with regard to private foundations). Second, a similar negative correlation exists between real estate assets and the share of politically exposed persons (PEPs) within a household’s network (Figure 2; see also the positive correlation between the share of uncategorized companies and PEPs as shown in Figure 19 in the appendix). This in turn, confirms linkages between ‘industrial wealth’ and the ‘political’ (in the sense of the definition of PEPs, which also includes persons with positions in state-owned companies).

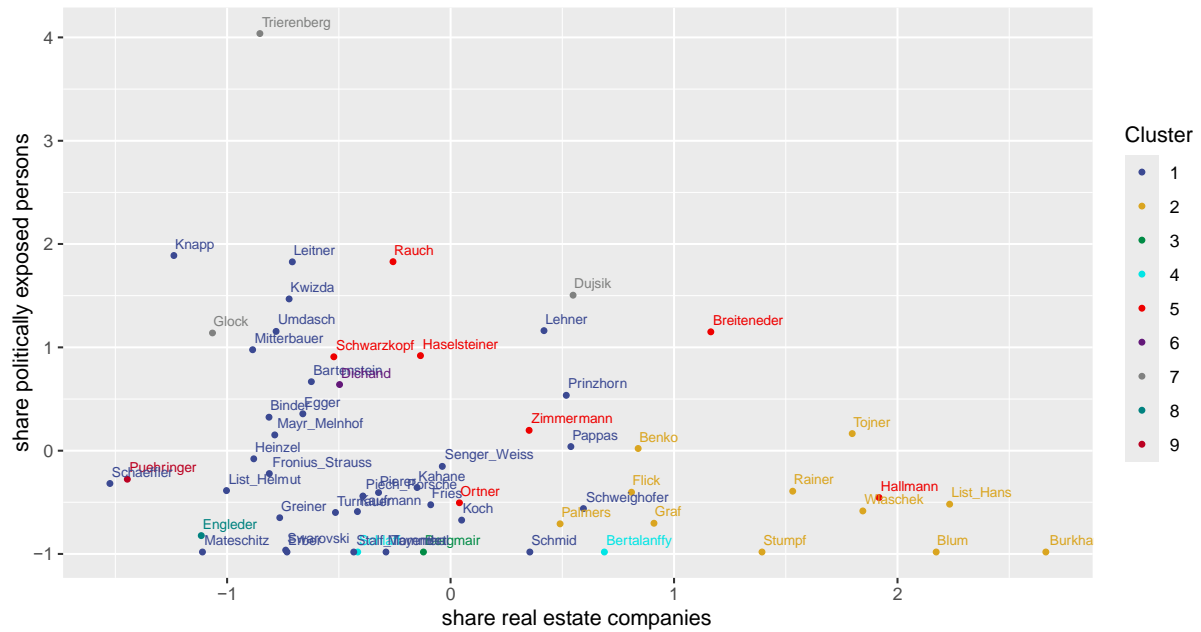


Figure 2. Cluster scatterplot displaying the correlation between the variables 'share of real estate companies' and 'share of politically exposed persons' (scaled values).

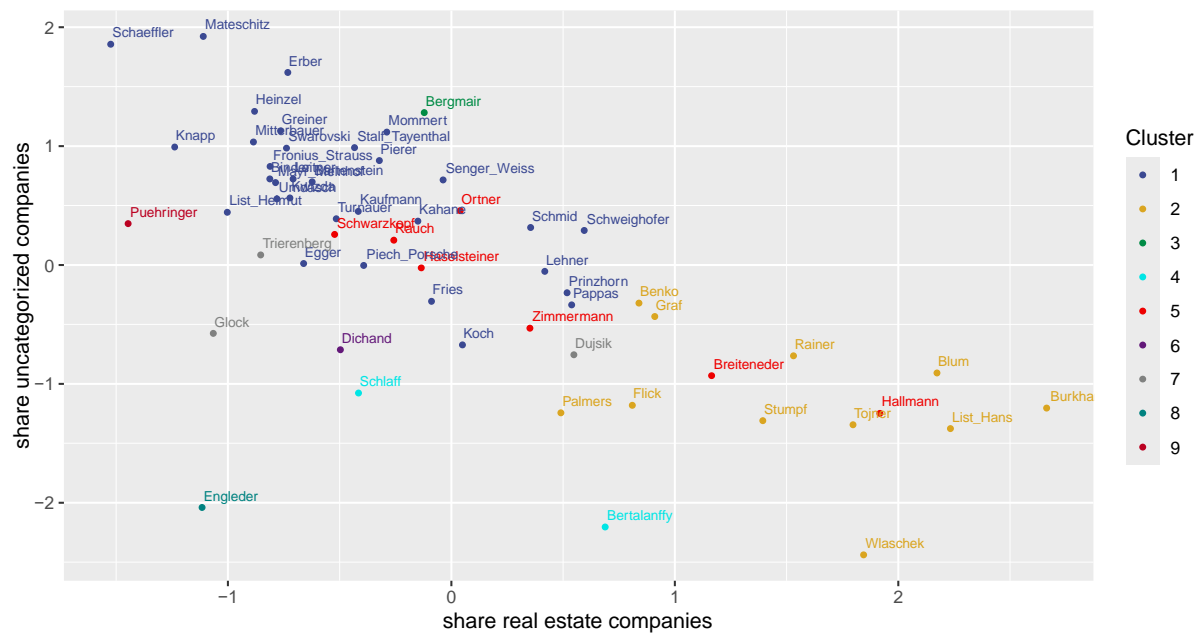


Figure 3. Cluster scatterplot displaying the correlation between the variables 'share of real estate companies' and 'share of uncategorized companies' (scaled values).

5.1.3. ‘Industrial’ vs. ‘Discrete’ mode of wealth accumulation

Figure 4 and Figure 5 show two examples that are representative of the major ‘industrial’ cluster. The networks of the Mayr-Melnhof family (Figure 4) and Martin Bartenstein (Figure 5). Although the former is much bigger and more densely connected in its center, both have a high number of PEP-persons, who also represent core connections within the networks (high levels of degree and betweenness centrality). While the Mayr-Melnhof family's political proximity is indirect and can be derived from party donations for the Austrian People’s Party (ÖVP), Martin Bartenstein was a PEP himself (former Austrian Minister of Economics).

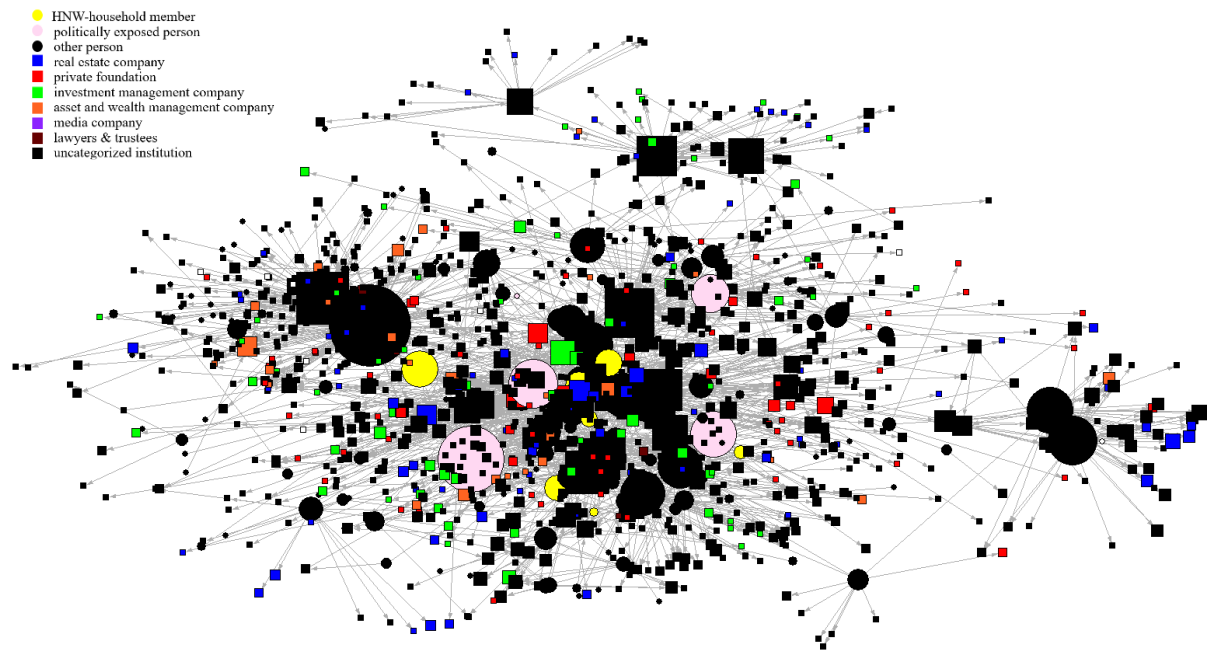


Figure 4. Network structure of Mayr-Melnhof and family (12th position in the super-rich-sample)

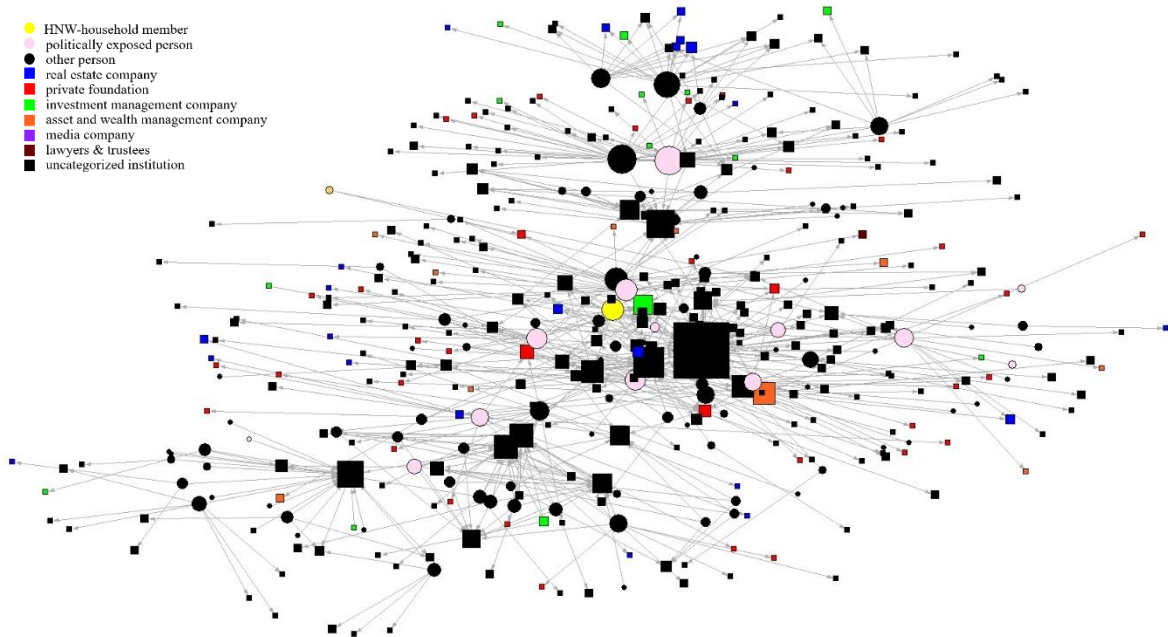


Figure 5. Network structure of Martin Bartenstein and family (36th position in the super-rich-sample).

In contrast to this, Figures 6 to 8 show examples that are representative of a more ‘discrete’ mode of wealth accumulation: the real estate networks of René Benko (Figure 6), Bettina Breiteneder (Figure 7) and Michael Tojner (Figure 8) which are characterized by high shares of real estate companies. These companies are often connected via different forms of interlocking directorates, such as agents, strawmen, and administrators. A very illustrative example of an agent within an HNW-household is the long-term CFO of the Signa Prime company, Manuel Pirolt. Pirolt, who also has one of the highest betweenness centralities in our sample, is the central node within the HNW-network of René Benko, who is the 6th richest HNW family in the super-rich-list (the biggest black node in the center in Figure 6).

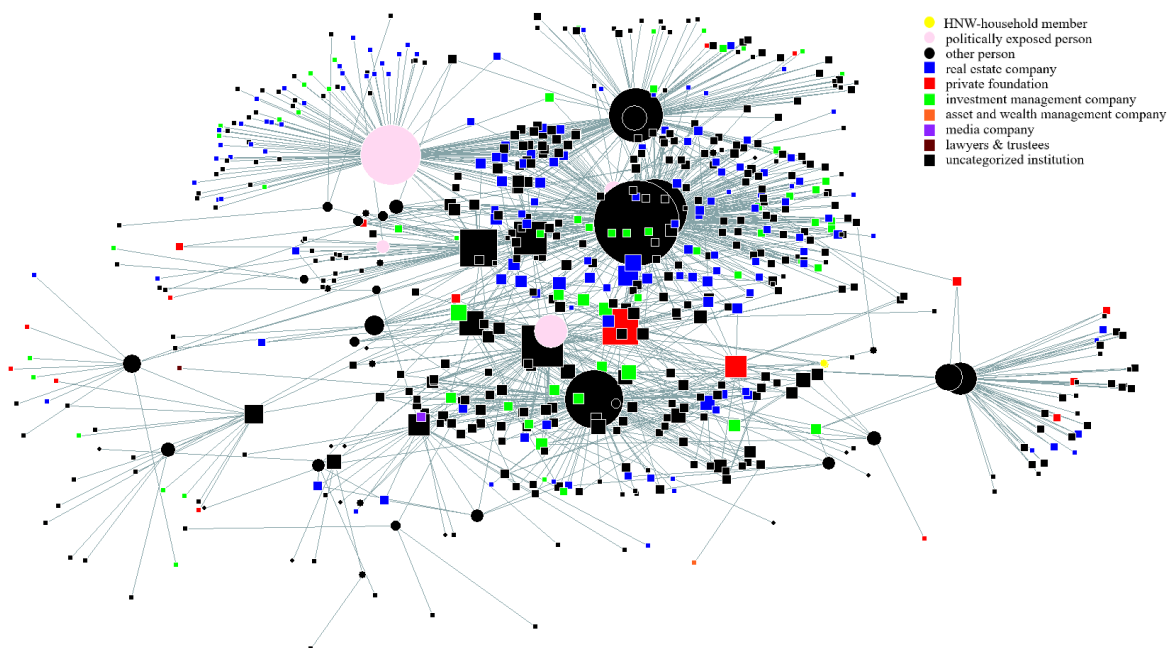


Figure 6. Network structure of René Benko and family (6th position in the super-rich sample).

Besides his numerous positions in real estate companies within the Benko-network (among them, for instance 30 companies entitled *Signa Prime...*), he is also an executive board member of the 'Laura Privatstiftung', one of the two core private foundations in which the wealth of the Benko family is stored. The Benko-network, however, is a typical example of a highly intransparent super-rich network in the real estate sector. While René Benko himself is only a very small node in his own network (degree centrality of 2, as the founder of two central private foundations), there are five agents among the 15 individuals with a degree centrality greater than 100 (see Table 1 above). A high share of their corporate positions can be assigned to various small real estate projects, with nested connections within each other and to other similar real estate projects. The business model of Signa was to repeatedly establish small interconnected real estate companies (265 in our sample) with limited liability (GmbH). This potentially offers the possibility to offset profits and losses. Similarly, two other examples of HNW-networks engaged in the real estate sector show this typical pattern of nested small real estate companies (blue nodes) centered around core agents. However, in both the Breiteneder and Tojner families, the original family members play a much more central role than in the Benko-network. In addition, both networks include a significant number of private foundations, which often appear to serve to hold and store the wealth of various branches within the family or among the circles of HNW-households.

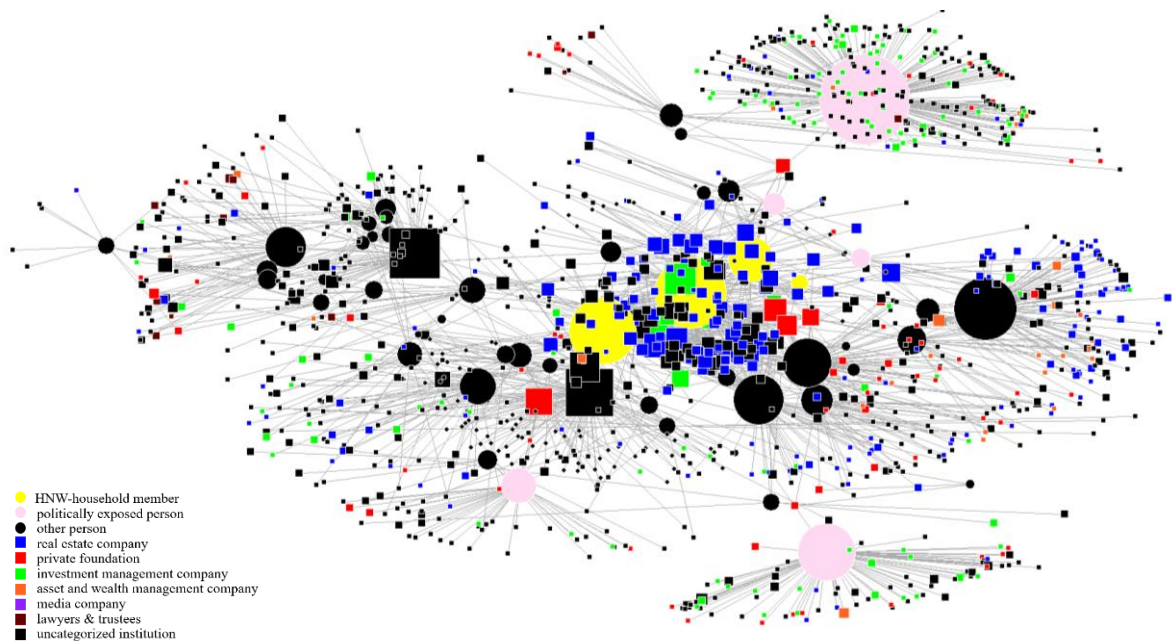


Figure 7: Network structure of Bettina Breiteneder and family (29th position in the super-rich-sample).

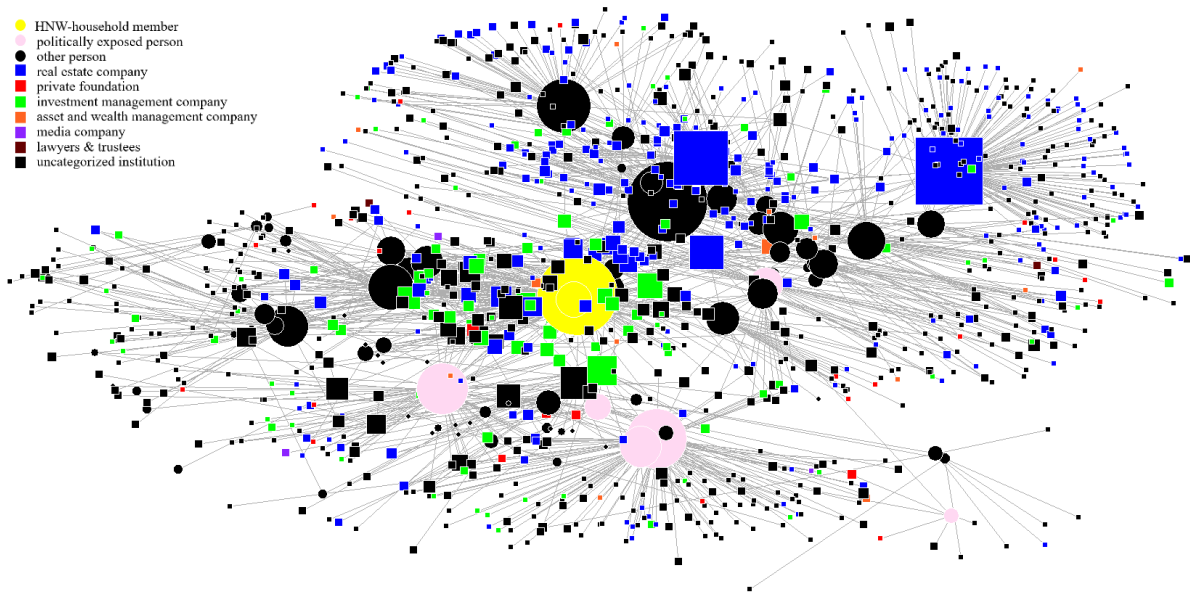


Figure 8: Network structure of Michael Tojner (13th position in the super-rich-sample)

The significant role of various types of real estate companies in the wealth concentration within HNW-household is evident. Real estate companies, whether as standalone limited liability companies (GmbH), investment GmbHs, or holding companies, play crucial roles in many HNW-household networks. Wealth appears to be frequently parked in real estate projects or further increases through them. Compared to the ‘industrial mode’ of wealth accumulation, proponents of the ‘discrete mode’ have comparably weaker direct links to politics and are more involved in what Page et al. (2019) call “stealth politics” in the case of the US. Although they

influence policy via financing campaigns and supporting policy-advocacy organizations and think tanks active in public policies, they do not appear in public personally.

5.2. Idiosyncrasies of the super-rich in Austria

In the following section, some idiosyncrasies of the super-rich are discussed. They include general characteristics and special outliers within our sample of HNW households. Each of these individual characteristics, but especially in their entirety, demonstrate that the asset structure and institutional network of HNW-households fundamentally differ from those of other economic actors in many respects. This distinction extends to the numerous arenas of political and societal influence, as well as to legal forms that are almost exclusively utilized by the super-rich.

5.2.1. Nested networks as structural feature

In a first network analysis of each separate HNW-household in our sample, we found in many instances extensive corporate structures composed of numerous small limited liability companies (GmbHs). These structures seem to exploit all available legal and tax-related strategies, including the creation of ‘special purpose entities’ and ‘investment management GmbHs’. This approach arguably leverages the advantages of various legal forms, originally intended to protect small business owners from liability risks, and scales them to a large construct. This practice is particularly prevalent in the real estate sector, where we often identified the practice of establishing 5-10 GmbHs for a single project, each with limited liability. Additionally, these GmbHs frequently bear similar, fictitious names and are mostly via interlocking directorates interconnected in a manner that significantly obscures the traceability of control rights and ownership structures.

The example of Benko has already demonstrated how complex legal structures can be used to create and hold (often fictitious) value, simultaneously generating systemic risk for public finance. Presently, multiple criminal proceedings are in progress concerning the business model of Benko and the Signa Group, which could have involved several illegal corruption and fraud practices¹². However, the nested structure of real estate networks provides systemic risks even if they operate within the legal framework of corporate law.

5.2.2. Media companies

Another arena of the societal impact of HNW-households is their active engagement in media companies, either directly by funding or owning media companies or by indirectly exerting control via investment management companies associated with media companies. While in the latter case, direct control over broadcasting or publication lines is arguably quite rare, the precarious financial situation of many media outlets can lead to dependencies on their owners, thereby indirectly influencing reporting on issues such as extreme wealth concentration

¹² By the time of writing, many illegal business practices became apparent and the collapse of the Benko network has since occupied the Austrian and German judiciary on many levels.

(Verband Österreichischer Zeitungen 2024). Additionally, in the recent past, Austria has had numerous advertising corruption scandals, where mainly political parties supposedly sought to influence the tone of coverage, especially before elections.

In our analysis, especially one HNW-households stands out. The network of the Dichand-family connects 234 media companies (purple squares in Figure 9) of different sizes on a local, regional, and national level, which strongly supports the critique against the high concentration of the Austrian media. This high degree of concentration correlates with the opaque structure of these media companies. The Dichand-family for example holds shares in Austria's most read newspaper¹³, the 'Kronen Zeitung', and co-owns multi-media conglomerate 'Mediaprint'. The 'Kronen Zeitung' is also partly owned by an investment company of René Benko's 'Signa Holding'¹⁴, which, together with the Raiffeisen bank also holds shares in the newspaper 'Kurier'. Notably, 'Kurier' also co-owns 'Mediaprint'. One of the potential reasons could be the current legal framework, which, apart from legislation in cartel laws, lacks stringent control over the merging into media giants.

Within our sample, 23 HNW-households are directly or indirectly involved in Austria's media landscape (including former functions). This is especially true for the print media sector and henceforth daily newspapers. However, the Dichand-family alone, in its extension, is associated with 11 daily newspapers and/or their publishers. As a reference, currently 12 daily newspapers are being published in Austria, seven of those operate on a national level, the rest on a regional basis. In comparison to European countries with similar numbers of inhabitants, Sweden (10.4 million inhabitants) publishes 90 daily newspapers, Switzerland (8.7 million inhabitants) over 40 ("Media Landscape: Sweden" 2024; "Medialandscape: Switzerland" 2024).

In addition to the large number of media companies, the Dichand-family also exhibits a substantial proportion of private foundations both at the core and on the periphery of its network, as well as a significant presence of PEPs. This supports the argument for a close relationship between the political and media sectors. In all, previous critical analyses regarding the media landscape in Austria (see e.g. Skrabal 2022; Grisold and Grabner 2017; Kaltenbrunner et al. 2024) together with our analysis strongly support the conclusion that – roughly speaking – private media companies in Austria either belong to the Catholic Church, the banking sector, or the super-rich (or a combination of those). In light of this diagnosis, the term 'independent media' seems increasingly threatened.

¹³ See <https://www.media-analyse.at/table/4144> (accessed on June 17th 2024)

¹⁴ However, it should be mentioned that this link becomes not visible in WiCo as Benko uses a foreign investment management company for holding these shares. This is a limitation that cannot be addressed in this study, however it also shows that overall we rather underestimate the level of connectivity within and between HNW-households.

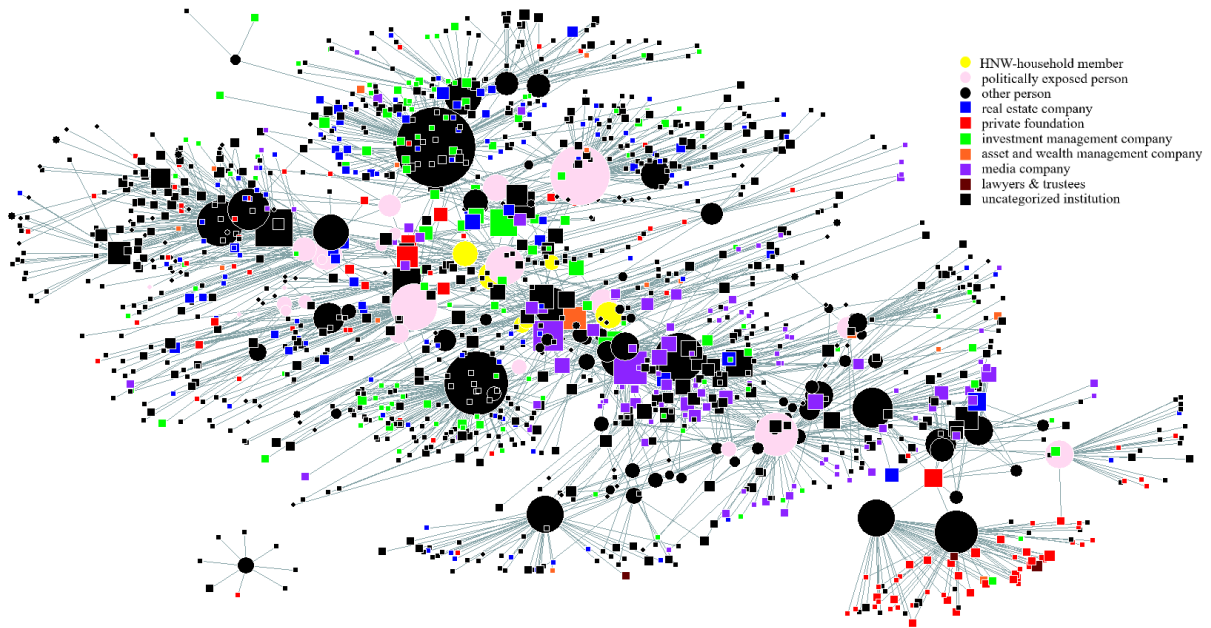


Figure 7. Network structure of Dichand family (51st position in the super-rich-sample).

5.2.3. Private foundations

Another idiosyncrasy of Austrian HNW-households, resulting from our SNA is the substantial prevalence of private foundations. The Private Foundation Association reports that approximately 3,000 private foundations exist in Austria, of which 1,389 are included in our sample (Österreichischer Stiftungsverband 2024). This indicates that nearly half of all private foundations in Austria are associated with the uppermost segment of the wealth distribution. Figures 10 to 12 illustrate this pattern, highlighting HNW-households with a high proportion of private foundations (indicated by red squares) within their networks. Such networks are typically observed among HNW-households whose wealth originates from significant inheritances or financial sector activities. High shares are in many cases, correlated with higher

shares of lawyers and trustees (see Figure 20 in the appendix). In comparison to real estate networks, private foundation networks tend to be smaller and less densely connected.

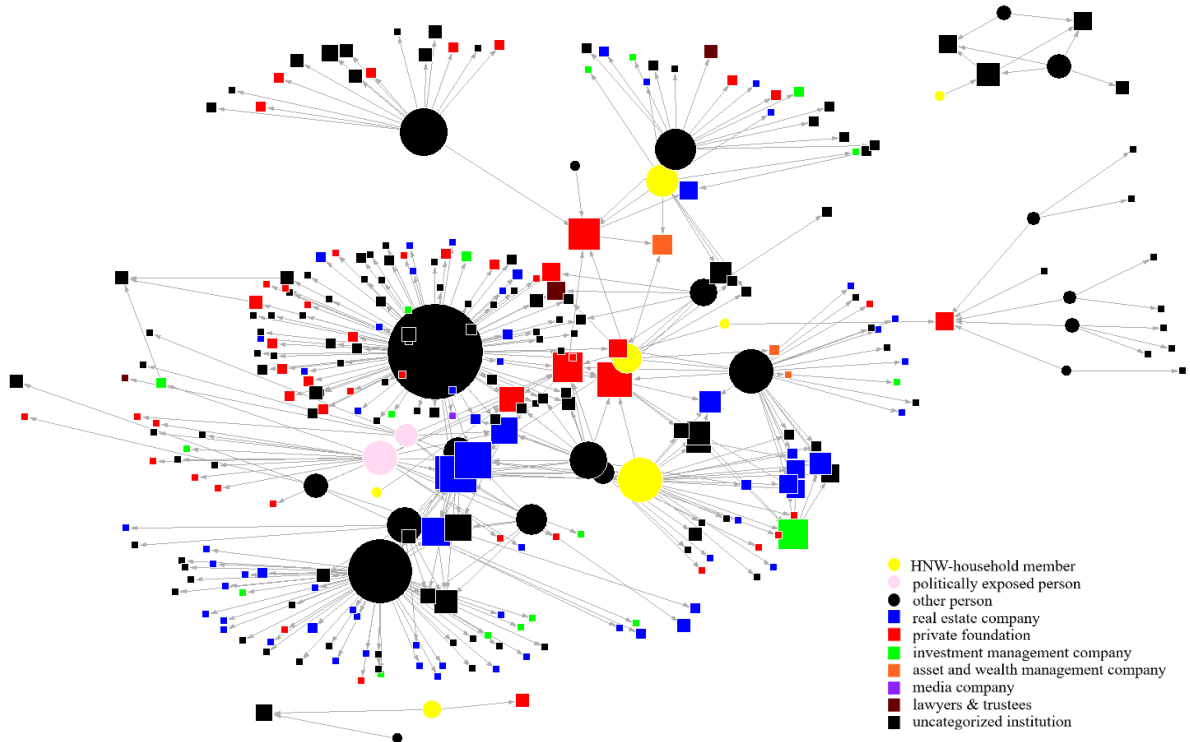


Figure 10: Network structure of Wlasczek family (4th position in the super-rich-sample)

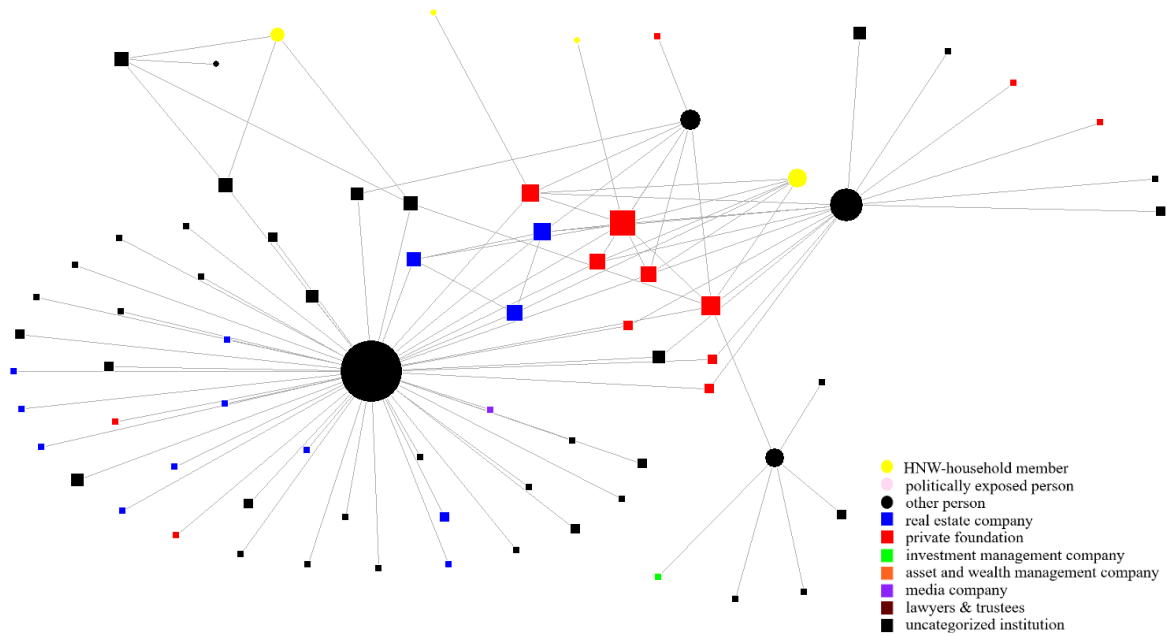


Figure 11: Network structure of Peter Bertalanffy and family (57th position in the super-rich-sample)

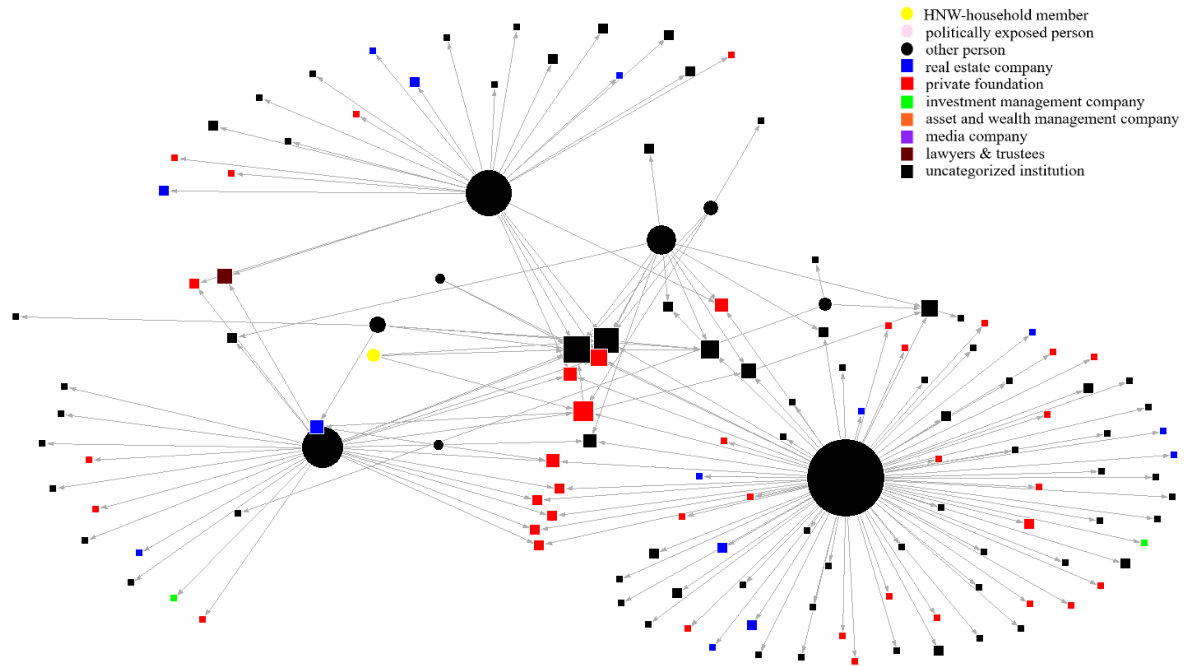


Figure 12: Network structure of Martin Schlaff (16th position in the super-rich-sample)

Since the strategic management of extreme wealth often involves instruments such as private foundations, it seems fruitful to understand the logic and historical development of this legal form. These entities have become increasingly significant in managing large inheritances and ensuring family wealth continuity across generations. In Austria, before the enactment of the Private Foundation Act (PSG) in 1993, the establishment of private benefit family foundations was significantly limited (Kormann 2017). The PSG marked a pivotal change, greatly simplifying the creation of these foundations. Since their legalization, private foundations have gained prominence in wealth management. They serve as vital vehicles for asset protection, succession planning, and, importantly, in ensuring the cohesive transfer of assets to subsequent generations. This role has become critical even with the diminished tax advantages following the abolishment of inheritance taxes in 2008 (Rossbacher 2011). Despite this, the role of private foundations has continued to expand, highlighting their importance beyond mere tax benefits. Today, private foundations hold direct or indirect stakes in over 10,000 companies registered in the corporate index in Austria. These foundations often have stakes in significant family-owned or privately managed companies, which outnumber those owned by any other legal entities. Therefore, private foundations are a cornerstone in the architecture of wealth management for Austria's most affluent families and the Austrian economy.

Foundations in Austria legally need to have a board of directors comprising at least three individuals (Oesterle 2007). These board members, such as lawyers and accountants, are often legal and financial experts. This explains the correlation between high shares of lawyers and private foundations in our sample of HNW-households. Similar to the ‘micro agents’ of international corporate tax avoidance (Stausholm and Garcia-Bernardo 2024), their expertise is pivotal to strategically managing and preserving the foundations' assets. Publicly, the visibility of these board members underscores the governance transparency of the foundations. However,

it also offers a window into the interlaced relationships of Austria's wealthiest individuals, revealing a network subject to scrutiny and analysis for its significant influence on wealth and asset management. Analyzing these board members and the firms they are affiliated with is crucial for achieving an in-depth understanding of how the wealthiest people in Austria structure their fortunes. By often managing multiple private foundations, law and accounting firms, as well as individual wealth lawyers, can be essential intersections of numerous financial and familial ties, thus providing a unique vantage point for analyzing wealth concentration. Their role is multifaceted. While they undoubtedly contribute to prudent wealth management, they also navigate the complex and sometimes controversial realm of tax planning. We found several examples of people acting as 'administrators' of HNW-networks, by serving as board members in a significant number of private foundations, the highest number of board memberships in private foundations in our sample is 49. The multiple positions of 'wealth administrators' undoubtedly offer various synergies to use private foundations' legal leeway effectively. Through this lens, their influence extends into the broader narrative of wealth management and the economic footprint of Austria's wealthiest families.

5.2.4. Political proximity

The examples of HNW-household networks presented so far already point towards another idiosyncrasy of the super-rich: the central role, PEPs play in their networks. In all three examples of real estate networks as well as in the special case of the Dichand network outlined above, political proximity seems to play an important role. In general, the results of the cluster analysis demonstrate that only two out of the nine clusters have no links to PEPs at all (cluster #3 and #4 in Figure 16, which, however, comprise only 3 HNW-households) while cluster #7 exhibits an exceptionally high share of PEP connectivity. This is evidenced by the high degree of centrality and often also central position of PEPs in the networks as shown in Figure 13 (Trierenberg family; paper industry) and Figure 14 (Franz Rauch and family; beverage industry), which display the networks of households with strong but different industrial backgrounds.

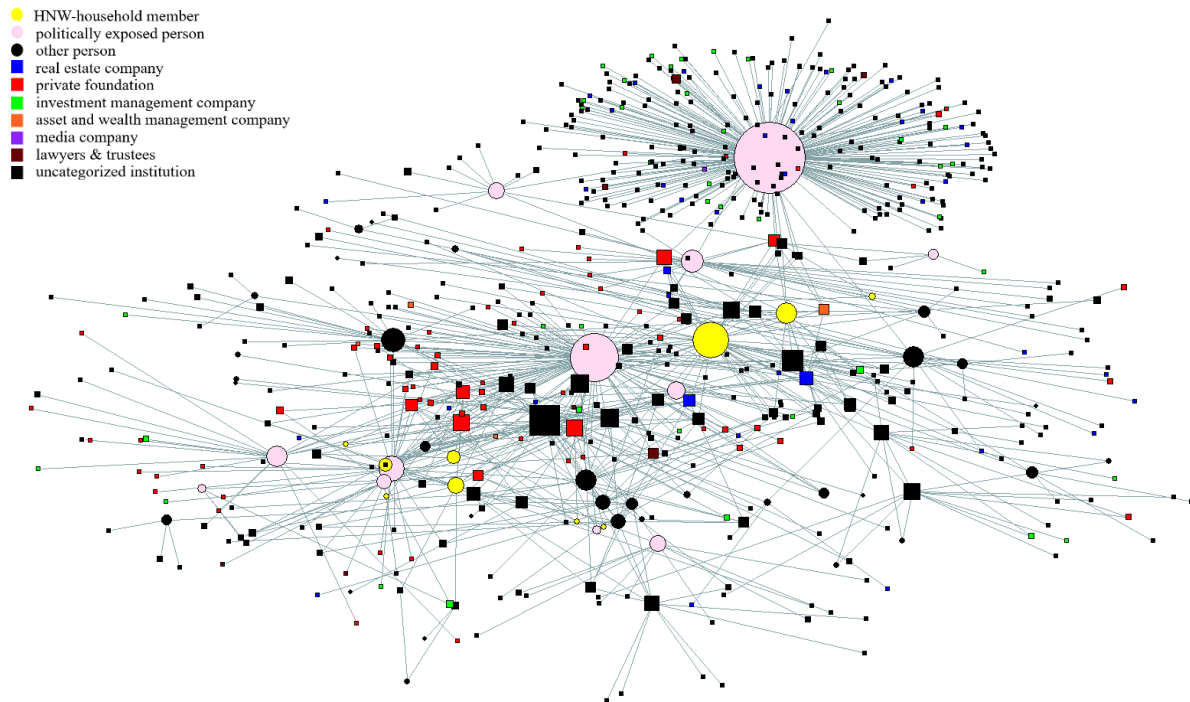


Figure 13. Network structure of the Trierenberg family (46th position in the super-rich-sample).

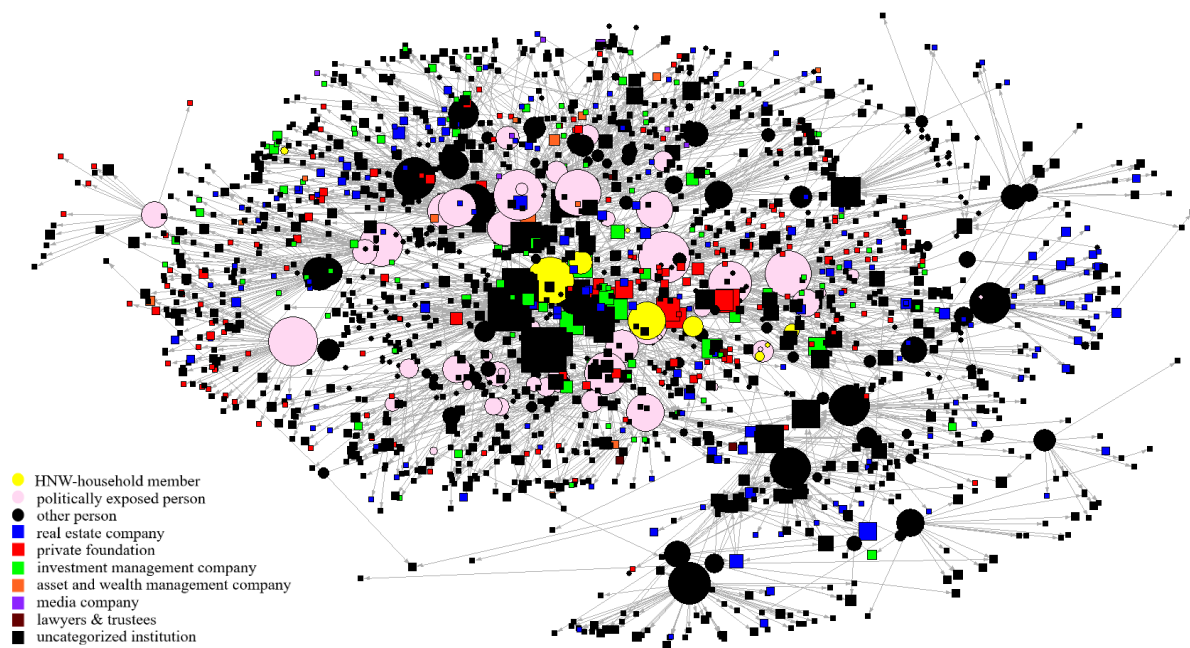


Figure 14. Network structure of Rauch Franz & family (23rd position in the super-rich-sample).

While there have been many examples of instances where HNW-households seek to exert direct political influence through party donations or the financial support of ideological advocacy think tanks (in Austria particularly the neoliberal think tank ‘Agenda Austria’), it is a common

pattern for PEPs to emerge as critical nodes in HNW networks. In these contexts, their political connections and networks appear valuable to HNW-households engaged in different industries, such as the paper and wood industry, the construction industry, or the textile industry. Numerous studies have highlighted the close entanglements between politicians and business and industrial elites (e.g. Luechinger and Moser 2020; McGann 2016), identifying practices such as golden handshakes and revolving door effects as consequences of the financial interests of politicians, which often lie beyond the scope of anti-corruption measures. Although the close connections of PEPs in our sample of HNW-households do not directly suggest political influence in favor of the interests of the super-rich, their prevalence nevertheless indicates a consistent pattern of wealth concentration.

Furthermore, we also found mutual relations between HNW-household networks and neoliberal think tanks in Austria. One of the main goals of successful think tanks is influencing public opinion and political decision-making through the advocacy of specific interests in the media (McGann 2016; Kinderman 2017). Therefore, the financial support for neoliberal think tanks provides an opportunity for the top ppm of the wealth distribution to impact on public debates about the societal implications of wealth concentration as well as on the issue of wealth and inheritance taxation. Thus, the financial support of neoliberal think tanks provides the top ppm of wealth distribution with an opportunity to influence public debates on the social implications of wealth concentration as well as on the issue of wealth and inheritance taxation. Against this background, it is quite telling that the financial supporters of Agenda Austria ('Förderkreis'), the most prominent and well-connected Austrian neoliberal think tank (see e.g. (Pühringer and Stelzer-Orthofer 2016; Schlögl and Plehwe 2015), include numerous individual and corporate donors, who also appear in our sample of HNW-household networks. Unsurprisingly, private foundations are another important fraction of their financial support group.

6. Conclusion

The increasing concentration of income and wealth on the national and international level is crucial given the increasing societal challenges associated with it. With this network analysis of structural patterns within the networks of HNW-households in Austria, we contribute to the ongoing debate on the political economy of wealth concentration and highlight typical patterns of connections as well as several idiosyncrasies of HNW-household networks. Wealth concentration among the top ppm of the wealth distribution is particularly high in Austria compared to other OECD countries. Thus, a deeper understanding of the structural dimensions of networks among the super-rich and the institutional dynamics of wealth concentration and accumulation is crucial for revealing the blind spots in the political economy of the super-rich in Austria. While data availability and quality are always an important issue in inequality studies (i.e. adjusting the wealth distribution for the 'super-rich'), our sample offers a heterogeneous and illustrative example of different patterns of wealth biographies in Austria. Furthermore, our network approach allows us to unveil several idiosyncrasies of the super-rich:

First, the sample of HNW-households is male-dominated, with about 7.5 times more male than female individuals listed in the super-rich-list. Second, both the level of HNW-households as well as on the overall level of the super-rich-network in Austria highlight densely connected nested company structures. Using different legal forms of small limited companies ('GmbH'),

holding and participation companies, real estate corporations and private foundations, wealth and company ownership structures often remain opaque, opening a potential door for tax evasion. This is particularly true for private foundations. As one tax advisor puts it in an article on the advantages of private foundations in the Austrian Business Magazine *Trend*, the private foundation enables companies ‘to keep their financial affairs confidential and to conduct their business activities discreetly.’ (Wichmann, n.d.) Third, the real estate sector seems to be of core importance for holding and further accumulating wealth (‘discrete’ mode of accumulation). While the share of real estate companies differs across clusters of HNW-households, almost all HNW-networks comprise a substantial share of real estate companies. This result supports the argument of Pfeffer and Waitkus (2021), who argue that inequalities in the housing sector mostly drive the comparably high level of wealth concentration. The real estate sector seems to be a particularly profitable arena for wealth accumulation and preservation of the top ppm. Fourth, in contrast to a ‘discrete’ mode of wealth accumulation, the largest cluster in our analysis, in particular, confirms the persistence of a strong ‘industrial complex’ of wealth accumulation. This cluster consists of HNW-households from a variety of industries (e.g. automotive, machinery, construction, agriculture, forestry, pulp and paper, etc...), which furthermore tend to have stronger connections to PEPs. Concerning the capacities of wealth, it is particularly the political power of the top ppm and their networks, which manifests in the ability to impact the regulatory and legal framework for the accumulation and inter-generational persistence of wealth. Fifth, our network analysis allows us to identify typical arenas of connection within and between HNW-networks. On the one hand, strategic partnerships (e.g. ‘Speedinvest’), wealth management companies, and think tanks. On the other hand, we identified typical central nodes within and between HNW-households: agents, strawmen, and administrators.

These particular patterns of connectivity point to an increasing societal challenge which we finally want to emphasize in our conclusion: the growing incompatibility of unfettered wealth accumulation with the functioning of democracy and democratic institutions. In this respect, it is not only the still widespread use of quite opaque and non-transparent legal forms around private foundations and nested holding and real estate companies, which allow HNW-households to potentially hide their wealth. In many cases, the central position of politically exposed persons within and between HNW-household networks indicates the existence of revolving door effects (e.g. Luechinger and Moser 2020; McGann 2016) as a direct form of political impact. Hence, in our sample of HNW-household we found former Federal Chancellors, former Ministers, Head of Departments in Ministries and Members of the Austrian Parliament. Even more, our network analysis of HNW-households has shown several recent examples of direct funding of political parties by the super-rich but also several connections of HNW-households to media corporations.

The archetypical example in this respect is the media corporation network of the Dichand-family, a very illustrative example of the concentration of media companies, which was also raised in previous studies (Grisold and Grabner 2017). Yet, although there is no evidence of a direct influence on the reporting of these newspapers, in the long run, newspaper managers will have to pay attention to the newspaper's financial situation.

In all, our network analysis unveils structural patterns of wealth concentration of Austrian HNW-households and highlights various idiosyncrasies in the political economy of the super-

rich in Austria. While several corruption scandals in the last years have shown illegal practices of gaining political influence and tax fraud, most of the nested corporate network structures within and between HNW-households are within the Austrian legal framework. Yet, given the uneven power balances between specialized wealth-managing law firms, individual ‘administrators’ of the wealth of HNW-households on the one hand and tax administration and financial market supervision authorities, the lack of transparency within complex corporate structures serves the self-declared interest of discrete wealth management. In other words, not only the absence of wealth and inheritance taxation, but also the legal framework of Austrian corporate law supports wealth accumulation of a very small fraction of HNW-households (Pistor 2021).

Against this background, the network analysis in this paper could also be of high political and societal relevance. García and Mateos (2021) have shown that the Spanish Tax Agency uses SNA tools to locate communities with potential tax risks. Therefore, it collects tax data of natural persons, their family networks, and associated corporate networks. To overcome the lack of data on individual wealth, the agency estimates the net worth of taxpayers as it has access to data declared by the taxpayer. Furthermore, they draw from expertise from tax and accounting experts, big data analysts and data scientists. While our network analysis is not based on tax data, our approach similarly allows to unveil typical patterns within and between HNW-households in Austria, which the Austrian Tax Authority could also use.

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