Consequences of capital drain among EU member states

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ABSTRACT
The aim of this article is to analyze the capital drain among individual European Union (EU) member states and its cohesive and political consequences. Since the capital drain has not yet been calculated at the individual country level, the methodological part of this article delves into this calculation in more detail. Between 1999 and 2018, Ireland and Luxembourg had the highest capital drain due to their tax haven policies. Apart from these extremes, Czechia experienced the largest capital drain during this period. Inequalities among EU member states were gradually decreasing in terms of gross domestic product and gross national disposable income, suggesting that the EU's cohesion policy has partially been successful in reducing inequalities among EU countries. However, capital drain and its populist interpretations may become a significant political problem for the most negatively affected countries.

KEYWORDS
capital drain; spatial inequalities; gross disposable income; gross domestic product; European Union

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1. Introduction

Economic inequalities are one of the most widely discussed topics among the world's leading economists and geographers (such as Sala-i-Martin 2002; Smith 2008; Harvey 2010; Piketty 2014; Piketty and Saez 2014). In the perspective that sees inequalities as a problem escalating over time (see Keynes 2018), a state or a multinational organization must intervene to reduce disparities through capital reallocations. The European Union (EU), or previous organizations respectively, has focused on this objective since its establishment when it adopted the Treaty of Rome in 1957 with one of the specific goals being to "reduce the economic and social differences between the EEC's [European Economic Community] various regions". An outcome of this stance was the conceptualization and implementation of the European cohesion policy in 1980s (Molle 2017). Nowadays, the EU spends about one third of its budget on this policy, implemented through EU funds every year. Its importance is evident from the turbulent discussions in countries of Central, Eastern, and Southern Europe about the proposed plan for cuts in the cohesion policy (e.g. AP News 2019).

However, there is a reverse capital flow exceeding EU funds (Kučera 2016; Keller 2017) which may have a significant effect on EU cohesion policy. This "capital drain" (Hakenes, Schnabel 2010) is gaining political priority mainly in the countries experiencing problems with massive capital outflow (e.g. Chmelař et al. 2016). In a simplified dichotomous view at the European level, these are peripheral states in Central, Eastern, and Southern Europe that are sources of cheaper labor and production in sectors with lower added value compared to the core states in Northwestern Europe where more advanced technology and more profitable economic activities are concentrated (Storper 2018; Pavlínek 2022a). In the literature, it is quite frequently debated at the level of intranational regional disparities (Hakenes and Schnabel 2010; Bečicová and Blažek 2015; Hána, Hellebrandová 2018). Although such discussion is practically non-existent among states. From the perspective of several theories (Myrdal 1957; Wallerstein 2011), capital should move from the periphery to the core (Wallerstein 2011).

By acceding to any economic union that aims to remove trade barriers, a new member state exposes its market to competition from the old members. In peripheral regions (for the difference compared to FDI in core regions, see Pavlínek 2022b), the inflow of foreign direct investments (FDI) often has a positive impact on the growing macroeconomic indicators (Hlaváček and Bal-Domanska 2016). After a certain time, however, it facilitates the draining of profits from the host economy (Kučera 2016; Grela et al. 2017). It is a process that follows the logic of capitalism because FDI is primarily a tool to achieve the profits of TNCs (Pavlínek 2022b). Therefore, it is not perceived negatively at first glance, but to a certain extent, it may have fundamental cohesive and political consequences. In this context, EU funds can be perceived as compensation for capital flows aimed at not increasing disparities (Keller 2017). It is important to find out how individual states stand in this process. The aim of this paper is, therefore, to analyze the balance of the capital drain among individual EU member states. The article then discusses its cohesive and political consequences.

2. Capital drain and its impact on EU member states cohesion

There are specific spatial capital flows known as "regional drainage", explaining the flows on the intranational regional level (Bečicová and Blažek 2015), or more generally as "capital drain" (Hakenes and Schnabel 2010). We can explain both essentially using world systems theory with hierarchical relationships between the dominating 'core' and the dependent 'periphery' (in a simplified and illustrative dichotomous view; in reality, there is a continuous spatial transition through the semi-periphery areas; Pavlínek 2022a). Due to the dichotomy of producers with lower-priced inputs and lower returns in peripheral regions and producers with higher-priced inputs and higher returns in core regions, the world system is characterized by mechanisms that cause value redistribution from the periphery to the core (Holubec 2009; Sorinel 2010; Wallerstein 2011). Small possibilities of safe and high-return investments in peripheries are not suitable for producers' savings, which could be invested in core regions where a lack of available finance is in contrast. Consequently, with no regulation between regions or states, capital freely flows and accumulates in the core (Myrdal 1957; Wallerstein 2011). This is one of the factors contributing to growing regional disparities and devaluation of capital in the peripheries, as documented several times at the regional level (Hakenes and Schnabel 2010; Bečicová and Blažek 2015).

Since core and peripheries may exist on many hierarchical levels, we can study these flows on an international level. In this view, the organization of the global economy based on global value chains (Gereffi 2005) and global production networks (Henderson et al. 2002) is essential. Peripheral regions are characterized (among other things) by a high degree of foreign ownership and control due to the strong position of core companies in comparison to peripheral ones, the lowering of trade barriers (including the establishment and expansion of the common market in the EU), deregulation of FDI, and various government policies (Pavlínek 2022a). Leading firms from the economic core then make higher profits in lower-cost peripheries (Pavlínek 2022a) and control

value creation and capital flows throughout the entire value chain. All decisions are tailored to their interests, respecting conditions in specific countries that may differ according to their involvement in the global economy (Gereffi 2005; Pavlínek and Ženka 2011). The created and enhanced value can be captured in the territory where it was created (Henderson et al. 2002), but it can also flow elsewhere, which can be influenced by both corporate policies (e.g., profit shifting to tax-advantaged countries, see Nerudová et al. 2023) and government policies (e.g., tax regulations). Corporations thus have a significant influence on the places where they operate, including through the capturing or the transfer of values, which can take place in both directions to and from the host economy (Henderson et al. 2002; Coe et al. 2004). This process then has a significant influence on strengthening the position of the core and perpetuating the peripheral status (Pavlínek 2022a).

Therefore, it makes sense to compare the long-term balance of each country's transfers in Europe to understand the position of countries from different types of regions in the core-periphery dichotomy. Moreover, this level of capital drain may have significant political effects, as this topic can be used and abused for political goals at the state level. It can be present as an uneven labor burden on behalf of wealthier countries, which creates not only economic but also fundamental political inequalities that can lead to political tension and conflicts (Piketty 2014). Therefore, there is a significant gap in our knowledge about this capital drain on the international level, which should be filled for a better understanding of European disparities and their political consequences.

In the literature, capital flows such as FDI are commonly studied, either from an international perspective (Borensztein et al. 1998), including their relationship with political regimes and democracy (Jensen 2003; Li and Resnick 2003), or with a more focused view on their ability to be used in a destination country (Alfaro et al. 2004) and their impacts on the destination country (Javorcik 2004; Shahbaz et al. 2018; Pavlínek 2022b). Similarly, within the EU, flows of EU funds are often studied, with a focus on their impact on mitigating intra-Union convergence both at the international (Puigcerver-Peñalver 2007) and state regional levels (Lolos 2009; Kyriacou and Roca-Sagalés 2012). The reason is that the objective of reducing regional disparities was already established in the Treaty of Rome, and later emphasized with each individual accession (Magrini 1999). In one view, the common market, as one of the building blocks of the EU, is not enough to alleviate economic and social inequalities, which is why EU regional policy was introduced (Fiala et al. 2018: 604). According to another view, it is precisely the common market that creates these inequalities, which need to be addressed by EU regional policy (Fiala et al. 2018: 606). The main EU tool of the regional and cohesion policy is EU funds (Puigcerver-Peñalver 2007) with a significant amount of financing (350 billion euros in 2014–2020, Fiala et al. 2018: 622), representing approximately one third of the EU budget (Goulet 2011; European Commission 2014).

Their efficiency has been intensively discussed, but no consensus has been reached concerning their impact on Europe-wide regional convergence (Ederveen et al. 2006). Becker et al. (2010) demonstrated that the funds have a relatively significant positive impact on economic growth, which is also mentioned by Cuaresma et al. (2008). Some authors observe a positive impact on the growth of regional incomes (Lolos 2009) or intra-state reduction of regional disparities (Kyriacou and Roca-Sagalés 2012), but they do not evaluate the contribution to Europe-wide convergence. In this perspective, Dall'Erba and Fang (2017) claim that the allocation of resources has become more efficient in recent years, and Grela et al. (2017) state that the countries of (semi-) peripheral Central and Eastern Europe are successfully converging to the GDP levels of the core older EU member states. On the other hand, Mihaljek (2018) applies different methods to evaluate convergence and expresses a more skeptical view, claiming that no significant convergence has been demonstrated. An interesting observation is advanced by Gros (2018) in his study: there is convergence between east and west in the EU; however, if the comparison line runs between north and south, this process is stagnating considerably. Many authors believe that the EU funds do not have any significant impact on the convergence process (e.g., Boldrin and Canova 2001; Dall'Erba and Le Gallo 2008; Esposti and Bussoletti 2008) or even that their economic impacts may be more significant in more developed areas (Cappelen et al. 2003).

On the other hand, there are monetary transfers, which can be included under the term "capital drain", such as company dividends or bank interests from loans to enterprises or states by institutions from the European core (Keller 2007). These are not extensively studied, although they may even exceed FDI or EU funds flows in volume, and their direction is oppositional, from the periphery to the core. For example, in Czechia in a third of the year 2015 (based on profits from foreign direct investment, income from work abroad, interest, and mandatory contributions to the common budget of the EU), the flow of transfers abroad was about 450 billion CZK (approximately 20 billion euros; 1 euro = 23 CZK), which corresponded to roughly 9% of the Czech GDP. At the same time, about 160 billion CZK (approximately 7 billion euros) flowed into Czechia from abroad (Kučera 2016), plus 93 billion CZK on average (4 billion euros) from EU funds in the period 2014–2020 (Ministry of Regional Development 2023). These disparities could have both international and intranational consequences.

It may explain a certain failure of EU regional policy in European cohesion because there are two reverse directional flows, of which EU funds play a minor role (Keller 2007).

3. Methodological framework

Unfortunately, there are no pan-European statistics to contribute to this discussion about capital drain. Therefore, we must calculate the capital drain from available indicators. The methodology is based on the paper by Kučera (2016), who assesses the drain of one country as the difference between the gross domestic product (GDP) and the gross national disposable income (GDI). By following this procedure, we obtain positive or negative capital drain values for each country, which are determined by the inflow or outflow of the mentioned transfers.

The most frequent indicator of the level of economic development is GDP, as the basic index of production performance of an economy (Rojíček et al. 2016). It can be calculated in three ways: using the production approach, the expenditure approach, or the income approach. The basic form uses the expenditure approach and is as follows:

$$GDP = C + 1 + (X - M)$$

where C represents final consumption (household and governmental institution expenditures for final consumption); I is the creation of gross capital; X is the export of goods and services, and M is the import of goods and services.

However, it has two fundamental shortcomings (Piketty 2014). Firstly, the inclusion of expenditures on the restoration of used capital (production equipment and buildings, including the restoration of infrastructure after natural and other disasters) which is necessary to avoid constant depreciation of assets, leading to a reduction in production capacity and income, but which is not income by itself. Secondly, and most importantly for the aim of this paper, GDP does not reflect interstate or interregional capital flows. For example, a country where businesses are owned by foreign owners will have lower revenues than its GDP value. On the contrary, countries with investments abroad can have significantly higher incomes than the GDP they produce on their territory (Piketty 2014). The use of the GDP indicator would thus mask a "capital drain" and increasing inequalities at the international level (Alvaredo et al. 2018). With the increasing volume of international capital and financial flows, multiplied by the free movement of labor between states, in multiple countries, the GNI development significantly differs from GDP. Therefore, the GDP index is not appropriate for measuring living standards and interstate inequalities (Alvaredo et al. 2018).

The following equation defines the transition from GDP to gross national income (GNI):

$$GNI = GDP + NY$$

where NY is the balance of initial income of residents with non-residents (Rojíček et al. 2016). Eurostat, based on the European System of Accounts (ESA) 2010 (Eurostat 2013), classifies the three types of transactions between residents and non-residents as initial income. Firstly, there are employee remunerations containing salaries and other benefits paid in cash or in kind that were awarded to individuals for their work performed for enterprises in a different location than their place of residence (workers at the borders, seasonal workers, employees of international organizations etc.). Secondly, there are employee salaries paid to non-resident workers or paid by non-resident employers. The most voluminous item of initial income is yields on investments representing income originating from the ownership of foreign financial assets and liabilities paid by the residents of one economy to the residents of a different economy. This includes interest, dividends, payments of branch profits, and direct investors' share in undivided profit of companies operating in the field of direct investments, and income allocated to insured persons under insurance systems, pension security, and standardized security schemes.

The third equation expresses the transition from GNI to GDI:

$$GNI = GDP + NCT$$

where NCT is the balance of current transfers in relation to foreign countries. Rojíček et al. (2016) state that the main types of current transfers are, besides the ordinary taxes and social allowances, also current transfers between governments or international organizations and so-called remittance, i.e. payments transferred by foreign employees to their families – residents of a given country. An important equation is the application of GDI:

$$GNI = C + S$$

where C is the final consumption and S is the gross national savings. Finally, the last equation describing the relation between GDI and GDP is:

$$GNI = GDP + NY + NCT$$

where the difference between GDI and GDP is the balance of initial income and current transfers.

Most of the data comes from the Eurostat database (2019), in particular, data concerning GDP, GDI (Non-financial transactions [nasq_10_nf_tr]), and the population size for the EU member states (Population change – Demographic balance and crude rates at national level [demo_gind]), indicating the population sizes at 1 January of the respective year. The observed period represents an interval from 1999

to 2018, which was selected in an effort to capture the period of European integration that involves the development before the widest accession in 2004, the critical financial crisis in 2008, and the post-crisis development by 2018. The period ends a year before the turbulent time affected by the COVID-19 pandemic and avoids any measures from the end of 2019 responding to the approaching virus threat as well. Croatia was omitted because it was not a full member of the EU for the majority of the observed period, and Eurostat did not have all the required information available, which is necessary for an empirical analysis. The UK is considered to be a member state because it was throughout the studying period.

For assessing international inequalities between EU member states, we used the Gini coefficient as the most frequently used tool for comparing the relative values and their regional concentration. Based on the definition, its values may range from 0 to 1, where the value 0 represents equal distribution of wealth, and 1 represents maximum inequality, where wealth is concentrated in the hands of a single individual. An average coefficient may be used for comparison of various populations, countries, or regions (Eckey and Türck 2005). Another method of measuring regional disparities is a population-weighted form of the Gini coefficient which reflects differences in the population of units. The EASYSTATS statistic tool from Novotný et al. (2014) was used for data administration and Gini coefficient calculations.

4. Observing capital drain and its impact on inequalities within the EU

The EU presents many opportunities to its member states. Apart from its broad social and political influence on them, the opportunities for these states are

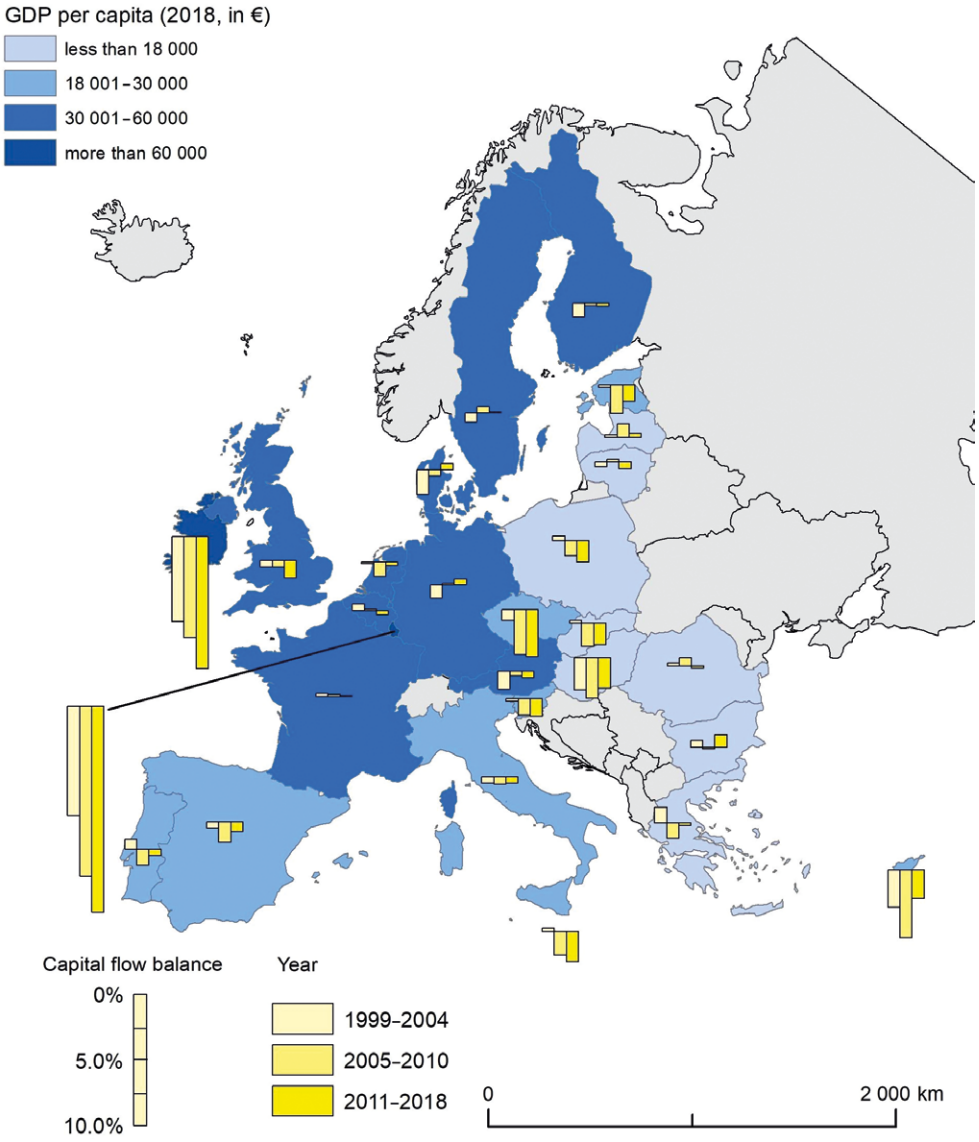

Fig. 1 GDP per capita and average yearly balance of financial transactions with non-residents (2018 in €; 1999–2018 in % of GDP).
Source: Eurostat 2019; authors' calculations.

to influence world political events and to participate intensively in the future of Europe, as well as the EU's emphasis on human rights and peaceful dispute resolution, the economic aspect mainly revolves around access to the EU market and EU funds. However, there are also some "hidden" negative consequences that could have crucial adverse impacts on economic performance, EU convergence, and the economic and political development of some countries. One such consequence is capital drain, best reflected in the difference between GDP and GDI. This difference, relative to the GDP amount, is displayed in Fig. 1 for three different periods: 1999–2004 as the period before large-scale accessions to the EU, 2005–2010 as the crisis period, and 2011–2018 as the period after the end of the global financial crisis and before the COVID-19 pandemic.

In Fig. 1, we can observe several extremes. Ireland and Luxembourg are the largest ones. These two countries are top European tax havens (Delate 2022; Hána 2022), and thanks to their favorable tax system, multinational companies may reroute their profits to these countries, resulting in their GDP being much higher than GDI. This example thus emphasizes the need for careful interpretation, as sometimes the negative difference between GDP and GDI can be caused by capital drain, where a part of GDP flows abroad (and therefore GDI is less than GDP), while other times it can be caused by a given country significantly increasing its GDP by receiving various types of capital flows from abroad. A similar example can be noted to a lesser extent in Cyprus, which is also considered one of the European tax havens (Delate 2022; Hána 2022). In contrast, this difference between the two indicators does not appear in the case of the Netherlands, although according to some sources, it also exhibits characteristics of a tax haven (Delate 2022; Hána 2022).

By 2004, we can generally say that the higher the FDI, the greater the GDP growth, and the more massive the outflow of capital in the form of dividends from the host country that reduces the value of FDI remaining in the investing economy (Kučera 2016). Except for France, Portugal, Belgium, and Greece, all EU-15 countries had negative balances in this period 1999–2004. This can again be explained in two ways. The example of Spain as a top receiver of FDI (Carbonell and Werner 2018) shows that a negative balance can be caused by the positive balance of investment flow. Basically, the same situation is typical for Central and Eastern European countries in this period (Mahutga and Bandelj 2008; Simionescu et al. 2017) which opened their economies to FDI mainly from Western European countries (which may cause negative values in Western Europe). However, it has to be noted that even Western Europe is not exempt from capital drain, and it may influence negative values in this region as well. The EU's annual balance is negative, with an average of 150 billion euros 'flowing away' from it annually (Eurostat 2019; authors' calculations). The question is, where to (there is a possible influence of the flow to non-European tax havens or to the U.S. and Eastern-Asian investments, which should be researched in more detail). Hungary's position is quite special. We could assume that its significant negative balance in this period is due to a different liberalization process in Hungary, which began before 1989 during the last decade of the Communist regime when it allowed joint ventures with foreign firms and later legalized their foreign ownership in the 1980s (Mahutga and Bandelj 2008). Similarly, its privatization process in the transition period was faster than in other countries (e.g., Bonin et al. 2005). In the studied period, therefore, there could already have been massive capital drain from Hungary.

To a large extent, the 2005–2010 period can be considered a transition stage. As it is the period after the EU accession of new member states in 2004 and the opening of the labor market (with a transition period of several years in some countries), we can observe, in addition to the already mentioned FDI and tax havens, the important role of EU funds for the resulting balance and the influence of remittances as well. Some new member states (such as Latvia, Lithuania, and Romania) experienced a high level of economic emigration, bringing back a considerable amount to the country, manifested in GDI increase. On the other hand, a capital drain in the Central European countries grew stronger. The situation since 2011 is more or less similar to the previous one. Development in Denmark is remarkable. In the first period observed, Denmark ended up with a significantly negative balance, but currently, the balance is positive. This example can demonstrate the general characteristic cycle. In the first stage, a western country is an investor whose investments do not yield any profits yet. In the second stage, the balance is settled, and in the final stage, the country reaches a positive balance of transactions with foreign countries. Czechia can be seen as an opposite example: the massive inflow of FDI from the 1990s caused the growth of negative balance, making it the economy with the most negative balance of transactions with non-residents, after omitting the tax havens' outliers.

4.1 Economic inequalities measured on the basis of GDP

First, let us briefly examine the level and development of economic inequalities based on GDP, which is a macroeconomic indicator that does not reflect a capital drain. Fig. 2 shows data from 1999 to 2018, with the Gini index starting at 0.40, indicating very high inequalities in the observed area. A lower level of the population-weighted form of the Gini coefficient can be explained as follows. The new member states (referring to states that joined the EU since 2004) represent only about 20% of the total population of

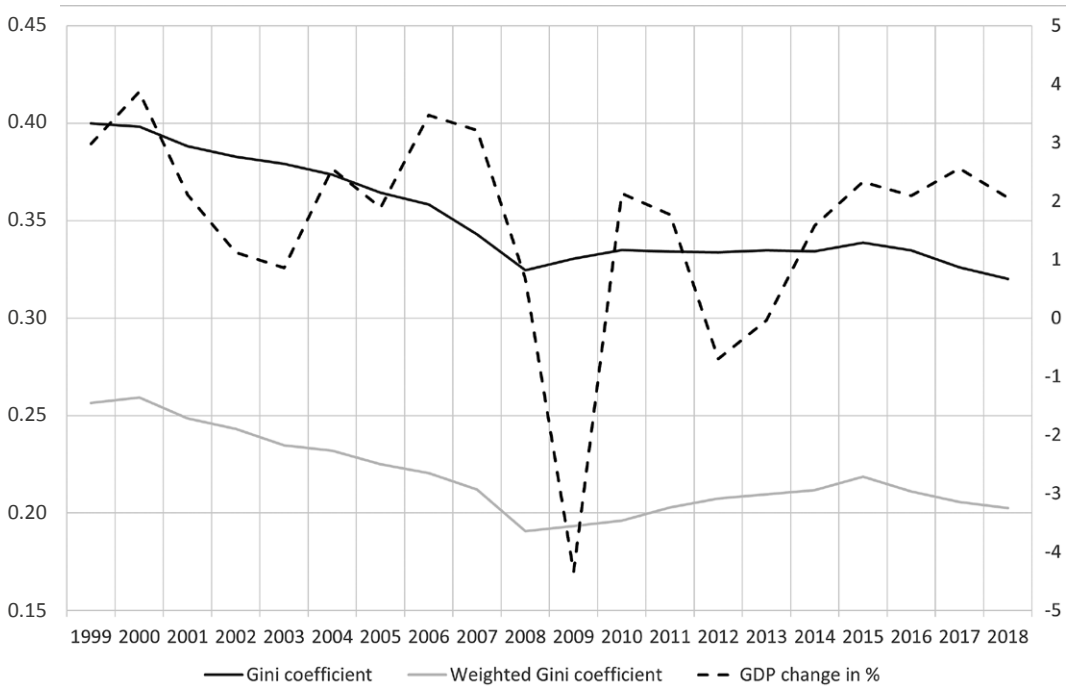

Fig. 2 Gini coefficient of GDP per capita for EU-27 (1999–2018).
Source: Eurostat 2019; authors' calculations.

the EU-27 (Eurostat 2019; author's calculations), which reduces the weight of the overall polarization between the old and new EU members significantly.

The first stage, by 2004, is defined as the EU accession preparation stage of the candidate countries. We can observe a sharp decline in inequalities, explained by the massive inflow of capital into Central and Eastern Europe and the introduction of more advanced manufacturing technologies in these countries. In the second stage, from 2004 to 2008, GDP continued to grow, and the Gini index dropped from 0.37 in 2004 to 0.33 in 2008, which can be considered a great success of the EU in reducing disparities.

The third stage, from 2008 to 2015, influenced by the global economic crisis (2008–2009), saw slightly growing inequalities. It is not necessarily just the weak impact of the EU cohesion policy; we must consider the fact that periods of crisis always have a negative impact on increasing inequalities (Novotný 2006; Goda 2018). The Greek rescue package and the establishment of the European Stability Mechanism (ESM) by the Eurozone member states might have been important factor as well. The duration of the rescue process is similar to the period during which we noticed the growth of inequalities. The drop in Greece's GDP, gradually drifting away from the average, was increasing the overall dispersion of values, which consequently has an impact on statistical indicators of inequalities. We must also consider the problems of other countries, such as Spain, Portugal, Italy, and Ireland. We can see, mainly from the population-weighted form of the inequality coefficient, how much Spain and Italy, countries with large populations, dropped by 100% of the EU average in that period, which again increases the dispersion of values and the aggregate coefficient. In the case of Ireland, its drop in GDP between 2008 and 2014 can be seen as quite the opposite because its development actually appears to be approaching the average, reducing the dispersion of GDP values. For the record, Eurostat indicates that Ireland dropped from 148% of the EU average in 2007 to 129% in 2009. In 2018, it grew again to 181%, this time resulting in divergence compared to other countries. Considering that many countries experienced a drop below the average, we have to ask who was growing above the EU average in the last period. It was Germany, which grew from 117% of the average in 2007 to 126% in 2015, Denmark, which grew from 123% to 128% in 2014, and Hungary, which grew towards the EU average between 2008 and 2015 by 8 percentage points. Recession in the Baltic states, prolonged stagnation in Slovenia, and Czechia during the post-crisis years resulted in divergent movements of European economies.

The last stage, from 2015 to 2018, is characterized by a reduction in overall disparities. GDP growth values exceed 2% again, which has a positive impact on the overall reduction of disparities and overall convergence. We must note that the EU-27 did not manage to reach the inequality values before the global economic crisis until 2018, when the observed coefficients already show slightly lower values than in 2008. However, based on the authors' calculations,

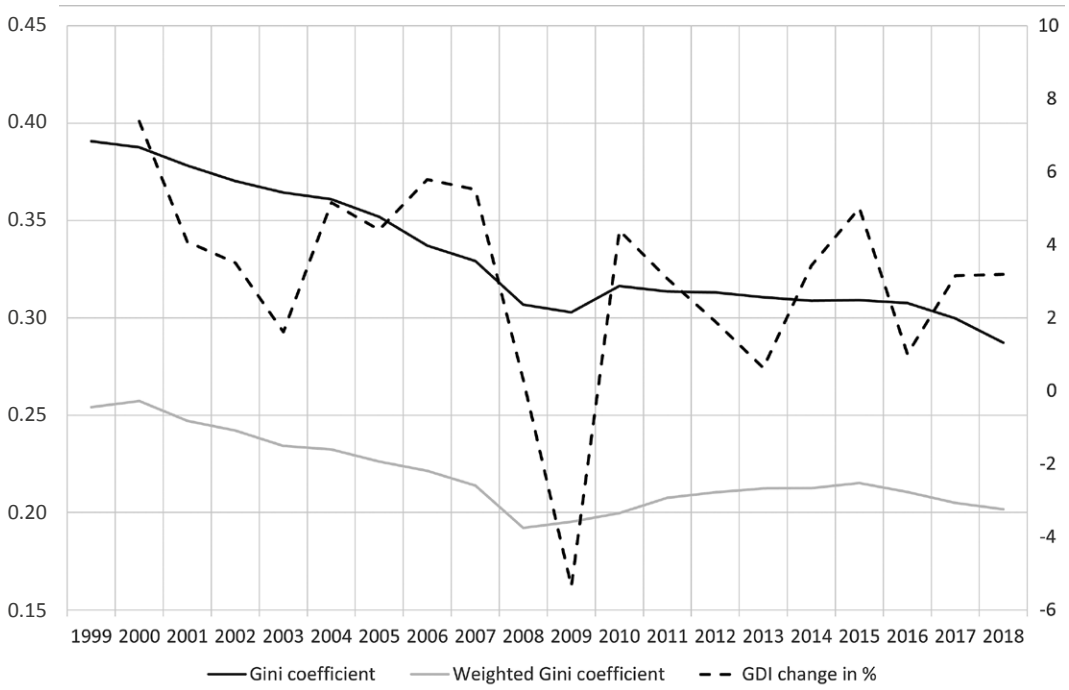

Fig. 3 Gini coefficient of GDI per capita for EU-27 (1999–2018).
Source: Eurostat 2019; authors' calculations.

the Gini index for the former EU-15 in 2018 was 0.24, compared with a mere 0.18 in 1999.

4.2 Economic inequalities measured on the basis of GDI

Inequalities measured based on GDI led to an interesting observation and surprising results at first glance. When comparing the charts in Fig. 2 and 3, it is possible to conclude that the level of disparities measured by GDI is slightly lower than when using GDP. However, the explanation is clear. Upon closer examination of the outliers, Ireland and Luxembourg, we can see their significant decrease (Ireland falls by 20%, and Luxembourg by 30%), which, in turn, results in the reduction of dispersion from the average and a decrease in variability rates. A similar situation is observed at the opposite extreme in the second period, in the case of Romania, and in the third period, in the case of Bulgaria, with positive balances of transactions with non-residents, which again leads to a reduction of dispersion from the average compared to the variability measured from GDP. After disregarding the outliers, Ireland and Luxembourg, we obtain an opposite result. However, the difference in the Gini coefficient of GDI is higher by only 3 thousandths compared to GDP. The development trends in inequalities measured by GDI are almost identical to those measured by GDP. In the observed period from 1999 to 2018, convergence between EU member states was revealed.

However, the aggregate index of inequalities within the entire EU does not indicate the development of individual countries or regions. Fig. 4 illustrates how the GDI value has changed in relation to the EU average over the three periods from Fig. 1. In simple terms, a reduction of European disparities would occur if richer countries achieved values below 100, and poorer countries achieved values above 100. Richer countries, in most cases, move slightly below the value of 100. But their distance from the EU average is not so crucial as to claim that it contributes to reducing disparities in the EU. Moreover, in several cases, there is an increase (above 100) in the distance from the EU average in some richer countries (e.g., Belgium, Germany, Netherlands, and Austria). Conversely, there are a few positive cases of poorer countries approaching the EU average (e.g., high values of Bulgaria, Romania, Lithuania, and Latvia), but it slows down over time. It corresponds to the sharp reduction of inequalities in 1999–2008 in Fig. 3 and could be the effect of incoming FDI in the first period and the subsequent capital drain, which has slowed the divergence with the core region. In several cases, the values of these countries are around 100 or even below it (e.g., Hungary in 2005–2010 and Poland in 1999–2004).

In the discussion of the world system theory, we came across a difference between the old and new member states. The development of new member states, which we can describe as peripheries, and their convergence with the old and economically more advanced member states from the European core (Storper 2018; Pavlínek 2022a) needs to be considered as one of the priorities of the European cohesion policy, as stated in one of the specific goals stated already in the Treaty of Rome. In Fig. 5, we see

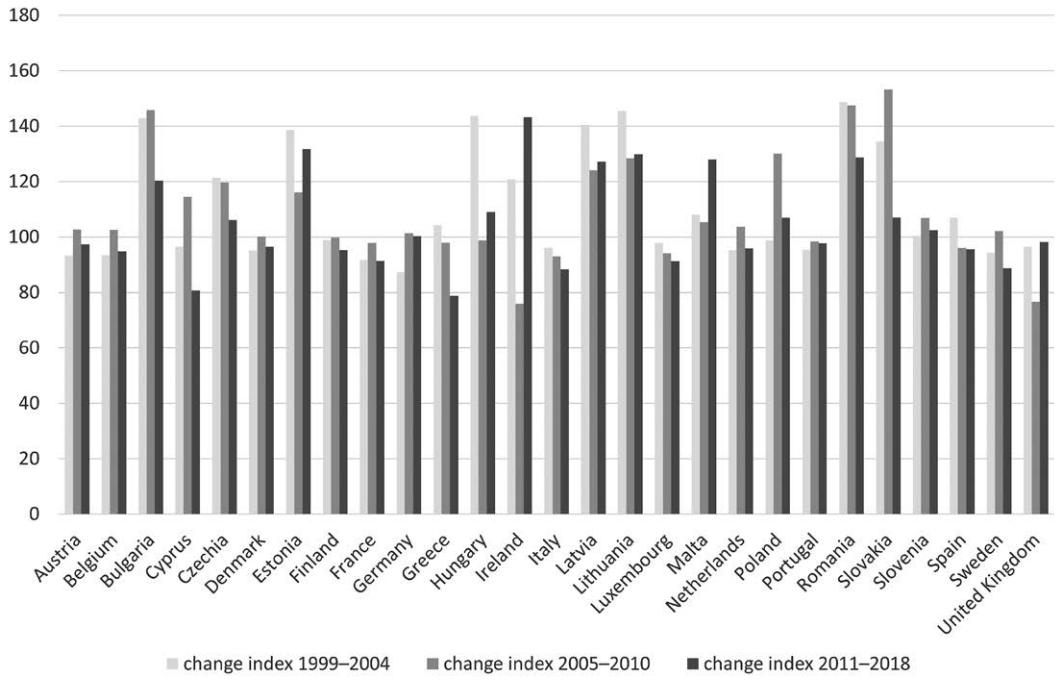

Fig. 4 Change index of the annual GDI development of individual states compared to the annual European Union average (1999–2018).
Source: Eurostat 2019; authors' calculations.

a continuous increase in the share of new member states in the total GDP and GDI of the EU. Again, we can confirm that there is a certain degree of convergence between the old and new member states. Nevertheless, the share of new member countries still does not correspond to the share of their population, which we could then call a sign of equalization of inequalities within the EU. If the inhabitants of these countries have fewer wealth resources than the rest of the EU, we can still consider them the poorer part of the EU. Moreover, we can see a difference between the share of GDP and GDI as well. A significant part of the produced capital is drained from these countries, reducing the disposable wealth made by their labor.

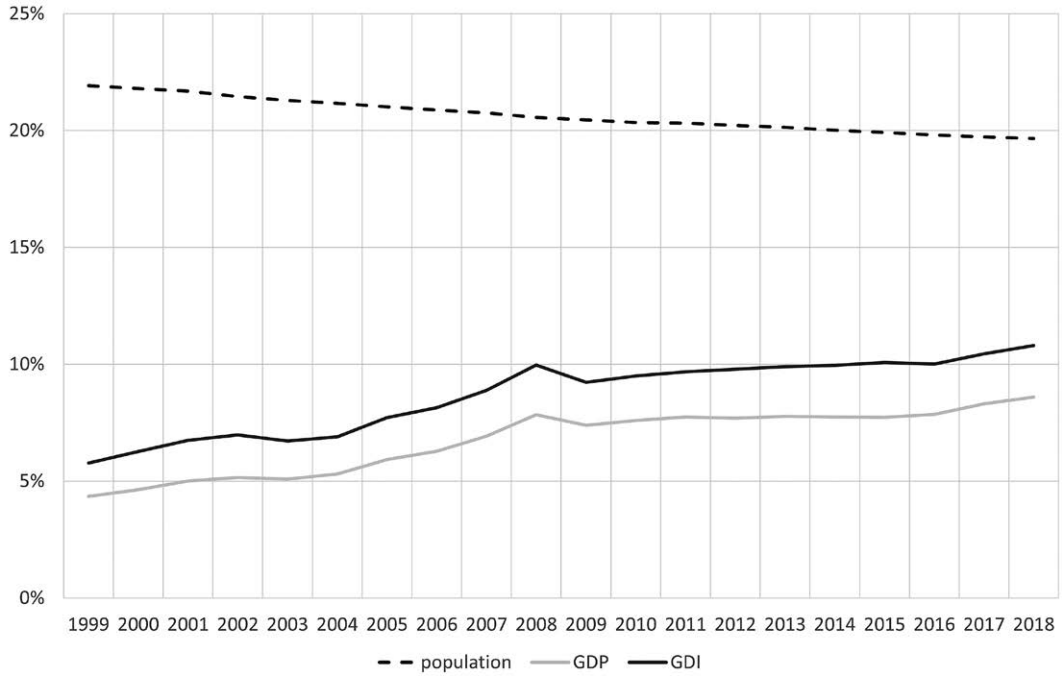

Fig. 5 Shares of new EU member states in selected attributes (1999–2018).
Source: Eurostat 2019; authors' calculations.

5. Discussion about cohesive and political consequences

The available literature offers several interpretations of inequalities in the EU territory. However, almost none of them also evaluate the hidden capital drain that is not shown in the value of the commonly used GDP. Surprisingly, when using GDI, which accounts for the capital drain that, according to world systems theory, flows from the periphery to the core (Myrdal 1957; Holubec 2009; Sorinel 2010; Wallerstein 2011), inequalities in the EU are smaller than when using GDP. However, it is necessary to add that this is primarily due to the distorting extremes of Ireland and Luxembourg, the countries with the highest GDP in the EU and the biggest difference between GDI and GDP. It highlights the fact that both countries are tax havens, which fundamentally affects the level of GDP (due to profit shifting by corporations) and the subsequent comparison. If we disregard these outliers, we get an opposite result of the Gini coefficient of GDI, which is, however, only slightly higher compared to GDP. At the same time, we can see a considerable reduction in inequalities both in the case of counting GDP and GDI. Although this stopped in 2008, and since then there has been a slight increase or stagnation caused by the crisis (a common characteristic of crises, as see in Novotný 2006; Goda 2018), in the last years of the observed period, the values of the Gini coefficient have fallen again. However, this decrease in inequalities is not at the same pace as before 2008.

However, this generalized view cannot reveal all the details associated with capital drain between countries or EU regions. Many countries from the European core and periphery have GDIs that approach the European average from both sides. In light of this, we can conclude that some degree of economic convergence among member states is occurring in the EU. However, there are a few countries within the European core that are extending their lead over the EU average in GDI (Belgium, Germany, Netherlands, Austria). Conversely, there are a few countries that are moving away from the mean (Hungary, Poland, but only in certain periods). Based on the difference of GDP and GDI shares in the new EU members states (accessed since 2004), we may see that capital drain reduces the statistics of their economic performance. Therefore, we can say that capital drain does not have a major impact at the pan-European level but has a negative impact on some new member states that have less available capital or wealth than they have generated through their own labor (Kučera 2016).

There are important cohesive and political implications of this capital drain. If we compare periods before and after 2004 when the new member states accessed the EU, the convergence was only slightly slower, and GDI growth was only slightly lower in the first period. This calls into question the impact of EU membership in reducing inequalities, which should be one of its essential political tasks according to the founding treaties. Is there this trend, or is the EU riddled with capital drain that disrupts any political efforts to support the peripheries with a more difficult position in the common market? It is necessary to note that the effort to invest and the use of profit is quite natural in capitalism and not a negative phenomenon in principle. However, in the global economy and international relations, leading firms from the world's economic core control value creation and capital flows regardless of any other interests unless government policy sets out clear regulations (Henderson et al. 2002; Gereffi 2005; Pavlínek and Ženka 2011). Thanks to the hiddenness of capital drain, it can exceed a tolerable level and can significantly disrupt the positions and well-being of some countries when they cannot use the wealth they have created on their territory to a large extent. However, the crisis period from 2008 to 2015 is very risky when evaluating the efficiency of the cohesion policy. The growth of inequalities might be seen as its failure, but there could also be the potential positive impact on the moderation of European inequalities growth during the crisis. Thus, the question remains about how EU inequalities will continue to change after the end of the series of crises associated with the COVID-19 pandemic and the Russian invasion of Ukraine.

Evaluating the capital drain, one of the highest levels of negative balance for Czechia requires consideration. The 7% outflow of produced assets is significantly above the European average. Therefore, it is necessary to resolve this situation (e.g., by reforming the Czech tax system or introducing a common EU tax system) and open a political discussion about this phenomenon nationally and in the EU as well (Chmelař et al. 2016). The reason is crucial. The reduction of disparities under these conditions might not be regarded as positive by voters in the new member states. These states can reach the average income of the EU in 40–80 years; it is not so hopeful an outlook, which may lead to a wave of populist approaches promising a faster convergence process using less acceptable interventions (Mihaljek 2018). In more general terms, strongly unequal societies tend to disintegrate democracy by voting authoritarian leaders and to become unstable societies (Tridico 2018), which is now threatening Europe (Weeks 2018; Tismaneanu 2019), mainly the Central European region (Plenta 2020; Mravcová and Havlík 2022).

6. Conclusion

The aim of this paper was to analyze and discuss capital drain in the EU and its cohesive and political impact. Once capital drain is taken into account, the level of inequality is slightly lower. This suggests that the inflow or outflow of capital in the form of dividends does not significantly contribute to increasing

disparities within the EU. However, it does have a crucial impact on some states in the EU's periphery, from which a relatively large amount of capital is drained. This may lead to negative political consequences, including rising instability and the emergence of populist political parties that promise radical interventions. Such a political situation is particularly prevalent in Central European countries, which serve as the primary source of capital drain. This article seeks to highlight the necessity of discussing the current situation at both the national and EU levels, with a focus on tax system reforms and the potential introduction of a common European tax policy aimed at curbing this capital drain. By doing so, it may be possible to meet the expectations of new member states and the lofty objectives set forth upon the founding of the EU with the signing of the Treaty of Rome in 1957.

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