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**ΔΙΔΡΥΜΑΤΙΚΟ ΠΡΟΓΡΑΜΜΑ ΜΕΤΑΠΤΥΧΙΑΚΩΝ  
ΣΠΟΥΔΩΝ ΔΙΚΑΙΟ ΚΑΙ ΟΙΚΟΝΟΜΙΚΑ**

*Διπλωματική Εργασία*

**SPEED OF JUSTICE AND DEVELOPMENT**

**Του**

**ΑΘΑΝΑΣΙΟΥ ΠΕΦΤΙΝΑ**

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## **Abstract**

The present dissertation examines the possible correlation between the speed of justice and economic development. The aim through this data-based research is to analyze the different factors that affect judicial effectiveness and their relationship with the different measures of economic development. The essay concludes that there is a positive relationship between judicial effectiveness and economic development, while at the same time disproves some anticipated correlations between factors relevant to judicial effectiveness.

## **Περίληψη**

Η παρούσα διπλωματική έχει ως θέμα τη διερεύνηση της σχέσης μεταξύ της ταχύτητας απονομής της δικαιοσύνης και της οικονομικής ανάπτυξης. Μέσω μιας βασισμένης σε δεδομένα έρευνας επιχειρείται η ανάλυση διαφόρων παραγόντων που επηρεάζουν τη δικαστική αποτελεσματικότητα και τη σχέση τους με πτυχές που μετρούν την οικονομική ανάπτυξη. Η εργασία καταλήγει στη θετική σχέση μεταξύ της δικαστικής αποτελεσματικότητας και της οικονομικής ανάπτυξης, ενώ παράλληλα προβαίνει και στη διάψευση αναμενόμενων διασυνδέσεων μεταξύ παραγόντων της δικαστικής αποτελεσματικότητας.

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## Introduction

The word “justice” derives from the latin words “*ius dicere*”, which translates as “state the law”. This close correlation between the concept of justice and the delivery of justice itself is indicative of the importance of solving cases by the judiciary. Indeed, a society is composed of individuals of different and quite often conflicting interests. Law has the primary purpose of resolving disputes between individuals concerning their rights and obligations. These rights have often directly (and one could argue that in any case indirectly) impact on the economic relationships (and thus in the market) between factors, as they arise from disputes concerning property, contracts, businesses, competition, labor and others.

In the present essay we shall attempt to address the question concerning the relationship between judicial effectiveness and economic development. In order to do so, we will also analyze data relevant to the judicial system of different (European) countries, so as to clarify which factors can determine a well-functioning court system, and which cannot. Indeed, many factors are considered -intuitively- to be crucial for the effectiveness of justice. However, as it will be demonstrated, the belief regarding the importance of some factors is unfounded. We will try to investigate the answers in questions such as: what is the relationship between the average time required for a decision to be made in a country and the total number of judges in that country? What role does the court’s staff (apart from judges) play in judicial effectiveness? Do countries with less total government budget for courts display less judicial effectiveness?

The questions addressed are interlinked with the economic theory regarding the importance of institutions in economic development. In this essay we view courts as an important economic institution that may have a great impact in growth, inequality or poverty, due to the fact that they play a key role in determining property rights and regulating the market (see Acemoglu, Robinson, 2008, p. 2). Courts are the ones who, in practice, state “*the rules of the game in a society*” (in Douglass North’ words, see North, 1990, p. 3) and judicial delay is already linked in literature as a major factor that affects incentives and growth.

The essay follows a three-chapter division. In Chapter One we (briefly) address the concept and context of judicial effectiveness and the analysis and issues faced in literature, both legal and economic. In Chapter Two we move to a data-based analysis of judicial effectiveness, and we attempt to provide some answers -or at least shed some light- to the

questions posed. Finally, in Chapter Three, we address the potential relationship between the speed of justice and development.

## **Chapter 1: Judicial effectiveness: context and content.**

### *1. What is judicial effectiveness?*

From an economic perspective, judicial systems work as institutions who affect the appropriate function of markets (for whether institutions affect growth see Acemoglu et al., 2001). Essential properties of a judicial system are the accessibility to the public, the predictability of its decisions, as well as its ability to provide justice in a timely manner. But why are they important? The importance of judicial systems lies in their crucial role of determining and enforcing (property) rights (North, 1981). As it has been pointed out in literature, examining “*de jure* institutions” (law on the books) is not quite enough to understand an economy, as it is equally important to investigate the practical enforcement of the law, known as the “*de facto* institutions” (Voigt, 2013). This is emphasized even since Adam Smith developed the idea that the legal enforcement of property rights is crucial for the development of an economy (Smith, 1763: I).

Some authors distinguish between judicial efficiency and judicial efficacy (or effectiveness). They propose that efficiency reflects the productive aspect of judicial activity, and, in specific, refers to the optimal way of managing resources to achieve the best possible result. On the other hand, they argue that it is effectiveness what most scholars are referring to when measuring judicial delay, as it reflects the level that the judicial system is able to cope up with the demands of justice (Marciano et al., 2018, p. 3). This distinction has some merits. Indeed, an “effective” judicial system is not necessarily an “efficient” one, as it may perform well in terms of delivering decisions in a timely and proper manner (effective), and yet be extremely costly (and thus inefficient). For this reason, we will follow the terminology proposed and refer to the outcomes of disposition time as “judicial effectiveness”.

The next important thing to consider is the way that judicial efficiency is going to be measured. The main indicator of the effectiveness of a judicial system met in literature is the time needed for a court to solve a case after the plaintiff has filed an application (Chemin M., 2009, p. 6n). This length is known as the “disposition time” and is used to measure judicial delay. Under this perspective, an effective judicial system is a court system that can solve cases in a timely manner. Delay is measured in days (or years) and is calculated based on statistical data provided by the states’ Ministries of Justice (Marciano et al., 2018, p. 5).



One way to measure the delay of a case  $c$  is to compare the date of start ( $t^0_c$ ) and the date of conclusion ( $t^1_c$ ). The length of delay for a given country/court  $i$  in a given time  $t$  for a number of cases dealt in that time  $c$  would thus be:

$$JD_{i,t} = \frac{1}{c} \sum_{c=1}^n (\tau_c^1 - \tau_c^0)$$

This brute-force method is very difficult in application. States usually do not keep track of the time length of each case separately, but instead keep statistical records with aggregated data. Instead, a standardized method to estimate an average duration of a case before the courts, labeled as “disposition time”, is used by the European Commission for the Efficiency of Justice (CEPEJ). Under this methodology, the number of undersolved (pending) cases is divided by the number of resolved cases in a time period in order to provide a measurement of judicial delay:

$$JD_{i,t} = \frac{\text{pending}_{i,t-1} + \text{pending}_{i,t}}{\text{incoming}_{i,t} + \text{solved}_{i,t}}$$

In the present dissertation, we accept disposition time as the appropriate indicator of judicial effectiveness, and we further adopt the methodology followed by CEPEJ as a way to measure it. As it has been pointed out, a reasonable length of cases is essential for the delivery of justice, usually phrased in the legal maxim: “*justice delayed is justice denied*”<sup>1</sup>. Or as another writer emphasized: “*average speed is a more accurate measure of the efficiency of a court and matters more to the involved parties than the overall quantity of decision outputs*” (Yeung et al, 2019, p. 6).

The implications of an “unjust” society are detrimental for an economy. Markets are functional as long as property rights are ensured and respected. Similarly, businesses are possible through the binding force and faithful application of contracts between economic factors (Glaeser *et al.*, 2004). The inability of justice to enforce legal rules in the appropriate manner would lead to a weakening or elimination of the rights of individuals, and, consequently, of their economic importance. Uncertainty over property rights poses a challenge to trade and discourages investments and entrepreneurship, thus undermining economic development (Hodgson, 2018).

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<sup>1</sup> *In diem vivere in lege sunt detestabilis* (Delays in the law are hateful).

The effectiveness of a judicial system works as an indicator of the risk in markets in a particular country. Most legal disputes are disputes between individuals concerning their rights, particularly in civil cases (property rights, application of contracts, e.tc.). As such, delivery of justice results in lowering uncertainty for economic actors, which, in turn, has a positive impact on the economy: transaction costs are reduced, investors are encouraged to invest while opportunistic behavior is dissuaded (see also (Djankov et al., 2003a).

This view is also shared in jurisprudence. Indeed, the European Court of Human Rights has in many cases adhered that excessive delay of justice amount to a violation of the rights of fair trial. According to art. 6 par. 1 of the European Charter of Human Rights: *“In the determination of his civil rights and obligations or of any criminal charge against him, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law”* (added underline). As the Court has pointed out: *“in requiring cases to be heard within a ‘reasonable time’, the Convention underlines the importance of administering justice without delays which might jeopardize its effectiveness and credibility”* (Vermillo v. France, 1991, §38).

Another important thing to point out is the casualty problem that is common when one examines the relationship between two factors. Indeed, it is not easy to decipher whether it is the speed of justice that has an impact on economic development, or if the last affects the speed of a judicial system. Arguments can be found in favor of both sides and it is safe to argue that these two factors are intercorrelated. Indeed, it is intuitively expected from a low GDP country to be unable to cope with the many economic demands of a functional judicial system (e.g. hiring judges, founding courts). However, as argued above, it is also shown that a well-performing judicial system plays a crucial role in the economic development of a state. Therefore, for the purpose of the present essay, it is argued that there is no mandatory “arrow of time” when it comes to the relation between speed of justice and economic development.

## *II. Judicial effectiveness in academic literature*

Academic literature and several studies have already supported the beneficial effects of a properly-functioning judicial system to the economic development of a state. One study estimated that reducing the time needed for a court to reach a decision by 1% has a positive impact on the growth of firms (see Vincenzo, Leandro, 2017). Another study, by examining

a dataset of 175 countries, found that judicial delay plays an important role in growth, supporting that every extra year that it takes for a court to solve (dispose) a case has the effect of lowering growth rate by over 1% (Melcarne, Ramello, 2016). An empirical study investigated the impact of access to justice (ATJ) on GDP per capita growth in a panel of 83 countries, spanning from 1970 to 2014 and found that increasing ATJ by 1% increases the five-year growth rate of GDP per capita by 0.8 p. p. (Deseau et al., 2019).

As it has been already mentioned, most literature uses the speed by which cases are solved by courts as a proxy for judicial effectiveness altogether (see among many Binford et al., 2007, Dalla Pellegrina, 2008). Others are critical of this usage and, though recognizing its preciseness (compared to the more arbitrary measurements of other qualities, such as judicial independence or justness of the decisions), stress out that speed is but one of the many aspects of judicial efficiency (Yeung et al., 2019, p. 4).

On the other hand, substantial judicial delay has been linked in literature with opportunistic behavior and the subsequent delay of growth, as creditors might respond to this strategic behavior and be reluctant to increase credit (Japelli et al. 2005). A study which examined the 2002 reform of the Code of Civil Procedure Amendment Act enacted in India found that the shortening of the disposition time led to fewer breaches of contracts and had a positive effect on investment and access to finance (Chemin, 2010).

A study based on a ten-year data (2003-2007) from 27 Brazilian courts suggested that there is a positive correlation between the number of judicial assistants and court productivity, as the number of the assistants mitigates the relationship between court caseload and productivity (Gomes, Guimaraes, Akutsu, 2016). On the other hand, a study examining how judicial staffing and caseload influence judicial productivity in Slovenia suggested that ignoring endogeneity issues lead the existing literature in erroneous results and that productivity is related with the demand (Dimitrova-Grajzi et al., 2010). This conclusion is in agreement with another study, who suggested that civil caseload per judge affected the judicial performance, in a way that courts with reduced caseload required more resources in resolving per case (Engel, Weinshall, 2020). Similarly, a study using panel data on Israeli courts found that the number of case dispositions is independent of the number of serving judges and that the productivity among judges varies (Beenstock, 2004).

Several surveys stress the importance of the effectiveness of courts for firms. For example, a survey found that over half of small and medium sized companies stated the long

length of judicial proceedings is one of the main reasons they avoid to file a suit over intellectual property rights violations (EUIPO, 2016).

Other studies have focused on the qualitative aspects of justice and how it is related with economic growth. One study examined the relationship between judicial independence and GDP growth and found that real GDP growth per capita is not affected by the *de jure* judicial independence, but is nevertheless positively related to *de facto* judicial independence (Feld and Voigt, 2003). A study based on sample real cases supported that the main problems in Greek judicial system lies not solely on insufficient staffing, but also to organizational problems, involving lengthy procedures and restrictions over the providence of legal services in Greece (Mitsopoulos, Pelagidis, 2010).

A series of studies supported that judicial systems which follow the common law, where judges' decisions constitute precedence and thus make law, are more beneficial to economic growth in comparison with countries that follow a civil law system, where law is enacted by legislative bodies and organized in codes (see for example La porta et al., 1998). However, another study disputes this claim and finds no significant difference between common law and civil law systems (Melcarne, Ramello, 2016).

## **Chapter 2: Measuring and comparing judicial effectiveness**

In the present chapter we shall attempt to measure judicial effectiveness using the factor of the time required for a decision to be made by a court of law. Furthermore, we shall proceed by examining a series of data concerning the system of justice which are relevant with judicial effectiveness, in order to better decipher the key-factors that affect length of proceedings and dismiss those which play a lesser or minimal role.

### ***1. Important notes when measuring judicial effectiveness***

Judicial effectiveness is one of the most important factors in our research, as it is based on the estimated time required for courts to reach a decision. In other words, the effectiveness of a judicial system depends on the speed of justice of a particular state. Estimating judicial effectiveness often raises methodological challenges in regard with the peculiarities and diversity of the systems between countries. It is important to make some clarifications in order to make our data more comprehensible.

First of all, most judicial systems in Europe distinguish between administrative and civil/criminal courts. Administrative courts are responsible for resolving administrative disputes between government administration and citizens (E-justice, Europa, 2019). These include disputes on cases concerning taxes, administrative penalties, social security, etc. There are administrative courts of first instance and administrative courts of appeal. On the other hand, civil courts are concerned with private differences between individuals, while criminal courts try criminal cases. Civil and criminal courts are too distinguished between courts of first instance and courts of appeal. Both administrative and civil/criminal justice have a supreme court which decides appeals concerning the breach of law by court of appeals. Some jurisdictions further distinguish between courts in relation with more specific areas of law. An apparent example is the distinction between commercial and (other) civil cases. In the following data, all the civil and commercial cases are presented under the same index. Similarly, administrative cases are presented in their own chart as well. In the present dissertation we will not include the examination of criminal cases, as they lack the traits mentioned above concerning the importance of courts' decisions for the economy (regarding property rights, enforcement of contracts, etc.).

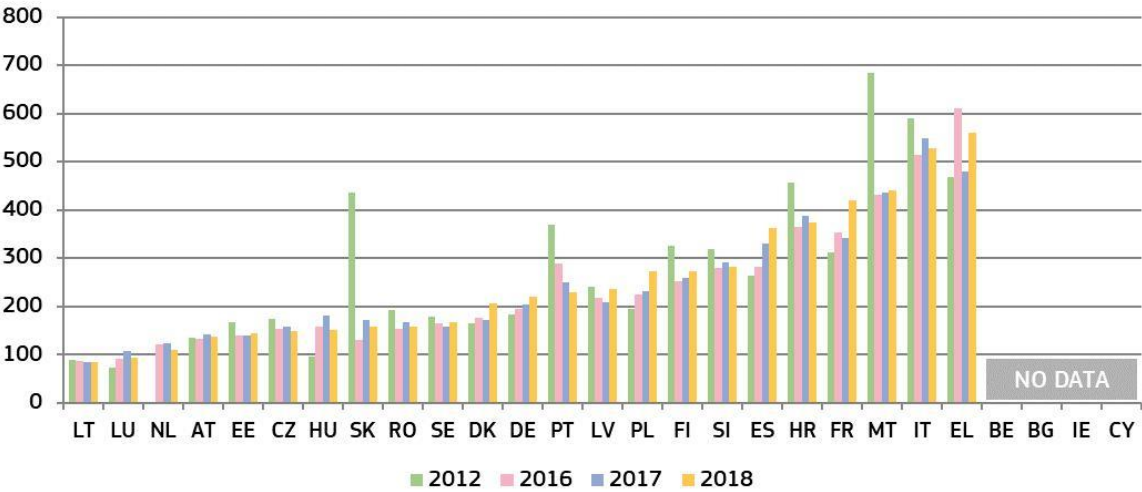
Secondly, it is crucial to point out that not all cases can be put on equal grounds. Some cases are from their very nature lengthy, as they follow a strict procedure. This is particular in criminal cases and many civil cases. There are some civil cases, however, where the other part does not contest the claim of the plaintiff or where the court's decision is based purely upon documents (e.g. uncontested payment orders). These decisions are quite often instant and thus including them in other civil cases would substantially distort our data. Similarly, in Greece, since 2015, most of the oral proceeding (examination of witnesses, pleading, etc.) in the Ordinary Procedure in Civil Courts has been altered to a written procedure. For this reason, we base our data on the distinction between litigious and non-litigious civil cases. Litigious are those cases where the parties contest in trial, while non-litigious are civil cases that fall upon the uncontested category (see the examples above).

A problem usually met in literature is to distinguish between a qualitative and quantitative aspect of judicial effectiveness. Some argue that judicial effectiveness cannot be measured by quantitative factors alone, as this would not take into consideration the important "qualitative" dimension of the judicial work. In specific, quantitative factors, it is argued, show nothing about the rule of law, *id est* the application and enforcement of rights

according to the law, or the quality of decisions (affected from external factors, like corruption and bribes). However, judicial effectiveness should be evaluated only on the qualities it bears, which is to deliver a decision in a consistent and timely manner. Whether this decision is actually “just” or becomes the product of corruption and external influence is no longer an issue of judicial effectiveness, but rather an issue of the political system as a whole. Indeed, I agree with the opinion that the quality of justice is complementary with democracy (Melcarne, Ramello, 2016), and I would further argue that issues concerning the quality of justice should be examined on the basis of a state’s democracy, and not specifically on its judicial system.

Following our thoughts, we are going to present a series of data which we think are crucial for determining and understanding the levels of judicial effectiveness between countries. Of course, our primal measure for judicial effectiveness would be the length of proceedings measured in days. Other useful data that we will include are the number pending cases at the end of the year at each country, as well as the number of incoming cases. Next, we will proceed by comparing our data on the length of proceedings with other judicial-related factors which are supposed to affect them, such as the number of judges in each country and the total budget that each country makes available for the court’s system.

*II. Length of proceedings among European countries*



*Chart 1, Estimated time needed to resolve litigious civil and commercial cases in first instance (in days), 2012 – 2018, The 2020 EU Justice Scoreboard.*

The above figure demonstrates the estimated (minimum) time needed to resolve civil cases, excluding those of which are non-contested as mentioned above, as well as commercial cases. Under the EU Justice Scoreboard methodology, which follows the CEPEJ method, the “disposition time” indicator is the number of unresolved cases divided by the number of resolved cases at the end of a year multiplied by 365 (days) (European Commission (2020), The 2020 EU Justice Scoreboard).

Under this figure, the ranking among European countries in terms of estimated time needed for courts to reach a decision at 1<sup>st</sup> instance is: Lithuania (LT) > Luxembourg (LU) > Netherlands (NL) > Austria (AT) > Estonia (EE) > Czechia (CZ) > Hungary (HU) > Slovakia (SK) > Romania (RO) > Sweden (SE) > Denmark (DK) > Germany (DE) > Portugal (PT) > Latvia (LV) > Poland (PL) > Finland (FI) > Slovenia (SI) > Spain (ES) > Croatia (HR) > France (FR) > Malta (MT) > Italy (IT) > Greece (EL).

As the above chart demonstrates, among these countries of European Union, Greece has the longest length of proceedings (between 450 and 600 days), followed by Italy, Malta and France. Germany has a length of proceedings of approximately 200 days, followed by Denmark, Sweden and Romania. Austria, Netherlands, Luxemburg and Lithuania have the show the lowest estimated time to resolve litigious civil and commercial cases at approximately 100 and less days.

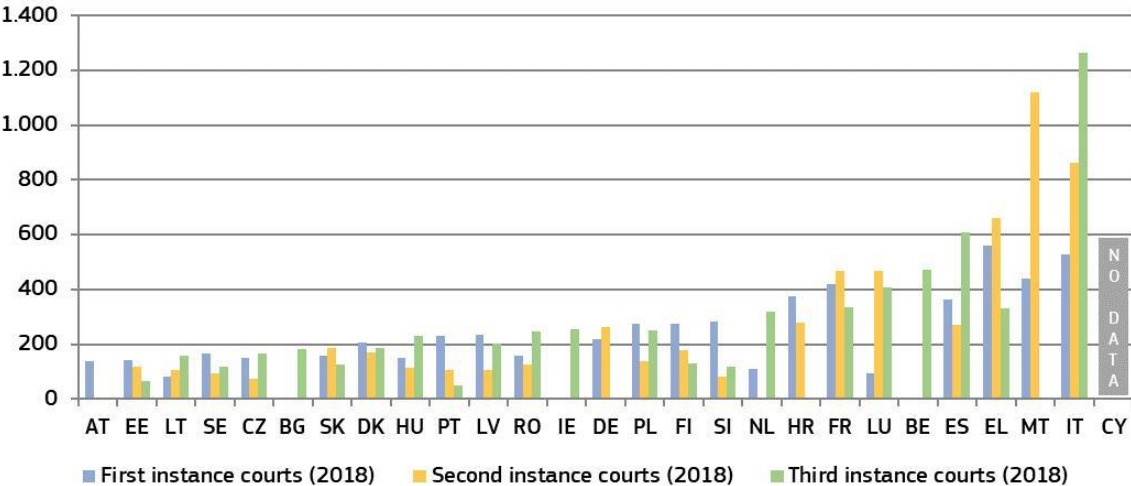


Chart 2, Estimated time needed to resolve litigious civil and commercial cases (\*) at all court instances in 2018 (1st, 2nd and 3rd instance/in days), The 2020 EU Justice Scoreboard.

Figure 2 demonstrates the length of trials at all court instances. As it can be observed, the countries' scale does not substantially change. However, it is interesting to note the difference in lengths between cases at first instance and the other two. Most countries whose length of proceedings is estimated to be around 200 days at first instance have lower length of proceedings at 2<sup>nd</sup> and 3<sup>rd</sup> instances (see Estonia, Sweden, Germany, Portugal, Latvia, Poland, Finland, Slovenia), while countries which show greater delay in 1<sup>st</sup> instance cases tend to have even more lengthy 2<sup>nd</sup> and 3<sup>rd</sup> instance proceedings.

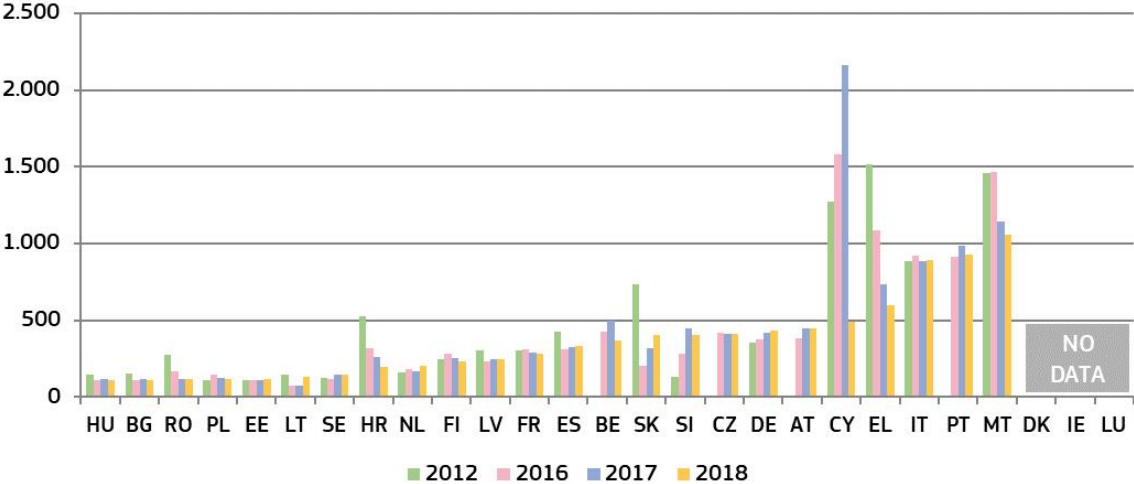


Chart 3, *Estimated time needed to resolve administrative cases at first instance (in days), 2012 – 2018, The 2020 EU Justice Scoreboard.*

Delay in administrative cases appears to be much greater than in civil cases for some countries. While Lichtenstein, Sweden, Hungary, Latvia, Estonia, Poland, Romania retain a length of proceedings close to 200 days in first instance, in most countries administrative cases prove to be far lengthier. For example, Greece shows an excessively high length at 1500 days in 2012, which was gradually reduced to 2/3 by 2018. Cyprus, on the other hand, has a gradually increase in the length of proceedings, from approximately 1250 days in 2012 to about 2200 days in 2018. Malta is also among the countries with the highest length of proceedings in administrative cases, above 1000 days. In contrast, France has a substantially lower length of proceedings in administrative rather than in civil/commercial cases.



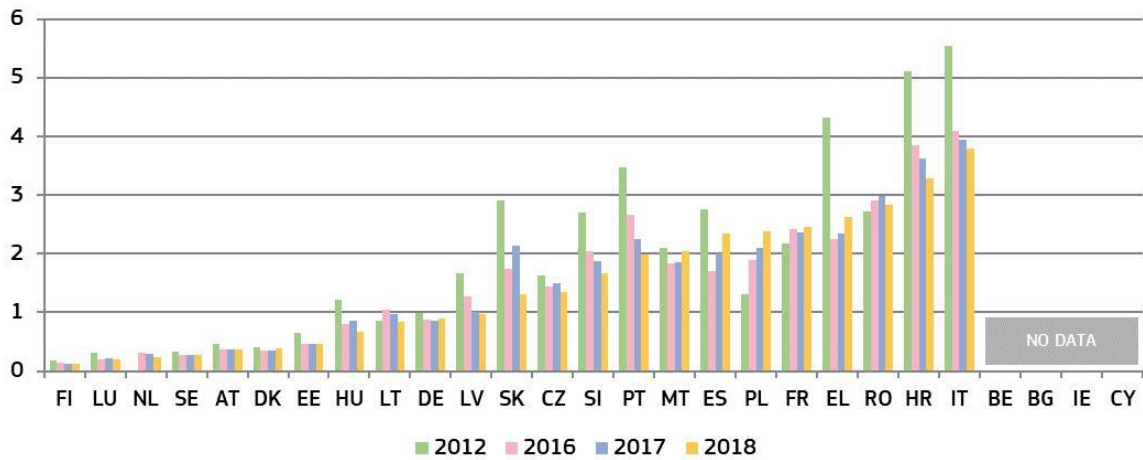


Chart 4, Number of pending litigious civil and commercial cases in first instance (per 100 inhabitants), 2012 – 2018, The 2020 EU Justice Scoreboard.

Another useful indicator is the number of pending cases, *i.e.* cases which remain to be ruled by the courts at the end of the year. As the figure above demonstrates, there is no significant deviation with figure X which reported the estimated time required for a decision to be made at 1<sup>st</sup> instance. The number of pending cases is of course in conjunction with the imported cases (new cases from the beginning of the year) and the court system’s rate of resolving cases.

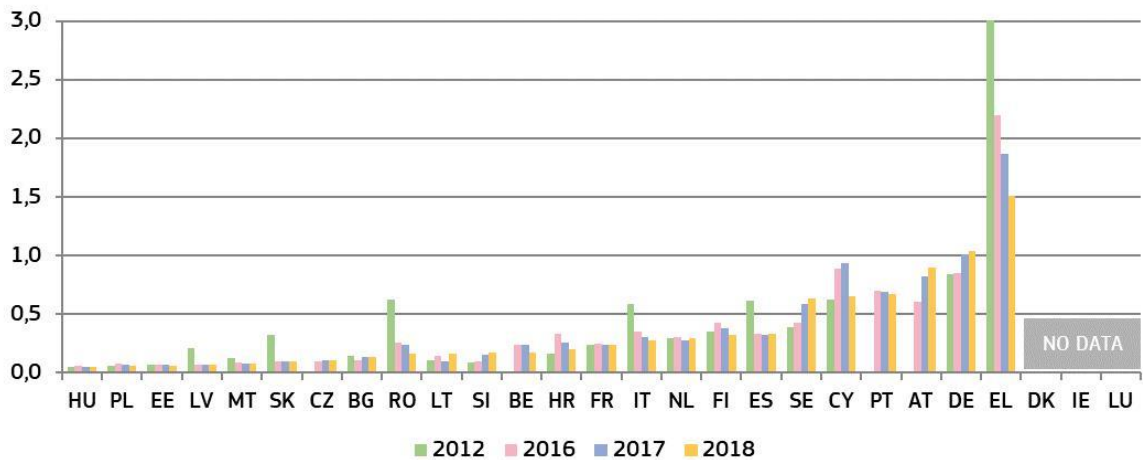
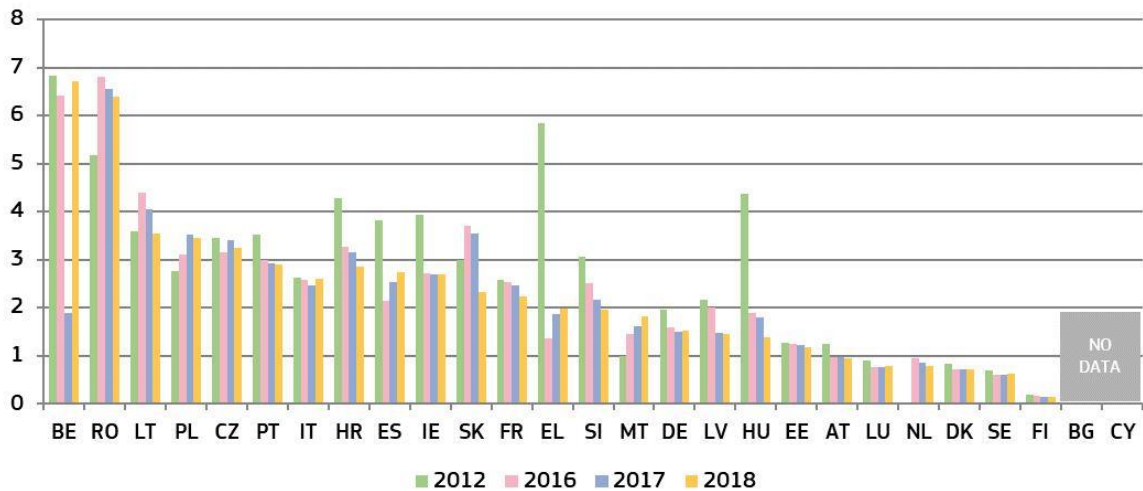


Chart 5, Number of pending administrative cases at first instance (per 100 inhabitants), 2012 – 2018, The 2020 EU Justice Scoreboard.

Greece is the only country in the above figure which shows more than 1 pending administrative case per 100 inhabitants. It is followed, with index above 0.5, by Germany, Austria, Portugal and Cyprus.

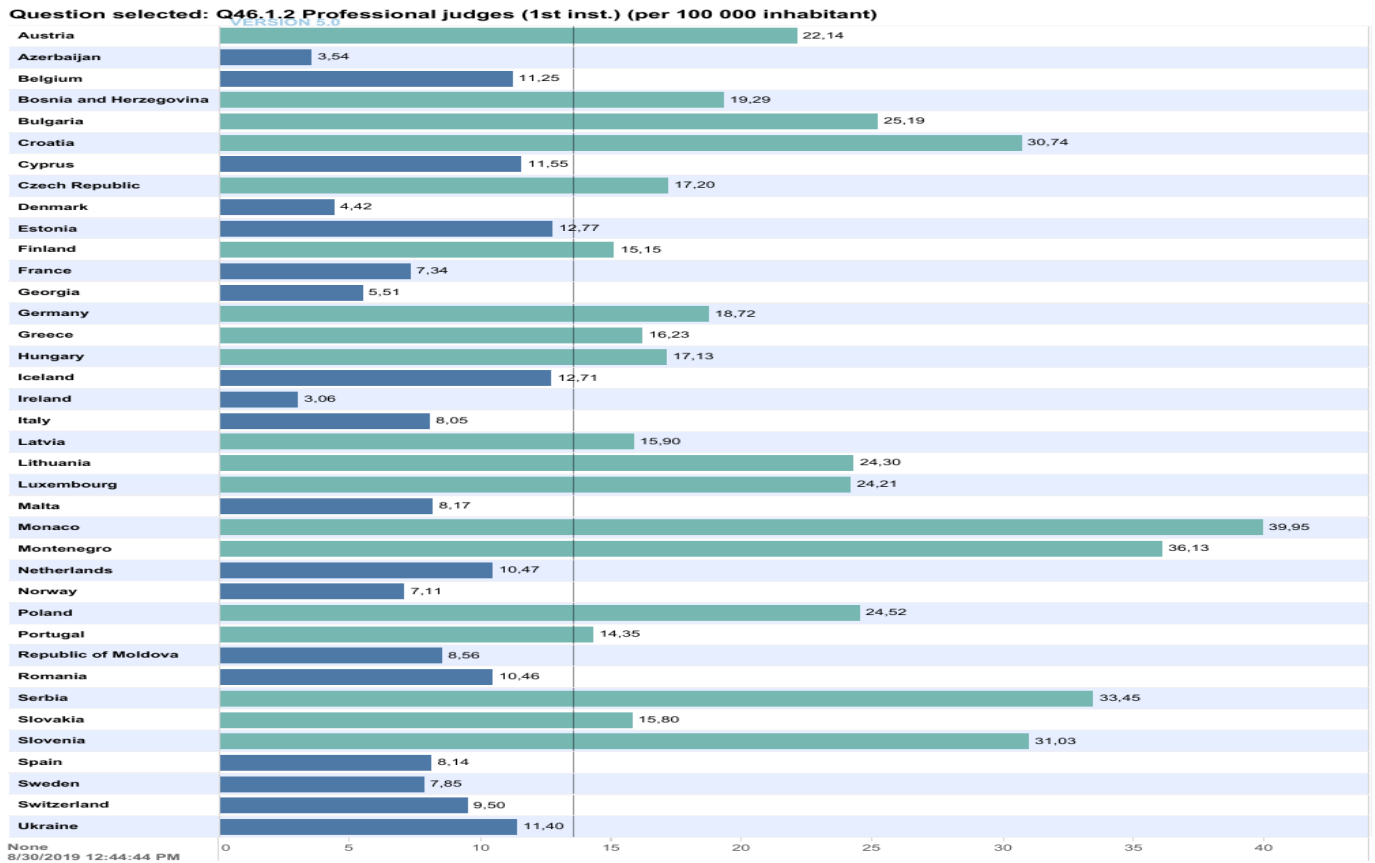


*Chart 6, Number of incoming litigious civil and commercial cases at first instance (per 100 inhabitants), 2012 – 2018, The 2020 EU Justice Scoreboard.*

Lastly, it is of great importance to include the number of incoming civil and commercial cases, as it will shed light on the differences that will arise between countries regarding their justice-related data. As the above figure demonstrates, Belgium, Romania Poland and Czech Republic are among the countries with the greatest input of cases. On the other hand, Finland, Sweden, Denmark, Netherlands, Luxemburg and Austria show the lowest number of incoming civil and commercial litigious cases. It is worth noting that Greece shows a substantial reduction in the number of incoming cases from 2012 to 2016, which can be -in part- attributed to the economic crisis. Germany ranks consistently among the countries with a rate of cases per 100.000 inhabitants below 2.

### *III. Does the number of judges determine judicial effectiveness?*

Another interesting question that arises in a discussion regarding judicial effectiveness is the role that the number of judges play. It is not uncommon for many to argue that excessive length of proceedings is caused from understaffed courts. Indeed, intuitively it is reasonable to presume that an increase in the number of professional judges who administer cases would lead to a decrease of the time needed for the pending cases to be resolved. The truth couldn't have been any further from intuition in this particular case. From the following data it will become apparent that the number of judges has no decisive correlation with judicial effectiveness. In specific:



*Chart 7, Professional judges at 1<sup>st</sup> instance/100.000 inhabitants, CEPEJ (2018).*

The above chart demonstrates the number of professional judges at first instance per 100.000 inhabitants in 2018. Among the countries with the highest percentage of judges are Monaco, Montenegro, Serbia and Slovenia. On the other hand, Ireland, Denmark, Netherlands, France and Sweden are among the countries with fewer judges. Greece is above the European median, at 16.23 judges per 100.000 inhabitants, close to Germany at 18,72, Hungary at 17,13 and Czech Republic at 17.20.

Question selected: Q46.1.1 Professional judges (Total) (per 100 000 inhabitant)

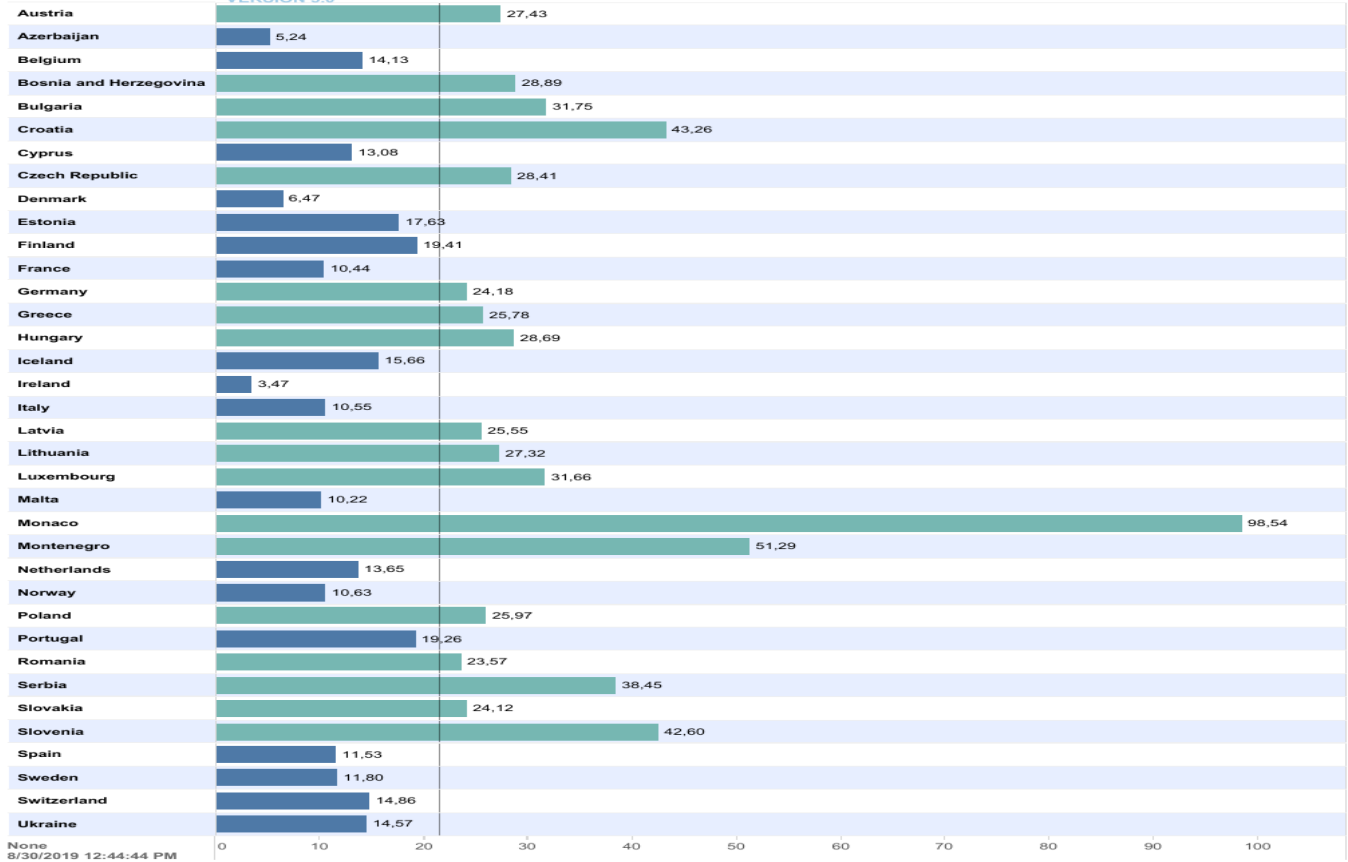


Chart 8, Total professional judges/100.000 inhabitants, CEPEJ (2018)

The above figure is even more indicative of the loose relationship (if any) between the number of judges and the speed of justice. Interestingly, Greece presents even more judges than Germany, despite their enormous difference in length of proceedings. Austria, Czech Republic and Sweden demonstrate the lowest length of proceedings among the countries included in the chart, and yet the first two show a high percentage of judges, while the third is far below the European median: Austria has 27.43 judges per 100.000 inhabitants and Czech Republic 38.41 per 100.000 inhabitants, while Sweden has merely 8.45 per 100.000 inhabitants (!). It should be noted though that Sweden, along with Denmark and Netherlands have very low rate of incoming litigious civil and commercial cases per 100.000 inhabitants, below 1. However, so does Luxemburg, Finland and Austria, and yet show a much higher percentage of judges.

Under the following data, we are already able to provide an answer to the question we previously posed. In regard to the percentage of judges, the data shows that the number of judges working in a judicial system does not indicate, nor decisively determines the speed of justice. For example, Greece has an almost equivalent number of judges at first instance

with Germany, but a quite greater length of judicial proceedings: Greece's length at 1<sup>st</sup> instance is about 380 days, while in Germany it does not exceed 200 days in litigious civil and commercial cases. In contrast, Italy, a country placed at the top of the list of countries with excessive length of proceedings, has a far lower number of judges at 1<sup>st</sup> instance than the European median: only 8.05 per 100.000 inhabitants. On the other hand, Slovakia has similar number of judges with Greece, above the European median, at 15.80, and yet is placed among the countries with the shortest length of justice at 1<sup>st</sup> instance (below 200 days). And yet, Denmark has about the same length of proceedings as Germany (at 200 days), and yet has one of the lowest percentages of professional judges at 1<sup>st</sup> instance among the countries presented in the chart, at only 4.42 judges per 100.000 inhabitants.

Therefore, it is argued that the number of judges cannot determine the effectiveness of a judicial system. It is as equally possible for a state's judicial system to be abundant of professional judges, and yet prove to be incapable of delivering decisions within a timely manner, as it is for a state's judicial system to function well with a limited number of judges. It is argued that what is decisive is, instead, how the judicial system is organized and how each judge functions inside the judicial system.

One such factor that may play a key role and yet is not apparent in the number of judges is the number of non-judge staff that supports a court's function. This includes the administrative non-judge staff, the technical staff, the non-judge staff assisting the judges and other non-judge staff. Non-judge staff is substantial for the function of the judicial system, as it assists the judges in the exercise of their duties and provide services that are crucial for a well-functioning court.

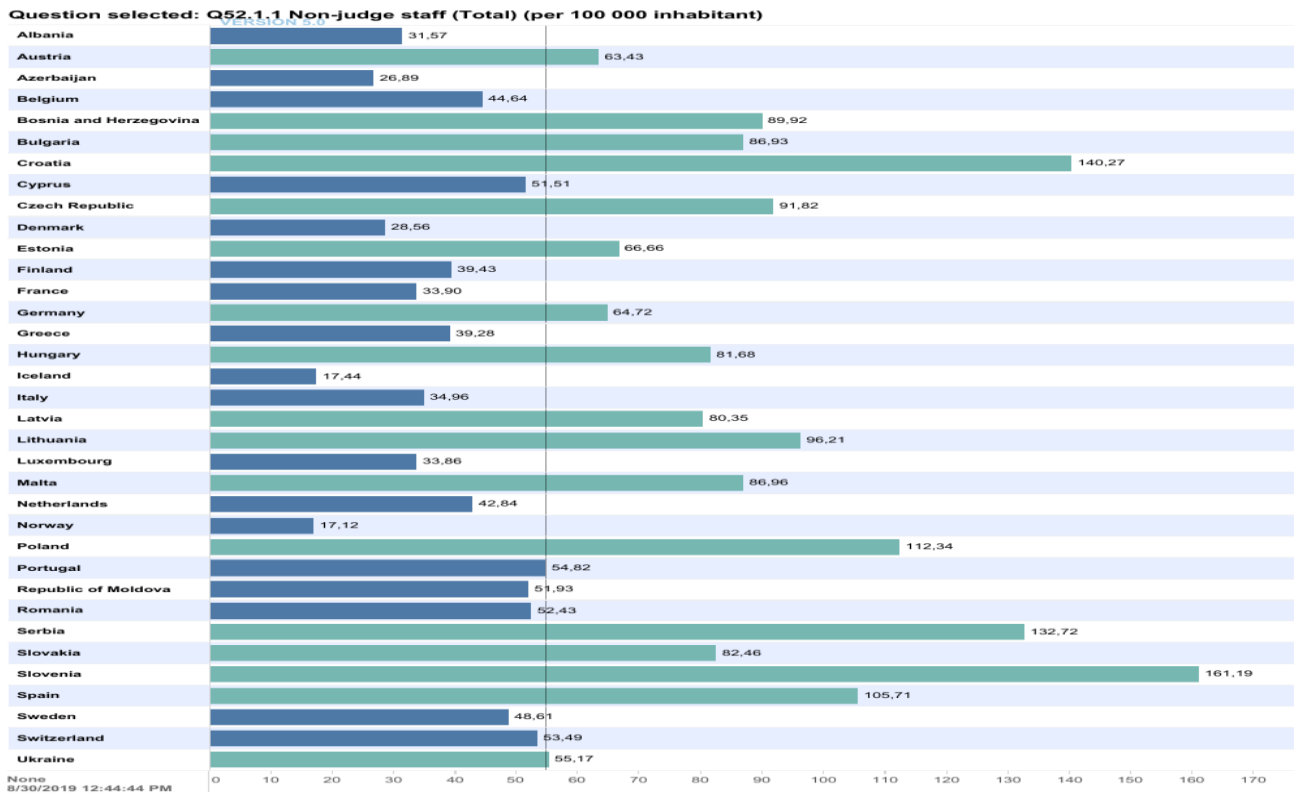


Chart 9, None-judge staff per 100.000 inhabitants, CEPEJ (2016)

Many of the countries which show an excessive length of judicial proceedings also demonstrate a limited number of non-judge staff. For instance, Italy, Greece, Spain, France and Cyprus have all a bellow the European median number of non-judge staff. On the other hand, Lithuania, Austria, Estonia, Czech Republic, Hungary, Slovakia, Germany, Portugal (almost) and Latvia are all above the European median in regard with the number of non-judge staff, and also are among the countries with the shortest length of proceedings in the figure. There are some exceptions: Luxemburg and Denmark are countries who display a short time needed for a decision on litigious civil and commercial cases at 1<sup>st</sup> instance, and yet have a small number of non-judge staff, quite bellow the European median. Other countries which are close to the European median and which show an average length of proceedings are Sweden and Romania.

It is argued that the number of non-court staff does effect judicial performance, as most well-functioning judicial systems show a number close to or above the European median. On the other hand, many among the countries with the greatest delay in justice also show a number of non-judge staff which is below the European median. This conclusion is reasonable, as non-judge staff can undertake services which would otherwise be conducted

by the judges, thus reducing their amount of work and, in effect, increasing their speed in decision-making.

Apart from the number of professional judges, it is interesting to take a look at the number of lawyers among the European countries too. While lawyers lack the direct role in decision making that is characteristic for judges, they nevertheless play an important role in the judicial process. An excessive number of lawyers could indicate an overcrowded system of justice, as there might exist a relationship between the number of lawyers and the number of cases in each country. In specific:

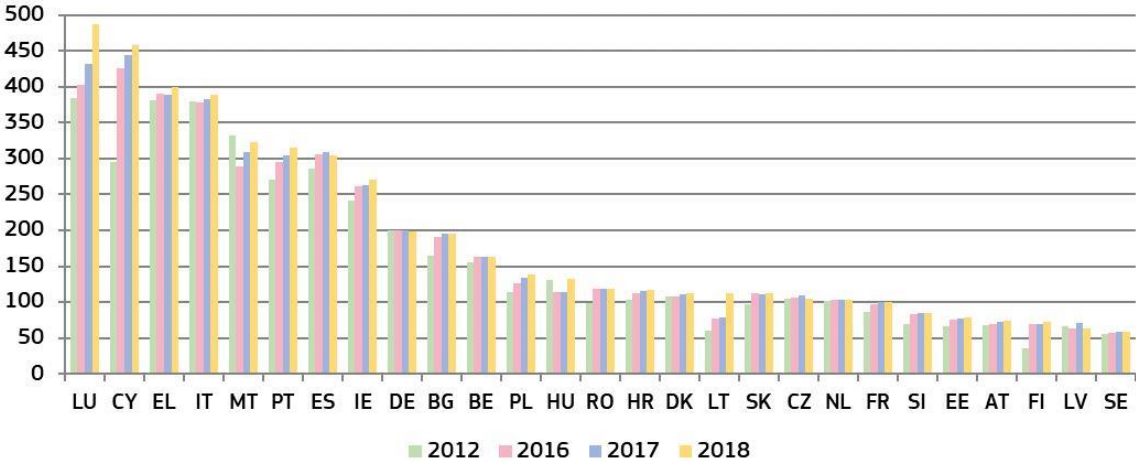


Chart 10: Number of lawyers (per 100.000 inhabitants), 2012 – 2018, The 2020 EU Justice Scoreboard.

Figure demonstrates the number of lawyers in each country per 100.000 inhabitants. Among the countries with the highest percentage of lawyers are Luxemburg, Cyprus, Greece, Italy and Malta. On the opposite, Serbia, Latvia, Finland, Austria, Czechia and Slovenia have the lowest analogy between lawyers and inhabitants. It’s worth noting that Germany shows a relatively low percentage of lawyers, approximately 200 per 100.000 inhabitants. France also has a very low percentage of lawyers, at about 100 per 100.000 inhabitants. Belgium shows an average amount of lawyer, reaching the percentage of approximately 150 lawyers per 100.000 inhabitants. By 2018, Greece has reached the number of 400 judges per 100.000 inhabitants.

#### *IV. State's budget for courts and judicial effectiveness*

Another very important issue to decipher is the relationship between state's budget for courts and judicial effectiveness. As with many institutions, courts are expected to be budget-sensitive: a reduction in the total budget of courts may have a great impact on the quality of justice, as well as the length of proceedings. The economic crisis of 2008 had a great impact on various public services, justice being among them. In Greece, a series of legal modifications on the codes of procedure in almost all branches of justice attempted to balance the severe cuts of courts' expenditures. Whether this has been successful or not works as an indication of whether the organizational dimension plays a pivotal role even against a reduced court's budget.

The judicial system's budget is composed of several expenditures. These include the judges' salaries, wages of staff, the legal aid that is offered, services and goods consumed by the courts (such as building rental, energy, software, etc.) and other expenditures.



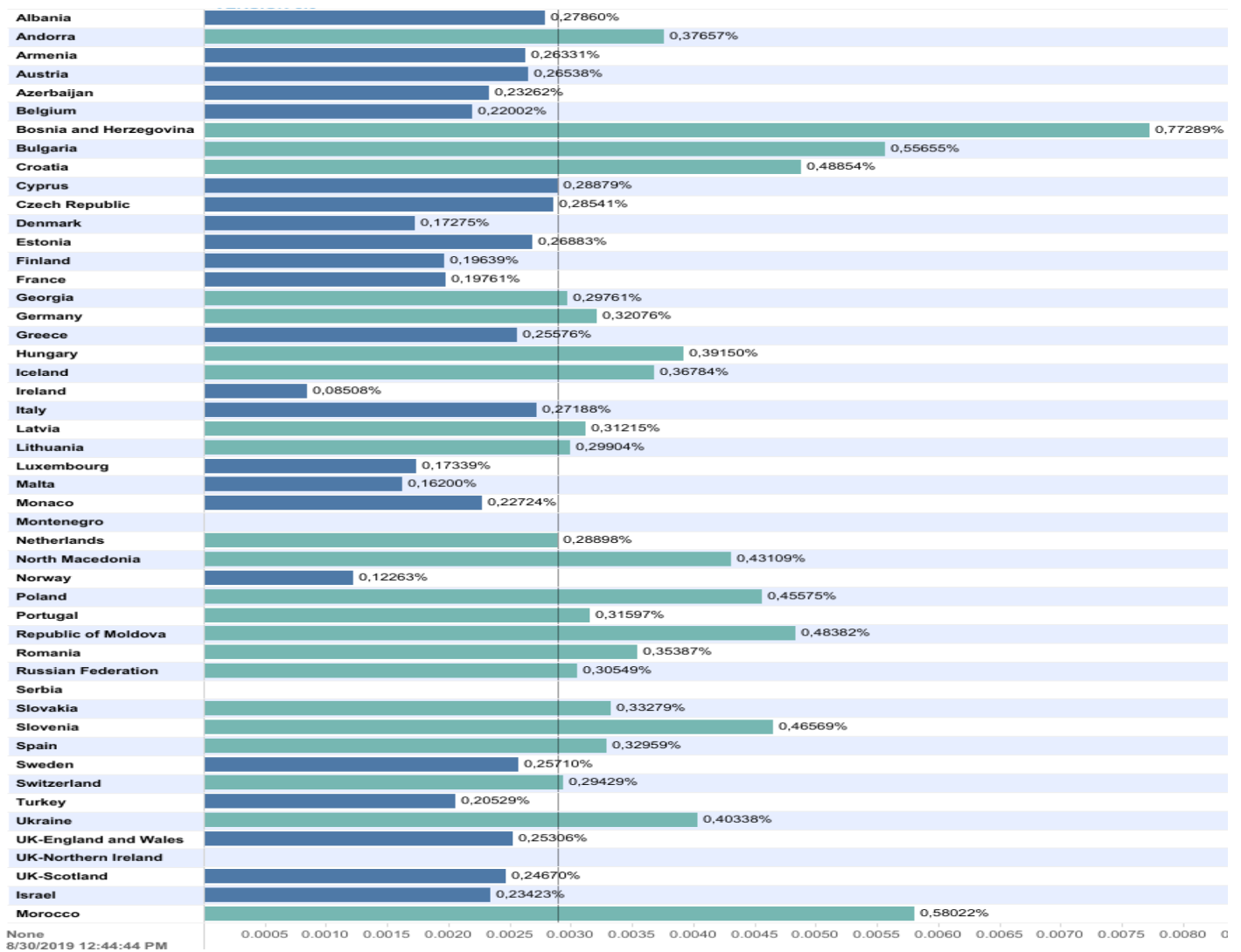


Chart 11, Judicial System budget as % of GDP, CEPEJ (2018)

The European median reaches 0.2889% of GDP. Countries in blue are below the European median, while countries in teal are those who exceed it. As it is apparent, Greece's total budget for courts is quite below the European median, at 0,25576% of GDP. Meanwhile, Bosnia and Herzegovina's total budget is the highest among the countries in the chart, reaching as high as 0,77289% of GDP. Germany also exceeds the European median, with its total budget for courts estimated at 0,32076% of its GDP. France also demonstrates an interesting budget for courts at 0,19761 of its GDP, substantially below the European median and among the lowest in the chart. Ireland shows the lowest budget percentage for courts, at 0,08508% of GDP. Italy has also a budget bellow the European median, but above the one of Greece.

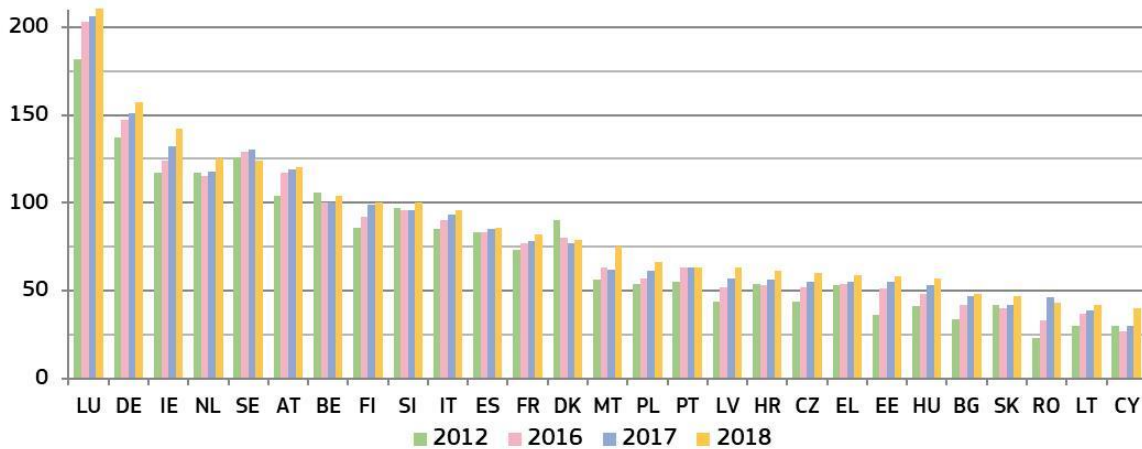


Chart 12, General government total expenditure on law courts (Eur/inhabitant), 2012, 2016-2018, The 2020 EU Justice Scoreboard.

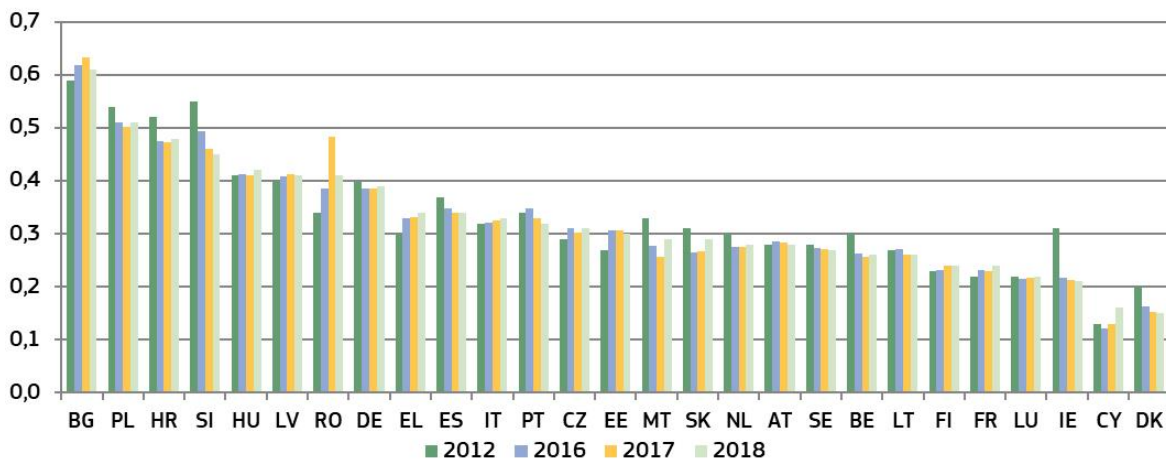


Chart 13, General government total expenditure on law courts (as % of GDP), 2012, 2016-2018, The 2020 EU Justice Scoreboard.

This Chart demonstrates slight differences in the values of percentage of GDP. In specific, Belgium, Poland, Hungary, Slovenia and Latvia are among the countries with the highest total expenditure on courts. On the other hand, Denmark, Cyprus, IE, Lithuania and France are among the countries with the lowest expenditure. Greece shows a progressively higher total expenditure than most countries, though not as much as Germany. The difference between chart 11 and chart 12 is that the first shows specifically the Court’s budget (gross salaries, computerization, justice expenses, court buildings and other budget elements), while

the shows the whole judicial system's budget (including legal aid, prosecution services and other expenditure).

Poland, as of 2018, has an estimated length of proceedings for litigious civil and commercial cases at 1<sup>st</sup> instance above 250 days, (though one of the lowest length of proceedings to solve administrative cases at 1<sup>st</sup> instance). Yet, it ranks 2<sup>nd</sup> among the countries with the highest government total expenditure on law courts, reaching a 0.5% of its GDP. On the opposite, Denmark's courts need a substantially less time to deliver a decision on civil and commercial cases at 1<sup>st</sup> instance, reaching 200 days for the first time in 2018, and yet gain the lowest budget from all other countries in the figure as of 2018 (approximately at 1.5%). Greece shows a below-the-medium budget but at the same time has the lengthiest proceedings until a decision is made for civil and commercial cases at 1<sup>st</sup> instance among the countries listed (and is also among the countries with the highest length of proceedings at 1<sup>st</sup> instance in administrative cases).Cyprus, France and Luxemburg are among the countries with the lowest total budget for courts, but they are worlds apart in regard of length of proceedings: France and Cyprus show an excessive time required to reach a decision, while Luxemburg has one of the fastest judicial system (bellow 100 days to deliver a decision on litigious civil and commercial cases at 1<sup>st</sup> instance).

In conclusion, it is argued that, while a sufficient budget is important for an effective judicial system, it is not necessary to be high. Indeed, it is shown that some countries have managed to reduce quite well the expenditures of courts and yet sustain a fast delivery of justice. It is safe to presume that this would not be the case with any other country's judicial system, if a reduction on expenditure was imposed. What is shown, however, is that courts can function well with less budget, as long as other factors allow them to be functional (application of technologies, organization, etc.).

### **Chapter 3: Judicial effectiveness and economic development**

In the present chapter, we shall analyze the concept of economic development and its difference from economic growth. More importantly, we shall develop the factors by which economic development can be measured, and we will proceed to compare these factors with the data and conclusions mentioned in the previous chapter. The aim of chapter 3 is to compare judicial effectiveness and economic development between states, and find whether a correlation between these two exists.

#### *1. What is economic development?*

Before we compare judicial effectiveness with economic development, it is necessary to define the last. Economic development is closely related to economic growth, without being identical. While economic growth refers to the increase of an economy's total output of goods and services, in other words to a country's production or income per capita, and is usually measured by GDP (or GNP), economic development has a broader meaning. Economic development refers to the improvement of material well-being and includes factors such as the distribution of wealth in society, education, infrastructure, health, reduction of poverty, etc. (Greenwood, Holt, 2010, p. 3-4). It follows that economic growth is usually necessary for economic development, however the opposite isn't always true. Indeed, while some economies may display a major economic growth, they may nevertheless do so in harm of the environment or in great disproportionality of how much the poorer of the society actually benefit, therefore minimizing the effects of economic growth to the economic development of the economy (Nafziger, 2012, p. 14).

As mentioned, economic development is measured by several factors, such as: 1) the real income (GDP) per capita, 2) the levels of literacy and education, 3) the levels of healthcare, 4) the environmental standards, 5) the availability and quality of housing and 6) the life expectancy. GDP per capita, shows the economic growth and is usually a *sine qua non* factor for economic development. Growth allows an economy to distribute wealth for the benefit of other factors, thus making development possible. A barrier that usually stands between economic growth and economic development is economic inequality, which prevents broader groups of the society to benefit from the economic growth, while a minority becomes wealthier. This is the main reason that economic growth cannot be the sole criterion to determine economic development.

The levels of literacy and education is another considerable factor of economic development. Literacy level and education standards are linked with the quality of life and job opportunities, though the correlation between GDP and literacy rates is usually weak. A more important indicator of economic development is level of healthcare and health standards. Economic growth is used to secure sufficient resources for people to maintain a healthy diet, as undernourishment denotes the lack of food for basic energy. Furthermore, a functioning healthcare system is of great importance to control the spread of diseases and maintain a prosperous community. The link between health diet – healthcare and life expectancy is obvious, as the last is, for the most part, a consequence of the first. The same goes for the availability and quality of housing. Economic growth is very dependent on energy, and for this reason growth can have many ramifications to the environment. Extreme use of coal and oil may boost the economy, but will severely damage the environment, which has implications on its own to the quality of life and long-term effects on the economy.

The above make it apparent that measuring economic development is not nearly as easy as measuring economic growth, as it depends on one hand on the factors one includes in the measurement, and on the other hand on the way that these factors will too be measured. A well-known measure of economic development and welfare is the Human Development Index (HDI). The HDI is comprised of three major criteria of development: life expectancy (average life expectancy in relation to a global expected life expectancy), education (mean years of schooling and expected years of schooling) and income levels (Gross National Income (GNI) at Purchasing Power Parity (PPP)). The HDI creates an overall score between 0 and 1, with 0 being the lowest level and 1 the highest level of economic development.

Although the HDI can give an overall index of the economic development of an economy, it also has some important limitations. One such limitation is its regional divergence within a country, as the HDI index of regions may vary greatly within a country (such as in China). Another disadvantage arises from the GNI factor, as a higher national income does not reveal possible inequality within a country, nor does it indicate the way this wealth is spend: it could well be for education as it could be for military weapons. Furthermore, HDI's criteria are not adequate to demonstrate short-term differences in economic development, as, for instance, life-expectancy is a factor that needs a lot of years to form. Finally, HDI does not take into account other important criteria, such as the environmental standards, corruption, etc.

For the purposes of this essay, we will compare and examine the (possible) relationship of judicial effectiveness with different major factors that determine economic development. We will also compare our data with the HDI as we find it to be, despite its limitations, an important indicator of welfare.

## *II. Judicial effectiveness and HDI*

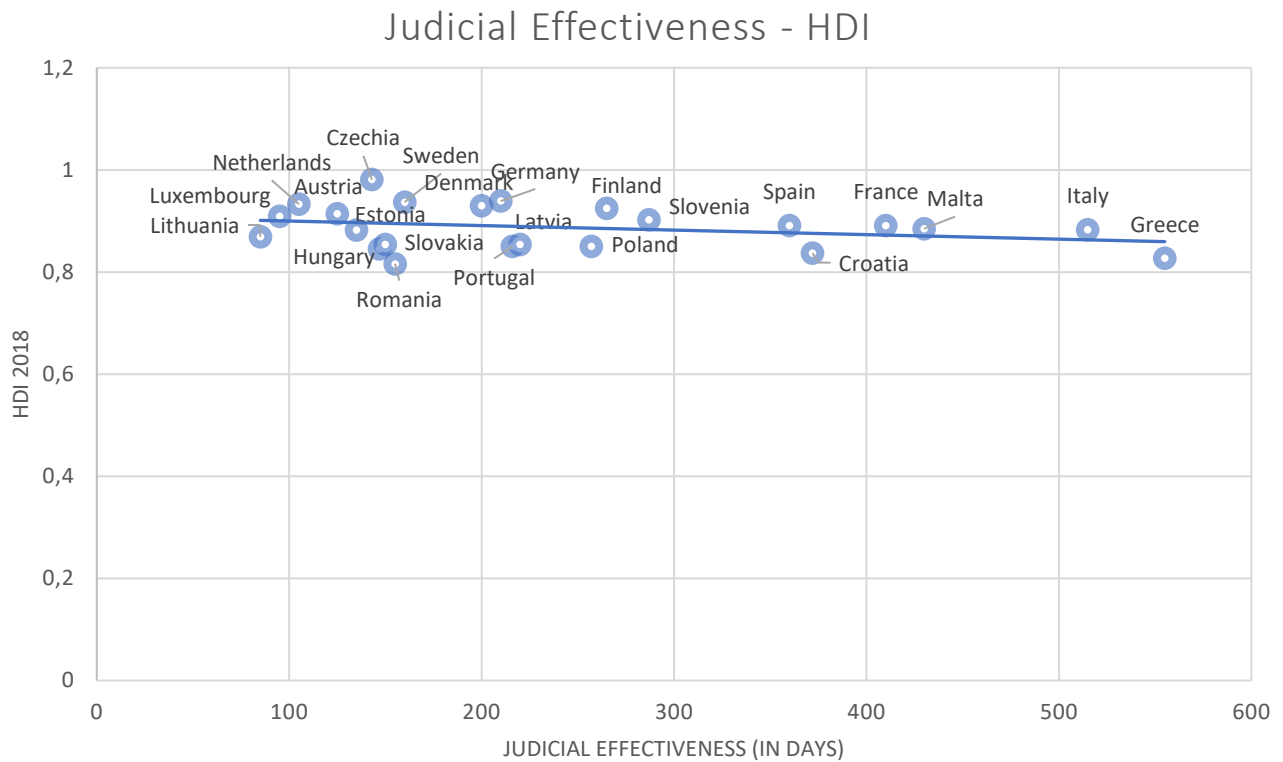
<b>Country</b>	<b>HDI Rank</b>	<b>HDI Index 2018</b>	<b>HDI Index 2017</b>
Lithuania	34	0.869	0.866
Luxembourg	21	0.909	0.908
Netherlands	10	0.933	0.932
Austria	20	0.914	0.912
Estonia	30	0.882	0.879
Czechia	26	0.981	0.888
Hungary	43	0.845	0.841
Slovakia	36	0.854	0.854
Romania	52	0.816	0.813
Sweden	8	0.937	0.936
Denmark	11	0.930	0.929
Germany	4	0.939	0.938
Portugal	40	0.850	0.848
Latvia	39	0.854	0.849
Poland	32	0.872	0.868
Finland	12	0.925	0.924
Slovenia	24	0.902	0.899
Croatia	46	0.837	0.835
Spain	25	0.891	0.888
France	26	0.891	0.890

Malta	28	0.885	0.883
Italy	29	0.883	0.881
Greece	32	0.827	0.871
Cyprus	31	0.871	0.873

*Chart 14, Human Development Index and its components (Change in HDI value rounded to three decimals), HDI (2018).*

Countries are listed in order according to the time needed for a court to reach a decision at 1<sup>st</sup> instance in litigious civil and commercial cases. The median is roughly at 0.890. The above data does not indicate a firm correlation between HDI and length of proceedings. It can be noted that most countries above the HDI median also demonstrate a shorter trial-length, such as Luxemburg, Netherlands, Austria, Estonia, Czechia, Sweden, Denmark, Germany. On the other hand, countries such as Estonia, Hungary, Slovakia, Romania and Portugal have an HDI below the median, and yet perform better in terms of length of proceedings.

Using the above data, we have created a chart which visually displays the relationship between judicial effectiveness (using the data from the delay at 1<sup>st</sup> instance in litigious civil and commercial cases) and HDI in each country:



*Chart 15, judicial effectiveness (using the data from the delay at 1<sup>st</sup> instance in litigious civil and commercial cases) and HDI.*

The correlation is clearer when one compares HDI with the estimated time needed to resolve administrative cases at first instance. Indeed, all of the countries with the longest length of proceedings are below the median of the HDI. In specific, Malta, Portugal, Italy, Greece and Cyprus consistently since 2012 require more than 500 days to reach a decision in administrative cases at 1<sup>st</sup> instance (with three of them exceeding the 1.000 days until 2016). That is not to say that the opposite is true. Some countries with similar or lower HDI show shorter length of proceedings (see Hungary and Poland). What is safer to argue according to the data examined above is that a high HDI is usually accompanied by shorter length of proceedings.



### III. *Judicial effectiveness and GDP*

	2010	2011	2012	2013	2014	2015	2016	2017
<b>GDP per capita (current US\$)</b>								
Lithuania	11,957.1	14,354.2	14,339.3	15,702.1	16,548.4	14,249.1	14,999.5	16,882.6
Luxembourg	104,965.3	115,761.5	106,749.0	113,625.1	118,823.6	101,376.5	104,278.4	107,627.2
Netherlands	50,950.0	54,159.3	50,073.0	52,184.1	52,830.2	45,175.2	46,007.9	48,675.2
Austria	46,858.0	51,375.0	48,567.7	50,716.7	51,717.5	44,178.0	45,237.8	47,549.1
Estonia	14,790.8	17,621.5	17,534.4	19,174.1	20,367.1	17,522.2	18,237.3	20,388.2
Czech Republic	19,808.1	21,717.5	19,729.9	19,916.0	19,744.6	17,715.6	18,463.4	20,379.9
Hungary	13,113.5	14,151.0	12,918.2	13,687.2	14,246.1	12,651.6	12,992.4	14,457.6
Slovak Republic	16,727.3	18,338.4	17,460.0	18,237.0	18,670.9	16,309.1	16,506.0	17,554.3
Slovenia	23,509.5	25,095.1	22,643.1	23,496.6	24,214.9	20,881.8	21,622.6	23,500.8
Romania	8,209.9	9,105.0	8,535.0	9,555.2	10,027.0	8,977.4	9,567.1	10,807.8
Sweden	52,869.0	60,755.8	58,037.8	61,126.9	60,020.4	51,545.5	51,965.2	53,791.5
Denmark	58,041.4	61,753.6	58,507.5	61,191.2	62,549.0	53,254.9	54,664.0	57,141.1
Germany	41,531.9	46,644.8	43,858.4	46,285.8	47,960.0	41,139.5	42,098.9	44,349.6
Portugal	22,498.7	23,186.9	20,564.9	21,647.0	22,074.3	19,242.4	19,978.4	21,490.4
Poland	12,599.5	13,893.5	13,145.5	13,781.1	14,347.9	12,572.4	12,431.8	13,861.3
Latvia	11,348.4	13,832.4	13,850.6	15,041.2	15,740.3	13,698.9	14,153.4	15,586.6
Finland	46,460.0	51,082.0	47,710.8	49,878.0	50,260.3	42,784.7	43,784.3	46,316.7
Spain	30,502.7	31,636.4	28,324.4	29,059.5	29,461.6	25,732.0	26,505.3	28,170.4
Croatia	13,923.6	14,566.6	13,238.1	13,642.2	13,600.2	11,782.9	12,360.5	13,412.3
France	40,638.3	43,790.7	40,874.7	42,592.9	43,011.3	36,638.2	37,037.4	38,812.2
Malta	21,107.4	22,858.6	21,916.4	23,837.3	26,008.8	24,002.5	25,133.0	27,239.1
Italy	36,000.5	38,599.1	35,053.5	35,550.0	35,518.4	30,230.2	30,939.7	32,406.7
Greece	26,917.8	25,916.3	22,242.7	21,874.8	21,761.0	18,167.8	18,116.5	18,930.2

Chart 16, *GDP per capita (current US\$), World Development Indicators Series (2010-2017).*

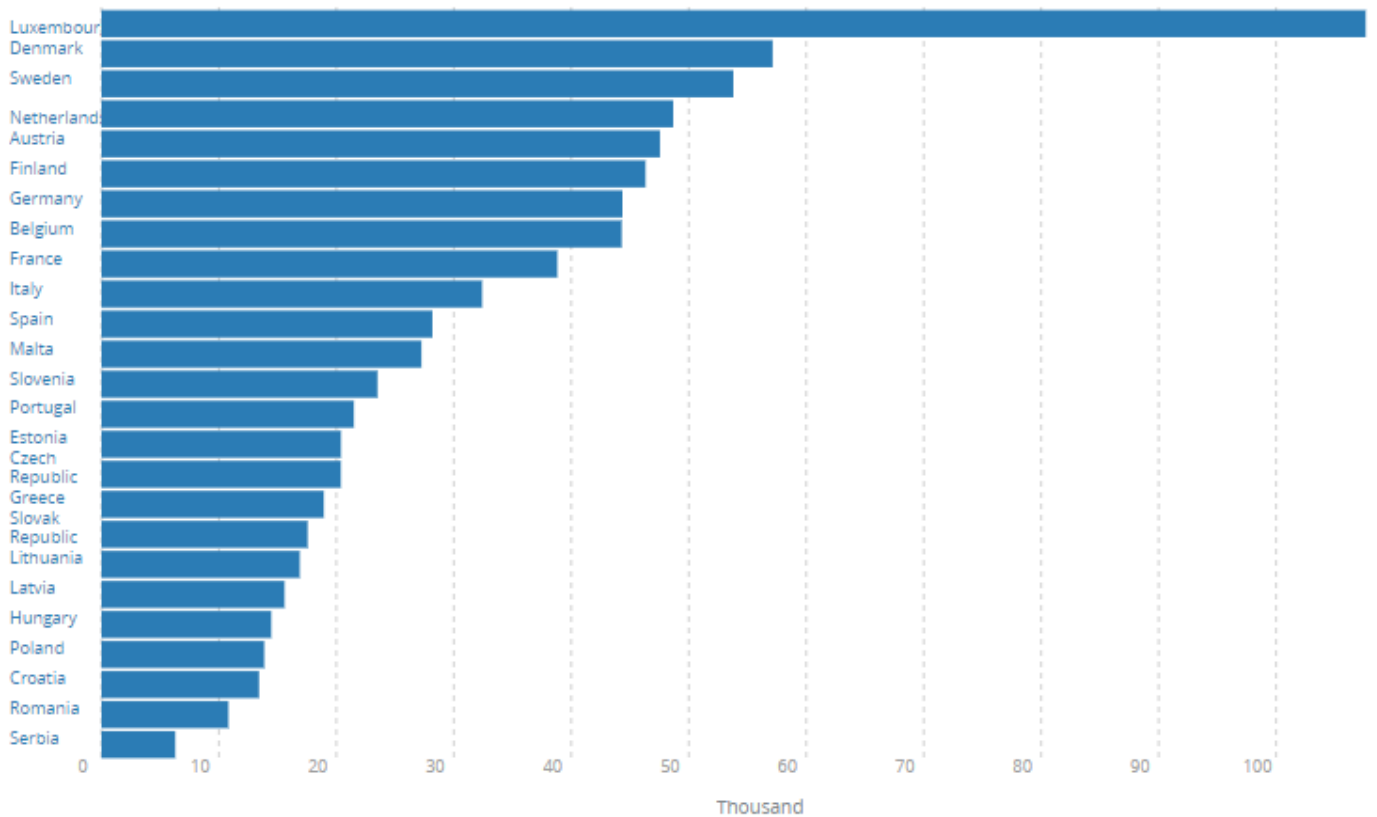
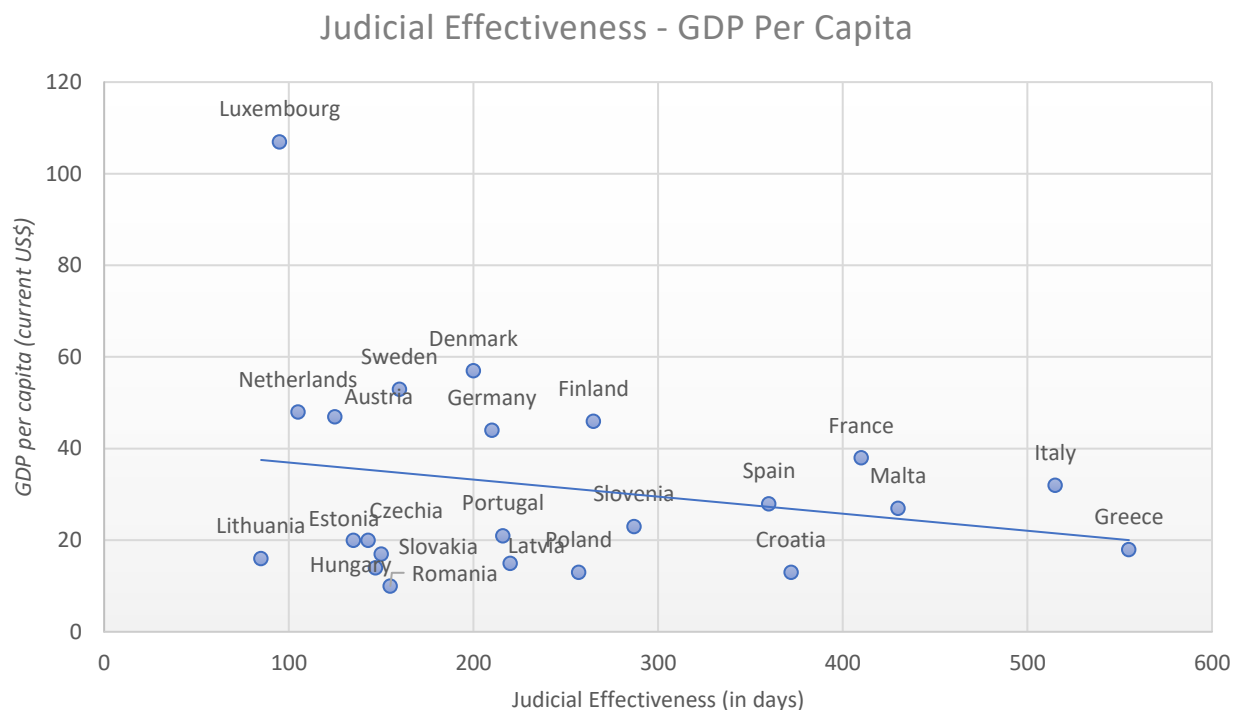


Chart 17, GDP Per Capita in Current US\$, World Bank Data (2017).

A closer correlation between GDP per capita and judicial effectiveness can be observed. Many of the countries who display a functioning judicial system are also countries with high GDP per capita. Luxembourg, Denmark, Sweden, Netherlands, Austria, Germany are among the countries with the highest GDP per capita, but also among the countries with short length of proceedings in civil and commercial litigious cases at 1<sup>st</sup> instance (below 200 days). All of these countries are also among the countries with an estimated time needed to resolve administrative cases at first instance below 500 days.

However, it is again observed that the opposite observation cannot be verified. Indeed, many of the countries with the shortest length of proceedings do not exhibit high numbers of GDP per capita. In specific, Lithuania, Estonia, Czechia, Hungary, Slovakia and Romania show less length of proceedings than countries such as Germany, Denmark and Sweden. Nevertheless, the GDP per capita of the first countries is considerably lower than in the last ones (less than 25.000\$).

Using the above data, we have created a chart which visually displays the relationship between judicial effectiveness (using the data from the delay at 1<sup>st</sup> instance in litigious civil and commercial cases) and *GDP per capita (current US\$)*:



*Chart 18, judicial effectiveness (using the data from the delay at 1<sup>st</sup> instance in litigious civil and commercial cases) and GDP per capita (current US\$).*

What is observed is that most of the countries with a high GDP per capita also have an effective judicial system, as all of the countries with a GDP per capita above 40.000\$ are among the countries with a required time to deliver a decision in litigious civil and commercial cases below 200 days, and in administrative cases at first instance below 500. It is therefore concluded that countries with high GDP per capita are accompanied with shorter length of proceedings, while the opposite is not necessarily true. Indeed, France, Italy, Spain and Greece are countries with higher GDP per capita than Hungary, Poland or Romania, and yet the rank among the countries with the longest length of proceedings in our data.

#### ***IV. Judicial effectiveness and judicial independence***

Economic development is also related with the well-functioning of institutions. While judicial effectiveness is an important trait of a proper judicial system, it is not the only one. While we rely on quantitative criteria to measure judicial effectiveness, we cannot altogether ignore some qualitative factors of justice and their role in economy. Judicial independence is among these factors.

An effective judicial protection presupposes an independent judicial system. That means that courts should be able to withstand external influence and act as an autonomous body (Tsebelis, 1995, p. 323), subjected only to the laws of the country. Submitting to external interventions would distort decision making and harm the reputation and trust society holds for courts, regardless of their speed in adjudicating cases. In turn, this would discourage economic factors from engaging judicial procedures, thus in effect weakening civil rights. Apart from the external independence there is also the internal, as the judge is expected to be impartial and maintain a personal integrity and neutrality between the contesting parties.

Judicial independence guarantees the protection of rights and the substantial application of justice. While judicial independence *per se* cannot be measured sufficiently, it is possible to measure the perceived judicial independence, which is after all the determinant factor. The implications of the level of judicial independence on the economy are proportionate to society’s perspective of that said level. Perceived lack of independence may deter investments and businesses, therefore judicial independence reflects a growth-enhancing factor.

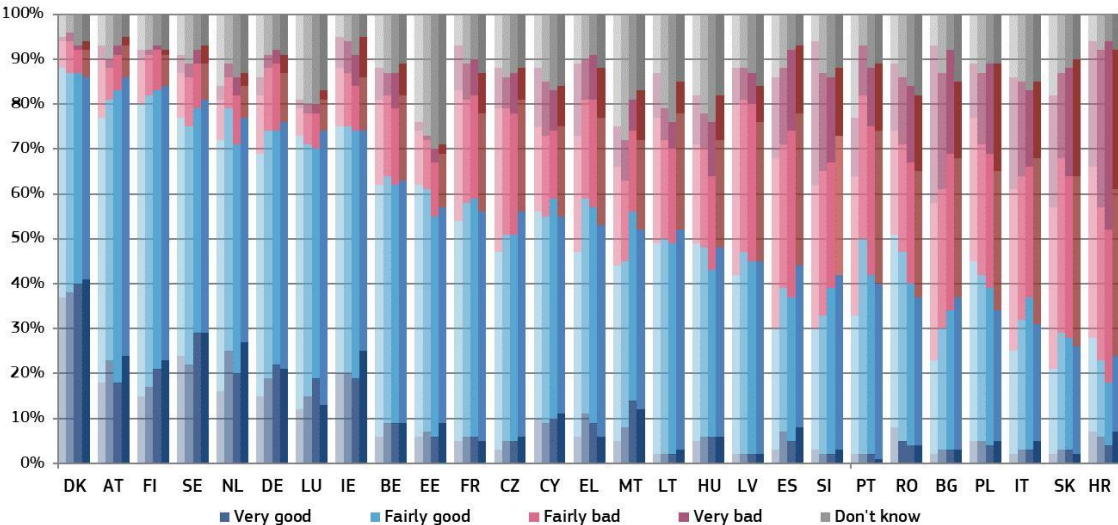


Chart 19, Perceived independence of courts and judges among the general public, light colours: 2016, 2018, 2019, dark colours: 2020, EU Justice Scoreboard (2020).

The above figure represents perceived judicial among general public independence for European countries. The countries which demonstrate the highest perceived independence for courts percentage are Denmark, Austria, Finland, Sweden, Netherlands, Germany, Luxemburg and Ireland (rated with very and fairly good above 70%). On the other side of

the figure, the countries with the lowest perceived judicial independence are Hungary, Slovakia, Italy, Poland, Bulgaria, Romania and Portugal (rated as very and fairly good below 40%). Greece ranks closely to the median, rated with very and fairly good between 50% and 60%.

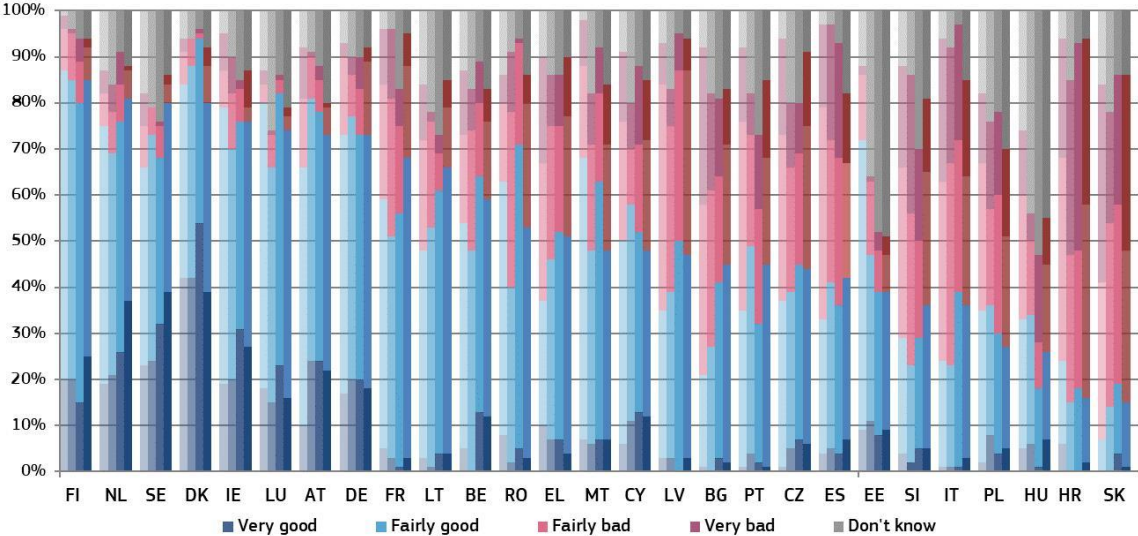
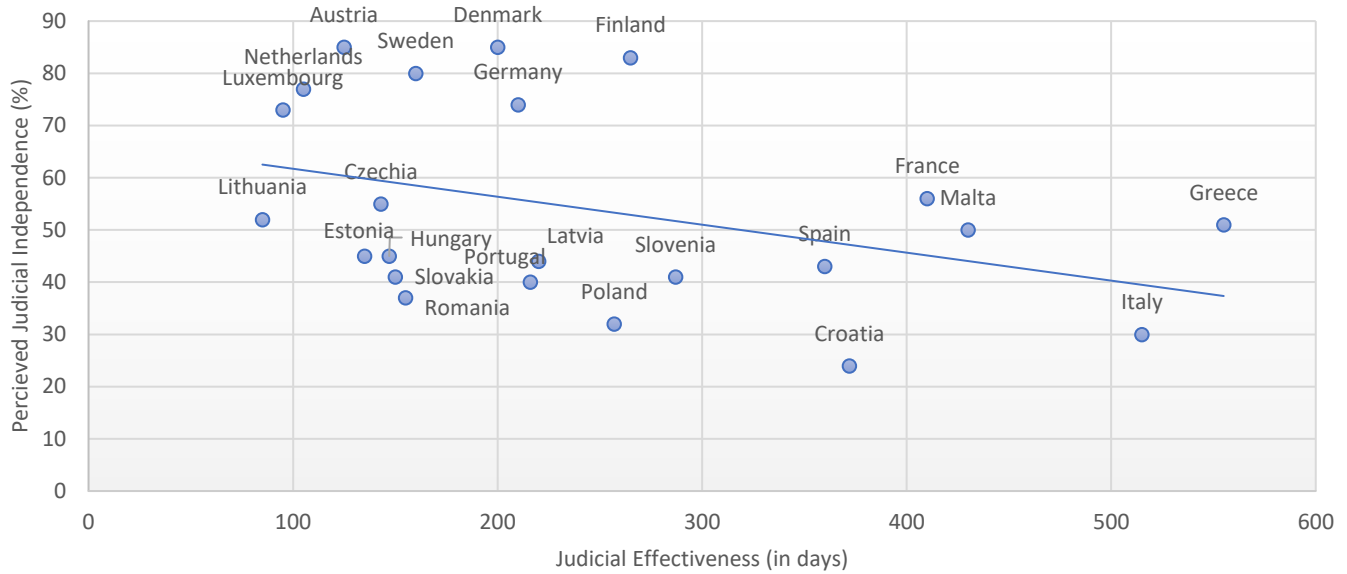


Chart 20, *Perceived independence of courts and judges among companies, light colours: 2017, 2018 and 2019, dark colours: 2020, EU Justice Scoreboard.*

Perceived independence of courts and judges among companies shows slight differences with the public view. In this figure, Finland shows the highest trust of companies in judicial independence, followed by Netherlands, Sweden, Denmark, Ireland, Luxemburg, Austria and Germany (all these countries have been rated with very and fairly good above 70%). On the other hand, Hungary is now the country with the lowest perceived judicial independence, followed by Poland, Italy, Slovenia, rated with very and fairly good quite below 40%. Greece is again ranked the median, rated with very and fairly good at approximately 50%.

Using the above data, we have created a chart which visually displays the relationship between judicial effectiveness (using the data from the delay at 1<sup>st</sup> instance in litigious civil and commercial cases) and perceived independence from the general public:

## Judicial Effectiveness - Judicial Independence Chart



*Chart 21, judicial effectiveness (using the data from the delay at 1<sup>st</sup> instance in litigious civil and commercial cases) and perceived independence from the general public.*

A pattern between perceived judicial independence and judicial effectiveness is visible. All of the countries rated with very and fairly good above 70%, with the exception of Finland, are among the countries with the lowest length of proceedings for litigious civil and commercial cases at first instance (close to or below 200 days) and administrative cases at first instance (below 500 days). Furthermore, they are too among the countries with the highest GDP per capita. The opposite is, again, not necessarily true, though less random than what the previous figures where (most of the countries with perceived judicial independence rated with very and fairly good below 50% are also countries with greater length of proceedings, see Italy, Slovenia, Spain, Italy, Poland. Exceptions are Hungary, Slovakia and Estonia). It is therefore argued that there exists a correlation between judicial independence and judicial effectiveness, as countries with higher perceived judicial independence also demonstrate higher judicial effectiveness.

### *V. Judicial effectiveness and healthcare standards*

As previously stated, health is generally considered among the important factors that determine the level of economic development. A better health is a prerequisite for human happiness

and well-being and is vital for economic progress. Increased health levels benefit life-expectancy and enhance the productivity of the population. As other qualitative factors, there is no precise measure of health. It is possible though to measure health levels indirectly, by evaluating the health expenditure of a country per capita. Presumably, a higher expenditure on health implies more resources available for the various health systems.

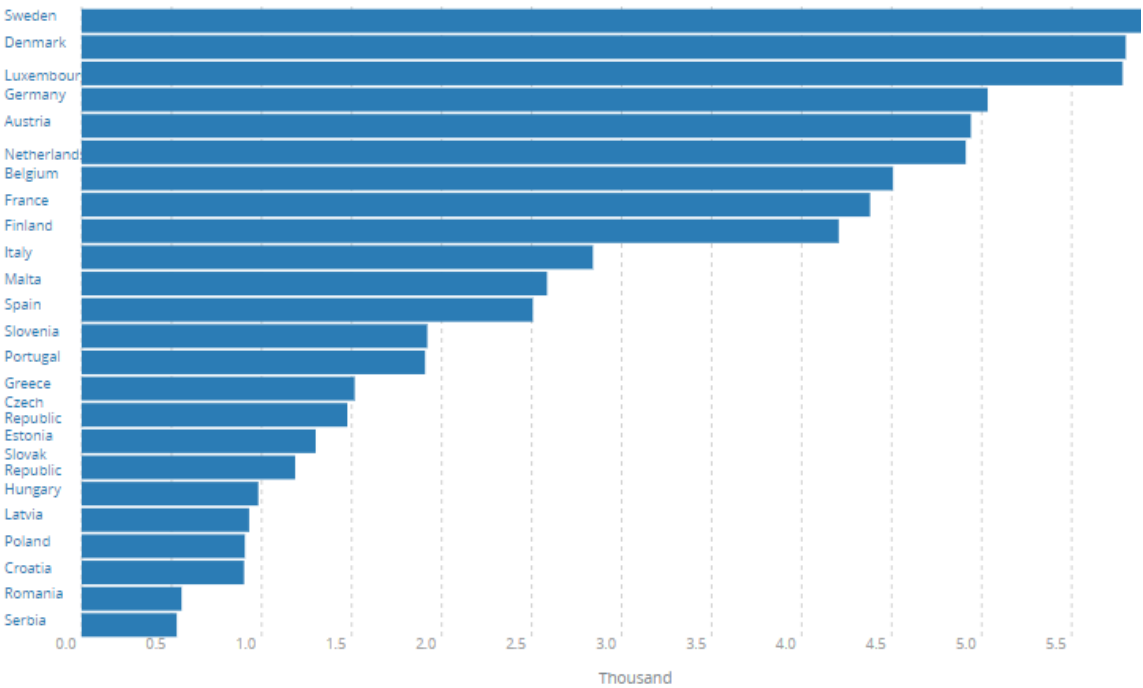
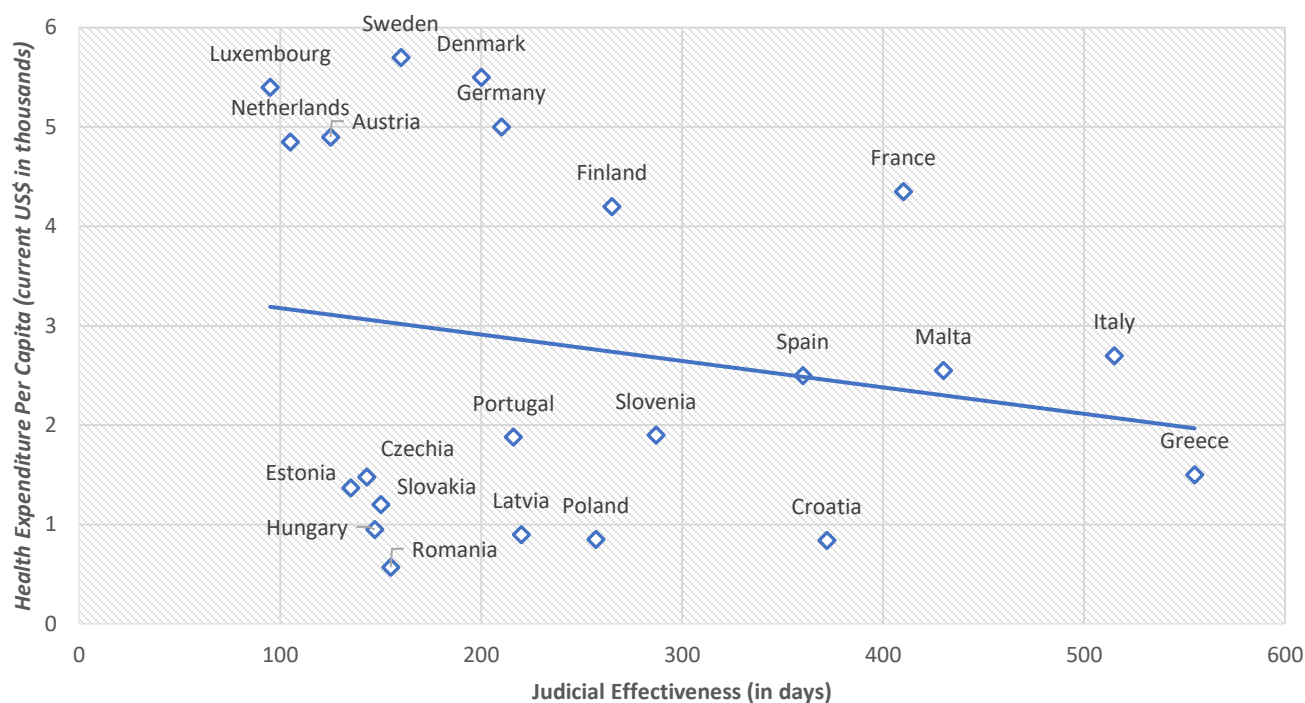


Chart 22, Current health expenditure per capita (current US\$ in thousands), World Bank (2017).

The above figure shows the current health expenditure per capita in US\$ for 2017. Among the countries who rank at the top of the chart (above 4.500\$ per capita) are Sweden, Denmark, Luxemburg, Germany, Austria, Netherlands. On the other hand, Serbia, Romania, Croatia, Poland, Latvia, Hungary, Slovakia, Estonia, Czechia and Greece are the countries with the lowest health expenditure per capita, bellow 1.500\$ per capita.

Using the above data, we have created a chart which visually displays the relationship between judicial effectiveness (using the data from the delay at 1<sup>st</sup> instance in litigious civil and commercial cases) and current health expenditure per capita (current US\$ in thousands) in 2017:

## Judicial Effectiveness - Healthcare Standards



*Chart 23, judicial effectiveness (using the data from the delay at 1<sup>st</sup> instance in litigious civil and commercial cases) and current health expenditure per capita (current US\$ in thousands) in 2017.*

Interestingly, the same pattern displayed with the data on judicial independence can also be observed with the data on health expenditure per capita. Indeed, countries with high health expenditure per capita (above 4.500\$) are also countries with the lowest length of proceedings for litigious civil and commercial cases at first instance (below 200 days) and administrative cases at first instance (below 500 days). This is in conjunction with the idea that the levels of healthcare and economic development are interrelated. It also shows that healthcare is also in correlation with judicial effectiveness and judicial independence.

Furthermore, the inability to make the opposite correlation met in the previous comparisons is also evident in this case. Although France, Italy and Greece are among the countries with the lowest levels of judicial effectiveness, they have a higher health expenditure than most of the other countries listed in the chart. This observation verifies our previous conclusion, that countries with high health expenditure are accompanied by a lower length of proceedings, while the speed of justice for countries with lower health expenditure may vary.



## Conclusions

After the above analysis and interpretation of data, we have reached certain conclusions, which we can summarize in the following points:

1) There is a qualitative difference in the length of proceedings between civil (and commercial) cases and administrative cases. However, the ranking among countries does not substantially change.

2) The number of judges working in a judicial system does not indicate, nor decisively determines the speed of justice. It is as equally possible for a state's judicial system to be abundant of professional judges, and yet prove to be incapable of delivering decisions within a timely manner, as it is for a state's judicial system to function well with a limited number of judges.

3) The number of non-court staff does affect judicial performance, as most well-functioning judicial systems show a number close to or above the European median. On the other hand, many among the countries with the greatest delay in justice also show a number of non-judge staff which is below the European median.

4) While a sufficient budget is important for an effective judicial system, it is not necessary to be high. Indeed, it is shown that some countries have managed to reduce quite well the expenditures of courts and yet sustain a fast delivery of justice. It is safe to presume that this would not be the case with any other country's judicial system, if a reduction on expenditure was imposed. What is shown, however, is that courts can function well with less budget, as long as other factors allow them to be functional.

5) The data does not indicate a firm correlation between HDI and length of proceedings. It can be noted that a high HDI is usually accompanied by shorter length of proceedings, as most countries above the HDI median also demonstrate a shorter trial-length.

6) Most of the countries with a high GDP per capita also have an effective judicial system, as countries with high GDP per capita are accompanied with shorter length of proceedings, while the opposite is not necessarily true.

7) There is a positive correlation between judicial independence and judicial effectiveness, as countries with higher perceived judicial independence also demonstrate higher judicial effectiveness. The opposite is not firmly observed.

8) There is a positive correlation between judicial effectiveness and healthcare standards, as countries with high health expenditure per capita are also countries with lower length of proceedings. The opposite is not firmly observed.

The above remarks lead us to the conclusion that there is indeed a (positive) relationship between judicial effectiveness and economic development. Notwithstanding the causality problem stressed in the beginning of this essay, it seems reasonable to deduce that countries with higher economic development also show an increased judicial effectiveness, but not the opposite. That is not to underestimate the importance of judicial effectiveness as a factor of economic development itself, but simply to point out that judicial effectiveness *per se* cannot determine economic development, nor is economic development necessary for a faster justice.

Our results come in agreement with results pointed out in literature. Though we do not provide a quantitative result in regard to the possible effect of judicial effectiveness in GDP or development as a whole, we observe the positive or negative relationships between different factors and measures of judicial effectiveness and economic development.

Further research into the peculiarities of each judicial system and its economy may shed more light in the observed variations between development and the speed of justice. As it has been pointed out, there is a risk when comparing different court's system, both in regard to the meaning of data in each state, and the arbitrariness when making comparisons. In the present essay, we relied into the methodology followed in previous researches and data reports.

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