Pier Giuseppe Monateri / *Mauro Balestrieri*, **Quantitative Methods in Comparative Law**, Edward Elger, Cheltenham 2023, 200 pages, $120, ISBN: 9781802204445

Researchers who wish to use quantitative methods to study law are inevitably confronted with conceptual and methodological questions: How can law be quantified? What is a good model of law to use for empirical research? What assumptions need to be made? This book addresses all these questions while covering a wide range of topics. It begins with the history of ideas of mathematical thinking about law, discusses the origins of modern empirical legal research, assesses the challenges of model building in comparative law, and presents a new model. This model takes an efficiency approach to law and introduces friction as a central criterion for comparing legal systems. Finally, it is applied to an empirical case study of the Italian legal system.

The book consists of four chapters, two written by Mauro Balestrieri and two by Pier Giuseppe Monateri. In the first two chapters, Balestrieri examines the history of mathematical thinking about law and legal research. Monateri then proceeds to discuss model building and empirical analysis. The conclusion, written by both Balestrieri and Monateri, summarizes the model introduced.

The first chapter undertakes a genealogical project and sheds light on the role that mathematical thinking about law has played since the 16th century. Beginning with a review of the intellectual contributions of several authors, such as Leibniz and Bernoulli, the chapter concludes with a brief look at the French Civil Code and Savigny. This is fruitful in two respects: First, it impressively demonstrates the numerous ways in which geometry and algebra have been present in legal thought over the centuries. Accordingly, the topic of quantification of and in law can by no means be regarded as new (p. 4). Secondly, this finding challenges the strict separation of qualitative and quantitative methods in legal research (p. 14).

The second chapter continues the historical perspective and analyzes the origins of modern quantitative legal research. It explores research paradigms since the late 19th century, beginning with Langdell and his casebook method and subsequently addressing legal realism, jurimetrics, judicial behavior, among others. In contrast to the previous chapter, many of the paradigms discussed have shaped and continue to shape legal research projects to this day. The chapter does not tell a simplistic success story of empirical research but instead points out the variety of research paradigms without concealing critical voices. This is particularly true of the question of how to develop metrics and indicators for comparing legal systems, which is examined by using the World Bank indicators as an example (pp. 69-75).

With the third chapter, the perspective of the book changes: It now focuses on model building for quantitative legal research. The guiding interest lies in measuring the performance of legal systems. On the one hand, the chapter deals with the premises of models on an abstract level, the challenges of quantification, and the relationship to qualitative and doctrinal legal research. On the other hand, the chapter also introduces a new model.

The central assumption of this model is that the purpose of law is to prevent conflicts and disputes (p. 91). The notion of an Input-Output system comes into play (p. 90), and friction, i.e. the resistance of the system, is identified as the key problem (pp. 117-121). Law and regulation are thus seen as obstacles to economic activity and growth (p. 118-119). This provides a criterion for measuring the performance of legal systems and makes it possible to compare them.

The fourth chapter provides a comparative analysis, with a focus on assessing the Italian system. The chapter does not follow the typical steps of hypothesis-testing empirical research but draws its conclusions from descriptive statistics and the findings of other studies. The first step is the comparison of different electoral and governmental systems. Political institutions are assessed in terms of the transaction costs they generate. Compared to institutions in the US, France, and the UK, the Italian institutional system is described as inefficient, thereby generating significant friction (pp. 134-135, 138). In a second step, the chapter evaluates the effectiveness of the judicial systems in Italy, France and Germany. The Italian system is judged based on a series of descriptive statistics, including the duration of proceedings and the caseload, all of which are over 20 years old (pp. 139-147). Again, the Italian system is given a disastrous diagnosis (pp. 141, 145, 147-148).

The conclusion synthesizes the book's considerations into a cohesive model (p. 156). The model's core is the assumption of a clash between the social demand for justice and the social supply of justice. Against this background, a system that is more effective in satisfying the demand, i.e. has less friction, is better. The model is described as conceptually open, so that further research with other perspectives on the legal system can follow.

The number of questions and material covered in just under 170 pages of text makes the book more of a prerequisite reading, for which some basic knowledge of quantitative legal research is useful. To this effect, it is certainly not an introduction for new readers. Nor is it a methods book in the strict sense, in that it does not deal with the technical aspects of measurement, data analysis, or statistical methods.

However, reading the first two chapters is particularly rewarding for those conducting their own empirical legal research. The awareness of the historical origins of mathematical thinking about law is remarkable. The book provides a convincing account of the ambivalence of quantitative approaches. It even discusses fundamental criticisms in order to advocate for a wider understanding of the relationship between quantitative and qualitative research (p. x).

The second part of the book focuses strongly on an economic version of empirical legal research. It will interest those who share a similar functional understanding of law and are interested in the effectiveness of legal systems and output-oriented comparative law. Others, however, might be irritated that so much effort has been put into arguing that law can be studied quantitatively, but surprisingly little effort has been put into arguing for the use of an economic model of law, that narrows down on system-outputs and efficiency. It is not immediately apparent, and does not necessarily follow from quantitative legal research, that law and regulation should be understood as frictions because they may constrain

economic action. Consequently, the book remains less in need of justification *that* law is analyzed with numbers; it remains in need of justification *how* law is analyzed with numbers.

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