Development of Institutions in the Early Modern Period

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Abstract

When did institutions regulating the economic life evolved? Is there something like a starting point for economic policy? In this paper we try to answer these questions for the time of the late middle ages and the early modern period. We have chosen the Grafschaft of Katzenelnbogen as an example on how economic regulations evolved in the 14th to 16th century. Firstly, we present the economic building blocks introduced by von Delhaes und Fehl (2005) that consist of a combination of the theories of Jones (1991) and Volckart (2002) on the one hand and the theory of development by Hesse (1985, 1992) on the other hand. We argue that given these two strands of theory we can show that there was a notable increase in division of labour in the period given above. We show that due to the increase in division of labour there was an increasing demand for institutions that were capable to regulate the developing market economy. Subsequently, we state that the sovereigns also had a great incentive to offer these institutions. Secondly, we can find empirical evidence for our theoretical thoughts using the market regulations and guild charters of the Grafschaft Katzenelnbogen and the town Darmstadt in particular.

Contents

1 Introduction

When did the institutions regulating our economic life evolved? Is there a starting point where we can find something like economic policy for the first time? Our paper takes these questions as a starting point for an analysis of the development of institutions in the late middle ages and early modern period. Which economic forces were in action at this time? How can these forces be used to explain a development of institutions? We concentrate our analysis on the time period between the 14th to 16th century and our regional focus lies on the Grafschaft Katzenelnbogen, especially the town Darmstadt (a town that nowadays is located in the south of the German Bundesland Hessen). For this time period and this territory we ask how several institutions (especially in the town of Darmstadt) evolved.

Our research work is based on an interdisciplinary approach combining evolutionary economics and history. The economic part is based on the combination of two approaches concerning a long-run approach to explain the economic development in Europe and Germany in particular, which was first introduced by von Delhaes und Fehl (2005).

The paper is organized in two main parts: In section 2 we develop a theoretic instrument to analyse the evolution of institutions in the early modern period. We also state several hypothesis for the evolution of institutions in the 14th to 16th century. In section 3 we try to find empirical evidence for our hypotheses. In doing this we have a closer look at the market regulations from 15th and 16th century and the guild charters from 16th century. In section 4 we sum up the evidence found in the Grafschaft Katzenelnbogen and then draw some conclusions for future research in section 5.

2 Theoretic Basis

About 80 per cent of the population worked in the agricultural sector. Only a small fraction of goods was produced for "market" transactions. As shown in the section 3 these market transactions were highly regulated. The quality and price of goods as well as the prices for input factors like capital or labour were fixed by regulations issued by the local sovereign. Therefore the normal or "classical" assumptions of modern market economies did not apply. As a consequence classical competition theory is hardly approriate to explain the market process and its outcomes.

Special attention has to be paid on the role of entrepreneurship: with the emerging market economy and the increase in the division of labour producers of goods felt the interdepency between their own actions and the other competitors' actions through pecuniary external effects. So innovation and its effects on other market participants have been an important force on the growing markets and on the demand for regulations.

Some remarks have to be made on the set of rules. Rules and regulations formed the framework in which possible actions could take place. The rules restrict the acts of the participants (e. g. due to fixed prices, maximum prices). Therefore it was to some extent possible to anticipate the others participants' actions. But for this effect someone was needed to enforce the set of rules. This also brings up the question of enforcement of contracts. Generally speaking, most market participants faced the problem of how to enforce contracts. There was the need to settle possible disputes. This covered conflicts between producers and consumers as well as those among the producers. As a consequence it is clear that the sovereigns also had an incentive to establish a court or special administration units (e. g. to control the weighing machines). If someone trespassed those rules those "judicary" units could fined the trespasser. These fines also built a source of income for the local feudal lord. It has to be noted that the set of rules determined the scope of the market participants and thereby the market outcomes (innovation, prices, quality etc.). Consequently, those market outcomes built the starting point for new regulations or modifications of the existing set of rules.

As noted above the economic system in the late middle ages and the early modern period has been highly regulated. The concept of a modern market system where people trusted in an "invisible hand" has not been developed yet. Generally speaking this understanding has been crucial for the political system to trust in the positive outcomes of a market economy. It should therefore be clear that a learning process was necessary to understand the underlying forces of a free market economy. As a consequence, it is not surprising that the economy in the middle ages and the early modern period has been highly regulated and that deregulation only took place in small steps.

2.1 Development of institutions

In this first part of our paper we restate some essential parts of the theory developed by Jones (1991) and Volckart (2002) in a short manner.

Jones (1991) argues that the industrial revolution and the development of a market economy can be explained by competition theory. His starting point is the fact that in Europe (and Germany in particular) we do not find a single sovereign like in China where they had a universal monarchy, but instead we can find an enormous number of in part very small territories. Jones states that the enourmous number of territories can be explained by the natural fragmentation of Europe. In his view the industrial revolution can be explained by the competition between the different states in Europe. He sees the competition among those territories as a main cause for the economic development in Europe.

We take his main arguments but extend them with the theory of Volckart (2002), who argues that the competition between different states or territories started much earlier. His analysis covers the time period from 1000 to 1800 and is restricted to the territory of the Holy Roman Empire. He uses the theory of competition to analyse the hierarchical feudal system.

In the post-carolingian period people faced great insecurity. Single lords were not able to protect a large number of people. Therefore people needed to look for a local lord who was able to protect the own homestead. Consequently, the supply of the good security was not monopolized. Volckart states that in contrast to nowadays the good security was not supplied by a single central government and therefore it was no public good. Instead the good security was a private good and was offered by the feudal lords to their vassals on a contractual basis: The liege lord offered security and the vassals "payed" with their soccage. It has to be pointed out that the contracts formed a hierachical system so that someone could be vassal to several feudal lords and these lords also were vassals to higher lords.

On the one hand the feudal lords were competitors on the market for security. For their expenditure (e. g. if they had to support other lords in their warfare) they needed enough and strong vassals. But on the other hand those vassals were to some extent free to choose a feudal lord. Due to the fact that labour was scarce in relation to land the feudal lords had an incentive to make good offers to the possible vassals. As a consequence every lord had an incentive to monopolize this market or at least limit competition because less competition enabled the sovereign to extend his territory and political power, increase his earnings from tenure etc. Consequently, the territories grew and local monopolies emerged.

The subsequent question is whether this system competition could explain the economic growth seen in the industrial revolution. It is not clear why the development did not disrupt and one monopoly came out of this development. Volckart (although not explicitly noted) sees the competition between the territories as an explanation for the ongoing development.

2.2 The first steps towards the industrial revolution

Following von Delhaes und Fehl (2005) our view is that the two approaches described above need to be extended to explain why the system competition did not lead to a monopoly and a single state and why the development did not disrupt. To solve this problem we use use of the theory of Hesse (1985, 1992) whose main aim was to explain the industrial revolution (and not the evolution of institutions). In the following paragraphs we briefly describe his theory.

The starting point of his analysis is the natural energetic restriction of the solar power. When the population grows it is necessary to increase the productivity of the agricultural production to provide enough food for the whole population. He states that in southern regions plants could be cropped the whole year while in Europe only the the warm seasons could be used for planting. Consequently, in the cold periods the people had an incentive to invent capital goods to increase the productivity of the agricultural production. Hesse then argues that in Europe the fraction of the agricultural sector declined in the industrial revolution whereas in other parts of the world this fraction remained at a stable level. Due to the increase of productivity in the agricultural sector the former agricultural worker needed new engagements. These engagements could be found in the growing and emerging new industrial sector.

To sum up, one driving force of the beginning industrial revolution can be seen in the evolution of a commercial sector (first in the towns), i. e. an increase in the division of labour. This leads to our first hypothesis:

Hypothesis 1: *In the late middle ages and the early modern period the division of labour increased and the industrial sector grew.*

2.3 New coordination of economic life

We show in this section that the increase in division of labour consequently led to an increasing demand for institutions that were capable to regulate the developing economy. Subsequently, we show that the sovereigns had an incentive to offer these institutions.

The coordination of the economic acitivities had to be re-organised. Whereas beforehand most goods were produced on the own homestead the coordination took place on market places and people used more market transactions to sell and buy goods. Thus the set of rules for the coordination of the economic life had to be re-organized which means that people asked for new or modified regulations. These re-organizations covered the markets for goods as well as the labour and capital market. This demand for regulations appeared on the demand and supply side of the new emerging markets.

With the increase in division of labour and the increase in market transactions the participants' activities caused pecuniary external effects. Therefore the suppliers and consumers noticed the interdependencies of the growing market system. This also led to a demand for regulating these externalities. Guilds and craftsmen asked for security and wanted to restrict competition between different suppliers as well as they wanted to be protected against external suppliers. They asked for regulations for the labour and capital market due to the fact that labour was notably scarce (in relation to land).

It should be clear that innovation, development of new handicraft and pecuniary effects due to market activities led to a pressure to adjust the property rights. Thus the suppliers and consumers asked for new or modified institutions which were capable to regulate the increasing division of labour.

Hypothesis 2: *Due to the increasing industrial economy people like craftsmen asked for institutions to regulate this growing part of the economy (like market* *regulations, regulated prices for goods, guild regulations including institutions for solving conflicts).*

But also the buyers of the new consumer goods (like meat, bread, fruits etc.) asked for regulations. Beforehand most of the people worked in the agricultural sector. So people knew which goods they had to produce, they knew the amount of time needed for production and they knew about the produced quality. With the increase in division of labour more anonymous transactions took place. The transaction costs of these "market relations" were notably high. Due to the increasing number of market participants the transactions costs could fall. Otherwise the transaction costs rose because the consumers were not able to evaluate the products' quality, estimate a "fair" price and they also faced the risk of defraudation. The consumers couldn't be sure either if they would be able to find a supplier on the local market, whenever they needed to buy goods (like bread or meat). Some of the suppliers visited the town only on the market days and some of them were not known by the local population. They also faced the problem of security of supply. These thoughts lead us to our next hypothesis:

Hypothesis 3: *With the increasing division of labour people were able to buy goods on markets instead of producing the goods themselves. This led to questions of consumer protection (regulation of prices and quality, security of supply).*

Until now we showed the forces that have been driven the demand for new regulations. But why should the local feudal lord offer these regulations? There had to be incentives for the sovereign to offer these institutions.

It is important to see that the new craftsmen and the developing industrial sector also gave the sovereign the ability to increase his income by creating new sources of income: with the increasing number of transactions the sovereigns could use tolls and fees (e. g. weighing charges) to increase their income. Beside the additional income the new institutions assured the sovereign's position against the town and its local administration. So we can state:

Hypothesis 4: *Due to the increasing importance of taxes and tolls the sovereign got an incentive to regulate those transactions which could form the base for taxes and tolls.*

The composition of the sovereign's income changed over time: The percentage earned by feudal tenure and privileges declined and the income from taxes and tolls got more important. We can formulate this development as our next hypothesis:

Hypothesis 5: *The sovereign's earnings shifted from earnings from his own establishments and feudal tenure to earnings from taxes and tolls.*

As stated above the sovereigns competed with the surrounding lords. Due to the tradesmen's high mobility the sovereigns had to compare the institutional arrangements (e. g. for their market places) with the regulations of the nearby territories. Therefore the lords acted as competitors on the market for attractive places and attractive regulations. Only those lords who were able to offer proper institutions could attract tradesmen to their towns and market places. In this sense the lords had to act as political entrepreneurs and had to adopt other institutions (like guild regulations) or improve them. This system competition argument ist summed up in our last thesis:

Hypothesis 6: *The system competition and the mobility of the industrial economy gave reason to the sovereign to adopt or improve regulations already existing in the neighbouring territories.*

Finally, we could show that the important new income possibilities and the competition between the different feudal lords led to an incentive to regulate the new emerging markets.

3 Empirical Evidence

3.1 Development of institutions in mediaeval territories and towns

Regarding the development of political institutions in the territories during the late middle ages, it will be noticed that decentralized local administration was built up first. Centralized administration was developed at a later date. Particularly in towns those administrative structures arised very soon and were developed in various ways.

In the agrarian societies in the middle ages and the early modern period towns and cities have also been important centers of formation of capital and technical innovation. Due to this fact the sovereigns had a special interest to look closely on the cities: on the one hand the sovereigns had to take care for their vassals' benefit. On the other hand wealthy towns meant a rich tax yield and political weightiness towards rivals. Towns and cities also could be important while arrangeing a marriage. At least wealthy towns could help to finance expensive military expeditions.

From the municipalities sight the sovereings attraction meant support in many ways but various political conflicts and financial pressure as well. So a sovereign always had to find a balance between social care, supporting a town and influencing the municipality. To support a town, the sovereign had many different possibilities: for example enlarging public infrastructures, giving special rights and privileges, bringing forward particular branches of the economy and modifying municipal administration. All these supportive acitivities mostly took place in cooperation with the municipal executive committees.

These facts can be shown by having a look at the mediaeval guild chartes and market regulations: they show which steps has been taken to rule business and which problems came up in this context. The sovereign had to give his approval to the regulation, therefore they show his economic-political activity. These regulations and charters will attract our particular attention.

3.2 Darmstadt during the middle ages and early modern period

The object of our investigation will be Darmstadt. It was founded in the 13th century by the Grafen von Katzenelnbogen and chartered by Ludwig dem Bayern in 1330. At first Darmstadt was residence of the Grafen von Katzenelnbogen and from 1479 residence of the Landgrafen von Hessen. In the 16th century Darmstadt became the capital of the new-founded Landgrafschaft Hessen-Darmstadt. Being located in the economic and political important Rhein-Main-Gebiet and having access to many different territories Darmstadt become a distinguished town.

3.3 Regulations of market development

The division of labour in Darmstadt increased in the 16th century according to our hypothesis 1. Before this time most of citizens worked in the agricultural sector. The only hint for the variability of different types of handicraft can be found in the list of professions in the market regulations: Scherer (shearer), Schneider (tailor), Messerschmiede (blacksmith), Steindecker, Bäcker (baker), Metzger (butcher), Müller (miller), Bader, Bender, Dachdecker (tiler), Kistner, Ölmüller, Seidensticker, Seiler (ropemaker), Steinmetze (mason), Zimmerleute (carpenter) and Schuster (shoemaker). In the 1530s Landgraf Philipp I. tried to establish the profession of the woolwheaver among other things by building a so called Walkmühle (special type of mill).

Consequently, the hebdomadal and annual markets had been the main focus of the business in Darmstadt. In turn this fact is reflected in the structure of municipal administration and in the development of the regulations and public orders: for example the Schöffenkolleg, the most powerful panel in town, was responsible for ruling the markets and had been supported by the so called Vierer. The public order from 1450 determined that two or three men had to do the Fleischschätzung (meat inspection). Two market regulations, Marktordnungen, from 1450 und 1456 ruled the selling of bread and meat at the urban markets. They also determined the points in time, when bread, fruits and corn were allowed to bring in town by nonresidents. Those nonresidents had to buy so called Zeichen (toll).

In this way a control of the quality of the offered groceries was possible. Otherwise the import of goods from the hinterland was regulated and the resident peasants and craftsmen were protected from local competition. This conclusion especially approves our second hypothesis.

In the 16th century business in Darmstadt increased and so did the demand of regulating economic life. On 19th july 1527 Landgraf Philipp der Großmütige decreed a detailed markted order. He allowed two annual markets and periodical hebdomadal markets and guaranted Freies Geleit (free escort) to all the visitors of the markets in Darmstadt. Due to this privilege the markets in Darmstadt became very attractive according to our hypothesis 6.

In 1566 new so called Marktämter were created such as the Mehlwieger (flour weigher) and the Marktmeister (market supervision). A Renovirten Marckordnung from 1573 restricted the selling to the public markets, fixed the taxes and interdicted hawking. In the guild charters of the late 16th century regulations such as control of weights, prices and quality can be found as well.

Violating those orders could be fined by the local administration. The fines were paid to the sovereign not to the city. This supports our hyptheses 4 which states that the sovereign got an incentive to regulate the market transactions due to the increasing importance of taxes, tolls and fines.

From that point we recognize that the sovereign's interests in regulating market development aimed for supporting the main economic focus in Darmstadt. As we proposed in hypothesis 2 the charters, regulations and orders guaranted the high quality of the offered goods and proctected the local craftsmen and peasants from nonresident competition. A new formation of the municipal administration improved the market's organization. At least the privilege of Freies Geleit made the way to and from Darmstadt safe and the town attractive to traders. On the other hand the sovereign's exchequer achieved a rich income from taxes, tolls and fines.

3.4 Guild charters

As we have already suggested Darmstadt was shaped by agriculture for a long time. There existed only little industrial production and it didn't get into the sovereign's focus before the middle of the 16th century. On 30th april 1565 Landgraf Ludwig IV. decreed a handicraft code for the cities of Darmstadt und Zwingenberg: The code determined the prices, wages and the provision of services in favour of the following branches: Bäcker (baker), Müller (miller), Metzger (butcher), Gastwirte (publican), Maurer (mason), Steinmetze, Zimmerleute (carpenter), Schreiner (cabinetmaker), Bender, Strohschneider, Schneider (tailor), Tagelöhner (day-labourer) and Dienstboten (servant). Some seperate treatments we find in favour of the bakers and peasants in Darmstadt. This collection seems to include just the branches existing in both cities and is definitely not complete: for example the numerous shoemakers of Darmstadt are missing.

At that time increasing building activity needed detailed regulation of the following industries: the salaries of the bricklayers, stonecutters and carpenters were fixed depending on the craftsman's particular degree: master, assistant, day-labourer. Resident craftsmen had to be preferred. The butchers and bakers got regulations in relation to their products' quality and the publican's rules about the Ungeld and the Trankgeld also were renewed. At least these orders tried to prevent fraudulent use. This shows some evidence for our hypotheses 1 which states that the craftsmen asked for regulating institutions by themselves because of the increasing industrial economy.

Generally speaking, the code was neither systematical nor juridical matured. But it was particularly suitable to counteract the increasing market development.

About thirty years after the handicraft code's decree, Georg I. von Hessen-Darmstadt subscribed a guild charter for tailors of Darmstadt. Just a short time later blacksmith and carpenter guilds were created. Smaller branches aligned themselfes to other guilds. In the aftermath guild charters for the Bäcker (bakers), Bender, Metzger (butcher), Glaser (glazier), Häfner, Leinweber (linen weaver), Schuster (shoemaker), Schlosser (locksmith) and Seiler (ropemaker) were decreed. At least the Landgraf's chamber decreed a uniform guild charter for the whole Obergrafschaft. These charters were modelled on a butcher's charter from Heidelberg (1482), and a carpenter's charter from Worms (1587). The Seiler (ropemaker) obtained transcriptions of charters from Hessen-Kassel and Saxony. This shows that the guilds were not built because of the sovereign's pressure but of the economical and social circumstances: the guilds protected the craftsmen from competition and guaranteed an income for them. The charters were also an instrument to settle down conflicts among the guild's members. In general all affairs should be ruled by the guilds autonomous. But in all the charters contained regulations concerning the market development.

The regulations in detail: The guild charters defined the products which were allowed to be produced by a particular branch and interdicted secret selling of goods. They also included prohibitory provisions concerning the production of goods. The orders demanded the production of bread during times of famine and also a certain solidarity between competitors. As mentioned in hypothesis 3 the charters protected the consumers' rights and obliged the members of the guilds to stand on contracts. The sovereign's policy aim was to ensure stable and fair prices for his vasalls. Due to this aim the variety of the products was limited. Even innovations were hindranced.

Like the regulations concerning the market development the protection of products' quality was an important aim of the guild charters: all the goods were regularly controlled by so called Beseher (supervisor). In that way the conumers' satisfaction was guaranteed—and high-quality products could be exported to foreign marktes and territories which in turn was in the sovereign's interest. Especially standards for grocery were notable high. Furthermore, the charters included rules to protect people against cheating and against goods from nonresident competitors. At least we find some sections dealing with violations of the charters and how to treat with these violations.

The sovereign's influence on the guild charters was high: at first he had to approve all of the charters and was also able to invalidate them. The members of a guild had to accept and to swear an oath on the charter. They even had to remain loyal to the sovereign. The members were asked to develop a draft of the charter which had to incorporate the sovereign's interest. The sovereign had the right to intervene in the markets. His decision in the individual cases preceded the guild charters. The sovereign himself decreed health and weight regulations. The whole economic law was shaped by the sovereigns' influence.

To sum up the guild charters protected the craftsmen from competition and guaranteed high quality standards like the market regulations mentioned above did. Conflicts among the members of the guilds could be settled down smoothly with the help of the guild charters. These three points help to understand why craftsmen demanded guild charters themselves. The sovereign—by decreeing the charters—achieved a stronger political binding of the craftsmen and beneath this an enforcement of his political power. So the guild charters lead to more centralisation and at least to a decisive position of the sovereign—also towards the municipal executive comittees. The sovereign's administration even got an instrument to reliably keep records of the craftsmen. In turn this was an important condition of a systematic economic policy and not at least for increasing revenues from taxes. This income was able to be risen again if defined quality standards enhanced the demand for certain products. The fines for violating the guild charter were an import income as well. At least the new quality standards and the health and weight regulations meant an improvement of the consumers protection.

4 Discussion

In the third step we discuss the theoretic frameworks's major predictions and how they can be supported by empirical evidence in the territory of Katzenelnborgen and Darmstadt.

We could see that our hypotheses in general could be supported by the empirical material. But it has to be noted that our paper covers only a very small part of the development of the Grafschaft Katzelnelnbogen and we only looked at the market regulations and guild regulations and therefore there are a lot of regulations and instutions left that were not in our focus. Concerning our hypothesis 5 we have to state that it seemed plausible but we did not find empirical evidence for the shift from feudal tenure to taxes, tolls and fines in the sovereign's earnings. Our position is that a detailed analysis of the sovereign's annual accounts is necassary for testing this hypothesis.

It has to be noted further that several important developments of the time period covered have not been considered: The late middle ages and the early modern period was very much influenced by religious developments especially the reformation in Europe. Those developments were out of our scope but played an important role in the political and economic development of most territories in Europe. The juridical system changed as well. In the 14th to 16th century a stronger codification took place. In the theoretical part we argued that the system competition between the different territories led to regional monopolies but in our empirical material we did not covered the development of the hierarchical feudal system.

The development of the Grafschaft Katzenelnbogen and the town Darmstadt was not only determined by economic forces but political developments (including warfare) had a great influence on Darmstadt and its prosperity as well. For a broader understanding of the development of Darmstadt and Katzenelnbogen these developments should be taken into account.

5 Concluding remarks

It could be shown that the major predictions from the combined theoretic framework did occur in Katzenelnbogen and Darmstadt in particular. Therefore we conclude that the used evolutionary theory of industrial revolution combined with the theory of institutional change is capable to explain the development of institutions regulating the evolving market economy in the early modern period. Nevertheless a more detailed research work is necessary to incorporate more empirical material in the analysis. Due to the fact that the Grafschaft Katzenelnbogen is quite small the analysis should be extended to cover a greater territory. We only analysed the market regulations and guild charters but beside this it would be very interesting to have a closer look on other economic institutions.

The driving forces of the development of several institutions regulating the economic life (market and guild regulations) can be seen in the following points: on the one hand there is a notable increase in division of labour and on the other hand there was a system competition between the fragmented territories. The increase in division of labour led to an increasing demand for regulating institutions. Due to the system competition and several incentives (income through taxes, tolls and fines as well as strengthening the political power) the sovereigns offered those institutions. In doing this the sovereigns strengthened their positon towards the municipal executive comittees which in turn led to a centralisation of the political power. It has to be noted that the steps towards a market economy were very small and the free market was far away in the late middle ages and the early modern period.

It is our view that the combination of evolutionary economics and history is a productive approach because on the one hand theories dealing with historical topics can be supported by empirical evidence using modern methods of history, and on the other hand history can be enriched by a more theoretical foundation.

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