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BACHELOR THESIS

*SPICES IN THE RUNTINGER TRADE WITH PRAGUE*

By Isabel Sovitzky

Under the Supervision of

Roman Zaoral, PhD.

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DECLARATION I hereby declare that no portion of the work referred to in this thesis has been submitted in support of an application of another degree, or qualification thereof, or for any other university or institute of learning. I declare that this thesis is my own independent work. All the used material and literature has been duly referenced and quoted.

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## Abstract

In the late medieval ages, a prominent trade route led from Prague, which traded silver mined at Kutna Hora, through Regensburg, to Venice, which traded with the Near East. The Regensburger merchant house of Runtinger made vast profits by buying cloth and luxuries, in particular spices from India, cheaply in Venice and selling for much silver in Prague. This study treats *das Runtinger Buch* (1383-1407), as a case study for the analysis of the Prague economy. The Runtingers are shown to have market power in the Prague spice market, but no market power in the Prague cloth market or the Regensburg markets. Spice was continuously traded for silver or silver coins, constituting a continuous drain of silver from Bohemia towards Regensburg, which stagnated the local economy in Bohemia.

## Key words

Late medieval international trade, Bohemia, silver, spices, Runtingerbuch, Runtinger family

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# I. Theoretical Groundwork

## 1.1 Introduction

“In Bohemia, a pig eats more saffron in a year than a German man in his whole life,” remarked one German chronicler.<sup>1</sup> This accusation seems trivial enough, but behind the Bohemian taste for Indian spices lies a complex web of trade routes, themselves the result of the way the European economy and society functioned.

Bohemia was in many ways an obscure and discounted corner of Medieval Europe. Isolated by dangerous road through dense forest, bypassed by the main thoroughfares of trade, and ruled by a comparatively insignificant local dynasty, Bohemia remained dimly unthought of in the early Medieval ages. With the discovery of silver in the 13<sup>th</sup> century, much changed. Bohemia was thrust into an important role in the European economy, which came to rely heavily on Central European silver for coinage. Demand for silver was particularly strong in the city-states of Northern Italy, which maintained an unfavorable trade balance all over the Mediterranean. Concurrently, sudden acquisition of wealth caused demand for southern luxuries in Bohemia. South German merchants were able to take advantage of their geographical position to act as middlemen in this long-distance trade and make a handsome profit.

The impact of Bohemian silver on the rest of Europe has been well-researched, but what of the impact of this Europe on Bohemia? The question of the affect of long-distance trade on the Bohemian economy has been only partially answered,<sup>2</sup> partly because only three fragments of the records of Bohemian traders survive, published by Frantisek Graus in 1956, and one more recently published by Musilek.<sup>3</sup> Nevertheless, records remain from merchants in other lands who traded with Bohemia, notably those in southern Germany. Among them,

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<sup>1</sup> Wiltrud Eikenburg, *Das Handelshaus der Runtinger zu Regensburg. Ein Spiegel süddeutschen Rechts-, Handels- und Wirtschaftslebens im ausgehenden 14. Jahrhundert*, (Göttingen: Veröffentlichungen des Max-Planck-Instituts für Geschichte, 1976), 130.

<sup>2</sup> While this question was studied by Josef Janacek, he did not take the *Runtingerbuch* into account. (cf. *L'argent tchèque et la Méditerranée (XIVe et XVe siècles)*, in *Histoire économique du monde méditerranéen 1450-1650, Mélanges en l'honneur de Fernand Braudel*, vol. 1, Toulouse : Privat, 1973, p. 245-261).

<sup>3</sup> František Graus, *Tři zlomky českých kupeckých knih z doby předhusitské. Československý časopis historický*, 4 [54], No. 4 (1956): 644-654.

Martin Musilek, “Zlomek knihy vydání, v níž jsou jména Židů „Nově objevený“ rukopisný zlomek kupeckého rejstříku a jeho výpověď pro pražský obchod ve středověku.” *The Prague historical review XLIV* (2016): 141.

das Runtingerbuch is remarkable for the completeness of its information over a relatively wide timespan.

The Runtingers were a family of merchants from Regensburg who operated during the late 1300s and early 1400s. Their activities varied widely—they operated a mint, held public office, and dealt in Flemish cloth;<sup>4</sup> they traded with Bohemia and Venice as well. They bought up spices and silk in Venice and sold it at a hefty markup in Prague, while also buying Bohemian silver for sale in Venice. Their ledger, das Runtingerbuch, contains records from the years 1383-1407. Although extensively researched as a source on economic and civic life in Southern Germany, it has not yet been analysed from the perspective of the Bohemian economy. This research treats das Runtingerbuch as a case study and asks what the trade activities of the house of Runtinger can reveal about Bohemia.

I have chosen to focus on spices for several reasons: spices were the most profitable; they were readily divided into subtypes such as pepper, ginger, and cloves; they were bought and sold frequently; they were sold both in Regensburg and in Prague. In other words, data on the same commodities are available for comparison over different years and on different markets. Furthermore, as an exotic luxury item, they not only position Bohemia in a much wider-reaching network of trade, but also comment on the prosperity of the customers in a given year.

## 1.2 Research Questions

As my research goal is to see what can be concluded about the Bohemian market from *das Runtingerbuch*, I have two primary research questions, one directed at the state of the Bohemian market, specifically the market for spices, and one at the impact of this market on the overall economy in Bohemia.

- Why were spices the most profitable part of the Runtinger trade with Prague?
- What implications did this trade have for the Prague/Bohemian economy?

And for fun, a small secondary research question:

- What examples does das Runtingerbuch record of the use of spices in the Medieval times?

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<sup>4</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 88, 97.

## 1.3 Methodology

This case study combines quantitative and qualitative research methods. Quantitative data from my primary source, *das Runtingerbuch*, will be qualitatively evaluated with consultation from relevant secondary scholarship.

Since *das Runtingerbuch* will be taken as a case story, its representativeness and relevancy must be established according to the principles of the heuristic approach. Secondary sources must also be critically analysed regarding relevance to the problem and quality of scholarship.

This is primarily a work in economic history and uses Wallerstein's World System Theory as a framework for understanding major economic trends.

### 1.3.1 Interpretation of Sources

In order to arrive at accurate conclusions, when dealing with primary research one must be careful to note the position of the writer and consider whether they have any motivation to be disingenuous. Given the nature of a business ledger and the number of people who had access to it, these concerns are less salient here. It must nevertheless be established that *das Runtingerbuch* is representative and relevant to the topic.

The logical soundness of the historical arguments in secondary literature should be continually reviewed and the author's historiographical position taken into account. A good work should work closely with sources chosen appropriately to their research question and an appropriate number according to the type and scope of their research. It should avoid extrapolation and speculation. Secondary research that I use in this work will be assessed by these standards.

### 1.3.2 Comparative Analysis

In this work, I use the method of comparison proposed by Miroslav Hroch:

1. The object to be compared must be defined as precisely as possible;
2. The aim of the application of the comparative method must be laid down;
3. The criteria of analysis for the objects of comparison should be established;
4. The relation of the comparative procedure to the temporal axis (i.e. to historical chronology in an absolute sense) must be clarified.<sup>5</sup>

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<sup>5</sup> Miroslav Hroch, *Social Preconditions of National Revival in Europe* (Cambridge: Cambridge University Press, 1985), 18.



This fourth criterion means that one can compare something either diachronically – observing the same object of comparison across time—or synchronically—observing the same object occurring at different places but at the same time.<sup>6</sup> As an example, one may compare the price of pepper in Regensburg and Prague during the same year, or the price of pepper in Prague over a number of years. It would not be appropriate to compare the price of pepper in Regensburg in 1383 with the price of pepper in Prague in 1402.

### 1.3.3 Wallerstein's World System Theory

The choice of Immanuel Wallerstein's World System Theory perhaps deserves comment—in current scholarship, it has been largely supplanted by other models such as Arjun Appedurai's five scapes of globalisation. Nevertheless, it provides a useful frame of reference for understanding the structure of economic relations in late Medieval Europe. While ideas, images, and technology certainly did travel then as now, one can hardly usefully speak of medieval *mediascapes* or *ideoscapes* in Appedurai's sense. As will be shown below, the *Rüntingebuch* shows the relationship between the core (Italy), semi-periphery (Regensburg) and periphery (Prague) described by Wallerstein. Also, it must be qualified that I am applying strictly the economic elements of Wallerstein's model, without reference to politics. The Holy Roman kings lived in Prague in the 14<sup>th</sup> century,<sup>7</sup> so Bohemia cannot be understood as periphery in a political sense. I am also uninterested in using this model to focus on exploitation.

According to Wallerstein, „World systems... are defined by the fact that their self-containment as an economic-material entity is based on extensive division of labor and that they contain within them a multiplicity of cultures.“<sup>8</sup> Although a world system does not necessarily operate on a zero-sum-game basis, production is divided geographically, and socially more powerful groups receive a greater share of the surplus, introducing an element of exploitation. Within this system, Wallerstein distinguishes the gradients of core, semi-periphery and periphery. The core imports raw or component goods, produces and finishes products, and exports them. As the economically most advanced region, the core also tends to lead in technical innovation and areas such as education. The semi-periphery mediates between core and periphery, buying raw materials from the periphery both for themselves and for export to the core, while also buying finished goods from the core both for their own use

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<sup>6</sup> Opsit, 20.

<sup>7</sup>Peter Demetz, *Prague in Black and Gold: the History of a City* (London: Penguin Books, 1998), 82.

<sup>8</sup> Immanuel Wallerstein, *The Modern World-System: Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century* (New York: Academic Press, 1976), 229-230.

and for export to the periphery. The semi-periphery also often adds value to raw goods from the periphery by producing component and finished goods. The periphery's economy is characterized by exporting all or mostly raw materials and importing all or mainly finished goods.<sup>9</sup>

## 1.4 Critical Analysis of Sources

In the following sections, I review only those sources which substantially contributed to my understanding of the problem. Sources which are cited purely for small amounts of information are not considered, but are of course to be found in the bibliography.<sup>10</sup>

### 1.4.1 Primary Sources

My research data comes from Franz Bastian's edition of *das Runtingerbuch*. Bastian published a three-volume series: the full text as volume II, published in 1935, his compilation of related sources as volume III, published in 1943, and lastly volume I, Bastian's systematic calculation of profits, markups, and costs, published in 1944.<sup>11</sup>

As a case study, *das Runtingerbuch* is both relevant and representative. A natural choice for studying long-distance trade in Bohemia would be the ledgers of Bohemian merchants; unfortunately, only a few fragments survive.<sup>12</sup> Indeed, the books of the Prague branch of the House of Runtingers are also lost, but summaries of the information contained in them were brought to Prague and included in *das Runtingerbuch*.<sup>13</sup> During this time, Regensburg alongside Nuremburg played a key role in trade with Bohemia,<sup>14</sup> and the Runtinger's ledger offers unusually complete information covering a period of twenty-four years. While few ledgers from their Holy Roman peers have survived,<sup>15</sup> based on the overall sources available for this time, the trading activities of the Runtingers may also be taken as representative of concurrent Regensburger merchants.<sup>16</sup>

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<sup>9</sup> Carlos A. Martínez Vela, "World Systems Theory," Internet Modern History Sourcebook, 2001, accessed 05.02.2020. <https://thebasebk.org/wp-content/uploads/2013/08/The-Modern-World-System.pdf>.

<sup>10</sup> Suggested sources for further reading which I did not use for this work are occasionally provided in the footnotes; as I did not use them, they are not included in the bibliography.

<sup>11</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 3-7.

<sup>12</sup> Cf. Footnote 2 above.

<sup>13</sup> Ibid, 102.

<sup>14</sup> Cf. 14-15.

<sup>15</sup> František Graus, „Die Handelsbeziehungen Böhmens zu Deutschland und Österreich im 14. und zu Beginn des 15. Jahrhunderts. Eine Skizze," *Historica = Historical Sciences in Czechoslovakia* 2 (1960): 100.

<sup>16</sup> Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003), 140, 161.

### 1.4.2 Secondary Scholarship

My work rests heavily on the scholarship of Peter Spufford, specifically his books *Money and its use in Medieval Europe*<sup>17</sup> and *Power and Profit: the Merchant in Medieval Europe*.<sup>18</sup> Both works are meticulously researched and avoid weighting any one geographical area over another, yet without sacrificing the depth of the information. Spufford doesn't betray any obvious slant, such as a nationalistic focus, which might color his conclusions.

In *Money in Medieval Europe*, Spufford offers detailed reviews of his sources and their limitations, engaging with possible interests or motivations on the part of their authors. When using pieces of evidence which could have multiple interpretations, he acknowledges the ambiguity and he cautions the reader when he extrapolates. In sum, the work shows an absorbed interest in following where the evidence leads with as little speculation as possible. This work helped me understand the financial ties of Medieval Europe, and the role of money, especially silver, within this system.

*Power and Profit* is similar in its exploration of a broad range of geographical locations. This work details the practicalities of life as a merchant as well as the sources, paths, and destinations of their goods. Because *Power and Profit* shows the overall financial system of Medieval Europe by detail-based description rather than schematization, it provides an accurate working overview on both Europe-wide and local levels.

Jean Favier's work *Gold and Spices*<sup>19</sup> likewise introduces the reader to the world of the Medieval merchant. This work considers various dimensions of the medieval world which contributed to the transition from feudalism to early capitalism, such as political, social, economic and moral factors. Like Spufford, Favier shows great care and meticulous attention to detail in his approach. Both this work and *Power and Profit* provided me with information on the practical and logistic challenges medieval merchants faced; challenges which informed their financial and trade decisions.

My understanding of the role of spices in European life and thought was deepened by Paul Freedman's book *Out of the East, Spices and the Medieval Imagination*.<sup>20</sup> While the above works approach the problem from the perspective of supply, Freedman analyses the

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<sup>17</sup> Peter Spufford, *Money and its Use in Medieval Europe*. (Cambridge: Cambridge University Press, 1989).

<sup>18</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003).

<sup>19</sup> Jean Favier, Tr. Caroline Higgot, *Gold and Spices* (Holmes and Meier Publishers, 1997).

<sup>20</sup> Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven and London: Yale UP, 2008).

cultural factors which contributed to demand. He utilizes ample and diverse primary sources, including travelogues, accounts, notebooks of merchants, maps, and literature. He describes the role of spices in high and middle-class dining culture, general healthfulness, medicine and perfume and demonstrates how these facets were not distinct from each other in the Medieval mind, but entangled, along with a large dose of mythology. Although Freedman does not separate geographical regions as carefully as Spufford, he does indicate which land his sources come from and notes that particular spices went in and out of fashion in particular regions and over time.

The article *Medieval European Medicine and Asian Spices*<sup>21</sup> by Nam Jong Kuk compares three pharmacology manuals popular in Europe and discusses the properties of spices according to these works. He has demonstrated that the manuals he has chosen were widely read and considered authoritative, and that therefore the information contained in them may be considered representative. From this article, I use a table of various spices and their ascribed qualities, to be found in my appendix.

According to its introduction, Wiltrud Eikenberg's book *Das Handelshaus der Runtinger zu Regensburg* undertakes to provide an overview of the trade, legal, and cultural dimensions present in das Runtingerbuch.<sup>22</sup> Well-organized and concise, it provides an index of information on various aspects of the problem and positions the Runtinger trade activities among other financial, civic and personal dimensions of their lives. It also describes their position among other merchants in Regensburg. I have heavily used Eikenberg's information on medieval weights and measurements.

*Regensburger Hochfinanz* by Klaus Fischer<sup>23</sup> presents Regensburg financial activities as a whole and also discusses the impact of long-distance trade on Regensburg as an independent town. Because many trading houses are discussed, this work offers an understanding of the range of variation among Regensburger merchants and the Runtingers' position among them. Klaus has worked carefully with the sources and shows a concern for accuracy.

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<sup>21</sup>Nam Jong Kuk, "Medieval European Medicine and Asian Spices," *Korean Journal of Medical History* 23, (2014).

<sup>22</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 8-9.

<sup>23</sup>Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003).

*Die Handelsbeziehungen Böhmens zu Deutschland und Österreich im 14. und zu Beginn des 15. Jahrhunderts*<sup>24</sup> summarizes the trade relations of Bohemia. František Graus limits himself to the territories of what is present-day Germany and Austria, but is careful to note the existence of other ties (for example, Bohemia's ties to Flanders) when relevant. This key source underlines the significance of Regensburg in Bohemian trade as compared with other towns of the Holy Roman Empire. It also contains a brief discussion of economic policies and the Bohemian balance of payments which helped me understand how the Runtinger trade impacted the Bohemian economy.

Roman Zaoral's article *Silver and Glass in Medieval Trade and Cultural Exchange between Venice and the Bohemian Kingdom*<sup>25</sup> builds a solid argument that reforms in weights and measurements in Bohemia as well as reforms in the Venetian *Fondaco dei Tedeschi* facilitated long-distance trade. It also describes the cultural dimension of this trade. Inasmuch as it focuses on the impact of the luxury trade in glass on the Bohemian culture and the economy, it has elements of a case study similar to this one.

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<sup>24</sup> František Graus, „Die Handelsbeziehungen Böhmens zu Deutschland und Österreich im 14. und zu Beginn des 15. Jahrhunderts. Eine Skizze,” *Historica = Historical Sciences in Czechoslovakia* 2 (1960).

<sup>25</sup> Roman Zaoral, “Silver and Glass in Medieval Trade and Cultural Exchange between Venice and the Bohemian Kingdom,” *The Czech Historical Review* 109, no. 2 (2011).

## II. Empirical Research

### 2.1 The Historical Context of the Runtigers' trade

The late medieval period was a time of development and transition from feudalism to a form of early capitalism. The Runtigers lived, planned, and traded against a backdrop of dynamic social, technological, and economic change. To grasp the implications of the data drawn from *das Runtigerbuch*, it is useful to explore the historical development of the trade routes they followed and the role this trade played in the economies and societies it connected.

#### 2.1.1 The place of the spice trade in late Medieval long-distance trade

Before tracing the major routes across Europe and the Levant, let us consider the place of the spice trade relative to the various other goods traded, both with regard to volume and impact on the balance of payments.

Transport costs relative to value often determined which commodities could be profitably transported, and how far. Medieval roads were in far from uniform and easy condition. The old Roman roads had not been adequately maintained, fell into disrepair, and by the 12<sup>th</sup> century had been gradually abandoned. In their place, winding tracks connected settlement to settlement, often taking the long way around to visit more customers, and only fit for pack animals.<sup>26</sup> Occasionally the road could also take carts. Whereas a pack horse could carry around 200 kilograms, a two-wheeled charette drawn by two or three animals could carry three or four times that. A four-wheeled wagen drawn by six horses could transport 1300-1500 kilograms—around 50-100 rolls of cloth or 365 liters of wine.<sup>27</sup> This made transport by cart much cheaper. Transport by river was cheaper still and was used whenever possible.<sup>28</sup> Most trade routes mixed these forms, entailing frequent repacking of goods.<sup>29</sup> Tolls were levied by local authorities and at geographic bottleneck, such as bridges.<sup>30</sup> Travel was slow, average 30 kilometers per day.<sup>31</sup> It was altogether an expensive business,

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<sup>26</sup> Jean Favier, Tr. Caroline Higgot, *Gold and Spices* (Holmes and Meier Publishers, 1997), 11.

<sup>27</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 199.

<sup>28</sup> *Ibid*, 202.

<sup>29</sup> *Ibid*, 192.

<sup>30</sup> Jean Favier, Tr. Caroline Higgot, *Gold and Spices* (Holmes and Meier Publishers, 1997), 14.

<sup>31</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 200.

and goods had to be either very valuable or much needed to be worth transporting any great distance.

Notwithstanding the prohibitive expensive, large cities needed to import basic sustenance.<sup>32</sup> The cities of the Netherlands and Italy were densely clumped together, and it became impossible to feed them on local crops. Grain and bread was especially problematic: It took a much greater stretch of land to support a much smaller number of people than in modern times. The grain yield of 1270 was less than one ton per hectometer, as compared with around 8 tons a hectometer in 2019.<sup>33</sup> After the medieval peasant fed his household, only 60% of the harvest was a marketable surplus. In bad years, it could drop to as low as one third. Accordingly, the greatest volume of trade was in products such as grain, meat, cattle—which was raised afar and fattened nearby—herring, wines, and cheap cloth, as well as feul and hay. Although such commodities were obtained as locally as possible, Italy was obliged to buy grain from all over the Mediterranean.<sup>34</sup>

The aristocracy who formed the courts of these cities, however, demanded much more than just food and drink. Around 1329, Philip VI of France received 782,912 Florentine florins a year, and Robert of Naples received 600,000.<sup>35</sup> While these men were undoubtedly unusually rich even for nobles, it is hardly surprising that alongside bulk trade in necessities, an extensive and varied trade in luxuries developed. Nobles wished not only to eat and drink more, they wished to eat, clothe themselves, and build better, and in a way that showed their wealth to others. Luxury clothing became such a potent mark of status that legislation was sometimes passed prohibiting commoners to usurp rank by dressing above social class. European nobles wore silks from China or Damascus, as well as high quality wool from the Low Countries. Carpets and tapestries were also prized, as well as display articles, like Syrian glass and objects worked in precious metals, precious gems,<sup>36</sup> horses, armour, and all manner of military paraphernalia.<sup>37</sup>

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<sup>32</sup>Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 95.

<sup>33</sup> Hannah Ritchie and Max Roser, "Crop Yields", OurWorldinData.org, Our World in Data, 2020. '<https://ourworldindata.org/crop-yields>'.

<sup>34</sup>Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 100, 104.

<sup>35</sup>Ibid, 66.

<sup>36</sup>Ibid, 116-115, 119.

<sup>37</sup> Ibid, 129.

Spices certainly ranked among the luxury items consumed by the prosperous. They had a versatile and complex connotation, since they were used not only in cooking, but as drugs and disease preventatives, in perfumes and liturgical incense. Spices promoted the body's equilibrium and came from a mysterious paradise just west of the garden of Eden.<sup>38</sup> With the notion of spices as somehow wonderful, their use became an expensive mark of class distinction, indicating gracious and sophisticated sensual pleasure.<sup>39</sup> The Medieval category of spices was vague and expansive compared with ours: it included dates, raisins, rice, dried grape, aromatic but inedible substances, dyestuffs such as alum, madder and indigo, medical borax, aloes, and dried rhubarb from China. Nevertheless, by far the most common spices were pepper—which amounted to two-thirds of Venetian culinary spice import<sup>40</sup>—cinnamon, ginger, and saffron. Nutmeg, cloves and galangal were also widely used, but in smaller amounts.<sup>41</sup> Spices such as pepper and ginger were grown on the western coasts of south India and Sri Lanka.<sup>42</sup> Saffron, by contrast, was cultivated in the Mediterranean, especially Tuscany. Its expense was connected with the labor required to harvest it: each crocus only contains three orange stamens, which meant it took 70,000 flowers to produce one pound.<sup>43</sup>

Although the spice trade had considerable cultural importance, in terms of volume it formed only a small part of total trade. Estimates on the total volume imported to Venice around 1400 place it between 500 and 1000 tons a year.<sup>44</sup> Nevertheless, their high price ensured that they left a large mark on the economy. Not only were they occasionally an acceptable substitute for coin,<sup>45</sup> but along with other luxury goods, they impacted the balance of payments disproportionately to their volume.<sup>46</sup> While Europe imported thousands of ducats worth of goods from the east, in terms of value far less flowed in the other direction. The

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<sup>38</sup> Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven and London: Yale UP, 2008), 13-14.

<sup>39</sup> *Ibid.*, 46-47.

<sup>40</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 310.

<sup>41</sup> Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven and London: Yale UP, 2008), 19-20.

<sup>42</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 310.

<sup>43</sup> Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven and London: Yale UP, 2008), 19-20, 134.

<sup>44</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 310.

<sup>45</sup> Robert S. Lopez and Irving W. Raymond (ed.), *Medieval Trade in the Mediterranean World* (New York: Columbia UP, 1995), 145.

<sup>46</sup> *Ibid.*, 342.



balance therefore had to be paid in coin. Table 1 indicates the balance of payments per year in the fifteenth century, as proposed by Peter Spufford with reference to Eliyahu Ashtor. Perhaps most striking is the lion's share Venice claimed of European trade with the East, a subject discussed in detail below, but just as significant is the amount of coin paid eastward—net 370,000 ducats in coin on a total trade worth 660,000 ducats a year! This constituted an ongoing drain of Europe's silver supply, and Europe became dependent on continuous mining to support trade, upon which much of the developed economy was built. Indeed, when silver mines dried up in the 1440s and mines closed down, the economy of Europe ground to a halt on all levels by 1460s, plunging into a depression which lasted as long as the bullion famine did.<sup>47</sup>

Their high value relative to size gave spices a second important function in trade. Certain commodities of the East were vital to the West. The enormous textile industry could not do without alum, which was used to fix dye to cloth. Because alum was both relatively cheap and heavy, it was very expensive to ship—up to 16% of the cost of the alum itself. Although Italian ships journeyed to Constantinople and the Black Sea full of exports to be sold, the profit therefrom was not enough to reinvest in alum for the return journey. To solve this problem, a cargo of cheap, bulky goods had to be mingled with lightweight, valuable goods which could be resold in Italy profitably enough to cover costs.<sup>48</sup> In other words, adding spices to the cargo lowered average shipping costs relative to profit. This solution certainly assumed demand for the spices, but it is perhaps one reason why supply remained relatively stable.

The figures of table 1 also indirectly gesture at another reality of medieval European trade—the spice trade from plantation to table was not under European control. Europeans established outposts in the Mediterranean, but the Indian Ocean trade was run by non-Europeans: the western Indian Ocean was controlled by Arab and Indian shippers, and the Gujarati merchants based in Cambay also played a core role. They exported South Indian spices to the Middle East and bought eastern spices from Chinese merchants, such as cloves from Moluccas.<sup>49</sup> European traders remained at the fringe. Those who ventured farther east

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<sup>47</sup> Peter Spufford, *Money and its Use in Medieval Europe*. (Cambridge: Cambridge University Press, 1989), 360.

<sup>48</sup> Jean Favier, Tr. Caroline Higgot, *Gold and Spices* (Holmes and Meier Publishers, 1997), 177-178.

<sup>49</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 310-311.

usually went to Persia, to China for the silks, or India for precious stones. In this sense, the spice trade of the middle ages was not yet a colonial world.

### 2.1.2 A Triangle Pointing East: The Basic Structure of Medieval Trade Relations

The basic structure of trade relations in the early 14<sup>th</sup> century can be schematized as a large triangle, as pictured on map 1. With regard to both production and flow of resources, Northern Italy can be understood as the core, the Low Countries—and later Southern Germany— as the semi-periphery, and Central Europe as the periphery.

All the spice which the Runtingers sold in Prague was bought on the Venetian market. As shown on table 1, three quarters of the spices imported to Europe came through Venice, and yet more through Genoa.<sup>50</sup> Venice owed this power chiefly to the fact that it was geographically closest both to the Central European mines and to the Black Sea.<sup>51</sup> Because Venice played an instrumental role in the capture of Constantinople during the Fourth Crusade (1204), it gained control of the Bosphorus straits and dominated trade with the Black Sea region. Although Genoa perpetually vied for control, by the 15th century, Venice established naval hegemony in Dalmatia.<sup>52</sup> Already in the 12th Century, Venice, Genoa and Pisa established enclaves called Fonduks in Acre, Alexandria, and Constantinople, and slightly later in Rome and Naples as well. These outposts provided accomodation, warehouses, chapels and consuls to Italian clients, but they were also used by the local authorities to maintain tight control of foreign activities. While this practice greatly solidified the South Italian control of European trade with the Black Sea, it seems they were unable to or uninterested in pushing further east.

The overall imbalance of payments in favor of the East and the consequent need for a steady silver supply and stable coinage has been discussed above. Here again, Venice profited from its geographical position as the port closest to the silver mines. German merchants received special privilages and the Venetians set up what amounted to a Fonduk for them called the *Fondaco dei Tedeschi*.<sup>53</sup> They used the *Fondaco* to control the influx of

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<sup>50</sup>Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 310.

<sup>51</sup> Roman Zaoral, "Silver and Glass in Medieval Trade and Cultural Exchange between Venice and the Bohemian Kingdom," *The Czech Historical Review* 109, no. 2 (2011): 284.

<sup>52</sup>Jean W. Sedlar, *East Central Europe in the Medieval Ages, 1000-1500*, (Seattle: University of Washington Press, 2013), 338-339.

<sup>53</sup>Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 19-21.

silver, forbidding merchants to stay elsewhere and requiring them to register wares within two days of arrival and realize a sale within a week. Merchants were subject to high penalties for noncompliance. At the end of 15-20 days, their silver would simply be bought up for Venetian *grossi*. Nevertheless, silver was bought and sold at market price,<sup>54</sup> so business remained profitable for such merchants.

In the course of time, Italians began to produce more and more substitutes for the goods that were pouring in. They produced their own luxury silks and paper and grew their own sugar cane on their holdings in Crete. Lombard and Fustian cottons were sold rather than Levantine weaves, and Italian glass was blown instead of Syrian. The growth of these industries certainly inflated the import of raw materials, such as cotton and soda ash, but such commodities were far less expensive to import than the finished products. This shift had the double effect of lessening the flow of silver out of Europe and detaining much of this silver in Italy, or the respective areas where substitutes were produced. Thus by the 15th century, almost 80% of Venetian imports was made up of spices, for which there were no substitutes.<sup>55</sup>

As the volume of trade increased, certain qualitative changes in the way trade was conducted began to emerge. When a critical mass along key routes was reached in the 13th Century, merchants began dividing the labor: instead of one merchant traveling about with his goods, one would remain in Northern Italy, sending the goods in the hands of specialized carriers, who delivered them to full-time agents residing in Fonduks or offices abroad.<sup>56</sup> Stabler partnerships and early companies took shape. Two or more merchants would pool resources to purchase a particular lot of goods, then split the profits after sale; or they established a company and agreed to renew their enterprise every fixed interval of years. The Bardi company of Florence, for example, renewed for 21 years in 1310, and was divided into 56 shares that were transferable. Shareholders could invest in companies they did not run, receiving fixed rates of interest as compensation. In the 15<sup>th</sup> and 16<sup>th</sup> centuries, this model spread to the Holy Roman Empire, and records show that at the end of the term, reinvestment was the norm.<sup>57</sup>

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<sup>54</sup>Roman Zaoral, "Silver and Glass in Medieval Trade and Cultural Exchange between Venice and the Bohemian Kingdom," *The Czech Historical Review* 109, no. 2 (2011): 292.

<sup>55</sup>Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 347.

<sup>56</sup> *Ibid*, 19.

<sup>57</sup> *Ibid*, 21.

This increased the need for written records and literacy. Northern Italy began leading in innovation. Double-entry bookkeeping was either a Genoese or Tuscan innovation,<sup>58</sup> and Florence famously became a center of early banking, where deposits, transfers, and loans were possible.<sup>59</sup> To avoid the risk and trouble associated with transporting sacks of coin, the bill of exchange was also developed to remit sums between specific cities, notably the Champagne fairs, and northern Italy.<sup>60</sup> Courier services supplied up-to-date information from far away markets, and by 1347, seventeen florentine merchant companies established one for joint use.<sup>61</sup> Such innovations not only deepened Italy's already strong position, but enabled a certain class of merchants to operate on a larger scale and in a larger geographical frame than had been previously possible.

The Champaign fairs were crucial markets for these goods. The fairs held annually or biannually at Troyes, Lagny, Provins, and Bar-sur-Arabe connected merchants from two key regions: northern Italy and the Low Countries.<sup>62</sup> The counts of Champagne guaranteed safe passage to merchants and their goods, provided standard weights and measures, and enforced justice.<sup>63</sup> This stability and security attracted merchants from all over Europe, and economic links were forged which long outlasted the fairs themselves. On the return journeys from such fairs, Italians brought back woolen fabrics from the rapidly growing Low Country textile industry. Flanders in particular was known for its heavy, velvety luxury wools, as well as its cheap, serviceable grades. The more such fabrics were demanded, the farther afield the Low Countries gathered wool, until the industry became dependent on English sheep. Competition and zest for quality fueled experimentation with dyes and appetite for alum, which was used as a fixative in the dyeing process.<sup>64</sup> In this respect, the Low Countries took on the role of the semi-periphery, importing bulk raw resources, finishing them, and exporting to the Italian core. The balance of payments was in favor of Italy. Indeed, to maximise their profit from this tendency, in 1273 Venice declared merchants could not buy more at the fairs than they sold,

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<sup>58</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 31.

<sup>59</sup> Jean Favier, Tr. Caroline Higgot, *Gold and Spices* (Holmes and Meier Publishers, 1997), 214.

<sup>60</sup> *Ibid*, 216.

<sup>61</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 25.

<sup>62</sup> Jean Favier, Tr. Caroline Higgot, *Gold and Spices* (Holmes and Meier Publishers, 1997), 19.

<sup>63</sup> *Ibid*, 26.

<sup>64</sup> Jean Favier, Tr. Caroline Higgot, *Gold and Spices* (Holmes and Meier Publishers, 1997), 19.

and could only pay using bills of exchange.<sup>65</sup> As silver flowed south, the Low Countries also became dependent on silver supplies.

Precious metals were supplied by Central Europe: the kingdoms of Bohemia, Poland, and Hungary. First, silver was discovered at Freiberg in Meissen in 1168, in Jihlava around 1220-30, and again at Kutna Hora in 1298.<sup>66</sup> The volume of output increased in Bohemia, reaching 10 tons a year towards the end of the 13<sup>th</sup> century and 20 tons in the first half of the 14<sup>th</sup> century.<sup>67</sup> Some of this was converted to coin: around 1300, more than six tons were minted annually at Kutna Hora, which was the most prolific of these mines. Gold was also discovered in Schemnitz, Hungary, (now Slovakia) and in the early 13<sup>th</sup> century the mines there produced around 600 kilograms a year.<sup>68</sup> Later in the 14<sup>th</sup> century, more gold was mined in Kremnitz.<sup>69</sup> The first major mine in the 12<sup>th</sup> Century was in Freiburg, and as mines in the Bohemian kingdom were discovered, they attracted German miners to work them. These miners took their mining laws with them first to Jihlava and Kutna Hora,<sup>70</sup> and later wherever they could find ore.<sup>71</sup> Miners worked on their own account, paying a percentage to the king, to the surface owners, and to the church. After smelting costs, they kept what was left.<sup>72</sup> Accordingly, precious metal finds produced temporarily inflated mining towns, each in turn the largest in Central Europe, which stimulated the whole economy by generating centers of demand.<sup>73</sup>

Between the late 1200s and 1335, silver flowed south from Jihlava through Vienna over the Semmering pass and the Tarvis pass to Venice, as can be seen on map 1. Similarly, gold flowed south from Kremnica over Buda to the Zagreb, from there to the port at Senj and by sea to Venice. Goods were carried over the Alps in the opposite direction.<sup>74</sup> A second route connected the Low Countries and Central Europe; silver flowed over the Rhineland, through the Low Countries to Eastern France and the Champagne fairs. Goods made their way back in

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<sup>65</sup>Peter Spufford, *Money and its Use in Medieval Europe*. (Cambridge: Cambridge University Press, 1989), 141.

<sup>66</sup> Peter Spufford, *Money and its Use in Medieval Europe*. (Cambridge: Cambridge University Press, 1989), 109, 119, 124.

<sup>67</sup> Roman Zaoral, "Silver and Glass in Medieval Trade and Cultural Exchange between Venice and the Bohemian Kingdom," *The Czech Historical Review* 109, no. 2 (2011): 285.

<sup>68</sup> Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1989), 123-124.

<sup>69</sup> *Ibid*, 268.

<sup>70</sup>Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1989), 119.

<sup>71</sup> *Ibid*, 122.

<sup>72</sup> *Ibid*, 129.

<sup>73</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 372.

<sup>74</sup> Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1989), 136.

the opposite direction.<sup>75</sup> Not only did the mining towns themselves demand goods, but the kings and nobles who were enriched by revenue from the mines as well. The upper classes in Bohemia and Moravia could buy cottons and linens from Syria and Egypt, silk, Syrian and Italian glassware, and of course spices.<sup>76</sup> Cloth from Flanders and Brabant also poured into Bohemia through Prague. From the beginning, Bohemian kings in Prague sought to monopolize Bohemia's share of long-distance trade, an attempt that was at least partly successful.

While in the 13<sup>th</sup> century, wax and certain other regional products were exported, by the 14<sup>th</sup> century these are no longer mentioned.<sup>77</sup> The wide availability of fabric from the Low Countries also appears to have depressed local industry in Bohemia.<sup>78</sup> Thus the overall tendency was to export raw materials in the form of precious metals and import finished products, so in this sense Central Europe may be seen as a peripheral zone of Medieval Europe. However, not only did the Bohemian monarches reside in Prague during the 14<sup>th</sup> century, but Prague contained a university founded in 1348,<sup>79</sup> making it a political and intellectual center. In these terms its function was closer to a semi-peripheral zone.

### 2.1.3 Land Routes After 1335: The Triangle Splinters

While a similar overall destinational pattern of goods and specie flow continued into the 15<sup>th</sup> century, the specific trade routes delivering these articles became considerably more complex. Wars and political instability involving Flanders disrupted land routes to the Champagne fairs in 1313, while at the same time developments in shipbuilding made sea transport progressively less expensive. Around the year 1300, Hanseatic cogs were imitated in the Mediterranean type which divided sail area into more numerous, smaller sails. Venetian shipping rates for alum dropped from 24% to 8%. This made an Atlantic route to Northwest Europe cheaper even though it was longer, and after the reconquest of Seville (1248) and Cadiz (1265), Italians gained access to safe staging ports.<sup>80</sup> By 1440, Venice was sending out

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<sup>75</sup> Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1989), 138.

<sup>76</sup> Roman Zaoral, "Silver and Glass in Medieval Trade and Cultural Exchange between Venice and the Bohemian Kingdom," *The Czech Historical Review* 109, no. 2 (2011): 299.

<sup>77</sup> František Graus, „Die Handelsbeziehungen Böhmens zu Deutschland und Österreich im 14. und zu Beginn des 15. Jahrhunderts. Eine Skizze," *Historica = Historical Sciences in Czechoslovakia* 2 (1960): 81, 83-84.

<sup>78</sup> Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1989), 340.

<sup>79</sup> Peter Demetz, *Prague in Black and Gold: the History of a City* (London: Penguin Books, 1998), 82.

<sup>80</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 396-399.

ships on 7 fixed routes at regular times of the year, one to Flanders and England, the rest to the Mediterranean.<sup>81</sup> This bypassed the fairs and most of France.

Land routes were further altered by an agreement between the kings of Bohemia, Hungary, and Poland. In the late 13<sup>th</sup> century until 1335, Central European trade had become cramped by Vienna's staple rights. As aforementioned, trade passed from Central Europe through Vienna, then on to Venice via certain mountain passes. A staple compelled foreign merchants to stop and offer their wares for sale for a specified length of time. It also forbade them to trade with one another, but only with inhabitants of the city in question. This practice was designed to enhance the importance of a particular town and its ruler, under the impression that trade represented a fixed number of exchanges, not an infinitely expandable one. Staples effectively inserted another middleman, driving up costs or halting the flow of goods.<sup>82</sup> Because of its geographical position, Vienna could impose a particularly tough staple: a Florentine merchant, Pegolotti, wrote in his notebook that all commodities entering Vienna had to be sold there.<sup>83</sup> Eventually, the Bohemians became frustrated enough to act, and in 1327 they agreed with Hungary to boycott Vienna and reroute trade through Regensburg and Nuremburg instead.<sup>84</sup>

This boycott was solidified in 1335 at the congress of Visegrad, a meeting of the three great kings of Central Europe in Hungary. Charles Robert of Anjou (1301-1342) who called the congress, invited John the blind, King of Bohemia (1310-1346), with his son Charles IV, Margrave of Moravia (Margrave since 1334), and Casimir III the Great of Poland (1333-1370) to his royal seat on the Danube.<sup>85</sup> While the congress mainly focused on settling certain territorial disputes, they also addressed the Viennese question. It was agreed that silver, not gold, should be sent to the Low Countries.<sup>86</sup> Bohemia ceased its direct trade with Italy over Vienna and rerouted trade through Regensburg and on to the Low Countries. Likewise Hungary began trading directly with Italy over Buda, as shown on map 1.<sup>87</sup> As a consequence,

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<sup>81</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 400-401.

<sup>82</sup>Jean W. Sedlar, *East Central Europe in the Medieval Ages, 1000-1500* (Seattle: University of Washington Press, 2013), 354-355.

<sup>83</sup>Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1989), 138.

<sup>84</sup>Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 48.

<sup>85</sup>György Rácz, "The Congress of Visegrád in 1335," *Central European Papers* III no. 2 (2015): 8-10.

<sup>86</sup>Peter Spufford, *Money and its Use in Medieval Europe* (Cambridge: Cambridge University Press, 1989), 273.

<sup>87</sup>Ibid, 269.

Venice abruptly gained a direct supply of gold and the Low Countries a supply of silver. The trade triangle was replaced by a web radiating out from the Holy Roman Empire.<sup>88</sup>

The sea route from Italy, the decline of the Champagne fairs, and the Central European boycott of Vienna all contributed to giving merchants from the Holy Roman Empire an expanded role in international trade. They were gradually expected to bring a wider range of goods to the *Fondaco dei Tedeschi* in Venice, such as linen from Constance, iron works from Thuringia, copper from the mines in Slovakia, Bulgarian furs such as martins, ermines, and white wolves; also cloth and tapestries from the Low Countries.<sup>89</sup> New industries began to sprout and the Holy Roman Empire began producing linens and fustians; arms, armor and brassware; glass, pottery and paper.<sup>90</sup> The Holy Roman Empire took on the role of the semi-periphery, controlling raw materials, finishing them, and exporting them.

#### 2.1.4 Regensburg's place in the pattern of trade

After Vienna fell out of favor, Regensburg – along with Nuremberg—possessed clear geographical advantages as replacement intermediaries between Prague and Venice. Indeed, Regensburg's centrality, and its vicinity to the Donau, which in turn offered easy access to the Rhein, gave it a strong position in trade altogether.<sup>91</sup> Map 2 shows Regensburg's trade relations. Autumn and Eastertide fairs at Frankfurt-am-Main supplied merchants of the Holy Roman Empire with cloth from the Low Countries: there the northerners brought their goods from Russia, Scandinavia and England; there the southerners brought their goods from Spain.<sup>92</sup> Regensburger sold wares obtained in Frankfurt mostly in Vienna or Venice—the Bohemian merchants found their own way west to Flanders and Brabant, competing fiercely enough to cause Holy Roman merchants to focus on exporting other items to Bohemia.<sup>93</sup>

Regensburg rapidly became the most important city in Bohemian trade, developing earlier and stronger ties with Prague even than Nuremberg, an enormously powerful trade center. Even before the treaty of Visegrad, the trade appears to be regular and varied. The following list records goods confiscated from Regensburger merchants in Prague, presumably on account of customs infractions:

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<sup>88</sup> Cf. Map 3.

<sup>89</sup> Peter Sufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 394-395.

<sup>90</sup> *Ibid*, 408.

<sup>91</sup> Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003), 38.

<sup>92</sup> *Ibid*, 208.

<sup>93</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 105-106.



- In 1321, 7 merchants: 189 rolls of fustian, 7 from Ypern, 1 from Tornai, and 80 pieces of fine linen, two knives and 30 schock 19 groschen. The fustian seems to have been produced in Regensburg.
- In 1324, 16 merchants: 8 sacks and 289 pounds of saffron, 102 pieces of fustian, 40 pieces of cloth from Ypern, a hook, 3 horses, 8 flutes, 2 loads of coins, seven pairs of scales, 2 pieces of fine linen, 3 rolls of rough cloth, 3 colts, 2 barrels of Italian wine, 3 pieces of white linen, a knife, a silver belt and some cash.<sup>94</sup>

Clearly, not only were numerous merchants and a wide variety of goods involved, but much money as well.

The importance of Regensburg merchants to Venice was codified by their position in the *Fondaco dei Tedeschi*. While prominent cities had rooms at their private disposal—the Regensburgers possessed one called *la volta di San Piro*<sup>95</sup>—all “German” cities sat representatives at a common table, where the Regensburger coat of arms took the highest place.<sup>96</sup> Displeased, their constant competitors the Nurembergers tried to supercede by force in 1447/48.<sup>97</sup> The Nurembergers had six rooms in the *Fondaco* and competed intensely with the Regensburgers for the spice and silver market in Prague.<sup>98</sup> Because they owed their status as a free town partially to this position, the Regensburgers could not afford to loose; they dispatched merchants and money to the markets and bought more in a day than the Nurembergers bought in a year. When the Nurembergers reprised the issue some years later, Matthäus Runtinger and Franz Pütreich of Regensburg beat them with sticks. The matter was brought before the doge, who, pressured by economic interests, granted the Regensburgers their highest place “forever.”<sup>99</sup>

#### 2.1.5 The Runtingers’ place in Regensburg

Matthäus’ part in this escapade hints at the Runtingers’ prominence in Regensburg. His father, Wilhelm Runtinger, who seems to have immigrated to Regensburg from elsewhere, married into the patriciate and rapidly rose to holding high public positions

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<sup>94</sup>Graus, František. „Die Handelsbeziehungen Böhmens zu Deutschland und Österreich im 14. und zu Beginn des 15. Jahrhunderts. Eine Skizze.” *Historica = Historical Sciences in Czechoslovakia* 2 (1960): 97, 99-100.

<sup>95</sup>Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003), 260.

<sup>96</sup>Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 70-71.

<sup>97</sup>Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003), 261.

<sup>98</sup>Wolfgang von Stromer, “Nuremberg in the International Economics of the Middle Ages,” *The Business History Review*, 44 no. 2, (1970): 211.

<sup>99</sup>Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 70.

there.<sup>100</sup> In 1388 he was appointed the *Fragger*, an office similar to a Roman Tyrant, who took absolute control in times of war, as well as the *Kämmerer*, who saw to revenues, represented the mayor in his absence, and settled minor disputes during regular hours at the town hall. He was also the head of taxation, of excise, and the bridgmaster.<sup>101</sup> Because long-distance trade and wine production were crucial to the town, many representatives of these occupations sat in the city counsel, and in this capacity we see Wilhelm in 1383/84 and Matthäus in 1399.<sup>102</sup>

According to the Regensburger customs book of 1340/41, of the 14 trading companies with the most capital, most or all were family-based. In the case of the Runtingers, father and son traded together in the form of business known as a commenda, in which Wilhelm, who stayed in Regensburg, and Matthäus, who traveled with the goods, both invested capital.<sup>103</sup> They also formed limited, temporary partnerships with their servants, pooling capital and sharing risks for specific purchases, then splitting the profit correspondingly after sale.<sup>104</sup> Their economic activity was not limited to trade: the Runtingers held vineyards and Matthäus ran a mint for silver *Pfennige* along with its money exchange from 1392. They occupied a large house where they lived, administrated, and stored goods.<sup>105</sup> Regensburg produced cotton cloth, and the Runtingers participated in its export; they also bought cloth from the Low Countries in Frankfurt and even sent servants to Brabant to buy them straight from the source. Such wares were bought with cash for resale in Vienna.<sup>106</sup>

The Runtingers employed Ulrich Furtter, who stayed in permanent premises in Prague for months at a time. The more detailed record book of this outpost has not survived, but Furtter frequently returned with summaries, which were included in das Runtingerbuch.<sup>107</sup> The wares sent to the Prague office were almost universally sold wholesale to regular clients, among them Poles and Silesians as well as Bohemians. While the former were likely middlemen, the latter were often grocers or apothecaries who sold to final consumers, such as Friedrich of the Apothecary.<sup>108</sup> Therefore, goods would have been marked up again before the

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<sup>100</sup>Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 23-25.

<sup>101</sup> *Ibid*, 42-44.

<sup>102</sup>Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003), 75, 78.

<sup>103</sup> Markus A. Denzel, *The Merchant Family in the "Oberdeutsche Hochfinanz" from the Middle Ages up to the Eighteenth Century*, (Firenze: Firenze University Press, 2009.) 372-3.

<sup>104</sup>Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003), 140-141.

<sup>105</sup>Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 52, 62-63.

<sup>106</sup> *Ibid*, 88, 97.

<sup>107</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 102.

<sup>108</sup> *Ibid*, 108-110.

individuals intending to consume them bought them on the market. Although trade continued to be profitable, the ledger was concluded in 1407 with Matthäus' death.<sup>109</sup>

## 2.2 Analysis of Das Runtingerbuch

I would like to briefly introduce the structure of das Runtingerbuch, the nature of its data, and the work of Franz Bastian before presenting my own findings.

### 2.2.1 Overview

Because of the Runtingers' approach to keeping the ledger, the original text was in an almost incomprehensible confusion. Paper was valuable and therefore used as sparingly as possible, leaving no blank pages. Entries were not organized by subject, and they were written by 18 different people about the entire range of Runtinger economic activities as well as family affairs. While space was sometimes left under the first entry of a new account, related entries often appear separated by many pages. At the same time, chronologically later entries often appear on earlier pages, as the Runtingers or their servants looked for blank space to avoid wasting paper. The Runtingers did not use a uniform dating system—sometimes the year is mentioned, sometimes only the day of the month. Nevertheless, the merchants were not confused, since closed accounts were promptly crossed out. Franz Bastian's task was then to organize this material by subject and chronology, using the handwriting of the various servants, their known years of employment, and the different types of pen and ink current at any given time. He published the result in book two of his series.<sup>110</sup>

Bastian summarized this data by calculating the original price, travel costs, amount sold, markup, and profit for the goods in different years. These figures are averages or sums derived from individual entries which usually contain smaller amounts of multiple goods, making patterns difficult to identify. For ease of comparison, these numbers are calculated in Venetian ducats and in Venetian weights, although the Runtingers often had to exchange their money and often recorded figures in local weight and currency. The figures are typically also mentioned in the original weight and currency they were recorded in. Bastian published these figures as volume one. I will be focusing on information relevant to trade with Venetian goods, taken from volumes I and II.

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<sup>109</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 32.

<sup>110</sup> *Ibid*, 3-7.

## 2.2.2 Research Questions and their Answers

### *What made spices the most profitable commodities in the Runtinger trade with Prague?*

The wares which were most important to Runtinger trade with Prague can be divided into two basic groups: spices and cloth. The Runtingers purchased some cloth, primarily wool, from the Low Countries; other cloth, primarily fustian, was produced in Regensburg; finally silk from the East was purchased in Venice. To establish that spices were in fact the most profitable I will compare spices sold in Regensburg with spices sold in Prague. Then I will analyse the sale of cloth on these markets. This analysis will show that the profitability of spices was higher and more stable than other goods in Prague, but not in Regensburg. Finally, I will offer an interpretation based on scholarship for the reasons surrounding this trend.

### *Spices in Regensburg*

The Runtingers mainly traded in pepper, saffron, cloves, and ginger, although they also bought small amounts of a wider variety of spices, including anis, coriander, and sugar.<sup>111</sup> Data on these four main commodities are presented on table 2. These findings are taken from Bastians's edition, volume 1. Unless otherwise stated, all data presented in this work are calculated in Venetian ducats and Venetian weights. The Venetian pound (V. ilb.) for spices was equal to 297.5 modern grams.<sup>112</sup>

The Runtingers were able to sell **saffron** in Regensburg at a 19.6% markup in 1383, but a 13.8% markup in 1400/01—a 5.8% decrease. The profit decreased by the same percentage. The price the Runtingers paid in Venice decreased slightly and transportation-related expenses remained constant, so the reason for this change cannot depend on the Venetian market. The price customers paid decreased from 2.48 to 2.45 ducats/ilb, and sales increased by 40%. This shows that customers were extremely responsive to a cheaper price. Here, when the Runtingers sold more at a lower markup, they made less profit as well.

**Pepper** was sold in 1383, 1400/01, and 1403/04. Markup steadily rose, but profitability dipped between 1383 and 1400/01. This dip can be explained by a 3% increase in transportation expenses and by an increase in price on the Venetian market. Hoping that prices would continue to rise in Regensburg, the Runtingers held back the remaining pepper from that lot,<sup>113</sup> selling it off at a 27% profit—a 50% increase in profit. When the price rose, customers bought less.

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<sup>111</sup>Franz Bastian, *Das Runtingerbuch*, vol. II pp. 112-113.

<sup>112</sup>Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 289.

<sup>113</sup>Franz Bastian, *Das Runtingerbuch*, vol. I pp. 626.

**Ginger** appears to have been comparatively unimportant, for it was only sold once, in 1400, in a relatively small amount with 9.25% profit. While **cloves** were sold in Prague, they make no appearance in Regensburg.

It is apparent that the market in Regensburg was very responsive to price changes in both directions: when prices fell, customers bought more, and when prices rose, they purchased less. We can also already deduce that the Runtingers paid attention to the market and tried to project whether the market price would increase or decrease. When they saw profits decreasing, they sold; when market price rose, they held back in hopes of selling for greater profit later on. In other words, the Runtingers had no market power and spices were used for speculation in Regensburg.

#### Spices in Prague

In contrast, we can see that between 1395 and 1404, spices were sold with greater regularity in Prague. Transportation expenses remain constant during this period. For **all spices except for saffron**, markup, prices and profit remain relatively stable.

As shown on table 3, between 1395 and 1401, both the amount of **saffron** sold and the markup vary noticeably. The price of saffron in Venice rose from 1.54 Venetian ducats a pound to 2.54 ducats in 1399—a 54% increase in price. Nevertheless, the Runtingers managed to increase their price in Prague by 62% and the amount that they sold only fell by 22%. In contrast, by 1401, the price of saffron in Venice fell by 15% from what it was in 1399. The Runtingers decreased their price in Prague by 14% and sold 16% more. This shows that customers of saffron were more responsive to a decrease in the price of saffron, but less responsive to an increase in the price of saffron. This indicates high demand at every price and a relatively gently sloping demand curve. If the demand curve were steeper, we would expect to see a change in amount sold inversely proportional to change in price: when the good becomes 40% more expensive, for example, 40% less is sold, but when the good becomes 40% cheaper, sales increase by 40%. It is also worth noting that in spite of the fluctuation in price and amount sold, profit remains relatively steady at a 20% average.

Taken together with the high and stable profitability of other spices during this time, we can conclude that demand for spices in Prague was very high and stable over time. Since the Runtingers were able to substantially increase the price without making less profit, they enjoyed market power.

### The roll of spices

Quantitatively, when comparing the individual spices across the two markets, they were overall more than twice as profitable in Prague as in Regensburg—with the exception of the speculation with pepper in Regensburg, 1403/04, when pepper returned a 27% profit in Regensburg and a 42.5% profit in Prague. Ginger was somewhat less profitable in Prague, but it was traded in comparatively small amounts and seems to have played a minor role overall. The average profitability of all spices for Regensburg was 16.83%, for Prague 25.51%. Since profit usually ranged from 10-20% during this period,<sup>114</sup> profit in Prague was extraordinarily high.

Regarding amount, we see saffron and ginger sold in similar amounts on both markets, but a startling difference in pepper and cloves. A moderate amount of cloves was sold in Prague for a 30.7% profit, but none at all sold in Regensburg. Most arresting of all, between 1395 and 1404, the Runtingers sold 3,219.24 Venetian pounds of pepper in Regensburg, compared with only 63.75 pounds total in Prague. In modern kilograms, that is equivalent to 957.72 kg in Regensburg as compared with only 18.97 kg in Prague.<sup>115</sup>

Even before making a comparison with other goods, it is possible to say that spices played a different role in Prague than in Regensburg. In Regensburg, the market responded elastically to price changes, while in Prague, demand was very high even when prices rose. Whereas in Regensburg, we see the Runtingers acting as price takers, waiting for the market to change to get a better price, in Prague we see them acting as price makers to a certain extent: able to raise the price without substantially affecting overall profit.

### The role of cloth

The Runtingers traded in many types of cloth; silks and raw cotton from Venice, fustians produced in Regensburg itself, and wool from Flanders.

The Runtingers seemed to have used **cotton** as a packing material while transporting goods from Venice.<sup>116</sup> This commodity was only infrequently sold for money. In 1383, 43.2 Venetian pounds of it was sold in Regensburg at 22.5% profit.<sup>117</sup> In Prague, some cotton was

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<sup>114</sup> Hans-Jörg Gilomen, *Die ökonomischen Grundlagen des Kredits und die christlich-jüdische Konkurrenz im Spätmittelalter*, (University of Zurich, 2007): 153.

<sup>115</sup> Superficially it would seem that there was an inverse relationship between amount sold and profit, but after a more detailed analysis of the sale of individual spices diachronically and across both markets, this relationship breaks down. These discrepancies involved more nuanced factors.

<sup>116</sup> Franz Bastian, *Das Runtingerbuch*, vol. II pp. 627.

<sup>117</sup> *Ibid*, vol. I pp. 627.

sold at a loss in 1399, after it had served as packing material twice.<sup>118</sup> Mainly, the cotton formed a part of the Runtinger fustian trade.

**Fustian** is cloth woven from linen fibers in one direction and cotton in the other, thus combining the textile strength of linen with the softness of cotton. In 1400, the Runtingers dealt with eight weavers. The following is a typical example of their arrangement:

.E Charpf parichantter.

.E Item dez mitichen von Laurenti chaufft der alt Charpf von mir 3 zennten pawmwoll, je 1 zennten umb 11 parichant richtten auf weihnachten schirst. (Aug. 4)

a L Item mir gab der Charpf parchanter 32 parchant dez pfingtztags vor weinachten. – Er peleib mir ain virtail ains parchant noch schuldig.<sup>119</sup> (Dec. 23.)

In this instance and with the other seven weavers, the Runtingers consistently bartered cotton at one zentner—51 modern kilograms<sup>120</sup>—for 11 “fustians,” or lengths of cloth of about 18 meters, to be delivered by an agreed upon date. The Runtingers exchanged a total of 17 Zentners and 612 Venetian pounds of cotton for approximately 222 fustians.<sup>121</sup> Most of these were sent to Prague and sold between 1401 and 1402, as summarized on table 4. Transportation costs rose while the price in Prague decreased, leading to a drastically reduced profit. Here we see a fluctuating price on the Prague market and the Runtingers acting as price takers.

The Runtingers also sold **silk** bought in Venice. These came in many types and from many places. The following excerpt from an entry dating April 29, 1383, details silks bought in Venice and shows just how varied this trade was:

. R Venedig.

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<sup>118</sup> Franz Bastian, *Das Runtingerbuch*, vol. I pp. 640.

<sup>119</sup> *Ibid*, vol. II pp. 150.

Hochdeutsch: .E Item des mitichen von Laurenti kauft der alte Karpf von mir 3 Zentner Baumwolle, je 1 Zentner um 11 Barchant, richten auf Weihnachten frist. (Aug. 4) a L Item mir gab der Karpf Barchanter 32 Barchent des Pfingtztags vor Weinachten. – Er bleibt mir ein Viertel von einem Barchent noch schuldig.<sup>119</sup> (Dez. 23.) English: Item On the Wednesday of Laurenti, Karpf the elder bought 3 Zentner of cotton from me, each zentner for 11 fustians, to be delivered by Christmas. Item Karpf the fustian weaver gave me 32 fustians on the Tuesday before Christmas. He still owes me a quarter of a fustian.

<sup>120</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 289.

<sup>121</sup> Franz Bastian, *Das Runtingerbuch*, vol. II pp.150-151.

.R Item ich chaufft ze Venedig 5 atlas umb 60 Tukat: gron, satgrab, plab, sborc, prawn.

.R Item und 5 samat umb 224 Tukat: 2 sbarcz, 1 prawn, 1 gron, 1 plab.

.R Item 16 Pfund 2 uncz ze 4 ½ Tukat: 72 ½ Tukat 1 ½ g., grab, leichtplab, satplab, prawn, sborc, weis, gron *d R* seid.

.R Item 6 Pfund ziegelvar seid ze 5 ½ Tukat suma 32 Tukat.

.R Item 6 walikin ze 12 Tukat, suma 72 Tukat, 2 gron auf prawnem podem, 2 prawn in prawn, 2 weis in weis.

.R Item 6 tuch von Tomask ze 18 Tukat, sum 108 Tukat; 2 prawn, 2 gron, 2 sbarcz. Er gab mir 2 Pfund Chreichisch seid in den chauf.

.R Item 5 pfund Chrieichisch seid ze 30 g., suma 6 ¼ Tukat. Da sin(d) dy anderen 2 pfund pey.<sup>122</sup>

The remainder of the entry primarily concerns spices and gold thread.

The different sorts and weights of silk has been analysed elsewhere;<sup>123</sup> sufficient here to note a great range in type, quality, and price. It was sold both finished and unfinished, but always by length, not made into clothes. Silk sold in Prague in 1383 is displayed on table 5. Four types of luxury silks were sold with an average profitability of 26%, compared with a 25.51% average profit on spices in Prague 1395-1404.

Silk's popularity was apparently short-lived. In 1383, six out of twelve bundles of unfinished silk from Bologna were sold in Regensburg at a 25% markup and 20% profit. The rest were sent to Prague, where they sat unsold for four years before it was sent back to

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<sup>122</sup>Franz Bastian, *Das Runtingerbuch*, vol. II pp. 44-45.

English:

Item: In Venice, I bought 5 atlas silks for 60 ducats: green, deep gray, blue, black, brown.

Item: and 5 velvets for 224 ducats: 2 black, 1 brown, 1 green, 1 blue.

Item: 16 pounds 2 ounces for 4 ½ ducats: 72 ½ ducat 1 ½ g. gray, light blue, deep blue, brown, black, white, green silk.

Item: 6 pounds brick colored silk, for 5 ½ ducats, 32 ducats total.

Item: 6 Bagdad silks for 18 ducats each, total 108 ducats; 2 brown, 2 green, 2 black. He gave me 2 pounds Greek silk with the purchase.

Item: 5 pounds Greek silk for 30 g., total 6 ¼ ducats. This includes the other 2 pounds.

<sup>123</sup> Cf. Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 120-124 for further information.



Regensburg. Osana, a clerk who worked in the Runtinger's shop, managed to sell a piece of it in 1405 for cash; the rest she sold against credit the following year at a 3.3% markup.<sup>124</sup>

Likewise, finished silks were sold in Regensburg in 1400 for a 13.2% markup, which returned somewhat more than 12% profit. The rest were sent to Prague. Half a pound was sold along the way in Breslau and nearly 2.5 pounds in Prague for a 20% markup, but the rest was immediately sent back to Regensburg. Once again, Osana sold it in small amounts in 1404. She brought in an average of 23% markup and 20.5% profit.

#### A comparison of Prague and Regensburg

Table 6 compares the average profitability of all goods. Several clear conclusions may be drawn: spices were much more profitable in Prague than in Regensburg; the Regensburg markets for spices and for other goods were not markedly different; and in Prague, the market for spices was quite stable whereas the market for cloth was volatile. The Runtingers could therefore depend on a higher profit for spices in Prague than in Regensburg, whereas selling cloth in Prague was a risk which did not always pay off.

#### The reasons for this trend

Regensburg owed its prominence, if not its existence, to its location at the intersection of two major trade routes.<sup>125</sup> Regensburg was primarily invested in transit trade. Its specialty lay rather in being well-informed about the markets, offer, and demands of the various geographical areas in order to act as efficient and profitable middlemen.<sup>126</sup> A wide variety of goods from a wide variety of places passed through Regensburg on a regular basis. Nor were the Runtingers the only merchants to bring wares from Venice: Klaus Fischer mentions Konrad Dürrenstetter, Stephan Notangst, Heinrich Altmann and Jakob Ingolstetter alongside Matthäus Runtinger as representative of Venice-Regensburg-Prague trade in the *Kämmerat* in 1383.<sup>127</sup> In such a context, it is easy to understand why spices did not appear to play an unusual role on the Regensburg market: many suppliers led to fierce competition and the Runtingers had little or no market power. Therefore, the Runtingers sold comparatively larger amounts for a comparatively smaller markup and profit, but at lower risk to themselves (as opposed to transporting items to Prague.) They could also sometimes profit from a favorable change in price on the market, as with their pepper sale of 1400/01.

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<sup>124</sup>Franz Bastian, *Das Runtingerbuch*, vol. I pp. 628-629.

<sup>125</sup> Cf. section 2.1.5 above.

<sup>126</sup> Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003, 59).

<sup>127</sup> *Ibid*, 76-77.

The situation in Prague was considerably more complex. The cloth market in Prague can be subdivided by social strata: lower status, inexpensive cloth suitable for daily use, and extremely high-status luxury cloth designed to signal social position. The Runtinger trade in fustian falls into the former category. While even as late as the 16th Century, the Bohemian textile industry was not known for export, some domestic production for domestic use or export to nearby hinterland did exist, so the Bohemians had substitutes when fustian became especially expensive. Silks from Venice and woolens from the Low Countries, on the other hand, were luxury items. Although the Runtingers traded in wool from the Low Countries, which they acquired in Brabant and Frankfurt,<sup>128</sup> they never attempted to sell it in Prague. This is likely due to the fact that Bohemian merchants already imported cloth from Flanders and Brabant, especially from Brussels, Tournai, Ghent, Lowen and Ypern.<sup>129</sup> In a sense, these woolens were also a substitute good for Venetian silk, although fashion rather than price drove the competition. This explains why cloth played no unusual role in the Runtinger trade with Prague. Except for limited amounts of saffron, spices cannot be grown in Europe, however, and have no good substitutes; and Regensburg had a strong hand in Bohemian trade with Venice after the treaty of Visegrad.<sup>130</sup> This explains what gave the Runtingers market power

This is not to say that they had no competition; Nuremburg also fought for the Prague market,<sup>131</sup> among others. However, Prague lay outside the network of banks, so everything was paid in silver,<sup>132</sup> which discouraged merchants from selling large amounts of the precious spices at once; they would then need to transport large amounts of silver at once, which was unwise. Political instability in Bohemia also led the Runtingers to close their permanent branch in 1389.<sup>133</sup> This helps explain why only 195 kilograms of spice were sold in Prague, compared with 2,155.5 kilograms in Regensburg, and why the Runtingers were careful not to transport more than 2,000 gulden at once.<sup>134</sup> Competition and caution combined to limit supply in Bohemia so that the Runtingers could demand a much higher price for spices in Bohemia than was possible in Regensburg.

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<sup>128</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 137.

<sup>129</sup> *Ibid*, 84.

<sup>130</sup> Cf. section 2.1.4 above.

<sup>131</sup> Wolfgang von Stromer, "Nuremburg in the International Economics of the Middle Ages," *The Business History Review*, 44 no. 2, (1970): 211.

<sup>132</sup> Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 37.

<sup>133</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 115.

<sup>134</sup> Cf. Table 8.

Another factor allowed the Runtingers to charge more for spices in Prague: Pragers could pay more. Regensburg was home to merchants and craftsmen, with a population estimated around 10,000-11,000;<sup>135</sup> Prague housed a university, an archbishopric, and the Holy Roman Emperor's court.<sup>136</sup> Smahel estimated its population at around 37,500 in the year 1378.<sup>137</sup> Because of the mines, luxury goods were "cheap" for the upper class in terms of silver.<sup>138</sup> Prague therefore became a consumption market with customers willing and able to pay much higher prices for the prestigious spices. This created a situation where the Runtingers competed with other Regensburgers for a much smaller, less wealthy population of customers in Regensburg, but in Prague, they competed with merchants from many other cities (likely also including others from Regensburg) for a much larger, wealthier consumer base.

In addition to these larger economic factors, the Runtinger transactions were also affected by certain practicalities. After 1389, the Runtingers no longer had a permanent branch in Prague.<sup>139</sup> In Regensburg, their employee Osana was able to sell individual pieces of silks to veil makers,<sup>140</sup> thereby selling merchandise at reasonable profit which the Runtingers could not sell profitably wholesale. Perhaps if the Runtingers had had such a possibility in Prague, they could have sold more items profitably.

A more exact explanation of the specifically Bohemian preferences necessitates asking what Bohemian nobles were wearing at the time—perhaps they preferred wool over silk because of the climate. Likewise, to explain why saffron was in such high demand in Prague—roughly eight times as much saffron as pepper was sold, although pepper was most popular spice elsewhere—one must explore Bohemian cuisine and other uses.<sup>141</sup> From *das Runtingerbuch*, we can only conclude that they were important. Understanding in what way they were important and why is a topic for another research project.

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<sup>135</sup>Klaus Fischer, *Regensburger Hochfinanz* (Regensburg: Universitätsverlag 2003), 70-72.

<sup>136</sup> Peter Demetz, *Prague in Black and Gold: the History of a City* (London: Penguin Books, 1998), 82.

<sup>137</sup> Frantisek Smahel, *Husitská revoluce* (Praha: Univerzita Karlova, 1995), 356.

<sup>138</sup> Roman Zaoral, "Silver and Glass in Medieval Trade and Cultural Exchange between Venice and the Bohemian Kingdom," *The Czech Historical Review* 109, no. 2 (2011):

<sup>139</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 115.

It is interesting to note that while political instability may have led the Runtingers to manage risk by not sustaining a permanent branch, we do not see dramatic dips in profit in connection with important Bohemian political crises, such as Wenceslaus IV's dethronement as Holy Roman King in 1400 (cf. Demetz, p.134.)

<sup>140</sup> Franz Bastian, *Das Runtingerbuch*, vol. II pp. 159-167.

<sup>141</sup> It is important to keep in mind that not all spice was consumed in Prague; some was further exported.

*What implications did this trade have for the Prague/Bohemian economy?*

In other words, how was the Bohemian economy and industry affected long-term? The answer to this question involves a detailed analysis of the trade balance. I will limit myself to discussing three relevant factors: the real value of the goods sold in Prague and the money obtained thereby; the raw resources in silver that the Runtingers purchased in Bohemia; the nature of these respective goods in relation to stimulating local industry.<sup>142</sup>

In 1372, during the construction of a new cathedral in Prague, a mason could earn 2.5 to 3 groschen a day, whereas a stone setter could earn three to five groschen a day. A carpenter could earn 2 to 3 groschen—although the tariffs 1 and 2.5 also appear—and an unskilled day laborer could earn 8 to 14 parvi, which converts to around .5 to 1 groschen.<sup>143</sup> Table 7 presents the amount of spices sold calculated in modern kilograms, as well as their prices in terms of groschen per 100 modern grams. Saffron, the most popular and most expensive, sold for up to 24 groschen for 100 grams. In terms of unskilled labor, that is approximately a month's labor for a wage laborer hired at a groschen a day (assuming a 6 day work week.) The price of this spice varied considerably, but it never dropped lower than 14 groschen for 100 grams. Even cloves, the cheapest and least popular spice, sold for .84 groschen for 100 grams—nearly a day's unskilled labor.

The total money paid to the Runtingers for spices between 1395-1404 comes to 28,019 groschen.<sup>144</sup> That would be approximately equivalent to employing 90 unskilled laborers for one year.<sup>145</sup> By contrast, the total cloth goods discussed above sold for 10,011.75 groschen, approximately 32 laborer's yearly hire. Altogether, this implies the Runtingers took in at least 38,030.75 groschen during this nine-year period: enough to hire 122 people. Note that these figures are not exhaustive; they do not take into account every good the Runtingers ever sold, but only those which they sold regularly and in large amounts.

While they did not export finished goods, the Runtingers did buy one local resource: silver in the form of *gegeben gelt*, or damaged groschen. The Prague groschen was intended

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<sup>142</sup> Certainly, these factors are not exhaustive: the role of credit, politics, and Matthäus Runtinger's involvement in the money trade are other possible factors. We do not know to what extent the goods trade and money trade were connected.

<sup>143</sup> Marek Suchy, "St. Vitus Building Accounts (1372-1378): the Economic Aspects of Building the Cathedral," in *Money and Finance in Medieval Europe during the Late Middle Ages*, ed. Roman Zaoral (New York: Palgrave Macmillan, 2016), 228, 230.

<sup>144</sup> Franz Bastian, *Das Runtingerbuch*, vol. I pp. 636-638.

<sup>145</sup> Laborers were paid once a week. They were hired as needed, and tariffs could change, so this is an incredibly crude approximation which does not correspond to any concrete case. It does, however, give an idea of the scale of the opportunity cost of the money spent on spices.

to be an eternal coin, with unchanging weight and fineness. Originally, it was minted from silver of up to 15 lots—essentially the Medieval standard of pure silver.<sup>146</sup> Although it was debased gradually, it retained a very high and stable value relative to other coins of the period. When worn or damaged coins were removed from circulation they were sold for their silver. The Runtingers bought this *gegeben gelt* and sold it both in Regensburg and in Venice. Their trade in this commodity may be divided into two periods: 1384-1387, when father and son traded together and operated a permanent branch in Prague, and from 1392 onwards, when Matthäus Runtinger ran a mint. I will focus on the earlier period.

Matthäus Runtinger rode to Prague for the express purpose of buying this silver in December 1385/January 1386, in May 1386, and March/April 1387. I will analyse the 1387 journey in detail because it concisely demonstrates how this trade functioned. First, on March 6<sup>th</sup>, Wilhelm Runtinger records the following:

Item ich santt gein Prag dez mitichen in der andern vastwochen in ainem pallen newn sekch und ainen chlainen sakch mit pfeffer. Da waz in 1382 pfeffers; da hab wir drew jar in dem hauz von verzirt und ze weinachten auzgesanntt.<sup>147</sup>

Considerable amounts of pepper were not profitably sold in Regensburg until 1395.<sup>148</sup> Evidently the Runtingers gave pepper as Christmas presents only in such years when it did not bring a good price! That same day, Wilhelm added:

.E Item mir furt der Pakerl von Chamb den pfeffer gein Prag; ich gib im ye von ainem saum 98 grozz. Ich gab im 7 guldein daran, da er auzfur; so gab ich dem Taberstorfer 9 guldein, da sol er den wagenman von richtten ze Prag. Er sol den pallen in dem franhof wegen; waz der wigt, da lon ich im nach.<sup>149</sup>

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<sup>146</sup> Pawel Milejski, “Weight debasement of Prague groschen of Wenceslas IV (1378–1419) based on Polish and Lithuanian hoards,” *From ore to money, mining, trading, minting, collection Moneta* 202 (2018): 99.

<sup>147</sup> Franz Bastian, *Das Runtingerbuch*, vol. I pp.86. Hochdeutsch: „Ich sandte nach Prag am Mittwoch in der zweiten Fastenwoche in einem Ballen neun Säcke und dazu einen kleinen Sack mit Pfeffer. Darin waren 1382 Pfund Pfeffer; davon haben wir drei Jahre im Haus verzehrt und zum Weihnachten ausgesandt.“ English translation: “On Wednesday of the second week in Lent, I sent nine sacks and also a small sack of pepper in a bale. Inside were 1382 pounds of pepper; we ate of it three years in the house and sent some out as Christmas presents.”

<sup>148</sup> Cf. table 2 in the appendix.

<sup>149</sup> Franz Bastian, *Das Runtingerbuch*, vol. I pp.87. English: Pakerl of Chamb took the pepper to Prague for me; I am to give him 98 groschen to each saum. I gave him 7 gulden thereof, as he is traveling; likewise I gave Mr. Taberstorfer 9 gulden for the wagen man to Prague. He is to weigh the bundles in the Fronhof (customs courtyard) according to the weight will I pay him.

A *saum* equals roughly 200 kilograms,<sup>150</sup> about the same amount that a packhorse could comfortably carry. Here we see that the Runtingers loaned their carriers enough money to get them to Prague, then paid them the difference based on what was successfully delivered and weighed by government officials. This gave the carriers a high incentive to protect the goods. Five days later, Wilhelm sent his son Matthäus as well:

*a E* Item ez rait mein sun Matheus der Runntinger gein Prag dez Montag vor mittervasten, er furt mit im 1800 fugspalg, di sol er da ynn verchafften und sol ein wegzel darumb bringen, alz er wol waiz. Ez rait mit im hie auz Hanns und Hainreich di Portner. *b R* Und 4 fuchspalig. Di sind verchauft ye ainer umb 18 g. und 8 haler, suma an gelt pringt 551 sxn. 14 g. 8 haller. *B R* Item dez piper vaz 1475 pfund; der ist verchauft ye 1 zent umb 10 sxn. G., suma der piper 147 ½ sxn. G.

*b R* Suma umberal der piper und di fugspalig pringent 708 sxn. 44 g. 8 haler.<sup>151</sup>

From this account, it becomes clear that the Runtingers sent goods to Prague, sold them for money, then brought silver with these proceeds before bringing it back to Regensburg. This saved them the expense and risk of transporting money unnecessarily. Furthermore, they designated particular goods for the purpose beforehand. The profit from the pepper and “fox pelts” was not their primary object; they stood to gain more from the low silver prices.

The “fox pelts” mentioned here are a curious anomaly. The corresponding silver purchase in May 1386 records 1000 red squirrel pelts. Bastian suggests that these furs are shorthand for actual gulden for the following reasons: while Wilhelm writes of 100 squirrel pelts in 1386, Matthäus refers to them as gulden in the next entry. Also, the squirrel pelts were

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<sup>150</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 290.

<sup>151</sup> Franz Bastian, *Das Runtingerbuch*, vol II pp. 87. Hochdeutsch: *a E* Item es reit mein Sohn Mathäus der Runtinnger nach Prag des Montags vor Mitterfasten, er fuhr mit ihm 1800 Fuchsbälge, die soll er da verkaufen und soll ein wechsel darum bringen, als er wohl weiß. Es reit mit ihm hier aus Hanns und Hainreich die Portner. *b R* Und 4 Fuchsbälge. Die sind verkauft je einer um 18 g. und 8 Haller, suma an Geld bringt 551 sxn. 14 g. 8 Haller. *B R* Item des piper war 1475 pfund; der ist verkauft je 1 Zentner um 10 sxn. G., suma der piper 147 ½ sxn. G. *b R* Suma überall der piper und die Fuchsbälge bringt 708 sxn. 44 g. 8 Haler. English: My son Matthäus Runtinger rode to Prague on the Monday before Miterfast. He brought 1800 fox pelts with him, which he is to sell there and bring back the exchange, as he knows. Hanns and Hainreich the porters rode with him. *b.R* and 4 fox pelts. They were sold each for 18 groschen and 8 heller, total money 551 marks 14 groschen 8 haller. *B.R.* item the pepper was altogether 1475 pounds, they are sold each Zentner for 10 marks of groschen, total for pepper 147 ½ groschen. *b.R* Total of both pepper and fox pelts 708 marks 44 groschen 8 haler.

each sold for 18 groschen 4 haller, the fox pelts for 18 groschen 8 haller, which is odd because fox was usually much more expensive than squirrel, but it would correspond to a slightly fluctuating gold coin to groschen exchange rate over this 10 month period. Finally, based on other sources,<sup>152</sup> furs typically traveled through Prague to the south.<sup>153</sup> Interestingly, this shorthand is only used by Wilhelm and only in connection with Prague silver trade, never concerning trips to Frankfurt, for example, or by Matthäus. Coupled with Wilhelm's shorthand *wegzel* in this entry, it may indicate that Wilhelm wanted to avoid drawing attention to this trade.

This intriguing but somewhat speculative digression aside, on April 16<sup>th</sup>, Matthäus records the following.

*b R* Item so han ich chaufft 469 march an 2 lot gebegener g., suma pringt an gelt 698 ½ sxn. 3 g. 8 haler, chumt ye 1 march umb 1 ½ sxn. an 6 haler.

Di ist (!) in acht stuchen.<sup>154</sup>

The rest of the entry details some of the proceeds from resale in Regensburg and the money Matthäus owed Wilhelm. Proceeds from fustian in 1386 were used in a similar way.<sup>155</sup> The *modus operandi*, then, was to send valuable goods to Prague, sell them off, reinvest the proceeds in *geben gelt*, and bring the silver to Regensburg or Venice for resale. In this case, low silver prices likely influenced their decisions more than high sale prices for other goods.

František Graus has already calculated the total amount of money which was sent from Prague back to Regensburg during the period 1384-1387—see table 8. A *schock* of groschen equals 60 coins and a gulden was equal to 18 groschen around 1385.<sup>156</sup> We can see that a total of 320,236.5 groschen were removed from Prague. In terms of unskilled labor, that is the annual salary of 877 people. To give these numbers further perspective, Graus cites that the biannual income of the Prague Archbishop, who was one of the wealthiest Bohemian

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<sup>152</sup> For possible examples, Cf. Marie Buňatová, *Pražští kupci na cestách: předbělohorská Praha a středoevropské trhy*. (Praha : Mishkezy, 2013); Marie Buňatová, *Trade Contacts between Prague Jews and Northern Italy and their Engagement in the Italian Commodity Trade in the 16th and Early 17th Centuries: Prague Jews in the Network of European Relationships*. In: *Judaica Bohemiae* 54, no. 1 (2019), pp. 5-30.

<sup>153</sup> Franz Bastian, *Das Runtingerbuch*, vol. II pp. 86-88.

<sup>154</sup> Franz Bastian, *Das Runtingerbuch*, vol. II pp. 88. Hochdeutsch: *b R* Item so habe ich kauft 469 mark an 2 lot gebegener g., suma bringt an Geld 698 ½ sxn. 3 g. 8 haler, kommt je 1 mark um 1 ½ sxn. an 6 haler. Die ist (!) in acht stücken. English: Item I bought 469 marks and 2 lots devalued groschen, total money 698 ½ schock 3 groschen 8 heller, which comes to 1 mark for 1 ½ schock 6 haler. They are in eight pieces. (!)

<sup>155</sup> Franz Bastian, *Das Runtingerbuch*, vol. I pp. 83.

<sup>156</sup> Eikenburg, *Das Handelshaus der Runtinger zu Regensburg*, 278.

landowners, was 1,338 schock 6 groschen in cash, 1382/83.<sup>157</sup> That is equal to 80,286 groschen total. Comparing this figure with table 8, we see that the amount of money the Runtingers removed from Bohemia was on average comparable to the biannual income of the wealthiest Bohemian nobles.

It is abundantly clear that enormous amounts of money and silver drained from Prague on a regular basis due to the Runtinger activities. This effect was accentuated by the fact that the Runtingers were selling finished consumer goods for raw materials. This meant that the trade did not stimulate growth. When the Runtingers traded in cotton with the fustian weavers in Regensburg, for example, the Regensburg economy was stimulated because Regensburg fustian weavers were employed. The weavers added value to the product and some of the money stayed in Regensburg in the form of their wages. In contrast, when the Runtingers brought silver, they did not stimulate industry: the mine owners and miners and other personal were only enriched as long as the supply of silver lasted. The same principle applies to the spice trade. Some luxury consumer items could lead to local industry: Islamic glass imports were gradually mingled with Venetian imitation and finally replaced by home production in 14th Century Bohemia.<sup>158</sup> Spices,<sup>159</sup> however, could not be grown or imitated in Bohemia and were only purchased for money. Precious metal therefore flowed out of Bohemia in two forms: money and raw silver. In sum, we see finished goods flowing into the Bohemian economy and raw materials flowing out.

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<sup>157</sup> František Graus, „Die Handelsbeziehungen Böhmens zu Deutschland und Österreich im 14. und zu Beginn des 15. Jahrhunderts. Eine Skizze.“ *Historica = Historical Sciences in Czechoslovakia* 2 (1960): 108.

<sup>158</sup> Roman Zaoral, “Silver and Glass in Medieval Trade and Cultural Exchange between Venice and the Bohemian Kingdom,” *The Czech Historical Review* 109, no. 2 (2011): 301.

<sup>159</sup> Saffron might have been a possible exception.



*What evidence does the Runtingerbuch record of the use of spices in the Medieval times?*

Typical sources for the use of spices include pharmaceutical manuals and cook books, although spices were also heavily used as incense or dyestuffs.<sup>160</sup> Matthäus Runtinger consulted a Venetian doctor in 1398. He sought treatment for two ailments, a *fluzzigen chopf* and a *haizzes leber*; literally translated, a runny head and an inflamed liver. It is not immediately clear from the context what a *runny head* might mean in terms of symptoms. Based on the treatment and the fact that it was serious enough to employ an Italian doctor, acute recurring sinus headaches or migraines caused by blocked sinuses are one possibility. Matthäus records all the advice he was given along with a recipe for medicine for his liver. This is what he writes concerning his head:

c E Item ich sol alle morgen nüchtern in den munt nemen fumf chorn kubeben mit zukker czogen oder ploz, ich soll si chewn, aber nicht ezzen, und in dem munt behalten, untz das ich ezzen wil, und dann auzwerfen; daz trukchent mir daz haubt fur di fluzz.

c E Und unterweiln galgant in dem mund haben, alz oben geschriben ist.

c E Und unterweilln kuriander oder aneys, czogen mit zukker, nüchtern ezzen.<sup>161</sup>

Medieval people thought of health in terms of the equilibrium of the four humours within the body: blood, phlegm, black bile, and yellow bile. Each of these substances had different qualities and corresponded with one of the four elements: blood was warm and moist and corresponded with air, yellow bile was warm and dry and corresponded with fire, and so on. Spices also had these properties, being mostly warm and dry. Substances possessed these qualities to different degrees.<sup>162</sup> Since illness was the result of a humoral imbalance in the body, spices could be used to counteract excessive amounts of humors and restore equilibrium

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<sup>160</sup> Cf. pp. 13 above.

<sup>161</sup> Franz Bastian, *Das Runtingerbuch*, vol. II pp. 22-24. Hochdeutsch: Item ich soll jeder Morgen nüchtern (pur) in den Mund nehmen fünf Korn von Kubeben mit Zucker gezogen oder bloß, ich soll sie kauen, aber nicht essen, und in dem Mund behalten, bis ich essen will, und dann auswerfen; das trochnet mir das Haupt von den Flüssigkeiten. Und unterweilen Galgant in dem Mund haben, wie oben geschrieben. Und unterweilen Koriander oder Anis, gezogen mit Zucker, nüchtern (pur) essen.

English: Item: Every morning, I am to take five corns of kubeb pepper in an empty mouth, sugar coated or plain; I should chew but not eat them, and keep them in the mouth until I want to swallow, and then spit them out. This dries my head of the runniness. And after a while have galangal in the mouth, as written above. And after a while eat coriander or anis, covered in suger.

<sup>162</sup> Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven and London: Yale UP, 2008): 59-61.

to the body. The brain was conceptually cold,<sup>163</sup> and phlegm was thought to be cold and moist like water.<sup>164</sup> For someone with a “runny head,” prescribing the use of hot and dry spices makes a great deal of sense. Table 9 presents the qualities of several of the most common spices according to *Le Livre des Simples Medicines*, a French translation of a Latin pharmacology manual which was widely circulated throughout Europe.<sup>165</sup> Note that mace was prescribed in a similar way in this manual. The full recipe Matthäus records for his liver also includes several types of spices, plums from Arabia, and even ivory.

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<sup>163</sup>Nam Jong Kuk, “Medieval European Medicine and Asian Spices,” *Korean Journal of Medical History* 23, (2014): 323.

<sup>164</sup> Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven and London: Yale UP, 2008): 59.

<sup>165</sup> Nam Jong Kuk, “Medieval European Medicine and Asian Spices,” *Korean Journal of Medical History* 23, (2014): 326.

# III. Conclusion

In light of the above discussion, what does *das Runtingerbuch* reveal about the Bohemian economy and the role of spices in the Runtinger trade with Prague? In sum, spices were extraordinarily valuable, compact, easily transportable, and steadily demanded with no substitutes, which made them an ideal item for trade with a comparatively remote trade center such as Prague. The steady, high prices which continued for nearly a decade and the fact that the Runtingers could substantially increase the price of saffron without decreasing their profit shows market power. The Runtingers could rely on obtaining a profit as much as twice what was considered usual for luxury items, and in one case they used this profit to reinvest in the silver trade. Through comparison with Regensburg, spices are shown to be this highly demanded and the Runtingers had market power only in Bohemia. Through comparison with other goods, it is shown that demand for luxury cloth was not substantially different in Prague than elsewhere. The fact that spices were always purchased against coin rather than goods, coupled with the purchase of damaged coins (*gebegener gelt*) constituted a continuous drain of silver out of the Bohemian economy, and growth in industry was not encouraged by this trend. The Runtingers also used the spices personally in their daily lives.

## 3.1 Critical Analysis of the Scope of Research and Implications for Further Research

*Das Runtingerbuch* is a rich source, and this research has certainly not exhausted the possibilities for its analysis. For example, I have not explored the role of credit in Prague in *das Runtingerbuch* or the exact role of the money trade. Without the trade in *gebegen gelt*, would Prague have drawn spice merchants? To answer this question, one could analyse the entire Runtinger financial operations with the silver. One could also compare rival merchants for the Prague market, i.e. Regensburg and Nuremburg.

The Runtingers only sold spices wholesale in Prague. Therefore, this research only covers the segment of the Bohemian economy where supplies reached the hands of shopkeepers. Before final consumers bought spices on the market, they were marked up yet again by the retailers. To fully understand the role of spices in the Bohemian economy, one must research who these final customers were and what prices they were paying. One such source might be the travel accounts of Henry of Derby, who bought many luxury goods during his stay in Prague. I considered attempting this research, but found I was not linguistically skilled enough to deal with the Latin text and Czech historiography.

This case study entirely focused on the Bohemian economy, so the scope of this work is limited. As such, the most important theme for further research involves placing this case study within a broader context: both the political history of Bohemia and the activities of other trading companies, be they from Frankfurt, Cologne, Nuremburg, or even Prague Jews.

### 3.2 Overarching Themes

This case study reveals tendencies which largely support existing research in economic history: Prague as an economic periphery of Europe, supplying silver and consequently blessed with economic prosperity, but relatively passive and undeveloped in its economic activity. Although with the treaty of Visegrad, we see that the Bohemian rulers understood the significance of their silver and the power it gave them, they were nonetheless content to rely on the offices of assertive foreign merchants such as the Runtingers. Certainly, some development did occur: we see this in the form of Bohemian merchants making their own way to Flanders and some amount of domestic textile production. At the same time, compared with Regensburg and Venice, such development was slow and unimpressive.

Yet this long-distance trade simultaneously promoted Prague as a political and intellectual center. Like the Syrian glass found in the Old Town of Prague, the spices point in part to a high dining culture, reflecting the desire of the Bohemian nobles to raise their status by participating in wider high society trends. A French manuscript made in 1378 depicts Charles IV and Wenceslaus IV of Bohemia at a feast at the court of Charles V of France.<sup>166</sup> Along with the usual trappings of ceremonial occasion, we see two silver boat-shaped spice dishes prominently displayed in front of them. These two things, the silver and the spice, are symbols of the new position Charles IV wished to obtain for Bohemia and temporarily achieved.

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<sup>166</sup> Cf image 1.

## Tables

Table 1: The European Imbalance of Payments in the 15<sup>th</sup> Century

The European Imbalance of Payments	
<b>The Venetians brought back</b>	The Venetians sent out
<b>400,000 ducats of spices from farther east</b>	300,000 ducats in coin
<b>880,000 ducats of goods from the Near East</b>	200,000 ducats in goods
<b>20,00 ducats in coin</b>	
<b>Other Europeans brought back</b>	Other Europeans sent out
<b>130,000 ducats of spices from farther east</b>	100,000 ducats in coin
<b>20,000 ducats of goods from the Near East</b>	60,000 ducats in goods
<b>10,000 ducats in coin</b>	

Source: Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003), 346.

Table 2: Spices in the Runtinger Trade: Prague and Regensburg compared

Spice	Year	Regensburg			Prague		
		Amount (in V.ilb.)	Markup	Profit	Amount (V. Ilb.)	Markup	Profit
Saffron	1383	147	19.6%	16.4%			
	1395				177.19	29.3%	20%
	1399				138	27%	20%
	1400-1	206.2	13.8%	10.6%	159.5	28.5%	20%
Pepper	1387				2212.5	33%	14.2%
	1395	2030.5	31.66%	19.7%	63.75	70%	42.5%
	1400-01	888.74	32.25%	18%			
	1403-04	300	42.33%	27%			
Cloves	1395				51.06	44.66%	30.7%
	-1404						
Ginger	1395				66	24.66%	9.13%
	-1404						
	1400	50	17.5%	9.25%			

Source: Franz Bastian, *Das Runtingerbuch*, vol. I pp. 616-627, 636-638.

**Table 3: Saffron sold in Prague**

	1395	1399	1401
Amount sold (in V. llb)	177.19	138	159.5
Venetian ducats per pound in Venice	1.54	2.54	2.16
Ducats per pound in Prague	1.99	3.22	2.77
Markup	29.3%	27%	28.5%

Source: Franz Bastian, *Das Runtingerbuch*, vol. I pp. 636-638.

**Table 4: Fustian sold in Prague**

YEAR	1401	1402
<b>AMOUNT SOLD</b>	22	168
<b>SALE PRICE: VENETIAN DUCAT PER LENGTH OF FUSTIAN</b>	1.78	1.62
<b>TRANSPORTATION COSTS</b>	32,42%	37%
<b>MARKUP</b>	74%	55%
<b>PROFIT</b>	31%	13.15%

Source: Franz Bastian, *Das Runtingerbuch*, vol. I pp. 639-640.

**Table 5: Silks sold in Prague in 1383**

Type	Amount	Markup	Profit
Finished	Syrian	37%	33%
	Bortenseide	31%	27%
Unfinished	1 piece, red, from Venice	22.3%	19%
	1 red, 1 gray from Lucca	37.3%	25%

Source: Franz Bastian, *Das Runtingerbuch*, vol. I pp. 634-635.

**Table 6: Average profitability**

		Regensburg	Prague
Spices	Pepper	21.6%	42.2% <sup>167</sup>
	Saffron	13.5%	20%
	Cloves	(none sold)	30.7%
	Ginger	9.25%	9.13%
	<b>All spices</b>	<b>16.83%</b>	<b>25.51%</b>
Cloth	Fustian	(none sold)	22.07% <sup>168</sup>
	Cotton	22.5%	(Sold; unprofitable)
	Silk <sup>169</sup>	17.5% after 1400.	26% in 1383; afterwards little to no profit
	Gold thread	22%	(Sold; unprofitable)

Source: Franz Bastian, *Das Runtingerbuch*, vol. I pp. 618-638, *derived*.

**Table 7: Spices in Prague in modern kilograms, 1395-1404**

Type	Amount sold, modern kg.	groschen/100 g.
Pepper	18.97	1.88
Cloves	15.19	0.84
Safran, 1395	52.71	14.13
Safran, 1399	41.06	24.00
Safran, 1401	47.45	20.64
Ginger	19.64	2.24
Total Spices	195.02	

Source: Franz Bastian, *Das Runtingerbuch* vol. I pp. 636-638, *derived*.

<sup>167</sup> This figure deliberately overlooks the sale of pepper in 1383 for a profit of 14.2%. This sale took place under unusual circumstances and including it would not help give a clear picture of the normal state of the market.

<sup>168</sup> Here again the sale of 1383 for a 70% profit is not considered.

<sup>169</sup> Since the object is to obtain a general impression of the markets, I am here comparing all silks sold in Regensburg with silks sold in Prague from 1383, when there was a real market for them. I am excluding the slight sales in Prague after 1400.

**Table 8: Total money removed from Prague by the Runtingers, 1384-1387**

1384	1,919 Gulden 1,098 Schock 49 Groschen 2 Heller
1384	1,696 Gulden 558 Schock 58 ½ Groschen
1386	1,186 Schock 51 Groschen
1387	1,408 Schock 8 Groschen 8 Heller
Total	3,615 Gulden 4,252 Schock 46.5 Groschen 10 Heller

Source: Graus, František. „Die Handelsbeziehungen Böhmens zu Deutschland und Österreich im 14. und zu Beginn des 15. Jahrhunderts. Eine Skizze.“ *Historica = Historical Sciences in Czechoslovakia* 2 (1960): 107-108.

**Table 9. Spices and their effects in *Le Livre des Simples Medicines***

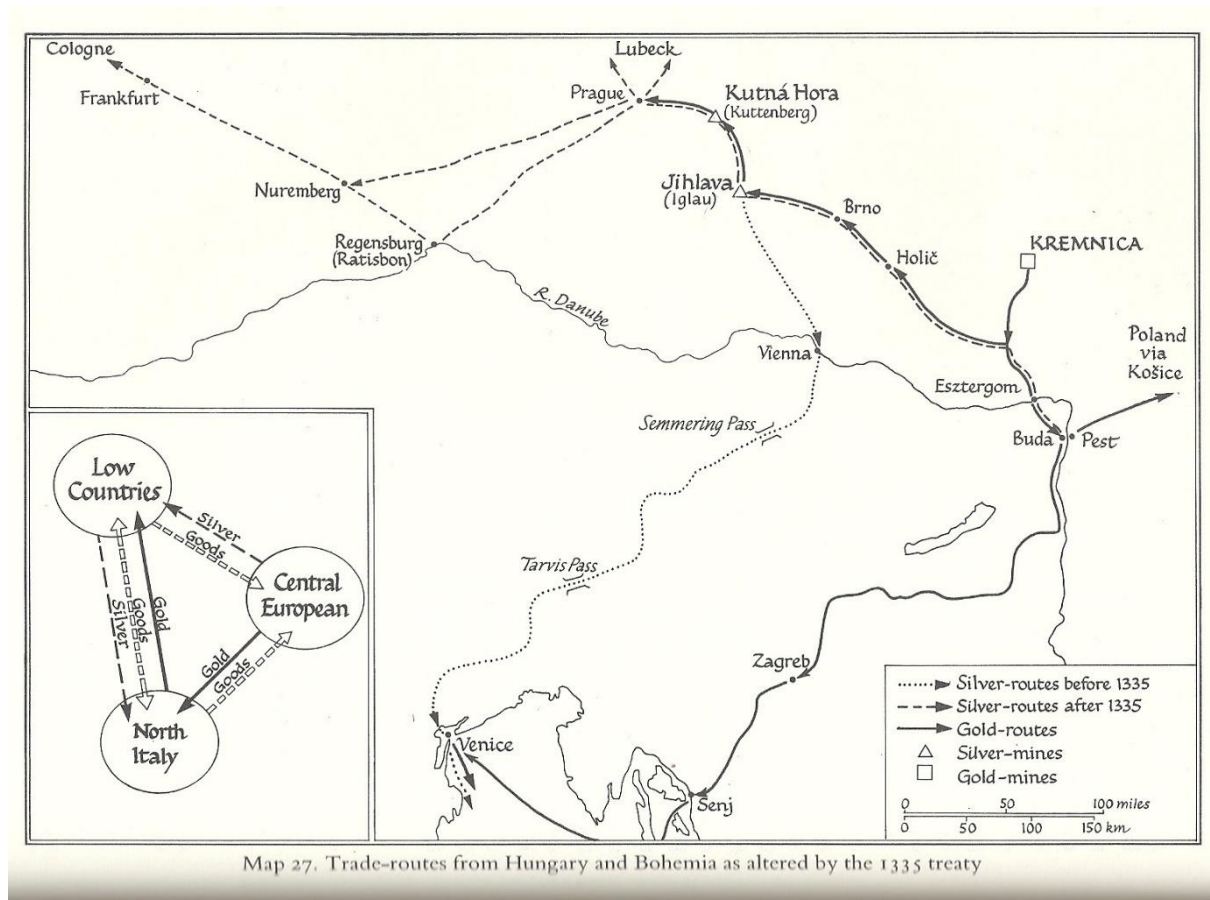
Spices	Properties
Pepper	It is hot to the beginning of the fourth degree and dry to the middle of the fourth.
Ginger	It is hot to the third degree and moist to the first.
Cinnamon	It is hot in the third degree and dry in the second.
Cloves	They are hot and dry in the third degree.
Nutmeg	It is hot and dry to the second degree
Mace	It is hot and dry to the second degree. Item, to purge the brain of excess of humors, chew some mace and keep it in the mouth for a long time so that its scent may rise to the brain.

Source: *Le Livre des Simples Medecines* as summarized in: Nam Jong Kuk, “Medieval European Medicine and Asian Spices,” *Korean Journal of Medical History* 23, (2014): 327.



# Maps

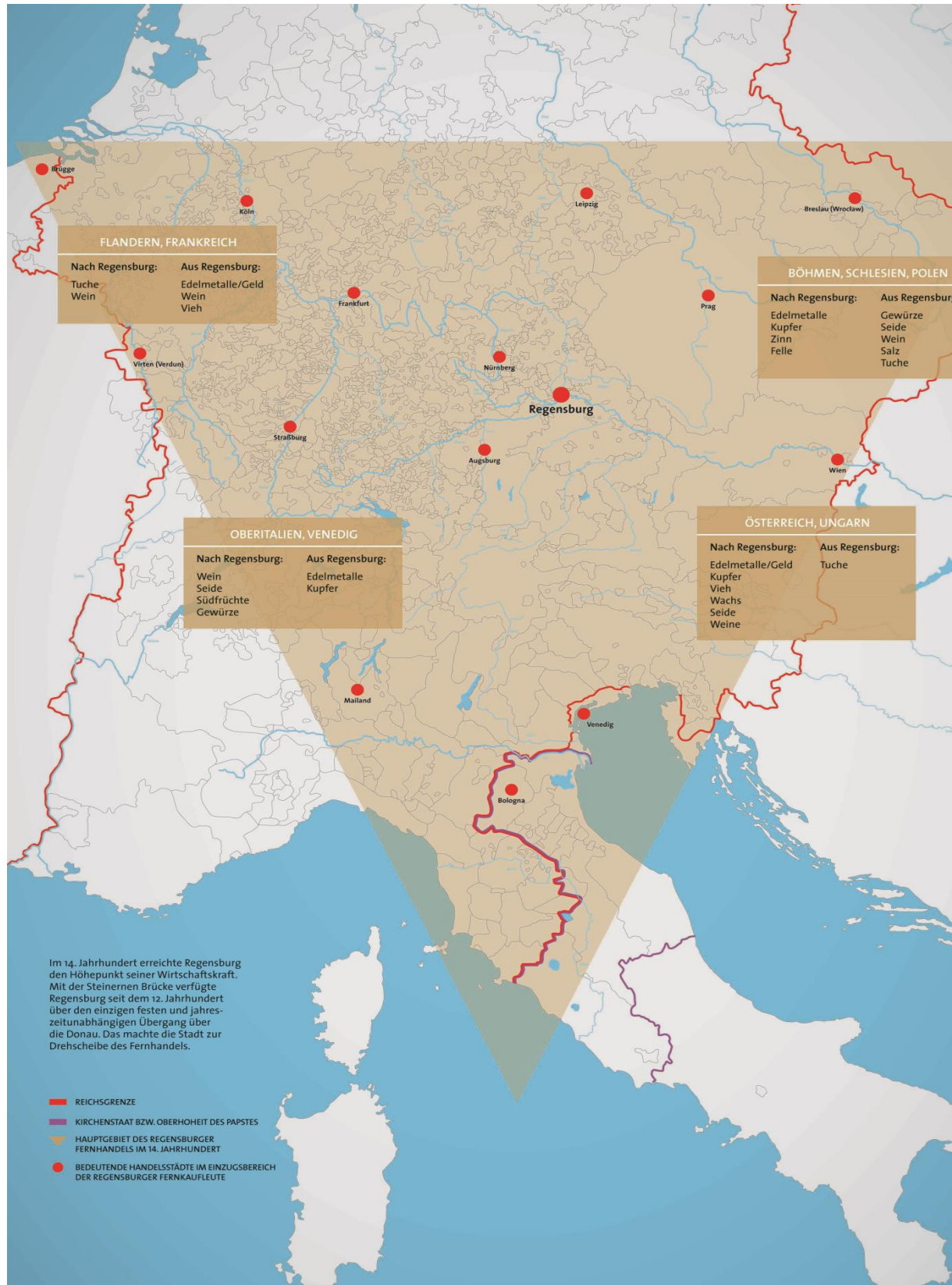
## Map 1



Map 27. Trade-routes from Hungary and Bohemia as altered by the 1335 treaty

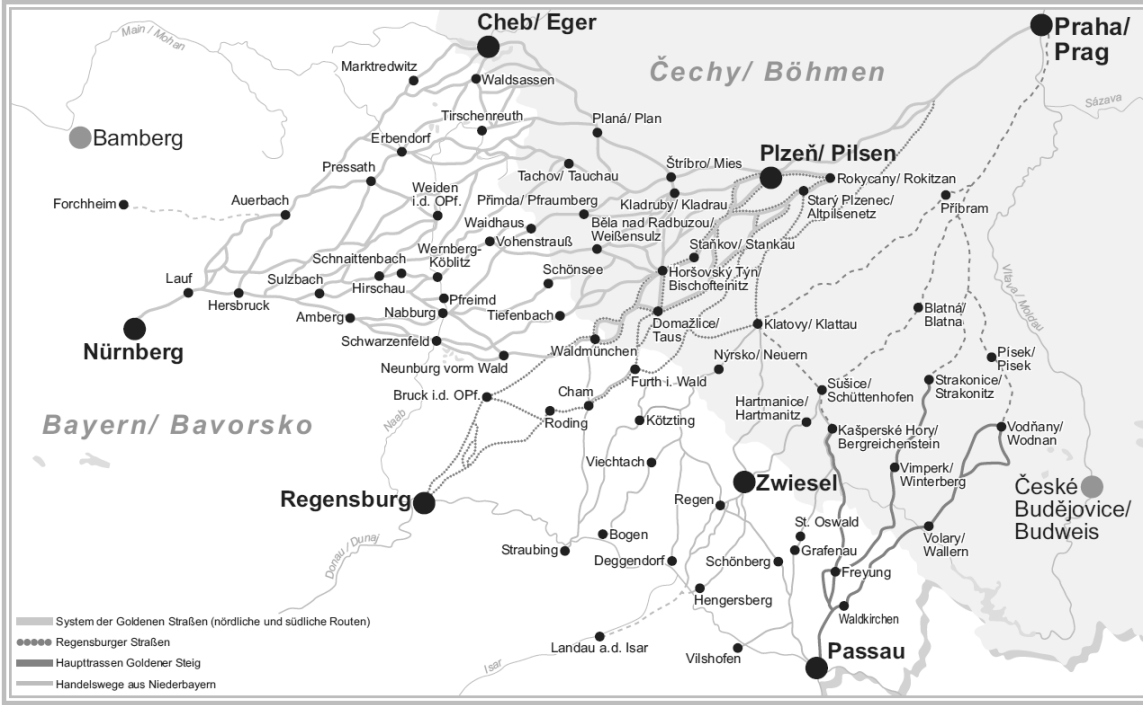
Source: Peter Spufford, *Power and Profit: the Merchant in Medieval Europe* (New York: Thames & Hudson Inc, 2003) 222.

Map 2: Regensburg Trade Relations



Source: Haus der Bayerischen Geschichte, [http://www.hdbg.de/ludwig-der-bayer/pdf/Regensburger\\_Fernhandel.pdf](http://www.hdbg.de/ludwig-der-bayer/pdf/Regensburger_Fernhandel.pdf)

Map 3



Source: Kartographie Muggenthaler, Regen. Haus der Bayerischen Geschichte, Augsburg.



## Images

### Image 1

Caption: Les entremets spectacles



Source: *Grandes Chroniques de France, XIV siecle. Paris, BnF, Department des manuscrits, Francais 2813 fol. 473v.*<sup>170</sup>

<sup>170</sup>For a full discussion of this image in relation to the spice trade, Cf. Paul Freedman, *Out of the East: Spices and the Medieval Imagination* (New Haven and London: Yale UP, 2008): 38-39.

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