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NELL'ECONOMIA EUROPEA  
SECC. XIII-XVIII

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IN THE EUROPEAN ECONOMY  
FROM THE 13<sup>TH</sup> TO THE 18<sup>TH</sup> CENTURIES

\* \*

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Mark Spoerer

*The Revenue Structures of Brandenburg-Prussia, Saxony  
and Bavaria (Fifteenth to Nineteenth Centuries):  
Are They Compatible with the Bonney-Ormrod Model?*

## 1. INTRODUCTION

While many contemporary observers tend to believe that today's tax policies are at best erratic, historians of fiscal systems are more optimistic and believe to perceive a systematic development in the very long term. Joseph A. Schumpeter is the first to be credited of having developed a fiscal stage model, followed by E. Ladwig Petersen and Kersten Krüger. Recently, William M. Ormrod and Richard Bonney reformulated and refined these models. In this paper we present revenue data for three of the most important early modern German states in order to assess to what extent the development of the revenue shares in these countries fits to the Bonney-Ormrod model.

The paper is structured as follows. In section 2 we will discuss the stage models of the aforementioned authors. Section 3 is devoted to conceptual issues, in particular how the revenues should be categorized. The empirical results are presented and discussed in section 4 and 5, respectively.

## 2. STAGE MODELS OF FISCAL SYSTEMS

Shortly before the end of World War I, the Austrian economist Joseph A. Schumpeter published an article titled "The Crisis of the Tax State" in which he developed a three stage model to describe the development of fiscal systems.<sup>1</sup> For antiquity, he used the term "domain state" which degenerated into a "domain economy" in the Middle Ages. Increasing military costs forced the sovereigns in the Early Modern to pile up debts. To serve the debts, they expanded the tax system which soon became the backbone of their finances: the "tax state" had evolved. For Schumpeter, "tax" has so much to do with 'state' that the expression 'tax state' might almost be considered a pleonasm."<sup>2</sup> Schumpeter's model is generally seen as the starting point for fiscal stage models, though other authors like Gustav Schmoller had formulated similar ideas four decades earlier.<sup>3</sup>

Schumpeter's concept of the domain state and the tax state—his subtle discrimination between the ancient domain *state* and the medieval domain *economy* is usually blurred—was particularly advocated by the Danish economic historian E. Ladwig Petersen who found it

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<sup>1</sup> J.A. SCHUMPETER, *Die Krise des Steuerstaates*, in "Zeitfragen aus dem Gebiet der Soziologie", 4, 1918, pp. 3-74; English translation IDEM, *The Crisis of the Tax State*, in "International Economic Papers", 4, 1954, pp. 5-38.

<sup>2</sup> *Ibid.*, p. 19.

<sup>3</sup> E.g., G. SCHMOLLER, *Die Epochen der preußischen Finanzpolitik*, in "Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft", 1, 1877, pp. 33-114, here p. 113. In generalising the Prussian development, Schmoller distinguished the tribute economy, the domain economy, the regal economy and the tax economy.

very fruitful for analysing Scandinavian and German fiscal history.<sup>4</sup> In a further step, the German historian Kersten Krüger elaborated criteria that characterise the domain state and the tax state, respectively.<sup>5</sup>

This in turn has inspired Richard Bonney, who ran a large and extremely successful research project on medieval and early modern fiscal history in the late 1980s and early 1990s,<sup>6</sup> to extend the model with a colleague in medieval history, William M. Ormrod. Bonney and Ormrod distinguish four stages in fiscal history: the tribute state, the domain state, the tax state and the fiscal state. Their most important achievement is that they also model the transition from one stage to the following. Concerning the dynamics, they discern crises, which by definition occur within fiscal systems, fiscal revolutions that move a fiscal system from one stage to another, and self-sustained growth, which is what drives the fiscal system of the modern fiscal state.<sup>7</sup>

One of the virtues of the Bonney-Ormrod model is that its explicit formulation allows to test it empirically. Bonney and Ormrod adopt the 16 criteria proposed by Krüger and add another two.<sup>8</sup> Although they do not make explicit which criteria they consider to be of essential importance, the very fact that they stick to the notions created by Schumpeter—"domain state", "tax state"—indicate that the revenue structure is of pivotal importance in their stage model.<sup>9</sup> Hence we will focus the analysis on the revenue structure of the most important German states.

### 3. CONCEPTUAL ISSUES

Figure 1 illustrates central Europe in the borders of 1789. Apart from the Habsburg Monarchy, the largest German states were Brandenburg-Prussia, Saxony and Bavaria.

In order to analyse the revenue structure of these states, we need both data on total revenues and on the shares of domainial and tax revenues, at least for a number of benchmark years. In view of the economic and social incidence of the tax burden it might also be helpful to distinguish between revenues from direct taxes and revenues from indirect taxes.<sup>10</sup>

<sup>4</sup> E.L. PETERSEN, *From Domain State to Tax State. Synthesis and Interpretation*, in "Scandinavian Economic History Review", 23, 1975, pp. 116-148.

<sup>5</sup> K. KRÜGER, *Gerhard Oestreich und der Finanzstaat. Entstehung und Deutung eines Epochenbegriffs der frühneuzeitlichen Verfassungs- und Sozialgeschichte*, in "Hessisches Jahrbuch für Landesgeschichte", 33, 1983, pp. 333-346; English version IDEM, *Public Finance and Modernisation: The Change from the Domain State to Tax State in Hesse in the Sixteenth and Seventeenth Centuries*, in *Wealth and Taxation in Central Europe. The History and Sociology of Public Finance*, ed. P.-C. WITT, Leamington Spa et al. 1987 (Berg), pp. 49-62.

<sup>6</sup> *Economic Systems and State Finance*, ed. R. BONNEY, Oxford 1995 (Clarendon); *The Rise of the Fiscal State in Europe, c. 1200-1815*, ed. IDEM, Oxford 1999 (Oxford University Press); see also his European State Finance Database, <http://www.le.ac.uk/hi/bon/ESFDB/> (accessed 25 June 2007).

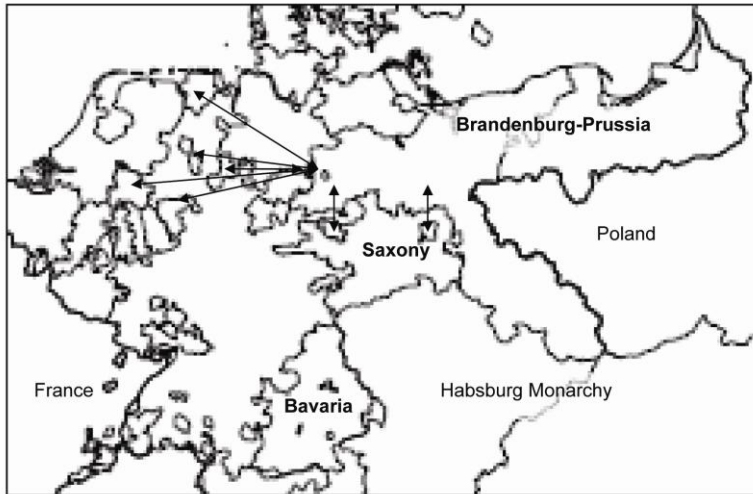
<sup>7</sup> R. BONNEY, W.M. ORMROD, *Crises, Revolutions and Self-Sustained Growth: Towards a Conceptual Model of Change in Fiscal History*, in *Crises, Revolutions and Self-Sustained Growth*, W.M. ORMROD, M. BONNEY, R. BONNEY eds., Stamford 1999 (Shaun Tyas), pp. 1-20.

<sup>8</sup> Cf. K. KRÜGER, *Public Finance*, cit., p. 52; R. BONNEY, W.M. ORMROD, *Crises*, cit., pp. 4-8.

<sup>9</sup> Cf. for the importance of revenues for their model *ibid.*, pp. 10, 16, and R. BONNEY, *Revenues*, in *Economic Systems*, cit., pp. 423-505, here p. 451.

<sup>10</sup> Cf. the seminal paper of P. MATHIAS, P.K. O'BRIEN, *Taxation in Britain and France, 1715-1810. A Comparison of the Social and Economic Incidence of Taxes Collected for the Central Governments*, in "Journal of European Economic History", 5, 1976, pp. 601-650. For a taxonomy of public revenues in pre-modern times, see M. KÖRNER, *Steuern und Abgaben in Theorie und Praxis im Mittelalter und in der Frühen Neuzeit*, in *Steuern, Abgaben und Dienste vom Mittelalter bis zur Gegenwart*, ed. E. SCHREMMER, Stuttgart 1994 (Steiner), pp. 53-75.

Figure 1. Political Borders in Central Europe, 1789



Note: Arrows indicate exclaves.

Source: IEG Maps ([www.ieg-maps.uni-mainz.de](http://www.ieg-maps.uni-mainz.de)), accessed 19 June 2007.

As numerous scholars working on fiscal revenues in the Early Modern had to realise, it is difficult to find complete budget data. The most obvious reason is that the princes usually did not discriminate between revenues from their domains and regalian rights on the one hand and 'state' taxes on the other hand. Moreover, in most states a number of institutions co-existed that were charged with collecting rents, taxes, fees etc. Only extraordinary circumstances forced the princes to undertake fiscal surveys covering both personal and state revenues. The German case is further complicated by the fact that the nation state did not evolve before the late nineteenth century. An immense number of independent sovereigns and endless territorial disputes and changes complicate efforts to get an overview of 'German' fiscal history before the mediatisation of the early nineteenth century. Fortunately, since the last third of the nineteenth century the evolving academic field of public economics has produced a quite large literature. Most of these works were published before World War II when many archival documents fell victim to aerial bombing and devastation.

The analysis of the few surviving and complete early modern budgets, however, is not without caveats. Usually even the officials charged with conducting and monitoring the revenue collection did not have full overview. Several centuries later, only a few historians were able to penetrate the complicated multitude of treasuries. And even then they often confined their historical account to reproducing budget items which too often do not allow to identify the character of the revenue items, i.e. whether they originated from domains or were tax revenues.

In the following we analyse the literature on the revenue structures of Brandenburg-Prussia, Saxony and Bavaria. Whenever we were able to classify the revenue items in the reported budgets satisfactorily,<sup>11</sup> we subsumed them in the following four categories:

1. "Public operating surplus" summarises all kind of net revenues that emerge from princely and public economic activities beyond mere tax- or fee-collecting. Typical items are revenues from domains and forests, but also from regalian rights like revenues from mines, salines or other monopolies. A conceptual problem is that these revenues are either reported in gross or in net terms. Net revenues ( $\approx$  profits) are gross revenues ( $\approx$  turnover) less costs such as raw materials, intermediate products, wages and other inputs. The difference between gross and net revenues can be quite large, especially if the products were sold on markets in which the sovereign did not have monopolistic power. As we are interested in the financial scope that emerged for the sovereign or state, net figures are more meaningful. Fortunately, many reported budget items followed the net concept or allow to subtract costs from gross revenues.<sup>12</sup>

In this respect, it should be noted that the economic effect of the public operating surplus is very similar to that of an ad valorem consumption tax.<sup>13</sup> One might thus be tempted to regard it as a sort of "indirect indirect tax".<sup>14</sup>

2. "Direct taxes" are compulsory payments to public or quasi-public authorities which are paid directly and the shifting of which is assumed to be quite unlikely. Typical early modern direct taxes are land and other real property taxes, poll taxes, but also income taxes etc. Trade taxes are also classified as direct taxes if the tax amount does not vary with the output.
3. "Indirect taxes" are compulsory payments to public or quasi-public authorities which are paid by persons who are assumed to shift the burden to the intended taxpayer. Typical indirect taxes are customs, excises, stamp taxes, user fees etc. Typical production taxes, i.e. taxes which vary with the output, also fall under this category.

For both direct and indirect taxes, the difference between gross and net revenues amounts to only a few per cent. Usually net revenues were reported in the budgets.

4. "Other" revenues is a residual category in which fall all revenues from other sources. Also included are small budget items which could not be attributed to one of the other three categories.

For a number of reasons we do not consider debt here.<sup>15</sup> First, in the early modern borrowing was a discretionary measure. As we are interested in structural changes, in particular regarding tax revenue shares on the one hand and the public operating surplus on

<sup>11</sup> Very helpful in this respect proved W. SCHOMBURG, *Lexikon der deutschen Steuer- und Zollgeschichte. Abgaben, Dienste, Gebühren, Steuern und Zölle von den Anfängen bis 1806*, Munich 1992 (C.H. Beck).

<sup>12</sup> From today's point of view one should also subtract the imputed owner's salary and should take account of the opportunity costs of capital input. Contemporaries, however, were normally not aware of this concept. Moreover, this deduction would usually amount to not more than some 5 per cent of gross revenues. Hence this point is ignored.

<sup>13</sup> R. FREMDLING, *Freight Rates and State Budget: the Role of the National Prussian Railways 1880-1913*, in "Journal of European Economic History", 9, 1980, pp. 21-39, here p. 30.

<sup>14</sup> M. SPOERER, *Steuerlast, Steuerinzidenz und Steuerwettbewerb. Verteilungswirkungen der Besteuerung in Preußen und Württemberg (1815-1913)*, Berlin 2004 (Akademie), p. 106.

<sup>15</sup> Cf. M. KÖRNER, *Steuern*, cit., p. 67; M.A. DENZEL, *Öffentliche Wirtschaft in Bayern im Spätmittelalter und im 18. Jahrhundert. Erwerbswirtschaftliche Einnahmen und Investitionen der Landsherren nach Staatshaushalten des Herzogtums Niederbayern Bayern-Landsbut und des Kurfürstentums Bayern*, in *Öffentliches und privates Wirtschaften in sich wandelnden Wirtschaftsordnungen*, ed. J. SCHNEIDER, Stuttgart 2001 (Steiner), pp. 83-120, here p. 85.

the other, borrowing data that only appear in one benchmark year but not in the following would distort the picture. Second, as borrowing is simply anticipated taxation, debt matters for the taxpayer only when it comes to paying taxes to finance interest and redemption.

#### 4. THE RESULTS

##### 4.1. *Electorate Saxony*

Next to the Habsburg monarchy and Brandenburg-Prussia, the electorate Saxony was in terms of population Germany's third largest state in the eighteenth century. In Germany, fiscal history has experienced a kind of revival in the past decade. The fiscal history of Saxony, hitherto neglected, has profited in particular from recent scholarly work, so that the data situation is quite satisfactory. Uwe Schirmer collected tax data for the period from the late fifteenth to the mid-seventeenth centuries.<sup>16</sup> In the mid-eighteenth century, the Saxonian revenues were collected by no less than three different treasuries—*Rentkammer*, *Steuerhauptkammer*, *Generalakzisekammer*—which concentrated, by and large, on the public operating surplus, direct taxes and indirect taxes, respectively. A fourth was added in 1773, the *Generalhauptkasse*, which also administered direct taxes. Quite complicated transfers between these institutions render the financial analysis difficult. A recent monograph by Gunda Ulbricht, however, has clarified the issue.<sup>17</sup> After 1767, the next benchmark year is the average of the fiscal years 1809 to 1812, years in which Saxony suffered from the Napoleonic wars. In 1815, Saxony had to cede 57 per cent of her territory and 43 per cent of her population to Prussia.<sup>18</sup>

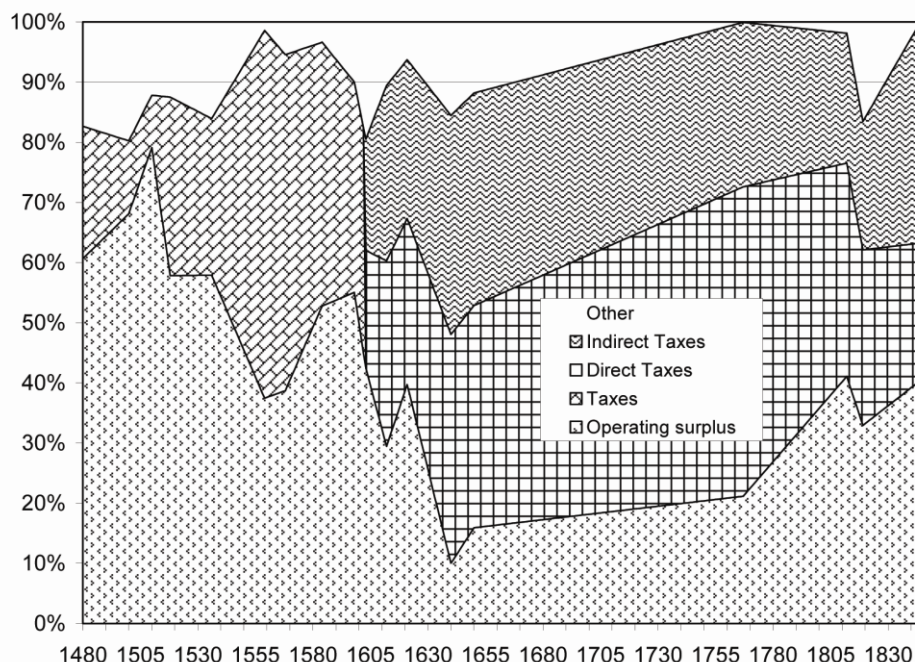
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<sup>16</sup> U. SCHIRMER, *Die Finanzen im Kurfürstentum Sachsen (1553-1586)*, in *Finanzen und Herrschaft. Materielle Grundlagen fürstlicher Politik in den habsburgischen Ländern und im Heiligen Römischen Reich im 16. Jahrhundert*, F. EDELMAYER, M. LANZINNER, P. RAUSCHER eds., Vienna-Munich 2003 (Oldenbourg), pp. 143-185, here p. 184; IDEM, *Kursächsische Staatsfinanzen (1456-1656): Strukturen, Verfassung, Funktionseliten*, Leipzig 2006 (Verlag der Sächsischen Akademie der Wissenschaften), p. 853.

<sup>17</sup> G. ULBRICHT, *Finanzgeschichte Sachsens im Übergang zum konstitutionellen Staat (1763 bis 1843)*, St. Katharinen 2001 (Scripta Mercaturae).

<sup>18</sup> *Ibid.*, p. 24.

Figure 2. Revenue Structure in Saxony, 1478-1844



Notes: Benchmark years are 1559, 1568, 1584, 1621, 1640, 1650, 1767, 1819, 1844 and averages for the years 1478-82, 1492-1508, 1508-12, 1514-22, 1532-40, 1595-1601, 1602-04, 1611-14 and 1809-12. Split between direct taxes and indirect taxes not available prior to 1611.

Sources: 1478-1650 U. SCHIRMER, *Finanzen*, cit., p. 184, IDEM, *Kursächsische Staatsfinanzen*, cit., p. 922; 1767-1844 G. ULBRICHT, *Finanzgeschichte Sachsens*, cit., pp. 18f., 25, 34, 111, 120-133.

Until the mid-seventeenth century, the structure of the Saxonian revenues follows the trend predicted by the Bonney-Ormrod model: the share of the tax revenues increases and that of the public operating surplus decreases from nearly 80 per cent around 1510 to exactly 10 per cent in 1640. This trend was only partially driven by the fate of the Saxonian silver and copper mines which lost their economic importance in the early seventeenth century.<sup>19</sup>

From the perspective of the Bonney-Ormrod model, the data show a somewhat unexpected trend since the second half of the eighteenth century, when the share of the public operating surplus recovered rather than decreased, as the model predicts. This cannot be explained by a disproportionate loss of domains etc. in 1815. Measured in average revenues of the years from 1809 to 1812, Saxony kept 52.5 per cent of her public operating surplus. This trend was not even reversed in the first half of the nineteenth century, when the share of the public operating surplus increased further between 1819 and 1844, from 33 to 40 per cent. There are some uncertainties in the 1819 budget, especially a quite large amount of “extraordinary revenues” which we allocated to “other revenues”.

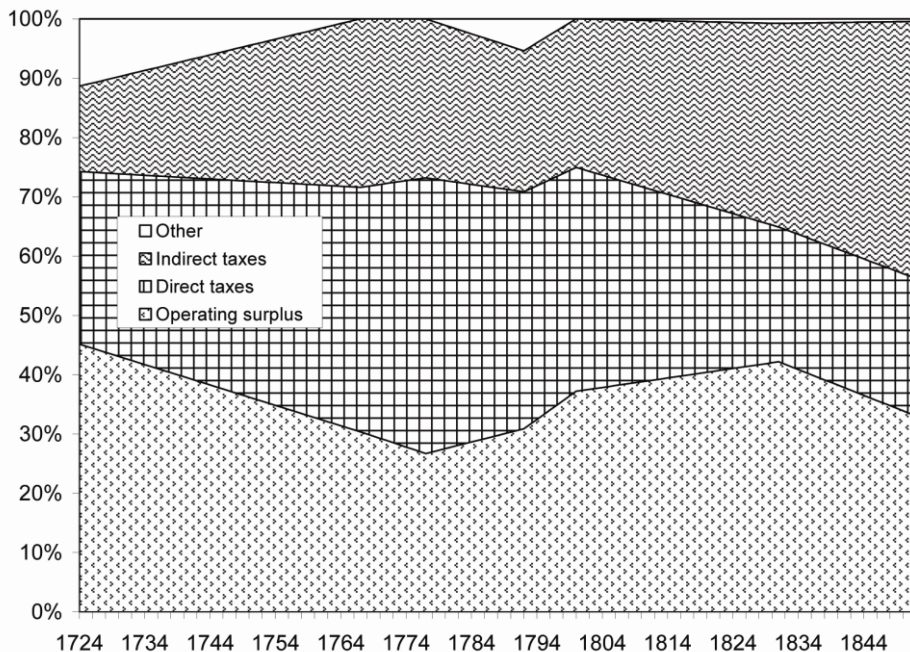
<sup>19</sup> U. SCHIRMER, *Kursächsische Staatsfinanzen*, cit., pp. 757-759

Yet, in any case the share of the public operating surplus in 1844 was still nearly twice as large as in 1767 and four times larger than in 1640.

#### 4.2. Electorate Bavaria

In terms of availability of data, the case of Bavaria (electorate since 1623) is less satisfactory. Here we are able to report revenue data for three benchmark years prior to 1803, the earliest being 1724. At that time, Bavaria had only two treasuries, the *Hofzahlamt* and the *Kriegszahlamt*. While the former administered primarily the domains and other operations belonging to the elector, the latter controlled most of the tax revenues, both from direct and indirect taxes. A third treasury was added in 1728, the *Schuldentilgungskasse*.<sup>20</sup>

Figure 3. Revenue Structure in Bavaria, 1724 to 1852



Notes: Benchmark years are 1724, 1777, 1792, 1800, and averages for the years 1763-72, 1825-31 and 1849-55.

Sources: 1724 calculated from L. HOFFMANN, *Geschichte der directen Steuern in Baiern vom Ende des XIII. bis zum Beginn des XIX. Jahrhunderts. Ein finanzgeschichtlicher Versuch*, Leipzig 1883 (Duncker & Humblot), pp. 134, 139; 1763-72 M.A. DENZEL, *Öffentliche Wirtschaft*, cit., p. 93; 1777, 1792 and 1800 [F. v. Krenner], *Baierischer Finanz-Zustand in den Jahren 1777, 1792, 1798, 1799 und 1800*, Munich 1803 (Hübschmann); 1831 K.F. HOHN, *Grundriß der Statistik des Königreichs Bayern*, Bamberg 1833 (Dresch), pp. 89, 91; 1852; F.W. v. REDEN, *Allgemeine vergleichende Finanz-Statistik. Vergleichende Darstellung des Haushalts, Abgabewesens und der Schulden Deutschlands und des übrigen Europa*, I/1, Darmstadt 1851 (Jonghans), pp. 20, 22.

<sup>20</sup> Cf. E. KLEIN, *Geschichte der öffentlichen Finanzen in Deutschland (1500-1870)*, Wiesbaden 1974 (Steiner), pp. 64-65.

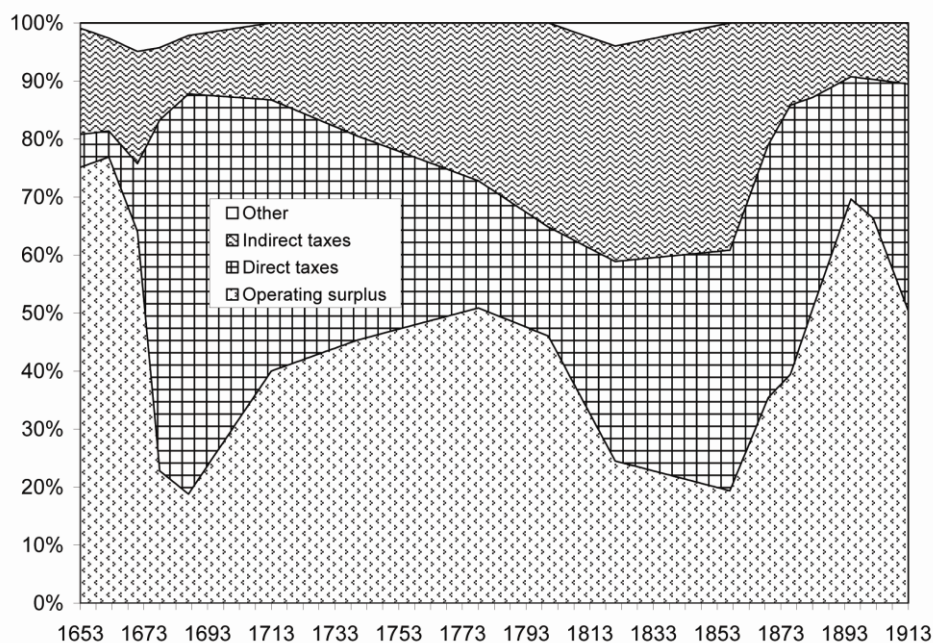


The U-shaped revenue structure of eighteenth century Bavaria resembles that of Saxony in the seventeenth and eighteenth centuries. The share of the public operating surplus fell from 45 per cent in 1724 to 26 per cent in 1777. Thereafter, the trend temporarily reversed, and the share of the public operating surplus climbed to 38 per cent in the late 1820s. The most important operations in this respect were the salines, which continued to contribute large and increasing surpluses, and, later in the nineteenth century, a new public monopoly, the railways.

#### 4.3. *Electorate Brandenburg/Kingdom Prussia*

The Borussophile German historiography has produced a vast amount of studies on Brandenburg-Prussia. Quite a number of them were devoted to fiscal issues, especially in the decades prior to World War I. Hence we have quite satisfactory data for the period after the Thirty Years War.

Figure 4. **Revenue Structure in Brandenburg-Prussia, 1653 to 1913**



Notes: Benchmark years are 1653, 1662, 1671, 1678, 1687, 1713, 1740, 1778, 1800, 1821, 1857, 1869, 1876, 1883, 1895, 1902 and 1913. Split between direct and indirect taxes in 1713 extrapolated from values in adjacent benchmark years.

Sources: 1653-1687 A.F. RIEDEL, *Der Brandenburgisch-Preussische Staatshaushalt in den beiden letzten Jahrhunderten*, Berlin 1866 (Ernst & Korn), appendices III to VI; 1713 E. SCHREMMER, *Taxation and Public Finance: Britain, France, and Germany*, in *Cambridge Economic History of Europe*, 8, Cambridge 1989 (Cambridge University Press), pp. 315-494, here p. 415; 1740 A.F. BÜSCHING, *Zuverlässige Beyträge zu der Regierungsgeschichte Königs Friedrich II. von Preußen: vornehmlich in Ansehung der Volksmenge, des Handels, der Finanzen und des Kriegsbeers. Mit einem historischen Anhang*, Hamburg 1790 (Bohn), pp. 311-312, 316; 1778 W.O. HENDERSON, *Studies in the Economic Policy of Frederick the Great*, London 1963



(Cass), p. 66; 1800 and 1821 F.W. v. REDEN, *Allgemeine vergleichende Finanz-Statistik*, cit., II.2, Darmstadt 1856 (Jonghans), pp. 76-77, 80, 88; 1857-1913 M. SPOERER, *Steuerlast*, cit., pp. 108-109.

Figure 4 shows that the revenue shares fluctuated wildly between mid-seventeenth century and early twentieth century Prussia. The tremendous fall of the share of the public operating surplus in the 1670s is a consequence of increasing tax pressure. In the 1650s and 1660s the Great Elector was able to achieve that the land tax (contribution) which until then had only been levied (and conceded by the reluctant estates) in times of war, became a permanent tax to finance his army, which came into full effect in the 1670s. In the first half of the eighteenth century, however, the domain revenues gained shares again, and it is certainly premature to call eighteenth century Prussia a "tax state".<sup>21</sup> Brandenburg's electors (kings "in" Prussia since 1701) were quite successful to add new domains following a series of territorial gains, especially in Silesia.<sup>22</sup> Although, in the end, Prussia profited enormously from the Napoleonic wars (after having been defeated in 1806), the country was deeply indebted after the Congress of Vienna. Thus the tax burden increased heavily in the years after 1815 while domain surpluses receded due to the depression in agriculture in the 1820s and mid-1830s.

The share of the public operating surplus increased anew after the mid of the nineteenth century. This is due to a number of factors. Public monopolies like the Prussian postal services became increasingly profitable. Moreover, Prussia nationalised most of the railways in the 1870s. In the following decades, the Prussian state railways became the largest German enterprise and amassed tremendous profits. The Prussian chancellor Bismarck used the railways' operating surplus to finance public expenditure. As he was in conflict with parliament which was not willing to consent to new taxes without political concessions, the railway profits were a comfortable extra-parliamentary substitute for tax revenues.<sup>23</sup>

## 5. DISCUSSION

This short survey of the revenue structure of Germany's largest states (except the Habsburg lands) has shown that the German experience, at least that of Saxony and Brandenburg-Prussia, is hardly compatible with the Bonney-Ormrod model. This model predicts the transition from a domain state to a tax state and thus an increasing dominance of tax revenues over domainial and regalian revenues (or the public operating surplus, our preferred notion). As far as Saxony and Brandenburg-Prussia are concerned, this is not the case. With respect to late-nineteenth century Prussia a historian even termed this process the transition to a "railway state".<sup>24</sup>

<sup>21</sup> R. BONNEY, W.M. ORMROD, *Crises*, cit., p. 12. R. BONNEY, *Revenues*, cit., pp. 461-463, cites figures for the split of total revenues that deviate from the ones presented here. He relies on literature on Prussia written in English for which the question discussed here was of secondary importance. Hence the data quoted in that literature is partly unreliable, especially if one compares the figures of F.L. CARSTEN, *The Origins of Prussia*, Oxford 1954 (Clarendon), p. 266, with that of the original source in K. BREYSSIG, *Der brandenburgische Staatshaushalt in der zweiten Hälfte des siebzehnten Jahrhunderts*, in "Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft im Deutschen Reich", 16, 1892, pp. 1-46, 449-520, here pp. 6-7 and 520.

<sup>22</sup> Cf. P. BAUMGART, *The Annexation and Integration of Silesia into the Prussian State of Frederick the Great*, in *Conquest and Coalescence: The Shaping of the State in Early Modern Europe*, ed. M. GREENGRASS, London 1991 (Arnold), pp. 155-181, here p. 165.

<sup>23</sup> Cf. R. FREMDLING, *Freight Rates*, cit.; M. SPOERER, *The Political Economy of Taxation in 19th Century Germany*, in *Taxation, State and the Civil Society in Germany and the United States, 1750-1950*, A. NÜTZENADEL, C. STRUPP eds., Wiesbaden 2007 (Nomos), pp. 51-65.

<sup>24</sup> A. THIER, *Steuergesetzgebung und Staatsfinanzen in Preußen 1871-1893*, in *Staatsfinanzen, Staatsverschuldung, Staatsbankrotte in der europäischen Staaten- und Rechtsgeschichte*, ed. G. LINGELBACH, Cologne et al. 2000 (Böhlau), pp. 311-333, here p. 316.

What does this imply for the Bonney-Ormrod model? On the surface, not much. It is in the very nature of a model that it generalises, and thus it is not too surprising to find exceptions. Compared to France or England, Bavaria, Saxony and even Brandenburg-Prussia were of secondary importance in the seventeenth and eighteenth centuries.

The empirical observations presented here might be interpreted twofold. On the one hand, if they remain the only exceptions or form part of a small club of countries that do not fit the model, one can argue that they indeed are exceptions in the sense of the word. In other words, finding a small number of deviating case studies is not sufficient to reject the whole model, which would mean to forego carelessly the conceptual advantages any model has, in particular the function of a common platform for discussion. This qualification, however, would imply that we have another German *sonderweg* and would call for explanations why the German states differed.

Table 1. Revenue Shares of European States in the Second Half of the Eighteenth Century (in Per Cent)

	Non-tax	Direct taxes	Indirect taxes
Brandenburg-Prussia 1778	51	22	27
Bavaria 1777	26	45	29
Saxony 1767	21	51	27
Württemberg 1733-36	68	20	12
Poland 1782-84	62	0	37
Salzburg 1770	51	34	14
Hanover 1750s and 1760s	48	26	25
Austria-Hungary 1794	45	33	22
Brunswick/Wolfenbüttel 1750 to 1770s	45	31	24
Hamburg 1765-66	44	30	26
Habsburg lands 1773	38	41	21
Hildesheim 1766	37	61	2
Kleve-Mark-Moers 1757-58	36	43	21
Brandenburg-Prussia 1765-66	31	32	38
Bavaria 1777	27	47	26
Sweden 1780s	6	56	38
Britain 1755	2	18	80
France 1780	4	41	55

Sources: Upper Panel Figures 2 to 4, lower panels M. KÖRNER, *Steuern*, cit., pp. 73-74; C. ZACHLOD, *Staatsfinanzen*, cit., p. 282.

What they did, indeed. Martin Körner compiled a large list of mid-European states for which he was able to distinguish the revenues from direct taxes, indirect taxes and non-tax sources, the latter being very similar to our concept of the public operating surplus. Table 1 reproduces Körner's data for the second half of the eighteenth century, together with similar data assembled by Christian Zachlod. This table underlines the much higher importance of non-tax revenues in the mid-European states as compared to the nation states France, Britain and Sweden.

On the other hand, the deviating mid-European experience might highlight deficiencies of the model that either need to be overcome by revising the model so that it fits the mid-European experience (or part of it) as well, or that lead to the rejection of the model

altogether—notabene, not because there are exceptions, but because their analysis might point to fundamental deficiencies of the model. This question will not be resolved here. In the following, we list a few points that might help to revise the Bonney-Ormrod model.

The deviating mid-European experience, especially Saxony and Brandenburg-Prussia's jigsaw trajectory, highlights the teleological character of the Bonney-Ormrod stage model.<sup>25</sup> What criteria must be fulfilled for a transition from one stage to another (domain state, tax state, fiscal state), or more precisely, from one stage to the following to have taken place? Is a rebound possible, and why? The transition from one stage to the following needs a theoretical foundation. Bonney and Ormrod themselves rightly state that “we no longer need just more ‘facts’. We need a more sophisticated framework of reference to which we may relate the new evidence that becomes available.”<sup>26</sup>

Why does the transition from one stage to the next necessarily need a fiscal revolution? The only case presented here that does not clearly contradict the Bonney-Ormrod model, Bavaria, may have had a kind of bureaucratic revolution around 1800 which is usually attributed to Count Montgelas, an advisor of the Bavarian elector. But the fiscal consequence of this revolution from above was, at least temporarily for three decades, an increase of the public operating surplus, not only in absolute, but also in relative terms. Moreover, the notion of a fiscal revolution in the sense of Bonney and Ormrod runs danger of being a tautology: we define the transition from one stage to the next a fiscal revolution, and we hypothesise that a fiscal revolution is required for the transition.

This leads to the question whether we are really able to identify stages in fiscal history, that is levels of temporary and consecutive steady states which are distinguishable from each other. The jigsaw pattern of the Saxonian and Brandenburg-Prussian experiences (Figures 2 and 4) casts doubts on this optimism. By insisting on stages, the Bonney-Ormrod model runs danger of experiencing the fate of Walt Rostow's take-off concept<sup>27</sup> to which hardly anybody still adheres today.

Returning to the development of the revenue shares, one feature of the German experience is striking, the surge of the public operating surplus in the eighteenth and nineteenth centuries. A closer inspection of the budgets would probably reveal that this surge was due to the agricultural, transport and communication “revolutions” of the eighteenth and nineteenth centuries. The increasing spread of scientific agricultural knowledge helped to render the domains more efficient. The state, at least in Germany, was successful in expanding its activities in key economic sectors and organizing them in the form of monopolies. Postal services, an activity in princely hands since centuries, expanded enormously. In the second half of the nineteenth century, the emerging telecommunication sector (telegraph, telephone) as well as the transport of energy required technologies that came along with decreasing average costs. Similarly, building up a railway network also came close to a natural monopoly, an ideal pretext for state intervention. The German states were eager to monopolize these new fields of activity and thus tapped new resources of non-tax revenues. It appears that at least this aspect has been severely underestimated by the Bonney-Ormrod model.

<sup>25</sup> A point that R. BONNEY, W.M. ORMROD, *Crises*, cit., p. 12, probably would reject.

<sup>26</sup> *Ibid.*, p. 3.

<sup>27</sup> W.W. ROSTOW, *The Stages of Economic Growth: A Non-Communist Manifesto*, Cambridge 1960 (Cambridge University Press).