

Constitutional Causes for Technological Leadership: Why Europe?

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Constitutional Causes for Technological Leadership: Why Europe? Abstract

In a paper circulated towards the end of 1997 under the title <u>Why Europe?</u>, Gordon Tullock poses a simple question and provides a tentative, yet provocative answer. The question is why the technological take off took place in Europe and in the 19th century when well into the 18th century other areas of the world, and notably China, looked much better poised for technological and scholarly leadership than Europe. His tentative answer turns on the constitutional composition of the landscape of political entities in Europe. This essay tries to provide some further underpindings to aspects of Gordon Tullock's preliminary answer.

JEL codes: K10, N40, N43, O30, O38

Constitutional Causes for Technological Leadership: Why Europe?

Introduction

In a paper circulated since the end of 1997 Gordon Tullock poses a simple but provocative question. In drawing on the one hand on his extensive expertise on Chinese history and culture and on the other hand on his longstanding interest in the Organization of Inquiry¹ he wonders why the technological take off marking the industrial revolution took place in Europe in the 19th century, when until shortly before that time other parts of the world and notably China looked much better equipped for sustained intellectual, scholarly and technological leadership and the wealth technological leadership can - but not necessarily does - bring about. With this dual possibility in mind, Tullock actually decomposes the question into two and then proceeds to advance his hypothesis. In its most general form, the Tullock hypothesis on European technological leadership can be stated as follows: Europe assumed the technological leadership towards the end of the 18th century due to a set of unique constitutional factors not present anywhere else in the world.

It should be emphasized that this essay does not address the question of why China did not experience the take-off in the way Europe did. This essay deals only with that aspect of Gordon Tullock's research question which deals with the European part of the explanation. In this sense, the explanation offered here is certainly only one piece in the bigger mosaic of the entire explanation. Before this explanatory attempt is made, however, let us try a reformulation of Gordon Tullock's hypothesis in terms of its different elements. These factors can be grouped somewhat differently from Tullock's treatment in order to make the hypothesis more transparent. Section I is devoted to a restatement of Tullock's hypothesis and the seven elements it contains. It turns out that they are by no means accidental aspects of European history but have to do with some constitutional issues of design with further repercussions. Hence, section II looks at the Peace of Westphalia of 1648 and the structure it created in Europe. Section III is devoted to the economic doctrine of Cameralism (mentioned as Tullock's element #4) as well as the competing doctrine of Mercantilism. Deeper roots can be found in the complex legal doctrines which at the time still included the economic ones. Hence, section IV looks at constitutional principles prevalent in Europe at the time. Section V

takes up the special case of Russia (this is element # 2 in Tullock 1997) and the issue of the special Russian school. Section VI in conclusion offers a reassessment of the Tullock hypothesis.

By way of perspective, one should note that Tullock's treatment and the treatment offered here goes further but is by no means incompatible with Douglass North' Structure and Change in Economic History. North takes a universal approach based on the property rights theory and has the question posed by Tullock only implicitly as a side line. The constitutional approach embedded in Tullock's treatment is compatible with the property rights approach.

I. A restatement of the Tullock hypothesis

Tullock's hypothesis about Europe's technological leadership position can be stated as follows, and an attempt is made to stick as closely to his own expression as possible: Europe, due to a set of at least seven different factors, towards the end of the 18th century became an excellent candidate for a leadership position in technology and took advantage of this opportunity. These factors included 1) the absence of a universal state in Europe with the only exception of Spain, a technological laggard; 2) through in support of the peripheral role of Russia as a large centralized system of despotism, despite the high quality of its Academia of Science; 3) the imminence of war and the necessity of military preparedness requiring technological insight in various military related fields such as scientific aspects of sieging, artillery, naval matters, but further logistics, food and health, sanitation and population development as well as financial requirements; 4) the specific doctrine of Cameralism as a multi-disciplinary science and practice of public administration: 5) systematic attempts at avoiding unproductive rent-seeking and using rent-seeking as an arrangement to foster development; 6) low levels and further reductions of transactions costs notably in maritime travel; and 7) the role of science notably as a dynamic process with possibilities for exponential growth.

True enough, other aspects are also mentioned, and in Tullock's formulation element 3 is more strictly focused on technological issues (at the expense of the other ones mentioned).

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¹ Durham: Duke University Press, 1966.

² Douglass North, <u>Structure and Change in Economic History</u>, New York, Norton, 1981.

Yet, these seem to be the leading elements in Tullock's discussion which he regrets to be somewhat ad hoc. It is my purpose in this paper to show that the discussion is not ad hoc at all, once we consider the overall context in which Europe's specific position developed. In the remainder of this section, I am trying to give the argument in a nutshell. At the center of my argument is Tullock's element 4, the peculiar doctrine of Cameralism that developed on the European continent and apparently nowhere else.

As a consequence of a war that ended 80 years of conflict with the First Treaty of Münster and 30 years of conflict with the Second Treaty of Münster and the Treaty of Osnabrück all concluded in 1648, a unique political and economic system had been created in Central Europe that was to have an impact on all the other elements in Tullock's explanation. The system certainly involved the impossibility of a universal state as a successor of the Holy Roman Empire as it had been founded in the night of Christmas in the year of 800. Rather, a complex system of competing but also co-operating states bound together in the Empire formed the core of the system with larger states such as Sweden, France, Spain, Russia but also Britain being on the periphery. Further on the periphery but not unimportant was the Ottoman Empire. As further explained in section II of this paper the Treaty system involved these peripheral states in different ways and established rules of a competitive game among the member states forming the empire, all of which had received by virtue of the Treaty system a modicum of sovereignty never enjoyed before. The preceding wars had brought enormous losses particularly onto Central Europe which lost about four seventh of its population and sustained extensive losses in property, cultural heritage including cultivated land and infrastructure and the like. A daunting task of reconstruction was the consequences which brought about a specific doctrine for economic and cultural development, i.e. Cameralism (element 4) and an emphasis on the role of sciences more generally (element 7). The war had created an acute awareness of military requirements and a need for preparedness on the part of all the rulers involved, in particular since the newly sovereign Central European states, principalities, monasteries, bishoprics, free cities and the like were allowed to enter into defensive treaties with foreign neighbours as long as those treaties or alliances were not directed against the unity of the Empire in general or the Emperor in particular. Here we see the importance of element 3. An important element of the treaties is an emphasis on the issue of trade. The First Treaty of Münster is based on the rule of Law on the Free Seas (with the notable exception of the port of Antwerp). Access was granted to neighboring states to all the major German waterways, i.e. the rivers Rhine, Ems, Weser, Elbe and Oder. Although the

interest of neighboring states to secure control over these rivers was not so much to promote trade but to reap the major benefits from it, the ultimate outcome had to be an increase in the volume of trade and a concomitant reduction in transactions costs, notably transport costs but also the costs of resolving legal issues in international trade. Here, we see aspects of element 5 and the total spectrum of element 6. The issue of the peripheral states requires a special mention. Here, the case of Russia is particularly important from the point of view of scientific development. We shall see in the ensuing discussion that Russia, although a most specific case, is by no means unique, hence element 2 of the Tullock hypothesis probably stands to be substantially enhanced.

Far from being ad hoc, Tullock's seven elements fall into two categories. Element 1 is more specifically the constitutional system created by the Treaties of Westphalia, and this system had substantial repercussions for economic policy, including policies of economic development and warfare, for constitutional principles including those that govern relationships between different public bodies and the interplay between center and periphery notably with respect to the sciences. Among the constitutional principles, the principle of subsidiarity plays a specific and important role. As a consequence of the restrictions imposed upon the princes by the Peace of Westphalia and the Constitutional doctrine that partly made the document possible and partly perfected its implementation, the peculiar doctrine of Cameralism could arise. Here, economic theory developed differently from those countries where the peace treaty did not apply; there, the alternative doctrine of Mercantilism would develop.

II. The Peace of Westphalia of 1648

The Peace of Westphalia of 1648 consists of three treaties. The first treaty between Philip the Fourth, King of Spain and the United Provinces of the Low Countries was made at Münster on the 30th of January of 1648 ending the 80 Years War of the Dutch Republics called the United Provinces of the Low Countries against Spanish rule. The background of this war in which France variously sided with the Dutch was eminently religious, the Protestant Dutch fighting the Catholic rulers, but it was also a war over trade and financial resources. Despite Spain's control over the Americas, the Kingdom derived by far the largest part of its tax revenues from the Low Countries. Next to the Treaty of Münster just mentioned, there are also two further documents dated the 8th of January of 1647 and the 27th of December concerning the relationship between the House of Nassau, Orange and the King of Spain concerning the return of property and fortifications. On the 24th of October 1648, two further treaties were signed in Münster and Osnabrück respectively. The Treaty of Münster of 24th October between the most Christian King of France and Navarre, Lewis the Fourteenth and Ferdinand the Third, elected Roman Emperor, King of Germany, Hungary, Bohemia, Dalmatia, Croatia, Slavonia, Arch-Duke of Austria, Duke of Burgundy etc.³. The titles have been so carefully reproduced as they concern a point further to be discussed in section IV. This war had originally started as a revolt of the Protestants against the Catholic Emperor. While the revolt that actually sparked the war took place in Bohemia, the King of Bohemia being an elector of the Roman Empire, it was rapidly fed by older conflicts and grievances which turned against the Catholic Emperor under the leadership of the Protestant electors, notably the elector of the Palatinate. Ostensibly, France entered on the side of the Catholics, but it ultimately secured a Peace Treaty in which the Emperor in his capacity of Duke of Luxembourg and Landgrave of Alsace ceded territories to the King of France. This cession is remarkable in that the Emperor was thereby violating his own oath of preserving the unity of the Empire. Of course, he could cede territories to another prince provided that other prince would henceforth function as a member of the Empire and if that cession and endowment had taken place according to the rules

of the Empire. These rules, through the 30 Years War, had clearly broken down and the Peace Treaties were an attempt to create a new system of such rules.

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³ Further titles include Duke of Brabant, Styria, Carinthia, Carniola, Marquiss of Moravia, Duke of Luxembourg, of Higher and Lower Silesia, of Wirtemburg and Teck, Prince of Suabia, Count of Habsburg, Tirol, Kyburg, and

The Third Treaty conducted in Osnabrück on 24 October 1648 and concluded between the Emperor in the capacities mentioned above ⁴ and the King of the Swedes, Goths and Vandals, Gustavus Adolphus as succeeded by Queen Christina is a very different document again. The difference between the two treaties of October 24 1648, is readily stated. While France was interested in pushing its eastern border towards the Rhine through annexations, the Swedish strategy under instructions from Queen Christina⁵ show that she was primarily interested in as large a cash payment for "demobilization" as possible, in addition to the territorial gains already made. According to Paragraph 8 and 9 of Article XVI of the Treaty of Osnabrück, the seven northern German imperial circuits of the Rhineland, Upper Saxony, Frankonia, Suabia, Upper Rhine, Westphalia and Lower Saxony were to pay a total of 5 Million Thaler in three installments. Christina's instructions called for twice that amount, and it is clear that the haggling substantially prolonged the war. As for the territorial concessions, the Swedish Crown was willing to renounce annexation and rather take its possessions as fiefdoms within the Empire, honoring rules of succession, rules of decision making in collective bodies and all the feudal rights and responsibilities according to the specific estate received. For instance, the Duchy of Pommerania was being divided, the elector losing the western part and retaining only the eastern one. This concession actually made the peace ultimately possible, and the elector was richly compensated with the rich Abby of Magdeburg, Halberstadt and Minden. However, where the Duke of Pommerania had the chair in the College of Knights, the chairmanship would alternate between the Swedish King and the elector of Brandenburg. This kind of provision is typical for the spirit of the Treaty of Osnabrück. In trying to bring about peace between Catholics and Protestants in their daily life, the Treaty abounds with specific rules governing decision making. Typically, a collective body, such as a bench of knights, a synod of a bisdom or the chapter of an Abby, when two religions are present, is assigned specific rights and operating by a rule of parity, the chairmanship alternating between the two parties. Amazing is in this context the provision about the Bisdom of Minden where the elector of Brandenburg essentially received the secular part of the Bisdom (i.e. the See) with the revenues, while the clerical part was split between various chapters and the knights along

Goritia, Marquiss of the Sacred Roman Empire, Lord of Burgovia, of the Higher and Lower Lusace, of the Marquisate of Slavonia, of Port Naon and Salines.

⁴ It should be mentioned that the Treaty of Münster does not describe the Emperor anymore as the Landgrave of Alsace, this description stems from the Treaty of Osnabrück. In the Treaty of Münster, Ferdinand the Second and the Third are described as the elected and August Holy Roman Emperor. This difference shows up only in the German version of the Treaty, not in the English version from the Toynbee collection.

⁵ Ironically, probably due to a movie starring Greta Garbo, Queen Christina is today often pictured as an angel of peace. Her instructions to the Swedish negotiation team under the guidance of Oxenstierna fail to corroborate that view.

confessional lines. Likewise, in the case of the Bisdom of Osnabrück with two confessions present, the acting bishop was alternately the Arch Bishop of Cologne and the Duke of Brunswick on an annual basis. Similar examples abound.

Economics as a science is by its mission devoted to understanding the human condition and to improve it in the narrow sense of increasing welfare. It is from this point of view that the interpretation of the Peace Treaties flows. This is, after all, the punch line behind Gordon Tullock's research question, which, as was pointed out above, he was quick to disentangle into two separate ones: 1) Why was Europe scientifically so far ahead of China? And 2) Why had this advantage such a relatively small effect on the living standards and the level of development of the mechanical side of civilization for such a long period? The standard interpretation of the Treaties of Westphalia is that France, England and Sweden took control over Germany by imposing an unworkable chaotic system. France had pushed its border far to the west, Britain was aiming to sustain a balance on the Continent and allowing a sovereign entity to control the mouths of the rivers Scheldt and notably Rhine; while Sweden effectively took control of the mouths of the rivers Weser, Elbe and Oder with Prussia (i.e. Brandenburg) getting a foothold on the mouth of the river Ems in Emden side by side with a Dutch garrison. While this interpretation is not incorrect and it clearly reflects the intentions of the foreign parties mentioned, it does not quite capture the full impact of the Treaty system. The Treaty with its many complicated decision making rules is an unbelievably complex legal document that creates a constitutional framework in which a large number of different parties had to operate. By virtue of its conflict resolution procedures, it typically organized zero-sum games; only through co-operation of otherwise opposing interests could any progress be made; otherwise the fallback position would entail a loss for both parties.

By granting the constituent members of the Empire a modicum of sovereignty, they were not completely sovereign but could enter into alliances with foreign parties as long as those were not directed against the unity of the Empire or the Emperor, nor could they for instance leave the Empire, certainly an avenue was opened for foreign interventions in the affairs of the Empire. However, what did this mean in practice? France took full advantage of the possibilities created by Cardinal Mazarin and actively participated in each Imperial election until the demise of the Empire in 1803. Also, France succeeded in creating the Rhine

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⁶ As explained above, this essay addresses only the first aspect of the question as to the possible advantages that Europe had; it is silent on the situation in China.

Federation and thereby did create a military buffer against whatever aggression from Germany there might be. Clearly, chances for such a military move were extremely dim. The policy required France, however, to maintain embassies in a large number of territories, and very well stocked large embassies in each of the seven electorates. The expenditures necessary to maintain this diplomatic effort, which took the form of bribes of the electors in order to swing the electoral decision for the Emperor, substantial subsidies to military campaigns etc., is estimated to have stood at about 5 % of total outlays of the French Kingdom annually. The drain on French resources this arrangement brought about can hardly be overestimated. It is generally believed that the burden of taxation (and the fact that these taxes brought little of value for the taxpaying Frenchman) contributed to the French Revolution of 1789.

The enormous war bounty taken home by Swedish soldiers and in particular officers resulted in some rather impressive architecture in Sweden and Norway, but little else. In the seven German circuits, where the taxes had to be levied from an exhausted tax base, much experience was gathered in assessing taxability and processing tax claims and payments. Given the large number of jurisdictions that had to participate in this endeavor, which was popular due to the fact that this was the only way to get rid of the hated occupation army, underscores the complexity of the administrative task to be accomplished.

One of the surprising features of the Treaty certainly intended following the old maxim of divide et impera, led to agglomerations of different landholdings of different status only bound together by the hereditary legal person of the prince and, in some cases the personal charisma of the same. Brandenburg now held territories all the way from the river Maas to the river Memel, but most of it incontiguous. Similarly, the Palatinate stretched from the Danube all the way along the Rhine river (see the enclosed map), yet purposefully managing this farflung set of holdings must have been anybody's nightmare. Given the many hereditary lines of succession and the vicissitudes of life, sickness and death, marriage and birth, male or female succession, the task of managing one of these hereditary principalities was indeed a challenging one.

Add to this the extreme poverty that had befallen the Holy Roman Empire (i.e. Germany) as a consequence of the devastating war. Next to the extreme loss of population, most of the infrastructure, bridges, mills, cattle, even learning had disappeared. Brandenburg with its

traditionally extensive network of waterways connecting its many lakes and rivers through canals, after the long Swedish occupation found itself in a position that canals that had once been used as waterways could no longer be found. They had just totally disappeared. Farms had been deserted, land had fallen fallow. After the Peace, the elector proceeded to have the canals re-dug again.

With little access to international trade, poorly endowed territories of differing nature and differing legal systems, an exhausted population, far-flung borders and territories and precarious military positions, the many rulers now enjoying their freshly bestowed sovereignty, had to become inventive in their ways of governing. Who would not, would not survive. What form this inventiveness took is the subject of the next section.

III. Cameralism

Oddly enough, the answer to which some of these hard pressed princes turned, and this speaks directly to the Tullock hypothesis, was scholarship and, in particular, the administrative doctrine of Cameralism. Literally taken, Cameralists were those advisors (Schumpeter calls them consultant administrators) to the princes who had immediate access to the chambers of the prince where decisions were taken. Most, but not all of them, were university teachers, often in chairs created for the purpose, often at freshly founded universities. Indeed, the post-1648 period saw the foundation, despite the extreme poverty that had befallen the country, of a large number of universities, a period of expansion that was to be reversed during the Napoleonic occupation which resulted in the closure of half of Germany's universities. As the Cameralists, who already had a multiplier analysis of public expenditure programs, would point out with regularity, a university in their setting provides for an export industry. Students who would otherwise have had to study abroad might stay home and spend their money there and other students could be expected to migrate to the university bringing their spendable funds. The higher is the quality of the university, the more local students will be retained and the more foreign students will be attracted. Hence, Princes were advised to found universities, which required obtaining a charter from the Emperor, typically granted upon his election, when a proclamation as the first imperial act would essentially grant all the privileges that had been promised in order to secure the election. This first declaration was called, fittingly enough, the pragmatic act.

The example of the universities shows a basic reasoning of the Cameralist advisors. Under the assumption that borders were hard to protect, natural resources rarely available and the most important resource an educated population in good health, under the further assumption that able citizens could easily migrate elsewhere, that taxes were hard to levy for that same reasons and tariffs could not be exploited beyond reasonable limits for fear of losing traffic roads, an economic doctrine had to be designed that emphasized development, the education of a well-maintained population, attractive conditions for immigration, law and order, good rules for commerce, a credible but not too expensive army and a stable currency.

Cameralism, basically an economic doctrine, was typically taught in three parts. At the core, there were the principles of public policy, teachings about the operation of markets and the pre-conditions of their functioning. Next to that, issues in technology from mining to forestry, farming, husbandry and the like would be discussed in great detail. And thirdly, the so-called police science, discussed the public law aspects of an orderly commonwealth, including jurisdiction, taxation, but also sanitation, poor laws and the like, typically in some kind of interconnected treatment. In the following section there will be examples of this reasoning.

The first basic assumption for such a Cameralist consultant administrator was, obviously, the territory that had been inherited through rules of succession. The endowment with natural resources had to be taken as a given, but not the endowment with industry and commerce that could be improved upon. For that purpose, legislation had to be introduced that would make industry and commerce attractive. This was particularly the case with respect to the burning issue of religious freedoms. Repeatedly, one of the most hard pressed but also major winners of the 30 Years War, Brandenburg, would invite religious refugees to settle there. The country with few natural resources if any, mostly infertile soil (sand) and wetlands, invited Dutch refugees to settle the Oderbruch, Austrian refugees to settle Eastern Prussia and French Huguenots with either capital or marketable skills. The extreme poverty of the country forced it to promote its fortunes through offering religious freedom, civil liberties, and economic freedom. Earlier than any other country of its size, Prussia became a safe haven for Jews who were granted traders' licenses upon offering the proper credentials; after the emancipation of the Jews Prussia (and notably its major cities) served as a magnet for Jewish immigration. That such a carefully groomed population needs a proper maintenance, health care, food, stable prices in basic food stuffs and the like, drinking water or at least in its absence fresh beer on a daily basis, these precepts we can readily read in the Cameralist literature. That fairs

need to be organized in order to promote commerce, that savings and loans associations that are credible need to be organized in order to provide for capital accumulation, that people must have a positive outlook of the future in order to found families, all these are similar precepts. In great detail, these insights are worked out into basic administrative rules.

A vigilant army is obviously necessary with such precarious borders. Again, one is astonished at the degree of detail of how to maintain an army in good state so as to make it small; on how to avoid campaigns that will inflict unnecessary injuries or suffer exposure to infectious disease; on how to conduct a campaign with a minimum of human loss: all this with the notion in mind that humans are the most important resource these rulers could command. Tolerance towards religions of different denominations was *de rigueur* under such a doctrine; but equally was intolerance against intolerant religions as those would have disrupted the entire carefully constructed edifice. The elector of Brandenburg and second King of Prussia went so far as to once and for all end all disputes between Protestant clergy by forcing Lutherans, Calvinists and other Protestants into one unified church under his own guidance as the supreme bishop. Although a pious man, he had no religious ambitions.

When currencies compete, debasing the currency implies that taxes are being paid in the debased currency and the better coins are retained. However, if a country is able to maintain a stable currency (which also at the time required substantial craftsmanship in minting), it can reap substantial profit from seignorage through exporting the stable currency and taking advantage of neighbors debasing their own. Interestingly, this policy, combined with commercial liberties, solves the problem Adam Smith thought was the Mercantilists' prime objective: receiving as much gold in the country and retaining it there. The mint of the stable currency will receive gold from countries with unstable currencies for it to be minted there, and it will retain the seignorage from this minting as well.

After this sketch of the basic ideas behind Cameralism, it may be interesting to contrast it with the major competing doctrine of Mercantilism. This is an economic doctrine for sea-bound large and contiguous territories that can control their population. Typically, policies towards commerce, taxation, agriculture, but also education and trade are directed at maximizing the state revenue (preferably as mintable specie), where in addition to revenues from military campaigns substantial income is supposed to derive from colonial expansion, the local economy being treated mostly (but not explicitly) as a given. As we noticed earlier, France, indeed, needed substantial revenues in mintable specie to expend in its various lobbying efforts in German capitals so as to fully profit from the terms of the Peace Treaty of Münster.

It can be argued that reliance on income from colonies and military campaigns led to a relative neglect of developing the productive forces at home. There is no such a doctrine in any French or British philosophical system I have so far encountered as in Wollf's (next section) emphasizing the duty to be industrious and the duty to invent. The theory of productive forces, later to be reformulated by Friedrich List, falls into the same intellectual tradition.

IV. Constitutional principles

What appeared like a deliberately organized chaos that the Peace Treaties of Münster and Osnabrück had created, and there can be no doubt about for instance the motives of Cardinal Mazarin, still turned out to be a system of which sense could be made. However, it could require substantial intellectual endeavor to accomplish this feat. On this point I should like to emphasize only one aspect. Each of the territories thus created under one particular ruler, was composed of entities of very different legal status. The ruler might be King of one part, Prince of another, Margrave of yet another, within the same Kingdom enjoy certain rights of jurisdiction in one place and not in the other, be the bishop of one place but not the neighboring one, be the elder of an Abby with the concomitant resources, yet facing a chapter by virtue of faith always opposed to his very existence, be the protector of a Protestant university and accountable to defend its privileges and its faith while himself being a devout Catholic, holding several votes on the Knights Bench in one circuit and opposing those very knights, with whom he would collectively vote, in his capacity as a Count, Prince or Duke in the same circuit, being by oath the protector of a city that would enter into an alliance with a power that was subverting his standing through bribes etc. The potential for conflict was immense, yet so was the potential for designing rules governing those complicated matters. It is in this context that we have to see the work of Christian Wolff, probably the first scholar who had ever received an imperial knighthood only on account of his scholarship, not on account of particular services he might have rendered. His work is important as it laid the groundwork for this complicated system to run and to be able to produce the technological leadership which was the only conceivable resource that could be relied upon, as other resources were no longer available.

Hence, the doctrine about competing princes, but it also entailed many rules of cooperation. The basis of these rules can be found in a complex system of natural philosophy, that was perhaps best and first developed by Christian Wolff, who refers to the basic doctrine of Cameralism in his system of natural law. This interconnection is important in order to understand how the Cameralists as the economic advisors could prevail when foreign and dynastic policy considerations seem to have had a supreme status. As it turned out, the country and the dynasty was best served by following Cameralist principles within the context of the natural law doctrines as set out by Wolff. This is the topic of the following section.

1. The Foundation of Economics as Practical Political Economy

In 1727, Frederick William I of Prussia, who was otherwise not particularly interested in the sciences, got so upset by what he considered to be bad instruction which the students received at the universities that he decided to take action. What he considered "bad" was in particular the inability of the university educators to instill principles of economical behavior in the future administrators of the country. The university graduates, he wrote, are "poor economists" and therefore can be said to "starve the country". The king founded the very first chair in political economy at the University of Halle. During the same year, a second chair was created in Frankfurt (Oder), and other princes followed suit. These royal activities provided a program for political economy. There is a clear marriage of theory and practice, in fact the practice takes the lead. And it is not highbrowed economic policies, which the king aimed at, but economic activities on all political levels, high and low.

An ironic twist in the history of political economy in Germany led the same king to commit a serious blunder in 1723 at the same university, where he gave in to the petitions of a group of jealous theologians and fired his own professor Christian Wolff who in more than one way can be considered the first political economist of influence in Germany. Christian Freiherr von Wolff (1679-1754) was by training a philosopher and mathematician who in his numerous writings contributed to virtually every aspect of knowledge, political economy included. Frederick William's successor, Frederick II (the Great) in 1740 succeeded in re-appointing a by now fairly disgruntled Wolff in Halle as the professor of International Law and "Senior" in the university. An imperial knighthood followed in 1745. This is mentioned because both the peculiar episode and the even more unusual final outcome clearly indicate the importance Wolff enjoyed in his time. Wolff was the first prominent university teacher in economics who stubbornly insisted on publishing his work in German (of course, he also published in Latin).

He enjoyed a very wide following, and the Wolff School dominated university appointments in Germany for quite some time. Wolff approached economics by way of the doctrines of natural law as did Adam Smith, and he established economics as the science of the modern welfare state. This was done in the context of his general theory of the state. Since 1707 he had taught mathematics, philosophy and natural sciences in Halle - between 1723 and his return in 1740 he continued his work in Marburg - and in applying his strictly mathematical i.e. logical deductive approach which he owed largely to Leipniz he succeeded in adding an ethics or practical wing to the philosophy of natural law in order to use this basis for a further development of a rough theory of economic policy. The first step to be taken in this endeavor was his demonstration that the theory of the state (political economy or "Staatswissenschaft") with practical applications was possible at all. I do not want to bore the reader with this "proof" and shall immediately turn to the tasks he defined for the practical political economists. To this very day, practical political economy can be defined in the same terms:

"Now that we have established that a theory of public policy is not impossible, we have to indicate its contours a little more precisely. Whenever advice in political economy is needed, two questions arise: the first is the question of the policy options available. Is a particular measure of economic policy possible, or does it interfere with somebody's rights? The second question concerns the effect or usefulness of a proposed measure: is there a clear advantage in pursuing the policy measure?"

It is perhaps interesting to mention a modern parallel in economic policy analysis: next to problems of allocative efficiency, issues of distributive justice or equity play an important role. However, these economic discussions of equity issues typically do not even refer to the legal framework in which they ultimately have to find their application. This creates the

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den Nuzen ob es nehmlich einen Vortheil bringe, dergleichen zu thun oder nicht."

⁷ Schumpeter (in his <u>History of Economic Analysis</u>. New York: Oxford University Press, 1954, p. 117) also mentions Christian Thomasius (1654-1728) who also taught at the University of Halle since 1694, likewise published in German and also made contributions to public finance. In general, he is considered the founder of German journalism. Schumpeter, however, ranks him more highly than Wolff as an economist, not because he disagrees with Wolff's work, but because Wolff's great interest in the economic events and policies of his day (p. 117) was the interest of a polyhistor. In Roscher's terms, of course, Wolff was undoubtedly an economist.

⁸ Christian Freiherr von Wolff, "Von einer Erwegung der Staatsgeschäfte". In: <u>Gesammlete kleine philosophische Schrifften</u>. Halle: Renger, 1740, S. 372-373.

Nachdem es nun bekannt ist, daß die Erwegung der Staatsgeschäfte nichts unmögliches sey (...): so gebühret es sich nun dieselbige in etwas genauer zu betrachten. So offt man wegen der Staatsgeschäfte zu Rath gehet, so kommen zweyerley Fragen vor. Die eine Art derselbigen betrifft das Recht, ob man nehmlich eine Befugniss zu etwas habe, und es ohne dem Rechte eines anderen zu nahe zu treten thun könne oder nicht; die andere betrifft

possibility that the results of an analysis of welfare economics can be in direct conflict with legal realities. Ultimately, the latter prevail and the ignorance of the legal framework in which economic policy needs to be implemented leads to the impossibility of applying the results of economic theoretical work in practice. Wolff already talked about this problem which plagues modern economics to the extremes, and he insisted on the need to do the legal and economic analysis <u>in tandem</u>:⁹

"The practical political economist has to have above all two character traits: prudence and a sense of justice. A sense of justice is needed in order to ensure that the politicians do not overstep their legal boundaries. Prudence is required in order to prevent those who try to make improvements from actually bringing about damage".

In a way we might argue that Wolff already gave the reasons for the importance of the economic analysis of law or the new institutional economics which both emphasize the legal and institutional constraints of economic policies in order to better assess their likely impact.

Wolff who was an indefatigable author of textbooks, nevertheless argued for their critical use in studying political economy. The ultimate purpose of the academic instruction in political economy is the training of better political economists (Staatswirte) who can make use of their academic instruction in their daily practical work:¹⁰

"Our teaching the art of public office has no other purpose than to make the students aware of what is in the interest of the state and what they can usefully apply in their prudent management of public affairs. Although the teaching at many schools is irrelevant for this purpose, no one will deny that there are some authors whose books

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⁹ Es müssen demnach diejenigen, welchen die Sorge für die Staatsgeschäffte aufgetragen ist, zwey Tugenden vor anderen besizen; nehmlich die Gerechtigkeit und Klugheit. Jene haben sie nöthig damit sie nichts so thun verlangen noch dazu rathen dass man etwas thue, wenn es nicht gerecht ist, und damit sie vor der Ungerechtigkeit einen Abscheu haben: Diese aber wird dazu erfordert, damit sie keinen Schaden anrichten, indem sie Nuzen schaffen wollen. (Ibidem)

¹⁰ Wolff, 1947, p. 409.

[&]quot;Mann lehret ja die Staatskunst in keiner andern Absicht, als damit mann lerne, was dem Staat zuträglich seye, und demnach dazu nüzlich seye, den Staatsgeschäfften klüglich vorzustehen. Ohnerachtet nun diejenige Staatskunst, welche gemeiniglich in den Schulen gelehret wird, solchen gar wenig nüzlich ist, welche mit einer Staatsklugheit versehen seyn müssen: so kan man jedoch nicht in Abrede seyn, dass in den Büchern verschiedener Schriftsteller, welchen man ihr Lob nicht nehmen kan, manches vorkommet, was dabei nüzlich ist, wenn man einen Lehrbegriff aufsezen will".

contain much that is relevant for a systematic teaching (Lehrbegriff) of political economy."

Wolff further explains that next to the theory the application has to be learned as well (§ 10), and that a theory can hardly be applied if the specific circumstances of this application are not adequately taken into account.

So much on Wolff's methods. Equally interesting is what he actually taught as principles of political economy. We find these principles in six chapters of his book on public law, which itself is part III of his <u>Treatise on International Law</u> in six volumes. The central and very modern point is Wolff's definition of the state as a welfare state. In a nutshell, he already describes what we teach in our principles of economics courses today: 11

"It is readily apparent that individual households cannot provide for themselves everything that is necessary in order to satisfy their basic needs, comfort and enjoyments, <u>i.e.</u> wealth. They cannot by themselves be sure to be able to enjoy the fruits of their property and to enforce their property rights. Nor can they defend themselves against aggression from outside. Therefore, we need a common social effort, <u>i.e.</u> a society through which the individual households can attain the maximum of their welfare".

Although Wolff clearly has the germs of the theory of market failure, he is not a modern economist in the sense that he certainly does not subscribe to methodological individualism. For him, the unit of analysis is not the individual but the household. What the individual households cannot provide for themselves is residually defined as the purpose of the state. Yet, Wolff at the same time cautions against overburdening the state. He clearly outlines the limits of state activity: 12

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¹¹ Christian Freiherr von Wolff, <u>Grundsätze des Natur- und Völckerrechts</u>. Halle: Renger, 1754, III, 2.1.

[&]quot;Wir erkennen sehr leicht, daß eintzele Häuser sich selbst dasjenige nicht hinreichend verschaffen können, was zur Nothdurft, Bequemlichkeit und dem Vergnügen, ja zur Glückseligkeit erfordert wird, noch auch ihre Rechte ruhig geniessen, und was sie von andern zu fordern haben, sicher erhalten, noch auch sich und das ihrige wider anderer Gewaltthätigkeit schützen können. Es ist also nötig, dasjenige durch gemeinschaftliche Kräfte zu erhalten, was eintzele Häuser vor sich nicht erhalten können. Und zu dem Ende müssen Gesellschaften errichtet werden".

¹² Wolff, 1754, III, 2.1.

[&]quot;Da die Herrschaft in einem Staate aus seiner Absicht ermessen werden muss (? 976, 972.); so erstreckt sie sich nicht weiter als auf die Handlungen der Bürger, welche zur Beförderung der gemeinen Wohlfahrt gehören;

"Since any measure of public policy has to be derived from and judged by a purpose (\$ 976, 972), it can only support those activities of the citizens which are conducive to the common welfare. Consequently, and since the liberty of the households can only be constrained in the interest of the common welfare, public policy can in no other way interfere with the affairs of the household."

Public policy is exclusively defined in terms of social welfare, and it is limited by the ability of the households to take care of their own affairs. The primary task of the welfare state is the support of the households in such a way that they can take care of their own matters in finding the means for their existence. It is a fairly broad array of different policy measures which Wolff considers as standard economic policy. Yet all these measures have the same purpose: to support the households in their ability to take care of themselves. For this purpose, Wolff already argues for the modern economic policies of full employment¹³, the stability of the currency¹⁴ and even environmental policy. The context of this particularly modern position was the overexploitation of the forests, which in Wolff's time had resulted in a dramatic scarcity of wood and the first systematic policies of reforestation in central Europe. In the area of social policy, Wolff's program was similarly extensive. Again, from the simple principle of enabling the households to take care of their own affairs, he was able to derive a whole spectrum of social policy from the assistance of the poor to orphanages, employment policies, schooling for reemployment to even include free schooling for the children of the poor. 15

Such a broad program for a fairly extensive welfare state immediately raises the question of how to finance it. Again, Wolff is thorough in giving us the whole catalogue of traditional state revenues, but at the same time he warns against using customs duties and taxes. Taxes, he argues, only reduce the value of the object of taxation, a position today argued by Barro. Customs duties will only increase prices of necessities, and should therefore also be avoided. Excise taxes he does not even mention, and income taxes of course would come later.

folglich da nur bloss in Absicht dieser Handlungen die natürliche Freyheit der einzelen Glieder eingeschränckt wird (? 975,77.); so bleibt sie in Ansehung der übrigen Handlungen ungekränckt".

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¹³ "Dass es denen nicht an Arbeit fehle, die Arbeiten wollen" (Paragraph 1021).

¹⁴ "Muss man nicht gestatten, dass Theuerung gemachet werde" (Wolff, 1754, Paragraph 1021).

¹⁵ See Wolff. 1754, Paragraph 1022.

I have so extensively documented Wolff's position here because it already contains the major elements of what was going to become the peculiar contribution of German political economy. Political economy emerged as the science needed for the administration and management of an enterprising welfare state, a science that is inseparably married to its application and the institutions in which it was to be applied. It is no surprise that the German word for political economy talks about the science of the state (Staatswissenschaften), and that the German word for economics (Volkswirtschaftslehre) also has the derivative of a 'Volkswirt', a term not quite correctly translated as economist. A "Wirt" is in modern English a manager, and in German the term applies to the managers of farms, forests, inns and those of the public economy alike. ¹⁶ This emphasis on management is not just a pure linguistic aberration. It is not a co-incidence that Wolff continuously uses the word prudence in order to emphasize that the political economist has to weigh alternatives. He also talks about the art of political economy, not the science. However, he wants to systematically teach this art, and that is what the first professors in political economy indeed set out to do. These political economists were those Cameralists to whom Schmoller had referred in the quote reproduced above.

2. The Subsidiarity Principle: From Wolff's Formulation to the Treaty of Maastricht

In an extended article in the <u>Wall Street Journal Europe</u>, David Howell¹⁷ summarized the subsidiarity principle in the context of ongoing political discussions in Europe as "the undertaking that the Community institutions should only exercise those tasks that they can carry out more effectively than the member states acting separately". But he continued "Yet the more that is heard about the concept of subsidiarity the less protective of the roots of democracy it sounds. Even the word itself seems wrong. It is not actually in the Oxford English Dictionary but the nearest word, subsidiary, means secondary, or subordinate." What appears to be an arcane principle to the observer from across the sea in fact has been a mainstay of European continental thought for several centuries. This short section tries to clarify the meaning of the principle of subsidiarity - which is far from unambiguous - and to explain some of its implications in the context of European unification and the accompanying legal discourse.

3. Early Formulations

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¹⁶ The German terms are "Landwirt", "Forstwirt", "Gastwirt" and "Volkswirt". The manager of a business enterprise is called a "Betriebswirt".

¹⁷ David Howell was then the chairman of the House of Commons Select Committee on Foreign Affairs.

¹⁸ See David Howell, "Ridley and Europe's Power Balance". <u>The Wall Street Journal Europe</u>, July 16, 1990, p. 6, cols. 4-6.

Perhaps one of the earliest formulations of the principle of subsidiarity, which is at the same time one of the first formulations of a full scale state welfare program, can be found in Christian Wolff's <u>Principles of Natural Law</u>, published in 1754. There, in \$\mathscr{S}\$ 1022, he states the following ¹⁹:

In order for all subjects to lead a decent life, it is also necessary that the needy and the beggars receive what they require for their basic needs and, in order not to burden the subjects too much with requests for gifts and donations, one has to pay heed to what the natural law indicates on the subject of gifts and donations (section 488 ff.). Hence it is necessary to build houses of re-education where those who can work, but rather prefer the life of a beggar, learn how to work. Similarly, houses for the poor and destitute are necessary to provide for those who cannot earn their living with their own work and who have no relatives or friends who could support them. Further, it is necessary to have hospitals where the sick can be nourished and healed. Similarly, orphanages are necessary where the poor orphans will be educated as schools for the destitute need to be available in order to teach the children of poor parents, without asking for a fee, all those subjects which for them to know is either necessary or useful.²⁰

Several elements of this exposition are particularly noteworthy. This is first of all the scope of the program of the welfare state, including measures in order to alleviate the consequences of sickness, unemployment, poor health, orphanhood and more generally poverty, in which case access to public schools is guaranteed. Yet the rationale for this government welfare program, as Wolff explicitly states, is to keep the burden of the welfare taxes to be borne by citizens at a minimum. The welfare state intervenes if and because this is the least expensive way to alleviate the problem. Equally noteworthy is the precise circumscription of the instance under which the welfare state has to intervene, <u>i.e.</u> if the person in need has no "relatives or friends

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¹⁹ "Das Leben gehörig hinzubringen, wird auch erfordert, dass man vor die Dürftige und Bettler besorge, was zur Nothdurft des Lebens nöthig ist, und, damit die Unterthanen nicht gar zu sehr mit Allmosengeben beschwehret werden, ist in sorgfältige Betrachtung zu ziehen, was das Naturgesetz von den Allmosen feste setzt (?488.sequ.). Daher sind Zuchthäuser aufzubauen, worinn diejenigen zur Arbeit angehalten werden müssen, welche, ob sie gleich Arbeiten könnten, doch lieber betteln wollen; ingleichen Armenhäuser, worinn man die dürftigen ernähret, die sich durch Arbeiten das nicht zu erwerben im Stande sind, was sie zur Lebensnothdurft gebrauchen, und keine Anverwandten oder Freunde haben, welche sich ihrer Bedürfnisse annehmen könnten; noch ferner Kranckenhäuser, worinn krancke Arme theils ernähret, theils geheilet werden; So auch Waysenhäuser, worinn man arme Waysen erziehet; endlich Armenschulen, in welchen man die Kinder armer Eltern umsonst in demjenigen unterrichtet, was ihnen zu wissen nöthig und nützlich ist."

who can take on the satisfaction of his needs". The welfare state, therefore, is only subsidiary to the traditional bonds of family and friendship. Yet it would be wrong to think of the principle of subsidiarity as conceived by Christian Wolff as one built around individualism. It is not the individual which is considered the smallest unit of support (of others), since that would not have been a realistic description of the political economy of his time. Rather, Wolff puts forth a different economic constitution of his welfare state, with the big households comprehending the extensive family as the nuclear entity of which the larger economy is composed²¹:

? § 972. We realize easily that there will be single households which are unable to sufficiently provide for themselves what they require for their basic needs, their comfort, pleasure and happiness. It is furthermore quite conceivable that single households may not be able to protect with certainty what is theirs and from which they may profit in peace, to demand what they have a right to receive from others and to protect their rightful property against the use of force. It is therefore necessary to maintain with a collective effort what a single household cannot maintain itself. It is with this purpose in mind that societies need to be formed. (§ 836).? ²²

We realize then, that in Wolff's conception the principle supporting the unit of the welfare state was the house, i.e. the classical household or micro-economy; only if it failed, a larger politico-economic unit had to intervene.

The interesting question then is what form this intervention was supposed to take. The answer is already implicit in Wolff; yet note that Schmoller, who was a most careful reader, chided his interventionism; but a more explicit statement can be found in the writings of another authority on political thought in continental Europe writing about a hundred years after Wolff.²³

²¹ § 972. "Wir erkennen sehr leicht, dass eintzele Häuser sich selbst dasjenige nicht hinreichend verschaffen können, was zur Nothdurft, Bequemlichkeit und dem Vergnügen, ja zur Glückseligkeit erfordert wird, noch auch ihre Rechte ruhig geniessen, und was sie von andern zu fordern haben, sicher erhalten, noch auch sich und das ihrige wider anderer Gewaltthätigkeit schützen können. Es ist also nötig, dasjenige durch gemeinschaftliche Kräfte zu erhalten, was eintzele Häuser vor sich nicht erhalten können. Und zu dem Ende müssen Gesellschaften errichtet werden (§ 836).? ²² Wolff 1754, III, 2.1.

²³ "Natürlich folgt aus dieser Notwendigkeit des Besitzes genügender Lebensbedürfnisse noch keineswegs, daß sie gerade der Staat zu liefern habe. Im Gegenteil wird er sich zu diesem Bedürfnis wie zu jedem anderen

Of course, from the need to provide sufficiently for the basic necessities of life it does not follow that it is the state that has to make these provisions. On the contrary, the state will deal with this need as it does with any other demand of its citizens. The state has to provide with its administrative means only if there is an undeniable basic need coupled with the impossibility to satisfy this need with private means. As a rule, this condition will not be met, if the state follows a general policy encouraging the formation of wealth by its citizens.²⁴

We can conclude from this discussion that the structures created by the Peace of Westphalia, unworkable as they may seem at first sight, gave rise to an intellectual response that not only led to doctrines guiding economic development (Cameralism) but also those guiding complex organizational design and, in particular, an allocation of competencies according to what basically are concepts of economic efficiency in organizational design. An example is the subsidiarity principle which has now re-appeared in the Treaty of Maastricht. It was totally unknown in the Anglo-Saxon context, and in the Roman countries only through the version promulgated by the Catholic Church. In the German language countries, it had for long been a main stay of public law, being a necessary response to the multifarious relations of competitiveness and complementarity among different public bodies as created by the Treaties of Westphalia.

V. The Russian School

"Russia", writes Gordon Tullock, "on the edge of Europe was a large centralized despotism, and did not do very much in the way of leading the development of a modern economy. Surprisingly, in science the Russian Academy of Sciences, where Leipniz spent time was certainly as advanced as those of the Western countries." (p.6) Indeed, Germany was surrounded by countries with leading academies, not only those of Saint Petersburg but also the British Academy, the French Academy and others. There was active intellectual exchange between German scholars and those academies. Yet, surprisingly, often the benefits from the

Verlangen seiner Bürger verhalten. Er hat also namentlich polizeiliche Hilfe nur dann zu gewähren, wenn bei der grösseren Allgemeinheit eines Bedürfnisses auch die Unmöglichkeit vorliegt, daßelbe mittels Privatanstrengung zu befriedigen. Und in der Regel wird Letzteres nicht der Fall sein, wenn die allgemeinen Massregeln zur Erwerbung von Vermögen gehörig getroffen sind und benützt werden."

research at these academies flowed primarily back into Germany. The case of the Russian School may serve to illustrate this point. In his history of political economy in Germany²⁵, Wilhelm Roscher discussed the existence of what he termed the German-Russian School of Economists. The background is the following. After occupying Germany, Napoleon proceeded to close about half of Germany's universities. Consequently, many professors found themselves without being provided for. The Russian Emperor, Alexander the First Pawlowitsch (1801 - 1825) took advantage of this catastrophe and sent recruiters to hire the displaced scholars, offering lucrative salaries and paying for the transportation of the newly hired and their families as well as, importantly, their libraries. For instance, after closing the University of Halle in 1806, Ludwig Heinrich Jakob, who had taught there since 1791, went to Charkow to teach Political Economy at the university there, writing numerous important works devoted to the special situation in Russia and becoming soon a member of the legislative commission on taxation. Likewise, Christian Schlözer (1774 - 1831) taught history at the Saint Petersburg Academy. Finally, Karl-Heinrich von Storch (1766 - 1835), an ethnic German and Baltic nobleman, received his education in Germany but returned to Russia in order to become a member of the Academy in Saint Petersburg and the teacher of the Russian Princes. Numerous other examples could be cited and for all the then existing academic disciplines. It is now interesting to look at what happened with these three scholars whose curricula vitae should only serve as an example. In 1816, Jakob returned to the University of Halle which had been reopened and in recognition of his important work for Russia was ennobled and released with greatest honors. However, his most important influence would develop in Germany, where he published the first textbook in Public Finance²⁶ that would go through many editions. Schlözer, likewise ennobled (in 1802) became a professor of Philosophy at the University of Göttingen, where he taught until 1809. His influence in Germany was enormous, it is hard to find traces of his work that changed anything in Russia. Karl-Heinrich von Storch is different in that he stemmed from a Baltic noble family that traditionally had served the Russian Empire. With a scholarship collected by the merchants of his home town, he went to study in Germany, forewent, however, offers to become a professor there and returned to Saint Petersburg where he became a privy councilor of the state, a knight in the order of Saint Anne, a member of the Academies of Saint Petersburg, Munich and various others and the instructor to the "Imperial Highnesses, the Grand Dukes

²⁴ Robert von Mohl, <u>Die Polizeiwissenschaft nach den Grundsätzen des Rechtsstaates</u>, Tübingen, 1844 (2), pp.

²⁵ Wilhelm Roscher, <u>Geschichte der National-Oekonomik in Deutschland</u>, München: Oldenbourg, 1874.

Nicholas and Michael". Again, as he wrote numerous works on Russian questions, his most important piece is clearly his course in Political Economy (in French) which served him to instruct the Imperial Princes. Not surprisingly, the course was written in French (presumably the instruction took place in French as well) - there is a German edition, however; but the history of the work is interesting in its own right. Storch had secured his French colleague Jean Baptiste Say the title of Knight in the order of Saint Wolodimir and a membership in the Imperial Academy of Sciences of Saint Petersburg. Say felt justified in publishing Storch's Cours d'Economie Politique in Paris with his own numerous annotations.²⁷ The work is organized in two parts, part I entitled *Theory of the Wealth of Nations* containing eight books concerned, respectively, with an introduction, book 1 on the production of wealth, book 2 on the accumulation of wealth and the funds, book 3 on the primitive distribution of wealth, book 4 on the circulation or secondary distribution of wealth, book 5 on the 'numéraire', where this money is defined as first serving the purpose of unit of account and second having an although insignificant use value, book 6 on credit, book 7 on consumption and book 8 on the natural progress in the wealth of nations. The big surprise is part II, which consists of just two books. It is entitled Theory of Civilisation, has an introduction, and book 1 on the elements of civilization, or the so-called internal goods which include health, education, light, taste, customs, religious cults, secondly, certainty and leisure all the way to a complete theory of taxation. Secondly, book 2 deals with the progress of civilization, adding the dynamic part. The work concludes with chapters on the influence of wealth on immaterial labor, the influence of the civilization on industry, the mutual complementarity of wealth and civilization and the real conclusion that the equilibrium is constituted as the national prosperity when civilization and production of wealth grow in tandem. This remarkable work apparently never circulated in Russia. It was published in German and in the 1823 and 1824 edition in France, marketed, however, through the same publisher in Leipzig and London. It is bound in five volumes. Volumes I through III contain the ten books just mentioned. Volume IV contains the table of contents and Jean Baptiste Say's extensive notes, which infuriated the author to such an extent that the publisher had to add Volume V which is a restatement with respect to the example of measuring the wealth of a particular nation in terms of both the material wealth and the immaterial wealth to which the second part (books 9 and 10) had been devoted. Again, we have the spectre, as in the case of Jakob and Schlözer, of an enormous inspiration gained in Russia, a sensible and sincere attempt to deal squarely with the Russian

Einleitung in die Studien der Finanzwissenschaften und Leitfadenbei Vorlesungen, Halle 1819.
 Henri Storch, <u>Cours d'Economie Politique</u>, Paris, Aillaud, 1823 (1824).

conditions and adapt Central European insight to it; yet hardly any influence in Russia itself though extensive reverberations in Central Europe.

Hence it seems, as illustrated by just this episode of the Russian School of Economists, that the peculiar system that the Peace of Westphalia had brought about allowed Germany to absorb academic insight even when it had been produced elsewhere; and to do so much more readily than could have been anticipated, looking at the affiliations of the scholars concerned. Again, the system of intense competition among different public bodies made the scramble for new insight the reason for this astonishing feature.

VI. Conclusion: A reassessment of the Tullock Hypothesis

In wrapping up the story, we can conclude that Tullock's hypothesis, that seven factors were conducive to securing Europe's leadership in technology and scholarship at the end of this millennium (but conceivably not beyond that) have their causes in the Treaty System of Westphalia of 1648. It is this treaty system that provided for a large area within Central Europe to be without a unitary state, unitary states on its borders to intercommunicate with this area (called the Holy Roman Empire), and that the different elements can be mentioned in just a very few categories. Next to the Treaty System of Westphalia, there is the doctrine of Cameralism, the intricate system of public and international public law proposed by such people as Wolff and extending well into current European treaty making, as well as the important interconnections between center and periphery. The enormous devastation of the 30 Years War which gave rise to the Treaty System of 1648 also serves to explain why the welfare of the people only could be elevated after a period of almost six generations after 1871. It is almost an irony that this coincided with the advent of what many (mistakenly) assume to have been the advent of a new unitary German state.

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