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Bimetallism and its Discontents: Cooperation and Coordination Failure in the Empire's Monetary Politics, 1549–59

ABSTRACT: The article uses new sources to review the hypotheses that Charles V's currency bill of 1551 failed because of the electoral-Saxon resistance against the undervaluation of the *taler* that it stipulated, or because the emperor was too weak to overcome the estates' resistance to collective action in monetary policies. The study shows that these issues were overshadowed by the dispute about whether a bimetallic currency should be established. Charles V's currency bill failed because the Diet of Augsburg (1550–51) asked the emperor to publish it before all open issues had been resolved. This request placed the emperor in a dilemma where he had to make a decision but could not do so without antagonising important parties. It was the result of a coordination failure at the level of the Empire, which in turn was a consequence of a lack of continuity among those personnel involved in shaping monetary policies.

Keywords: Monetary Politics, Currency Unions, Coinage, Bimetallism, Early modern history

JEL-Codes: E50, H10, H60, N10, N40

1. Introduction

In June 1557 31 deputies, who represented 140 of the more than 300 estates of the Holy Roman Empire, met in Speyer to discuss monetary policies. The topic was the currency bill Charles V had published six years before, the issue at hand the fact that most estates had so far failed to fully implement this law.¹ The Imperial Diet had met in the city of Regensburg during the winter 1556 to 1557 to discuss the problem. There, the estates had suggested making use of an audit of the Imperial Chamber Court in Speyer planned for the coming summer to convene a currency conference at the same place. Any estate holding grievances or complaints against Charles V's bill should make their views known; the deputies would discuss

¹ The currency bill, dated 28 July 1551, was printed by Philipp Ulhart in Augsburg. A reprint appeared in a late sixteenth-century collection of Imperial law: Heinrich Brehm: Extract AVß allen Reichs- vnd Deputations Abschieden vom Jahr 1356 vnd also von zeiten der guelden Bulla hero, was wegen gemeines Muentzwesens, Item von weiland Keyser Carolo V. Anno 51 so wol von Keyser Ferdinando Anno 59 außgegangenen erneuerten Edicten vnd Muentzordnungen, Valuation aller guelden vnd silbern Sorten vnd damals auffgerichter Probationordnung ... verordnet worden. Mainz 1597, fol. 8r–21v. A more recent print appeared in Johann Christoph Hirsch: Des Teutschen Reichs Münz-Archiv, Bd. 1. Nürnberg 1756, no. CCXII, pp. 344–365. For a modern critical edition see Oliver Volckart (ed.): Eine Währung für das Reich: Die Akten der Münztage zu Speyer 1549 und 1557. Stuttgart 2017, no. 90, pp. 344–372. For the recess of the coinage conference of June/July 1557 see: *ibid.*, no. 107, pp. 429–431.

them and would submit the results of their deliberations to the next Imperial Diet who would make a final decision.²

At the currency conference, King Ferdinand – Charles V's brother and designated successor – was represented by two commissioners. The report they sent to their principal emphasised the constructive atmosphere in Speyer. They praised 'with what even-mindedness even those estates' had joined the talks, 'who at the recent Imperial Diet had sharply and with bitterness cried out about the bill and law and had emphasised the serious complaints they held against it'.³ Even so, more than enough bitterness was in evidence. The deputies of the electors of Saxony, Cologne and the Palatinate flatly denied that their masters had ever agreed to Charles V's currency bill, and the chancellor of the elector of Mainz stated that the publication of the law had never been authorised; it remained to be seen who had sent it to the printer 'but the chancellery of Mainz was inculpable in this'. According to the report the delegates of the Saxon elector sent home, this was the cue for almost all other deputies: they had not realised that the bill had not been passed unanimously; if they had known, their masters would not have agreed to it, nor would they have started to issue coins in accordance with its regulations 'and all confessed and stated that it would have been much better if this currency law and ordinance had never existed'.⁴

What had happened? This was no squabble about details of economic policies that had little practical relevance; rather, what was at issue was one of the central fields of politics pursued at the level of the Empire. There was no other economic problem that occupied emperors and Empire as permanently as that of how to create a common currency. Since the 14th century, emperors had tried to make their influence felt in this field,⁵ and since Sigismund of Luxembourg's time the issue was regularly discussed at Imperial assemblies.⁶ At his election in 1519, Charles V had promised to remedy the deficiencies from which the money used in the Empire's suffered,⁷ and the Imperial Governing Council (*Reichsregiment*) had in 1524 pub-

² Josef Leeb (ed.): *Reichsversammlungen 1556–1662: Der Reichstag zu Regensburg 1556/57*, vol. 2. Munich 2013, no. 447, p. 992.

³ Österreichisches Staatsarchiv, Haus-, Hof- und Staatsarchiv Wien, RK Berichte aus dem Reich 5b, fol. 327r.

⁴ Volckart (ed.): *Währung* (see n. 1), no. 96, p. 388.

⁵ Hendrik Mäkeler: *Reichsmünzwesen im späten Mittelalter, Part 1: Das 14. Jahrhundert*. Stuttgart 2010, p. 215; idem: *A New Perspective on the Imperial Coinage*, in: Roman Zaoral (ed.): *Money and Finance in Central Europe during the Later Middle Ages*. London 2016, pp. 25–31.

⁶ For the policies aimed at creating a common currency since the early 15th century see Thomas Christmann: *Das Bemühen von Kaiser und Reich um die Vereinheitlichung des Münzwesens: Zugleich ein Beitrag zum Rechtssetzungsverfahren im Heiligen Römischen Reich nach dem Westfälischen Frieden*. Berlin 1988, pp. 37–42.

⁷ August Kluckhohn (ed.): *Deutsche Reichstagsakten unter Kaiser Karl V.*, vol. 1. Gotha 1893, no. 387, p. 874.

lished a currency ordinance that aimed at achieving this.⁸ However, it had done this in the emperor's absence and without consulting the Imperial Diet. Neither Charles V nor the majority of the estates recognised the ordinance, far less enforced it.

Now, in the 1550s, the situation had changed. When the chancellor of the elector of Mainz claimed that no-one had ever authorised the publication of the Imperial currency bill, he was not entirely correct. The Augsburg Diet of 1550-51 had discussed the bill and asked the emperor to make it public. He was to do this immediately after a comprehensive so-called valuation: a metallurgical analysis of old coins and money minted outside the Empire that was to determine at what value these units were to continue in circulation until sufficient new coins had been minted to replace them.⁹ Charles followed the Diet's request to the letter. The valuation took place in spring 1551 in Nuremberg; its final report was submitted at the end of May,¹⁰ and in late July the emperor published the bill. Still, as will become clear, the chancellor of Mainz did not quite pluck his argument out of thin air. His master had reasons to complain, as had the electors of Trier, Cologne and of the Palatinate. Why this was the case – why, in other words, Charles V's currency bill met with so much resistance – is the question at the heart of this article. The analysis focuses on the dispute about whether a bimetallic currency should be introduced, i.e. a monetary system where the ratio of gold and silver coins was fixed by law and where coins made of both metals were legal tender.¹¹ The investigation also sheds light on what constituted Ferdinand I's achievement: Unlike Charles V, he managed to generate broad consent for a fundamentally revised version of the currency bill that became effective in 1559. This new bill was to prove so successful that it shaped the Empire's monetary system until the late 18th century.

The core of this article is formed by two structural sections (4 and 5). They introduce the parties dominating the discussions about monetary reform in the decade between 1549 and 1559, focusing on their aims and their underlying motives. These sections are framed by two others that discuss historical events: Section 3 explains how the process of reform gained momentum in the second half of the 1540s and how decision making was organised, while section 6 follows the further development of monetary policies until the passage of the currency bill of

⁸ The Esslingen currency ordinance of 10 Nov. 1524 is printed in Heinrich Christian von Senckenberg / Johann Jacob Schmauß (eds.): *Neue und vollständigere Sammlung der Reichs-Abschiede*, vol. 2. Frankfurt 1747, pp. 261–269 and Hirsch: *Münz-Archiv* (see n. 1), no. CLXVII, pp. 240–248.

⁹ Erwein Eltz (ed.): *Deutsche Reichstagsakten unter Kaiser Karl V.: Der Reichstag zu Augsburg 1550/51*, vol. 2. Munich 2005, no. 305, p. 1590.

¹⁰ Volckart (ed.): *Währung* (see n. 1), no. 88, pp. 318–342.

¹¹ Cf. Friedrich Zellfelder: *Bimetallismus*, in: Michael North (ed.): *Von Aktie bis Zoll: Ein historisches Lexikon des Geldes*. Munich 1995, p. 56; François R. Velde / Warren E. Weber: *A Model of Bimetallism*, in: *Journal of Political Economy* 108 (2000), pp. 1210–1234, here 1210 f.

1559. First, however, the current state of research and the sources on which the present article is based are described (section 2). A conclusion (section 7) summarises the main findings.

2. Literature and sources

Much of the literature on the creation of a common Imperial currency in the sixteenth century stands in the shadow of Friedrich Freiherr von Schrötter's work.¹² About a century ago, Schrötter was the first to advance the core hypothesis that has since dominated research.¹³ According to him, the Empire's monetary policy was shaped by the clash of interests between those estates who controlled their own silver mines and those who did not. Fritz Blaich adopted this view, and large sections of the more recent literature followed him.¹⁴ It is this clash that is generally regarded as the main cause of the perceived failure of the Empire's currency laws – i.e. not only of the ordinance of 1524 but of the bills in the 1550s, too.¹⁵

Concerning the bill of 1551, research stresses an additional factor: the rate it set for the *taler*. The estates who issued this widely popular coin – most importantly the Saxon Elector Maurice – are thought to have considered this rate as too low and as such they refused to cooperate in implementing the bill.¹⁶ An alternative explanation Petr Vorel suggested some years ago emphasises political factors, too. According to Vorel, the clash between estates with and

¹² For the Empire's 16th-century monetary policies see Friedrich Freiherr von Schrötter: Das Münzwesen des deutschen Reichs von 1500–1566, Teil I, in: Schmollers Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft 35 (1911), pp. 129–172; idem: Das Münzwesen des deutschen Reichs von 1500–1566, Teil II, in: Schmollers Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft 36 (1912), pp. 99–128; Fritz Blaich: Die Wirtschaftspolitik des Reichstags im Heiligen Römischen Reich: Ein Beitrag zur Problemgeschichte wirtschaftlichen Gestaltens. Stuttgart 1970, pp. 9–66; Herbert Rittmann: Deutsche Geldgeschichte 1484–1914. Munich 1975, pp. 185–208; Christmann: Vereinheitlichung des Münzwesens (see n. 6), esp. pp. 72–88; Bernd Sprenger: Das Geld der Deutschen: Geldgeschichte Deutschlands von den Anfängen bis zur Gegenwart. Paderborn et al. 2002, pp. 96–105; Konrad Schneider: Reichsmünzordnungen, in: Michael North (ed.): Von Aktie bis Zoll (see n. 11), pp. 336–338; Petr Vorel: Monetary Circulation in Central Europe at the Beginning of the Early Modern Age: Attempts to Establish a Shared Currency as an Aspect of the Political Culture of the 16th Century (1524–1573). Pardubice 2006, *passim*; Michael North: Geld- und Ordnungspolitik im Alten Reich, in: Anja Amend-Traut / Albrecht Cordes / Wolfgang Sellert (eds.): Geld, Handel, Wirtschaft: Höchste Gerichte im Alten Reich als Spruchkörper und Institution. Berlin / Boston 2013, pp. 93–101, here 93 ff.; Oliver Volckart: Die Reichsmünzordnung von 1559: Das Scheitern reichseinheitlichen Geldes, in: Dieter Lindenlaub / Carsten Burhop / Joachim Scholtyseck (eds.): Schlüsselereignisse der deutschen Bankengeschichte. Stuttgart 2013, pp. 26–37, *passim*; for specific phases or aspects of these policies: Schrötter: Münzwesen, Teil II (see n. 12); Hans-Wolfgang Bergerhausen: "Exclusis Westphalen et Burgundt": Zum Kampf um die Durchsetzung der Reichsmünzordnung von 1559, in: Zeitschrift für historische Forschung 20 (1993), pp. 189–203; Oliver Volckart: Power Politics and Princely Debts: Why Germany's Common Currency Failed, 1549–1556, in: Economic History Review 70 (2017), pp. 758–778.

¹³ Cf. the literature survey in Volckart: Die Reichsmünzordnung von 1559 (see n. 12), pp. 27 f.

¹⁴ Blaich: Wirtschaftspolitik (see n. 12), p. 19.

¹⁵ Christmann: Vereinheitlichung des Münzwesens (see n. 6), pp. 90 f.

¹⁶ Rittmann: Deutsche Geldgeschichte (see n. 12), p. 198; Christmann: Vereinheitlichung des Münzwesens (see n. 6), p. 71; Michael North: Von der atlantischen Handelsexpansion bis zu den Agrarreformen 1450–1815, in: idem (ed.): Deutsche Wirtschaftsgeschichte: Ein Jahrtausend im Überblick. Munich 2001, pp. 107–191, here 173; Vorel: Monetary Circulation (see n. 12), p. 92.

without silver mines lost much of its previous importance in the 1540s, when bullion from the New World started to reach Europe. Charles V's currency bill failed neither because of this nor because it rated the *taler* too low; rather, it failed because the emperor was politically too weak to force the multitude of parties resisting the creation of a common currency to cooperate.¹⁷

What much of prior research has in common is its reliance on essentially the same primary sources that were used already by Schrötter.¹⁸ By now, however, it has become possible to access far more material. Since the turn of the century, the publication of the acts of the Imperial Diets has advanced rapidly.¹⁹ Further sources have been published in a recent volume in the '*Deutsche Handelsakten des Mittelalters und der Neuzeit*'-series that focuses on monetary politics:²⁰ It makes available the effectively complete records of the currency conference of Summer 1557 in Speyer, some of whose participants were quoted at the start of this article, and of two other such conferences that also took place in Speyer in the year 1549.

The present article uses these sources to examine the extent to which they bear out the widely accepted hypothesis that the failure of Charles V's attempt to create a common currency in 1551 was due to the electoral-Saxon resistance against the undervaluation of the *taler* or to the emperor's inability to enforce his will vis-à-vis intransigent estates. The new sources allow demonstrating that neither of these problems were decisive, and that the most relevant issue was the creation of a bimetallic system. The analysis approaches the problem of bimetallism from a direction that differs from the one taken by much of modern research. There, the usual aim is to determine why and when bimetallic currencies were able to function despite changes in the relative market prices of gold and silver. Most studies refer to modern conditions; Britain's adoption of the Gold Standard since the 18th century and France's bimetallic currency in

¹⁷ Vorel: Monetary Circulation (see n. 12), pp. 56, 129, 133.

¹⁸ Both the collection and analysis of post-1560 sources have advanced, though. Most research in this field concerned the role the Imperial circles played in implementing the currency bill of 1559; cf. Hans-Jürgen Gerhard: Ein schöner Garten ohne Zaun: Die währungspolitische Situation des Deutschen Reiches um 1600, in: Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte 81 (1994), pp. 156–177. Much of this research was done in the context of a project funded by the Volkswagen foundation in the 1990s. Hans-Jürgen Gerhard: Ursachen und Folgen der Wandlungen im Währungssystem des Deutschen Reiches 1500–1625: Eine Studie zu den Hintergründen der sogenannten Preisrevolution, in: Eckart Schremmer (ed.): Geld und Währung vom 16. Jahrhundert bis zur Gegenwart. Stuttgart 1993, pp. 69–84. For the recent re-evaluation of the Empire's monetary policies see Michael North: The Reception of Imperial Monetary Reforms in 16th-century Northern Germany, in: Roman Zaoral (ed.): Money and Finance (see n.5), pp. 32–41.

¹⁹ Important in the present context: Rosemarie Aulinger (ed.): Deutsche Reichstagsakten unter Kaiser Karl V.: Der Reichstag zu Worms 1545, vols. 1–2. Munich 2003; Ursula Machoczek (ed.): Deutsche Reichstagsakten unter Kaiser Karl V.: Der Reichstag zu Augsburg 1547/48, vols. 1–3. Munich 2006; Eltz (ed.): Der Reichstag zu Augsburg 1550/51, vols. 1-2 (see n. 9); Leeb (ed.): Der Reichstag zu Regensburg 1556/57, vols. 1-2 (see n. 2). Hirsch's 'Münz-Archiv' that appeared between 1756 and 1761 is still not entirely outdated. Hirsch: Münz-Archiv, vols. 1–7 (see n. 1).

²⁰ Volckart (ed.): Währung (see n. 1).

the first half of the 19th century are popular topics.²¹ Whether and how bimetallic currencies functioned in the late Middle Ages and the early modern period is a question that seems to have been as under-analysed as who was interested in such a currency for what reasons, and who was not. The latter question is addressed here.

3. Agents, institutions and the momentum of reform

After it had become evident that the currency ordinance published by the Imperial Governing Council in 1524 would never come into force, the creation of a common currency valid in the whole Empire remained on the program of practically every Imperial Diet. Initially it proved impossible to reach an agreement. However, Charles V's success in the Schmalkaldic War, his capture of Landgrave Philip of Hesse and of the Saxon Elector John Frederick, and his transfer of the electorship to Maurice of Saxony changed the Empire's political landscape. Charles intended to strike while the iron was hot. Next to his plan of reforming the Empire's constitution and breaking the Protestant-Catholic deadlock, the common currency project was at the top of his agenda.

The Augsburg Diet of 1547-48 focused on the first and second issues. As for the third, all present agreed that the money used in the Empire was in urgent need of reform. However, they also agreed that a Diet was not a suitable forum to solve the problems this involved. As the councillors of Charles V put it a little later, experience had shown that it was impossible to reach a currency agreement within a Diet. The emperor, electors and other princes might be present but currency experts were normally not; moreover, there was usually so much else to discuss that no time was left for currency issues.²² In Augsburg, the emperor therefore suggested convening a separate currency conference; electors and princes proposed Speyer as the venue and 2 February 1549 as the start date.²³ The Diet gave this conference the most comprehensive mandate imaginable. The estates should send fully authorised expert councillors

²¹ Cf. Angela Redish: The Evolution of the Gold Standard in England, in: *Journal of Economic History* 50 (1990), pp. 789–805; eadem: The Persistence of Bimetallism in Nineteenth-Century France, in: *Economic History Review* 48 (1995), pp. 717–736; eadem: Bimetallism: An Economic and Historical Analysis. Cambridge / New York 2000; Velde / Weber: A Model (see n. 11), *passim*; Marc Flandreau: Adjusting to the Gold Rush: Endogenous Bullion Points and the French Balance of Payments, in: *Explorations in Economic History* 33 (1996), pp. 417–439; idem: As Good as Gold? Bimetallism in Equilibrium, 1850–70, in: Maria Cristina Marcuzo / Lawrence H. Officer / Annalisa Roselli (eds.): *Monetary Standards and Exchange Rates*. London / New York 1997, pp. 150–176; idem: “Water Seeks Level”: Modelling Bimetallic Exchange Rates and the Bimetallic Band, in: *Journal of Money, Credit and Banking* 34 (2002), pp. 491–519; Claude Diebolt / Antoine Parent: Bimetallism: The “Rules of the Game”, in: *Explorations in Economic History* 45 (2008), pp. 288–302; Pilar Nogues-Marco: Competing Bimetallic Ratios: Amsterdam, London, and Bullion Arbitrage in the Mid-Eighteenth Century, in: *Journal of Economic History* 73 (2013), pp. 445–476.

²² Volckart (ed.): *Währung* (see n. 1), no. 86, p. 305.

²³ Machoczek (ed.): *Der Reichstag zu Augsburg 1547/48*, vol. 3 (see n. 19), no. 226, p. 2021.

who should then not only draft a bill for a currency valid in the whole Empire, but should also independently pass this bill. It was to be binding without any further involvement of a Diet.²⁴ The councillors met as planned in February 1549. However, the conference was soon deferred to September, and it was this second meeting of the year 1549 that proved decisive.

Organisationally, the coinage conference of autumn 1549 copied an Imperial Diet, albeit at a smaller scale. Also, only one estate – Count Ladislas of Haag – was personally present. The emperor was represented by two commissioners, that is, by Philip von Flersheim, who was bishop of Speyer, and Count Reinhard of Solms. The electors, the other princes and the free and imperial cities sent delegates, for whom the sources mostly use the term ‘councillors and envoys’ (*Räte und Gesandten*). Most of these were princely and urban officials, with university-educated lawyers playing a large role. Mint masters and assayers – that is, technical officials involved in the production of coins, who were considered experts in monetary matters – were also present.²⁵ Some estates sent several delegates. As archduke of Austria King Ferdinand, for example, was represented by the vice chancellor of his court Jacob Jonas and by Thomas Behaim, who was director of the Austrian mints. Others sent joint delegates: George Boss, for instance, who was mint master of the Teutonic Order in Mergentheim, also acted on behalf of the bishops of Würzburg and Constance. The free and imperial cities had ‘in common’ (that is, acting jointly as one of the three Councils forming the Imperial Diet) authorised six cities to stand for them; this group of six, in turn, had chosen Nuremberg and Ulm as representatives.²⁶ In fact, Nuremberg’s and Ulm’s envoys were accompanied by those of a number of other, mostly South-German cities. Altogether, the 40 delegates present at the coinage conference that began in September 1549 acted on behalf of 109 estates of the Empire.

As on an Imperial Diet, the delegates formed three Councils – the Electors’, the Princes’ and the Cities’ Councils – that negotiated separately and whose members had to first agree among each other before attempting to reach a common resolution. Within the Councils, majority decisions were considered valid;²⁷ in the relations between councils, where, for example, the Electors’ and Cities’ Councils were unable to outvote the princes’ council, this was not the case.²⁸ In any case, the influence of the Cities’ Council was as restricted as on an Imperial

²⁴ Ibid., no. 372b, pp. 2664 f.

²⁵ For the participants see the table in Volckart (ed.): *Währung* (see n. 1), pp. LXXXVII-XCVIII.

²⁶ Volckart (ed.): *Währung* (see n. 1), no. 81, pp. 276 f.

²⁷ Ibid., no. 49, p. 195.

²⁸ The Electors’ and Cities’ Councils both opposed a bimetallic currency but were unable to force the Princes’ Council to adopt their stance. Volckart (ed.): *Währung* (see n. 1), no. 37, pp. 125 f., 131 f.

Diet.²⁹ Thus, between 13 September and 5 November 1549, the Electors' and the Princes' Councils met almost daily for plenary sessions. The Cities' council never took part, though its members were updated irregularly about the results of the talks.³⁰

The delegates of the cities nevertheless had a chance to influence proceedings. First, multiple representations such as those mentioned above meant that some envoys sat in several councils. Hans Steinhauser, for example, the treasurer of the Upper Palatinate, was sent by the elector of the Palatinate but at the same time acted on behalf of the provost of Selz and the Imperial City of Gelnhausen. Likewise, Hieronymus Ainkürn represented the elector and the Free City of Cologne concurrently. The city of Cologne's other delegate, Caspar Gropper, was also the envoy of the city of Dortmund and the duke of Jülich, Cleves and Berg.³¹ Under such conditions it seems likely that the Cities' Council learnt quickly and regularly what was going on in the other Councils. Moreover, urban delegates did take part in discussions – if not in the plenary sessions then in the committees formed to solve particularly tricky problems.³² There was only one such committee where they were not represented; in all others, two envoys of Nuremberg, Strasbourg or Ulm were present. Still, as the other two councils sent between nine and eleven delegates, those of the cities were easily outvoted.

This was important because committee decisions reflected majority views. Verdicts were reached in a questioning process similar to that practiced on Imperial Diets: In most cases, one of the delegates of Mainz proposed the topic to be discussed. Then, the other committee members stated their views in order of rank, with the delegates of the electors of Trier, Cologne, the Palatinate and Brandenburg speaking first. Mainz closed the list of electoral voices. Among the princely councillors, those of the archduke of Austria ranked highest; the envoys of Bavaria, Burgundy, Jülich, Cleves and Berg and of the Wetterau counts followed. The cities, represented by the delegates of Nuremberg and Ulm, brought up the rear. Many, but by no means all, committee members briefly stated why they voted as they did.³³ Decisions were based on the majority of all votes cast, irrespective of the status or rank of the voter.³⁴ The process allowed Mainz much leverage as its delegates could at the same time set the agenda and adapt their position to that of the representatives of the electors of Trier, Cologne, the

²⁹ Cf. Albrecht Luttenberger: Reichspolitik und Reichstag unter Karl V.: Formen zentralen politischen Handelns, in: Heinrich Lutz / Alfred Kohler (eds.): *Aus der Arbeit an den Reichstagen unter Kaiser Karl V.: 7 Beiträge zu Fragen der Forschung und Edition*. Göttingen 1986, pp. 16–68, here 29 ff.

³⁰ On 13, 18, 22, 24 and 28 September and on 4, 19 and 26 October 1549: Volckart (ed.): *Währung* (see n. 1), no. 37, pp. 107, 114, 118, 131, 139, 161, 169.

³¹ *Ibid.*, no. 57, pp. 222 f.

³² *Ibid.*, no. 37, pp. 114, 139.

³³ *Ibid.*, no. 37, pp. 140 f.

³⁴ Cf. Klaus Schlaich: Die Mehrheitsabstimmung im Reichstag zwischen 1495 und 1613, in: *idem* (ed.): *Gesammelte Aufsätze: Kirche und Staat von der Reformation bis zum Grundgesetz*. Tübingen 1997, pp. 135–178, here 153 f. The draft of the currency bill: Volckart (ed.): *Währung* (see n. 1), no. 55, pp. 223–236.

Palatinate and Brandenburg. Flersheim and Solms, the Imperial commissioners, enjoyed far less formal influence, neither chairing any plenary or council sessions nor taking part in committee talks. Normally, their role was to receive written communications from the three Councils and to urge the delegates to reach an agreement. However, while Flersheim had carefully preserved his neutrality when acting as Imperial commissioner during a chamber court audit some years earlier,³⁵ he and Solms now explicitly acted in Charles V's interest. Below, this will become evident.

The constitutional status of the currency conference convened in 1557 to prepare the reform of Charles V's aborted project differed fundamentally from that of the earlier meeting. Its mandate was simply to draft proposals that were to be submitted to the following Imperial Diet. Formally, it matched a Deputation Diet (*Reichsdeputationstag*), a type of Imperial assembly that the Executive Ordinance (*Reichsexekutionsordnung*) of 1555 had created and that formalised the cross-Council committees which many Imperial Diets had formed since the 1520s.³⁶ Indeed, the Saxon Elector August – Maurice's successor – simply called the conference a committee meeting.³⁷ Unlike in 1549, the deputies did not form three Councils but discussed all matters jointly.³⁸ The royal commissioners Johann Ulrich Zasius and Hans Philip Schad von Mittelbiberach did not take part but reacted to written communications and tried to keep the talks going.

4. The lure of silver

Like the Imperial Diets since the 1520s, the currency conference of spring 1549 initially focused on the question of the silver mint price, i.e. of the price at which the mints of the estates should purchase their bullion.³⁹ By autumn, this issue had disappeared from the agenda.⁴⁰

³⁵ Annette Baumann: Visitationen des Reichskammergerichts: Akteure und Handlungsspielräume, in: eadem / Kemper, Joachim (eds.): Speyer als Hauptstadt des Reiches: Politik und Justiz zwischen Reich und Territorium im 16. und 17. Jahrhundert, Berlin / Boston 2016, pp. 68–84, here 83.

³⁶ Rosemarie Aulinger / Erwein Eltz / Ursula Machoczek (ed.): Deutsche Reichstagsakten unter Kaiser Karl V.: Der Reichstag zu Augsburg 1555, vol. 4. Munich 2009, no. 390, p. 3126; Helmut Neuhaus: Reichsständische Repräsentationsformen im 16. Jahrhundert: Reichstag – Reichskreistag – Reichsdeputationstag. Berlin 1982, pp. 18 f.

³⁷ Volckart (ed.): Währung (see n. 1), no. 92, p. 377.

³⁸ There are no minutes but the report the Saxon deputies sent home suggests that e.g. the deputies of Salzburg, Jülich, Cleve and Berg and of other estates directly answered those of the representatives of Electoral-Cologne, the Palatinate and Mainz. Volckart (ed.): Währung (see n. 1), no. 96, p. 386–391.

³⁹ For the importance of the mint price (16th-century sources use the term *Silberkauf*) in the context of premodern minting see John D. Gould: The Great Debasement: Currency and the Economy in Mid-Tudor England. Oxford 1970, p. 8, and more formally Thomas J. Sargent / François R. Velde: The Big Problem of Small Change. Princeton / Oxford 2002, p. 23.

⁴⁰ There is no direct primary evidence for why this issue disappeared. At least in part, a report of the currency committee at the Diet of Worms in 1545 seems to have been responsible. The committee had stated that any dispute about the mint price of silver was futile given that mints used silver coins to purchase raw silver. The

Now, the delegates spent most of their time and energy discussing whether the Empire should introduce a bimetallic currency. The backdrop of their talks was the changing relative price of gold and silver. Since the start of the 16th century, the mines in the Ore Mountains and in the Tyrol, in Bohemia and Upper Hungary were regularly producing between 30 and 50 tons of pure silver per year; in addition, since the mid-1540s imports from the New World started to grow.⁴¹ Neither domestic output nor gold imports seem to have kept pace with these figures. In consequence, the value of silver dropped almost everywhere while in relative terms gold became more expensive.

*Figure: Gold-silver ratios, 1525-49*⁴²

< Figure *Gold-silver ratios, 1525-49* bitte hier >

quantity of silver bought with each coin was larger the quantity contained in the coin, but the value of this difference could not exceed what was needed to cover the rest of the production costs. The argument was valid. While nominal mint prices might diverge widely across markets, differences between prices expressed in bullion moved between narrow bounds. When the issue of the mint price re-surfaced briefly in summer 1557, the deputies of Trier quoted the currency committee report of 1545, which might be of use particularly to those inexperienced in monetary matters: 'It would truly help to disclose this to all deputies at this conference'. Volckart (ed.): *Währung* (see n. 1), no. 99, p. 402. The committee report of 1545: Aulinger (ed.): *Der Reichstag zu Worms 1545*, vol. 2 (see n. 19), no. 86, pp. 947 f.; the punctuation modernised by the editor distorts the sense of the passage.

⁴¹ John H. Munro: *The Monetary Origins of the 'Price Revolution': South German Silver Mining, Merchant-Banking, and Venetian Commerce, 1470–1540*, in: Dennis O. Flynn / Arturo Giráldez / Richard von Glahn (eds.): *Global Connections and Monetary History, 1470–1800*. Aldershot / Brookfield 2003, pp. 1–34, here 8; Renate Pieper: *Amerikanische Edelmetalle in Europa (1492–1621): Ihr Einfluß auf die Verwendung von Gold und Silber*, in: *Jahrbuch für Geschichte von Staat, Wirtschaft und Gesellschaft Lateinamerikas* 32 (1995), pp. 163–191, here 168.

⁴² For Augsburg, Hamburg and Vienna calculated on the basis of the exchange rate of the rhinegulden and the bullion content of Rhine gulden and the largest local silver coin minted. Exchange rates: Augsburg: Benedikt Greiff: *Tagebuch des Lucas Rem aus den Jahren 1494–1541: Ein Beitrag zur Handelsgeschichte der Stadt Augsburg*. Augsburg 1861, p. 62; Friedrich Blendinger / Elfriede Blendinger (eds.): *Zwei Augsburger Unterkaufbücher aus den Jahren 1551 bis 1558: Älteste Aufzeichnungen zur Vor- und Frühgeschichte der Augsburger Börse*. Stuttgart 1994, *passim*; Karl Otto Müller (ed.): *Quellen zur Handelsgeschichte der Paumgartner von Augsburg (1480–1570)*. Wiesbaden 1955, pp. 26, 240; Peter Geffken / Mark Häberlein (eds.): *Rechnungsfragmente der Augsburger Welser-Gesellschaft (1496–1551): Oberdeutscher Fernhandel am Beginn der neuzeitlichen Weltwirtschaft*. Stuttgart 2014, pp. 105–207; Hamburg: Karl Koppmann: *Kämmereirechnungen der Stadt Hamburg*, vols. 5–7. Hamburg 1883–1894, *passim*; Vienna: Carl Schalk: *Der Wiener Münzverkehr im 16. Jahrhundert*, in: *Numismatische Zeitschrift* 13 (1881), pp. 243–329, here 261 f.; idem, *Der Wiener Münzverkehr im XVI. Jahrhundert*, in: *Numismatische Zeitschrift* 16 (1884), pp. 89–108, here 91 f. Bullion contents: Augsburg, Vienna: Johann Newald: *Das österreichische Münzwesen unter Ferdinand I.: Eine münzgeschichtliche Studie*. Wien 1883, pp. 131 f.; Hirsch: *Münz-Archiv* (see n. 1), no. CLXXXIII, pp. 268 f.; Hamburg: Wilhelm Jesse: *Der Wendische Münzverein*. Lübeck 1928, p. 211; Rhine gulden: Karl Weisenstein: *Das Kurtriersche Münz- und Geldwesen vom Beginn des 14. bis zum Ende des 16. Jahrhunderts: Auch ein Beitrag zur Geschichte des Rheinischen Münzvereins*. Koblenz 1995, pp. 106, 140. The gold-silver ratio at Cologne: Rainer Metz: *Geld, Währung und Preisentwicklung: Der Niederrheinraum im europäischen Vergleich 1350–1800*. Frankfurt 1990, pp. 369–374. Legal ratios: Johann Georg von Lori: *Sammlung des baierischen Münzrechts*, vol. 1. n.p. 1768, no. CXCIV, p. 224; Newald: *Münzwesen* (as above), p. 113; Blendinger / Blendinger (eds.): *Unterkaufbücher* (as above), p. 33; for the ratio planned in Speyer see the draft of the currency bill (11 Oct. 1549): Volckart (ed.): *Währung* (see n. 1), no. 58, p. 223–236.

In 1549, the question of whether a legally fixed ratio between gold and silver coins should be introduced was by no means new. The Esslingen currency ordinance of 1524 had tried to establish such a system, and the coinage committee formed at the Diet of Worms in 1545 had recommended a bimetallic currency too.⁴³ In Speyer, in 1549, it was the Imperial commissioners Flersheim and Solms who first brought up the topic. At the end of September, they suggested that a silver *72-kreuzers* piece should be minted. The value of this coin was to match that of the traditionally most popular and widely used gold coin, the Rhine gulden, which the electors of Mainz, Trier, Cologne and the Palatinate issued and which many other estates imitated. The commissioners' choice of a face value of *72 kreuzers* seems to have taken conditions in Bohemia and South Germany into account. In 1542, King Ferdinand had fixed the Rhine gulden at this value, two years later the Bohemian estates followed suit, and in 1547 the city of Augsburg had done the same.⁴⁴ What was new in 1549 was the fact that Flersheim and Solms explicitly stressed what a system where gold and silver coins circulated in parallel and at fixed rates implied: They pointed out that 'everyone entitled to receive gold should be obliged without any refusal to accept the [silver] *72-kreuzers* piece in lieu of a Rhine gulden'.⁴⁵

None of the councillors and envoys of the estates seems to have thought of this before. The representatives of the princes were enthusiastic: Their written response, which they submitted to the commissioners after only two days, argued that it would be impossible to come to a fruitful conclusion without introducing the obligation to accept silver in place of gold.⁴⁶ This was because of the increase in the price of gold and in the exchange rate of gold coins: It forced anybody who had to service liabilities denominated in Rhine guildens to purchase the gold he needed at a price much higher than when the debts had been incurred. Hence, fixing the exchange rate of the Rhine gulden at *72 kreuzers* was actually a concession: Even under that condition, 'debtors or their heirs, who years ago had taken out a loan in gold at a rate of

⁴³ Hirsch: Münz-Archiv (see n. 1), no. CLXVII, p. 241; Aulinger (ed.): Der Reichstag zu Worms 1545, vol. 2 (see n. 19), no. 81, p. 931, no. 86, p. 951.

⁴⁴ Lori: Sammlung, vol. 1 (see n. 42), no. CXCIV, p. 224; Newald: Münzwesen (see n. 42), p. 113; Blendinger / Blendinger (eds.): Unterkaufbücher (see n. 42), p. 33. According to Vorel, *72 kreuzers* were chosen as face value of the largest unit in order to bring the Imperial currency in line with that of Spain, whose units were ranked as multiples of 8. Vorel: Monetary Circulation (see n. 12), pp. 89 f. In 1519, Gattinara had indeed recommended harmonising the currencies of the dominions of Charles V. Karl Brandt: Kaiser Karl V: Werden und Schicksal einer Persönlichkeit und eines Weltreiches. Munich 1937, p. 98. However, there is no evidence in support of the hypothesis that this recommendation was taken into account during the drafting of the currency bill of 1551. The Spanish currency was never mentioned in the talks. The officials who took part on the valuation of old and foreign coins circulating in the Empire in spring 1551 did not treat the Spanish *reales* in any way differently from other foreign coins. They would certainly have done so had Spain played a special role for the reform. Volckart (ed.): Währung (see n. 1), no. 88, p. 339.

⁴⁵ Volckart (ed.): Währung (see n. 1), no. 50, p. 196.

⁴⁶ Ibid., no. 52, p. 201.

merely 66, 64 and for many years only 60 of the *kreuzers* then current, had much more reason to complain [...] than those who now receive 72 in place of 66, 64 or 60 *kreuzers*'. Hence, resistance against such a measure was neither justified nor to be expected.⁴⁷

This argument needs to be seen in the context of the financial position of many of the princes of the Empire. In the early 1560s, Ferdinand I's revenues are estimated at 970,000 florins *per annum*. He had to earmark about half of this for servicing his total debts of c. 7.8 million florins (a debt to revenue ratio of 8.0 to 1).⁴⁸ At about the same time, Landgrave Philip of Hesse had yearly revenues of somewhat less than 101,000 florins, while the stock of his debts was 985,000 florins (a ratio of 8.9 to 1). Duke Ulrich of Württemberg's income was about 125,000 florins in 1550 – on the opposite side of his ledger was a debt stock of 1.7 million (13.7 to 1).⁴⁹ This list could be extended. However, suffice to say that as bishop of Speyer, Charles V's commissioner at the currency conferences of 1549, Philip von Flersheim, had yearly revenues of not quite 12,000 florins, 9,600 of which he needed to reserve for debt services.⁵⁰

What needs to be kept in mind is that in many parts of the Empire the florin was no more than a unit of account used for silver coins. In Austria, for example, the sum of 60 *kreuzers* was called a florin, in Saxony that of 21 Meißer *groschens* and in Brandenburg that of 32 märkisch *groschens*.⁵¹ Debts listed in florins were therefore not necessarily denominated in gold. The size of the share of gold-denominated debts in the total debts held by Imperial es-

⁴⁷ *Ibid.*, no. 52, p. 201, 203, 205.

⁴⁸ If the assumption is correct that the interest rate that applied to the floating debt was about equal to that for the funded debt, i.e. 6.3 per cent. Cf. Alfred Kohler: *Ferdinand I. 1503–1564: Fürst, König und Kaiser*. Munich 2003, pp. 177, 182 f.

⁴⁹ Hessen: Kersten Krüger: *Finanzstaat Hessen 1500–1567: Staatsbildung im Übergang vom Domänenstaat zum Steuerstaat*. Marburg 1981, pp. 244, 295, 297; Württemberg: Rudolf Bütterlin: *Die merkantilistische Geldpolitik im Herzogtum Württemberg von der Reformation bis Napoleon*. Metzingen 1966, S. 25. Further examples: August Beck: *Johann Friedrich der Mittlere, Herzog zu Sachsen: ein Beitrag zur Geschichte des sechzehnten Jahrhunderts*. Weimar 1858, pp. 64 f. (Sachsen-Weimar); generally Ernst Klein: *Geschichte der öffentlichen Finanzen in Deutschland (1500–1870)*. Stuttgart 1974, pp. 18 f., Volker Press: *Formen des Ständewesens in den deutschen Territorien des 16. und 17. Jahrhunderts*, in: *Ständetum und Staatsbildung in Brandenburg-Preußen: Ergebnisse einer internationalen Fachtagung*. Berlin / New York 1983, pp. 280–318, here 292; Maximilian Lanzinner: *Friedenssicherung und politische Einheit des Reiches unter Kaiser Maximilian II. 1564–1576*. Göttingen 1993, pp. 173 f. The debts of German princes were high by international standards. The English Crown, for example, had a debt to revenue ratio of 0.8 to 1 at the death of Edward VI and of 0.9 to 1 at the coronation of Elizabeth I. On the other hand, early modern Italian states had far larger debts than any prince of the Empire. Thus, in about 1500 the Republic of Genoa's accumulated stock of debt was 35 times the size of its annual revenues. By 1700, Venice and the Papacy had debt to revenue ratios of, respectively, 15 and 20 to 1. English Revenues: P.K. O'Brien and P.A. Hunt, *European State Finance Database* (<http://www.esfdb.org/table.aspx?resourceid=11226>, accessed 20 February 2017). English debts: David Loades: *The Mid-Tudor Crisis, 1545–1565*. London 1992, pp. 64, 68. Italian data: David Chilosi: *Risky Institutions: Political Regimes and the Cost of Public Borrowing in Early Modern Italy*, in: *Journal of Economic History* 74, 3 (2014), pp. 887–915, here 897 f.

⁵⁰ *Generallandesarchiv* (henceforth: GLA) Karlsruhe 78/1638 (unpaginated).

⁵¹ Alfred Nagl: *Das Tiroler Geldwesen unter Erzherzog Sigismund und die Entstehung des Silberguldens*, in: *Numismatische Zeitschrift* 38 (1906), pp. 45–168, here 88; Walter Schwinkowski: *Das Geld- und Münzwesen Sachsens*, in: *Neues Archiv für sächsische Geschichte* 38 (1917), pp. 140–181 and 355–395, here 160; Emil Bahrfield: *Das Münzwesen der Mark Brandenburg unter den Hohenzollern bis zum grossen Kurfürsten, von 1415 bis 1640*. Berlin 1895, p. 178.

tates in the 16th century is an issue research has so far failed to address. However, two examples may serve to illustrate the situation. In 1529, Otto von Estorff, one of the vassals of Ernest the Confessor of Brunswick-Lüneburg, stood surety for altogether 41 loans taken up by the duke. 15 of these were denominated in gold guildens; they made up more than a quarter of the total sum.⁵² The structure of Flersheim's own debts is shown in a 'summary of all the bishopric of Speyer's revenues' that the treasurer compiled in 1542 and which condenses the fiscal situation of the preceding decade.⁵³ While only 3.5 per cent of the debts that Flersheim inherited from his predecessor in 1529 were denominated in gold, almost two-thirds of those he incurred himself until the early 1540s were in gold and had to be serviced with gold.

The difference between these values prohibits generalisations. What is obvious, though, is that a bimetallic currency favoured debtors as long as they were able on the one hand to purchase the coins they needed to service their obligations at exchange rates close to the market price of gold or silver, and on the other hand to compel their creditors to accept these coins at their legal value. Daily experience taught that official exchange rates were impossible to enforce on the markets of the Empire.⁵⁴ At the same time, princes would very likely be able to force their creditors to respect Imperial law, including a law that determined the official ratio of gold and silver coins. Indebted princes would thus have the chance to choose that metal whose market price was lower than its official value determined in 1549 in order to service their gold-denominated debts. It is no surprise that the princely councillors were delighted with Flersheim's proposal, and it will not surprise either that the envoys of the Free and Imperial Cities – many of which were creditors of princes – opposed it.⁵⁵

⁵² 24 further loans of Duke Ernest were denominated in florins, that is, probably in the locally common unit of account 'St Mary's florin' (à 20 silver St Mary's *groschen*). Two were denominated in 'mark', i.e. in the *Mark Lübisches* current in Lüneburg. Assuming that the value of the St Mary's florin was roughly the same as that of the Austrian silver florin, i.e. about 0.9 Rhine gulden, and that Rhine gulden rate was about 1.8 *Mark Lübisches* (28.2 shillings, see the evidence cited in n. 42, Estorff stood surety for debts of a value of altogether c. 126,000 Rhine gulden. The share denominated in gold had a value of 24,700 florins. [Cammerjunker] von Estorff: Beitrag zur Finanzgeschichte des welfischen Fürstenhauses in der ersten Hälfte des 16. Jahrhunderts mit besonderer Beziehung auf die Familien von Estorff, in: Vaterländisches Archiv des historischen Vereins für Niedersachsen 4 (1836), pp. 397–442, here 402–409.

⁵³ GLA Karlsruhe 78/1638 (not foliated).

⁵⁴ Philipp Robinson Rössner: Deflation – Devaluation – Rebellion: Geld im Zeitalter der Reformation. Stuttgart 2012, pp. 566 f.

⁵⁵ Volckart (ed.): Währung (see n. 1), no. 37, p. 131, no. 52, pp. 198–206. Cf. Lukas Winder: Die Kreditgeber der österreichischen Habsburger 1521–1612: Versuch einer Gesamtanalyse, in: Peter Rauscher / Andrea Serles / Thomas Winkelbauer (eds.): Das "Blut des Staatskörpers": Forschungen zur Finanzgeschichte der Frühen Neuzeit. Munich 2012, pp. 435–458, here 442.

5. The Rhinegold

The Cities did not stand alone. The electors on the Rhine, too, resolutely refused to accept the bimetallic system the Imperial commissioners put forward.⁵⁶ In November 1549 they themselves turned directly to the emperor in order to convince him of their counterarguments.⁵⁷ Their memorandum listed three reasons why they opposed a bimetallic system. First, they pointed out that conventions and contracts were based, among other things, on natural law and on the law of nations. Anything the contracting parties had agreed therefore had to be observed.⁵⁸ The Rhenish electors did not only refer to the general legal tenet of *pacta sunt servanda* but to an argument made by the realist school of Scholasticism. This claimed that while debtors might repay their debts with other coins than those they had originally borrowed, these coins had to be of the same type or exactly the same value.⁵⁹ Forcing creditors to accept silver in lieu of gold without a hearing and against their will therefore meant violating their rights. Debtors who allowed this were not only damaging their reputation but had to expect resistance and even feuds and rioting.⁶⁰

A bimetallic currency would of course not have prevented the electors on the Rhine from satisfying their creditors in a way that took the realist position on usury into account: They would still have been able to repay those of their debts denominated in gold with gold coins, thereby avoiding the perils of which they warned. However, they expected further disadvantages. Their second argument claimed that under the standard of the planned new Imperial silver coinage, one mark of gold did no longer equal twelve, but only eleven marks of silver. In other words, gold would be undervalued and therefore exported to neighbouring countries where its value was higher.⁶¹ The argument was sound. While in many places the value of the Rhine gulden was already 72 *kreuzers*, these were *kreuzers* struck according to the Austrian standard of 1535. The rate implied a gold-silver ratio of 1:11.84. If the Rhine gulden was equated with 72 *kreuzers* of the new standard planned in Speyer, the ratio dropped to 1:10.64 (cf. Figure 1).⁶² At the same time, the ratio at the Paris mint was 1:11.65.⁶³ Accordingly, the

⁵⁶ Volckart (ed.): *Währung* (see n. 1), no. 51, p. 198.

⁵⁷ *Ibid.*, no. 84, p. 281–300

⁵⁸ *Ibid.*, no. 84, p. 283.

⁵⁹ John Munro: 'The Medieval Origins of the 'Financial Revolution': Usury, Rentes, and Negotiability', in: *International History Review* 25 (2003), pp. 506–562, here 510 f.

⁶⁰ Volckart (ed.): *Währung* (see n. 1), no. 84, p. 285.

⁶¹ *Ibid.*, no. 84, pp. 286 f.

⁶² As the share of pure silver was lower in small change than in larger coins, gold silver ratios also depended on which silver units were exchanged for the Rhine gulden. The ratios were

1 Rhine gulden = 72 Austrian 1- <i>kreuzer</i> pieces (standard of 1535):	1:11.84.
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1 Rhine gulden = 1.2 Austrian silver guldens (à 60 <i>kreuzers</i> , standard of 1535):	1:12.24.
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1 Rhine gulden = 72 1- <i>kreuzer</i> pieces (as planned in Speyer in autumn 1549):	1:10.64.
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value of gold in the Empire would have been about 9 per cent lower than in Paris. The difference would probably have been so sufficient to cover the costs of exporting the metal and reminting it abroad. As the Rhenish electors pointed out, the result would be that ‘the common weal would be weakened and the property and income of both the high- and low-ranking members of this nation destroyed, which would cast the German nation in comparison with its neighbours into eternal poverty’ – a conclusion that seemed obvious if one equated a country’s stock of bullion with its wealth.⁶⁴

Finally, the electors on the Rhine stressed the vagaries of mining which could cause sudden changes in the value of silver and made any attempt to establish a stable ratio to gold futile. Therefore, introducing cumbersome monetary innovations was pointless. What was even more important was that any currency law including such innovations would soon be outdated.⁶⁵ The electors here anticipated an argument that long dominated thinking on bimetallic currencies. Changes in supply and demand and in the relative prices of gold and silver were seen as the Achilles heel of such systems. Older research assumed that consumers would exploit the legally determined ratio of gold and silver coins: They would react to a rise in the market price in one of the metals by culling coins minted from this metal, melting them and selling them as raw material. More recent studies have demonstrated that bimetallic currencies may still be stable. Only when the difference between the legal and the market ratios of the two metals is large enough to cover both the costs of melting those coins whose intrinsic value is rising, and of selling the metal, does the effort to cull these pieces pay.⁶⁶ However, even then a shift in the relative prices of gold and silver did not necessarily cause one of the metals to disappear from circulation. If the local authority proves incapable of forcing consumers to use money at its legal face value, those coins whose intrinsic value rises are not withdrawn from circulation but traded at a premium.⁶⁷ This possibility is something the delegates of the Rhenish Electors pointed out quite early in the talks.⁶⁸

1 Rhine gulden = 1 72-*kreuzers* piece (as planned in Speyer in autumn 1549): 1:10.88.

Figure 1 shows the ratios based on the respective largest silver unit. Austrian currency bill of 1535: Hirsch, Münz-Archiv (see n. **Error! Bookmark not defined.**), no. CLXXXIII, pp. 268–271; the standard planned in Speyer according to the draft bill of 11 October 1549: Volckart (ed.): *Währung* (see n. **Error! Bookmark not defined.**), no. 58, pp. 223–236.

⁶³ According to the French currency law of 1549, 1 golden *écu effigie* (à 540 *deniers*) equalled 4.1 silver *testons* (à 132 *deniers*). Jules-Adrien Blanchet / Adolphe Dieudonné: *Manuel de numismatique Française*, vol. 2: *Monnaies royales Françaises depuis Hugues Capet jusqu’à la Révolution*. Paris 1916, p. 323.

⁶⁴ Volckart (ed.): *Währung* (see n. 1), no. 84, p. 287.

⁶⁵ *Ibid.*, no. 84, p. 287.

⁶⁶ Cf. Flandreau: “Water Seeks Level” (see n. 21), pp. 491 f., who quotes the relevant literature.

⁶⁷ Cf. Redish, *Bimetallism* (see n. 21), pp. 30–33.

⁶⁸ Volckart (ed.): *Währung* (see n. 1), no. 37, p. 107.

Charles V's councillors drafted a counter memorandum where they addressed the Electors' arguments point by point. They emphasised that a legal fiction allowed the assumption that coins used for repaying debts had the same value as those originally lent, in particular as the value of money was a function of its use rather than of its material (this was the nominalist position in the Scholastic debate about usury);⁶⁹ they insisted that the official gold-silver ratio had been determined correctly and stressed that if this should change in future, the Emperor and the estates would be able to adjust the currency law.⁷⁰ What Charles' councillors did not mention was how inconsistent the position of the Rhenish electors was. In March 1549, it had been their delegates who first suggested introducing a silver *72-kreuzers* piece that was to be the equivalent of the Rhine gulden – a policy that contradicted their later claim that the gulden would be undervalued at that rate.⁷¹

It seems likely, therefore, that the electors on the Rhine were influenced by ulterior motives not mentioned in their memorandum of November 1549. Earlier arguments suggest what may have been at the back of their minds. Already at the Diet of Worms in 1545, their delegates had opposed a bimetallic currency. The Saxon Elector John Frederick had remarked on that occasion that this was because the duties payable at the custom posts on the Rhine were laid down in gold: The electors therefore faced serious losses if the increase in the value of gold came to an end.⁷² In fact, the proceedings at the electoral custom collection points seem to have been notorious. An expert report on monetary policies reveals the views of the proponents of a fixed ratio between gold and silver coins, claiming that 'when a boatman arrives at a custom post and complains about his lack of gold, and does not know where to obtain any, the customs officer knows how to advise him where to find it, and it may very well be that he, the officer, is involved in this trade and has gold himself'.⁷³ Whether this kind of speculation did indeed occur or how common it was may be left open. In any case the requirement to pay gold is likely to have contributed to the relative abundance of gold in the Rhineland that Cologne's low gold silver ratio reflects (see the Figure above). Once the ratio between the golden florin and the silver *72-kreuzers* piece was determined by law, however, merchants liable to pay custom duties had the chance to choose the metal whose market price was currently below its 1549 value. For obvious reasons, the Rhenish electors disliked this prospect.

In Speyer, the electoral councillors themselves did not mention the custom posts on the Rhine. Had they done this they would have exposed themselves to accusations of selfishness. The

⁶⁹ Ibid., no. 86, p. 311.

⁷⁰ Ibid., no. 86, pp. 312, 314.

⁷¹ Ibid., no. 13, p. 47, no. 37, pp. 124.

⁷² Aulinger (ed.): *Der Reichstag zu Worms 1545*, vol. 2 (see n. 19), no. 77, p. 921.

⁷³ Volckart (ed.): *Währung* (see n. 1), no. 82, p. 278.

threat of gold being exported from the Empire was a perfectly plausible and far more appropriate argument, which they used early in the talks.⁷⁴ The delegates of the princes, however, brought the customs issue up clearly enough.⁷⁵ Flersheim and Solms, the Imperial commissioners, left no doubt about who would be responsible should the talks fail: The electors on the Rhine, ‘who put their self-interest and their custom revenues first, neglecting the common weal’.⁷⁶

6. Pressure, obstruction and compromise

In autumn 1549, the commissioners tried for several weeks to convince the electoral delegates of their point of view. Flersheim used his own situation as an example: He had to purchase the gold he owed with great hardship and at unbearable costs from merchants, and it was ‘insufferable that it should not be allowed to use silver instead’.⁷⁷ The delegates remained unmoved. When Flersheim became irritated and referred to the Schmalkaldic war (‘it had been found how dangerous it was to diminish his Majesty’s reputation and dignity, as could easily be seen in the past war when his Majesty did not move against Saxony and Hesse for reasons of religion, but because of their disobedience’),⁷⁸ this was to no avail either. The councillors of the Rhenish electors did not seriously expect Charles V to go to war over the exchange rate of the Rhine gulden. They got nervous, though, when it transpired in October that Solms had travelled to the emperor’s court in Brussels to request an Imperial resolution: They were not aware that anyone had asked Solms to go to Brussels; and they themselves had never desired the emperor’s decision.⁷⁹ The delegates of the electors were right to worry. When Flersheim’s co-commissioner returned in November, it turned out that a bimetallic currency was what Charles V wished. He had obtained a report of the Princes’ council that argued in favour of such a system and in which he had taken ‘gracious pleasure’.⁸⁰ Now, he ordered his commissioners to make sure that the estates obeyed his resolution and reached a decision now, at the current conference.⁸¹ In this, Flersheim and Solms failed. In Speyer the bimetalism issue remained unresolved.

⁷⁴ At the end of September, the electoral councillors had warned that ‘gold will be exported in its entirety’ if the Rhine gulden was valued at 72 *kreuzers*. Volckart (ed.): *Währung* (see n. **Error! Bookmark not defined.**), no. 37, p. 128.

⁷⁵ *Ibid.*, no. 37, p. 126.

⁷⁶ *Ibid.*, no. 37, p. 133.

⁷⁷ *Ibid.*, no. 37, p. 133.

⁷⁸ *Ibid.*, no. 37, p. 163.

⁷⁹ *Ibid.*, no. 37, p. 156.

⁸⁰ This report is probably identical with the response of the Princes’ Council to the commissioner’s suggestions handed over on 30 September 1549. Volckart (ed.): *Währung* (see n. 1), no. 52, pp. 198–206.

⁸¹ *Ibid.*, no. 61, p. 239.

It was only at the next Imperial Diet at Augsburg 1550-51 that the Rhenish electors showed signs of giving in. Two days after the talks had started the envoys of the Palatinate declared that they were happy with the planned currency bill, while Trier stated that the draft prepared in Speyer should stand.⁸² On the face of it, this seems to have been the result of an increase in pressure from the emperor. Shortly before the diet was about to open, Flersheim and Solms had required the councillors of the electors of Mainz, Trier, Cologne and the Palatinate to see them in their lodgings, prohibited them from seeking further council on matters of monetary policy, set them a deadline until which they had to agree to Charles V's demand for a bimetallic currency, and then sent them away – all this in a tone that was, to say the least, unusual in discussions between representatives of the head of the Empire and its highest-ranking estates.⁸³

Still, if the pressure under which the electoral envoys found themselves contributed to their change of opinion, it is unlikely to have been the only reason. Probably, there was another underlying and more systematic cause to which the Austrian delegates pointed already at the currency conference of spring 1549. There, Jacob Jonas and Thomas Behaim had warned against deferring the talks: Leaving without an agreement and reconvening later would do more harm than good because 'usually the matter is then taken up by new and mostly insufficiently experienced councillors and delegates who are poorly informed about the issues at hand'.⁸⁴ This is what happened in 1550. Only two of the delegates of the Rhenish electors who had rejected the plan of a bimetallic currency in Speyer were also present at the diet in Augsburg: One accompanied the Archbishop of Mainz, the other the one of Cologne – and these were the electors who seem to have stuck to their guns. By contrast, the electors of Trier and of the Palatinate were represented at the Diet by councillors who were new and apparently inexperienced in matters of monetary policies.⁸⁵

Notwithstanding the splits opening in the party of the Rhenish electors, they must have continued to offer at least some resistance to the creation of a bimetallic currency. This is the most probable reason for why the version of the draft currency bill discussed at the Diet in Augsburg omitted the paragraph that concerned the equal value of Rhine gulden and silver *72-kreuzers* piece. The Imperial recess left the question open, too. However, as mentioned

⁸² Eltz (ed.): *Der Reichstag zu Augsburg 1550/51*, vol. 1 (see n. 9), no. 82, pp. 296, 299.

⁸³ *Ibid.*, no. 118, pp. 861 f.

⁸⁴ *Ibid.*, no. 27, p. 88.

⁸⁵ See the table of delegates at the Imperial Diets in Rosemarie Aulinger / Silvia Schweinzer-Burian: *Habsburgische und reichsständische Präsenz auf den Reichstagen Kaiser Karls V. (1521–1555) im Spiegel der Reichsmatrikel von 1521: Eine prosopographische Erfassung*, in: Franz Hederer et al. (eds.): *Handlungsräume: Facetten politischer Kommunikation in der Frühen Neuzeit. Festschrift für Albrecht P. Luttenberger zum 65. Geburtstag*. Munich 2011, pp. 109–164.

above, it asked the Emperor to publish the currency bill immediately after the old and foreign money in circulation had been valuated. The delegates of all four Rhenish electors explicitly agreed to this.⁸⁶ Charles V knew that they opposed a bimetallic system,⁸⁷ but rather than making sure that they had finally become resigned to such a currency, he chose to interpret the Diet's request as an invitation to use his own discretion: He followed the vote of the Princes' Council in Speyer. The bill he published in summer 1551 thus established a bimetallic currency; silver coins from the 72- to the 6-*kreuzers* piece were to be 'given and taken by everyone in sales, purchases and other transactions as legal tender in place of gold'.⁸⁸

The atmosphere at the currency conference in summer 1557 differed from the one at the Diet six years before in Augsburg. Not only had the emperor's pressure on the delegates of the Rhenish Electors disappeared, they were also better informed. They left no doubt about rejecting bimetallicism. However, it soon became evident that the majority of the estates, led by electoral-Brandenburg and Bavaria, wished to retain (or to introduce at long last) the currency established by the bill of 1551.⁸⁹ The vehement complaints stressed by the Saxon envoys in no way impeded the talks that were conducted in a mostly sober and matter-of-fact tone. As demanded by the recess of the Regensburg diet of 1557, the memoranda of the estates were submitted to the next Imperial Diet in order to provide the basis for further discussions.

At this diet, which took place from 1558-59 (again) in Augsburg, a proposal first advanced by the electoral Palatinate turned out to be decisive. At the conference of 1557 the Palatinate's deputies had suggested abolishing the silver 72-*kreuzers* piece and replacing it with a 60-*kreuzers* unit.⁹⁰ In Augsburg, the idea met with much approval. This was the case because the participants believed to have noticed that the 72-*kreuzers* piece was used to justify price rises; a smaller coin as the highest unit of the currency promised to alleviate the problem.⁹¹ King Ferdinand probably welcomed the proposal because the traditional Austrian currency already included a 60-*kreuzers* piece so that introducing the new Imperial money would not have involved much upheaval.⁹² However, if the 72-*kreuzers* piece was dropped, abolishing the fixed link between gold and silver seemed obvious.⁹³ This was the decision made at Augsburg in 1559 and enshrined in the reformed currency bill Ferdinand published in that year. The bill sealed the failure of the attempt to establish a bimetallic system at the level of the Empire.

⁸⁶ Eltz (ed.): *Der Reichstag zu Augsburg 1550/51*, vol. 2 (see n. 9), no. 305, pp. 1588 ff., 1606.

⁸⁷ See his letter to the Rhenish electors dated 26 Apr. 1550. Volckart (ed.), *Währung* (see n. 1), no. 85, pp. 300 f.

⁸⁸ *Ibid.*, no. 90, p. 348.

⁸⁹ *Ibid.*, no. 96, p. 389, no. 98, pp. 394–396.

⁹⁰ *Ibid.*, no. 100, p. 404.

⁹¹ Josef Leeb (ed.): *Der Kurfürstentag zu Frankfurt 1558 und der Reichstag zu Augsburg 1559*. Göttingen 1999, no. 553, p. 1363.

⁹² Newald: *Münzwesen* (see n. 42), p. 6.

⁹³ Leeb (ed.): *Der Reichstag zu Augsburg 1559* (see n. 91), no. 804, p. 1969.

However, it allowed Ferdinand to welcome the Rhenish electors into the fold of common monetary policies. The desire to achieve this end, rather than the insight that, in the long run, relative prices of gold and silver were fluctuating and the attempt to create a stable bimetallic currency therefore futile, seems to have triggered the reform.⁹⁴ After the publication of Ferdinand's reformed bill, the last party to offer resistance was Saxony that joined the common Imperial currency only seven years later. In return, the Imperial Diet admitted the *taler* as legal tender.⁹⁵

7. Conclusion

Before Ferdinand I's currency bill was published, the question of whether or how the Saxon *taler* might be integrated into the common currency was never on the agenda. Electoral-Saxony was not represented at the currency conference of autumn 1549. At the conference in summer 1557, the Saxon deputies declared their opposition to Charles V's currency bill of 1551, but during the talks the *taler*-question never surfaced. The only one to briefly mention the Saxon position was the Pomeranian envoy: He claimed that the complaints of the Saxon deputies pertained less to the content of the bill of 1551 than to its inadequate enforcement.⁹⁶ Obviously, the participants in the discussions did not consider Saxony and the *taler*-question as crucial. What concerned them was the issue of bimetallism and the resistance of the Rhenish electors.⁹⁷

This was the main problem. One core result of the present study is that it was the position of the Rhenish electors that made it impossible to effectively implement the currency bill of 1551, and that this position was a function of their interest in their custom dues. These dues were a source of much of their revenues and were defined in terms of gold. As the value of gold increased relative to that of silver, the electors opposed a legally determined ratio between coins made of both metals as much as the obligation to accept silver in custom pay-

⁹⁴ Cf. Volckart: Die Reichsmünzordnung von 1559 (see n. 12), p. 30.

⁹⁵ Maximilian Lanzinner / Dietmar Heil (eds.): Der Reichstag zu Augsburg 1566. Munich 2002, vol. 2, no. 467, pp. 1554 f.

⁹⁶ Volckart (ed.), Währung (see n. 1), no. 103, p. 416.

⁹⁷ The neglect of the *taler*-question by the other estates does not imply that the issue was as unimportant as they seem to have thought. Electoral-Saxony was in no way interested in the creation of a common currency that would have required abolishing the *taler*. Westphal demonstrates that in the first and second decade of the sixteenth century, the Saxon elector was even prepared to incur economic losses as long as he was able to export his particularly well-designed *talers*. Sina Westphal: Die Korrespondenz zwischen Kurfürst Friedrich dem Weisen von Sachsen und der Reichsstadt Nürnberg: Analyse und Edition. Frankfurt am Main et al. 2011, S. 113 f., no. 447.7, S. 611. While in the short term, the policy involved making a loss, in the medium and long term it brought rewards. By the mid-sixteenth century, it had increased the prestige of *talers* to such an extent that North-German consumers were prepared to trade them at a premium of almost 10 per cent. As a result, every *taler* that electoral-Saxony exported (and that contained c. 26.4 grams of pure silver) resulted in a net-gain of c. 2.5 grams of silver for the electorate. Volckart (ed.), Währung, p. LXIX.

ments according to this ratio. Such a bimetallic system would have allowed merchants to exploit a further rise in the market value of gold – or a fall in that of silver – to pay their dues in silver coins according to their value as defined in the currency bill. The electoral revenues would have suffered accordingly.

If Charles V's common currency had failed merely because the electors on the Rhine opposed it, the hypothesis that the emperor was too weak would sufficiently explain this outcome. However, the argument misses the point. After all, Ferdinand I succeeded in generating near universal consent for a common currency – and he succeeded at a time when his political position was far less dominant than that of his brother after the Schmalkaldic war. Despite the last estate to adopt the Imperial currency doing so only after Ferdinand's death, it is evident that an emperor able to skilfully balance the interests of the estates had considerable scope to shape monetary politics at the level of the Empire.

This is where Charles V failed. He knew that some of the highest-ranking estates of the empire opposed his plans. At the Diet of 1550-51, Trier and the Palatinate may have been resigned to a bimetallic currency, but Mainz and Cologne' certainly were not. Still, if the emperor did not want to directly go against the wishes of the Diet, he had to fulfil the request to publish the bill within a reasonably short period of time after the old and foreign money had been evaluated. This he could not do without autonomously resolving the issues the Diet had left open. Moreover, regardless how he answered the bimetallic question, he was bound to antagonise important estates, i.e. either the electors on the Rhine or the Princes' Council. He was in a situation where he could make no right decision.

Nothing points to the Diet having intentionally created this double bind. Rather, what appears to have been crucial was an underlying structural cause: the lack of continuity in the composition of the delegations that discussed monetary policies at the currency conferences and Imperial Diets. The way the draft of the currency bill was discussed at the Augsburg Diet shows this particularly clearly. Apparently, few of the councillors of the Rhenish electors present at the diet were aware of what a legally fixed ratio between gold and silver coins implied for the electoral revenues. The lack of continuity in the personnel involved in shaping monetary policies is what seems to have brought about the coordination failure that created the dilemma in which Charles V found himself. Ferdinand I did manage to avoid such a situation by being willing to compromise and making sure that all relevant estates agreed to his plans. This is how successful politics in the Empire worked.

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