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ЯКІСТЬ РИЗЬКИХ ШИЛІНГІВ ЗА ЧАСІВ ПОЛЬСЬКОГО ПАНУВАННЯ (1581– 1621)

THE FINENESS OF RIGA SCHILLINGS UNDER POLISH RULE (1581-1621)¹

Анотація.

Мета статті – всебічний огляд динаміки зміни вмісту срібла ризьких шилінгів в період польського панування в Лівонії (1581–1621). **Методологія дослідження.** Для отримання поставлених у роботі завдань було застосовано методи аналізу, класифікації, узагальнення та статистичний метод. Основним джерелом дослідження стали законодавчі акти – укази Варшавського сейму (1579/1580 рр.) та Грошових комісій 1604 та 1616 років, які були обов'язковими для всіх монетних дворів у Речі Посполитій. Для отримання додаткової інформації використовувалися архівні джерела з Латвійського державного історичного архіву – листи та офіційні укази монархів, звіти монетних дворів тощо.

Ризькі шилінги, безперечно, – одні з найбільш широко вивчених та найвідоміших монет міського монетного двору Риги, столиці сучасної Латвії. Вже в 1582 році на монетному дворі в Ризі було викарбовано перший шилінг у «польському» стилі. Після смерті Стефана Баторія Ризький монетний двір був знову відкритий вже у 1588 році, де відбувалось карбування шилінгів та 3-х грошових монет (дрейери, трояки) з ім'ям Сигізмунда III. При цьому карбовані монети мали майже всі ті ж самі візуальні атрибути, що й шилінги попереднього правителя.

До кінця XVI століття, практично, не було письмових повідомлень про ризькі шилінги. З іншого боку, питання якості шилінгів стало темою дослідження для багатьох поколінь нумізматів, але досягнуті дослідниками висновки не однозначні. Принаймні, можна зробити висновок, що більшість дослідників спільні у думці, що до 1604 р. Стандарт карбування ризьких шилінгів був стабільним, середня вага цих шилінгів становила 1,13 г, а вміст срібла сягав приблизно 0,20 г.

Межа XVI–XVII століть ознаменувала кінець двох десятиліть тривалої стабільності та, у свою чергу, поклала початок епохи поступового зниження якості шилінгу, що було спричинене коливаннями ціни на срібло. Перша Варшавська комісія (1604 р.) запровадила такого роду зміни, переоцінивши срібний талер з еквівалента 36 грошів до 38. Зростання ціни на срібло було тісно пов'язане зі зниженням вмісту срібла у литовських (і ризьких) шилінгах на 11 відсотків – 0,181 г срібла в шилінгах, а

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також зі ще більш вражаючим зниженням якості польських шелягів – аж на 50–60%. Наслідком цього стало утворення у 1604 р. двох абсолютно різних шилінгів – польських та литовських.

Чергова хвиля зниження якості настала через досить короткий період, що призвело до другої Варшавської комісії у 1616 році. У 1615 і 1616 роках якість шилінгових монет щорічно знижувалась утричі. Друга Варшавська комісія застосувала подібну до першої регуляторну тактику, – стабілізація ціни на срібло та зниження якості монет. Вміст срібла у шилінгах знизився на 25,5%, отже, до 0,129 г ваги срібла, тоді як ціна на срібло зросла лише на 20 відсотків, з 38 до ~ 45 грошів у номінальних цінах. Тому за розпорядженням другої Варшавської комісії вартість шилінга стала децю завищеною. Крім того, Комісія не змогла запровадити ефективний механізм контролю для боротьби зі спекуляціями та надходженням низькоякісної іноземної монети. Це мало далекосяжні наслідки для всієї грошової системи Речі Посполитої та її учасників, включаючи місто Ригу. По-перше, це призвело до постійних розбіжностей між офіційними курсами валют та ринковою ціною срібла. По-друге, постанови Комісії стали просто формальністю. Протягом 1617–1620 рр. зниження якості монет відбувалось регулярно, принаймні, раз на рік.

19 серпня 1620 року Ризький магістрат наказав карбувати нові ризькі шилінги зі сплаву срібла: 2 лоти та 2 пфеніга (за стопою 260 шилінгів із срібної марки), того самого стандарту, який використовувався для карбування подвійних денаріїв та шилінгів у Вільнюсі. Це було стратегічним кроком для урівнення вартості трьох грошових монет зі сріблом, що було придбане у литовських подвійних денаріях, а також для підвищення конвертованості ризьких шилінгів на валютному ринку Речі Посполитої. Середня вага останніх емісій ризьких шилінгів становила 0,776 г із вмістом срібла 0,103 г. Таким чином, за період з 1616 по 1620 роки шилінг втратив додатково 12,8 відсотків фактичної вартості. Виходячи з розрахунків 1620 року, вартість талера становила в середньому 63 гроші, зростаючи на 20 грошів порівняно з його оцінкою у 1616 році. 1621 рік став черговим роком підвищення вартості талера – до 75 грошів. Отже, карбування монети було призупинено не лише завдяки політиці шведського короля Густава Адольфа, але й через високі ціни на срібло, що призвело до неможливості та невигідності продовження емісії.

Висновки. У статті доведено, що ризькі шилінги карбувались відповідно до стандартів якості монет у Речі Посполитій, хоча різниця між якістю продукції інших монетних дворів зберігалась. Протягом 40 років ризький шилінг втратив близько 50% вмісту срібла. До того ж, шилінг девальвував на 114% щодо талера, базової одиниці грошової системи. Однак, що стосується коливань ціни на срібло, вартість шилінгу була трохи завищеною. Загалом, за польського панування шилінг становив єдину, найбільш регулярно карбовану та успішну монету Риги.

Ключові слова: шилінг, Рига, Річ Посполита, Лівонія, нумізматики.

Summary.

The aim of study. The paper discusses the change of the silver proof of Riga schillings in the so-called Polish times. According to the *Corpus privilegiorum Stepheneum* (14 January 1581), Riga was confirmed minting rights, which however prescribed changes in coin design and fineness: on the one side coins had to bear the insignia of the Commonwealth and on the other side the coat of arms of the City; coins had to be of the same fineness and weight as the Polish and Lithuanian coinage so that there were no difference in their usage. **Research methodology.** Methods of analysis, classification, generalization and statistical methods were

used to obtain the tasks set in the work. Riga schillings are arguably among the most widely studied and well-known coinages of the city mint of Riga, the capital of modern Latvia. In 1582 the first Polish style shilling was minted in Riga. Starting with 1588 shillings and 3-groschen coins (*dreyer*) were produced in the name of Sigismund III. Carrying almost all the same visual attributes as the coins of Stephan Bathory. From the late 16th century until the mid-17th century the production of this northernmost situated mint occupied a dominant role in the Polish-Lithuanian Commonwealth market of small change. This has been suggested by the various archaeological data offered by Polish numismatists. Despite the fact that Riga schillings have been a subject of research over the last century, to this day scholars have not reached common understanding on the quality issue of the schillings. As is evident Baltic and Polish numismatists have disagreements about metrological terms of the early Commonwealth schillings. **Scientific novelty.** In an attempt to clear up some of the problems, three legislative sources will be paid special attention: ordinances of the Warsaw Sejm 1579/80 and the ordinances of the Monetary Commissions of Warsaw from 1604 and 1616. **The Conclusions.** This article argues that the Riga schillings were minted accordingly to the mint order, however from 1604 Riga (and Lithuanian) schillings deviated from the Polish schillings as they were minted of higher minting standard.

Keywords: schillings, Riga, Polish-Lithuanian Commonwealth, Livonia, numismatics.

Riga was the richest and most well-protected city in early modern Livonia.¹ Unlike most of Livonia, which was split between regional powers – Sweden, Denmark, Russia and the Commonwealth – competing for their share during the Livonian war (1558-1583), Riga retained the status of a free city (1561-1581). It was manifested in the coinage. The future of the city was decided at a closure of war, the removal of imminent threat posed by the Russian tsar Ivan IV (1547-1584) and the military superiority of the Polish king Stephan Bathory (1576-1586)². In the last diplomatic negotiations with the Polish envoys (1579-80), citizens of Riga finally agreed on the terms of capitulations. On 14 January 1581, Stephan Bathory signed the *Corpus privilegiorum Stepheneum* in Drohiczyn. According to the capitulation agreement, Riga maintained freedoms and privileges which were obtained from former rulers. Chapter 44 was defining the coinage: Riga was granted the right to mint gold and silver coins, to charge the income from coinage, on the one side coins had to bear insignia of the Commonwealth and on the other side the coat of arms of the city. Coins had to be of equal fineness and weight with the Polish and Lithuanian coinage so that there were no difference in their usage.

The confirmation of the minting privilege was one of the several keystones in the legislation acts which cemented the monetary order in Riga and Polish Livonia. Among others were the ordinances of 1579/80 and of Monetary Commissions of Warsaw 1604 and 1616, which were binding to all mints of the Commonwealth. Thirdly, with the ebbs and flows of monetary and economic situation, current needs were addressed through the monarchical issues of ordinances, universals (circular writ), letters, etc. Thus, from the legal point of view, there existed a certain framework within which Riga executed its minting rights. Though Riga schillings have been studied extensively, especially by Polish scholars, inconsistency in figures of schilling quality remain. The aim of this article is to offer an overview of the quality of the Riga schillings based on the written sources from Latvian State Historical Archives (LVVA – *Latvijas Valsts Vēstures arhīvs*). It presents a preliminary results of the doctoral thesis.

¹ The term 'Livonia' is commonly associated with the political constellation of feudal territories which existed in the present Latvia and Estonia from early 13th c. until the beginning of Livonian war (1558–1583). In the later centuries Livonia was predominantly associated with the geographical region covering modern day Vidzeme in Latvia and S-Estonia. From 1561 Livonia or Polish Livonia was in the hands of the Commonwealth, later, in 1629, it passed to Sweden.

² Staemmler, K. D. (1953) Preußen und Livland in ihrem Verhältnis zur Krone Polen 1561 bis 1586. Marburg, S. 64

In Riga the first ‘Polish’ schillings had been minted in 1582. On the obverse a monogram “S” of the king Stephan Bathory was depicted and on the reverse the small coat of arms of Riga – crossed keys and a cross above.¹ Schillings were minted regularly, except for 1583 as there are no such coin finds made. 1587 was another year without coinage, a year of an interregnum, marked by the death of king Stephan Bathory in 12 December 1586 and the election of new monarch, Sigismund III, on 27 December 1587.

Regarding the quality of the Riga schillings under the king Stephan Bathory, local written sources are silent. The terms of minting had been stated in the ordinances of the Warsaw Sejm 1579/80, which marked the introduction of an unitary monetary system in the Commonwealth with common exchange rates and equal coin standards. The ordinance of 5 January 1580 also saw the introduction of a new monetary unit – *schilling*, as it was commonly referred in Livonian sources, and *Szeląg* or *solidus* – in the Polish language area. There is a considerable amount of literature discussing the early schilling issues. In 1921 the Polish numismatist Mariusz Gumowski published a monography with the title “Vilnius mint in the 16-17th century”, in which he calculated the quality of Vilnius schillings. However, precision was not his strong point. On page 103 and 112 schillings are said to be minted from 2.6 lot silver and 177 57/64 pieces in weight mark², whereas on page 132 author gives slightly different figures: 2.6 lot 2 pfennig (corresponds to 2.72 lot) and 176 57/64 pieces in weight mark.³ Half a century later another Polish numismatist J. A. Szwagrzyk asserted that schillings were minted from 2 ½ silver proof and held 178 coins in weight mark.⁴ Today Lithuanian colleagues suggest that schillings were minted from a 2.6 silver alloy and 168 coins being counted in 1 weight mark.⁵ In contrast to the latter, the Estonian numismatists agree with another Polish numismatist, Zbigniew Żabiński, that schillings were minted from a higher quality, 2.875 lot silver alloy silver and 178 pieces in a weight mark.⁶ (Table 1) As is evident Baltic and Polish numismatists have disagreements about metrological terms of the early Commonwealth schillings.

It is hard to establish the principal source of the confusion, though it is clear, that not everyone had access to the primary sources, several evidences and methods may have been used. Although the difference between the proposed figures might seem insignificant, it is necessary to reach common understanding in the question. Back in the Polish (and Livonian) times quality of coinage stood at the centre of the credibility of the mint. In addition, schillings would be checked on a regular basis out of purely economic reasonings – schillings often were minted in quantities reaching millions, whereby small differences in figures summed up in great profits at the expense of other’s losses. Decreased schilling fineness could hide corruptive intentions as higher percentage of resource could be written off in losses or simply put in someone’s pocket. On the other hand, better schillings quality prescribed more precision and surveillance during the minting process.

Unlike many other mints in the Grand Duchy of Lithuania (hereafter GDL) and the Polish Kingdom, Riga mint was re-opened already in.⁷ Schillings and 3-groschen (dreyer) had been minted. Schillings of Sigismund III carried almost all the same visual attributes as the schillings of Stephan Bathory. The only visible difference was in the letter “S”, which was incrustrated with

¹ Grimalauskaite, D., & Remecas, E. (2016) Pinigai Lietuvoje. Vilnius: Lietuvos nacionalinis muziejus. P. 190; Similarly to the coinage of Vilnius all denominations, except for schillings, were featuring the kings portrait in the obverse and coat of arms of Riga on the reverse In the case of Vilnius, the coins were featuring joint coat of arms of GDL and Poland on the reverse.

² Ibidem, C. 103, 112.

³ Ibidem, C. 132.

⁴ Szwagrzyk, J.A. (1973) Pieniadz na ziemiach Polskich. Wrocław: Zkład Narodowy Imienia Ossolinskich Wydawnictwo (Ossolineum), C. 122, 126; Later repeated in: Leimus, I. (1995) Das Münzwesen Livlands im 16. Jahrhundert (1515-1581/94). Stockholm: Stockholm Numismatic Institute, Stockholm University, S. 58

⁵ Grimalauskaite, D., & Remecas, E. Pinigai Lietuvoje. P. 188

⁶ Żabiński, Z. (1981) Systemy pieniężne na ziemiach Polskich. Polska Akademia nauk – oddział w Krakowie. Nr. 20. Wrocław, Warszawa, Kraków, Łódź, Gańsk: Ossolineum 1981. C. 105; Leimus, I., Kiudsoo, M., & Haljak, G. (2018) Sestertsist sendini: 2000 aastat raha Eestis. Tallinn: AS Äripäev, P.102; Other numismatists who have contributed to the question: Mrowinski, E. (1986) Monety Rygi. Warszawa, C. 47; Mikołajczyk, A. (1988) Einführung in die neuzeitliche Münzgeschichte Polens. Łódź: Muzeum Archeologiczne i Etnograficzne w Łodzi, C. 50

⁷ LVVA 673-1-1283, fol. 99r-100v; Grimalauskaite, D. & Remecas, E. Pinigai Lietuvoje. (English translation, forthcoming) P. 78

the coat of arms of the Vasa dynasty. Without having the privilege text at hand, it is possible to suggest that the main points in the minting privilege were kept in line with Stephan Bathory's, privilege. An indirect approval of this can be found in the writing of Otto Schenking, the bishop of Wenden (1589-1625). In his letter (16 March 1592) O. Schenking reminded that soon after the coronation king Sigismund III requested to publish a new mint mandate at the Landtag of Wenden (1588¹). The mandate stated that all coins, be it silver, gold and small change (*ander Pagemendt*) all around the province (*alhir Im Lande*) had to be minted and exchanged at the same value as in the Kingdom of Poland and the GDL.² Another decree from 1 January 1589 stipulated that only the Riga coins could be legal means of payment in Polish Livonia.³ It was all the more important, since Riga was not the only mint in Polish Livonia. For years Dorpat had been struggling to acquire minting rights, but without results. Estonian numismatists have suggested that Riga could be supporting the opposition to grant minting rights to Dorpat.⁴

It may seem as if there was lessened competition in the Livonian monetary market, but in fact it was not. Livonia was integral part of a much wider common monetary market, where coinages from different mints in the Polish kingdom and the GDL circulated freely. Small change, especially schillings and 3-groschen, were in high demand. As it has been noted by Polish numismatists, Riga made huge success in the monetary market in terms of their production.⁵ Riga schillings and 3-groschen were known practically to everyone in the Commonwealth.

The numismatic scholarship holds that during the first half of Sigismund's III reign the monetary market was expanding; new mints were opened and different issues were produced. The period from 1578 to 1604 is sometimes referred to as "the boom of Polish coinage".⁶ The progressive development of the market seems to have been put on a halt around the turn of 17th century. Primary sources of concern were the production quality of various mints and the increasing silver price. Within 15 years of uninterrupted activity (1589–1603) eight employees were fired from the Vilnius mint for various abusive acts. When visiting the mint in 1601, Sigismund III ordered to close the mint because of the poor quality of the coins. However, the mint continued to issue coins until 1603, this time without a mint master's mark on the coins.⁷ In the meantime the monetary situation was becoming tense in Riga. In August 1600 Swedish forces led by the Duke Charles disembarked in Tallinn and started military campaigns in Polish Livonia. In 27 December 1600 Duke Charles stormed Tartu and by early 1601 Wenden (Cēsis), Wolmar (Valmiera), Kokenhusen (Koknese), Peebalg (Piebalga) and Rositten (Rēzekne) in Polish Livonia were captured. The city of Riga was under siege. Although Swedes were later forced to retreat, as often it happens, the plague and famine had the last word.⁸ The Riga mint lost all of its journeymen and apprentices in the plague (1601–1602).⁹ Although minting never ceased, it can be deduced from the mint book of Riga that 1601–1603 was the most critical period at the mint. The mint was undersupplied, schillings were minted predominantly from

¹ *Scriptores rerum livonicarum*. (1853) Sammlung der wichtigsten Chroniken und Geschichtsdenkmale von Liv-, Ehst- und Kurland; in genauem Wiederabdrucke der besten, bereits gedruckten, aber selten gewordenen Ausgaben. Zweiter Band. Riga und Leipzig: Eduard Frantzen's Verlags-Comptoir. S. 286

² LVVA 673-1-1283, fol. 12r

³ Ducmane, K., & Ozoliņa, A. (2013) *Naudas laiki Latvijā: no mārkas un vērdiņa līdz latam un eiro*. Rīga: Lauku Avīze. P. 58; Leimus, I. (1995) *Das Münzwesen Livlands...* S. 62

⁴ Leimus et al. (2018) *Sestertisist sendini...* P. 91, Leimus, I. (1995) *Das Münzwesen Livlands...* S. 62

⁵ Szwagrzyk, J. (1973) *Pieniadz na ziemiach polskich X–XX w.*; Mikolajczyk, A. (1988) *Einführung in die neuzeitliche Münzgeschichte Polens*. Lodz, 1988.

⁶ "Aufschwung des polnischen Münzwesens" Mikolajczyk, A. (1988) *Einführung in die neuzeitliche ...* c. 48

⁷ Gumowski, M. (1921) *Mennica Wilenska...* P. 138; Ruzas, V. (2015) *Lietuvos Didžiosios Kunigaikštystės monetos Lietuvos banko Pinigų muziejuje: katalogas = Coins of the Grand Duchy of Lithuania at The Money Museum of the Bank of Lithuania: catalogue*. Vilnius: Lietuvos Bankas. P. 295-296

⁸ Gerhards, G. (2013) *Avotu liecības par Lielo badu Vidzemē (1601-1602)*. *Vēsture: avoti un cilvēki: Humanitārās fakultātes 22. starptautisko zinātnisko lasījumu materiāli*, 16. sēj. (Proceedings of the 22nd International Scientific Readings of the Faculty of Humanities / Daugavpils Universitāte). Daugavpils: Saule. P. 97-104 Seppel, M. (2014). 1601.-1603. aasta näljahäda Eestimaal, I: kronoloogia, ikalduse ulatus ja sissetulekute langus. *Tuna. Ajalookultuuri ajakiri*, 2. P. 33–49.; Seppel, M. (2014). 1601.-1603. aasta näljahäda Eestimaal, II: asustuse vähenemine, näljaabi ja kannibalism. *Tuna. Ajalookultuuri ajakiri*, 3. P. 25–43.

⁹ LVVA 673-1-1283, fol. 57

old coins, supposedly Livonian schillings.¹ Furthermore, there were complains of the production quality of schillings and 3-groschen because some coins had not been regular in shape. Mint master H. Wulff responded to the complains with an argument that the new staff did not have work experience, besides low quality coins could be found among foreign coinages as well. The mint master also complained about the small change of the GDL and the Polish kingdom: the issue rates from 1 weight mark had been exceeded, which means that they were being secretly debased.² Another port city, Danzig in Royal Prussia, as early as 1588-1601 called the Sejm to improve a minting standard and protect the market from the influx of foreign small change.³ These and other complains and issues formed the background at which Sigismund III summoned the Commission of Warsaw (1604).

In 24 January 1604, Sigismund III sent an invitation letter to the city magistrate asking its delegates to attend the commission which should decide on the future quality of coins.⁴ The Commission sessions took place from 8 to 15 July.⁵ The goal of the Warsaw Commission was to stabilize the monetary system by suspending grave misconduct of the mints, and set unitary values for coinage in the GDL and the Polish kingdom.⁶ Among the topics covered in the commission discussions were the circulation of local and foreign small change in the Commonwealth, including Riga schillings, who had been minted very poorly.⁷ Numismatists came to conclusion that “[...] *the only thing which was successfully implemented was devaluation of coins by the Warsaw Commission [...]*”⁸ Further Lithuanian colleagues offer the figures of debasement: “*The three-groats and six-groats were devalued by 10%, the groats by 18%, and the shillings by even 60%*”⁹ However, as I shall argue in due course, the figures are disputable and can’t be universally applied to the rest of the Commonwealth mints, at least, not to the GDL and Riga. The debasement rates, which were evidently borrowed from Żabiński, were based on an analysis of Polish schillings. New Polish schillings were minted from 2 lot 3 quentin silver alloy with 381 pieces in weight mark. On average Polish schillings weighed 0.53 g and contained 0.091 grams of silver.¹⁰ Compared to the schilling standard of 1580 ordinance, this sets debasement rate in the margins of 49 to 55,5 %.¹¹ As the figures are below Żabiński’s estimates, it is possible to suggest that Polish schillings were debased prior to the Warsaw Commission (1604).

There is yet another account of an undated piece of writing by H. Wulff, which offers different figures for schilling and various units in the Polish Kingdom:¹²

Fig.1 A draft of coin standards in the Kingdom of Poland (1604)

Nominal	Number of coins in weight mark	Silver proof
Schilling	200	2 lot 3 q 2 d
½ - groschen	260 2/5 ¹⁴	5 lot 3 q
groschen	127 1/3 ¹⁵	5 lot 3 q
3-groschen	90 1/3	13 lot 2 q

¹ Dāboliņš, V. (2019) The Mint book of Riga, 1598-1603, P.93

² LVVA 673-1-1283, fol. 58

³ Gumowski, M. (1990) Mennica Gdańska. Gdańsk: Ptain. P. 97

⁴ LVVA 673-1-1283, fol. 19

⁵ LVVA 673-1-1283, fol. 35-40

⁶ LVVA 673-1-1283, fol. 120v

⁷ Grimalauskaite, D., & Remecas, E. Pinigai Lietuvoje. (English translation, forthcoming) P. 79; “[...] *itakze y szelagow Ryskich ktore sie pokaznie byc barzo podle, zeby sie potym nie wiadomovia y nie ostrzezeniem zadzieniewyma*” LVVA 673-1-1283, fol. 43v

⁸ Grimalauskaite, D., & Remecas, E. Pinigai Lietuvoje. (English translation, forthcoming) P. 79

⁹ Grimalauskaite, D., & Remecas, E. Pinigai Lietuvoje. (English translation, forthcoming) P. 79; Żabiński, Z. (1981) Systemy pieniężne... C. 110

¹⁰ Żabiński, Z. (1981) Systemy pieniężne... C. 110

¹¹ The rate can not be stated more precisely due to differences in metrological terms of schillings.

¹² LVVA 673-1-1283, fol. 74r; These figures seem to agree with the accounts of the Commission meeting. The text needs more carefully reading - LVVA 673-1283, fol. 38r

¹⁴ Possibly, the output of groschen from 1 weight mark was slightly higher – 260 2/3. LVVA 673-1-1283, fol. 90r

¹⁵ Zagorski, P. (1845) Monety dawney Polski. Warszawa: w drukarni przy ulicy Rymarskiej N. 743. C. 30; Very close to these figures are the ones referred by Gumowski: 5 lot 3 q and 127 pieces from the weight mark: Gumowski, M. (1921) Mennica Wilenska...C. 134

The noticeable difference between the above table and Żabiński's figures lay in schillings, which suggest that these schillings were larger in diameter and weight. The debasement was expressed in the increased schilling output from 178 pieces to 200 pieces in 1 Krakow weight mark (201,8g). Schillings became slightly smaller; the average weight was 1.0 g and contained 0.181 g silver. In the real-life differences between earlier and later Riga issues cannot be said right away, however Riga schillings are clearly distinguishable from Polish schilling for their size. Thus, we come to conclusions that starting with 1604 Riga schillings were minted differently from Polish schillings. If we agree with the premises that the schilling standard in Riga was not altered until 1604 and the drafted monetary standard was adopted, Riga schillings had been debased only by 10%. Similarly to Lithuanian schillings, they weighed twice more and contained twice as much silver as the Polish. Therefore, it is out of question that we can apply the debasement rate of schillings offered by Żabiński.

Apparently, the coinage debasement was initiated after the Commission's decision to raise the official silver price from 36 to 38 groschen in thaler, the price level, which was reached already by 1601.¹ (Table 2) This was predated by the price increase in 1598, from 35 to 36 groschen in thaler.² Therefore, in a period of 24 years silver price had increased by 8.5 percent in the Commonwealth. The difference between the silver price movement (8.5 percent) and the debasement of schilling and 3-groschen (~ 11 percent) was less expressed, than for example with ½ groschen, which were debased by ~25 percent and groschen – by 16 percent. In effect, 3-groschen and schillings were the only denominations, which maintained full character, while others lost their value significantly. Obviously, the debasement pattern contributed to the popularity of schillings and 3-groschen in the Commonwealth, and to some degree explains the fact that in the forthcoming decades schillings became an object of speculations and more regular debasement. Despite the separation between Polish and Lithuanian schillings, which took place already in 1604, with minor differences we can agree with other debasement figures offered by Zagorski.

Another reference which allows establishing the debasement rate for schillings in 1604 is provided by the overall schilling debasement pattern in the following years. In the mint masters note we can read that 1606-1609 coins were minted from 2 lot 3 q 1 d silver alloy, a decrease by 1 pfennig.³ It is clear that until 1606 schillings had been better, most probably, of 2 lot 3 q 2 d silver alloy. In 1610 schillings experienced another decrease in the quality to 2 lot 3 q.⁴ 1611 saw an almost unexperienced improvement in the schilling quality – a rise to 2 lot 3 q 2 d.⁵ In effect, this could mean a re-establishment of the 1604 minting standard. The reasons for this attempt could be explained with political realities of the time. In 1611, after the death of the Swedish king Charles IX (1604–1611), a truce was signed between Poland and Sweden which was later renewed up to 29 September 1616.⁶ The truce ended a series of long and bloody intrusions of Swedish forces in Polish Livonia. Despite the high costs of the war and a relative increase in silver price to 41/42 groschen for a thaler⁷, there was a strong political will to return to the previous monetary order.

In the first peace time years the schilling quality was constant. Still, monetary conditions were worsening in the Commonwealth and Europe altogether. In 15 July 1614, the mint master H. Wulff complained to the magistrate of Riga that due to the debasement of the currency in the Commonwealth, not only 3-groschen and groschen, but also Riga schillings had been exchanged against the less worthy Lithuanian and Polish coins, thus depleting Polish Livonia

¹ LVVA 673-1-1283, fol. 38r; Gumowski, A. (1921) *Mennica Wilenska...*C. 135

² LVVA 673-1-1283, fol. 41r; 43r

³ LVVA 673-1-1280, fol. 30r

⁴ LVVA 673-1-1280, fol. 30r

⁵ LVVA 673-1-1280, fol. 30r

⁶ Attman, A. (1979) *The Struggle for Baltic Markets: Powers in Conflict 1558-1618. Göteborg: Vetenskaps- o. vitterhets-samhället.* P. 181

⁷ LVVA 673-1280, fol 37r; LVVA 8-4-59, fol 15r; 673-1-1287, fol. 63v

of the valuable silver sources.¹ The mint master suggested to address the issue by debasing the coinage according to the current minting standard in the Commonwealth. H. Wulff I urged the magistrate to execute its rights, moreover, taking into consideration the current trend in monetary markets, an almost Europe-wide practise of debasement.² H. Wulff's call for a debasement of schillings was not without results. In 1615 alone schillings were debased on three occasions.³ On 23 September 1615, mint lord Berent Dolmann arrived to the mint and in the presence of the mint wardeyn Lambert Goldenstedt ordered to mint 7 more schillings in a weight mark⁴ The same repeated on 28 November, when the mayor and mint lord Nicolaus Ecke ordered to mint 4 more pieces in a weight mark.⁵ Three more debasements followed until 3 November 1616, when the schillings quality reached 2 lot 3d and 220 pieces in weight mark.⁶ The debasement process seemed to have gone out of hand.⁷

In 1616 king Sigismund III summoned a monetary Commission, which met in Warsaw from 7 to 17 October. The main focus was on the quality of various small coinages of the Commonwealth and other countries, wherefore the first thing to do was to check the quality of coins. Among others schillings of the Vilnius and Riga mints from 1616 were tested; both were being minted from 2 lot 3 pfennig silver and contained 220 pieces in 1 weight mark.⁸ Again, concerning the decisions of the Commission, we are confronted with the same shortage of source publications as in the case of the 1604 Commission. For the current study only few accounts from the Latvian State Historical Archives are available. One of the sources is a drafted project from 17 October 1616, which was compiled by a group of experts: State *Camerdiener* Johannes Lobmayer, mint master of Krakow Johannes Altenberger, mint master of Danzig Daniel Kluver, mint master of Riga Martin Wulff, mint master of Posen Rudolphus Lehman, wardeyn of Königsberg Eberhardt Haußleib and wardeyn of Vilnius Georgius Helvetius.⁹ The main points of interest in the text are: the silver price which was increased to 46 groschen in thaler and the proposal to mint schillings from 2 lot 3 pfennig silver alloy and 213 pieces in weight mark. If the proposal had been accepted at the given rates, it can be concluded that no particular changes had been made in the schilling quality. On the other hand, the proposition to raise silver at a given price must have been rejected, as the mint accounts from 1617 suggest that a thaler was exchanged for 45 groschen.¹⁰ Following quality standards were set for various denominations¹¹:

Fig. 2. A draft of coin standards in the Commonwealth (1616)

Nominal	Number of coins in weight mark	Silver proof
Schilling	213	2 lot 3 d
½-groschen	222	4 lot
Groschen	128	7 lot 2 q
“Einfache groschen”	137	5 lot 2 d

¹ LVVA 673-1283, fol. 99r

² LVVA 673-1-1283, fol. 100r

³ In her book Rasma Ceplīte suggested that schillings had been debased on 4 occasions in 1615, last time on 16 December. However, there was no debasement, but devaluation of schillings, as the silver price was increased to 42 groschen in 1 thaler. Ceplīte, R. (1968) *Laikā no 1621. līdz 1710. gadam Rīgā kaltā sīknauda un tās apgrozība*. Numismātika. Rīga: Izdevniecība “Zinātne”, P. 128

⁴ LVVA 673-1-1287, fol. 5r

⁵ LVVA 673-1-1287, fol. 5v

⁶ LVVA 673-1-1280, fol. 37r

⁷ On the other hand, there is no reason to believe that the situation was different in the rest of the Commonwealth.

⁸ LVVA 673-1-1283, fol. 106v-107r; 111v; There seems to be some uncertainty on when the actual debasement of Riga schillings took place. On the one hand, test results of 8 October showed that both Riga and Vilnius schillings were of equal quality, on the other hand, the decision to mint schillings in accordance with new Vilnius schillings was made only in November.

⁹ LVVA 673-1-1283, fol. 110.

¹⁰ LVVA 673-1-1283, 178r, LVVA 673-1-1280, fol. 37 v.

¹¹ LVVA 673-1-1283, fol. 110.

The decisions of the Monetary Commission had little or no long-term effect on the quality of schillings and less so on the silver prices. The Commonwealth mints stood at the end of the supply chain of silver, which was being imported from the Spanish colonies in the New World, exchanged in the international exchange fairs in Italy and France and later distributed throughout Europe with the helping hand of banks and merchants.¹ Riga was the major transit point in the Baltic Sea trade, handling much of the lucrative trade with eastern goods and corn. The long passage of precious metals and the shortage of hard currency in the hinterland² contributed to the fact that in Riga precious metals were not available at a constant price; it was subjected to many factors – the natural seasonal character of the sea trade, storms and long winters, but also regional and European wide politically-military disorders and economic cycles. Without making deposits or monopolising of the trade of precious metals, the monarch and the Commonwealth had little instruments to regulate the precious metal market at the state and regional level other than issuing of decrees.

In 13 January 1617, the quality of Riga schillings had been improved by 1 pfennig, to 2 lot 1 quentin. The magistrate requested to mint Riga schillings from a slightly higher silver content than Vilnius schillings.³ Apart from the most ordinary schillings, there was a renewed output of different denominations: groschen (1616), 3-groschen (1618) and dreipölkers (1620). The rising output of various coinages coincided with the peak years of corn exports from the Commonwealth.⁴ There was probably more silver and gold available in the Commonwealth's monetary market than ever before. The increasing import of hard currency from the western countries also spread concerns of quality and speculation risks.⁵ In the Riga mint silver price was set by the magistrate. Nevertheless, burghers often showed little respect for that; they "*did not want to bring reals for the given price*".⁶ Obviously, the mint master was in no position to dictate the rules for merchants who could find customers among citizens and in the eastern provinces of the Commonwealth. Thus, every now and then, we can read in the Mint book of Riga (1615-1621) of another re-evaluation of Spanish reals.⁷ The rise in the silver price was almost inseparable from the debasement of coins. By 19 August 1620, the schilling quality had been decreased to 250 pieces in weight mark.⁸

The last chapter in minting of Riga schillings under Polish rule was affected by the preparations for the war with Sweden. In the Peace treaty of Stolbov (27 February 1617) Russia renounced all claims to Estonia and Livonia. The Swedish king Gustav II Adolphus had a legitimate reason to prepare for the war against the Commonwealth. In the final prewar year silver price reached 57 groschen for thaler.⁹ In the light of highly increasing silver prices groschen had become the only affordable source for extracting silver. In 1620 the magistrate came to the decision to regulate the coinage of schillings in accordance with Vilnius double pfennigs. Double pfennigs were minted from 2 lot 2 d and contained 348 and later, also 362 pieces in weight mark. At the same time Riga schillings were minted from 2 lot 2 d and contained 250 pieces in weight mark.¹⁰ 4 Lithuanian double pfennigs were equal to 1 Polish groschen or 3 schillings.

¹ "[...] the most recent and detailed study of the Baltic trade remarks, that the Danish Sound was the ultimate destination of much of the contents of the Silver Fleets from Spanish Americas." Wilson, C. H. (1967) Chapter VIII Trade, Society and the State. Rich, E. E. & Wilson, C. H. (Eds.) The Cambridge Economic History of Europe. IV The Economy of Expanding Europe in the 16th and 17th centuries. Cambridge: Cambridge University Press, P. 511.

² Attmann, A. (1979) The struggle for Baltic Markets...P.8

³ LVVA 673-1-1280, fol. 37v; LVVA 673-1-1287, fol. 64r.

⁴ Davies, N. (1981) God's playground. A History of Poland. Volumes I The Origins to 1795. Oxford: Oxford University Press, P. 288.

⁵ LVVA 673-1-1283, fol. 120r-121v; 124r-124v (a copy in German); LVVA 673-1-1283, fol. 122-124v (in Polish). LVVA 673-1-1283, fol. 126r-v, 130r-130a; LVVA 673-1-1283, fol. 128 (original, in Polish).

⁶ This formulation is often reported in the lines of the mint book of Riga (1598-1603) LVVA 673-1-1287, fol.

⁷ LVVA 673-1-1287.

⁸ LVVA 673-1-1287, fol. 129 v.

⁹ LVVA 673-1-1369, fol. 42 r.

¹⁰ LVVA 673-1-1369, fol. 44r This anonymous note with test results could be produced at the mint. However, the offered test results slightly difference from the figures given in N.Ecke's letter. See: LVVA 673-1-1369, fol. 42.

To further exchange with groschen and double pfennigs Riga magistrate ordered to mint schillings with 260 pieces in a weight mark. Minting of new Riga schillings commenced on 19 August 1620.¹

In the early 1621 the monetary market started to develop signs of economic decline. There was not enough silver available in the local market. Public spending was increased for the protection of the city and satisfying the daily needs of the citizens as the latter were more willing to hoard than spend. The magistrate decided to advance savings from the city Treasury. On 25 February the mint launched the reminting of the old schillings.² The mint master M. Wulff paid his last rent for the period until 12 August, which saw the arrival of the Swedish fleet at the mouth of the Daugava river.

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¹ LVVA 673-1-1287, fol. 129 v.

² LVVA 673-1-1287, fol. 143 r.

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Appendixes

Table 1. The fineness of the Riga schillings under Polish rule.¹

Year	Fineness	Coins in weight mark	Source
1580	2 lot 2 (quentin) – 2 lot 3 (quentin) 2 d(enar)	177–178	Gumowski, M. (1921) Mennica Wilenska...c. 112, 132 – Leimus et al. (2018) Sestertsist sendini...p. 102
1591	2 lot 3 q 2 d	178	Gumowski, A. (1921) Mennica Wilenska...c. 132
1604	2 lot 3 q 2 d	200	LVVA 673-1-1283, fol.74r
1606	2 lot 3 q 1 d	200	LVVA 673-1-1280, fol.30
1607	2 lot 3 q 1 d	200	LVVA 673-1-1280, fol.30
1608	2 lot 3 q 1 d	200	LVVA 673-1-1280, fol.30
1609	2 lot 3 q 1 d	200	LVVA 673-1-1280, fol.30
1610	2 lot 3 q	200	LVVA 673-1-1280, fol.30
1611	2 lot 3 q 2 d	200	LVVA 673-1-1280, fol.30, 31r
1612	2 lot 2 q 2 d	200	LVVA 673-1-1280, fol.30, LVVA 673-1-1280, fol.31r
1613	2 lot 2 q 2 d	200	LVVA 673-1-1280, fol. 29, 31r
1614		<i>“the quality of Riga coins had been decreased”</i>	LVVA 673-1-1369, fol.67; Platbārzdis, A. (1968) Die Königliche Schwedische Münze...p. 19

¹ Some earlier overviews of the schilling quality in Riga: Ceplīte, R. Laikā no 1621. līdz 1710. gadam Rīgā kaltā sīknauda un tās apgrozība. Numismātika. Rīga: Izdevniecība “Zinātne”, 1968. 128 p.; Dāboliņš, V. The Mint book of Riga, 1598–1603. In: Numismatica Baltica II. Tallinn, 2019. P. 99.

Year	Fineness	Coins in weight mark	Source
1615.02.04	2 lot 2 q 2 d	200	LVVA 673-1-1280, fol.37r; 673-1-1287, fol. 63v
1615.09.23	2 lot 2 q 2 d	207	LVVA 673-1-1280, fol. 37r; 673-1-1287, fol.5r; 63v
1615.11.25	2 lot 2 q 2 d	212	LVVA 673-1-1280, fol. 37r; 673-1-1287, fol.5v; 63v
1616.03.09	2 lot 1 q 2 d	220	LVVA 673-1-1280, fol.37r; 673-1-1287, fol. 63v
1616.06.08	2 lot 1 q 1 d	220	LVVA 673-1-1280, fol.37r; 673-1-1287, fol. 64r
1616.11.03.	2 lot 3 d	220	LVVA 673-1-1280, fol.37r; 673-1-1287, fol. 64r
1617.01.13	2 lot 1 q	220	LVVA 673-1-1280, fol.37v; 673-1-1287, fol. 64r
1618.04.24	2 lot 1 d	220	LVVA 673-1-1280, fol.38r
1619		<i>“the quality of Riga coins had been decreased”</i>	LVVA 673-1-1369, fol.67; Platbärzdis, A. (1968) Die Königliche Schwedische Münze...p. 19
until 1620.08.19.		250	LVVA 673-1-1287, fol. 129v
1620.08.19.	2 lot 2 d	260	LVVA 673-1-1287, fol. 129v; LVVA 673-1-1283, fol. 146v
June 1620	2 lot 2 d	260	LVVA 673-1-1283, fol. 143v; LVVA 673-1-1279, fol. 74r
1621.04.01.	2 lot 2 d	260 <i>“white schillings”</i>	LVVA 673-1-1278, fol. 15r

Table 2. Exchange rates of real and thaler in Riga (1581–1621)¹

Date	Exchange rate of real in Polish groschen	Exchange rate of thaler in Polish groschen	Source
1580		35	LVVA 673-1-1283, fol. 21; 22
1598		36	LVVA 673-1-1283, fol. 41r; 43r; Gumowski, A. (1921) Mennica Wilenska...c. 135
1601		38	Gumowski, A. (1921) Mennica Wilenska...c. 135
1602	37	38	LVVA 8-4-59, fol. 15r
1603-1606	37	38	LVVA 8-4-59, fol 15r; LVVA 673-1-1283, fol. 21; 22
1607	38	39	LVVA 8-4-59, fol 15r
1608	39	40	LVVA 8-4-59, fol 15r; LVVA 673-1-1283, fol. 79v
October 1609	39	40	LVVA 8-4-59, fol 15r;
April 1610	40	40-41	LVVA 8-4-59, fol 15r; 673-1-1283, fol. 178r
October 1610	41	42	LVVA 8-4-59, fol 15r
1611 - 1615	41	42	LVVA 673-1280, fol 37r; LVVA 8-4-59, fol 15r; 673-1-1287, fol. 63v
16 December, 1615	42		LVVA 673-1-1287, fol. 63v
15 June ,1616	42 ½	43	673-1-1280, fol. 37r, 673-1-1283, fol. 178r; 673-1-1287, 64r
16 February, 1617	43 (+ 8 groschen for every 100 reals)		LVVA 673-1-1287, fol. 64r
24 March, 1617	44 (+ 92 groschen for every 100 reals)		LVVA 673-1-1287, fol. 64v
1617	43-45	45	LVVA 673-1-1283, 178r, LVVA 673-1-1280, fol. 37v

¹ An earlier versions of the table has been published: Dāboliņš, V. (2018). Riga mint in 1621. *From Ore to Money, Mining, Trading, Minting. Proceedings of the Tallinn (2018) conference.* 202.. Wetteren, 2018. P. 120.

Date	Exchange rate of real in Polish groschen	Exchange rate of thaler in Polish groschen	Source
1618	45-45 ½	47	673-1-1280, 37v, LVVA 673-1-1283, fol. 178r
27 June, 1618	46		LVVA 673-1-1287, fol. 70r
5 September, 1618	46 ½		LVVA 673-1-1287, fol. 75r
13 February, 1619	47		LVVA 673-1-1287, fol. 89v
27 March, 1619	48		LVVA 63-1-1287, fol. 92v
September 1619	48	50	LVVA 673-1-1283, fol. 178r; LVVA 8-4-59, fol 15r
6 November, 1619	49 ½		LVVA 673-1-1287, fol. 109r
11 December, 1619	50 ½		LVVA 673-1-1287, fol. 111v
December 1619		52	LVVA 673-1-1283, fol. 178r; LVVA 8-4-59, fol 15r;
1 January, 1620	52		LVVA 673-1-1287, fol. 113r
March 1620	54	57	LVVA 673-1-1283, fol. 178r
22 April, 1620	56 ½		LVVA 673-1-1287, fol. 121r
May 1620	56	57	LVVA 673-1-1283, fol. 178r; LVVA 8-4-59, fol 15r
8 July, 1620	58		LVVA 673-1-1287, fol. 126v
15 July, 1620	59		LVVA 673-1-1287, fol. 127r
22 July, 1620	60		LVVA 673-1-1287, fol. 127v
July 1620	60	63	LVVA 673-1-1283, fol. 178r; LVVA 8-4-59, fol 15r
2 September 1620	64 ½		LVVA 673-1-1287, fol. 130v
October 1620	67	70	LVVA 673-1-1283, fol. 178r; LVVA 8-4-59, fol 15r
January 1621	72	75	LVVA 673-1-1283, fol. 178r; LVVA 8-4-59, fol 15r