

# Surge, retraction and prices: the performance of fiat coins in Sweden, c. 1715–1720

PETER ERICSSON\* and PATRIK WINTON\*\*

\*Uppsala University

\*\*Örebro University

From 1716 to 1718, Sweden experienced a shock of liquidity when the absolutist regime of Charles XII issued large amounts of fiat coins (*mynttecken*) in order to finance the Great Northern War. After the death of the king in November 1718, the new parliamentary regime decided to partially default on the coins. In international literature, this episode is largely unknown, and in Swedish historiography, scholars have often claimed that the country's currency collapsed in hyperinflation. We assess the performance of the new coins by studying how prices of commodities in various geographic locations developed. We also study bookkeeping practices in order to see how accountants treated the new coins. Our results show that there was a complex relationship between prices and liquidity. Prices of products in high demand by the military increased more than other prices. Accountants did not treat *mynttecken* and other currencies differently in 1718. It was only after the death of the king that accountants started to differentiate between different types of coins. The value of the fiat coins was linked to the actions and the legitimacy of the royal regime, which is in line with the State theory of money.

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**JEL classification:** E31, E42, G28, H81, N13, N23, N43

From the early spring of 1716 to the late autumn of 1718, Sweden experienced a shock of liquidity. More than 21 million *daler silvermynt* (dsm.) was pumped into an agrarian economy that was only partially market oriented. In comparison, the mean annual release of liquidity in the years 1700 to 1715 was around 750,000 dsm.<sup>1</sup> The burst was especially intense in the summer of 1718. This monetary

Dr Peter Ericsson, Uppsala University, Box 628, 751 26 Uppsala, Sweden, email: [peter.ericsson@hist.uu.se](mailto:peter.ericsson@hist.uu.se); Dr Patrik Winton, Örebro University, 701 82 Örebro, Sweden, email: [patrik.winton@oru.se](mailto:patrik.winton@oru.se). We would like to thank Jan Lindgren, Erik Lindberg, the journal editor and two referees for their comments and advice. Research for this article was supported by the Swedish Research Council, Vetenskapsrådet, grant/award number: 2015-02029.

<sup>1</sup> Lindgren 2018, pp. 319–20. The numbers presented by Edvinsson and Ögren (2014, p. 321) are too high (103,281,000 dkm., i.e. 34,427,000 dsm; the ratio of dkm. to dsm. was 3:1), and the authors do not explain how they have reached such sums. There are some disagreements regarding the circulating amounts, and how to calculate them, but previous research indicates that there were between 20 and 26 mn dsm., with the lower numbers closest to the result of the most recent calculations. See Julén 1916, pp. 23–8, 90; Lindgren 2007–8, pp. 94–7.

policy was launched by the absolutist regime of Charles XII (reigned 1697–1718), and the purpose was to enable continued warfare against a coalition that comprised nearly all states in northern and eastern Europe. The more specific objective was to finance a military campaign against Norway in the autumn of 1718. The Swedish policies were part of an international development in which credit and paper money became increasingly crucial for funding state expenditure.<sup>2</sup>

The royal regime's primary monetary tool was to issue fiat coins, *mynttecken*.<sup>3</sup> These were very light copper coins, weighing between 3.6 and 7 grams, and they were stamped with the nominal value of 1 dsm. In contrast, the unwieldy copper plates that they replaced could weigh several kilos depending on their denomination, with a mean weight of 756 grams per dsm. (Tingström 1984, pp. 48–9). The metallic value of the new coins would thus have been less than 1 per cent of their nominal value and in practice negligible. Like paper bills, they were fiat money dependent on the authority of the issuing body and the acceptance of the holders for their worth.

In this article, we will assess the performance of the *mynttecken* by studying how prices of a number of commodities in various geographic locations developed from around 1715 to 1720. Critically, we have tried to use monthly prices, when available, rather than annual averages or perennial intervals. We also study bookkeeping practices, in order to learn whether accountants treated the new coins differently from other means of payment. Our fundamental assertion is that the collapse of the new coins came *after* the death of Charles XII on 30 November 1718 and that it was a consequence of the actions taken by the new parliamentary regime, rather than an economic necessity caused by the failing policies of the previous royal regime.

By relating the surge of liquidity, and the subsequent retraction, to the development of prices, we will demonstrate that there was a complex relationship between these two variables, and that prices did not simply follow the increase and decrease of circulating liquidity. Without getting ahead of the investigation, we will show that the performance of the new coins was largely determined by political circumstances. Such findings are in line with the State or the Credit school of money, which implies that the value of money is closely related to the overall power of the issuing body, which is typically the state (Goodhart 1998; Wray 2003; Ingham

<sup>2</sup> On the increasing role of credit, see for instance Brewer 1988, esp. pp. 114–34; Brandon 2015, pp. 246–62; Félix 2018.

<sup>3</sup> This Swedish noun is difficult to translate into English. The closest equivalent would be 'token coins', and this translation has been used in the literature in English, e.g. Edvinsson 2010, pp. 168–76; Edvinsson and Ögren 2014, pp. 301–2; Ericsson and Winton 2019. 'Token coins', however, is often used for unofficial mediums of exchange, issued by private companies or organisations. Such a translation might give the wrong impression that these coins had a limited use and that they did not constitute 'real' money. The contemporary German noun used to identify the new coins, *Münz-Zeichen*, is very close to the Swedish term, as is the Dutch *Muntteekens*. We have therefore kept the Swedish *mynttecken*, or simply called them 'the new coins'.

2020). Thus, by presenting the Swedish case of the 1710s, we will be able to make a contribution to the discussion on the neutrality or bias of money.

## I

In Swedish historiography it has generally been assumed that an over-issuing of ‘emergency coins’ (Sw. *nödmynt*, a concept never used by contemporaries) ended with a monetary system and government finances in disarray, which the new parliamentary regime had to sort out. Michael Roberts has claimed that the ‘load of debt was so heavy that the state was really, if not formally, bankrupt’. Furthermore, the ‘king’s servants were either unpaid, or paid in the paper money and tokens with which Görtz had flooded the country in the last desperate months of the war’ (Roberts 1986, p. 15; see also Heckscher 1936 and Edvinsson 2010, p. 168). Others, most notably Gösta Lindeberg (1941), have pointed out that although there was inflation, Charles XII implemented a number of measures, especially in relation to international trade, in order to make the system function. Jan Lindegren has later shown how monetisation made it possible in 1718 for the state to procure military supplies and transport capacity from the peasants (Lindegren 2007–8, pp. 92–101; Lindegren 2018, pp. 317–23; see also Linde 2000, pp. 221–9).

The doyen of Swedish economic history, Eli F. Heckscher, writing at a time when the gold standard appeared necessary to maintain financial stability and with the hyperinflation in Germany of the early 1920s a fresh memory, claimed that the effect of the massive release of new coins naturally led to massive inflation. He also asserted that prices increased equally on all products during this period. The latter conclusion was drawn from very narrow and ambiguous sources (Heckscher 1936, pp. 634–5, 654–6). This statement has over the years acquired the status of a matter of course and it has not in its essentials been questioned. Later economic historians working on long-term trends and the functioning of markets have noted price increases in the period 1716–19 on a number of goods. Rodney Edvinsson, for instance, has argued that the *mynttecken* did not initially disturb the monetary system, but that they caused inflation at the end of the period (Edvinsson 2010, pp. 169–73; see also Hegardt 1975; Söderberg and Jansson 1988; Jansson, Andersson Palm and Söderberg 1991; Hansson 2006). However, such studies have not considered the political context and the crucial role played by military demand.

Scholars working on the Swedish case have rarely drawn any comparisons with the concurrent issuing of paper money, such as the English *exchequer bills* or the French *billets de monnaie*. Likewise, historians working on England and France have not used the peripheral Swedish case to broaden the perspective on monetary innovations introduced in the first decades of the eighteenth century (Dickson 1967, pp. 373–9; Bonney 2001; Rowlands 2012, pp. 108–27; Kleer 2015; Félix 2018). In the literature on paper money systems, the focus has mainly been on the overall increases of liquidity and the impact on prices and exchange rates. In many cases, paper money issues increased inflation and reduced the value of the currency on international capital

markets (Bordo and White 1991; Sumner 1993; White 1995, pp. 234–41; Antipa 2016). However, some researchers have disputed the connection between volume and price by pointing out diverging developments, especially in North America in the eighteenth century. The North American colonies make relevant objects of comparison, since they, like Sweden, were not fully integrated market economies. Scholars have shown how some colonies could issue paper money without creating inflationary pressures. Instead, factors such as time discounting, the imposition of tax liabilities for early redemption and credible government backing of the notes determined their value. Others have recognised rising price levels, but they argue that paper money increased monetisation and subsequently spearheaded economic growth (Smith 1985; Wicker 1985; Rousseau and Stroup 2011; Michener 2015; Grubb 2016a, 2016b).

Another theme in the literature on paper money has focused on the relationship between the notes issued and specie coins. Scholars have demonstrated how, following Gresham's law, specie money was driven out of circulation by growing volumes of paper money, and how governments have dealt with the consequences of having several currencies circulating simultaneously. In the eighteenth century, states usually issued paper money as a temporary measure in order to address pressing fiscal challenges. Postwar periods therefore turned into phases of restoring monetary stability by removing paper notes from circulation and returning to metallic coinage (Engdahl and Ögren 2008; Pieper 2012, p. 184; Antipa 2016). However, as François Velde has pointed out, deflationary monetary measures did not automatically lead to reductions in prices. In France in 1724 uncertainties about future policies and the long-term character of many contracts led to a slow reaction to the government's cut in the nominal value of the coins (Velde 2008, p. 162; 2009, pp. 605–16).

Scholars have also highlighted that currencies served different markets and actors, and that exchange between diverse currencies could be difficult. Bills of exchange, for instance, facilitated long-distance payments between merchants, but tradesmen had to transform such instruments into local currency and smaller denominations in order to use the money in interactions with other social groups. In the same fashion, transforming local coins and notes of credit into internationally accepted currency involved several transactions (Denzel 2010, esp. the introduction; Graham 2014, pp. 97–102; Brandon 2018). Likewise, scarcity of specie coins, as well as problems of obtaining the right denomination for a specific market, hindered long-distance transactions and market integration. Thus, transaction costs were high, and time lags and stickiness affected the development of prices (Muldrew 2001; Sargent and Velde 2002, pp. 123–213, 328–30).

## II

The release of the *mynttecken* cannot be separated from the military campaign against Norway in 1718. This operation posed immense military problems. There were substantial forces defending the country and the Danish navy dominated the seas. It would take a large army to conquer Norway, but there were not enough resources

in the country to sustain such an army. Thus, the attacking forces would have to bring supplies from Sweden, by a complex organisation of long-distance transportation (Lindegren 2018, pp. 307–8, 315–16). Three army detachments with a combined force of over 60,000 men and 30,000 horses had to be maintained for a period of over six months. Gothenburg would constitute the logistical hub for the campaign, while the border town of Strömstad would be the most important destination before crossing into Norwegian territory. Although some sea transportation could be deployed, the bulk of the supplies had to be hauled over land. Lindegren has calculated that 120,000 wagonloads of provisions and fodder had to be transported to the Norwegian border, and that 75 per cent of that amount had arrived when the campaign was aborted after the death of the king. The regiments had vastly improved their own transport capacities, but this campaign required the mobilisation of the civilian workforce (Lindegren 1992, pp. 197–206; 2018, pp. 323–36).

The royal government could require the peasants to provide transportation for the military, but the sheer amount of work needed meant that the crown could not simply coerce the peasants into obedience. Moreover, the complex nature of the operation required a contented workforce that would not stall the campaign. The solution was radical for its day: the peasants had to be paid.

Initially, the government intended to release the new coins in rather modest numbers, but as the costs of the campaign escalated, larger editions were issued, each one with a different stamp and a different name. One edition circulated for a limited period and was then exchanged for a new one. After their redemption, the old editions were relaunched valued at 1 or 2 öre (there were 32 öre to 1 dsm.), thus taking advantage of coins already manufactured to remedy the constant shortage of small change. The first edition, called *Kronan* (Eng. ‘the Crown’), was released in the spring of 1716 amounting to 2 million dsm. The second edition, *Publica Fide*, issued in October 1716 amounted to 3.8 million. In April 1717, the single largest edition, *Wett och Vapen* (Eng. ‘Prudence and Weapon’), of 9 million dsm. was released. In May, *Kronan* was redeemed, and *Publica Fide* was taken out of circulation as a 1 dsm. coin in January 1718. In the same month, however, *Flink och Färdig* (Eng. ‘Alert and Ready’) was released to a value of 7.4 million dsm. Starting in June 1718, there was a succession of editions, *Jupiter*, *Saturnus*, *Phoebus* and *Mars*, amounting to 3 million each. Finally, *Merkurius*, valued at 6 million dsm., was released. Together these editions totalled 18 million dsm. The withdrawal of *Wett och Vapen* begun in August and it continued into April 1719 (Julén 1916, p. 90). At the time of the death of Charles XII, an unprecedented amount of around 21 million dsm. of *mynttecken* was circulating (Lindegren 2018, pp. 319–20).

In Figure 1, the amount of *mynttecken* is related to other forms of legal tender issued in the period 1680–1730. It is obvious that the releases were very uneven, even if the spike in 1716–18 is disregarded. From 1680 to 1714, the mean annual release was around 728,000 dsm. In the period 1692–1706, no copper coins at all were minted, since the high copper prices made it more lucrative for the state to export the copper. Instead, there was an increase in silver coins minted (Wolontis 1936, pp. 169–70).

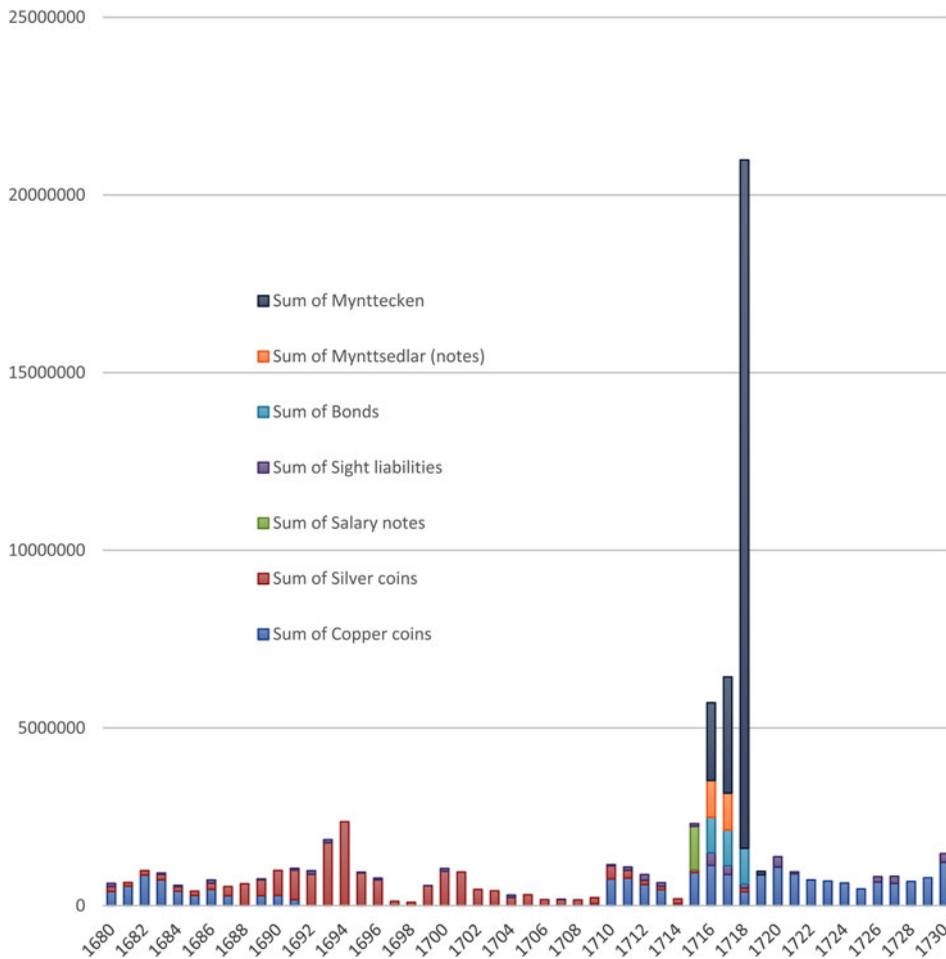


Figure 1. *The release of liquidity in Sweden 1680–1730*

Note: The fundamental work on the release of coins is Wallroth (1918). His data are based on reports issued by the Mint (Sw. Mynt- och justeringsverket) from 1912. Wolontis (1936) has converted Wallroth's data into a single currency of account for the silver coins (dsm.) up until 1714. We have followed his example and converted the gold and copper coins, and the silver coins from 1715, along with state liabilities, according to the same principles.

Sources: Julén (1916, p. 90); Wallroth (1918, pp. 100–31); Brisman (1918, bilagor, pp. 10–11); Hallendorff (1919, p. 386); Wolontis (1936, pp. 317–18).

The expansion came to a halt when Charles XII died on 30 November 1718. The leading military officers abandoned the campaign and peace negotiations were intensified. On 11 December 1718, the new administration issued an ordinance, which stated that the *mynttecken* should remain in use without any premium, but that they would be replaced in the future. However, when and on what terms this exchange

would occur remained unsaid.<sup>4</sup> At the meeting of the Diet, convened in January 1719, royal absolutism was abolished and the fiscal power of the *Riksdag* was consolidated (Roberts 1986, pp. 6–7, 59–103). Concurrently, heated discussions about what to do with the *mynttecken* ensued. In the end, a majority agreed to implement a partial default, which reduced their value by 50 per cent.<sup>5</sup> In exchange for the coins, the holders received an ‘insurance bill’ with a set value of 14/32 of the *mynttecken* delivered. After a week the holder would get his coins back, now going as small change valued at 2/32 of their nominal value.<sup>6</sup> Consequently, in the first weeks of June 1719 around 20 million dsm. in *mynttecken* were exchanged for insurance bills.<sup>7</sup> The holders of insurance bills could only redeem them as payment for a new customs duty, but owners could also sell them on a secondary market. Their market value remained very low for a long time, but the insurance bills remained in circulation well into the 1760s.<sup>8</sup>

We have studied 3,100 transactions, in three small towns and in three country parishes, in which close to half a million dsm. worth of *mynttecken* was exchanged for insurance bills. Persons of rank held the highest amounts, but it is noteworthy that in the towns a substantial proportion of the holders were rather poor people. Servants, a few soldiers, and workers conducted 23 per cent of the transactions, but the value exchanged only made up 2 per cent of the total. In the country parishes, the dominance of peasants was evident. Peasants conducted around 87 per cent of the transactions and their part of the total value was the same. In the towns, the mean amount exchanged was 195 dsm., while the corresponding number in the rural parishes was 84 dsm.<sup>9</sup> The 84 dsm. can be compared with the annual salary of a lieutenant in the army, a gentleman, which was 100 dsm. (Thisner 2014, p. 45). These results indicate that the *mynttecken* had reached all parts of society and that they were part of everyday life. The monetisation also created problems: hawkers in Stockholm complained that they lacked small change to give back to customers paying 1 dsm. in *mynttecken*.<sup>10</sup>

<sup>4</sup> Årstrycket, Placat Angående Myntteckens och Ständernes Mindre Zedlars owägerlige emottagande til des annat redbart Mynt blifwer anskaffat. Stockholm, 11 Dec. 1718.

<sup>5</sup> Swedish National Archives, Stockholm (SNA), Sekreta utskottets protokoll 1719, vol. R2384, 23 Feb., 5 Mar., 8–9 Apr., 16–17 Apr., 20–21 Apr.

<sup>6</sup> Årstrycket, Kongl. Maj:ts nådige Förordning, Angående Mynttecknens och Mynte-Zedlarnes Indragande och Afättiande, Stockholm, 23 Apr. 1719.

<sup>7</sup> SNA, Riksens ständers kontor, Kammarkontoret, Nummerlistor över 14-öres försäkringssedlar, vol. 1775–95.

<sup>8</sup> E.g. SNA, Riksens ständers kontor, Kassakontoret, 14-öressedlar från Västerbotten 1753–66, vol. 2079.

<sup>9</sup> The towns are Norrköping, Kalmar and Arboga, and the country parishes are Vingåker, Delsbo and Arboga parish. Database held by the authors, based on: SNA, Riksens Ständers Kontor, Kammarkontoret, Nummerlistor över 14-öres försäkringssedlar, vol. 1778, 1779, 1782, 1792, 1794.

<sup>10</sup> Stockholm City Archives (SCA), Handelskollegiet, Protokoll, vol. 59, 11 Jul. 1718.

## III

Turning to the development of prices, there are some structural facts about the Swedish economy that need to be considered. Sweden was at the time a distinctly rural economy. More than 90 per cent of the population lived in peasant households. Agricultural yields were generally low, and the households consumed the largest part of what they produced (Myrdal 1999, pp. 233–41; Gadd 2000, pp. 185–6, 361–2). The level of specialisation was low, but there were still differences within the realm. There were regions that produced a surplus of grain, such as Scania, Östergötland and Uppland, while others, in particular the major towns and the iron-making communities in the region of Bergslagen, needed an inflow of grain, both from other Swedish regions and from abroad (Myrdal 1999, pp. 242–5; Gadd 2000, pp. 22–42; Lindberg 2009). Moreover, the army and navy required large quantities of foodstuffs to maintain their operations. The Baltic area was the main supplier of grain, but after the Russian occupation of Livonia in 1710, that trade ceased. Yet, despite Danish attempts to blockade Swedish ports, grain and salt kept coming in especially from Königsberg, Danzig and Lübeck (Lindberg 2009, pp. 198–202).

As part of the preparations for the Norwegian campaign, merchants were required to import grain before they received clearance to export bar iron. Foreign merchants agreed to these terms, but they complained that it created delays. The trade statistics, as well as the presence of foreign captains, especially in Gothenburg and Stockholm, demanding speedy unloading and loading of their ships, show that trade activity increased in 1718.<sup>11</sup>

The established practice for merchants was to utilise international bills of exchange when organising payments, but in 1718 the military situation changed normal operations. Foreign merchants who shipped grain and other foodstuffs to Sweden were not directly paid for their shipments with bills of exchange. Instead they were paid with *mynttecken*, and given the right to buy bar iron at a favourable rate with such coins. However, the supply of iron was limited, which created delays. This meant that merchants stuck with the new coins were left with several options. They could try to purchase other Swedish commodities: ships, for instance, are mentioned in the sources.<sup>12</sup> They could also try to convert the *mynttecken* to bills of exchange. As the demand for such means of exchange increased more than the supply of bills, the value of the *mynttecken* dropped in relation to the Dutch and Hamburg currencies (Lindberg 1941,

<sup>11</sup> Gothenburg Regional Archives (GRA), Göteborgs rådhusrätt och magistrat före år 1900, Notarii publici protokoll, vol. 6, 10 Feb., 21 Feb., 14 Mar., 19 Mar., 21 Mar., 21 Apr., 10 May, 20 May, 21 May, 31 May 1718; SNA, Görtzska samlingen, Notes by Chambers and Pierson 9 Jun. 1718, Georg Heinrich von Görtz 16 Jun. 1718, and Johan Anders Olbers 16 Jun. 1718, vol. E3807; SCA, Handelskollegiet i Stockholm, Diverse inkomna förteckningar, Listor över ankonna skeppare 1718, vol. 1; Lübeck City Archives (LCA), Altes Senatsarchiv, Externa Suecica, Gerhard Breyer to the Senate in Lübeck, 19 Mar. 1720, vol. 516; Lindberg 2009, pp. 199–201.

<sup>12</sup> The system is discussed in SNA, Kommerskollegium, Huvudarkivet, Kollegiets protokoll 1718, vol. 78, 23 Sep. See also Almquist 1935, pp. 333–6.

esp. ch. 7). Moreover, foreign merchants could deposit the new coins with their Swedish business partners while waiting for goods to export. In 1719, for instance, Hindrich Piping in Lübeck held 8,621, Diedrich von Schoten in Amsterdam had 4,773, Thomas Pierson in Stockton owned 13,589 and William Croyle in Hull possessed 11,976 *mynttecken*. In comparison, a major Swedish merchant in Gothenburg, Berent Örtegren, had 9,996 dsm. in the new coins.<sup>13</sup> This indicates that not only peasants, but also merchants operating on international markets were integrated into the new monetary system.

In 1718, the state tried to control prices of key commodities by enforcing the regulation that trade should take place in the towns. The authorities also issued tariffs, which was an established practice during the early modern period, stipulating prices of key goods. Issuing such tariffs was a way to control price movements, but the authorities did not dictate prices. Rather, the tariffs were employed to establish fair prices and to prevent individual sellers from overcharging customers. Merchants, guilds and other actors could influence the rates, and the tariffs were altered when market sentiments changed. For instance, the state urged the Gothenburg and Stockholm magistrates to establish tariffs on imported rye and salt, in order to ensure that peasants could buy them at reasonable prices. During a meeting with the merchants, the local actors agreed on specific prices. Later in the year, the merchants in Gothenburg indicated that they could not sell imported grain at the previously set tariff, and the magistrates had to increase the rates.<sup>14</sup>

Table 1 demonstrates that prices increased on agricultural products in Gothenburg from January 1717 to August 1718, both on imported goods such as wheat and on locally produced goods such as beef and butter. During this period, the price of rye increased 167 per cent, wheat 150 per cent, peas 82 per cent and butter 50 per cent. The differences between the products indicate that it was demand and the varying inabilities of suppliers to keep up with it that primarily influenced prices, rather than the volume of liquidity.

The military buildup in the region around Gothenburg crowded other actors out of the market. For instance, when peasants showed up in Gothenburg with produce to sell, they were overwhelmed by people who wanted to buy from them.<sup>15</sup> This assertion is confirmed by the fact that several products, such as wheat and rye, became so scarce that they were not sold at all on the open market during the autumn of 1718. The only product available every month was butter, since there were more producers

<sup>13</sup> SNA, Riksens ständers kontor, Kammarkkontoret, Nummerlistor över 14-öres försäkringsmedlar, City of Gothenburg, Göteborg och Bohuslän, vol. 1787.

<sup>14</sup> GRA, Göteborgs rådhusrätt och magistrat före år 1900, Kommerskollegiets protokoll 5 Jun., 16 Jul., 11 Nov., 18 Nov. and 5 Dec. 1718, vol. 6; GRA, Göteborgs kämnärsrätts arkiv, Protokoll 12 Sep. 1718, vol. 16; SCA, Handelskollegiet i Stockholm, Protokoll 27 Feb., 11 Jul., 12 Jul., 25 Sep., 21 Oct., 6 Nov., 24 Dec. 1718, vol. 59; See also Almquist 1935, p. 330; Linde 2000, pp. 225–8.

<sup>15</sup> E.g. GRA, Göteborgs kämnärsrätts arkiv, Protokoll 12 Sep. 1718, vol. 16. See also Almquist 1935, p. 337.

Table 1. *Tariff prices in Gothenburg January 1717 – June 1719, dsm.*

Month	Wheat per barrel	Rye per barrel	White peas	Swedish beef	Butter
Jan. 1717	8	6	11	9.3	4
Feb. 1717	8	6	n/a	11	3.5
Mar. 1717	8	6.3	11	12	4
Apr. 1717	9	8	12	13.3	3.5
May 1717	9	8	n/a	14	3.5
Jun. 1717	10	9	n/a	14	3.5
Jul. 1717	10	9	n/a	n/a	3.3
Aug. 1717	10	9	n/a	14	3.5
Sep. 1717	12	10	14	14	3.5
Oct. 1717	n/a	12	20	16	3.5
Nov. 1717	18	16	20	14	5
Dec. 1717	20	16	20	16	6
Jan. 1718	20	16	20	16	6
Feb. 1718	20	16	20	16	7.3
Mar. 1718	20	14	18	16	5
Apr. 1718	20	n/a	n/a	20	6
May 1718	20	14	20	20	6
Jun. 1718	20	14	n/a	n/a	6
Jul. 1718	22	15	18	n/a	5.3
Aug. 1718	20	16	20	n/a	6
Sep. 1718	22	n/a	24	n/a	6
Oct. 1718	n/a	n/a	n/a	40	8.3
Nov. 1718	n/a	n/a	n/a	n/a	9
Dec. 1718	n/a	n/a	n/a	n/a	10
Jan. 1719	32	30	30	40	12
Feb. 1719	n/a	n/a	26	n/a	12
Mar. 1719	n/a	n/a	n/a	n/a	15
Apr. 1719	13	9.3	14	n/a	6.3
May 1719	12.3	9.3	14	32	6
Jun. 1719	14	12	15	n/a	5

Source: Kommerskollegiets protokoll, vol. 5 and 6, Göteborgs rådhusrätt och magistrat före år 1900 (GRA).

of it than of grain or beef. Other towns, such as Arboga, Sundsvall and Västerås, which constituted junctions or bottlenecks on the marching routes to Norway, reported similar conditions.<sup>16</sup>

<sup>16</sup> SNA, Upphandlingsdeputationen, Enskildes ansökningar 1718, vol. 16, Applications from the towns of Sundsvall and Västerås. See also Lindegren 1997, pp. 329–30.

In January 1719, all five products in [Table 1](#) were available again. By now, the new regime had abandoned the Norwegian campaign, which drastically reduced demand. Nevertheless, [Table 1](#) shows that prices continued to increase. From August 1718 to January 1719, prices of peas and butter had gone up by 100 per cent, rye 88 per cent and wheat 60 per cent. In other words, prices increased more on locally produced goods, such as butter, than on the grain that the military had demanded in such great quantities in 1718. The only product that did not follow this trend was beef, which was priced at the same level in January 1719 as in October 1718. However, the limited number of transactions on the open market during this period, and the fact that the price of beef did not fall as rapidly as prices of other products in the spring of 1719, indicate that the supply of beef was sparse. Thus in January 1719, the magistrates accused butchers in Gothenburg of overcharging customers, while the butchers complained about difficult and expensive circumstances.<sup>17</sup> Prices fell in the spring of 1719 in conjunction with the depreciation of the new coins. Clearly, the magistrates in Gothenburg started to express prices in a medium of exchange other than *mynttecken*.<sup>18</sup>

A town less affected by the military buildup in 1718 was Falun, which was dominated by the large copper mine. The residents, who were spared from military service in order to ensure the continuous production of copper, depended on imported grain from both Swedish and foreign locations. Imports were handled by local merchants, but there was also a large store house under the control of the mining authorities that bought and sold goods, such as grain (Ericsson 1970, pp. 77–104).

[Table 2](#) demonstrates how tariff prices of rye developed from January 1717 to December 1719. At the beginning of the period, prices in Gothenburg and Falun were similar, but then prices in Gothenburg increased more rapidly than in Falun. Here, the price of rye increased by only 79 per cent from January 1717 to September 1718, and after that prices were relatively stable around 12–14 dsm. per barrel until December 1719.

If we turn to actual transactions in Falun, the archive of the storehouse can provide us with detailed information about the development of prices of foodstuffs. [Table 3](#) shows that prices fluctuated during several of the months and that the maximum prices increased around 31 per cent from January to December 1718. This was in line with the tariff price of rye in Falun, which increased 33 per cent during the same period. In 1719, the price fluctuations continued, and the maximum prices went up around 17 per cent from January to April. The decision to default on the *mynttecken* did not result in a reduction of prices. They continued up to 16 dsm. per barrel in December 1719, which constituted a rise of more than 30 per cent

<sup>17</sup> GRA, Göteborgs rådhusrätt och magistrat före år 1900, Kommerskollegiets protokoll 8 Jan. 1719, vol. 6.

<sup>18</sup> This is supported by Edvinsson 2010, p. 170.

Table 2. *Price per barrel of rye in Falun, January 1717 – December 1719, dsm.*

Month and year	Barrel of rye	Month and year	Barrel of rye
Jan. 1717	6.7	Sep. 1718	12
Apr. 1717	7.7	Dec. 1718	13.3
May 1717	8	Jan. 1719	12
Nov. 1717	9.7	Feb. 1719	12
Jan. 1718	10	Mar. 1719	12
May 1718	12	May 1719	13.3
Jul. 1718	14	Dec. 1719	16

*Source:* Spannmålsmarkegång i Falun enligt rådman Eric Sjöberg, vol. 6, Kommission över hushållningen vid kopparverket i Falun, ÄK 408, Äldre kommittéer (SNA).

compared with January the same year. Thus, prices in Falun did not fall as they did in Gothenburg.

Clearly, the price of rye increased in Falun, just as it did in Gothenburg, from the beginning of 1717 to the end of 1718. However, prices did not rise as much in Falun as they did in Gothenburg. Although the overall military demand for foodstuffs affected prices in both towns, the stronger military presence in Gothenburg drove up prices there more. In 1719, prices fell in Gothenburg after the military campaign was aborted, while in Falun prices continued to rise.

This divergence shows that prices were not only affected by the level of liquidity. If the volume of *mynttecken* in circulation singlehandedly accounted for the price increases, prices, or at least the increases in percentage terms, would have converged in the two towns. Moreover, the fact that both market and tariff prices increased in the summer and autumn of 1719, and that they were higher than in 1718, indicates that the local market in Falun did not simply adjust to a change in the monetary situation. Instead, prices remained high in 1720, and it was not until 1722 and 1723 that prices of rye were back to the levels of 1716.<sup>19</sup>

Turning to an agricultural region that produced a surplus of grain, Östergötland, trends in the price of rye similar to those in Falun and Gothenburg can be observed in the period 1715–18. It should be noted that in Östergötland, only annual prices are available. As can be seen in Table 4, average prices in the towns of Linköping and Norrköping increased from 3.1 dsm. per barrel in 1715 to 9.5 dsm. per barrel in 1718. This constituted an increase of 306 per cent. However, prices in Östergötland were generally lower than in the other regions. In 1719, prices continued to go up to 10.2 dsm. per barrel and then to fall back to 4.7 dsm. per barrel in 1720. Compared with Falun, Östergötland followed the same trend, but price

<sup>19</sup> SNA, Äldre kommittéer, ÄK 408, Kommission över hushållningen vid kopparverket i Falun, vol. 6, Receipts from Pehr Månsson, Bengt Larsson Bergh and Ingemar Leveen; cf. Velde 2009, pp. 606–10.

Table 3. *Sale prices per barrel of rye at the storage house in Falun, January 1718–December 1719, dsm.*

Month and year	Barrel of rye		Month and year	Barrel of rye	
	Min.	Max		Min.	Max
Jan. 1718		9.7	Jan. 1719		12
Feb. 1718	10	10.7	Feb. 1719	12	12.3
Mar. 1718	10.7	11	Mar. 1719		13.3
Apr. 1718	11	11.3	Apr. 1719	13.3	14
May 1718		12	May 1719		14
Jun. 1718	11.7	12.3	Jun. 1719	14	14.7
Jul. 1718	11.3	13	Jul. 1719	14	14.7
Aug. 1718		11.3	Aug. 1719		14
Sep. 1718	11.3	13.3	Sep. 1719	14	15
Oct. 1718		11.7	Oct. 1719		15
Nov. 1718	12	12.7	Nov. 1719		15
Dec. 1718	11.3	12.7	Dec. 1719	15	16

Sources: Huvudböcker och journaler 1718–1719, vols. 3–4, Räkenskaper, Magasinet, Stora Kopparbergs Bergslag (DAC).

movements were more rapid, which again indicates that local circumstances of demand and supply determined the price rather than the type of coinage.

Table 4 shows that the price of peas increased 187 per cent and that the price of butter grew by 186 per cent during the period 1715–18. These commodities were also in large demand by the military before and during the Norwegian campaign. Likewise, military demand drove up the price of oxen by 272 per cent during the same period. Salt, a major import commodity, increased in price, but only by 92 per cent during the period 1715–18, which again shows that the price increases varied according to product. The prices of products, except peas, fell after 1718, but as in Falun, prices did not immediately return to a level that had existed before the introduction of the new coins and the military campaign against Norway.

The military presence in Stockholm also affected prices, but perhaps not as profoundly as in Gothenburg. Table 5 demonstrates how the preserved tariff prices of butchered meat developed in Stockholm from March 1717 to January 1721. Here, a pattern of rising prices similar to what was evident from raw products in other towns emerges. It is, however, less dramatic. Initially, there was an increase from March 1717 to February 1718. From February to November–December 1718, prices of beef and veal increased between 60 and 100 per cent. Interestingly enough, there was also a slight depreciation of the prices from May to August, with a strong increase from August to September. Pork, on the other hand, only increased by 14 per cent, and from May to November pork prices fell. In the spring of 1719, when the *mynttecken* coins were losing their value, prices continued

Table 4. *Average prices in Linköping and Norrköping, 1715–1720, dsm.*

Year	Rye	Peas	Oxen	Butter	Salt
1715	3.1	3.8	12.1	2.1	10.0
1716	4.2	4.5	14.0	3.3	8.0
1717	7.0	5.7	17.3	5.0	10.7
1718	9.5	10.9	45.0	6.0	19.2
1719	10.2	22.1	24.0	5.0	16.0
1720	4.7	7.8	18.9	4.2	10.3

Source: Hansson (2006, appendix, tab.11b, 16, 19, 21a, 26).

Table 5. *Prices of butchered meat in Stockholm, March 1717–January 1721, dkm. per mark*

	Beef	Beef, lesser quality	Veal, whole of half	Veal, fore quarter	Veal, back quarter	Pork	Lamb
1717 Mar.	6	5	12	10	13	8	n/a
1718 Feb.	10	9	14	12	15	14	n/a
1718 Mar.	10	9	14	12	15	14	n/a
1718 May	12	10	14	12	15	14	n/a
1718 Aug.	9	7	12	10	13	12	n/a
1718 Sep.	16	14	24	20	26	12	n/a
1718 Nov.	16	14	24	20	26	12	n/a
1718 Dec.	16	14	22	24	24	16	20
1719 May	16	14	22	20	24	n/a	18
1719 Sep.	12	10	22	20	24	n/a	16
1719 Nov.	12	10	22	20	24	n/a	16
1719 Dec.	12	10	22	20	24	n/a	18
1720 Jan.	16	14	26	24	28	n/a	20
1720 Mar.	14	12	24	22	26	n/a	18
1720 Apr.	16	14	24	22	26	n/a	18
1720 May	16	14	24	22	26	n/a	18
1720 Jun.	16	14	18	16	20	n/a	16
1720 Jul.	12	10	16	14	18	n/a	18
1720 Aug.	10	8	16	14	18	n/a	14
1720 Sep.	8	7	16	14	18	n/a	12
1720 Oct.	10	9	18	16	20	n/a	12
1720 Dec.	12	10	20	18	22	n/a	14
1721 Jan.	12	10	20	18	22	n/a	14

Sources: Månadstaxor (NLS); Månadstaxor (SCA); Månadstaxor (URA); Månadstaxor (UUL).

Table 6. *Prices of beer in Stockholm, March 1717 – January 1721, dkm. per barrel*

Month	Good double-brewed Swedish	Publican's beer	Table brew
1717 Mar.	22.5	12	2
1718 Feb.	31	17	4
1718 Mar.	31	17	4
1718 May	31	17	4
1718 Aug.	31	17	4
1718 Sep.	36	18	4
1718 Nov.	n/a	n/a	4
1718 Dec.	n/a	n/a	4
1719 May	32	18	4
1719 Sep.	36	21	4
1719 Nov.	36	21	4
1719 Dec.	36	20	3
1720 Jan.	36	20	3
1720 Mar.	34	18	3
1720 Apr.	34	18	3
1720 May	34	18	3
1720 Jun.	32	16	2
1720 Jul.	32	16	2
1720 Aug.	28	14	2
1720 Sep.	28	13	2
1720 Oct.	28	13	2
1720 Dec.	28	13	2
1721 Jan.	26	12	2

Sources: Månadstaxor (NLS); Månadstaxor (SCA); Månadstaxor (URA); Månadstaxor (UUL).

to be high and they remained high throughout the summer. In fact, prices peaked as late as January 1720, more than six months after the partial default.

Table 6 demonstrates how the price of beer developed during the same period. From March 1717 to February 1718, there was a sharp increase. Prices then stabilised until there was a new rise from August to September. However, the increase on beer was not as marked as on meat. Prices remained high and did not start to come down until the summer of 1720, about a year after the *mynttecken* had been removed from circulation.

So far, we have only examined the development of prices of commodities in demand by the military. Turning to Sweden's main export product, iron, Table 7 demonstrates that prices did not increase in the same way as those of foodstuffs. The price of bar iron from the iron-works in Leufsta increased by 16.5 per cent from 1715 to 1718, while in Söderfors grew it by 20 per cent during the same period. Meanwhile, the price of pig iron, which the manufacturers did not export,

Table 7. *Prices of bar iron and pig iron 1715–1720, dsm. per pound*

Year	Bar iron from Forsmark	Bar iron from Leufsta	Bar iron from Söderfors	Pig iron from Filipstad
1715	10.0	10.3	10.0	3.1
1716	9.5	9.7	9.3	3.3
1717	12	12	12	3.2
1718	11.2	12	12	3.8
1719	16.7	13.3	15.0	4.2
1720	16.7	16.7	16.7	3.8

*Source:* Järnhandeln 1500–1800-talen, vol. 1, Handel och sjöfart, Riksarkivets ämnessamlingar, SNA; Handlingar rörande handel och finanser, vol. 12, Hans Järtas papper F857:I (UUL).

grew by 22.6 per cent from 1715 to 1718. These developments show that the surge in monetary liquidity had only a marginal impact on prices. An explanation for the comparatively steady price level is that the royal regime took control of the iron market in 1718, and implemented official tariffs, in order to ensure that merchants brought in grain.<sup>20</sup> However, if these prices had been very different from the actual market prices, the producers would have hesitated to take the iron to the market and the volume of exported iron would have been lower. The increase that did occur would have been a reaction to rising prices of grain and transportation. In 1719 and 1720, when the authorities abandoned the iron and grain tariffs, the price of iron products increased. Bar iron from Leufsta increased 39 per cent from 1718 to 1720, while bar iron from Forsmark grew by 49 per cent during the same period. The price of pig iron grew by only around 10 per cent from 1718 to 1719, and fell back to the 1718 level in 1720. Again, the divergence in the development of prices of bar iron and pig iron shows that there were more factors at play than the amount of liquidity and the type of coinage.

If prices of goods and services reacted differently and slowly to the surge and default on the new coins, scholars have argued that the foreign exchange market reacts relatively quickly to changes in the money supply (e.g. Velde 2009, pp. 603–5). Table 8 shows that the exchange rate in Amsterdam and Hamburg slowly declined from 1715 to 1718 and that the spread between the lowest and highest rates in a year grew during the period. Thus, foreign merchants demanded increasing premiums for dealing with the Swedish currency, especially in the autumn of 1718 when the *mynttecken* reached their peak volume. The increasing spread between lowest and highest rates clearly manifests uncertainty, but it also shows that the market was relatively thin. In

<sup>20</sup> SNA, Kommerskollegium, Huvudarkivet, Kollegiets protokoll 1718, vol. 78, 23 Sep.

Table 8. *Exchange rates for the Swedish currency in Amsterdam and Hamburg, 1715–1720*

Year	Amsterdam courant in <i>mark koppermynt</i>		Spread	Hamburg banco in <i>mark koppermynt</i>		Spread
	Lowest	Highest		Lowest	Highest	
1715	23	25	8%	25	27.4	9%
1716	24	27.25	12%	25.1	28.6	12%
1717	27.75	38	27%	29	39.6	27%
1718	42	80	48%	43.6	83.6	48%
1719	36	42	14%	38	41	7%
1720	34.75	35.5	2%	36	37	3%

Source: Järnhandeln 1500–1800-talen, vol. 1, Handel och sjöfart, Riksarkivets ämnessamlingar (SNA); Växelkurser på Hamburg 1703–1811, fol. 364½, vol. 1, Myntväsendet O, Sandbergiska samlingen (SNA).

Hamburg, in particular, it was difficult to establish an exchange rate.<sup>21</sup> This indicates that international actors reacted negatively to the expansion of liquidity and that it had already occurred by 1718. However, as we have already discussed, increasing trade volumes indicate that a thin market for bills of exchange did not deter foreigners from interacting with the Swedish state or with Swedish merchants in 1718. Moreover, according to one Dutch commentator, there was an exchange rate between the *mynttecken* and the Dutch currency, which indicates that merchants found ways to organise transactions.<sup>22</sup>

The numbers in Table 8 show that the exchange rate did not return to the situation in 1715 and 1716 after the default. Although the price volatility went down and the availability of bills of exchange increased, the prevailing uncertainties kept the price relatively high. In other words, it was not sufficient for the new regime to remove the *mynttecken* from circulation to offset the effects of the expansion and subsequent reduction of liquidity.

The data presented above attest that the assumption in previous research – that prices increased equally on all products in the latter part of the reign of Charles XII – is not correct. Prices did increase, but the increases varied between commodities and between different geographic locations. Military demand was a key determining factor. Thus, prices were not simply reflecting the volume of monetary liquidity released.

The new coins lost value after the death of the king. On 11 December 1718 for instance, the council received reports that people in Stockholm were unwilling to

<sup>21</sup> SNA, Riksarkivets ämnessamlingar, Handel och sjöfart, Järnhandeln 1500–1800-talen, vol. 1. See also Denzel 2010, p. 343.

<sup>22</sup> LCA, Altes Senatsarchiv, Externa Suecica, Gerhard Breyer to the Senate in Lübeck, 19 Mar. 1720, vol. 516.

accept them as payment, and notaries in Gothenburg testified that the *mynttecken* had fallen by 50 per cent in January 1719.<sup>23</sup> The question, though, is when this fall in value actually started. The evidence from the international exchange markets, as well as from individual reports about higher prices than the tariffs, indicates that the fall started when the king was still alive in October–November 1718.<sup>24</sup> However, most actors still accepted *mynttecken* during this period and the evidence shows that the real crisis of confidence hit the new coins in December 1718 – January 1719, from which they never recovered.

#### IV

The performance of the *mynttecken* can also be assessed by studying how they were treated in account books. If bookkeepers recorded them as any other form of legal tender, it is likely that they performed satisfactorily. If they were recorded separately, it is indicative that bookkeepers distrusted them. Edvinsson has argued that in some locations ‘it is highly likely’ that bookkeepers expressed values ‘throughout the period in proper coins rather than the token coins’ (Edvinsson 2010, p. 170). According to Lindeberg, premiums existed between *mynttecken* and copper plates, for instance 12–36 per cent in the second half of 1717, and 12–14 per cent in July–October 1718 (Lindeberg 1941, pp. 146, 223; Edvinsson 2010, pp. 169–73). Lindegren (2018, pp. 321–5), on the other hand, argues that such premiums were mainly due to transaction costs.

In the parish of Klara in Stockholm, the bookkeeper used *daler kopparmynt* (dkm.) as the unit of account (there were 3 dkm. to 1 dsm. throughout the period). All revenues and expenditures in 1718 were recorded in that coinage without further specification, but the bookkeeper identified that the parish’s deposits in the Bank of Sweden were in *courant* and *specie* – as were all deposits in the bank by regulation. In 1719, on the other hand, the bookkeeper first specified how many new coins the church possessed, and then the decrease of the value after the default. The church held 3,359 *mynttecken* in June 1719, which in nominal terms (10,077 dkm.) was more than the yearly expenditure of 5,744 dkm., or the assets deposited at the Bank of Sweden (3,224 dkm.). The bookkeeper wrote off half of the value of the *mynttecken* when they were exchanged for an insurance note. Later, the church sold 2,625 of the devalued coins for 246 dkm. Concurrently, the church received interest payments from the bank in copper plates. Thus, in 1719 the bookkeeper provided details on the coinage in the account book.<sup>25</sup>

<sup>23</sup> SNA, Det odelade kansliet, Rådsprotokoll 11 Dec. 1718, vol. 127; GRA, Göteborgs rådhusrätt och magistrat före 1900, Notarii publici protokoll 9 Jul. and 23 Jul. 1724, vol. 7.

<sup>24</sup> E.g. SCA, Handelskollegiet i Stockholm, Protokoll 27 Nov. 1718, vol. 59; SCA, Handelskollegiet i Stockholm, Diverse inkomna förteckningar, Lista över ankomna skeppare, 9 Oct. – 3 Nov. 1718, vol. 1.

<sup>25</sup> SCA, Klara kyrkoarkiv, Kyrkoräkenskaper, Huvudböcker 1718–1719, vols. 39–40.

Clearly, the church both received and used *mynttecken* in 1718, but in that year it was not necessary to differentiate between different means of exchange.

In the parish of Björnlunda in the province of Södermanland, the bookkeeping unit was also dkm. From 1 May 1718 to 1 May 1719, the revenues amounted to 403 dkm., but the coinage was not defined. The expenditure in the same period was 203 dkm. On a few occasions, the accountant specified the coinage. Thus, the church paid 12 dkm. on 30 November 1718; 3 dkm. on 21 December 1718; and 60 dkm. on 1 February 1719, all in *mynttecken*. Except for the first, these purchases were made after the news of the king's death. From 1 May 1719 to 1 May 1720, the coinage for the revenue, which totalled 379 dkm., was not specified. The expenditure in the same period amounted to 183 dkm. A purchase of 9 dkm. in *mynttecken* was made on 16 May, but another of 45 dkm. in specie coins was conducted on 24 August. Furthermore, in June the bookkeeper wrote off 454 dkm. from the 303 *mynttecken* (worth 909 dkm. in nominal terms) in the church's possession. These were exchanged for an insurance note. He also wrote off 28 dkm. of value from the devalued coins when they were sold for less than their nominal value. At the end of the period, the church owned a total of 529 dkm. in assets, of which 131 dkm. were in 'negotiable coins' and 397 dkm. in the insurance note.<sup>26</sup> The tendency here is the same as in Klara; it was only after the decline in value of the new coins that the coinage had to be specified.

Likewise, in the rural parish of Arboga in Västmanland, dkm. was used as the unit of account. In 1718, the revenues amounted to 489 dkm. and the expenditure to 344 dkm., but the coinage used in the transactions was not specified. The parish had accumulated assets, which were partly invested in government bonds: 900 dkm. in 1711 and 1,200 dkm. in 1718. Thus, at the end of 1718, the parish had total monetary assets of 3,775 dkm., of which 2,100 were in bonds and 1,675 in cash. The bookkeeper did not clarify what type of coins constituted the cash part. However, in 1719 and 1720 he became more specific. Although regular revenues and expenditures still were unspecified, the type of assets became clearer. First, the account stated that the parish possessed 281 *mynttecken*, which amounted to 843 dkm. in nominal value, or around 50 per cent of the cash assets, of which 421 dkm. was written off when exchanged for an insurance note valued at 368 dkm. in June 1719. Second, early in 1720 the bookkeeper specified the coins that the parish held: 21 ducats valued at 315 dkm.; 1 specie coin valued at 7 dkm.; and 1,065 dkm. in 'various coins'. Moreover, he clarified that the parish had used specie coins when purchasing the government bond in 1718.<sup>27</sup>

<sup>26</sup> Uppsala Regional Archives (URA), Björnlunda kyrkoarkiv, Kyrkoräkenskaper, Huvudräkenskaper 1708–1731, vol. 2.

<sup>27</sup> URA, Arboga landsförsamlings kyrkoarkiv, Kyrkoräkenskaper, Huvudräkenskaper 1699–1777, vol. 2.

In Tengene parish in the province of Skaraborg, the bookkeeper used *dsm.* as the unit of account. From 1 May 1718 to 7 May 1719, revenues amounted to 71 *dsm.*, while the expenditure only totalled 4 *dsm.*, which brought the total assets to 115 *dsm.* in May 1719. There was no separation between currencies, but in the following accounting period, it became necessary to be more precise. Thus, after 7 May it was clarified that the parish's assets consisted almost exclusively of *mynttecken*, since 114 *dsm.* of such coins were handed in and devalued. The bookkeeper wrote off 106 *dsm.* and credited only 7 *dsm.* in the account book for the new coins. Meanwhile, he specified that the church had received 11 *dsm.* worth of gifts in 'good coin' and had collected 4 *dsm.* in offertory. In May 1720, the church's assets amounted to only 14 *dsm.* Again, it was only after the default on the new coins that the difference in value between *mynttecken* and other currencies was noted.<sup>28</sup>

We have only found one organisation – Uppsala University – that questioned the new coins before the death of Charles XII, and required payment in specie in the autumn of 1718. The university received most of its revenue in grain from tenant peasants. The grain was then sold in towns such as Gävle, Falun and Stockholm. In 1717, the university had sold rye in Stockholm for 30 *dsm.* per barrel. The contracts had been signed in December and they specified that the merchants should pay for the rye in three instalments during 1718, in 'negotiable *mynttecken*'.<sup>29</sup> On 8 November 1718, the professors in charge of the university's finances argued that they should try to obtain payment for the grain in copper plates, and on 3 December, they decided to charge 24 *dsm.* per barrel if the merchants paid in plates. However, it was not possible to sign any contract in Stockholm until January 1719, when merchants agreed to pay 26 *dsm.* per barrel in copper plates or silver coins for rye in three instalments during 1719.<sup>30</sup> Thus, despite demand for grain and other foodstuffs, it was only after the death of the king that merchants in the capital accepted the use of copper plates or silver coins. A reason for this was probably the prohibition on refusing to accept *mynttecken* in transactions. In other words, the professors in Uppsala were going against royal decrees when they attempted to obtain payment in copper plates. Moreover, Uppsala University, too, received and arranged payments in new coins in 1718, which were treated in the same account books as other currencies without any exchange rate between them.<sup>31</sup>

From these examples, a pattern emerges that shows that bookkeepers did not differentiate between *mynttecken* and other coins in 1717 and 1718. The new coins did not constitute another currency and they were not assigned higher or lower values than copper plates or silver coins. All the coins were clearly denominated in

<sup>28</sup> GRA, Tengene kyrkoarkiv, Räkenskaper för kyrka, 1706–42.

<sup>29</sup> Uppsala University's Archive (UUA), Räntkammararkivet, Avkortnings- och verifikationsböcker 1717, vol. 81. On the university's role in the grain market, see Hegardt 1975, pp. 18–134.

<sup>30</sup> UUA, Kansliarkivet, Större akademiska konsistoriets protokoll 1718, vol. 60; UUA, Räntkammararkivet, Avkortnings- och verifikationsböcker 1718, vol. 82.

<sup>31</sup> UUA, Räntkammararkivet, Avkortnings- och verifikationsböcker 1718, vol. 82.

the same unit of account. It was only in 1719, after the death of the king and the subsequent default, that accountants started to detail coin holdings and to differentiate between good or negotiable coins and *mynttecken*. Although the value of the different coins was still expressed in the same unit of account, an internal exchange rate emerged between the coins when market agents realised that the underlying institutional arrangement had changed which in turn affected the value of the *mynttecken*. It was the loss of political backing behind the coins rather than changing market demands that led to the crisis. Thus, in 1719 the *mynttecken* turned into an untrustworthy medium of exchange, which made it necessary to specify the exchange rate between them and other coins.<sup>32</sup> This is not to say that some actors were not hesitant about them already in 1718. Like Uppsala University, there were probably those who tried to limit their exposure to *mynttecken*. Yet they would not maintain separate accounts for various currencies.

## V

From a theoretical point of view, the introduction of fiat coins in Sweden illustrates the fact that the state can create money by legislative declarations of what is to be accepted as money. This is a standpoint traditionally claimed by the State or the Credit school of monetary theory. This tradition stands in opposition to the more orthodox Commodity-exchange theory and in its extension the Monetarist school, which advocates the Quantity theory of money (see for instance Goodhart 1998, pp. 408–19; Wray 2003, pp. 89–104; Friedman 2006; Ingham 2020, pp. 16–38). According to the logic of the latter, the Swedish economy should have collapsed in hyperinflation as a result of the over-issuing of money in 1716–18. Prices did increase, but the monetary system did not disintegrate.

The State theory of money claims that value is not an intrinsic quality in whatever material used as legal tender. The metal content of the coins or the metal backing of coins or bills is not what determines their value. Neither is the quantity – the amount of liquidity circulating – of any decisive consequence. Instead, it is the power of the authority that issues the money that provides it with value. This implies that the state, as the focal point of power within society, and its needs for spending and for taxing, is imperative for the monetary development of a given society (Knapp 1924, pp. 25–44; Goodhart 1998, pp. 413–17; Wray 2003, pp. 92–7).

In practice, the state determines which medium that will be accepted as money by proclaiming the unit of account in which payments of debt will be accepted. Of crucial importance here, is that this is the unit of account in which taxes are to be paid. By accepting, or indeed by demanding, that taxes will be paid in a certain unit of account, the state guarantees the value of a medium of exchange and proclaims

<sup>32</sup> Cf. Engdahl and Ögren (2008), who provide examples of how complementary monies are a response to the market's need for flexibility.

it to be legal tender. The state can then issue money in that unit of account in the form of coins, bills or other forms of liabilities (Knapp 1924, pp. 29–33; Goodhart 1998, pp. 415–9; Wray 2003, pp. 94–103; Ingham 2020, pp. 33–6). However, states are rarely able to dictate the precise validity of money or the purchasing power at any given time (Ingham 2020, pp. 25–9, 36).

The *mynttecken* issued by the regime of Charles XII were simply a new material articulation of the *daler silvermynt* (dsm.), which was the unit of account declared viable by the Swedish state back in the early seventeenth century (Lagerqvist and Nathorst-Böös 2002, p. 13). The new coins issued from 1716 to 1718 were ordered by the state to be accepted in all kinds of transaction, and older coins were consecutively banned. They were also accepted as tax-payments. By and large, they were accepted and in 1718 they became the dominating medium of exchange. Although not everybody was necessarily happy to have to deal with them, the acceptability of the money did not depend on the personal trust of the individuals who were conducting transactions with them. Instead, it was the wider impersonal acceptance that mattered and whether there was a general trust, or at least acceptance, in the political regime that issued the form of money in question. Individual users would have had to conform (cf. Ingham 2020, p. 35).

Our results show that the state could issue a new type of money, in the form of *mynttecken*, without prices on commodities simply following the volume of the coins issued. Prices did increase, but the rates of increase diverged between different types of commodities and between geographical locations. The most plausible explanation for these variations is that the increase in prices was first and foremost driven by military demand. The state was not only the dominant issuer of money, but it also received the new coins back in the form of taxes and, crucially, redistributed them as payment for huge military expenditure. Thus, the state functioned as the economic engine, which ensured that the new coins kept circulating.

As the undisputed legitimate king, Charles XII enjoyed strong public confidence, which his regime was very cautious to maintain. During the war, a number of royal ordinances were issued with the purpose of protecting his subjects from mistreatment by civil servants and military officers. Great efforts were taken to give the impression that the war burdens were equally and fairly distributed. Extraordinary taxation hit persons of rank, but spared the peasantry. Noble privileges were disregarded (Ericsson 2002). More specifically intended to preserve the financial credibility of the royal regime were the budget priorities given to interest payments on bank deposits and government bonds.<sup>33</sup> Thus, the royal regime of Charles XII took care to build

<sup>33</sup> E.g. Årstrycket, Placat Angående Banco-Werkets Beskydd och Uprätthållande ... Stockholm, 13 April 1714; Placat, Angående Betalning till Creditorerne ... Ystad 9 Januari 1716; Ytterligare Kundgörelse Angående Betalningen för dem som Åhren 1713 / 1714 och 1715 hafwa gjordt Förskätter och Lefweranzer til Kongl. Flottans / Escadremes och Krigsmachternes förnödenhet. Stockholm, 25 September 1718.

a reputation for reliability and to promote the credibility of its commitment. These measures were taken at the height of the military conflict and certainly with the intention to facilitate further borrowing in the future.

With the death of Charles XII a very different logic ensued. A new parliamentary regime was established, with very different political and economic objectives. Power was now concentrated in the Secret Committee of the Diet. The political changes directly caused the collapse of the value of the new coins. The proclamation of 11 December stated that the coins should be replaced, but without specifying when and what terms would guide the exchange. This vagueness did not improve the situation. Throughout the winter and early spring, the question of what to do with the coins remained unsettled until 23 April 1719, when the decision to default on the *mynttecken* was published. By then they had already lost most of their value.

Thus, the new regime did not honour the commitments of Charles XII. Dominated by traditional elites, the new regime wanted to end the war and with it the financial innovations. The new rulers had no ambitions in the foreseeable future to raise any new loans. In the subsequent partial default, the creditors with limited political influence were hit the hardest. That group was the propertied peasantry, who had been paid with the new coins for commodities and transport services for the army. Merchants also held a lot of *mynttecken*, but they were compensated by the default mechanism in 1719, which gave them an opportunity to profit from the redemption of the insurance bills (Ericsson and Winton 2019, pp. 37–42).

This process seems to point to a reversal of North and Weingast's famous argument (North and Weingast 1989). It was an autocratic royal regime that strove to honour its commitments, while a parliamentary regime defaulted at the expense of the creditors. This indicates that it is not necessarily the formal design of the power-wielding institutions that is the decisive factor, but the actual political influence of the state's creditors.

Although the default on the *mynttecken* in 1719 removed the bulk of the newly released liquidity from circulation, prices did not react immediately to this new shock. On the contrary, in many cases prices continued to increase during 1719 and continued to do so into the following year. For the spring of 1719, this development could be explained by the falling rates of the new coins in relation to the unit of account, dsm. As other means of payment were scarce, the *mynttecken* still had to be used and prices rose. However, this cannot explain why some prices continued to rise after June 1719, when the new coins were removed from circulation. In accordance with the results that Velde has reached in the case of France, after the collapse of Law's system, market actors did not simply adjust to the new monetary situation. Instead, uncertainties about future supply and demand of goods and services created price stickiness that had very little to do with the amount of circulating liquidity (Velde 2009, pp. 605–16).

Finally, the fiat coins in Sweden performed like the paper money issued in other countries in the eighteenth century in the sense that they relatively quickly drove out other money from circulation and became the dominating medium of exchange.

Concurrently, military demand created shortages and drove up prices. But, due to seasonal variations over the agricultural working year, it was difficult for producers to increase production in order to meet this demand. The low-level market integrated Swedish economy could therefore never function at ‘full employment’. However, what producers could do was to increase their work output in the off-season by engaging in subsidiary activities. The huge release of liquidity freed this potential, and in doing so, increased market integration. It enabled the transportation of the army from its recruiting grounds to Norway and allowed it to maintain operations until the campaign was terminated with the death of the king. In this way, the *mynt-tecken* served their purpose.

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