Wiadomości Numizmatyczne, R. LIX, 2015, z. 1–2 (199–200)
Polish Numismatic News IX (2015)

ROGER SVENSSON

COINAGE POLICIES IN MEDIEVAL SWEDEN

ABSTRACT: The purpose of this study is to analyse which kinds of monetary taxation and coinage policies the minting authorities applied in Sweden in the period 1153–1512. In medieval Europe, old coins were frequently declared invalid and were exchanged for new ones at fixed rates and dates. Here, the question of whether and when such periodic recoinage was applied in medieval Sweden is analyzed against the historical record. A theory of how short-lived and long-lived coinage systems work is applied to Swedish coinage. Sweden adopted similar coin forms as those minted in Continental Europe in the Middle Ages, but also adopted the corresponding continental coinage and monetary taxation policies linked to these coin forms. Swedish experience is extraordinarily well in line with what one would expect from the theory of short-lived coins. Economic backwardness, limited monetization of society and separate currency areas facilitated recoinage. Recoinage with varying frequency was applied in 1180–1290 when only bracteates were minted. This is evidenced by many different coin types per reign, coin hoards which are dominated by a few types and dating of types to specific periods of the kings' reigns. However, monetization increased in the late thirteenth century, making recoinage more difficult. and bracteates were replaced by long-lived two-faced coins in 1290. With an end to recoinage, the Swedish kings then accelerated the debasement of the long-lived coins. The disappearing recoinage fees were compensated for by debasing the silver content. Such debasements – interrupted by several coinage reforms – were applied until the beginning of the sixteenth century.

1. Introduction

The first coinage in Sweden was established *c*.995 in Eastern Svealand.[1*] However, it was temporary in nature and minting ceased around 1030. On the

[1] I would like to thank Borys Paszkiewicz, Lars Jonung, Kjell Holmberg, Fredéric Elfver and Per Hortlund for insightful comments and Kenneth Jonsson, Magnus Wijk as well as the Royal Coin Cabinet in Stockholm, who made the photos available. The author gratefully acknowledges financial support from the Torsten Söderberg Foundation and the Sven Svensson Foundation for Numismatics.

mainland, there was a long break in coinage for around 120 years until it was resumed in Western Götaland a few years after 1150. For almost 140 years (1153–1290), only bracteates were minted in Sweden. Thereafter, two-faced pennies (1290–1354) and bracteates (1354–1365) were minted until a system with örtugs (8 pennies) and hohlpfennigs was introduced in the 1370s that lasted for almost 150 years.

Swedish medieval coins are better classified with respect to coin issuers and mints than medieval coins from many countries in continental Europe, *e.g.* Germany and Poland. In the book 'Svenska mynt under Vikingatid och medeltid', published in 1970, Lars O. Lagerqvist suggested a rough classification of Swedish medieval coins, which, to a large extent, is still accepted. In the last four decades, the classification has gradually been improved by several Swedish numismatists.[2]

However, there are still drawbacks with Swedish numismatic publications about medieval coins. Firstly, although coins are always economic instruments and offer services as a medium of exchange and a standard of value, Swedish medieval coins have seldom been analysed from an economic perspective. Secondly, Swedish medieval coins from the period 1153–1520 have not been analysed from an international perspective, though Swedish coins were strongly influenced by continental coins.[3] Thirdly, it is still unclear which coinage and monetary taxation policies were applied in Sweden in this period. For example, it is well known that bracteates minted in continental Europe in the period 1140–1320 are strongly linked to 'periodic recoinage', where old coins had to be exchanged for new ones at fixed dates and exchange rates. Although the bracteate was the only Swedish coin form in circulation in the period 1153–1290, there is no written evidence about periodic recoinage. Earlier Swedish publications are hesitant about the existence of such recoinage.

The goal of the minting authorities in medieval Europe was to create a preference for the issuer's coins compared to competing foreign coins, with sustained acceptance enhancing the coin issuer's profit. Therefore, legal tender laws stated that foreign coins were precluded from circulation. Foreign coins and bullion

---

[2] The Swedish classification is mirrored by the fact that the prices on the collectors' market are relatively high for Swedish medieval coins from an international perspective.

[3] It has been known for a long time that the Swedish coinage was influenced by other European coinage systems. Viking Age coinage, around year 1000, was influenced by English coinage, bracteate technology was imported from Germany in the twelfth century and the system with örtugs and hohlpfennigs introduced in the fourteenth century was similar to the coinage in northern Germany (Witten and hohlpfennigs). In the last decades, almost only research focusing on Swedish Viking Age coins has had an international basis, *e.g.* in the set of studies in *Corpus Nummorum Saeculorum IX–XI*. Malmer (1980) partly analyses late medieval Swedish hohlpennies in an international context.

were to be exchanged for current coins at the mints. Here, the minting authority had an exchange monopoly and could thereby charge a *gross seigniorage*.[4]

A well-known monetary taxation method was to manipulate the weight and fineness of the coins. Such debasements are probably as old as coinage itself and often occurred in crises when finances were volatile and in disarray, *e.g.* in times of war or epidemic.[5] Profits from debasements were often based on secrecy and asymmetric information about the fineness on the part of the coin issuer vis-à-vis the public. Thus, there were large transaction costs for people to detect debasements of fineness. A less well-known way to profit from minting was periodic recoinage (also known as 'coin renewals' or the Latin, *renovatio monetae*), *i.e.* old coins were declared invalid and exchanged for new ones at fixed exchange rates and dates. In the Middle Ages, periodic recoinage could occur as often as twice a year within a currency area. An exchange fee was charged as a method to tax trade and inhabitants. Such coins are called short-lived coins, compared to long-lived coins that were valid during the entire reign of the coin issuer.

It is important to distinguish between 'periodic recoinage' and 'coinage reforms'. Recoinage means that coins are exchanged at, *ex ante* known, dates and fees. Coins are only valid for a limited (and known) time period. Thus, renewals are systematic and recurrent. On the other hand, coinage reforms also include reminting, but are announced infrequently. Coin validity is not (explicitly) known in advance. Moreover, the monetary standard of the coinage (weight, fineness, diameter) is in general considerably changed at coinage reforms, whereas only the image of the coin is changed at periodic recoinage.

The main purpose of this study is to analyse which kinds of monetary taxation and coinage policies the minting authorities applied in Sweden in the period 1153–1512. Empirical observations from Sweden will test the theory of how different coinage systems (short-lived and long-lived coins) worked in theory and practice. Did Sweden apply the same monetary taxation polices used in continental Europe in the Middle Ages? A basic idea is that one can learn a substantial amount about Swedish medieval coinage by studying then contemporary continental coinage systems. After all, the bracteate, the örtug (Witten) and the hohlpfennig were German innovations that Sweden and other countries adopted.

The study is organised as follows; Section 2 surveys basic information about medieval coinage. In section 3, I show how to identify different coinage systems and describe the extent of short-lived and long-lived coinage systems through time and space in medieval Europe. The theory and conditions of short-lived coinage system are also outlined. Section 4 is the main part of the study. Here,

[4] Kluge 2007, pp. 62–63.

[5] Edvinsson 2011, p. 168. The reason for debasement is likely either to make a higher profit from minting or to reduce debt.

Swedish medieval coinage systems of different time periods are described and analysed. In section 5, I apply empirical observations from Sweden in section 4 to the theory in section 3. I then analyse which kinds of coinage systems were used in Sweden during different times. The final section delineates the conclusions.

2. Fundamentals of medieval coins

2.1 Functions of coins

A coin is a piece of hard material that is standardized in weight and fineness. An authority guarantees the weight and fineness with a hallmark. To work as 'general purpose money', coins must perform three basic functions: as a medium of exchange, a standard of value/unit of account and a store of value. Generally, coins in medieval Europe fulfilled all three tasks adequately, in the main as commodity money, *i.e.* the face value was very close to the intrinsic value. Fiat money where the value is not determined by the raw material value, but by the issuer's credibility or economy, did not exist in a pure form. If the weight or the fineness of commodity money declines, then the purchasing power of the coins to buy goods, services and assets also decreases. Precious metals (gold and silver) best fulfilled the requirements of commodity money and were used as raw materials in medieval coins.[6] During the main period of the Middle Ages (*c*.700–1300), silver was almost the only key raw material in European coins. This depended on the existence of silver mines with a high supply of silver.

Normally, minted metal had a premium value over unminted metal in areas where coins were legal tender, a disparity for which there are two basic economic explanations:

- Firstly, minted metal works better as a medium of exchange and standard of value than unminted metal. When doing daily transactions it is manifestly easier to count coins than to weigh silver and to ascertain the fineness. People are thus generally willing to pay a premium to have their silver transformed into standard coins.[7]
- Secondly, coins are a typical 'network good'. The individual value of holding coins increases the more people accept the coins as a medium of exchange and a standard of value.[8] The coins will then work better as both a

[6] Precious metals: 1) exist in limited quantities; 2) are well-known; 3) of stable value, and 4) relatively soft and thereby easy to work up. The last characteristic implies coins cannot contain 100 per cent gold or silver. Instead, these precious metals are mixed with zinc or copper – as the coins otherwise would be worn down in routine use.

[7] Sussman 1993, p. 50.

[8] Dowd and Greenaway 1993, pp. 1180ff.

medium of exchange and a standard of value. Hence, the premium component is reinforced and tends to grow.

In practice, it was the agents in the market who determined the level of this premium component that enabled the coin issuing authority to make a profit (*gross seigniorage*) from minting.[9]

2.2 Coinage right and currency areas

In the Middle Ages, the right to mint was not unlike the rights to charge market customs and run mines, belonging to the *droit de régale*, *i.e.* the king/emperor possessed these rights. The coinage right encompassed the right to 1) decide which coins are 'legal tender', *i.e.* which coins are legitimate and valid as a medium of exchange; 2) determine the monetary standard, including denomination, weight, fineness, diameter and relief; 3) coin and determine design, and 4) make a profit from minting.[10]

The right to mint for a region and make a profit could be delegated, sold or pawned to other authorities (laymen, churchmen and citizens) for a limited or unlimited period.[11] In general, these authorities had to observe the king's guidelines for valid coins and the monetary standard, but there were exceptions.[12] The most common reason to delegate the coinage right was that a bishop or layman founded a town and thereby financed the associated costs. Nonetheless, delegation could also be exchanged for loyalty to the king/emperor. The rights to mint and charge market customs were typically delegated together, since the coin issuer also had to control the market. The market custom was a fee for the craftsmen and merchants' goods brought to and sold in the town market. The stated purpose of this fee was to support the market, but it was also important recurring revenue for the authority.

The size of the currency areas bounding the right to mint could vary substantially in the Middle Ages. In England, Sweden and Denmark, the king normally retained the coinage right and had a pure monopoly. Exceptions were some mints controlled by bishops. The whole of England was a single currency area, while Sweden and Denmark each had two–three areas. The currency areas in

---

[9] *Gross seigniorage = net seigniorage* + production costs.

[10] Kluge 2007, p. 52.

[11] Kluge 2007, p. 53. Pawning of the coinage right meant that the possessor of the minting right borrowed money from an external person. As a pawn for the loan, the pledgee ran the mint for a specific period and received the minting revenues as a payback of the loan.

[12] For many regions in Germany in the twelfth and thirteenth centuries, ecclesiastical mints decided the monetary standard.

these countries were thus relatively large, each having several mints. In contrast, in France, the minting right was delegated to many civil authorities and there were many small currency areas. Germany in the High Middle Ages was extremely decentralised politically with a weak ruler. One method the German ruler used to strengthen feudal loyalties was to delegate land; another was to delegate the rights to mint and charge market customs. The best examples of many small currency areas can be found in Germany and Eastern Europe where a city (mint) with its surroundings could constitute a currency area. In contrast to France, ecclesiastical authorities in Germany frequently usurped coinage rights.

2.3 Demand for money and monetization

The minting authority could not strike as many coins as it wished. There must always be a demand for coins as a medium of exchange and a standard of value in daily life. Otherwise, the surplus coins would flood the market with higher prices, therefore, their face value would be diminished towards their intrinsic value. Increased local trade would increase the demand for coins. However, it is then crucial to explain why local trade increased in the Middle Ages. In an economy with limited division of labour and where every household was in principle self-supporting there should be no need for a local market and the associated coins for local transactions.[13]

In the twelfth and thirteenth centuries, the population grew which resulted in an increased division of labour among peasants, handicraftsmen and households. The increased division of labour should have resulted in two important consequences. Firstly, efficiency in production should have increased since some specialised in producing tools while others specialised in producing shoes or clothes.[14] In other words, the total production of goods and services per capita should have increased in the feudal economy with an economic boom as a result. Secondly, specialisation led to increased requirements for the buying and selling of goods and services in a local market. More and more of the surplus from farming and handicrafts were sold at the local markets in the growing cities. This increased the demand for coins in the local markets. The development of local markets was a sufficient condition, or at least strong documentary evidence, that the division of labour had begun. This theory about the specialisation of labour predicts that the demand for money will increase considerably faster than economic growth (per

[13] On the other hand, there may have existed regional imbalances, *e.g.* a lack of salt or metals, which necessitated foreign trade. This picture is in line with society from Viking Age Scandinavia.

[14] Smith 1776.

capita) in a feudal economy, which was earlier based on self-supporting units. Regions without coinage were usually economically undeveloped.

Empirical research has documented that specialised workers (handicraftsmen) often settled in the growing towns and cities.[15] Theoretically, craftsmen were more dependent on the local market and transactions than peasants were. The former had incentives to settle down close to the market. Therefore, towns were founded and started developing.

Another persuasive explanation for the increased monetisation of the economy was that the king or a landlord preferred payment of taxes or rents in coins to traditional payment in kind or in services. There were several basic advantages. The landlord, with a purse full of coins, could thereby select and purchase those goods and services that he wanted, instead of receiving just those goods that his rent-paying peasants produced. The peasants could concentrate more on their own production. Another important consequence was that the king/landlord who received payment in coins was not required to move around between different estates to consume the goods. This made it possible for the aristocracy to settle down as a proto-leisure class in the towns. Spufford[16] argues this change was a necessary requirement for the development of larger towns. There was presumably another reason beyond increased efficiency that the king or landlord accepted coins when taxes, rents and fines were paid. Many coin issuing authorities regarded coinage as a source of revenue. One way for the coin issuer to strengthen the coinage and increase the demand for coins was to accept payments of taxes and various fees in coins. By doing so, the monetary base from which the issuer could profit increased.

A necessary condition for collecting rents and taxes in coins was the existence of a local market. There are two reasons; firstly, peasants must be able to sell some of their output in a local market in order to obtain coins. Secondly, it could only have been an advantage for the landlord to accept monetary rents if the local markets were already developed. Then, but not before, he could more efficiently purchase what he demanded. Generally, it is reasonable to claim that the division of labour and the development of local markets must be in place before the landlord and other authorities require taxes and rents in coins.

[15] Steguweit 1987, p. 16.
[16] Spufford 1988, p. 249.

3. Coinage policies in medieval Europe

3.1 Short-lived and long-lived coinage systems

For purposes of analysis, the coinage systems in the High Middle Ages of Europe (*c*.1000–1300) are divided into two main systems.[17] One system had long-lived coins that were valid during the entire reign of the coin issuer.[18] The other system had short-lived coins that were only valid for specific intervals in the period of the issuer's reign.[19] In the latter system, old coins were frequently declared invalid and were exchanged for new ones at publically announced exchange dates. The monetary standard (denomination, weight, fineness, diameter, and shape of the flan) largely remained the same at periodic recoinage, only the image of the coins was changed. An exchange fee was charged on the recoinage date as a way to tax trade and inhabitants, *e.g*. the fee could be four old coins for three new ones, *i.e*. a *gross seignorage* of 25 per cent. Documents and empirical observations show that recoinage could occur annually or even twice a year within a currency area in the Middle Ages.

There is a consensus in the conclusions drawn about the extension through time and space of long-lived and short-lived coinage system. As can be seen on Map 1, long-lived coins were common in western and southern Europe (France, Italy, Christian Spain and England after 1150) in the High Middle Ages, whereas short-lived coins dominated in central, northern and eastern Europe (Germany, Austria, Denmark, Poland, Bohemia with Moravia and England before 1125).[20] The short-lived coinage system defined legal tender for almost 200 years in large parts of medieval Europe.

In areas with long-lived coins, the same coin type was produced in all mints of the currency area. The purpose of long-lived coins was to create a high acceptance for the issuer's coins – both inside and beyond his own currency area, *e.g*.

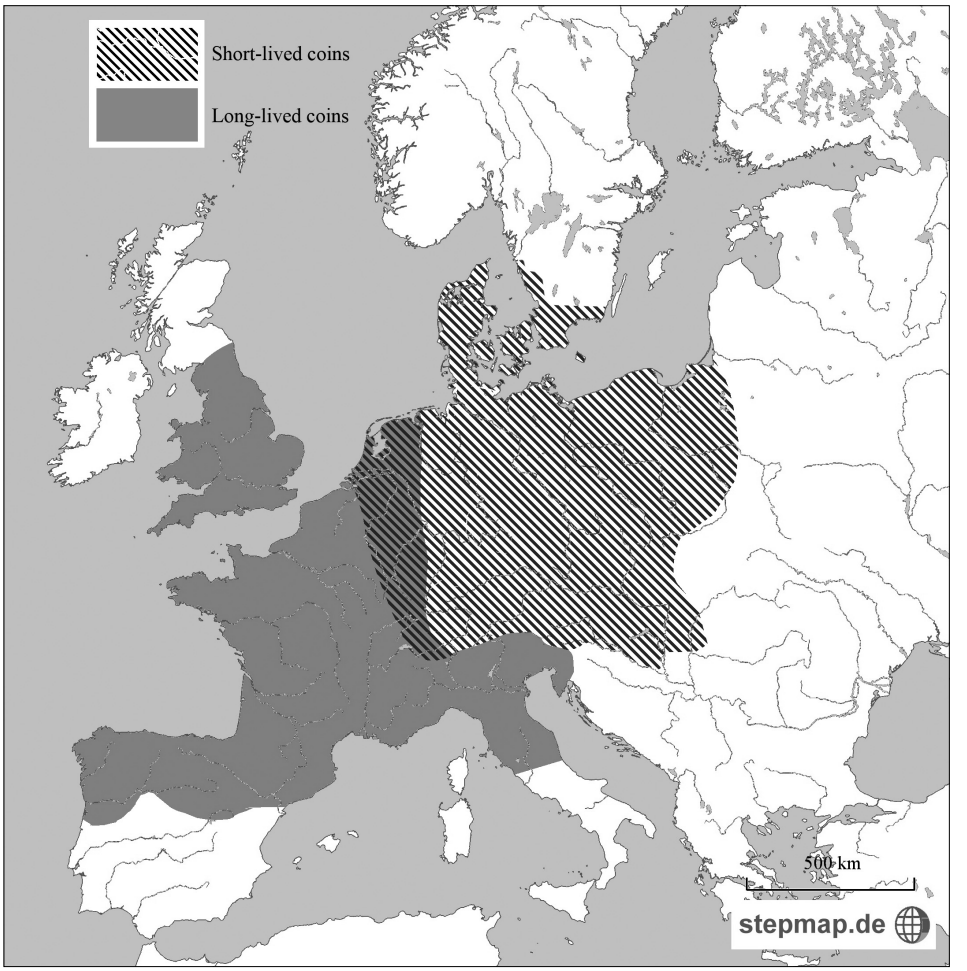
---

[17] Kluge 2007, p. 62ff.

[18] Sometimes, successors minted variants of the same coin type. These are called *immobilized types* and could be valid for very long periods – occasionally centuries – surviving through the reigns of several new rulers.

[19] The term 'feudal pennies' refers to a system where the coins are limited through time and space. In this system, the right to mint was delegated to civil and ecclesiastical authorities. The term 'regional coins' is widely used instead for a short-lived coinage system. Nonetheless, the term 'regional' is misleading inasmuch as also long-lived coins had a geographical constraint and were regional. For example, the two-faced French coins minted by civil authorities between 900 and 1200 were only valid in small regions. The large difference between different medieval coinage systems is their validity measured over time.

[20] Kluge 2007, p. 62ff.



Map 1. Short-lived and long-lived coinage systems in Europe 1140–1300.

in international trade. The issuer hoped his coins would be perceived as so stable that neighbouring areas would confidently accept them as a means of payment. The coin issuer would thus gain a larger circulation area for his coins. With this expansion, he could strike more coins and make a higher profit. The most important source of income for the minting authority in such a system was probably the monopoly over the exchange of foreign coins and bullion for current local ones.[21]

England had periodic recoinage *c*.975–1125, as did eastern parts of France and western parts of Germany in the eleventh and twelfth centuries.[22] However,

[21] Kluge 2007, pp. 62–63.

[22] Spufford 1988, pp. 92ff; Bolton 2012, pp. 99ff.; Hess 2004, pp. 19–20.

the best examples of short-lived and geographically constrained coins can be found in central and eastern Germany where currency areas were relatively small. Here, recoinage started in the middle of the twelfth century and lasted until the beginning of the fourteenth century and could occur annually or twice a year.[23] Like Germany, Poland had many currency areas and minting authorities. At the end of the twelfth century, renewals were annual, and in the thirteenth century they occurred twice, or even three times a year.[24] Bohemia also had recoinage at least once per year in the twelfth and thirteenth centuries.[25]

3.2 Identifying coinage systems

There are several basic methods for identifying periodic recoinage. In Table 1, I have ranked the methods by confidence. The most confident way to identify recoinage is through written documents that may contain explicit information about dates of recoinage and/or exchange fees (method A). However, there are no written sources about recurrent recoinage for some currency areas and mints and other methods must be used.

Table 1. Methods to identify short-lived and long-lived coinage systems

Method		Long-lived coins	Short-lived coins	Confidence of method
A	Written documents	-----	-----	Very strong
B	Coin types per reign and currency area	One	At least two	Strong
C	Coin types in hoards	One or a few from each mint	Many from each mint, but a few late dominate	Medium
D	Imitations of popular types	Often	Rare	Weak

[23] Kluge 2007, p. 63. Individual German mints had annual renewals until the beginning of the fifteenth century (*e.g.* Brunswick until 1412) (*o.c.*, p. 105).

[24] Suchodolski 2012, pp. 341ff.

[25] Sejbal 1997, p. 83; Vorel 2000, p. 26. Austria had annual recoinage until the end of the fourteenth century and Brandenburg from around 1150 until 1369 (Kluge 2007, p. 119), and the Teutonic Order in Prussia every tenth year between 1237 and *c.*1364 (Paszkiewicz 2008, p. 178). The king of Denmark introduced frequent recoinage (mostly annual) from the mid- twelfth century that continued for 200 years with some interruptions (Grinder-Hansen 2000, pp. 61ff.).

By classifying different coin types as originating from a specific coin issuer and mint (method B), it is relatively straightforward to establish whether periodic recoinage must have occurred. When and if there is only one type per reign, the coinage system is long-lived. However, in the event there are as many types as years of a specific reign and mint, the evidence indicates annual renewals. If the number of types exceed (or falls short of) the number of years, the renewals are more (or less) frequent.

The third method for identifying periodic recoinage involves carefully analysing the concentration and distribution of types in coin hoards (method C). Coin hoards from the Middle Ages may contain few or many issues from each mint represented in them. If recoinage has occurred, one would expect many types from a specific mint in hoards, but a few types to strongly dominate the composition of it. These types in such cases would be relatively young, while older types should have a more sparse representation. In those cases where there are *several* coin hoards from a specific coin issuer, one can expect the types existing in many hoards to be older and types in a few hoards to be younger.

The fourth method for identifying the coinage system involves recognising the existence of imitations (method D). Some long-lived coin types with a high silver content were viewed as so stable that they were imitated by other minting authorities.[26] This occurred to some extent in the Early (800–1000) and High Middle Ages (1000–1300), but became even more common in the Late Middle Ages (1300–1500).[27] Conversely, imitations of short-lived coins were far less common. This pattern is easy to understand – a coin that only lives for just one year neither will be well known nor regarded as stable by neighbouring mints or regions. The rule of thumb is that the higher the frequency of recoinage (assuming stable weight and fineness), the lower the probability of imitations. This fourth method is the weakest one since many long-lived coins were never imitated.

3.3 Conditions for short-lived coinage systems

The basic similarities and differences between the coinage systems are depicted in Table 2. Both short-lived and long-lived coinage systems require a geographical currency constraint (foreign coins are invalid) and an exchange monopoly. Furthermore, the coin issuing authority must control both the local market

[26] Kluge 2007, p. 69.

[27] Examples from the tenth and eleventh centuries are Saxon-pennies in Magdeburg and Otto-Adelheid-pennies in Goslar. In addition, Carolingian types were imitated by French secular lords for extended periods at this time. Commonly imitated late medieval coins included the French gross tournois, the Sicilian gigliato, the Prague Groschen and the German Witten and Heller (Kluge 2007, p. 69).

and the coinage. This is facilitated if the rights to charge market customs and to mint are possessed by a single authority, which in medieval Europe normally was the case.[28]

Table 2. Similarities and differences between long-lived and short-lived coinage systems.

Conditions/Characteristics		Long-lived coins	Short-lived coins
Geographical constraint (foreign coins invalid)		Yes	Yes
Exchange monopoly		Yes	Yes
Market right necessary		Yes	Yes
Profit of the coin issuer	Minting of bullion (*gross seignorage*)	Yes	Yes
	Reminting of foreign coins (*gross seignorage*)	Yes	Yes
	Recoinage and issues (exchange fee)	Only when shift of issuer	Frequent
	Debasements of weight and fineness	Often	Sometimes
Number of coin types (same denomination) circulating simultaneous in a given currency area		One or few	One
Volume of coins circulating in the economy		Large	Small
Relative development of the economy		High	Low
Geographical area		Large or small	Preferably small
Number of mints in large currency areas		Few	Many

If a system with periodic recoinage is going to be practical, it is essential that 1) only one type circulates, and 2) it is easy for users in everyday life to distinguish between various issues. It is then logical that differences in the main design on the coins were carefully linked to different issues. On the other hand, details on the coins were used by the minting authority to control the coinage.[29]

As noted previously, periodic recoinage was the dominant monetary policy in the central, eastern and northern parts of Europe. These areas were relatively undeveloped and had less experience of coinage and local markets than western

[28] Kluge 2007, p. 63.

[29] The differences in details thus had numerous sources and may have diverse explanations, *e.g.* different mints, weights, fineness or mint masters. The name of the mint could also be included in the legend.

and southern Europe. Given the size of the currency area, recoinage works particularly well in relatively undeveloped economies since there is a small volume of coins circulating. This key factor facilitates reminting. Furthermore, there are also few places where coins are used for transactions and few groups in society who use coins, *i.e.* low monetisation. The latter facts facilitate monitoring and enforcement of a short-lived coinage system.[30]

Recoinage is easier to accomplish if the currency area is small with only one mint (*e.g.* German currency areas) than if the currency area is large with many mints (*e.g.* England). In the latter case, some degree of state structure is needed. Typically, a short-lived coinage system with only local new coins as legal tender was enforced only within the cities' borders in Germany, and any coins could be used outside the cities.[31] The coin issuing authority had several methods to monitor and enforce recoinage. Firstly, they had exchangers and other administrators at the city markets. Secondly, the recoinage date was often designated just prior to an important annual market or payment date of an annual tax. Thirdly, payment of any fees, taxes, rents, tithes or fines had to be made in new coins.[32]

Recoinage was especially frequent in areas where uni-faced bracteates were minted,[33] usually annually but sometimes twice a year.[34] Bracteates had several favourable characteristics for such a policy: 1) Low production costs – only one die was needed and the bracteate dies lasted longer than dies for two-faced coins, and 2) A large variety of pictures could be displayed on the relatively large diameter, making recognition of valid and invalid coins fast and reliable. The fragility of the bracteates was not a great problem, since the bracteates would not circulate for a long period.

In Germany in the period 1140–1300, two-faced coins and bracteates were minted simultaneously. The former were struck in the western parts of Germany, Westphalia, the Rhineland and Franconia; the latter in the rest of the territory. An important observation is that the bracteates got a foothold in regions with comparatively less experience of monetary economics and where no monetary standard existed. Both two-faced coins and bracteates were linked to periodic recoinage in Germany. Regions where bracteates were struck had more frequent renewals – sometimes as often as every half a year. This is logical, since frequent renewals required a low economic development and monetisation. The renewals

---

[30] Svensson 2013a, pp. 9–10.

[31] Hess 2004, p. 16.

[32] Svensson 2013a, pp. 13ff.

[33] Bracteates are thin uni-faced coins that were struck with only one die. A piece of soft material, such as leather or lead, was placed under the thin flan. Consequently, the design of the obverse can be seen as a mirror image on the reverse of the bracteates.

[34] Kluge 2007, p. 63.

in the western parts of Germany had already passed the zenith when the use of bracteates emerged and spread in the 1140s. The dominant mint in the Rhineland, Cologne, renewed its coinage every fourth or fifth year.

3.4 Alternative monetary taxation policies

As mentioned in the introduction, in the Middle Ages there were two main methods (besides reminting of foreign coins and bullion) of using coinage as a monetary tax: periodic recoinage and debasement. Recoinage of course by definition always occurs in a short-lived coinage system, but almost never in a long-lived system.[35] Debasement can occur in all coinage systems. Thus, recoinage and debasement are not inherently mutually exclusive and can be applied simultaneously.[36]

Empirical evidence shows that debasement mostly occurred in long-lived systems, where the issuer's revenue from minting was limited. This was especially the case in medieval France, Spain and Italy (compare with Map 1).[37] For many regions of Germany as long as recoinage occurred the silver fineness was sustained at a high level of at least 90 per cent until the mid or end of the thirteenth century. It was not until the fourteenth century, when long-lived coins replaced short-lived ones that debasements accelerated in Germany.

Both types of monetary taxes would have caused old coins to be driven out of circulation, either through administrative reminting (periodic recoinage) or due to Gresham's Law (debasement). However, debasement is a more efficient monetary tax for the issuer, since it is less costly to enforce. The reason why many minting authorities, nevertheless, chose recoinage before debasement in

---

[35] Such a single accidental recoinage in a long-lived coinage system occurred in Sweden in 1340 (see section 5). In addition, England had two remintings in the thirteenth century when the coinage was long-lived, but these events had other purposes than simply to change the image of the coin and charge a *gross seignorage*. The short-cross pennies minted in the twelfth and thirteenth centuries were often clipped. In 1247, a reminting occurred. A new penny ('long-cross') having the cross on the reverse extended to the edge of the coin to help safeguard the coins against clipping was introduced. Another coinage reform occurred in 1279. Before 1279, the double-lined cross on the long-cross pennies were used when cutting the coins into halves to get small change to the penny. New denominations were introduced in 1279 – all with single-lined crosses on the reverse. In addition to the new penny, the groat, halfpence and farthing were also introduced. However, there was not a considerable issue of the new denominations until the mid-fourteenth century.

[36] For example, this was the case in Denmark during the civil war between 1260 and 1340 (Grinder-Hansen 2000, p. 67ff.).

[37] Kluge 2007, p. 64.

areas with low monetisation can probably be best explained by the superior position of ecclesiastical coin issuers in central and north-eastern Europe. These issuers invoked the numerous prohibitions of manipulation of weights and fineness contained in the Holy Bible. However, the costs for society as a whole could be higher for debasements than recoinage, since the former tax occurs in secret and results in acute uncertainty.[38]

4. Coinage in Sweden 1153–1512

4.1 Different currency areas

In the Sigtuna mint (Svealand), two-faced coins inspired by English coins were struck from around 995 to 1030 (Fig. 1). Studies of dies and die-links show that the quantity of minting in Sigtuna was considerable during this period.[39] The regional chiefs, Olof Skötkonung and his son Anund Jacob were the coin issuers. No real state called Sweden existed during this period. The minting ceased around 1030 for hitherto unexplained reasons.

Fig. 1. Imitation of English long-cross type, Sigtuna (Svealand), Olof Skötkonung (995–1022). Bust of uncrowned king turned to the left) (Double-lined cross, confused legends, 1.28 g, Ø 19 mm, SMH 224. Source: Misab.

On the mainland, there was a long break in the coinage for around 120 years. The island of Gotland was a separate region and started minting around 1140 (see section 4.9). The area in the eleventh and twelfth centuries that later would be called Sweden consisted of independent regions (Svealand, Western and Eastern Götaland) with their own regional laws. Different dynasties competed for sovereign power in the different regions during this period. A real central authority with a distinct central administration and royal tax collection was not established until the late twelfth century or early thirteenth century. The first Swedish bishopric was established in Husaby (Western Götaland) at the beginning of the elev-

[38] Svensson 2013a, pp. 21ff.
[39] Malmer 2010.

enth century and later moved to Skara around 1050. Ecclesiastical power started to become established in the eleventh century, and many churches were built in the twelfth century. Sweden lagged behind other countries in northern and central Europe, *e.g.* Denmark and Germany, both politically and economically. Above all, the economic backwardness is evidenced by the few towns and the lack of a local coinage system.

There were three monetary standards in Sweden from 1153 to 1250: Svealand pennies, Geatish pennies (Western Götaland) and Gotlandic pennies (Gotland and Eastern Götaland). Jonsson[40] concludes that the currency areas almost coincided with the dioceses in: 1) Uppsala, Västerås and Strängnäs; 2) Skara, and 3) Linköping and Växjö (see Map 2).[41] In the middle of the thirteenth century, two Svealand pennies had the same value as three Gotlandic or four Geatish ones.[42] Gotland was in a type of union with Sweden, but retained a self-governing position and its own coinage right. Svealand bracteates weigh 0.30 g and Geatish 0.15 g.[43]

It has been assumed that the Svealand and Geatish bracteates were valid as means of payments in each other's areas at the rate 1:2. However, Jonsson[44] suggests that these areas were separate currency regions during the twelfth century and until 1275. This view of separate currency areas is in the main supported by the fact that the design and style of the bracteates in Svealand and Götaland are very dissimilar.[45] Like regional laws, coinage had a geographical constraint in Sweden, which was more a union of discrete regions under a common king. This arrangement – with different regions under the control of the same minting authority – closely matches the pattern in continental Europe.[46]

---

[40] Jonsson 2002, p. 51.

[41] However, he does not refer to the fact that the dioceses and the monetary standards also were related to each other in Germany (see Nau 1977, p. 94 and Svensson 2013b, chapter 4).

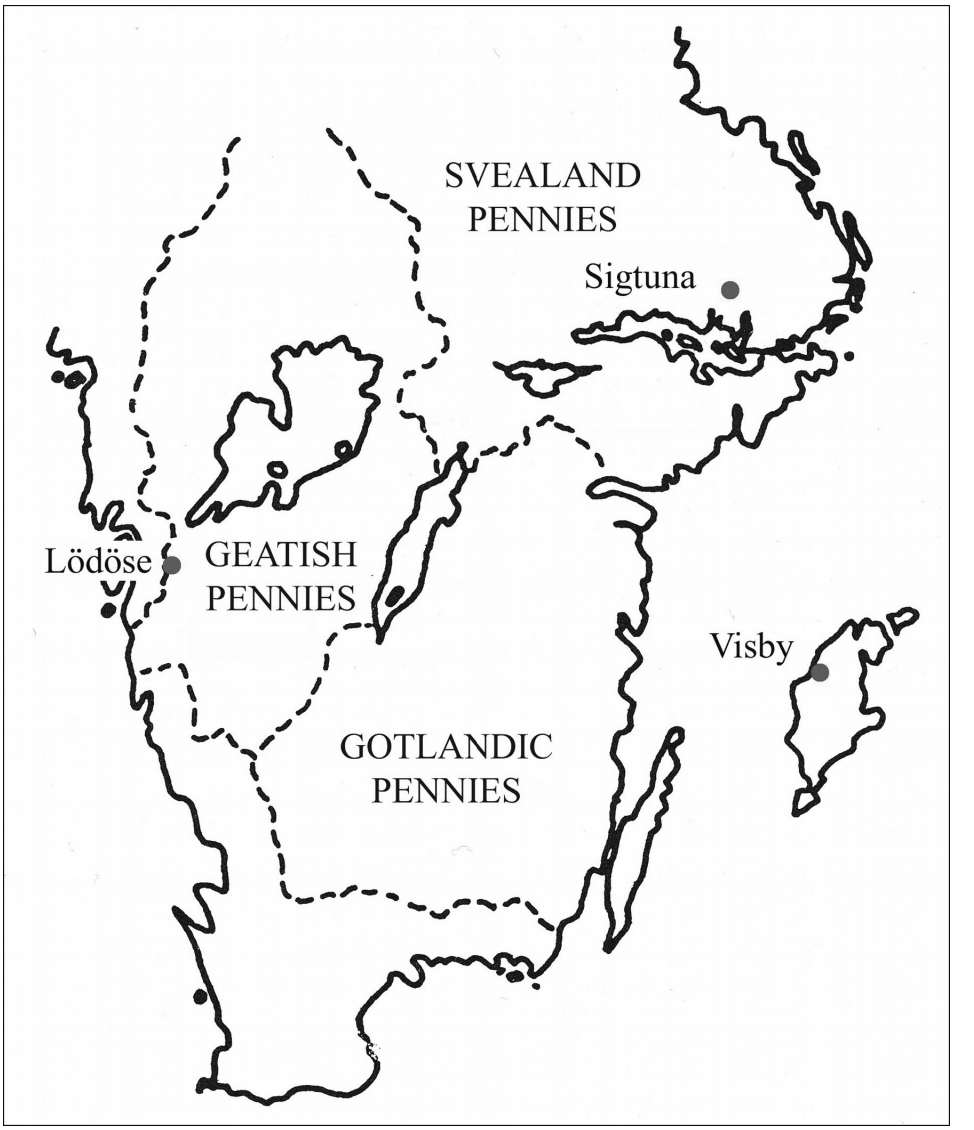
[42] One mark pennies consisted of 192 Svealand, 288 Gotlandic or 384 Geatish pennies, respectively, until 1250/90.

[43] It has been generally assumed that all Svealand bracteates were minted in Svealand, and all Geatish in Götaland (Lagerqvist 1970, pp. 44ff.). However, this does not need be the case after 1250, since waste products from minting of Geatish bracteates have been found in the mint Örebro (Svealand). Such bracteates were struck by King Valdemar 1250–1275 (see Fig. 36) (Malmer 1978, pp. 206ff.).

[44] Jonsson 2002, p. 48.

[45] King John I (1216–1222) minted two bracteates with Geatish weight, but with a design corresponding to Svealand pennies. Jonsson (1999, p. 80) argues that these should be regarded as half-pennies struck in Svealand. The style of these half-pennies does not correspond with other Geatish bracteates minted in Lödöse.

[46] See Svensson 2013b, chapter 4.



Map 2. Currency areas in Sweden until 1250.

Note: Red dots represent known Swedish and Gotlandic mints in the twelfth century.
Source: Jonsson (1995, p. 51).

4.2 The early period 1153–1180

For a century and a half, 1153–1290, only bracteates were minted on the mainland. For a long period, it was uncertain whether any coins had been minted in the Swedish area in the period 1150–1180. For example, in the reference work by Lagerqvist,[47] there are no listed Swedish bracteate types from this period. However, archaeological excavations in Lödöse in the 1980s found a mint house and waste products from minting dated to the period 1150–1170. Thus, coinage was resumed in Lödöse (Western Götaland) in the 1150s.

The waste products show that bracteates with a double cross (see Fig. 2) and a simple cross (Fig. 3) were minted in Lödöse.[48] These types have been dated to the period 1150–1170, where the bracteate with a double cross is the oldest one. Both types had previously been regarded as Norwegian bracteates.[49] Not much is known about the minting policy during this period in Lödöse. It is undecided whether these bracteates were short-lived or long-lived coins.

An interesting question is who minted the first double cross-bracteate type. Jonsson[50] claims that King Sverker I the Older (1130–1156) must have been the issuer. However, Jonsson does not explain why a king would put such an obviously ecclesiastical symbol on his coins. Arnell[51] later argued that there is a very high probability that this bracteate was minted by Bengt the Good, Bishop of Skara (1150–1190). The double cross was a distinct ecclesiastical symbol in the High Middle Ages. The ecclesiastical coin issuers were the best social class to mark their authority with emblems and symbols on medieval bracteates.[52] Kings or emperors very seldom put ecclesiastical symbols (crosier, doubles cross, books or the blessing hand) on bracteates if and when they were responsible for coining alone – neither in Sweden nor anywhere else in Europe. Therefore, we can be almost certain that a churchman issued this bracteate.

The bishops of Skara had a relatively strong ecclesiastical and political position in the beginning and the middle of the twelfth century before a real Swedish state and the archdiocese was established in Uppsala in 1164. The Skara bishops were responsible to the Archbishop of Lund (Denmark) in the 1150s. Many bishops in Denmark had revenue shares in the royal coinage from this time.[53] Divided

---

[47] Lagerqvist 1970.

[48] Ekre 1988, p. 30.

[49] There are several variants of the bracteate with a simple cross. It is still debated as to which ones were minted in Lödöse (Götaland) and in Norway.

[50] Jonsson 1995, p. 49.

[51] Arnell 2001, pp. 4ff.

[52] Svensson 2013b, chapter 7.

[53] Grinder-Hansen 2000, p. 53ff.

Fig. 2. Lödöse, Bishop Bengt the Good (1150–1190), struck after 1153. Double cross in a circle of pellets. 0.15 g, Ø 14 mm, LL –, Schive VI:48.

Fig. 3. Lödöse? Anonymous issuer, ca. 1160–1170. Cross in a circle of pellets. 0.09 g, Ø 14 mm, LL –, compare Schive VII:90.

coinage right between a Swedish 'king' and the Bishop of Skara is therefore a reasonable alternative (compare with Germany in Svensson 2013b).[54] If the Bishop of Skara is the only issuer of the bracteate, the king could mint in Lödöse simultaneously (compare with section 4.5).

The minting of bracteates with a double cross is in line with the visit of the papal Cardinal Nicholas Breakspeare (later Pope Hadrianus IV, 1154–1159) to Sweden in 1153. The purposes of his visits to Norway (1152) and Sweden (1153) were to establish an archdiocese in each country, create national churches and introduce the payment of Peter's penny to Rome, *i.e.* the annual payment from the church to the Pope.[55] Another purpose was to try to clarify the arrangement wherein the Church should be more independent against the state. The meeting in Linköping in 1153 did not conclude anything about the archdiocese, since the competing dynasties could not agree where to locate it. However, a promise was given to pay Peter's penny.[56] In order to collect and pay Peter's penny to the papal office in Bruges, payment in coins or bullion was

[54] Svensson 2013b, chapter 5. However, it is not at all obvious who the other issuer was. It could be either Sverker I (1130–1156), who had a weak position in western Götaland, or Erik the Saint (1156–1160), who had a strong position in this region (Arnell 2001, p. 8).

[55] In Norway, two consequences of the session were that an archdiocese was established in Nidaros and that Peter's penny was introduced (Johnsen 1945, p. 415).

[56] Arnell 2001, p. 8.

necessary.[57] Goods could hardly be sent to Bruges as a tax payment. Peter's penny implied that each household would pay one penny per year to Rome. There then must be a definition of how much one penny was worth – a standard of value is needed. Thus, a domestic coinage system was required. Based on the above reasoning, we can assume that the bracteate with a double cross was minted in Lödöse, after 1153. On his journey from Nidaros to Linköping, it is likely that the Cardinal travelled via Lödöse.[58] This was the only western port in Sweden and the most important commercial town in Western Götaland. Thus, it is logical that minting started here.

Harlitz claims that the Lödöse-bracteate with a double cross belongs to Norwegian royal coinage.[59] I definitely reject the hypothesis of a king as the issuer (see above). A realistic possibility is that a Norwegian bishop was the issuer, since the style is similar to Norwegian bracteates. However, Norwegian bracteates with double cross were only minted in Nidaros after 1160.[60] Thus, Norwegian bracteates with a double cross follow the style of the Lödöse-bracteate; not the opposite. Moreover, the closest located diocese in Norway is Oslo, which is further away from Lödöse than Skara.

4.3 Establishment of coinage in Svealand 1180–1196

Only a few bracteate types are known from Lödöse in the 1150s and 1160s. It is not until the later period (after 1180) of King Canute I Ericsson's reign (1167–1196) that several types of bracteates were continuously minted in Sigtuna (Svealand) and Lödöse (Western Götaland). The design of the Svealand bracteates had an obvious German influence – crowned bust or head with royal symbols/emblems (orb, sword or lily sceptre) in the hands. The first Svealand bracteates with a relatively high artistic style were likely struck by a German mint master. However, the style and design degenerated quickly and within a decade, the portrayed figure consisted of pellets (Figs. 4 and 5). This simplification of the design may be because once everyday users of the coin were familiar with the representation it was no longer necessary to waste resources on detailed designs. The Götaland types show variants of a crowned head (Fig. 6).

Listed and identified bracteate types show that Canute I minted at least 15 different types in Sigtuna (Svealand) and three types in Lödöse (Western Göta-

[57] *l.c.*

[58] *l.c.*

[59] Harlitz 2010, p. 81.

[60] Simensen 1992, p. 65. Surprisingly, Skaare (1995) has catalogued Norwegian bracteates with ecclesiastical symbols (crosier and double cross) as issued by King Sverre. He does not refer to Simensen's (1992) article.

Fig. 4. Sigtuna, King Canute I (1167–1196), struck after 1180. Crowned bust facing with orb and banner, pearled edge, 0.33 g, Ø 15 mm, LL IA:2a.

Fig. 5. Sigtuna, King Canute I (1167–1196), struck after 1180. Degenerated crowned head facing with sword left, design in pellet form, 0.18 g, Ø 16 mm, LL IA:9a.

Fig. 6. Lödöse, King Canute I (1167–1196), struck after 1180. Crowned head, LE–DV, 0.12 g, Ø 13 mm LL XI:A:2.

land) in the period 1180–1196.[61] Thus, Canute I issued several types in both mints within a limited time (compare with method B in Table 1). These observations suggest that renewals occurred in both areas, but were more frequent in Svealand than in Götaland. Some of the bracteate types from Sigtuna and Lödöse in the period 1180–1196 are stylistically similar to each other, but so many types could not have been valid at the same time. It would only have caused confusion among a population, which earlier only had experienced foreign coins with different weights and fineness.

Another important empirical observation that adds credence to the thesis of periodic recoinage derives from interpreting the large coin hoards (more than

[61] The types in Svealand are *LL 1A: 1a–b, 2a–c, 3, 4, 5a–b, 5c–e, 6a–c, 7a–d, 8, 9a–b, 10, 11, 12, 13a–b, 14a–b*, and in Götaland *LL XI: 1a–b, 2, 3*. According to Jonsson (1995, p. 54), some of the Svealand types may have been minted by the successor Sverker II the Younger (1196–1208).

10 coins) from the reign of Canute I. The composition of these hoards is strongly skewed with respect to various bracteate types (compare with method C in Table 1). Often, one or a couple of types dominate, indicating that they are late types, *e.g.* the hoards from Gillberga and Mackmyra.[62] The hoard from Gillberga in Uppland contained 457 bracteates from Canute's era, distributed in four types. Of these, more than 99 per cent are of two types; 431 of one type (*LL IA:7a–c*) and 22 of another (*LL IA:12*) (Figs. 7 and 8). The Mackmyra hoard from Gästrikland had 235 bracteates distributed in 13 types, with 108 of one type (*LL IA:7d*) and 21 of a closely related type (*LL IA:7a–c*). Two other distinctive types (*LL IA:5a–c* and *LL IA 1a–b*) have 38 and 32 specimens, and six types are evidenced by a maximum of two coins each. It is difficult to imagine coin hoards more unbalanced than these in order to support the view that the types are chronological issues. In Germany and Denmark, we are quite certain that periodic recoinage occurred, based on written sources. However, German and Danish coin hoards are seldom if ever as unbalanced as Swedish hoards from this period.[63]

Fig. 7. Sigtuna, King Canute I (1167–1196), struck after 1180. Crowned bust with head facing between sword and key (?), degenerated style, 0.34 g, Ø 16 mm, LL IA:7c.

Fig. 8. Sigtuna, King Canute I (1167–1196), struck after 1180. Crowned head facing, degenerated style, 0.30 g, Ø 15 mm, LL IA:12.

It is unlikely that Canute I would have introduced bracteates in Svealand and Götaland without linking them to recoinage. There must have been an economic motive behind the various types – especially as all of them seem to have been struck in Sigtuna and Lödöse. As discussed in section 3.3, there are strong links between bracteates and periodic recoinage. One should also remember that Ca-

[62] Jonsson 1983, p. 79.

[63] Haupt 1954; Hävernick 1955; Gaettens 1963; Grinder-Hansen 2000.

nute I started coining bracteates when the system with bracteates and *renovatio monetae* reached its peak in Germany (around 1180).

4.4 Continuation of short-lived coins 1196–1250

The Swedish kings minted several types of bracteates in both Svealand and Götaland in the first half of the thirteenth century (see Table 3). However, the types from these two regions seldom correspond to each other, indicating that Svealand and Götaland were separate currency areas.[64] The bracteate types within each region have clearly visible differences in their designs.

Table 3. Coining of bracteates in Sweden 1180–1290.

Royal coin issuers	Years of issuing	Svealand types	Geatish types
Canute I (1167–1196)	16	15 [a]	3
Sverker II the Younger (1196–1208)	12		3
Eric X (1208–1216)	8	3–4	1 [b]
John I (1216–1222)	6	6	2 [c]
Eric XI (1222–1229, 1234–1250)	23	6	8
Canute II the Tall (1229–1234)	5	9	0
Valdemar (1250–1275)	25	0	6
Magnus III Barnlock (1275–1290)	15	3	2

Note: The number of different types refers here to types that are easily distinguishable from each other.

[a] These Svealand-bracteates are usually attributed to Canute I, but some of them may have been minted by Sverker II. [b] Many variants of this type. [c] These may be Svealand halfpennies, since they have the same images as the Svealand types.

King Sverker II the Younger (1196–1208) minted three different Geatish bracteates with a lion as the main image (see Fig. 9). In Svealand, we cannot be sure that Sverker II minted at all, but some of the Svealand bracteates attributed to Canute I could have been struck by Sverker II.[65]

From the reign of Eric X (1208–1216), three or four different Svealand bracteate types and one Götaland bracteate type are known. The main design of the

[64] Jonsson 2002, p. 48.

[65] Jonsson 1995, p. 54.

Fig. 9. Lödöse, King Sverker II the Younger (1196–1208). Lion turned to the left, 0.13 g, Ø 13 mm, LL XII:4.

Svealand types is a cross in a pearled circle with various details in the cross angles (Figs. 10 and 11), and the Geatish type shows a crowned head (Fig. 12).[66] The Svealand issues indicate that the types were changed every two or three years. Waste products from minting of one of the types have been found in the Nyköping mint, indicating that it was minted there. However, this fact does not exclude that this type was also struck in other Svealand mints. There are many variants of the Geatish type with the image of a crowned head (legend: variants with ERIC REX). It is unclear whether these are different chronological issues in time.

Fig. 10. Nyköping (Svealand), King Eric X (1208–1216). Cross in a pearled circle, A-R-O-S in angles, 0.36 g, Ø 16 mm, LL IB:4.

Fig. 11. Unknown mint (Svealand), King Eric X (1208–1216). Cross in a pearled circle, two diagonal sceptres with stars, 0.36 g, Ø 16 mm, LL IB:5a.

Six Svealand and two Geatish bracteate types have been attributed to the reign of King John I (1216–1222) (Figs. 13–17). These types are very rare in coin finds, but all of them were represented in the Dimbo hoard (Western Götaland).

[66] *LL II:4, 5a, 5b, 6* in Svealand and *LL XI:B 4–13* in Götaland.

Fig. 12. Lödöse, King Eric X (1208–1216). Crowned head, ERICV–S REX (retrograde), 0.09 g, Ø 13 mm, LL XI:B:13.

Jonsson[67] suggests, given that the number of types in the hoard corresponds to the number of years, that annual renewals were introduced by King John I in Svealand in 1216.[68]

Figs. 13–17. Unknown mints, (Svealand), King John I (1216–1222).
Crown in a pearled circle, +IOhANNES, 0.25 g, Ø 17 mm, LL III:1.
Star in a pearled circle, +IOhANNES, 0.30 g, Ø 17 mm, LL III:2a.
Falcon head in a pearled circle, +IOhANNES, 0.25 g, Ø 17 mm, LL III:4.
Sword between two small crosses in a pearled circle, +IOhANNES, 0.29 g, Ø 17 mm, LL III:5b.
Tower in a pearled circle, I–O, 0.31 g, Ø 17 mm, LL III:6a.

The next Swedish king, Eric XI Ericsson, had two separate reigns (1222–1229 and 1234–1250). He was the first issuer since 1180 that minted more bracteate types in Götaland than in Svealand (see Table 4). It is noteworthy that two issues had the same main design in both currency areas, *e.g.* a bird turned to the right and a crowned head. It has been possible to classify the various types to different periods of his reign.[69] This strongly adds further weight to the proposed hypothesis of periodic recoinage.

---

[67] Jonsson 1999, p. 77.

[68] Based on a fragment of a bracteate, Elfver (2009, pp. 51ff.) means that another Svealand bracteate type could have been struck by John I. Thereby, the number of types would exceed the number of the years of reign.

[69] Holmberg 1995, pp. 68ff.

Table 4. Chronology of bracteates under the reign of King Eric XI.

Main design	Period	Svealand	Götaland (Lödöse)
Sword between E–R (Fig. 18)	1222–29	---	LL XIII
Church (Fig. 19) Bird right (Fig. 20) Bird left	1234–40	--- LL – LL II	LL XII:C:6 LL XII:B:5 ---
Star and moon Crowned head (Fig. 21)	around 1240	--- LL VII	LL XIX:1 LL XV
Crown (Fig. 22)	1240–45	---	LL XVI:A:1
Crown above star (Fig. 23)	1245–50	---	LL XVI:A:2
Cross	1248–50	---	LL –
Cross (REX VPSALIE) (Fig. 24)	1240s?	LL VIII:1	---
Crown (REX VPSALIE) (Fig. 25)		LL VIII:2	---
A (REX VBSALI) (Fig. 26)		LL VIII:3	---

Source: Holmberg 1995, p. 70 and my own revisions.

Fig. 18. Lödöse, King Eric XI (1222–1229, 1234–1250), struck 1222–1229. Sword between E and cross/x, 0.14 g, Ø 14 mm, LL XIII:4.

Fig. 19. Lödöse, King Eric XI (1222–1229, 1234–1250), struck 1234–1240. Church building between a star and half-moon, 0.16 g, Ø 13 mm, LL XII:C:6a.

Fig. 20. Lödöse, King Eric XI (1222–1229, 1234–1250), struck 1234–1240.
Bird turned to the right, 0.16 g, Ø 14 mm, LL XII:B:5.

Fig. 21. Lödöse, King Eric XI (1222–1229, 1234–1250), struck around 1240.
Crowned head, REX ERIC, 0.15 g, Ø 14 mm, LL XV:1.

Fig. 22. Lödöse, King Eric XI (1222–1229, 1234–1250), struck 1240–1245.
Crown, 0.19 g, Ø 13 mm, LL XVI:A:1.

Fig. 23. Lödöse, King Eric XI (1222–1229, 1234–1250), struck 1234–1240.
Crown above a star, 0.14 g, Ø 13 mm, LL XVI:A:2a.

Fig. 24. Svealand, unknown mint, King Eric XI (1222–1229, 1234–1250), struck 1240s.
Cross, +REX VPSALIE (retrograde), 0.37 g, Ø 19 mm, LL VIII:1.

Fig. 25. Svealand, unknown mint, King Eric XI (1222–1229, 1234–1250), struck 1240s. Crown, +REX VPSALIE (retrograde), unknown weight, Ø 18 mm, LL VIII:2.

Fig. 26. Svealand, unknown mint, King Eric XI (1222–1229, 1234–1250), struck 1240s. A, +REX VBSALI, 0.32 g, Ø 18 mm, LL VIII:3.

From the reign of King Canute II the Tall (1229–1234) as many as nine Svealand bracteate types were found in a coin hoard from Eskilstuna (Eastern Svealand). At least seven of them were issued by the king (Figs. 27–30) (legend: KANVTVS or ARVSAR) and one by Earl Ulf (legend: VI-CA) (see Fig. 34). Two further types may be dated to the reign of Canute II (*LL IVB* and *V*). This indicates that recoinage occurred annually or even more frequently in Svealand. No bracteates of Geatish monetary standard are known. Therefore, it is doubtful if Canute II was accepted as king in the whole Sweden.[70]

Figs. 27–30. Unknown mints (Svealand), Canute II the Tall (1229–1234). Crowned head in a pearled circle, +KANVTVS, 0.18 g, Ø 17 mm LL IV:A:2a. Shield in a pearled circle, +KANVTVS, unknown weight, Ø 18 mm LL IV:A:3. Lion to the left in a pearled circle, +KANVTVS, 0.34 g, Ø 18 mm LL IV:A:4. Lily in a pearled circle, +KANVTVS, 0.22 g, Ø 17 mm LL IV:A:5.

[70] Holmberg 1995, pp. 71–72.

4.5 Ecclesiastical and civil issuers 1190–1266

Normally, coinage was a royal monopoly or *droit de règale* in medieval Europe. However, as mentioned in section 2.2, the coinage right could be delegated to ecclesiastical or civil authorities, conditional on obeying the guidelines from the king. Delegation occurred mostly when royal power was relatively weak versus other groups (bishops and nobility), as was the case in Germany from 950–1300, Denmark from 1130–1157 and 1227–1340, and in Sweden from 1150–1275. Unsurprisingly, the Archbishops of Uppsala minted bracteates, probably in Sigtuna, in the period 1190–1215.[71] Thus for a quarter century the kings and the archbishops simultaneously coined bracteates in Svealand. The episcopal bracteate types have been dated to the end of the reign of Canute I (1190–1196), (Fig. 31), the reign of Sverker II (1196–1208), (Fig. 32) and Eric X (1208–1216), (Fig. 33).[72] The bracteate types of the kings and the archbishops have the same design and monetary standard, so they could circulate simultaneously. The coinage of bracteates continued in Sweden until 1290, but from 1215 onwards, there were no ecclesiastical coin issuers, indicating that royal power had strengthened its position against the church.

Fig. 31. Sigtuna (?), Archbishops of Uppsala (1190–1196). Hand with crosier in a pearled circle, 0.24 g, Ø 16 mm, LL IB:1c.

Fig. 32. Sigtuna (?), Archbishops of Uppsala (1200–1210). Bust of archbishop with mitre and crosier in a pearled circle, 0.24 g, Ø 18 mm, LL IB:2.

[71] Only a few episcopal bracteate types are known, but this may well depend on there being so few hoards from Svealand in this period. An alternative mint to Sigtuna, the episcopal bracteates were struck in Uppsala. However, there is no record on minting in Uppsala during the period 1190–1215.

[72] Jonsson 1983, p. 83.

Fig. 33. Sigtuna (?), Archbishops of Uppsala (1210–1215). Cross with crosier in the diagonal, 4 pellets in the other angles, 0.24 g, Ø 17 mm, LL IB:3.

Fig. 34. Unknown mint (Svealand), Earl under the reign of Canute the Tall (1229–1234). Banner to the left, pearled edge, legend: VI–CA, 0.17 g, Ø 17 mm. LL IV:8a.

Fig. 35. Lödöse, Earl Birger (1250–1266). B in smooth edge, 0.13 g, Ø 12 mm, LL XVIIA:2a.

Earls only minted during the thirteenth century in Sweden. An example is a bracteate with a banner and the inscription VI-CA (abbreviation for vicarious). It has been assumed that Earl Ulf (1231–1248) was the issuer (Fig. 34). A specimen of this bracteate was found in the Eskilstuna hoard with bracteates from the reign of Canute II (1229–1234). It has the same style as the ones issued by King Canute. Another two bracteates with the inscriptions VLF JARL (*LL VI:1*) and WLF DVX (*LL VI:2*) refer to Earl Ulf. In the 1260s, Earl Birger (1250–1266) minted bracteates with the letter B in Lödöse (Fig. 35).

4.6 Larger currency areas 1250–1290

After 1250, the minting volume increased when Western and Eastern Götaland were joined to a uniform currency area. Several new mints were established. The silver fineness of Swedish bracteates until 1250 was similar to the German

one, *i.e. c.*95 per cent, but it declines to 80 per cent in the period 1250–1290.[73] The number of bracteate types per period was considerably fewer from 1250–1290 than from 1180–1250. During the period from 1250–1290 there are large intervals between the renewals, maybe five years or a decade.

King Valdemar (1250–1275) struck only six main types of Geatish bracteates. The bracteates on Figs. 36–40 were found in a large coin hoard in Styra, Eastern Götaland. Waste products from minting show that they had been coined in Örebro and Lödöse, respectively. However, these types are also frequently found in cumulative finds from churches, suggesting that their coinage volumes were considerable and that they may also have been struck in other mints.[74] No Svealand bracteates were minted by Valdemar.

Fig. 36. Örebro, King Valdemar (1250–1275). Crowned head facing, 0.21 g, Ø 13 mm, LL XVII:1a.

Fig. 37. Örebro, King Valdemar (1250–1275). Crowned head facing, 0.19 g, Ø 12 mm, LL XVII:2.

Fig. 38. Lödöse, King Valdemar (1250–1275). Crowned lion head left, 0.16 g, Ø 13 mm, LL XVII:4a.

[73] Jonsson 2002, pp. 48–49; Gaettens 1963, pp. 18, 35, 58; Jesse 1967, p. 209; Svensson 2013b, Chapter 3.

[74] Holmberg 1995, pp. 74–75.

Fig. 39. Lödöse, King Valdemar (1250–1275). Crowned lion head right, 0.13 g, Ø 12 mm, LL XVII:7.

Fig. 40. Unknown mint, King Valdemar (1250–1275). Crown, VAL, 0.14 g, Ø 14 mm, LL XVI:3b.

In 1275, Duke Magnus started a rebellion against his brother, King Valdemar, with Danish help, and ousted him from the throne. It is during the reign of King Magnus III Barnlock (1275–1290) that Svealand and Götaland were joined in a common currency area. Both Svealand and Götaland then minted corresponding types, but the Svealand types were double the weight of the Geatish ones. It is believed that the bracteates were regarded as valid in both areas.[75] The first main type was a crown in a smooth edge, dated to the period 1275–1279 (see Fig. 41). In Svealand, these were minted by Magnus III in various mints.[76]

Later (after 1279), coin types with the letter M were minted both with smooth and ray edge (M-bracteates, Svealand: *LL X* and Götaland: *LL XVIII:C*). Also in this period, a Geatish bracteate with the letter E in a similar style was struck in the Kalmar mint, which was pawned to the Counts of Holstein.

Swedish numismatists have looked closely at the bracteates minted by Magnus III. He minted four different types/variants of bracteates with the letter M – adapted to both Svealand and Geatish monetary standard, *i.e.* eight types/variants in total (Figs. 42–49).[77] In his last will of 1285, four mints in Svealand (Uppsala, Örebro, Västerås and Nyköping) as well as in Götaland (Skara, Jönköping, Skänninge and Söderköping) are mentioned. This has been interpreted as suggesting

[75] Jonsson 2002, p. 50.

[76] Lindstedt 1996, p. 11.

[77] This is a subjective classification of the types. It is also possible to regard the shapes of the M – capital and rounded M – as variants.

Fig. 41. Svealand, unknown mint, King Magnus III Barnlock (1275–1290).
Crown, 0.27 g, Ø 17 mm, LL IX:6.

that eight types/variants had been minted, each in a different mint.[78] However, two other known mints, Lödöse and Kalmar, were not mentioned.[79]

Figs. 42–49. 8 M-bracteates struck by King Magnus III Barnlock, (1275–1290).
Upper row: First issue with smooth edge. Svealand LL X:1b, 0,28 g, Ø 15 mm;
Svealand LL X:3c, 0,30 g, Ø 17 mm; Götaland LL XVIIIC:1a, 0,12 g, Ø 14 mm;
Götaland LL XVIIIC:4c, 0,09 g, Ø 13 mm.
Lower row: Second issue with ray edge. Svealand LL X:2f, 0,28 g, Ø 15 mm;
Svealand LL X:4b, 0,30 g, Ø 18 mm; Götaland LL XVIIIC:3, 0,13 g, Ø 13 mm;
Götaland LL XVIIIC:6a, 0,31 g, Ø 13 mm.

Myrberg (1995) in a student paper tried to attribute the types to different mints, based on stray finds and coin hoards. Her hypothesis is that bracteates struck in a mint will primarily be found in nearby coin finds. However, this method which hinges on the vital role of proximity seems at first to be common sense, yet is inherently unreliable when the currency area is large and there are several

[78] Lagerqvist 1970, p. 58.

[79] Lödöse was pawned to the Danish king and it is unclear whether coins were minted there. Kalmar was pawned to the Counts of Holstein.

mints. In that context, the coins will circulate in the whole currency area where they are valid. The stray finds confirm this critical view.[80] It appears then that it is impossible to draw any accurate conclusion about the mints based on the stray finds. Myrberg[81] also analysed the coin hoards.[82] There are only a handful of hoards and just a few of them are complete. No hoard contains all eight types/variants.[83] Based on the tables with stray finds and coin hoards in her ambitious and clever study, there is insufficient evidence to determine the mints of the types.

It is more likely that the main design of the bracteates indicates different issues, whereas small details indicate information about mints (as argued in section 3.3); in other currency areas in Europe with several mints, this was the case, e.g. all mints in England struck coins with the same main design (crowned head and cross), whereas the mint was only indicated in the legend. A similar pattern was in force in French royal mints. All royal coins had the same main design, but the mint was indicated by small symbols. Malmer[84] and Hemmingsson[85] have argued that the combinations of ray/smooth edge and the shapes of the M*s* could instead represent four issues different in chronology.

An interesting observation is that the small hoard from Lagmansberga with 30 M-bracteates contains only the four bracteate variants with smooth edges and not ray edges. Myrberg[86] observes that bracteates with ray edge are missing from this hoard, but does not link this to any chronology among the M-bracteates. Her purpose is pre-determined and narrow, to just match types with mints.

It is possible to undertake statistical analysis on this hoard. If all eight types were minted simultaneously in different mints and a coin hoard contains exactly four types, the probability is less than 3 per cent that the hoard will include bracteates with only a smooth edge or only a ray edge (see calculations in Svensson).[87] Based on this hoard, one can with 97 per cent probability reject the hypothesis of the simultaneous minting of M-bracteates with smooth edges and ray edges. Admittedly, I have not taken into account that each type is represented by several specimens in the hoard. An alternative statistical test is to set up the null hypoth-

---

[80] There are in total 76 stray finds with M-bracteates, of which 65 match the Geatish standard. Three of four Geatish variants dominate the stray finds, but these are evenly distributed in Götaland (Myrberg 1995, pp. 3, 34–35).

[81] Myrberg 1995, pp. 21ff.

[82] The coin hoards with M-bracteates are from Geta (Åland), Tystberga (Södermanland), Tellus (Skara) and two from Lagmansberga (Östergötland). In addition, the bracteate type with the letter E is present in these hoards (see footnote 79).

[83] Myrberg 1995, p. 34.

[84] Malmer 1978, pp. 207ff.

[85] Hemmingsson 1994, p. 181.

[86] Myrberg 1995, p. 18.

[87] Svensson 2013b, p. 223.

esis that bracteates with smooth and ray edges are minted simultaneously, which is tested against the hypothesis that the two edge types differ in time.[88] The probability that all 30 M-bracteates in the hoard – given the size of the hoard – have either smooth edges or ray edges is less than 0.15 per cent, if these have been minted simultaneously. Thereby, the null hypothesis can strongly be rejected (see calculations in Svensson).[89]

The conclusion of these tests is that the M-bracteates represent two different issues. The bracteates with smooth edges are the older and those with ray edges the younger. The M-bracteates were probably minted over at least 10 years, implying 5–6 year intervals between the renewals. The different shapes of the Ms and the details (pellets) would then possibly represent mints. The fact that most hoards from Magnus III's period contain bracteates with both smooth and ray edges indicates that the renewals were relatively inefficient. The short-lived coin system was abandoned at the end of Magnus III's reign, giving the long-lived coins a secure foothold. To the best of my knowledge, no minting authority in medieval Europe ever struck bracteates with smooth and ray edges simultaneously within a currency area.

It is especially interesting to compare the bracteates of Magnus III with those from the Teutonic Order in Prussia on the other side of the Baltic Sea. Both Sweden and the Teutonic Order had several mints in a larger currency area. Moreover, both had an obvious main design to differentiate the types and used details in the form of stars and pellets. In Germany, we know for certain that during the period 1130–1300 the main design on the bracteates represented different issues, and that the details were a way for the issuer to control the minting (*e.g.* mint, weight, fineness or mint master). For the bracteates of the Teutonic Order, the details probably represent mints.[90]

4.7 Debasement accelerates 1290–1365

A large coinage reform was undertaken around 1290 by the advisors of King Birger (1290–1318). Bracteates were replaced by two-faced pennies with a crown on the obverse and a large letter on the reverse (*LL XXIII*) (Figs. 43 and 44). Lagerqvist[91] has interpreted the fact that some of the coins had the letter M on the reverse to mean the reform was undertaken already by Magnus III before 1290.[92]

---

[88] Here, the classical binomial distribution is used.

[89] Svensson 2013b, p. 224.

[90] Paszkiewicz 2008, pp. 173ff.

[91] Lagerqvist 1993, p. 136.

[92] The interpretation of the letters is inconsistent and not yet determined. Jonsson (1977, p. 125) means that some letters represent different mints (I, K, L, O and S), whereas others refer to the issuer – B for King Birger and E and W for his brothers Erik and Waldemar. For two letters, M and R, there are no suggestions about their reference.

However, it is very dubious if the types with different letters mark any variation in time. A very important empirical observation – that not a single variant of the crowns on the obverse can be found on two coins with different letters on the reverse[93] – suggests that periodic recoinage was brought to an end in Sweden in 1290.

Fig. 50. King Birger (1290–1318), unknown mint. Crown)(B, both have a square design, 0.34 g, Ø 13 mm, LL XXIII:1.

Fig. 51. King Birger (1290–1318), unknown mint. Crown)(S, both have a square design, 0.21 g, Ø 13 mm, LL XXIII:7a

In the coin hoards from the reign of Birger (1290–1318), there is not a single bracteate minted by Magnus III prior to 1290. Such clean hoards are difficult to find in continental Europe. This could be interpreted as if a coinage reform including recoinage had been undertaken in 1290, but no recoinage within the reign of Birger. Alternatively, people would have obeyed the orders of King Birger and exchanged all their old coins for new ones. However, there is another explanation of the fact that the bracteates of Magnus III are not found in hoards with two-faced coins of Birger Magnusson. We know that King Birger undertook drastic debasements of the fineness. The former bracteates have a higher fineness (80 per cent) than the two-faced coins (63 per cent) of Birger, and therefore, disappeared from circulation, either by export, melting down or serious hoarding (Gresham's Law).

The Svealand monetary standard was adapted across the whole mainland of Sweden in 1290, but only two-faced pennies were being minted then. In the reign of King Birger (1290–1318), the fineness declined further to 63 per cent, which

[93] Jonsson 1977, p. 120–121.

was maintained until the 1350s.[94] King Magnus IV (1319–1363) undertook coinage reform with a new type of two-faced coin (Lion left or right on the obverse and crown on the reverse) when he assumed the throne (Fig. 52) and undertook recoinage in 1340, when only the image of the coins (Lion left on the obverse and different letters or symbols surrounded by three crowns on the reverse) was changed (Fig. 53).

Fig. 52. King Magnus IV Ericsson (1319–1363), unknown mint, struck 1320–1340. Lion left)(Crown, 0.37 g, Ø 13 mm, LL XXVI:1a.

Fig. 53. King Magnus IV Ericsson (1319–1363), unknown mint, struck 1340–1354. Lion left)(Rounded M between three crowns, 0.34 g, Ø 12 mm, LL XXVII:6b.

According to Edvinsson the debasements of fineness accelerated in the period 1352–54. Non-Swedish written sources based on the payment of Peter's penny to the Pope claim that the exchange rate between mark silver and mark pennies had deteriorated from 1:5 to 1:8 in a few short years.[95] However, it is uncertain which specific Swedish coin type can be linked to this debasement.[96] It is quite plausible to argue that the Swedish church paid the Pope with debased Norwegian pennies. According to Lagerqvist,[97] Sweden and Norway may have had a possible mon-

[94] Jonsson 2002, p. 49.

[95] Edvinsson 2011, p. 70.

[96] Edvinsson *et al*. (2010, p. 80) contends that the first debasement in the period 1352–1354 can be linked to a bracteate type with a letter between two opposite crowns (*LL XXIX*). Analysis has shown that these bracteates have low and varying silver fineness, but they are regarded as Norwegian bracteates. An alternative explanation would be that the two-faced pennies (*LL XXVII*) were debased.

[97] Lagerqvist 1970, p. 93.

etary union during large periods of the reign of Magnus IV, who was king of both Sweden and Norway. The best current evidence to-date of this tie is that same coin types (*LL XXIX*) routinely appear in coin finds in both Sweden and Norway.

There is a break in the minting of bracteates for *c*.65 years between 1290 and 1354. In the latter year, the two-faced pennies (Fig. 53) were exchanged for hohlpfennigs with a crown or letter in ray edges (Figs. 54–56). It is important to mention the Black Death (*c*.1350–1355) here, as afterwards, the state finances must have been in extreme crises. The fineness of these bracteates fell continuously from 45 to 10 per cent until 1363. People's confidence in the coinage must have been in freefall, as it appeared close to collapse. It was this backdrop that led to the system being reformed in 1363. The hohlpfennigs with ray edges were replaced by hohlpfennigs with a letter and smooth edge (see Figs. 57–59). The new hohlpfennigs had a fineness of around 90 per cent and were struck until 1365.[98]

Fig. 54. Lödöse, King Magnus IV (1319–1363), struck 1354–63. L, ray edge, 0.41 g, Ø 15 mm, LL XXVIII:2c.

Fig. 55. Stockholm, King Magnus IV (1319–1363), struck 1354–63. S, ray edge, 0.33 g, Ø 15 mm, LL XXVIII:3a.

Fig. 56. Stockholm, King Magnus IV (1319–1363), struck 1354–63. Crown, ray edge, 0.33 g, Ø 17 mm, LL XXVIII:4a.

[98] Jonsson and Malmer (1985, pp. 134ff.) argued that the bracteates with a letter in a smooth edge should be dated to the period 1300–1325 based on the high silver fineness. However, Hemmingsson (1995, pp. 24ff.) showed that they were coined in the period 1363–1365 using coin finds.

Fig. 57. Kalmar, King Magnus IV (1319–1363) or Albert of Mecklenburg (1364–1389), struck 1363–1365. E, smooth edge, 0.35 g, Ø 17 mm, LL XXX:1b.

Fig. 58. Lödöse, King Magnus IV (1319–1363) or Albert of Mecklenburg (1364–1389), struck 1363–1365. L, smooth edge, 0.24 g, Ø 15 mm, LL XXX:3.

Fig. 59. Söderköping, King Magnus IV (1319–1363) or Albert of Mecklenburg (1364–1389), struck 1363–1365. S, smooth edge, 0.27 g, Ø 13 mm, LL XXX:4b.

4.8 Örtugs and hohlpfennigs 1365–1523

The Swedish coinage system was reformed and the örtug (eight pennies) introduced as the main denomination around 1370 (Figs. 60–62). Hohlpfennigs valued as one penny were then minted as small change. Once again, the German monetary system was the prototype for Swedish coinage. The system with örtug and hohlpfennigs is a typical long-lived coinage. In the period 1385–1405, it seems as if Sweden had a break in minting. This possibility is supported by the fact that many German coins have been found in Swedish coin finds from this period.[99]

The Swedish hohlpfennigs have the designs of a crowned head, crowned S or crowned A, representing the mints of Stockholm, Söderköping and Västerås or Åbo (Turku) (Figs. 63–67). These types were minted for almost 150 years, until

[99] Berghaus 1973, pp. 96ff; Odebäck 2008, p. 6.

Fig. 60. Stockholm, King Albert of Mecklenburg (1364–1389), örtug. Crowned head) (Cross with three crowns, legends: ALBERTVS REX)(MONETA SWECIE, 1.38 g, Ø 19 mm, LL 4b.

Fig. 61. Västerås, Regent Sten Sture the Older (1480–1497, 1501–1503), örtug. Shield with three crowns)(Crowned A, legends: SCS ERICVS REX)(MONETA AROSIS, 1.42 g, Ø 20 mm, LL 5b.

Fig. 62. Stockholm, Regent Sten Sture the Younger (1512–1520), half örtug. Crown)(S with line, legends: STEEN STVRE RIT)(MONETA STOChO, 1.00 g, Ø 17 mm, LL 8a.

the early sixteenth century. The hohlpfennigs can thus be regarded as immobilised types (compare section 3.1.2). Malmer[100] has classified and dated them. Different details, the form of the design and not least the fineness all point to which king minted them. The Swedish hohlpfennigs are different from those in northern Germany by virtue of having a narrow edge that is always smooth. Similar to Germany, the relief of the Swedish bracteates became progressively elevated during 370 years (1153–1523).

[100] Malmer 1980.

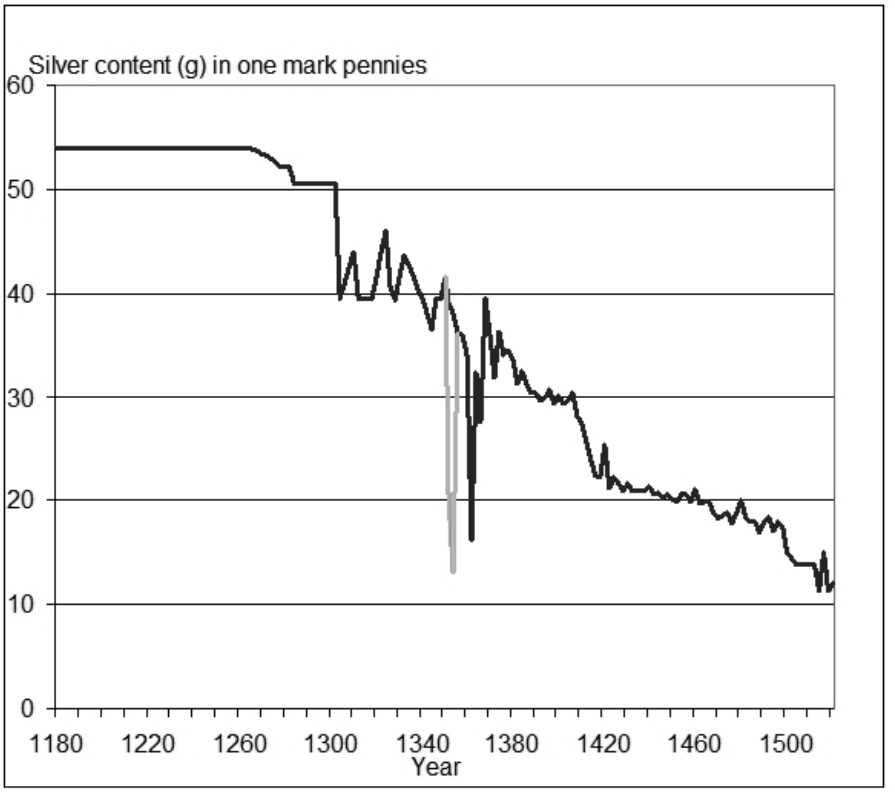
Fig. 63. Stockholm, King Albert of Mecklenburg (1364–1389). Crowned head facing, 0.33 g, Ø 14 mm, LL XXXII:2, Malmer KrHÄIIi.

Fig. 64. Stockholm, King Christopher of Bavaria (1441–1448). Crowned head facing, 0.18 g, Ø 12 mm, LL XXXII:4b, Malmer KrHYIc.

Fig. 65. Söderköping, King Albert of Mecklenburg (1364–1389). Crowned S, 0.29 g, Ø 15 mm, LL XXXIII:2a, Malmer KrSÄa.

Fig. 66. Västerås, King Albert of Mecklenburg (1364–1389). Crowned A, 0.25 g, Ø 15 mm, LL XXXIII:1b, Malmer KrAÄa.

Fig. 67. Åbo, King Charles VIII (1448–1457, 1464–1465, 1467–1470). Crowned A with two stars in field, 0.25 g, Ø 13 mm, LL XXXIII:1d, Malmer KrAYIIa.



Graph 1. The development of fine weight in one mark pennies in Sweden 1180–1520

Note: The grey curve indicates a possible debasement from 1352–1354 based on foreign sources (Edvinsson 2011, p. 170). Before 1275, one mark pennies refers to Svealand pennies. One mark silver equals *c*.210 g.
Source: Edvinsson *et al*. (2010, p. 77) and my own revisions.

In particular, debased fineness is characteristic of the late, long-lived medieval Swedish örtugs and hohlpfennigs. This is in line with the theory in section 3.4. For the type with a crowned head, the fineness declined from 75 per cent in the 1360s to 19 per cent by around 1500.[101] For the hohlpfennig with a crowned A, it declined from 50 to 19 per cent.[102]

The development of the silver content in one mark of the pennies is shown in Graph 1. As already emphasised, there are hardly any changes at all in either the weight or fineness prior to 1250. The debasements that began after 1250 acceler-

[101] Malmer 1980, pp. 15, 43.
[102] Holmberg 2009, p. 94.

ated during the reign of Birger (1290–1318). There were two severe debasements at the end of Magnus IV's reign, 1352–1354 and 1354–1363; the first is uncertain and marked with a grey curve (see earlier discussion). During the hohlpfennig-period (1370–1523), the fineness with intermittent breaks continuously declined.

4.9 Gotland

Minting in Gotland started around 1140 in Visby. During the next 80 years, two-faced simple thin coins were struck and dominated for long periods (Fig. 68). Between 1220 and 1245 a few other types were minted, but between 1245 and 1288 once again a uniform type was coined (Fig. 69).[103] These should have been long-lived coins. In the twelfth century, thin uni-faced coins were also struck. However, these are not bracteates, since they have not been struck with the same technology of a soft material under the flan. The weight and the fineness declined continuously in the period 1140–1220, especially after 1200.[104] The spread of Gotlandic pennies evidenced in hoards is relatively wide; they dominate the composition of coin hoards in both Eastern Götaland and the Baltic area. The large spatial dispersion of the coins across seas and rivers and the fact of the long temporal period of the minting together indicate the purpose was to use them effectively in trade and for the local markets. The coin issuing authority seems to have been primarily interested in the stability of the coinage. Therefore, a trade organisation or the city of Visby could well have been the issuer.[105]

Fig. 68. Visby, c.1140–1160, penny. Wheel with eight spokes)(Church gable, vague inscriptions, 0.23 g, Ø 13 mm, LL XX:1a.

Around 1340, the gote (twelve pennies) was introduced. This was the first coin with a multiple denomination in the Baltic Sea region (Fig. 70). Simple bracteates as well with the letter W were struck from the end of the 1280s (Fig. 71) – initially as the main coin and eventually as small change to the gote. The bracteates have a simple design, are *c*.10 mm in diameter and weigh *c*.0.10–0.15 g.

[103] Myrberg 2008, p. 177; Jonsson 2002, pp. 46–47.
[104] Myrberg 2008, pp. 75ff.
[105] Jonsson 1995, pp. 52–53.

Fig. 69. Visby, c.1220–1280, penny. Some letters around a pellet)(Squared cross, 0.19 g, Ø 12 mm, LL XXII:3.

In principle, it is the same main type of W-bracteates that were coined for over 160 years. During this period, the type had different pearled edges and details, which could represent control marks of the coin issuer. The silver fineness for both the gotes and the bracteates severely declined in the 1440s.

Fig. 70. Visby c.1340–1360, gote. Lily tree and pearled ring)(Gods lamb, legends: +MONETA CIVITATIS)(+WISBVCENCIS, 1.32 g, Ø 18 mm, LL XXXV:1c.

Fig. 71. Visby c.1280–1400, penny. W, 0.09 g, Ø 11 mm, LL XXXIV:1b.

5. Discussion

In the case of Sweden, no written documents exist about periodic recoinage from the twelfth and thirteenth centuries. Therefore, I compared the conditions in Sweden for regions using short-lived coins (see Table 1). A chief characteristic of regions with short-lived coins was that the economy was relatively undeveloped. The notion of an undeveloped economy is here meant to involve a low division of labour, few local markets and low monetisation. These conditions correspond

well with Sweden compared to Germany and central Europe. Gotland, a trade centre in the Baltic Sea since the Viking Age, should have been more developed than the Swedish mainland. Logically, long-lived coins were minted here. What is surprising about Gotland is that minting did not start until around 1140.

Another condition for periodic recoinage is that there are few coins in circulation. Then, it is manifestly easier to remint the coins. According to Klackenberg,[106] Sweden was not fully monetised until the late thirteenth century (Götaland) or early fourteenth century (Svealand).[107] This conclusion is mainly based on cumulative finds in churches, but also on written documents. Sweden had a limited number of coins in circulation before 1250. Thus, this requisite precondition of recoinage corresponded well with the underlying situation in Sweden. Gotland is presumably the region in Scandinavia that had the most coins per capita, and thus would be the worst alternative for short-lived coins.[108] According to Jonsson, the volume of coins was larger in Götaland in the period 1250–1290 than in Svealand.[109] The cumulative finds in churches in the thirteenth century corroborate this conclusion.[110] This would suggest that it was easier to have frequent renewals in Svealand than in Götaland. In specific periods of the twelfth and thirteenth centuries, there are considerably more different bracteate types in Svealand than in Götaland (see section 4.3, Canute I, and section 4.4, John I and Canute II). These facts suggest more frequent renewals in Svealand than in Götaland.

The increased monetisation at the close of the thirteenth century is in line with the known history of the founding of new towns and emergence of local markets in Sweden (see section 2.3). In medieval Swedish urbanity, the demand for local coins must have increased substantially. In the twelfth century, there were only a few towns in medieval Sweden: Sigtuna, Uppsala and Västerås in Svealand, Lödöse and Skara in western Götaland and Visby on Gotland. In the thirteenth century, several new towns emerged such as Söderköping, Kalmar, Jönköping, Skänninge, etc. in Götaland and Stockholm, Nyköping, Örebro, Arboga, etc. in Svealand. Several new mints were established in the thirteenth century (see Map 3).

The rule of thumb that bracteates got a foothold in areas with no established monetary standard (see section 3.3) fits Sweden very well.[111] The region, which

---

[106] Klackenberg 1992, pp. 179ff.

[107] His definition of monetisation is that while most peasants used coins, barter still dominated for local transactions.

[108] Denmark must have had more coins in circulation than both Norway and Sweden in the twelfth and thirteenth centuries.

[109] Jonsson 1983, pp. 76–77.

[110] Klackenberg 1992, pp. 179ff.

[111] In Norway, where there seems to have been a break in the coinage at the beginning and the middle of the twelfth century, the bracteates dominated from *c*.1150 for 130 years. Denmark had continuous coinage from the late tenth century until the 1370s, and its own

Map 3. Mints in medieval Sweden 1140–1523.

later would constitute 'Sweden' had none of its own minting for 120 years from 1030 to 1153. From around 1153 to 1290, the bracteate was the only minted coin type on the mainland.

The theory predicts that debasements should occur in regions with long-lived coins. Therefore, the constant weight (0.30 g in Svealand and 0.15 g in Götaland) and high silver fineness (95 per cent) of the Swedish bracteates until 1250 support the hypothesis of short-lived coins. If the coin issuer can make a profit on periodic recoinage, debasements are not required. After 1250, when royal minting

monetary standard since the 1070s. Bracteates were minted there only sporadically in Jutland during a single decade, 1146–1157.

increased in volume and the currency areas merged, recoinage should have become less frequent. Then, there are fewer types per period. As the theory predicts, the debasements as income compensation start after 1250. Sweden had drastic debasements after 1250 under the reigns of Valdemar, Magnus III and Birger, *i.e.* 1250–1318. This scenario is exactly as the theory predicts. Previous studies of Swedish bracteates[112] have not linked the coinage system to the volume of coins in circulation and debasements.

The theoretical characteristics (stable coinage and an undeveloped economy) and conditions (few coins in circulation and low monetisation) of short-lived coins correspond well to Swedish circumstances, at least until 1250. This facilitated recoinage. Little is known about what happened in the 1150s and 1160s since no continuous minting is documented, and there are few coin hoards from the middle of the twelfth century until about 1180. In contrast, there are more coin hoards from the period 1180–1200. Geatish coin hoards from the latter period contain mostly foreign coins (Norwegian and German), while the Svealand hoards almost only contain Swedish coins.[113] As documented in section 4.3, King Canute I (1167–1196) struck many bracteate types in Sigtuna in the latter part of his reign. The coin hoards indicate he was able to create a currency area in Svealand, where the usage of foreign coins was forbidden, but not in Götaland. To keep foreign coins out of the local markets must have been the primary goal for the Swedish king. He had a monopoly on the exchange of foreign coins as well as of older local ones, except when the Archbishops of Uppsala had the coinage right.

Hoards dating between 1200 and 1250 are few in Sweden, but the few existing ones contain almost only Swedish coins. However, the cumulative finds in churches show that the Swedish kings had problems in excluding foreign coins from circulation, especially in Götaland. In the period 1150–1250, Norwegian coins account for 35–60 per cent of the coins in this kind of coin find. Domestic (Geatish) coins accounted for *c.*30–45 per cent of the coins.[114] In Svealand, domestic pennies account for 65 per cent of the coins (and Gotlandic for the rest) in churches in the period 1200–1250.[115] However, one should remember that foreign coins are over-represented in church finds compared to their share in coin hoards, since people must have preferred to bring invalid coins to the offertory in the churches rather than valid domestic ones that could be used in the local market for transactions.

Jonsson has suggested that recoinage would have occurred with an interval of a specific number of years, primarily with shifting regents in Svealand and

[112] See *e.g.* Jonsson 2002, pp. 49–50.
[113] Jonsson 1995, p. 44.
[114] Klackenberg 1992, p. 181.
[115] Klackenberg 1992, p. 186.

Western Götaland from 1200 and in Eastern Götaland from 1250.[116] In Western Götaland, each bracteate type would have been valid for 6–8 years.[117] However, this approach appears badly flawed because frequent recoinage had already occurred during the reign of King Canute I (1167–1196). We know from the historical record that there are a great many types of bracteates between 1180 and 1196, and that the hoards had a skewed composition (see section 4.3). Some of the bracteate types from Sigtuna in the period 1180–1196 are stylistically similar to each other, but so many types could not have been valid at the same time. It would only have caused confusion.

The large geographical area of Sweden militates against the theory of frequent coin renewals. However, Sweden was divided into three separate currency areas until 1250 (see Map 2 in section 4.1). Each area was no larger than currency areas in Denmark. This fact facilitates frequent renewals. According to Jonsson, the volume of minting tripled after 1250 when Western and Eastern Götaland merged into one currency area.[118] In a larger currency area, recoinage is more difficult to administer. I contend that in these circumstances the kings would be forced to increase the intervals between the renewals. Empirical observations from section 4.5 support this view; the number of bracteate types per period was considerably fewer from 1250–1290 than 1180–1250.

Jonsson suggests that the system with recoinage continued until 1363.[119] He bases this conclusion on written sources about recoinage in 1340, 1354 and 1363. However, this was not normal periodic recoinage, where recoinage occurred with fixed intervals and where typically only the portrayed image of the coins changed. To the contrary, and this is a key point, they were rather coinage reforms. The coin type and monetary standard are changed overall and replaced by a new one in 1290, 1319, 1354 and 1363. Only the change in 1340 can be seen as a normal recoinage, but not as a periodic one. To call the reforms in the fourteenth century recoinage only creates confusion. After 1290, Sweden had a system with long-lived coins according to the definition in Kluge.[120] There are also written sources indicating that new coins were issued in Sweden, but these are relatively late. The expression *monete nunc currentis* ('presently valid coins') has been found in documents dating from 1298 and 1321.[121] These refer to *coinage reforms* in 1290 and 1319 when Birger and Magnus IV replaced the coins of their predecessors with their own coins.

---

[116] Jonsson 1995, p. 56.

[117] Few types of Geatish bracteates have been found from the period 1180–1250. It is not unlikely that new types will appear even if more hoards are detected.

[118] Jonsson 2002, p. 49.

[119] Jonsson 1995, p. 56.

[120] Kluge 2007, pp. 62–63.

[121] Klackenberg 1992, p. 180; Jonsson 2002, pp. 47–48.

An argument against periodic recoinage might claim Sweden was simply insufficiently developed to administrate such a system at the late twelfth and early thirteenth centuries. Hemmingsson[122] claims that it is more likely that recoinage was only undertaken at the end of the thirteenth century, rather than 100 years earlier, due to the limited administrative capacity of the royal government. He presumes short-lived coins to be an advanced coinage system. However, this is obviously wrong. The historical record from continental Europe (see sections 3.1 and 3.3) contains indisputable evidence that it was undeveloped regions and cities with low experience of coinage and few coins in circulation that chose a short-lived coinage system. Bracteates in these circumstances were often chosen as the coin type. It was mostly, and this is another key point, founded cities that minted short-lived bracteates rather than long-lived coins. Swedish administrative capacity was no doubt improved at the end of the thirteenth century, but using that to justify a fictive chronology is manifestly circular reasoning. In fact, the monetisation, the volume of coins in circulation and the number of market places increased even faster (compare with theory in section 2.3). Moreover, the currency area had grown substantially. These factors probably made it almost impossible for Swedish kings to maintain a system with periodic recoinage at the close of the thirteenth century.

Another argument against periodic recoinage means that a large administration is required to maintain a short-lived coinage system. This is a serious misunderstanding of the historical record handed down to us. The king's exchangers did not need to travel around the country to exchange old coins for current ones. Klackenberg[123] has shown with cumulative finds from churches that the monetization of Sweden did not accelerate until the second half of the thirteenth century. Thus, in the last years of the twelfth and larger part of the thirteenth century there was likely to have been a limited number of groups using coins, *e.g.* tradesmen and handicraftsmen in the growing cities. In this case, it is far less problematic to administer recoinage and monitor coin circulation.

Written documents tell us clearly that the king's exchanger was present at regular city markets. A charter from 1288 gives the right to the citizens of Jönköping to hold three annual markets with the condition that the king's exchanger shall be present.[124] Only the coins that he supplied were the current valid ones. The exchanger's task was to exchange old local coins, foreign coins and bullion for new coins. Moreover, the staff would have had the task of monitoring coin circulation. The king most likely had an exchanger in each of the larger towns.

---

[122] Hemmingsson 2005, pp. 74–75.

[123] Klackenberg 1992, pp. 179ff.

[124] Klackenberg 1992, p. 85.

From a comprehensive point of view, there exist many empirical observations that support the view that Sweden, and especially Svealand, had frequent and periodic coin renewals in the period 1180–1250; whereas Götaland had this system from 1200–1250 though with less frequent renewals than Svealand. Both regions from 1250–1290 had less frequent renewals and abandoned them in 1290.

- Sweden was relatively economically undeveloped. Long-term coinage was established in the second half of the twelfth century after a long break.
- Relatively few coins circulated (especially in Svealand), which facilitated reminting.
- Coins were used by a limited number of groups in society and in a limited number of cities and markets. It was relatively easy for the coin issuer to monitor the coinage and which types were used for transactions.
- The coinage was stable without debasements from 1180–1250. Debasements started when the frequency of recoinage was reduced.
- Many different types within limited periods were struck, sometimes one type per year (Canute I, John I and Canute II in Svealand).
- One or a few (late) types dominate the composition of the coin hoards, while other (early) types are sparse. This indicates an apparent chronology of the types. This pattern is especially visible in the hoards from the time of Canute I.
- Based on coin finds, it has been possible to determine various types to specific periods of the kings' reigns in the first half of the thirteenth century (Eric XI).
- Sweden was separated into three currency areas until 1250. This fact facilitates recoinage.
- The few mints in the period 1180–1250 make it difficult to match types to different mints.
- In Svealand, bracteate coinage was established when the renewals reached their peak in Germany (around 1180).
- Bracteates were chosen as the main coin type, which is particularly adapted to periodic recoinage (large flan and low costs to remint).
- Bracteate technology was abandoned almost at the same time in Sweden and Germany (at the end of the thirteenth century).
- When the currency areas were merged in to a larger area, minting increased and monetisation of society accelerated (after 1250), periodic recoinage became more difficult to administer. Recoinage was then undertaken with several year intervals and then finally abandoned. Thereafter, Swedish kings used debasements instead to receive extra income from the coinage.

6. Summary

The purpose of this study has been to analyze which coinage and monetary taxation policies were applied by the minting authorities in medieval Sweden. The study has employed alternative analytical approaches and methodologies compared to previous publications on Swedish medieval coins. Firstly, the coinage systems have been analysed from an economic perspective. Secondly, throughout the study, Swedish coinage policies have been compared with the then contemporary continental coinage policies, which to-date have seldom been done. Third, a theory of how short-lived and long-lived coinage systems in general work has been applied to Swedish coinage.

It has been long established that Sweden adopted coin forms similar to those minted in continental Europe in various periods of the Middle Ages. Swedish Viking Age coins were influenced by English coins (995–1030). When coinage was resumed around 1153, uni-faced bracteates were minted for almost 140 years. The system of örtugs and hohlpfennigs introduced in the 1370s was similar to the coinage in northern Germany (Witten and hohlpfennigs). This study goes further, demonstrating that Sweden also adopted the corresponding continental coinage and monetary taxation policies linked to these coin forms.

The theory of short-lived and long-lived coins fits extraordinary well to Swedish circumstances. Periodic recoinages (with varying frequency) were applied from 1180 until 1290 when only bracteates were minted. When monetisation increased at the end of the thirteenth century, bracteates were replaced by long-lived two-faced coins. This event puts an end to periodic recoinage and Swedish kings accelerated the debasement of the long-lived coins. Such debasements – interrupted by different coinage reforms – were applied until the beginning of the sixteenth century.

It is unsurprising that bracteates achieved such a stronghold in Sweden for almost 140 years (1153–1290). Here, no monetary standards existed when the bracteates arrived, as the theory predicts. Not much is known about the earliest bracteates (1150s), apart from that it was an ecclesiastical issue. The design of the bracteates documents this. Many different coin types and hoards that are dominated by a few types indicate that King Canute I (1167–1196) had already renewed the bracteates in Svealand. For successive kings until 1250, it has been possible to determine different bracteates to specific periods of their reigns. Based on the number of bracteate types, periodic recoinage was more frequent in Svealand than in Götaland in the period 1180–1250. The fact that the areas in Sweden were separate coinage areas (Svealand, Western Götaland and Eastern Götaland), and the limited monetisation of society facilitated recoinage. In this context, few coins in circulation needed to be reminted, few classes in society used coins and there were a limited number of markets to monitor. The Swedish

bracteates contained almost pure silver (94 per cent) until 1250, like the German bracteates that were frequently renewed. This is consistent with the outlined theory.

Between 1250 and 1290 there were considerably fewer bracteate types per period, so it appears reasonable to argue that renewals must have been less frequent, perhaps every fifth or tenth year. This claim is especially persuasive since Western and Eastern Götaland were joined then into one coinage area. The number of circulating coins and monetisation increased, making recoinage far more difficult. In this period silver debasements began, initially the silver fineness dropped to 80 per cent. The king needed to compensate for the disappearing recoinage fees by debasing their silver content.

The M-bracteates of King Magnus III (1275–1290) have been long discussed by numismatists. The stray finds and hoards give no information about the mints, but there is one important hoard which only contains bracteates with a smooth edge. Statistical tests lead to the conclusion that the M-bracteates with smooth and ray edges are chronologically sequential.

Coinage reform was accomplished around 1290, when the bracteates were replaced by two-faced coins. The latter circulated during the entire reign of King Birger (1290–1318) and can be regarded as long-lived coins. This date marks the end of periodic recoinage. The silver content dropped to 63 per cent. King Magnus IV (1319–1363) accomplished several coinage reforms (1319, 1354 and 1363) which included reminting and where the monetary standard was completely revised. Only the monetary change in 1340 can be regarded as 'traditional recoinage' where only the image of the coin was changed. Bracteates were reintroduced as long-lived coins in 1355, but heavy silver debasements enforced a new coinage reform in 1363. From about 1370 to 1523 hohlpfennigs were struck as small change to the örtug (8 pennies). Both types were long-lived coins. Heavy debasements occurred during this time period.

References

Arnell S.-E.

2001 *Var den tidigaste medeltida myntningen i Sverige kyrklig?*, Svensk Numismatisk Tidskrift, 2001, no. 1, pp. 4–11.

Berghaus P.

1973 *Phänomene der deutschen Münzgeschichte. Kultur und Politik im Ostseeraum und im Norden 1350–1450*, [in:] *Acta Visbyensia IV. Visby-symposiet för historiska vetenskaper 1971*, ed. S. Ekdahl, Museum Gotlands Fornsal, Visby 1973, pp. 81–115.

Bolton
2012 *Money in the medieval English economy: 973–1489*, Manchester University Press, Manchester.

Dowd K., Greenaway D.
1993 *Currency Competition, Network Externalities and Switching Costs: Towards an Alternative View of Optimum Currency Areas*, The Economic Journal, 1993, no. 103(420), pp. 1180–1189.

Edvinsson R.
2011 *Inflation before Paper Money: Debasement Cycles in Sweden-Finland 1350–1594*, Scandinavian Economic History Review, 2011, no. 59(2), pp. 166–183.

Edvinsson R., Franzén B., Söderberg J.
2010 *Swedish Payment Systems 995–1534*, [in:] *Exchange Rates, Prices and Wages, 1277–2008*, eds. R. Edvinsson, T. Jacobson, D. Waldenström, Ekerlids Förlag, Stockholm 2010, pp. 67–132.

Ekre R.
1988 *Nya märkliga myntningsfynd i Lödöse*, Svensk Numismatisk Tidskrift, 1988, no. 2, pp. 28–31.

Elfver F.
2009 *Kung Johan Sverkerssons myntning – några reflektioner kring en spekulativ bildrekonstruktion*, [in:] *Samlad Glädje 2009*, Numismatiska klubben i Uppsala, Uppsala 2009, pp. 51–58.

Gaettens R.
1963 *Die Wirtschaftsgebiete und der Wirtschaftsgebietpfennig der Hohenstaufenzeit*, Verlag A Riechmann & Co, Lübeck 1963.

Grinder-Hansen K.
2000 *Kongamagtens krise. Det danske møntvæsen 1241–1340*, Museum Tusculanums Forlag, Copenhagen 2000.

Harlitz E.
2010 *Urbana system och riksbildning i Skandinavien. En studie av Lödöses uppgång och fall, ca 1050–1646*, Ph.D. thesis, Department of History, Gothenburg University, 2010.

Haupt W.
1954 *Oberlausitzer Brakteatenfunde des 13. Jahrhunderts*, [in:] *Arbeits- und Forschungsberichte zur Sächsischen Bodendenkmalpflege*, Vol. 4, ed. W. Coblenz, Landesmuseum für Vorgeschichte, Dresden 1954, pp. 505–581.

Hävernick W.
1955 *Die Mittelalterlichen Münzfunde in Thüringen*, VEB Gustaf Fischer Verlag, Jena 1955.

Hemmingsson B.
1994 *Myntpolitik och mynträkning under Magnus Ladulås och Birger Magnusson (1275–1320)*, Svensk Numismatisk Tidskrift, 1994, no. 7, pp. 176–183.
1995 *Frågor om den svenska myntningen 1319–63*, stencile, Stockholm 1995.
2005 Recension av K. Jonsson (2002): *Utveckling av ekonomin som den speglas i myntningen*, Svensk Numismatisk Tidskrift, 2005, no. 3, pp. 74–75.

Hess W.
2004 *Münzverrufungen der späten Pfennigzeit: Besonders in den Brakteatengebieten Mittel- und Südwestdeutschland*, [in:] *Dirham und Pfennige 2. Mittelalterliche Münzprägung in Südwestdeutschland*, eds. L. Ilisch, S. Lorenz, H. Steuer, Zeitschrift für Archäologie des Mittelalters. 2004, Beiheft 19, Dr Rudolf Habelt GmbH, Bonn, pp. 11–22.

Holmberg K.
1995 *När kungens mynt blev allmogens mynt. En översikt över mynt, myntning och myntens roll i det svenska samhället under 1200-talet*. Numismatiska Meddelanden XL, Swedish Numismatic Society, Stockholm 1995, pp. 63–82.
2009 *Karl Knutssons penningar från Åbo*, [in:] *Opus Mixtum*, ed. H. Nilsson, Studia Numismatica Upsaliensia 4, Uppsala University Coin Cabinet, Uppsala 2009.

Jesse W.
1967 *Die Wendische Münzverein,* Second edition, Klinkhardt & Biermann, Brunswick 1967.

Johnsen A. O.
1945 *Studier vedrörande kardinal Nicholaus Breakspeares legasjon til Norden*, Ph.D. thesis, Oslo 1945.

Jonsson K.
1977 *Fastlandsmyntningen under Birger Magnusson (1290–1318) med utgångspunkt från skatt- och lösfynd*, Nordisk Numismatisk Årsskrift 1975–76, 1977, pp. 83–161.
1983 *Översikt över fastlandsmyntningen ca. 1180–1250*, Numismatiska Meddelanden XXXIV, 1983, Svedish Numismatic Society, Stockholm, pp. 75–103.
1995 *Från utländsk metall till inhemskt mynt*, Numismatiska Meddelanden XL, 1995, Swedish Numismatic Society, Stockholm, pp. 43–61.
1999 *Myntreformen i Svealand 1216*, [in:] *Samlad Glädje. Numismatiska Klubben i Uppsala 1969–1999*, eds. K. Holmberg, H. Nilsson, Numismatiska Klubben i Uppsala, Uppsala 1999, pp. 77–86.

2002 *Utvecklingen av ekonomin som den speglas av myntningen*, [in:] *Birger Jarls tid – en brytningstid? Sex föreläsningar från ett symposium i Stockholm våren 2001*, ed. L. Annerbäck, Runica et Mediævalia, Stockholm 2002, pp. 43–72.

Jonsson K., Malmer B.
1985 *Dateringen av Thordeman XVI*, Nordisk Numismatisk Unions Medlemsblad, 1985, no. 7, pp. 134–141.

Klackenberg H.
1992 *Moneta Nostra. Monetarisering i medeltidens Sverige*, Almqvist & Wiksell, Stockholm 1992.

Kluge B.
2007 *Numismatik des Mittelalters: Handbuch und Thesaurus Nummorum Medii Aevi*, Münzkabinett Staatlichen Museen zu Berlin, Verlag der Österreichischen Akademie der Wissenschaften, Berlin and Vienna 2007.

Lagerqvist L. O.
1970 *Svenska mynt under vikingatid och medeltid samt Gotländska mynt*, Numismatiska Bokförlaget, Stockholm 1970.
1993 *Myntningen i Stockholm under medeltiden*, [in:] *Från medeltidens Stockholm. Sankt Eriks Årsbok 1993*, ed. B. Hallerdt, Samfundet S:t Erik, Stockholm 1993, pp. 129–151.

Lindstedt J.
1996 *Myntningen under Valdemars regering, 1250–75*, Stencile, Department of Archaeology and Classical Studies, Stockholm University, 1996.

Malmer B.
1978 *Örebro som myntort under 1200-talet*, Myntkontakt, 1978, no. 8, pp. 206–209.
1980 *Den senmedeltida penningen i Sverige*, Kungliga Vitterhets Historie och Antikvitets Akademien, Antikvariska serien 31, Almqvist & Wiksell, Stockholm 1980.
2010 *Den svenska mynthistorien. Vikingatiden ca. 995–1030*, The Royal Coin Cabinet and the Swedish Numismatic Society, Stockholm 2010.

Myrberg N.
1995 *Myntningen under Magnus Ladulås 1275–90*, Stencile, Department of Archaeology and Classical Studies, Stockholm University, 1995.
2008 *Ett eget värde. Gotlands tidigaste myntning, ca. 1140–1220*, Ph.D. thesis, Department of Archaeology and Classical Studies, Stockholm University, 2008.

Nau E.
1977 *Münzen und Geld in der Stauferzeit*, [in:] *Die Zeit der Staufer.* Band III, eds. Ch. Väterlein, U. Schneider, H. Klaiber,Württembergisches Landesmuseum, Stuttgart 1977, pp. 87–102.

Odebäck K.
2008 *Fynden i det medeltida Sverige med tyska mynt från Hansan*, Myntstudier, 2008, no. 2, pp. 1–8.

Paszkiewicz B.
2008 *A Chronology of the Teutonic Prussian Bracteates*, [in:] *Magister Monetae. Studies in Honour of Jørgen Steen Jensen*, eds. M. Andersen, H. W. Horsnæs, J. Ch. Moesgaard, National Museum, Copenhagen 2008, pp. 171–186.

Sejbal J.
1997 *Základy peněžního vývoje*, Masarykova univerzita, Brno 1997.

Simensen Ch.
1992 *Nidarosdomen og erkebiskopens mynt 1152–90*, Norsk Numismatisk Tidskrift, 1992, no. 2, pp. 65–93.

Skaare K.
1995 *Norges Mynthistorie*, Parts I and II, Universitetsforlaget, Oslo 1995.

Smith A.
1776 *An Inquiry into the Nature and Causes of the Wealth of Nations*, London.

Spufford P.
1988 *Money and Its Use in Medieval Europe*, Cambridge University Press, Cambridge 1988.

Steguweit W.
1987 *Geschichte der Münzstätte Gotha vom 12. bis zum 19. Jahrhundert*, Hermann Böhlaus Nachfolger, Weimar 1987.

Suchodolski S.
2012 *Polityka mennicza a wydarzenia polityczne w Polsce we wczesnym średniowieczu*, [in:] Stanislaw Suchodolski, *Numizmatyka średniowieczna. Moneta źródłem archeologicznym, historycznym i ikonograficznym*, Warsaw 2012, pp. 341–348.

Sussman N.
1993 *Debasements, Royal Revenues, and Inflation in France during the Hundred Years' War, 1415–22*, The Journal of Economic History, 1993, no. 53(1), pp. 44–70.

Svensson R.
2013a *Re-Coinage as a Monetary Tax: Conditions, Consequences and Comparisons with Debasement*, IFN Working paper No. 950, Stockholm 2013.
2013b *Renovatio Monetae: Bracteates and Coinage Policies in Medieval Europe*, Spink & Son, London 2013.

Vorel P.
2000 *Od pražského groše ke koruně české. Průvodce dějinami peněz v českých zemích*, Rybka, Praha 2000.

Appendix

Medieval Swedish rulers and (potential) coin issuers
Sverker I the Elder, 1130–1156
Eric IX the Saint, 1156–1160
Magnus II, 1160–1161
Charles VII (Sverkersson), 1161–1167
Canute I (Ericsson), 1167–1196
Sverker II the Younger, 1196–1208
Eric X (Knutsson), 1208–1216
John I (Sverkersson), 1216–1222
Eric XI (Ericsson), 1222–1229 and 1234–1250
Canute II the Tall, 1229–1234
Valdemar (Birgersson), 1250–1275, also as Duke (see below)
Magnus III Barnlock (Birgersson), 1275–1290
Birger (Magnusson), 1290–1318
Magnus IV (Ericsson), 1319–1363
Albert of Mecklenburg, 1364–1389
Margaret (of Denmark), 1389–1412
Eric XIII of Pomerania, 1396–1439
Christopher of Bavaria, 1440–1448
Charles VIII (Knutsson Bonde), 1448–1457, 1464–1465 and 1467–1470
Christian I (of Denmark), 1457–1464
Interregnum (regents), 1465–1467
Sten Sture the Elder (regent), 1470–1497 and 1501–1503
John II of Oldenburg, 1497–1501
Svante Nilsson Sture (regent), 1503–1512
Sten Sture the Younger (regent), 1512–1520
Christian II (of Denmark), 1520–1521

Other medieval Swedish coin issuers
Bishop (of Skara) Bengt the Good, 1150–1190
Archbishop (of Uppsala) Petrus, 1187–1197

Archbishop (of Uppsala) Olof Lambatunga, 1198–1206
Archbishop (of Uppsala) Valerius, 1207–1224
Earl Ulf Fase, 1231–1248
Earl Birger, 1248–1266

Figure index (copyright)
Kenneth Jonsson, Stockholm: 4, 55, 57, 64, 65, 67
Magnus Wijk, Uppsala: 1–3, 5–9, 12, 18, 20, 33, 35–39, 41–54, 56, 58–63, 66, 68–71
Royal Coin Cabinet, Stockholm: 10, 11, 13–17, 19, 21–30, 32–34, 40, 19, 21–30, 32–34, 40

POLITYKA MENNICZA W ŚREDNIOWIECZNEJ SZWECJI

(Streszczenie)

Celem pracy jest zbadanie, jakie systemy mennictwa i opodatkowania pieniądza były stosowane przez emitentów monety w średniowiecznej Szwecji. Wykorzystano w niej podejście analityczne i metodologie alternatywne w stosunku do stosowanych dotychczas w literaturze przedmiotu. Po pierwsze, systemy monetarne przeanalizowano z perspektywy ekonomicznej. Po drugie, na każdym etapie szwedzka polityka mennicza została porównana ze stosowaną współcześnie na kontynencie, co dotychczas rzadko czyniono. Po trzecie, do mennictwa szwedzkiego zastosowana została ogólna teoria na temat funkcjonowania systemów monety krótko- i długotrwałej.

Dawno zauważono, że monety szwedzkie w różnych odcinkach wieków średnich dostosowane były do wzorców z innych krajów europejskich. Wczesnośredniowieczne monety szwedzkie noszą widoczne ślady wpływów angielskich (995–1030). Po wznowieniu mennictwa ok. 1153 r. przez prawie 140 lat bito jednostronne brakteaty. System złożony z örtugów i brakteatów guziczkowych, wprowadzony w latach siedemdziesiątych XIV w., przypominał mennictwo północnoniemieckie (witteny i brakteatowe fenigi). Praca wykazuje, że w Szwecji przyjęto także zbieżne z kontynentalnymi rozwiązania systemowe i metody czerpania zysku z monety, które towarzyszyły poszczególnym jej formom.

Okazuje się, że teoria monety krótko- i długotrwałej znakomicie odpowiada szwedzkiej rzeczywistości. Systematyczną renowację monety (o zmieniającej się częstotliwości) przeprowadzano w latach 1180–1290, bijąc wyłącznie brakteaty. Wraz ze wzrostem upieniężnienia w końcu XIII w. brakteaty zostały zastąpione długotrwałymi monetami dwustronnymi. Z jednej strony zakończyła się periodyczna renowacja, a z drugiej szwedzcy królowie przyspieszyli psucie monety długotrwałej. Psucie monety — na zmianę z reformami menniczymi — stosowano aż do początku XVI w.

Nic dziwnego, że brakteaty zadomowiły się w Szwecji w latach 1153–1290. Nie było tu bowiem przed nimi, zgodnie z teorią, żadnych standardów monetarnych. Niewiele wiemy o najwcześniejszych brakteatach, z lat pięćdziesiątych XII w., poza tym, że była

to emisja kościelna, co wynika z ich przedstawienia. Znamy liczne typy późniejszych monet, ale tylko niektóre z nich dominują w skarbach. To wskazuje, że już król Kanut I (1167–1196) odnawiał brakteaty w Svealandzie. Możliwe stało się datowanie różnych brakteatów na poszczególne odcinki panowań kolejnych królów aż do 1250 r. Na podstawie liczby typów widać, że w latach 1180–1250 renowacja była częstsza w Svealandzie niż w Götalandzie. Ułatwiało ją to, że na Szwecję składały się trzy odrębne prowincje monetarne (Svealand, Zachodni Götaland i Wschodni Götaland) a upieniężnienie społeczeństwa było ograniczone. Niewielka więc liczba monet wymagała przebicia, nieliczne warstwy społeczne używały monet i ograniczona tylko liczba rynków musiała być nadzorowana. Aż do 1250 r. szwedzkie brakteaty zawierały niemal czyste srebro (94%), podobnie jak brakteaty niemieckie, które również często przebijano. To także jest zgodne z teorią.

W latach 1250–1290 liczba typów brakteatów w stosunku do czasu znacząco spadła. Renowacja była więc rzadsza, może co 5–10 lat, tym bardziej, że Zachodni i Wschodni Götaland złączyły się w jedną prowincję monetarną. Wzrosła liczba krążących monet i upieniężnienie, co utrudniało renowację. Rozpoczęło się wówczas za to psucie monety: próba srebra spadła początkowo do 80%. Król musiał skompensować utratę dochodów z renowacji monety obniżając w niej zawartość srebra.

Numizmatycy długo dyskutowali nad brakteatami z literą M króla Magnusa III (1275–1290). Znaleziska luźne i skarby nie wskazują mennic, w których te monety wybito. Znany jest skarb, który zawiera brakteaty z tej grupy wyłącznie z gładkim kołnierzem. Testy statystyczne prowadzą do wniosku, że brakteaty z M z gładkim kołnierzem poprzedzają w czasie te z kołnierzem promienistym.

Cykliczną renowację zakończyła reforma monetarna, przeprowadzona ok. 1290 r., gdy brakteaty zastąpiono denarami dwustronnymi. Te utrzymały się w obiegu przez całe panowanie króla Birgera (1290–1318), mogą więc być uznane za monety długotrwałe. Zawartość srebra w nich spadła do 63%. Król Magnus IV (1319–1363) przeprowadził kilka reform monetarnych (1319, 1354 i 1363), które wiązały się z przebiciem masy monetarnej i zupełną zmianą standardu menniczego. Jedynie zmiana z 1340 r. może być uznana za tradycyjną wymianę monety, gdzie zmieniono tylko przedstawienie stempli. Brakteaty wprowadzono ponownie jako monety długotrwałe w 1355 r., ale głębokie ich zepsucie wymusiło nową reformę w 1363 r. Od ok. 1370 do 1523 r. brakteaty guziczkowe wybijano jako monetę zdawkową towarzyszącą ośmiodenarowemu örtugowi. Oba gatunki monet miały cechy długotrwałości i zarazem podlegały znów głębokiemu zepsuciu.

The author's address:
Roger Svensson
The Research Institute of Industrial Economics (IFN)
P.O. Box 55665
SE–10215 Stockholm, Sweden.
Correspondence: roger.svensson@ifn.se