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A "FRIEND AND ADVISOR": MANAGEMENT, AUDITORS, AND CONFIDENCE IN GERMANY'S CREDIT COOPERATIVES, 1889-1914

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Abstract

Economic enterprises face two, related, managerial problems: effective management of the enterprise's activities, and communicating to outsiders that the enterprise is in fact well-run. These problems were especially difficult in the credit cooperative movement that grew up in Germany in the second half of the nineteenth century. These successful cooperatives thrived because they could harness the information and ties among local people to obviate many of the problems that faced other lenders. Doing so required managers who were themselves local people. Yet few if any locals had any banking experience, and most were not even familiar with basic accounting methods. These local managers created internal management problems and enhanced outside suspicion of the cooperatives as banking enterprises. The methods developed to overcome these problems relied on a combination of local initiative and regional assistance that was typical of the movement as a whole. The movement's ability to train its own talent suggests a broader impact not captured by statistics on membership or financial assets.

KEY WORDS: credit cooperative, external audit

JEL Classification: G2, N23, O16

The credit cooperatives introduced in Germany during the 1850s were individually small and had as their members poor people with similar economic fortunes. Most rural cooperatives were managed by volunteers who had little banking or business experience. Yet by World War I there were about 19,000 such cooperatives and together they had issued some 8 percent of all German banking liabilities. Their success in the face of obvious obstacles seems puzzling. One key to their success was an ability to capitalize on cheap information and low-cost sanctions to provide effective, low-cost credit to people in rural areas. The ability to use social ties as the basis for lending came at a steep cost, however. Their very logic required that the cooperatives be confined to a specific area and that, in rural areas especially, they be very small. One consequence of this design was that nearly all cooperatives were managed by local volunteers with no banking experience and little formal bookkeeping background. Their basic design created two problems that affect virtually any economic enterprise: the cooperatives had to find some way to ensure that local institutions were well-run, and they had to find some way to communicate their condition to outsiders such as potential members and depositors.

One way to view the concerns raised in this paper is to consider them in the light of current research on information problems and financial intermediaries. The model of a financial intermediary current today is based on Diamond (1984). In this delegated monitor model, the intermediary exists because it is more efficient for depositors to lend their money to an intermediary who can invest it and monitor its use on their behalf. The Diamond model implies that there are two information and incentive problems. The first problem is the reason for the monitor's existence, as noted. The second problem is that the bank's managers have more information on the investment projects than do their depositors, and can use that superior information opportunistically. The second issue has led to a distinct literature asking why bank managers are trusted not to behave this way. One approach follows Calomiris and Kahn

(1991). They argue that the sequential-service rule for deposits, which seems irrational because it helps to promote banking panics, is a mechanism that allows bank managers to commit to refraining from opportunistic behavior. Others note that the second information problem helps to explain the roles of kin and other closed groups in early financial intermediaries (Lamoreaux 1991, 1994).

The German credit cooperatives faced both of the problems at the heart of the Diamond model and a more general problem that has in some ways disappeared from the literature. Diamond's manager knows what he is doing. Much of the problem facing the cooperatives was that their managers made mistakes in a way that does not happen in Diamond's model. One can also view the Diamond model as implying a problem of confidence (as a depositor, how do I know the manager will not abuse my interests?). For the cooperatives the confidence issue was as much about thinking the managers knew what they were doing as an issue of trusting them not to misbehave deliberately.

This paper is part of a larger project that uses economic theory and a broader perspective on the German financial system in this period to ask why the cooperatives prospered. Elsewhere I have argued that central to their success was an ability to harness ties among members to overcome, at low cost, the information and enforcement problems that make it difficult and expensive for conventional banking institutions to lend to poor people. Although Germany had both an urban and a rural credit cooperative group, throughout I emphasize the rural institutions because their organization and methods made them most distinctive. Guinnane (2001) lays out and tests the argument using manuscript business records from several rural cooperatives. Banerjee, Besley, and Guinnane (1994) and Ghatak and Guinnane (1999) analyze the economics of this type of lending institution. Guinnane (1997) provides additional detail on the regional organizations discussed below, especially the Central cooperative banks which are only mentioned in the present paper. That paper also provides more detail on the internecine conflict that created additional problems of confidence within the cooperative movement. Guinnane (1994) and Guinnane and Henriksen (1998) offer a comparative perspective.

Our discussion here falls naturally into three stages. After some additional background, we first describe the basic structure of the local cooperatives. Next we consider the more relevant issue, which is how the local managers performed and what problems they faced. We then turn to the regional auditing associations that were erected to help ensure good management and to help the cooperatives instill confidence in their operations.

The cooperative movement and its regional institutions

By the 1880s there were three dominant groups of credit cooperatives in Germany, reflecting the activities of the three men most responsible for this movement. Hermann Schulze-Delitzsch (1808-1883) founded several cooperative associations during the 1840s and 1850s. By 1861 there were 364 Schulze-Delitzsch credit cooperatives with nearly 49,000 members (Herrick and Ingalls (1915, p.267)). Friedrich Raiffeisen (1818-1888) was at first an imitator of Schulze-Delitzsch. Raiffeisen's first credit cooperative was founded in Neuwied (Prussian Rheinland) in 1864. The number of Raiffeisen cooperatives at first grew rapidly, but was later eclipsed by cooperatives affiliated with a group formed by Wilhelm Haas in the 1870s. At the outbreak of World War I the Schulze-Delitzsch credit cooperatives numbered some 945 credit cooperatives with 620 thousand members, the Raiffeisen, 4400 cooperatives with 485 thousand members, and those affiliated with the Haas group, 11,165 cooperatives with over one million members.[1] Ordinarily only one person per household could join a credit cooperative, so these membership figures imply that millions of Germans were part of the movement.

[1] Wygodzinski (1917, p.478), from the yearbooks of the several associations. A fourth group of urban cooperatives outside the Schulze-Delitzsch association *(Hauptverband deutscher gewerblicher Genossenschaften*) had 440 cooperatives with 120 thousand members in 1914.

The differences between Schulze-Delitzsch and Raiffeisen can be summarized briefly. Schulze-Delitzsch thought credit cooperatives should be primarily urban, discourage the very poor as members, and have some paid, full-time management. When it became legal in 1889 (after his death), his followers advocated that credit cooperatives convert to a limited-liability basis. Raiffeisen, on the other hand, worked primarily in rural areas, wanted cooperatives to be open to everyone in their community, and thought that only a part-time treasurer be paid. His group insisted on unlimited liability for credit cooperatives even after 1889. Haas and other cooperative leaders took a less doctrinaire approach (for example, Haas's group advocated limited liability in areas with very unequal wealth distributions), but most credit cooperatives outside Schulze-Delitzsch's group were rural and resembled, in most respects, Raiffeisen's. Haas's group was less centralized than Raiffeisen's and tolerated greater diversity among its members.

Most cooperative groups developed two regional associations to help manage the problems their local cooperatives faced. A type of regional cooperative bank (called, confusingly, a "Central" bank) emerged to take deposits from and make loans to member cooperatives. The Haas group had dozens of regional centrals, while the Raiffeisen group had a single institution with several branches. The Schulze-Delitzsch group did not develop Centrals in the same way and relied on commercial banks for liquidity services. The other regional organizations were the auditing associations detailed below. At the national level there was a single cooperative bank founded by the Prussian government that acted as a sort of Central's central.[2] The auditing associations had no national counterpart. Each of the main cooperative groups had a national federation that brought together all their constituent institutions, including cooperatives engaged in activities other than credit.

[2] This "*Preussenkasse,*" founded in 1895, was controversial and not all rural Centrals dealt with it.

The sources for this project allow a close look at both individual cooperatives and the regional associations that worked with them. I have manuscript business records for several credit cooperatives for the period prior to 1914. Throughout this paper these are called “study” cooperatives and are referred to by the name of the village in which they were located. Guinnane (1997, In Press) provides more detail on these institutions. I also draw on the annual reports of auditing associations and on a lively cooperative and academic press. All of these sources must be treated with some care. The reports of the auditing associations especially contain an element of self-justification, as we will see.

1. The local cooperatives

Credit cooperatives shared internal organizational features regardless of their type, in part because of legal requirements. The management committee (*Vorstand*) represented the cooperative legally and made most important decisions: accepting new members, granting loans, etc. The supervision committee (*Aufsichtsrat*) met less frequently to oversee the management committee. The supervisory committee's primary role was to review and approve the management committee's decisions and to act as a sort of internal auditor.[3] In some matters (such as for very large loans, or a loan to a member of the management committee) the supervisory committee had first say. Members of these two committees served terms of fixed length and no single person could be on both committees at once. The cooperative’s membership as a whole (*Generalversammlung*) met annually to elect the members to the management and supervision committees and to make decisions on basic policies such as interest rates. Membership in the cooperative was not automatic, but once accepted into the cooperative all members could participate

[3] The *Aufsichtsrat* was also a feature of some forms of large-scale corporations in Germany. There is some debate, in that context, over what it was supposed to do and what is actually did. In the context of the cooperatives its intended role is clear.

on an equal basis in elections for management positions and on the important policy issues put to a general vote.[4]

The cooperative's day-to-day business activities, as well as its bookkeeping, were undertaken by a treasurer who was in some cooperatives a designated member of the management committee, and in others, a cooperative member selected by the management committee. Schulze-Delitzsch advocated that all cooperative managers be paid and eventually many urban cooperatives had at least one full-time, professional employee. In the Raiffeisen group and in most Haas cooperatives the only paid employee was the treasurer. Some other rural cooperatives paid their managers a small fee for attending meetings, but how common this practice was I cannot say.[5]

The division of labor between the supervision and management committees was laid down in the cooperative's statutes, but only in general terms, and in different cooperatives these committees had different degrees of discretion. In some the management committee controlled all dealings with the treasurer, while in others the supervision committee retained the right to set the treasurer's pay. In some the management committee could approve virtually any loan up to the maximum per-member credit laid down in the statutes, while in others the supervision committee had to approve any loan larger than some smaller limit. To take another example, in some cooperatives the management committee managed cash as it saw fit, instructing the treasurer when to send funds to the Central, while in others these activities required the active agreement of the supervision committee.

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[4] The appendix to Cahill (1913) includes an English translation of the cooperatives law as amended by later acts.

[5] For example, the Maulburg cooperative started paying the members of the management and supervision committees 1 Mark for every meeting they attended (*Protokollbuch für den Vorstand*, Maulburg, 28.7.1902). In 1914 the Eifa (Hatzfeld) cooperative paid the head of the management committee 45 Marks and the head of the supervision committee 25. The treasurer's income is discussed below.

The problems

We focus on the period from the 1870s through the outbreak of World War I. In this period the credit cooperatives were very simple banking operations. Most of their assets were loans. Rural cooperatives were highly leveraged, with 90 percent or more of their liabilities being deposits, while urban credit cooperatives typically had lower leverage because of their larger member shares. Most transactions involved cash. (Some established checking and other payment services in the early twentieth century, but this practice remained rare prior to World War I.) Cash came in as deposits and was disbursed as loans, and when the cooperative had excess or insufficient cash, its deposits at or drawings from its Central cooperative bank took the form of cash. Managing this institution entailed three problems:

> *Fraud*: There was ample opportunity for a manager to steal from the cooperative by taking cash or falsifying records. Embezzlement by treasurers was rare but a constant concern. Closely related to fraud are decisions that reflect a private interest, such as extending credit to someone who is not really credit-worthy but who has some connection to a manager.

> *Record-keeping*: The mechanics of keeping records that accounted for all inflows and outflows of funds was an enormous undertaking in a day prior to automatic information systems. In addition to this simple level of record-keeping, the cooperative had to ensure that all legal documents recording outstanding loans were in order. The cooperative also had to maintain minutes of meetings, lists of members, and other internal information required under the cooperative law.

Mistakes: A final and important class of problems arose out of honest mistakes. Admittedly a residual category, these problems arise from decisions that are not attempts to take advantage of the cooperative, and are not simply failure to keep adequate records. They are best thought of as reflecting the managers' imperfect grasp of the problems their institution can and might face. One good example is a failure to monitor the cooperatives' liquidity; most loans were for terms of five years or more, and a failure to maintain adequate reserves could be disastrous. Similar problems arose when a cooperative made a single very large loan.

One way to put these problems in perspective is to compare them to the principal-agent framework implicit in Diamond's model. All three of these problems can be cast in a moral-hazard framework; with the proper incentives the cooperative could invest in ways to avoid fraud, book-keeping problems, and honest mistakes. But the canonical examples used in economics usually assume that agents are competent (as opposed to fully-informed) and the problem is motivating them to direct that competence as the principal would wish. That is not the only problem here.

2. The managers

The management committee membership was the cooperative's hands-on manager, approving loans, controlling accounts with the Central, and in general looking after the details of the institution's operations. The committee usually met every month. The supervision committee met on a quarterly basis and its minutes are perfunctory. This division of labor is reflected in many cooperatives in the identity of the individuals on two committees. The management committee tended to have the local business and farming leaders, while the supervision committee was the place for a sympathetic local noble or clergyman. Some accounts suggest a deliberate strategy of recruiting prominent, trustworthy people specifically for the supervision committee, where they would not have to do much work but would build public confidence nonetheless.

Most members of the two committees were, upon election, for the first time taking on a position that involved formal record-keeping and reporting. How were they recruited, and how long did they have to learn the job? Most cooperative *Festschriften* give a list of all members of the management committees and the dates of their service, permitting us to construct measures of turnover for those two bodies. Nine cooperative *Festschriften* have complete information on the management terms in the period before their formation and 1914. These histories suggest that the members of both the management committee and the supervision committee served for *very* long times. In four of nine cooperatives 100 percent of all terms on the management committee were for at least five years. In all nine cases there was no turnover at all on the Management committee in 80 percent of the years between the cooperative's founding and 1914 (the youngest cooperative in this group was formed in 1899, but most date to the 1880s and earlier). One of the few individuals who left the Leer management committee died in office and was replaced by his son. Experience on the supervision committee was more varied, and terms tended to be shorter. But once again, the median term for a committee member in these cooperatives was about 15 years. Given that the duties for the management committee were much more time-consuming than those for the other committee it seems unlikely that the little turnover we observe was due to the burdens of office.

There are several possible interpretations of this lack of turnover. The first and most likely interpretation is simply that the managers worked out well and the cooperative saw no reason to replace people when elections were held. A second interpretation is that there were so few people in a given village willing and able to serve in such a position that turnover was, in fact, impossible. The references to elections contained in the minutes of the *Generalversammlung* meetings do not support this view. Some elections for the management committee and supervision committee were contested. Even people who were elected by significant majorities faced real opposition. To take one fairly typical example, in 1912, in the Huttersdorf (Schmelz) cooperative, Peter Gross was elected treasurer with 158 out of 271 votes. But he had four opponents, one of whom garnered 64 votes.[6] There were other people in the cooperative who at least *thought* they were qualified to serve.

A third interpretation of these low turnover rates would be that the people running the cooperative were a small group using it for their own ends. This view, which is a theme in some contemporary criticisms of the cooperative movement, is hard to reconcile with contested elections, and hard to reconcile with a lack of any overt evidence of managerial abuse. I know of no instances where managers used their positions to secure the nineteenth-century equivalent of a nice office. In some instances cooperatives paid for their managers to travel to a cooperative training session in a city, but the amounts reimbursed hardly suggest a wild holiday. For example, the management committee of the Aussen (Schmelz) cooperative was voted 3 Marks each to cover travel costs associated with attending a cooperative school.[7] These costs seem more in the nature of a prudent investment in managerial education. There is also little evidence of managers receiving a disproportionate share of loanable funds. Loans to management committee members required the approval of the supervision committee. Of all the study cooperatives, only the Leer cooperative's management committee received many loans, and in that cooperative a large share of deposits were forwarded to the Central as a matter of course. Loans to the managers were not depriving anyone in the cooperative.

[6] Direct election of the treasurer by the members was not common practice in the cooperatives studied. *Protokollbuch für die Generalversammlung*, Huttersdorf, 28.7.1912.

[7] *Protokollbuch für den Vorstand*, Aussen, 29.7.1906.

The membership in credit cooperatives was remarkably stable. A few members were ejected for failure to repay a loan or for some other reason, but this event was extremely rare. Most members who left a cooperative did so because of death, and a handful resigned when they left the area in which the cooperative operated. Thus the annual meeting consisted of individuals with ever-growing experience in how the institution worked. On the other hand, the minutes of the annual meetings show that attendance at these meetings could be poor, as little as one-half the current membership. The Aussen (Limbach) cooperative tried several times to change its statutes but could not because it could not get the required quorum to attend the annual meeting. In one year only 44 of 111 members showed up. [8] Cooperatives took several approaches to the problem. One was exhortation; articles in the cooperative press on the importance of the general meeting were quite common. Another was to provide financial incentives. Some cooperatives paid members to attend the annual meeting or fined members who did not attend. The Gersbach (Maulburg) cooperative fined members 40 Pfennig for not attending the annual meeting.[9]

The treasurer's job

Nearly all accounts, both critical and supportive of the cooperative movement, agree that the treasurer was the most important manager and that most problems in individual cooperatives reflect this person's failings. The range of responsibilities for a treasurer was considerable. He had to keep track of all deposits and loans, manage the cooperative's accounts at the regional Central, prepare promissory notes (and mortgages if the cooperative was making mortgage loans), and compile monthly and annual

[8] In some cases the auditor would call attention to low attendance. For example, the 1914 meeting of the Geschwend (Maulburg) cooperative was attended by 69 members. The auditor wrote "of 121" next to the figure "69" in the report. *Protokollbuch für die Generalversammlung,* Geschwend (Maulburg) 8.6.1914; *Protokollbuch für die Generalversammlung,* Aussen (Limbach) 26.8.1906.

[9] *Protokollbuch für die Generalversammlung,* Gersbach, 16.11.1880.

reports for the internal managers and the auditing association. All of this was done without the assistance of any mechanical calculation devices, although the printed forms and loan tables discussed below provided some assistance. Treasurers tended to have “office hours,” regular times (such as after church on Sundays) when they were available to accept deposits and do other business. In the Maulburg cooperative, for example, these hours were set as 12-1 on Sundays and Wednesdays 6-7 in the winter and 7-8 in the summer. They were also expected to be available at other times, for example to assist a member who lived outside the village but was in town on other business. Treasurers used their homes as their “office,” meeting cooperative members there and keeping both the cooperative safe and all record-books there. Most cooperatives required their treasurer to post some kind of bond or other security commitment against fraud or embezzlement. For treasurers with assets, such as a farm, this was not a serious problem. But for the many who were teachers this was a serious issue. The most common solution in the study cooperatives was for someone else to sign a note, the same kind of commitment a co-signer would make. In the Adelhausen (Maulburg) cooperative, for example, the treasurer’s honesty was guaranteed by a 1000 Mark note of this sort.[10]

Given this person’s role, cooperatives recognized the importance of paying a salary high enough to attract and retain a treasurer with the right qualities. Just how much to pay was a topic of lively discussion. Higher pay meant, implicitly, reduced reserves for the cooperative, higher interest charges for borrowers, and lower interest payments to depositors. The pay was set annually by the cooperative’s management committee. In 1914 the Diestedde cooperative paid its treasurer 1200 Marks, and in 1913 the smaller Leer cooperative paid its treasurer 800 Marks. This was a significant sum for the cooperative, which often devoted half or more of its net interest income to this purpose. Many treasurers were schoolteachers, and by comparing the cooperative’s payments to the official schoolteacher salaries we

[10] *Protokollbuch für die Generalversammlung,* Adelhausen, 11.4.1905.

can get a sense of how much the cooperative's treasurer salaries approximated the cost of the recipient's time. Elsewhere I have used detailed information from the business records of the Leer cooperative to get some sense of how the treasurer was paid, how that compares to his regular job, and how much time he devoted to the cooperative. A schoolteacher in that region in 1905 earned about 1750 Marks per year from his regular job. The cooperative paid him 400 Marks for his efforts that year, or about 23 percent of the income from his main job.[11]

Cooperative manuals advised against paying the treasurer according to a formula that gave him an incentive to increase the number of transactions, loans, etc. Anton Quabeck, an influential leader in the Westfalian cooperative association, wrote in his cooperative handbook that if the treasurer's pay was a fixed percentage of the cooperatives' income then "he would have an interest in the cooperative earning as much as possible, and could pressure the management committee to this end" (Quabeck 1913, p.128). Whatever the advice, there are examples of explicit formulas of the sort Quabeck feared. The Gersbach (Maulburg) cooperative paid its treasurer 40 Pfennigs for every Mark of cooperative income, and the Maulburg cooperative paid its treasurer 30 Pfennigs for every Mark of turnover.[12]

Embezzlement

Treasurers lie at the heart of most cooperative horror stories. Few rural treasurers had any business experience at all. Cooperative manuals introduce double-entry book-keeping as if it is an unknown concept (and why should it be familiar to a schoolteacher?).[13] One of the auditor's first tasks in

[11] The details underlying this calculation can be found in Guinnane (2001, pp. XX).

[12] *Protokollbuch für den Vorstand*, Maulburg, 12.6.1882

[13] More amusingly, in 1904 the *Landwirtschaftliches Genossenschaftsblatt* pleaded with its officials to use German words rather than their French equivalents. This was not nationalism. French substitutions were typical of pedants of the day, and according to the request made publications difficult to understand for the "simple people" who ran the cooperatives.

examining cooperative records was to verify the arithmetic. More than a few record-books are filled with the red corrections of an auditor. There were also cases of extreme laxness. Sometimes an auditor would find that a treasurer had not been keeping an entire set of required books, or had failed to provide the right report at the specified time. But the real fear was embezzlement. The cooperatives operated primarily on cash. Only in the early twentieth century did they begin to use checks and other payment means, so a clever treasurer could steal, under the right conditions, thousands of Marks.

Embezzlement by cooperative treasurers was extremely rare, although it did not have to be common to pose a threat to the movement overall.[14] A problem we encounter in studying embezzlement is its role in the rhetoric of internecine conflict. The Schulze-Delitzsch group often pointed to the combination of unpaid managers and part-time treasurers in rural credit cooperatives as an invitation to trouble. Thus the rural credit cooperatives were very sensitive on the issue. For their part, the rural auditing associations stressed the value of their services by discussing cases where they detected an embezzlement before serious harm was done. Whatever their rhetorical import, embezzlements were real. One took place in the Maulburg study cooperative. At a joint meeting of the management and supervision committees in 1899, the auditor Bern reported that the late treasurer had helped himself to about 1275 Marks of the cooperative's money. The auditor recommended several steps to help cover the loss. At a general meeting the same day, the auditor reminded the membership that the management committees and current treasurer should not be held accountable. Since no member had objected to the (fraudulent) presentation of the previous year's report, they were equally responsible for the shortfall. Several days later the widow and children of the deceased treasurer signed an agreement to repay the embezzled

[14] Estimates below suggest that embezzlements took place in less than one cooperative per thousand per year. The available information on these incidents is not sufficient to test econometrically, for example, whether publicity over an embezzlement in a cooperative harmed other cooperatives in a region.

funds.[15] This is a simple tale with a happy ending. More lurid accounts in the cooperative press suggest that treasurers in larger cooperatives could get away with a lot more. The Schulze-Delitzsch organ reported one case of a 7500 Mark embezzlement in a rural cooperative in 1901, and suggested that the failure of another, with losses of nearly 100,000 Marks, reflected the relatively great power of treasurers in cooperatives where other managers were not paid.[16]

An article published in 1909 by Anton Quabeck in the Haas group's organ *Genossenschaftspresse* gives a generous and revealing picture of how embezzlements affected the cooperative movement. He notes that cooperatives from every group face this problem, and that the damage to an affected institution goes far beyond financial matters. Embezzlements contribute to mistrust of cooperatives by outsiders and destroy trust within the affected institution. In a common complaint he notes that other banking institutions (he names savings banks in particular) suffer the same problem but for some reason embezzlements elsewhere do not receive as much attention and are not used to call an entire institutional form into question. He concludes with a routine call for great vigilance, but refrains (unlike many others) from claiming that cooperatives of any one type are more or less prone to embezzlement.[17]

Embezzlements were the most dramatic and well-publicized management problem in credit cooperatives. But we should keep them in perspective. They were rare, and few cooperatives closed as a result. Most of the amounts stolen seem to have been recovered or were so small that the cooperative was able to make good the amount through retaining earnings. This ability to contain embezzlements no doubt reflects the same kind of information that enabled the cooperatives to lend on good terms.

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[15] *Protokollbuch für den Vorstand*, Maulburg, May 1899.

[16] *Blätter für Genossenschaftswesen* 1901(40) p.506 and 1902 (49) pp.389, 423.

[17] Volume 36, 1909, pp.483-487.

Treasurers lived in a small community and it would be hard to conceal the fruits of embezzlements. The cooperatives also had the benefit of outside assistance, which we consider next.

3. Help from the regional level

The local cooperative's managers needed four forms of assistance. They needed someone to correct errors they made. The needed education in both business record-keeping and the specifics of cooperative practice. The structure of the local cooperative apparently could not provide the right incentives for the managers to do their jobs properly all the time, and mechanisms that improved those incentives were important to furthering the cooperatives' growth and development. Finally, the cooperatives needed some way to signal to others, including potential members and depositors, that they were safe and well-run. The auditing associations the cooperative groups erected can be seen as an attempt to meet all four of these needs.

Regular auditing was an outgrowth of the way the cooperative movement was first formed and developed. From their earliest days the leaders of the cooperative movement promoted regional associations of cooperatives to share information, lobby governments for legal changes to make it easier to form and run cooperatives, and to promote new cooperatives. In both the Schulze-Delitzsch and Raiffeisen groups these regional associations encouraged a sort of informal audit of member cooperatives. As the movement grew and public awareness of criticisms leveled against cooperatives became a more serious concern, some cooperative associations made periodic audits a condition for membership. Schulze-Delitzsch, for example, recommended that the regional organizations in his group conduct audits (Parisius and Crüger 1890, p. LVII; Parisius 1895, p.12). Most of the regional associations in the Schulze-Delitzsch group made regular audits a condition of membership in the 1870s (Parisius and

Crüger 1890, p. LVIII). Some rural associations had followed suit by the early 1880s (Beham 1940, p.18). But these audits had no legal status before 1889.

During his lifetime Schulze-Delitzsch successfully resisted *compulsory* audits for cooperatives. Calls for compulsory auditing typically came from the cooperative movement's enemies, and took the form of demanding examination by state officials. Several bills to this effect had been introduced in the Reichstag in the early 1880s (Wirsching 1969, pp.18-19). External auditing went hand-in-hand with nineteenth-century developments in corporate forms that separated ownership from the control of an enterprise; the auditor's role was to guarantee to stockholders and others that the managers were reporting the firm's true condition. The English Joint Stock Company Act of 1844 required external auditors, although it was not until much later that the details of such provisions made the external audits satisfactory (Edey and Panitpakdi, 1956). Schulze-Delitzsch (1909, pp.427-434) was aware of English auditing practice and impressed by the auditing requirements of England's friendly societies. Successive German laws reflected English influence in extending compulsory external audits to an ever-wider class of economic enterprises during the nineteenth century (Henning, 1990), and it was natural to fear that in the case of cooperatives the external auditors would be state officials. Schulze-Delitzsch opposed state audits for practical and political reasons. The practical objection was a concern about moral hazard; the cooperative members and the supervision committee might see a compulsory audit as a substitute for their own vigilance. On a political level he had a well-grounded suspicion of state involvement in credit cooperatives and saw compulsory audits by state officials as the first step in making them *de facto* arms of the government.

The 1889 cooperatives law, which was the first such law that applied to the entire Reich, required audits but should be seen as a victory for the cooperative movement. Article 51 of this act required that every cooperative be audited at least once every other year. Cooperatives could satisfy the requirement in one of two ways. They could ask the local court to appoint an auditor for that cycle only. Or they could have the audit performed by someone who was an employee of the regional association, which by the 1889 law was transformed into a specialized auditing association. The 1889 law satisfied Schulze-Delitzsch's objections by placing the cooperative's own associations in the role of primary auditors, thus avoiding state control of the cooperative movement, but at the same time ensured external oversight of the cooperatives. The cooperative group's support for legal auditing also reflects the leadership's judgement that problems in individual cooperatives, even if rare, could do great damage to the movement as a whole. Much of the concern stemmed from hostility among the various cooperative groups. The Schulze-Delitzsch group, for example, thought that Raiffeisen cooperatives were flawed and that one way to prevent them from doing damage to the entire movement was to force upon them a legal requirement for regular audits.

Auditors and their associations

Each group had its own specific practices, but in every case auditing associations were either restricted to a region or had "sub-associations" that were assigned to each region. In the rural cooperative groups, auditing associations usually had a formal relationship with a Central cooperative bank, but the two institutions were distinct and in theory a cooperative could belong to the auditing association without any connection to the related Central. Member cooperatives paid a yearly fee plus a charge for each audit. The auditing association also earned income from the sale of books, printed forms, etc. Most auditing associations did not cover their full costs through these devices, and made up the deficit with gifts from an associated Central and from modest grants from government agencies. These government grants were the only direct State support for the cooperatives in our period, and were trivial in comparison to the total costs of the cooperative movement as a whole. According to Busche (1963, p.108), many German governments would make one-time grants to various cooperative organs, but regular contributions went almost exclusively to the auditing associations. The Saarland's cooperative association is fairly typical in this regard. In the period 1900-1908 it took in 65,935 Marks as direct charges for audits and another 95,465 Marks in membership fees. Only 11,400 Marks came from State sources. This left a deficit of about 23,000 Marks, which was made up from profits generated by the Central cooperative bank (Faust 1909, p.99). For Prussia as a whole, total state grants to cooperatives for the period 1896/97 through 1903 amounted to some 36,400 Marks, or about 4500 Marks per year for all of Prussia (Busche 1963, p.108).

The auditors were at first individuals with experience in the cooperative movement. By the late 1890s the several cooperative groups were experimenting with more formal ways of training cooperative auditors. The Haas group established its own school for cooperators in the early twentieth century. The new school ran several different training programs, including courses designed for local managers and treasurers. The Raiffeisen group at first took a different approach. It experimented with a formal apprenticeship system, whereby prospective auditors were taken in hand by experienced auditors and would participate in actual audits.[18] But they gave up this tactic and in 1913 began a regular course for new auditors. In that first year the course ran from October 2, 1913 through February 14, 1914, and trained a total of 14 men. The youngest was 20 and the oldest 35, suggesting that these new auditors planned a career in the movement. The breakdown of topics is revealing. The recruits had 516 hours of instruction, which included the history and organization of the cooperative movement (60 hours), cooperative law (96 hours), book-keeping (90 hours), general law (68 hours), and auditing (42 hours). The other topics covered were also interesting; the new auditors had 53 hours of instruction on general

[18] *Jahresbericht 1906 des Generalverbandes ländlicher Genossenschaften Raiffeisenscher Organisation für Deutschland*, p.9.

banking matters, which suggests the movement's interest in expanding cooperative services and their members' ties to the larger banking system.

Many cooperative leaders were concerned that the regional organizations (both Centrals and auditing associations) not imply any liability across cooperatives. In the case of auditing associations, there was no such liability, at least at first: even if an auditing association failed to detect problems that later led to losses, the association bore no responsibility. The imperial court strengthened this principle with a ruling in 1912 (Cahill 1913, p.277). Another fear was a specific form of moral hazard. Auditors thought that some problems were beyond their detection, but well within the control of the supervision committee. The Raiffeisen group's report for 1908 makes this point with an account of an embezzlement in a cooperative in the Berlin area. The treasurer had stolen money by withdrawing money from the Central on the cooperative's behalf, and then presenting false receipts to the management committee. The supervision committee had discovered this problem, presumably because it was aware that the treasurer had been asked to withdraw the money. The conclusion drawn here is that the external auditor would have been fooled as well.[19]

Audits

There were two basic kinds of audits. One took place via the mail; the treasurer sent all his records to the auditing association, which checked them and sent them back. This method was cheaper than a site-audit, but several observers note that lack of direct personal contact made this approach less desirable than a personal visit. In the more common site audit the auditor came to the cooperative for one or two days. He checked all the cooperative's records, making sure that all arithmetic was correct, that all

[19] *Jahresbericht 1908 des Generalverbandes ländlicher Genossenschaften Raiffeisenscher Organisation für Deutschland*, pp13-14.

forms had been filled out correctly, and that legal documents (such as promissory notes) were in order. Many cooperative records contain corrections made by the auditor. He ordinarily met with the treasurer and the two committees to discuss his findings. Later he would send a formal report to the auditing association, and the cooperative had to submit a response to his report.

The government and the auditing associations stressed that these audits were not to confine themselves with checking sums or obvious accounting problems. Thus the audits were more comprehensive than modern audits; they compare to a combination of an inspection by a public auditor and a review by a management consultant. Over time the points of emphasis changed, but for most of the period concerned here auditors were directed to ask hard questions about some basic management issues. The supervision committee was always one concern. In 1897 the Prussian ministry for home affairs circulated a directive concerning special points they wanted the auditors to cover. One was "Whether, how often, and in what manner, the board of supervisors controls the committee of management in the conduct of its business, and whether, how often, and in what manner and to what extent (internal) audits were undertaken by the board of supervision (quoted in Cahill 1913, p.273).

Auditing associations stressed that these audits were rigorous and thorough, which of course is what they had to say to justify the expense. The time put into each audit is enough to support the claim that they were not pro-forma. Most auditing associations published summary tables that include the average number of days spend at each cooperative audited that year. The Raiffeisen federation's report for 1906 is fairly typical. In that year the average audit took 3.7 days. But this figure conceals a great deal of regional variation. The Nürnberg regional association spent an average of 1.7 days at each audit, while in Strassburg the auditors took 5.4 days on average. As the report notes, there are several factors underlying these differences. In some areas the auditors spent more time on travel to and from cooperatives. Some regions were still building their movement, which implies that auditors spent more time meeting with people interested in forming a cooperative. In some regions cooperatives were more intensively involved in marketing and sales, which implied a more time-consuming audit. Most reports also note that a cooperative that was audited every year was easier to audit each time.[20]

Only a few manuscript auditor's reports survive, but these share common features that may have been typical of others. Auditors often found simple arithmetic mistakes, and corrected them without comment. They noted errors in record-keeping, such as the common problem of discrepancies between the cooperative's membership lists and the list filed with the court at which the cooperative was registered. More serious problems were also common. Cooperatives sometimes violated their own rules by, for example, granting an unusually large loan without the required agreement of the supervision committee. Equally serious was failure to have the required meetings of the supervision committee, or a failure to keep records of a required meeting. Even these more serious problems did not elicit much comment from the auditor if dealt with promptly.

The auditor's report and the cooperative's response could be testy. Formally the auditor was someone hired by the cooperative to perform a legally-mandated audit. Informally he was sent by the regional association to criticize, potentially, respected local people. We lack precise age distributions for either managers or auditors, but in most cases the managers were considerably older than the auditors. Sometimes the auditor reports contain comments that are strictly speaking none of the association's business, such as the claim that the treasurer should hold regular office hours. The auditing associations and other cooperative leaders were sensitive to the fact that the external audits might be viewed as implicit criticisms of managers. Thus the auditors were often portrayed as "advisors," and the point of the audit less a check than an opportunity for a professional with wide cooperative experience to discuss

[20] *Jahresbericht 1906 des Generalverbandes ländlicher Genossenschaften Raiffeisenscher Organisation für Deutschland*, pp.6-7.

management problems. Quabeck's introduction to the discussion of audits in his cooperatives manual is typical of the turns of phrase used in these matters:

> If the management committee, supervision committee, and treasurer endeavor to the best of their ability to deal conscientiously with every aspect of their responsibilities, they can only make minor mistakes. But sometimes we have to take into account that the management committee, supervision committee, and treasurer are not experts, that in some cases they do not have business experience, and that in other cases this is only a part-time occupation. This is why many have viewed it as desirable to have an expert, independent advisor stand at the cooperative's side, and at regular intervals conduct a thorough accounting and management audit (Quabeck 1913. p.151)

Quabeck (1913, p.152) refers to the auditor as a "friend and advisor." This phrase comes up repeatedly in cooperative publications. The Raiffeisen federation refers to the auditor as "good advisor" who makes the unpaid positions of the managers easier.[21]

When the auditor did not like what he found, the language could be direct, even harsh. Often an auditor would note that a cooperative had taken no note of recommendations he made the previous year. This is a common theme in the auditor's reports for the Limbach (Schmelz) cooperative in the period 1901-1915. In an admittedly extreme case an auditor named Schwamborn addressed himself to severe problems in a fairly new credit cooperative in Miel (now Rheinbach, Prussian Rheinland). In 1906 this cooperative had only 24 members and had only one loan outstanding. In his report dated March 17, 1909, Schwamborn noted that the management committee had met only once in 1908, and the general membership not at all. Most deposits were in very large amounts (one for 30,000 Marks) and most of that

[21] See, for example, *Jahresbericht 1903 des Generalverbandes ländlicher Genossenschaften Raiffeisenscher Organisation für Deutschland*, p.4.

was deposited at the Central cooperative bank. As the auditor put it, "the cooperative does not fulfill any of its obligations." A letter from the Cologne auditing association (dated 18 May 1909) gave the cooperative four weeks to report back on how it will address these problems. The association noted that it was "regrettable" that the cooperative's managers were not doing the jobs they took on. In this case the harsh language had the desired effect, because a second audit (15 June 1909) produced a satisfactory result. Repeated audits of this sort were rare, but the Miel cooperative presented an especially dangerous situation. A cooperative with lax management and a lot of money in deposits was an inviting target for embezzlement.[22]

Several auditing associations published statistical summaries of results from their audits. These are difficult to compare across societies or even years, because they rely on general categories like "good" or "passable." But most associations use consistent categories to rate the performance of various management organs within a cooperative, and thus give a clear idea of what they thought were the weak points in the institutions they audited. In 1907 the Berlin auditing association of the Raiffeisen group reported results as "very good," "good," "passable," or "unsatisfactory." Treasurers rated well, with 57 percent called good or very good. About 40 percent of management committees rated good or very good. Only 35 percent of supervision committees were evaluated this positively (quoted in Cahill 1913, p.275). Similar reports for other years and other areas tell a similar story. Treasurers were considered very strong on average, while lax supervision committees were a constant source of worry. In some cases the only effective internal supervision came from a single individual: "It is a matter of difficulty, as the reports of many unions bear testimony, to secure in the local societies [cooperatives] the effective interest of the

[22] The auditor's reports and related material are held by the Rheinbach Raiffeisenbank. The Miel cooperative was folded into the Rheinbach cooperative at a later date.

boards of supervision, and the committees are sometimes inclined to leave all matters to the decision of their chairman" (Cahill 1913, p.276).

Some auditing associations took to publicizing their roles in detecting embezzlements, presumably as a way of advocating the need for cooperative audits. Starting in the early twentieth century, Raiffeisen annual reports include a description of the number and type of embezzlements their auditors detected. In 1906, for example, they found seven (out of 3301 cooperatives audited). The rhetoric here is important: by admitting that 1.8 per thousand cooperatives suffered an embezzlement that year, they are reporting a problem that is rare enough not to amount to an admission of their critics' position, but common enough to warrant the auditing fees. As they put it, "In seven cases the cooperative, because of the immediate action of the auditing association, suffered no or only small losses. If the embezzlement had been discovered later things might not have turned out so well."[23] In 1907 they only found four embezzlements in 3339 cooperatives audited, but the lesson is drawn more starkly: "If it were not for the auditing association, who knows how serious the damage would have been for the cooperatives affected."[24]

The law did not require that cooperatives actually comply with recommendations made by their auditor. Private auditors had no power to compel cooperatives to follow their recommendations at all. Auditing associations could, and did, in drastic circumstances, resort to expelling member cooperatives from their group. Auditing associations that were connected to a Central cooperative bank had a more subtle tool at their disposal: the Central ordinarily asked auditors for a recommendation on loans to local cooperatives, and here an auditing association could force a cooperative to bend to its wishes.

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[23] *Jahresbericht 1906 des Generalverbandes ländlicher Genossenschaften Raiffeisenscher Organisation für Deutschland*, p.8.

[24] *Jahresbericht 1907 des Generalverbandes ländlicher Genossenschaften Raiffeisenscher Organisation für Deutschland*, p.13.

Other roles of the auditing association

The auditing associations offered another type of assistance in the form of monthly publications, advice books, and printed forms. These aids are included in the archives of most of the study cooperatives, and given that they were not free (they were, in fact, a source of income for the auditing associations) the cooperatives must have found them of some use. The monthly magazines contained a variety of material, much of which was little more than propaganda for cooperatives. But they also contained concrete advice columns and frequent warnings about the dangers of lax management. Occasional, detailed articles suggest an effort to deal with related questions that arose in the course of audits. In 1882, for example, the Raiffeisen organ ran a long article explaining promissory notes and the obligations of co-signers.[25]

These manuals were aimed at the cooperative leadership, and provided legal, accounting, and managerial advice. In theory someone prepared to read the book through could establish and run a cooperative in conformity with the law without any further outside advice. On specific legal issues, such as how to write a promissory note, they were a cheap alternative to a lawyer. Some advice was practical and reflected experience with other cooperatives. For example, some of these books caution against frequent changes of interest rates, on the grounds that such changes create work for the treasurer.

Some aspects of these advice books speak to the kind of people the cooperatives could hire as treasurer and the difficulty of accounting without calculation devices. Every advice book consulted has detailed, step-by-step instructions on how to calculate interest payments. Part of these discussions are just specific applications of the rules of arithmetic, but much of them are efforts to explain the mysteries of percentages. Others contain tables that can shorten computations. Faust (1910, p.71), for example, has a table that helps the treasurer convert payments at various interest rates to simple division.[26] Another

[25] *Landwirtschaftliches Genossenschaftsblatt* 1882(4), pp.77-78.

[26] This is, it shows that X Marks at 2.25 percent implies an interest payment of X/160 Marks, etc.

handbook contains more elaborate versions of the same shortcuts, along with detailed tables by capital size and interest rate that obviate the need for any computation at all (Reichsverband der deutschen landwirtschaftlichen Genossenschaften 1904, pp.352-357).

The most useful printed help for the treasurer was probably the model record-books and forms available from auditing associations. Some of these are little more than a standard ledger with a cooperative logo on the cover. But others were created specifically to handle cooperative needs. A cooperative could buy pre-printed promissory notes, forms for quarterly reports to the supervision committee and annual reports to the auditor, and pre-printed constitutions (with blanks for local decisions such as the length of committee terms). Reliance on these forms enforced some discipline, as the form told the treasurer just what information was needed.

Auditing associations also ran courses to train the leaders of individual cooperatives. These programs appear to be a late development; the first mention of them comes from the late 1890s. The Raiffeisen federation claimed in 1914 that "next to auditing, the instruction of managers is the most important task of the auditing association" (p.60). In promoting these courses the association noted that most treasurers were either farmers or schoolteachers and so did not have much background in book-keeping and related matters. The yearbook gave some details on courses offered in that year. The longest was for treasurers, lasting 4-6 days and concentrating on book-keeping. One-day courses were also offered for members of the management or supervision committee. In that year over 300 people had attended the courses. The various regional organizations that made up the Haas group started them earlier. At the 1902 annual meeting of this group, the desirability of these courses was hotly debated. Some organizations took offense at the notion that their cooperatives were inferior because they did not attend such courses (Reichsverband 1902, pp.102-8).

Why the auditing association?

The 1889 law did not require cooperatives to belong to an auditing association; they could instead hire a private auditor. This raises an important issue about why cooperatives joined auditing associations. We know from scattered complaints that auditing associations were usually more expensive (in part because they were not content with the every-other-year audits required by law). We can also surmise, both from scattered evidence and from a problem discussed below, that the auditing association took a harder line than would most private auditors. Little is known about private auditors and how much they charged. Kluge (1991, p.256) quotes one source as saying that most non-association auditors were clerks of large banks, notaries, mayors, or managers. More generally, we have little information on the credit cooperatives that were "wild," that is, not a member of an auditing association. Most of the statistical information on cooperatives in general was published by auditing associations, so by definition we know less about the "wild" cooperatives than those that belonged to an association. Table 1 summarizes, for the year 1914, the information that is available from official sources and thus accounts (in theory) for all cooperatives. Even this information is not complete, as it was compiled by the Prussian statistical office, and some of the smaller German states did not provide the information the Prussians required to compile true all-German summaries. Nonetheless we can see some basic regularities in the table. The comparisons are most interesting if we compare the Raiffeisen and Haas cooperatives (which are overwhelmingly rural) to those that did not belong to an auditing association. The "wild" cooperatives are much larger than their counterparts in the two rural federations, with nearly twice as many members per cooperative in the unlimited liability group. The difference is even more pronounced in the limited-liability group, but that comparison is of less interest because few limited-liability cooperatives belonged to either the Raiffeisen or

Haas auditing associations.[27] We can also see that limited-liability cooperatives were more likely to dispense with an association's services; only 2 percent of unlimited-liability cooperatives were wild, but 13 percent of the limited-liability cooperatives fell into this category. An earlier version of the same report allows us to calculate ages of the cooperatives within each auditing association as of 1906. The simplest way to use this information is to consider the percentage of all member cooperatives that were formed after 1890, the date at which auditing associations acquired their semi-official status. Of the wild cooperatives, 77 percent of institutions accounting for 62 percent of their members had been formed aftere 1890. The corresponding figures for the Raiffeisen group are 89 percent of institutions and 82 percent of members, and for the Haas group, 87 percent of institutions with 81 percent of members.[28]

This admittedly inadequate information and repeated comments in the cooperatives press supports two generalizations. Most "wild" cooperatives were institutions that thought they did not need an auditing association. They were larger and were more likely to have limited liability than those that belonged to an auditing association. Older, more established cooperatives would have their own procedures in place and would have their own reputations. They had less need of an auditing association to reassure a nervous public. The liability differences are also instructive. In a limited-liability cooperative members were less concerned about external oversight because they had less at risk. A second type of wild cooperative is one that had been ejected from an auditing association for refusing to live up to the association's standards.

[27] Only 2 of some 4500 cooperatives in the Raiffeisen group and about 12 percent of the cooperatives in the Haas associations had limited liability.

[28] The figures for the Schulze-Delitzsch auditing associations are 27 percent of cooperatives with 12 percent of members. This comparison is misleading because the urban cooperative movement quickly achieved saturation, with relatively few institutions formed after 1880, but the extant institutions grew rapidly in size. Source is *Zeitschrift des Königlichen Preussischen statistischen Bureaus. Mitteilungen zur deutschen Genossenschaftsstatistik*, 1906. Extracted from pp.70-73*.

The two groups might not be mutually exclusive; a cooperative might decide to defy its auditing association in part because it judged itself able to go it alone.[29]

The auditing associations and other cooperative groups stressed several advantages of their auditors over the private auditors. Auditors hired by auditing associations dealt with nothing but cooperatives. They were experts in a way a notary might not be. This is an important point. However simple the credit cooperatives were, it is unlikely that most auditors with another background would in their other line of work see the full range of issues that confronted these tiny banks. The association's auditors also had a stake in the future of the cooperative movement. Quabeck (1913, p.152) contrasts the auditing association to another auditor who might treat the affair as a bureaucratic necessity. The implicit point here is that private auditors had less to lose if the institutions they audited did poorly. The failure of a credit cooperative, on the other hand, could damage the group and limit the advancement opportunities for an auditor employed by that group.

The auditing associations were also aware that policemen themselves require policemen. In the period prior to World War I all of the cooperative groups were experimenting with mechanisms to provide oversight for their own auditors, including re-audits and "super-auditors" responsible to checking the work of a group of primary auditors. The association publications do not say what kind of problems they encountered, but one can imagine an auditor conspiring with a treasurer to conceal an embezzlement. No such incident appears in any material I have seen. A more likely problem would probably have been an inattentive auditor.

[29] Beham (1940, pp.19-20) claims that wild cooperatives had much higher bankruptcy rates than others. I do not know the empirical basis for his assertion. He suggests that part of this higher bankruptcy rate could be a low quality of non-cooperative auditors, but that the difference could reflect in part the character of cooperatives that had left an auditing association.

To fully appreciate the potential advantages of the association auditor we need to step back and consider the larger problem facing credit cooperatives. They were the subject of considerable criticism. Leaders of other banking institutions resented them and thought their entire operations unsound. The public (that is, potential members and depositors) were aware of this criticism. Perhaps more important, the quarrels within the movement created at least in some quarters a strong sense that all cooperatives of a given type (Raiffeisen, Haas, etc.) shared characteristics in common, whether strengths or weaknesses. These shared perceptions imply a reputational externality within the cooperative movement. When cooperative A decided to make a loan it considered how that loan affected the chance that it would have trouble or even fail. But the management committee of cooperative A had no reason to take into account the damage that bad news from their cooperative could create for other cooperatives. One way to view the auditing association is that it helped to internalize that externality. This is one reason for complaints that the association was too tough: the association was tougher because in its recommendations it took into account the costs of damage to the entire group that can result from bad news in one cooperative. The auditors accepted a lower level of risk of failure in a cooperative because any publicized failure would inflict damage on other cooperatives. This argument implies a more subtle role of the association: there is a sense in which each cooperative wanted other *cooperatives* to belong and be subject to the association's discipline, but not be subject to the discipline itself.

Another line of argument for auditing associations turns on their ability to take care of problems quietly and internally. This feature of auditing practice reflects these reputation problems. Above we noted the case of embezzlement in the Maulburg cooperative in 1899. We cannot say how well-publicized this event was, but we know that the auditor worked out an agreement within the cooperative whereby the late embezzler's widow repaid the cooperative for what he took. The cooperative did not fail, and there was no public confrontation required for the cooperative to get its money back. A stock-in-trade of many cooperative publications was lurid stories about embezzlements and other problems in cooperatives of another group. The stories usually insinuate that the problems result from flaws common to all cooperatives of that type.[30] While it is possible that a private auditor would have done the same, he would not have the same incentive to solve the problem quietly. One could argue, in fact, that a private auditor would want the event publicized to trumpet his own competence and garner additional business from other clients.

We can infer a bit more about the private auditors from debates about compulsory membership in auditing associations. The 1889 had not entirely satisfied the cooperative movement because it left open mechanisms for audit that were outside the control of any part of the movement. Discussion of various alternative proposals reveals some interesting nuances on the question. Crüger, who at that time headed the Schulze-Delitzsch cooperative federation, argued in 1913 against compulsory membership in auditing associations. He noted that most of the auditing associations in his group insisted on an audit before a cooperative could join, a process that led some to be rejected. Compulsory membership (which implies that all auditing associations would be compelled to accept some undesirable cooperatives as members) would, he argued, reduce the quality of the auditing associations and the audits themselves. In a move typical of the lively debate within the Schulze-Delitzsch group, its main organ, the *Blätter für Genossenschaftswesen*, in 1914 published a dissenting view by a Mr. Petersen. Petersen argued (not very clearly) that is was important for all cooperatives to be audited by some association, and he thought that the element of choice present in the ability to switch from one auditing association to another was enough to preserve the only good features of being able to go to a private auditor. He noted that one reason some cooperatives preferred a wild status was that the supervision committee feared excessive interference

[30] See Guinnane (1997) for the details of several such stories.

from the auditor, implying that non-cooperative auditors took a more hands-off approach. He also alludes to a frequent complaint about the auditing associations, which is that the combination of membership fees and auditing fees cost the cooperative more than a private auditor. In the end Petersen's proposal is that all cooperatives be required to belong to an auditing association, but that they be allowed to chose their association and switch from one to the other. He does not address Crüger's concern (that an association be forced to accept a weak cooperative as a member).[31] By forcing all cooperatives to belong to an auditing association the movement as a whole could generate greater discipline.

Given the actual experience of the credit cooperatives, it is not possible to test for the effectiveness of the auditing associations. As noted, we have some detail published by auditing associations, but know very little about wild cooperatives, and so cannot form meaningful comparisons. But the associations' effects were in all likelihood far-reaching and subtle. We have stressed the importance of oversight and discipline, but there are other effects. Kluge (1991, pp. 172-173) argues that effective external supervision made the liability form of cooperatives less important, as depositors grew to rely more and more on the auditors for assurance that the cooperative was safe.[32] The additional security of the auditing associations reduced the pressure on local cooperatives to perform perfectly, making it easier for them to use new and untrained managers. We cannot attach any quantitative estimate to this impact, but surely one of the movement's contributions to German society (as Schulze-Delitzsch hoped) was the training of a cadre of new leaders.

[31] Crüger's comments are in *Blätter für Genossenschaftswesen* 1913, p.808. Petersen's dissenting article is in *Blätter für Genossenschaftswesen* 1914, pp.170-172.

[32] There was no system of deposit insurance for banks in our period.

4. Summary and Conclusions

Rural credit cooperatives in nineteenth century were run, by necessity and intent, by people with little formal business experience and almost no book-keeping experience. Reliance on these managers opened the cooperatives up to problems of fraud and the less dire consequences of faulty book-keeping. The institutions dealt with these potential problems with a combination of local and regional responses that were characteristic of the system overall. First, they paid their most important manager, the treasurer. Second, they tended not to replace members of the management committee at elections. There are several possible interpretations of this behavior, but the low turnover of managers undeniably means that the cooperative built up, over time, a cadre of experienced people in these positions. Finally, the cooperative system developed regional auditing associations that help to check and train local managers. Some of the auditor's responsibility was simple auditing, but much took a more constructive role, providing the local cooperatives with helpful materials and eventually setting up formal training courses for cooperative managers. The solution to the problems posed by local managers is typical of the system overall: the cooperatives drew from the strength of local knowledge and social ties, and used regional organizations to offset some of the limitations of local managers.

The cooperatives faced a more severe problem of an issue that faces the managers of any enterprise. The enterprise must not only be well-run, its managers must be able to communicate to others — stockholders in the case of firms, members in the case of cooperatives, depositors in the case of banks or credit cooperatives — that it is in fact well-run. Carruthers and Espeland (1991) call attention to the rhetorical functions of accounting and auditing of business enterprises. Accounting conventions not only create and organize information for the firm's managers, they are part of an effort to legitimize the enterprise to outsiders. In their early years credit cooperatives faced serious problems of legitimacy and needed a powerful way of signaling their strength to outsiders. In their auditing associations they found a way to improve their management and demonstrate their quality to others.

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Table 1: Summary of the characteristics of credit cooperatives in the several auditing groups, 1914

Distribution of cooperatives across auditing associations:

	Membership in auditing associations, unlimited liability cooperatives		Membership in auditing associations, limited liability cooperatives			Members per cooperative	
	Percents:		Percents:			Means:	
	Coops	Members	Coops	Members	Liability/member	Unlimited liability	Limited liability
Schulze-Delitzsch	3.23	14.51	16.53	40.91	909	570	743
Haas	49.85	37.31	49.31	11.63	1020	95	71
Raiffeisen	26.72	23.17	0.08	0.03	1028	110	115
Hauptverband	0.27	1.05	16.49	12.78	738	494	233
Other association	17.78	20.32	4.41	14.62	733	145	996
“Wild”	2.14	3.64	13.18	20.04	743	215	456

Source: *Zeitschrift des Königlichen Preussischen statistischen Bureaus. Mitteilungen zur deutschen Genossenschaftsstatistik*, 1918. Extracted from Table IIIb, p.66*.

Notes: Table excludes 45 credit cooperatives with contributory liability. There were 16,697 credit cooperatives with unlimited liability and 2,450 cooperatives with limited liability included in this survey.