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Managing risk in agrarian society
The introduction of live stock insurances in Sweden 1847-1915

Work in progress!!!

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Introduction

In agricultural production there are and always have been risks due to non avoidable factors related to e.g. weather and animal plagues. In traditional societies this has been managed by informal institutions regulating production and consumption towards a risk minimizing behaviour. Through choices of products, localization, diversification and methods of production combined also with social institutions in the local society, the individual farmer could reduce some of the risks. Nowadays a system of formal insurances protects the farmers in the welfare states well enough to ensure the wellbeing of the farmer and family and often also the forth living of the business. The topic of this paper is to study the initial process of formalizing risk managing institutions in Swedish agrarian sector during the nineteenth century as part of financial development and commercialisation of agriculture. I do so by studying the introduction and development of a live stock insurance market in the Swedish context, with examples taken from the county of Värmland during the years 1847-1915.

The term risk was first discussed at length in Frank H. Knight's *Risk, uncertainty and profit* (1921) and has since had huge influence on insurance terminology. What distinguish risk from uncertainty according to Knight is the possibility to calculate and estimate both the potential for a loss to occur and the extent of the loss.

Uncertainty must be taken in a sense radically distinct from the familiar notion of Risk, from which it has never been properly separated... It will appear that a measurable uncertainty, or 'risk' proper, as we shall use the term, is so far different from an unmeasurable one that it is not in effect an uncertainty at all. We shall accordingly restrict the term 'uncertainty' to cases of the non-quantitative type.¹

The history of the early insurance business is accordingly a process where the individual went from managing uncertainty with the help of socially embedded informal institutions to a formalized institution which spread the risk and more or less eliminated uncertainty and replaced it with solid, calculable costs.² It was also a process where business relations based on personal networks and knowledge of the individual and his reputation were transformed to anonymous relations on a market full of asymmetric information problems.³

¹ Knight (1921), p. 197.

² Lönnborg (1999), p. 12, Barnoff (2005), p. 564.

³ Pearson (2002a), p. 7.

The process towards an insurance system which gives extensive financial protection was a long but central part in moulding modern society. The traditional agriculture depended heavily on the institution of scattered farm system. Earlier research agree that the institution had a function within a system of uncertainty management, but the range of this is heavily debated.

McCloskey argues that a scattered farm system lowered the variance of harvests for the individual farmer. That led to a lower mean harvest outcome over time which is to be considered as a risk premium paid by the farmer.⁴ This has been questioned several times over the years and international research about agricultural uncertainty and risk management has been abundant.⁵ In Sweden this is not the case. The limited research done on risk management is mostly about enclosure and its consequences in relation to the scattered farm system. There has also been a discussion about the impact enclosure might have had on social relations within the community and the changing role of the Parish council.⁶ Another point of departure is to consider the so called parish storehouses an important instrument compensating for variance of harvests. Berg (2007) argues convincingly that was not the case, even though they were created out of that purpose.⁷

Since risk management in relation to agriculture has not been a big issue, the process of modernisation and progress towards market solutions has not been subject to any systematic research either. What has been written about live stock insurances is limited to small passages in overviews or a couple of sentence as context when studying something else.⁸ The main source is one chapter about animal insurances in an overview of the history of Swedish insurance market by Bengt Bergander (1967). It is a thorough empirical work, describing the aggregate history of the establishing process of live stock insurance primarily based on available, but not complete, statistics.⁹ The picture Bergander gives of the early history of live stock insurances is that of a problematic and slow progress. I've continued his work by asking questions about why the progress was slow, why some areas did start early, becoming early adaptors of innovation, but most didn't and whether or not the early adaptors also functioned as agents of diffusion.

⁴ See McCloskey (1972, 1975a, b, 1991).

⁵ E.g. Fenoaltea (1976, 1977), Kimball (1988), Beekar and Reed (2003), Richardson (2005).

⁶ E.g. Gadd (1983), p. 45, 202, Granér (2002),.

⁷ Berg (2007), p. 187.

⁸ E.g. Bergander (1967), Lönnborg (1999). There are also several books written by the companies themselves celebrating anniversaries. They are usually very short in regard to their early history and there is a need to revise some of the statements made. Some examples are: Försäkringsbolaget för smittsamma sjukdomar: Ömsesidigt (1951) Scandinavian live stock insurance company (1950), Agria (1990).

⁹ Bergander (1967).

The early history of live stock insurances

Live stock insurance was introduced to Swedish animal owners in the late 1840's. It became a political issue with which the Estates tried to level the consequences of the live stock crises due to epidemic tuberculoses which were striking large parts of southern Sweden several times from 1847 onwards. Indirect, the state was partly responsible for the outbreak, since this sickness came with imported breeding animals financed by the government. This import was one part of the political project of improving productivity within Swedish agriculture. The animals were stationed in regional breeding centres, which had the aim to function as role models for the local farmers and by breeding spread high yielding live stock within the region, respectively.¹⁰ The project was a failure from the start. Several of the imported races were not fit for Swedish conditions and they brought with them severe diseases. Worst was the tuberculoses. It was very contagious hitting both animals and humans. Once the disease was confirmed, the only way out was to slaughter the whole stock to minimize the risk of spread. The history of the initial breeding centres was short, ranging from 1847 to 1868 when the last group of animals was slaughtered due to the tuberculoses.¹¹ The economic consequences were severe for individual farmers in the affected areas and it immediately became a political issue.

The government decided almost from the start to give some sort of economic relief to the farmers whose animals were infected, and they decided to do it with the help of live stock insurance associations. They got the idea from some failed attempts in southern Sweden, probably influenced by the development in Denmark. The idea of live stock insurances was by no means new in Europe. But the introduction varied greatly from country to country.

Table 1: Introduction year for live stock insurance companies in some European countries.

Sweden	Denmark	Great Britain	Areas now being part of Germany	Austria	France
1849, 1872	1811*	1844	1720	1840	1805

*Thomsen (1963) är vague, the first organisation which he names was established in 1811 and was mainly insuring horses.

Source: Pearson (1997), s. 239, Thomsen (1963), s. 395, Bergander (1969)

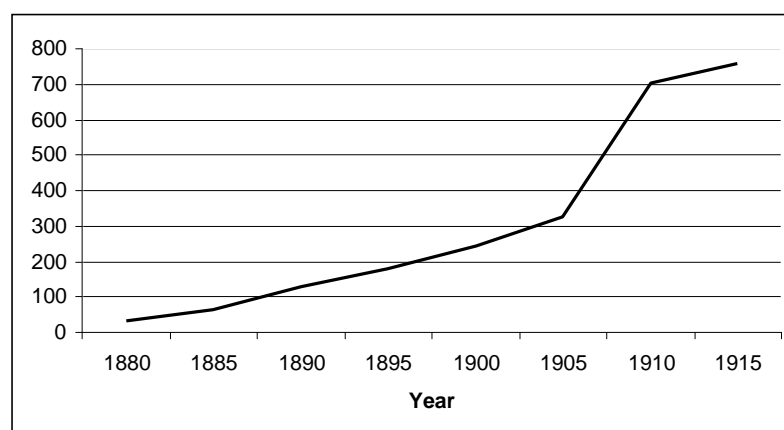
¹⁰ Hallander (1989), p. 123f.

¹¹ Juhlin Dannfelt (1913), s. 118ff, Hallander (1989), p. 124ff.

In line with the ideology of associations and the thought of help to self-help¹² this was not only a way to administer economic aid but also a way of making the farmers controlling the tuberculoses themselves. The arguments was that by using a mutual liability association, where the members would share the risk and pay one part of the loss, while the state would give some aid, the incentives to hinder the spread of tuberculoses would increase. Otherwise, they thought, people would get careless once they got their money. This way, in an insurance association, all members would not only do their best to be precautious, but also make sure that the others within the organisation would do the same. The form of insurance organisation the Government prescribed three times, 1847, 1851 and 1856, was a mutual liability organisation within the boundary of a county. It was to insure against tuberculoses only, and would be dissolved once the epidemic was over. All county governors were given the task to establish one such association within their county. They all failed more or less, no associations with some durability dated back to early 1850's are known of. And the first decades after the introduction, despite three calls from the government, the diffusion was very slow. Both representatives of the Estates and regional elites blamed the irrational backward conservatism and ignorance amongst the farmers.¹³

The curve in figure 1 (below) should, if reliable statistics were to be found, be prolonged with a start in 1849 when the first organisations were established. That would enhance the already clear pattern of slow diffusion.

Figur 1: *Number of live stock insurance companies in Sweden 1880-1915.*



Source: Bergander (1967), p. 261.

¹² See e.g. Lilja (2004) and Petersson (2001) about the establishment of savings banks and the relation to social political ambitions. See Jansson (1985) about the ideology of associations.

¹³ E.g. RT, Minutes of the Peasant Estate, 1850-1851, vol. 5, p. 129-154, Minutes of the Clergy, 1850-1851, vol. 7, p.490. Bergander (1967), p. 246ff, VLHS, Yearbook 1849, p. 86, 1857, p. 55, A1:4, Minutes 19/7-1849, 30/11-1849.

And as the figure shows, when the take off was a fact, it was not big organisations, but plenty of very small ones that came to dominate the scene. What lay behind the initial rejection of insurances amongst the farmers and the later development of a live stock insurance market consisting of a multitude of small mutuals? Plain backwardness isn't a good enough answer.¹⁴

When studying the development of financial systems in transitional economies the matter of legitimacy plays a crucial role. When introducing a new organisation, product, service or when a new market is moulded, acceptance amongst the surrounding society is necessary for success. Legitimacy is defined as “ a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, beliefs and definitions.”¹⁵ Theory about legitimacy might help shed some light over the slow process of making live stock insurances a part of the Swedish insurance market and a part of agricultural riskmanagement at large.

Three different types of legitimacy are usually identifiable.¹⁶ The regulative side of legitimacy is focusing on the legislation and an organisation's obedience to the legislation within the society in which it is active. In this case the initiative came as a statute from the King which means that the live stock insurance had the formal legal blessing, but also some limitations in regard to the form of organisation that was to be created. On the other hand the whole insurance market was in a process of development at this point of time, expanding and changing. The market suffered from a lack of regulations and supervision which had negative consequences for the legitimacy of the sector at large, being a trust-sensitive business.¹⁷ Insurance companies were active in the process of making the government legislate and supervise, and in 1875 they formed an interest group which also tried to compensate the lack of legislation and trust by introducing standardised rules and codes of conduct.¹⁸ Representatives from the live stock insurance sector came to participate in that organisation, which will be discussed later in this text.

¹⁴ From Eli F. Heckscher until the 1960's Swedish economic research pretty much adopted the contemporary nobility's point of view explaining progress or lack of progress in agricultural production. I.e the nobility itself was the progressive force which had to handle a conservative peasantry not keen on change. For a short historiography see Winberg (1998).

¹⁵ Suchman (1995), p. 574.

¹⁶ Scott (1991), Gebert Persson (2006), p. 56ff.

¹⁷ Hägg (1998), p. 82.

¹⁸ Larsson och Ögren (2007), p 6f, 11ff.

A second important type of legitimacy is about cognitive elements – the acceptance of a phenomenon by the society. Gebert Person defines this cognitive legitimacy as being grounded in “...the understanding of the firm’s behaviour, whereby the firm’s activities will become meaningful, predictable and therefore also trustworthy.”¹⁹ The third legitmating aspect is about norms and values within the society, the unwritten regulation of how to behave and act and how the organisation and its behaviour responds to this.

When analyzing the discussions held in the Parish Councils²⁰ which were the local authorities to handle the hierarchical initiative of establishing live stock insurance organisations, the pattern is clear. There existed no trust, no legitimacy and no perception of rationality with this kind of organisation. First of all, the issue was new to all the parishes. Live stock insurances had, as it seems, never been discussed before. Instead there existed an informal, widespread risk managing system where a parish member could apply for economic relief from the Parish Council when loosing a cow.²¹ The arguments against participating in a county based organisation, or in any live stock insurance organisation at all were basically about the unfavourable scope and scale of the suggested organisation and the high transaction costs due to the problems of moral hazard. Neither of the councils expressed any anxiety whatsoever for the tuberculoses, which was instead perceived a risk for other, not identified parishes, but not for “them”. Hence the interest in sharing risk with the whole county was minimal. Several of the parishes examined was in fact exposed to the tuberculoses since animals were bought by parish members and transported from areas infected by the disease, as well as imported from Great Britain.²² But this was not discussed, instead the geographical scale was seen as a huge obstacle, as a way for the nobility and Industrial communities in other parishes to make the farmers all over Värmland share their risk.

There were several tries from the nobility, e.g. the members of the Economic society, officials from the Iron Works, landlords etc to influence their Parish council, respectively, but in vain. Their personal reputation was not enough to overcome distrust and legitimate a new kind of

¹⁹ Geber Persson (2006), p. 61.

²⁰ I have analyzed the minutes of 10 Parish councils 1847, 1849-1851 and 1856-1857 which were the years when hierarchical initiatives were taken. The parishes were chosen to represent the three main areas in the region of Värmland; agricultural, forest and iron ore districts. There are great similarities in the discussions, the main discrepancy is the extent of the discussions in the minutes.

²¹ To have a chance of a small amount of money you typically had to loose your only cow, have small children, be extremely poor and have a spotless reputation. And the parish had to have some spare money. The extent to which the different parishes used this varies. Most regularly it was used in Gillberga, Ölme and Våse, which are agricultural areas, while it was rather random in the iron ore district. A theory is that the Iron works acted instead of the parish councils regarding their subordinates.

²² E.g. Gillberga. RT, Femårsberättelse, 1843-1847, 1856-1860, VLHS, A1:4, minutes 10/10-1850.

organisation taking over the role of the Parish Council. And by that replacing social embedded institutions based on personal relations and knowledge with impersonal contracts. While early Savings Banks could extract legitimacy from board members with strong local connections and good reputation²³, the proponents of insurances were not able to fulfil such a legitimizing role. But they had on the other hand maybe a more difficult task since the risk was different, the idea was new and they needed to convince a broad segment of the community. Also, the proponents were also viewed as acting in self interest which did not further legitimacy. Another obstacle was the limited scope of the insurance suggested. Most members of the Parish Councils found it uninteresting to commit to an insurance not covering the sicknesses and accidents their cows actually died of – no matter the reputation of the proponent. As stated in one of the Parish councils as an argument for not participating in any county company:

...the assembly answered unanimous that she can not participate, since this company only will give compensation for the losses made due to the lung disease, which is more distant from this community, and by the voluntary slaughtering of cattle where it is ravaging it is probably inhibited but does not give compensation for anthrax, a plague as ravaging as the latter, and according to the newspapers already making it's way on Wermlands näs.²⁴

Even though the initiatives failed completely, it led to the fact that the insurance issue was raised and processed on a local level. In some of the parishes it actually resulted in the establishment of modified organisations at the end of the 1850's – 1860's.

Iron Works and insurances

During the 1860's several of the Iron works organized live stock insurance organisations for their staff and farmers. Bergander mentions four such organisations in his overview, the earliest one established in 1861. They played according to Bergander only a marginal role for the progress since they were few and short lived even though they were the first attempts. Within a limited area in Värmland four other such organisations has been identified²⁵ and three of them was active for 30 years or longer. So if they are to be dismissed as uninteresting it has to be on other grounds than their numbers or short lifespan. There is a possibility they functioned as early adaptors of innovation and had positive impact on the spread of the innovation within their region.

²³ E.g. Petersson (2001), p. 93, Larsson and Ögren (2006), p. 8.

²⁴ GK, KI vol. 6, Parish council minutes, 2/9-1849.

²⁵ Storfors Iron works, Kungsgården, Bjurbäcks Iron works and Uddeholms Iron works are the four, but I haven't done a full research of all the Iron works in the county so it's a high possibility there are more.

The Iron works in the Swedish Iron ore district often dominated the whole community and parish within which they were situated, creating rural industrial communities. The companies were usually the major landowners of their regions, and the agriculture was an integrated part in their business. They dominated the surrounding society in every way. A special culture developed within these rural communities characterized by strict hierarchy and patriarchal and personal relations.²⁶

One of the early insurance organisations was established within the boundaries of Storfors Iron works. It was for the people living in the industrial community, either as employees or on company land, only. But for them, membership in the mutual liability insurance company was compulsory.²⁷ It insured both horses and live stock using a primitive taxation model where a cow functioned as a unit. A horse cost 3 cow units to insure, an ox 2 units. No insurance value was used and no valuation of the animals were made unless they were subject for insurance payment. The level of the unit price was decided at the end of the insurance year based on the costs and payments during that year. No capital was collected. The insurance premium was to cover the costs each year and no capital was needed.²⁸

In theory the system was very vulnerable since the costs due to numbers and levels of insurance compensation varied substantially from year to year. Since no capital should be collected and the majority of members were poor workers with one cow (and as it seems not always that fond of the business of insurance) the organisation could not collect insurance premiums to cover the costs some years. But since the insurance business was incorporated in the Iron works book-keeping, the deficit was handled as any other account of the company. In other words, the insurance company got interest free loans when needed, and paid back in years with low expenses. Another advantage was the absence of administrative costs since the books were handled by the staff at the Iron works office. The initial problems when introducing a new insurance as well as the problems build in the model used could thereby be overcome.

²⁶ Lundqvist (2001), part II, . Eriksson (1998), 44ff, Larsson (1986).

²⁷ The compulsory membership was formalized first in 1898, probably because increased competition, but was a reality from the start, I have investigated the situation in 1863. KK, A1:20, Husförhörslängder, 1861-1865, SB, G1aa:51, Kapitalbok, 1863, G2a:100, Avräkningsbok, 1863.

²⁸ SR, Karton 102, mapp 3, F1:102, mapp 4.

Table 2: Insurance premiums, payment levels and number of members 1861-1880, 5 year average.

	Insurance premiums	Insurance payments	Insurance premium/cow unit	Number of members
1861-1865	563,96	553,91	0,53	182
1866-1870	478,57	536,08	0,48	214
1871-1875	916,68	1110,63	0,76	227
1876-1880	1390,42	1181,03	1,02	234

Source : SB, GIaa: 49-68, Kapitalböcker, 1861-1880

Another great build in problem was the fact that the cow owners in fact came to subsidised the insurances of horses until 1890 . Since horses both had higher value and were more fragile the economic standing of the company was totally dependent on their status. This was also enhanced due to the fixed premium ratio, which favoured the horse owners. The horses played a crucial role in the production process of the Iron works which leads to the assumption that it could have been a conscious strategy from the management and an important aspect of the interest in live stock insurances

The only cost besides insurance compensations was the expenses of the appointed inspectors in the 5-8 districts which the company consisted of. They were chosen amongst and by the members to control the rightfulness of claims and valuate injured or dead animals. This was a central aspect since the question of fraud was always important. The appointed men, all of good reputation and with great knowledge of their local surroundings, had to establish the existence of the animal reported, control the numbers of animals owned by the insurance taker – if he had more cows or horses than he had insured he lost all rights to compensation. They were also to decide whether the care of the animal had been good enough, and finally if everything was satisfactory, valuate the loss of the insurance taker. The moral hazard problems were thereby managed through personal reputation, relations and knowledge.²⁹

It is probably not a coincidence that the first steps towards a market related risk management were taken within the boundaries of the rural industrial communities where the power and the legitimacy of the company could pave the way for introducing the innovation. The insurance organisation was very similar in form as other social constructs within the companies. Like the poor relief or fire insurance. The insurance was new but the organisational form was not. And

²⁹ SR, F1:104, vol. 4.

even though the insurance clearly disfavoured the cattle owner the protests were not serious enough to threaten the organisation.

The special mutual relations existing between employers and employees in industrial rural communities, consisting of absolute obedience on the one hand and a social responsibility for the wellbeing of the people on the other³⁰ were factors influencing the possibility to establish insurance organisations. The close social control which was also a sign mark for these environments made information channels abundant and supported trust, which both are factors promoting financial relations.³¹ Many Iron works also functioned as local banks in relation to its workers and farmers³² already having established financial relations with and among it's people. The impact of the Iron works insurance organisations on the market as a whole is hard to estimate. Looking at the diffusion of innovation geographically, there are patterns indicating that they might have functioned as early adaptors of innovation, good examples, since many of the early parish organisations in the county of Värmland also originates from the Iron ore district.

The spread of life stock insurance

A valuation of the early insurance organisation is hazardous. As the example of Storfors shows, they were often primitive and often not separable from the company within which it existed. During the first 20 years no progress or modernisation was made within the insurance organisation, the economy was fluctuating heavily with no possibility to survive on its own. Other early examples else where like Östergötlands county live stock insurance company or the insurance company of Gotland county, both established in 1877, also had huge economic problems the first years. This was due partly because of low interest of potential policy holders, which led to a less effective spread of risk and higher premiums. The Gotland company had roughly the same numbers of policy holders as had Storfors in late 1870's, but no financially strong Iron works to back them up. Administrative costs were high and they had to loan initially. This led to increased levels of taxation of the members which in turn led to fluctuations in the number of policy holders.³³ The story of the insurance company in Östergötland is similar. During the first 20 years, the economy of the company was disastrous. Every year, the forth living of the company was discussed, and a decision to terminate the cattle insurance and focus

³⁰ E.g. Nyberg (2003), p141ff, Eriksson (1998), p. 44ff, Lundqvist (2001), part II.

³¹ E.g. Ferrary (2003).

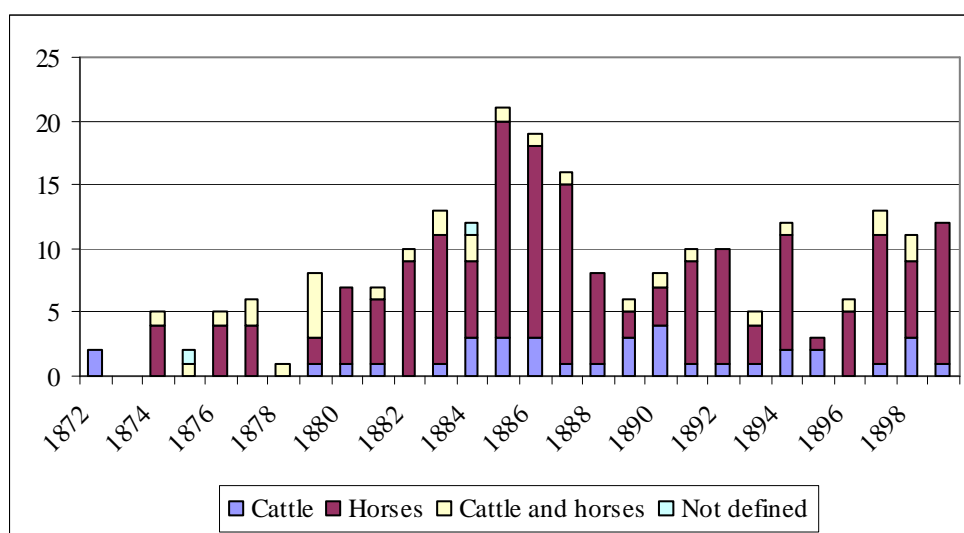
³² Lilja (2004), p. 45.

³³ KB, OT, Bolag, Försäkringar, Årsberättelser Gotlands kreatursförsäkringsbolag, 1877-1879.

on horses alone was made but not implemented in 1892-1894.³⁴ Both companies changed their regulations several times during the first decades trying to come to an end with the problems. The companies themselves explained the bad economy partly by backward, unfounded distrust within large segments of the population, as well as with the high premiums.³⁵

It is well reckoned that introducing a financial innovation such as a new insurance, is connected with economic risks, and Pearson explains this with a “long and flat learning curve for underwriters”³⁶ which also led to the fact that existing companies were reluctant to introduce insurance innovations.³⁷ In the Swedish case no existing insurance company diversified their product range with live stock insurances, and the early organisations struggled with economic difficulties, learning and improving if not going out of business.

Figure 2: Establishing year of live stock insurance companies in Sweden active in the year 1900.



Source: Försäkringsväsendet i riket år 1900, Kongl. Civildepartementet, meddelanden no 40, table 14, p. 90-109.

In the year of 1900, according to official statistics 244 live stock insurance companies were active. Most of them insured horses, which seems to have been more profitable and connected with lesser risk as well as the larger interest within the segment of horse owners. Or, if changing the view, the idea of insure a horse was more appealing to the farmers. The horse was not only a symbol of status but also economically extremely important, as a way for the household to earn

³⁴ Smith (1952), p. 38.

³⁵ Smith (1952), p. 29, KB, OT, Bolag, Försäkringar, Årsberättelser Gotlands kreatursförsäkringsbolag, 1877-1879

³⁶ Pearson (1997), p. 548.

³⁷ Pearson (1997), p. 241.

cash by transportation. In counties where wood and iron ore industry was major industries, the horse insurances were more dominating than in agricultural districts.

The national company, Skandinaviska kreatursförsäkringsbolaget, established in 1890, was at the turn of the century slowly coming to dominate the business at least in relation to actors outside the livestock insurance sector. Still, a vast majority of the policy holders were members of a mutual liability organisation in their local community. The numbers of small, parish organisations increased dramatically in the first decades of the 20th century (see figure1).

In the national debate, the Economic societies, the interest group for insurers in the organisation Försäkringsföreningen and representatives from Skandinaviska kreatursförsäkringsbolaget argued that the increase of small mutuals was a huge problem for the legitimacy of the branch. Of course they were all talking in own favour, since they had their interests in the larger companies. But they were also concerned. Even though the number of organisations increased, still in 1915, only 15% of the cattle were insured which was considered way to low. The small organisations were according to e.g. Claes Virgin, managing director of Skandinaviska and the leading proponent and authority of live stock insurances, a threat against the trustworthiness of the insurance sector at large, and a giant problem for the live stock insurance market. They were hindering the development. In a published lecture held at the Royal Academy of Agriculture in 1898 Virgin stated that the parish mutuals were unprofessional, expensive and guilty of spreading diseases.³⁸

Claes Virgin was committed to the processes of making live stock insurances an integrated part in the financial system as well as of the risk management of live stock owners. He applied and became a member of Försäkringsföreningen in 1890, and soon was elected into the board. He was not a very active board member, but used his spot as a way to promote the live stock insurance branch as a part of the insurance sector at large. He held a lecture about live stock insurances at the annual meeting in 1896, and had one of the specialists in statistics and actuarial techniques do research on his company's archives in 1910. The result from this research, focusing on horse insurances only, was both published and presented to the members of Försäkringsföreningen.³⁹ Much more was not accomplished by Virgin in relation to the insurers society, but the role as a board member was used in relation to other important actors within the agricultural sector, as the Royal Agricultural Academy, the Economic Societies and other live

³⁸ Virgin (1898).

³⁹ CfN, Försäkringsföreningens arkiv, Minutes, vol.4-7.

stock insurance organisation. He became the big authority of live stock insurances in Sweden for decades, and his analysis came to be the official history of the business. And one of his major missions was to stop the parish companies.

The accusations from Virgin were partly true in that the parish organisations were unprofessional, using laymen as officials, not having any actuarial knowledge or using actuarial methods. The regulations of the organisations were often changed; many of them modified the regulations more or less every year in the beginning. Slowly there developed standardized formulations and structures, and in the end of the 1890's a more professional form had developed which continued to transform and institutionalize. The changes made was simple and can seem as obvious solutions, but they were important and became more and more frequent, like separate insurance for cattle and horses, the use of insurance value and premium taxation once a year. The systematic use of vets was rare, which was one of Claes Virgins and the Economic Societies major objections, and that continued to be a part of the strategy of the parish mutuals well into the 20th century.⁴⁰ The overall result of the parishes' organisational form was a rather cheap insurance compared to the larger companies due to the more or less voluntary work done by amateur members. Whether it also led to hazards in respect of neglected disease control because of the lack of professional vets is possible, but not an issue in the official documents from the County government.

Looking at the parish regulations, it is clear that their main objectives was keeping the expenses down and managing moral hazard by using the knowledge created by personal relations and social control and stay clear of collecting reserve funds. The latter phenomenon was slowly changing in the end of 19th century when an increasing number of the small mutuals started to collect funds. In theory the lack of funds is a destabilizing factor but when comes to the survival of these organisations it doesn't seem to have been a problem. In 1891 the number of organisations lacking a fund was 120, that is 70 % of the live stock companies. Ten years later, all but 12 were still doing business.⁴¹

From the turn of the century two parallel processes influenced the live stock insurance market. On the one hand a rapid increase of numbers of small parish mutuals, and on the other a fusion

⁴⁰ Based on a database, consisting of the regulations from all live stock insurance companies established 1865-1900 (except the years: 1888-1890, 1896-1898 which will be included later which might slightly change the results!). VK, Utslags och resolutionsakter, D IV:a vol 1-138, 144-153, 160-163.

⁴¹ Försäkringsväsendet i riket 1891, 1900. Meddelanden från Kongl. Civildepartementet, table 14.

process led by the national companies with the Skandinaviska kreatursförsäkringsbolaget as major actor. The company had a fusion strategy, requesting their agents to make the local organisations join Skandinaviska. It seems to have worked rather well with several fusions announced every month from the middle of 1900's onward.⁴²

All the live stock insurance organisations but one established in Sweden the period 1849-1915 seems to have been a mutual liability company. In organisational research the explanations of the existence of mutual business companies and the fact that there are many mutuals within the insurance sector are either based on agency or uncertainty problems.⁴³ As Pearson has shown with historical examples from the fire insurance market, the “levels of aggregate uncertainty and the dangers of adverse selection ... rather than indigenous issues of agency... help explain the initial success of the mutuals”.⁴⁴ Why the mutual liability form was chosen in the first place could be explained in terms of path dependency and legitimacy. The innovation was incorporated within existing institutional norms, and organisational forms. The old local fire insurance organisations were all primitive forms of mutuals, and the idea of local non profit organisations had impact on the development of the financial system at large, for example influencing the legitimacy of saving banks.⁴⁵

Discussion

The proponents of live stock insurances had to gain legitimacy for a new market and new organisations in the eyes of a large segment of the society. While constituency actors as the state and the financial community basically were in favour, the crucial opinion of the cow-owning public was harder to gain. The personal legitimacy of nobilities didn't bridge the gap initially, with the exception of some iron works environments, partly because the nobility were regarded as representing another risk category, and partly of the perceived economic disadvantages due to e.g. monitoring costs. The risk sharing amongst people in general, people who you didn't have personal knowledge about, was too far from the general perception of how to handle. The strategy for gaining legitimacy was problematic since the constituent body of cow owners was very heterogenic which was not considered by the active proponents. By focusing on horse insurances which were a common strategy, some of these problems could be overcome. By

⁴² E.g. KB, OT, Bolag/försäkringar, Enskildt meddelande till bolagets medarbetare nr 73, januari 1907.

⁴³ Mayers, Smith (1986, 1888), Harrington, Niehaus (2003), Hansmann (1996).

⁴⁴ Pearson (2002b), p. 24.

⁴⁵ XX

changing the organisational form suggested initially by the state, and instead conforming to existing institutional frameworks based on local social relations, the acceptance slowly increased. The increase of values and productivity of cattle must also have been an important factor, increasing the need to advance the risk managing strategies. When the cow started to become a source of money, not only being part of subsistence for a majority of the cow owning public, the number of cattle insurance organisations also increased.

The slow progress of diffusion of live stock insurances was a consequence of economic rationality by the potential policy holders, legitimacy problems and an ineffective strategy from the part of the advocates of insurances. Only the Iron works managed to bridge these problems with the help of it's legitimacy and economic safety net at the start. It is questionable to what extent the early organisations made a greater impact on the development at large. The diffusion pattern with a centre in the iron ore district is clear, but could also be explained by other variables. When the development of agriculture and financial system progressed, the advantages of an insurance system was perceived by larger segments of the society. But the road to large, modern and professional risk spreading insurance companies was via the parish organisations. They gave live stock insurance as a phenomena legitimacy by the local and familiar form. After good experiences, the fusion with the great Skandinaviska kreatursförsäkringsbolaget was an option for the co owners.

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