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Margarine A Scapegoat Milked by many Maids

A brief History of Margarine in Sweden with an International Background.

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1. Background.

The purpose of this paper is to investigate a concrete example of an industry where politics and business were closely intertwined in the period of early industrialization. Today most people consider margarine as an ordinary commodity far from political and ideological strife. We may therefore be astounded to learn that it once was a highly controversial product. In the beginning of these studies. I thought that this amazing experience was idiosyncratic to Sweden but a closer look at other countries revealed that it was far less unique than expected. I will proceed by telling some of the most important parts of the Swedish story and then relate them to what happened in other countries.

A substitute for butter – that was the identity of margarine. Butter had for centuries been the most common source of fat in the diets in North-Western Europe. The temperate and rainy climate in the region was actually more feasible for cattle husbandry based on milk than for cereals. The milk was skimmed and the cream was then churned to butter, which after salting could be stored. The margarine would never have been invented in a world where butter had not existed and it is just this quality as a substitute that made it so controversial.

Population started to grow rapidly in the middle of the 19th century and in tandem with urbanization that led to a growing demand for food. More grain could be supplied from vast sources in America and Russia so easily that it even meant decreasing prices, but butter was supplied domestically or from adjacent countries like the Netherlands and Denmark. Prices for butter increased considerably while those of grain and bread stagnated. The poor people could less afford butter and they had had to turn more and more of their consumption to less expensive calories i.e. to carbohydrates like cereals and potatoes. The high cost of fat was a social problem. This is illustrated by the growing price gap between butter and rye in Sweden, an experience that is similar to most European countries.

Price of Rye Meal and Butter 1830 - 1910. Index 1831-40 = 100 220 200 180 Butte 160 Rve mea 140 120 100 1831-1841-1851-1861-1871-1881-1891-1901-90 60 80

Figure 1 Price of Rye Meal and Butter in Sweden 1830-1910

Source: Jörberg (1971)

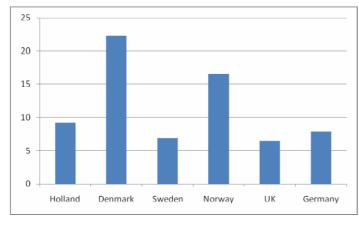
Obviously there was a need for an alternative to butter that was less expensive. One answer to this was the margarine, a product that was developed in the late 1860s by the French scientist Mège Mouriès. The initiative was supported by Napoleon III, who is said to have had two motives. One was the need for a durable fat to be used by the navy and the other was the need for a cheap food to keep the poor people in the suburbs quiet. Mouriès' idea was to copy the process that took place within the cow when she transformed the lard in her body into fat in the milk. Why not take lard from slaughtered cattle instead, mix it with skimmed milk and then churn the new liquid in the same way as cream? His contribution was to develop a technique to churn an artificial butter in this way.

The new product had, however, a limited success in the French market, probably for the simple reason that butter consumption in France was rather limited. The first country to successfully exploit the new idea was instead Holland, soon followed by Norway and the US. In Holland there was already a developed dairy industry producing butter for both domestic consumption and export to Britain. The production of margarine in the Netherlands increased rather quickly and conditions were favourable. Animal fat was first supplied from slaughters in France, Germany and Austria and when the produced quantities increased it started to come from the huge meat packing industries in the US and it could easily be received at the port of Rotterdam. Skim milk was available from the local dairies and the production was close to the large urban markets in Holland, England and the Ruhr area in Germany. Another country with a strong early growth was Norway where production was established already in 1876 in cooperation with the French industrialist Pellerin for domestic use and for exports to Sweden and Denmark. When Bismarck's introduced the new tariffs the two Dutch firms Jürgens and Van den Berg moved their production for the German market to the other side of the border.

The demand for margarine developed in areas where there traditionally was consumption of butter i.e. areas with an established milk production. One can distinguish three groups of countries with different levels of per capita margarine consumption

- 1) Very high: Denmark and Norway
- 2) Medium: Sweden, Germany, the UK, the Netherlands
- 3) Low: France, Italy, the US.

Fig 2 Per capita Consumption of Margarine in 1929, kgs per year



Source: Schüttauf (1955)

Because of the high price the demand for butter was income sensitive. Consumption differed between families in various social groups and income strata. The Swedish econometrician

Herman Wold made some calculations in 1940 for a Royal Commission on agricultural policy on income and price elasticities of butter and margarine. He found that butter had an income elasticity of 0,7 and a price elasticity of 0,8 provided the price relation between butter and margarine remained stable. If, however the price relation between butter and margarine changed so that the price of butter increased by 1 % while that of margarine remained unchanged there was a decrease by 1,5 % of the quantity butter demanded. It is thus clear that the relative price was very essential for the butter demand, i.e. that there is a high so called cross price elasticity. A closing price gap meant less demand for margarine and more for butter and, vice versa. The American economist W.R.Pabst had made similar observations a few yers earlier.²

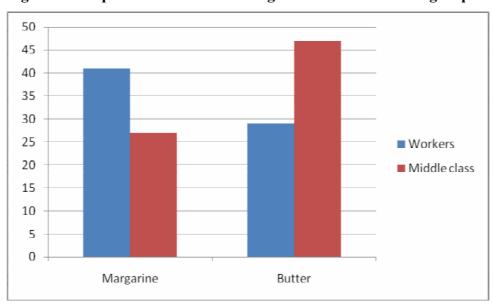


Fig 3 Consumption of Butter and Margarine in various social groups. Kgs.

Source: Smör- och margarinkommittén

Margarine as a product changed over time as regards its taste, texture, nutritional value and. packaging. The changes in the raw material base were even greater. In the 19th century the production was more or less entirely based on oleo oil derived from beef fats mostly supplied from the large-scale slaughtering and meatpacking industries in the US Midwest. In the first decades of the 20th century vegetable oils, primarily coconut, but also palm and peanut oils came more and more came into use. They became the dominant raw material after WW 1, which made for better flavour and texture. Margarine became superior to butter in spreadability since its hardness and softness could be varied from summer to winter. A third

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¹ Wold (1940)

² Pabst (1937)

era started in the middle of the 20th century when the use of rape oil became more wide spread, which meant that there was also a domestic raw material option.

The substitute character was a permanent threat to the peaceful coexistence between butter and margarine. There were two periods when the antagonism became acute and resulted in an economic warfare with calls for political interference, the 1880s and the early 1930s.

2. Before World War I

In Sweden the first step towards a margarine legislation was taken in October 1885 at point in time well before there was any real margarine industry. But imports from Norway had started to emerge. The government issued a Royal ordinance requiring that margarine or *konstgjort smör* (artificial butter) should be kept in receptacles with special labelling. The purpose was to make it easy to distinguish the margarine from butter to prevent fraud. A similar law had been adopted in Denmark half a year earlier.

Sweden changed political regime from free trade to protectionism in 1888. Prices of grain had gone down, the export of oats that once had flourished was declining and the free trade majority in the Parliament was replaced by one that wanted to follow Germany and introduce protective tariffs. Agriculture should also be safeguarded by restructuring production from grain towards animal husbandry. The export of butter to Britain that emerged in the 1880s inspired such hopes.

But when margarine from Norway started to flow into Sweden and when permanent production was established in 1887 anxiety started to grow and it was reflected in very intense debates in the Parliament in 1888 and 1889. It was no longer just a question of distinguishing margarine from butter but the issue was now to ban imports and to prohibit production.

The prohibitionists argued along two lines. The first was that margarine was - or at least could be – not only unhealthy but even poisonous. The fat utilized could come from animals that had died from diseases and there was even talk of fat being extracted from the sewage system bringing poisonous bacteria. An author wrote a booklet where the rampant hog fever in the US was linked to the use of margarine, he did not assert a direct causal relationship but the phenomena were described close to each otherto arise guilt by association.

The other argument was that the margarine made the sellers given to deception. The concern was not primarily the domestic consumers but the risk that almost every prohibitionist argued about was the risk that margarine would be mixed into the butter that was exported to England. The reputation of the Swedish butter would then be compromised and the very export market that was to save the Swedish agriculture would then be spoiled. The arguments were pressed so hard that they gave the impression that the destiny of the whole Swedish agriculture was at stake. It was argued that only if margarine was made unavailable in Sweden through a prohibition of import and production would it be possible to convince the market in Britain that the butter exported was not forged. The advocates for prohibition called this the *clean* line.

Those who opposed the ban had two major objections. One was that it would be in breach with the principles of free trade that had been the fundamental guidelines for the economic policy since 1840 to prohibit one industry in order to protect another. The other argument was that a ban would cause problems for people with low incomes like workers. That was particularly serious since they had just been hurt by the grain price increases because of the new tariffs.

Moreover the opponents also refuted the sanitary arguments by saying that there had not been one single piece of evidence of hygienic problems with margarine but all assertions were just based on unsubstantiated rumours from America. The Swedish medical association on the other hand had pronounced itself in favour of margarine. Margarine that at this point in time was still little known in Sweden was thus presented as something dangerous, even life threatening and was contrasted to butter that was based on milk the very symbol of a drink that was associated with peaceful country life, motherhood and that was clean and life-giving.

The other assertion that the existence of margarine in Sweden would be harmful for the butter export was met with references to statements from British butter and margarine merchants to the contrary. Moreover no country had been more successful in its exports of butter than Denmark notwithstanding its own production of margarine. The opponents denied that margarine should be a threat to the production of butter at least not high quality butter but they admitted that there might be serious competition with cheap low quality farm butter.

These arguments dominated the parliamentary debates in both the First and the Second Chamber. They were extremely long in both 1888 and 1889. The group in the Parliament demanding protection of butter was not exactly the same as the grain protectionists but larger than them since many of those advocating free trade of grain also argued that agriculture should turn from grain to animal production. The first year the proceedings failed since the two chambers did not reach similar decisions but in the following year they accomplished to reach a common resolution that asked the government to prohibit imports and production of margarine. But the government never implemented the decision. It was internally divided and it issued a public statement where it said that it could not act because of the "mellanrikslagen", a law which guaranteed free trade between Norway and Sweden. It would make no sense to prohibit margarine production in Sweden if it still would be free to import it from Norway.

When comparing the Swedish debate with that of other countries it is easy to see that it was influenced by what happened in other countries, not least the US and Denmark. In the US legislation started very early but at the state level. Already prior to 1880 four states had laws "to prevent deception in the sale" of margarine. By 1886, when the first federal law was decided, 22 states had such legislation, and, moreover, 7 states had laws prohibiting the manufacture and sales of margarine. There were, however, few or no enforcement officers so the laws became more or less dead letters. When the federal law came it replaced the state laws and it included definitions of butter and margarine, and it imposed a special tax on all manufacturers, wholesalers, and retailers of margarine and in addition the manufacturers had to pay tax on production of 2 cent per lb³. The discussion in Canada went along similar lines as in the US but the outcome was that margarine was totally prohibited. The ban lasted from 1886 until after World War II, with a temporary lifting 1918-23. ⁴ Canada thus had the most restrictive policy of all countries.

The first country to introduce a national margarine law was Denmark and that was in april 1885. It had got its first margarine factory two years earlier and had a strongly growing import from primarily Norway. At that time the Danes generally called margarine "Norwegian butter". The purpose of the law was to avoid confusion between butter and margarine by prescribing that the text Margarine should be stamped on the containers that moreover should

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³ Snoddgrass, Katherine, *Margarine as a Butter Substitute*.

⁴ Heick, W.H. A propensity to Protect. Wilfrid Laurier University Press. Waterloo, Ontario. 1991.

be of a shape that was different from that used for butter. This was considered essential in order to maintain and enhance the good reputation that Danish butter had gained in the British market. For butter the export market was more important than the home market. The Danes wanted to avoid such mistakes as the Dutch had made which had destroyed their butter sales. The new law was however a rush job that needed improvement to become more effective and a commission was appointed to work out a more thorough proposal. When that was presented to the Danish Parliament there was a vehement discussion that went on for two years before a resolution eventually could be made. Many groups and organizations were engaged in it and the episode has been remembered as the "butter war". Various opinions now appeared that later were to play a role in other countries. Some groups wanted protection of the butter in the home market as well. A small minority even wanted to prohibit margarine all together. The majority wanted to restrict the colouring of margarine not only to make a clear difference to butter but even to make it so bleak that it would become almost white and thus less attractive to the consumers. There was even a group that proposed a mandatory colouring of blue or green to make it disgusting.⁵ On the other hand it was underlined that the colouring restrictions aimed at preventing the margarine to be exported as butter but that the consumers were to add a more attractive colouring at home, which was a method used in the USA. The idea to prohibit mixing of butter and margarine was discussed but not accepted. It was, however, decided that a container with a mixture had to have a label where the minimum butter percentage was indicated. In order to secure that the regulation really was obeyed a new state authority with three inspectors was established.

Denmark differed from other countries in that there were large groups of small farmers that had a positive attitude towards margarine. They sold all their milk to the cooperative dairy that exported the butter and at home they spread margarine on their own bread. The world famous Danish *smörrebröd* were generally made from margarine.

No other country had such an ambitious legal frame work as Denmark. It is however important to note that the purpose was to prevent confusion, fraud or mixture in order to safeguard the high reputation that Danish butter had gained in the British market. There was no intention too prohibit margarine. The purpose was only to convince customers that the utmost had been done to prevent fraud. The possibility to distinguish butter from margarine

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⁵ Margarineindustrin i Danmark 1883-1933. Utgivet af Otto Mönsted AS. Copenhagen. 1933.

was also the purpose of the new laws requiring various measures to prevent "fraudulent sales" of margarine came in the UK, France and Germany in 1887.

Apart from exports from Holland to England there was little international trade in margarine. It was generally more advantageous to import raw materials for local manufacturing than to import the finished margarine. There ere several reasons for this: tariffs and lack of adequate transport facilities for such a perishable product that each country had its own regulations for the product quality, package specifications and labelling requirements

3. The 1920s

After World War 1 there was a short period of strong and general inflation which was followed by a sharp fall in prices in 1920 and 1921. After that there was no further long term trend for butter prices apart from short -term movements because of cyclical variations. The Swedish prices followed the British fairly closely, which was natural since the markets were integrated by the growing exports from Sweden. The Swedish consumption of butter had increased the first years after the WW 1 and in1921 it was far above the pre-war levels, which can be explained by margarine production being almost nonexistent in these years because of lack of raw materials. But for the rest of the decade there was rather a decreasing consumption of butter in the home market. For the dairy industry this was not such a serious problem as one could have expected since it was balanced by a strong increase of exports, from zero in 1923 to 25 000 tons in 1929 a figure that corresponded to half of the total production of diary butter. The dairy industry as a whole thus had a strong growth while it became ever more dependent on exports.

As regards margarine Sweden had been cut off from raw material supplies during the latter part of the war so margarine consumption in the early 1920s was only half of the pre war level. At the same time production capacity had increased and a large share of it was now idle. Contrary to butter there was a long term price trend downward for margarine during the whole decade. In 1929 prices were 25 % lower than in 1922. This steady decline of both absolute and relative prices resulted in a growing consumption. It was so strong that the total per capita fat consumption (butter plus margarine) increased by more than 40 % which wholly could be ascribed to margarine. This price decrease was not explained by declining raw material cost since there was no such clear downward trend in copra prices. The average in 1922 was almost exactly the same as in 1929. But there was a growth in productivity, the

number of employees in the margarine industry was almost constant while the quantity produced increased threefold. In spite of this growing market share for margarine there were fewer political attacks on the margarine industry in the 1920s than there had been before. The explanation was the growing outlets for butter abroad. The road seemed paved for a peaceful coexistence between the two products. But this was to change dramatically.

4. The 1930s.

The great crisis of the 1930s started as an agricultural crisis. First sugar and then grain prices turned down in the late 1920s. Butter prices started to fall in Britain in October 1929 and continued to do so until May 1934 when they were 60 % lower than at the previous peak. This was, of course, a heavy blow against the Swedish diary industry that had become so dependent on exports to Britain. Even worse was that the quantities exported also went down and almost halved between 1929 and 1932. This combination of a dramatic fall in prices and in volumes had a far reaching impact on dairy revenues and on the incomes of the milk farmers. It was a serious threat to the whole agricultural population since milk sales was the most important income for the small and medium sized farmers. The crisis however brought one, although tiny, piece of good news to dairies. The domestic consumption of butter increased significantly in 1930, 1931 and 1932 because of the declining prices.

The crisis among the farmers called for political action. In the agricultural policy there was a clear dividing line between the conservatives that saw increased tariffs as the solution to most problems and the liberals and the socialists on the other hand, who were strong adherents of free trade and lower food prices. When the crises started with a decrease of the grain prices the conservative government made a proposal to increase tariffs but it was defeated in the Parliament. The liberals who replaced them proposed a policy requiring the mills to mix in a governmentally prescribed percentage of domestic grain in the meal they produced instead. Such a policy was however impossible for milk/butter where there was a surplus for exports. The farmers' national organization outlined an alternative system of regulation where the sales prices of milk and butter in the home market were increased in order to finance losses because of the low export prices of butter. Such a system required an effective control of all the milk that the farmers' supplied and that could only be achieved if all milk farmers joined the milk producers' cooperatives. The proposal therefore included rules that in practice meant a governmentally forced cartelization of all milk farmers to such cooperatives. Within two weeks after the organization had presented its proposal to the liberal minister of agriculture he

submitted it as his own governmental bill to the Parliament. It was approved in June 1932 and it was supported by the conservatives and the farmers' party but it was opposed by the social democrats.

A few months later there was a general election. The social democrats focused their campaign on two issues. One was to increase employment by an expansive finance policy and full tariff wages at the public works and the other was a free trade policy including agricultural products. The conservatives and the liberals suffered great loses while the farmers' party and the social democrats had a great victory. The liberal government had to resign and the social democrats formed a new government but without a majority of its own in the Parliament. They therefore had to maintain the milk regulation that just had been decided and to administer the very system they just had criticized.

There was, however, one serious snag with the milk regulation. When the home market price for butter was increased the consumer demand was transferred from butter to margarine. To avoid that happening it was necessary to make the price of margarine increase in order to maintain the price margin. The farmers therefore made a proposal to introduce a special tax on margarine with such a purpose. In addition they proposed that the revenues from it should finance the subsidies for butter. A tax of that kind was of course contrary to all principles of free trade. Before the elections the social democrats had strongly criticized the idea because of its adverse effects on income distribution. The tax would hit families with low incomes and high margarine consumption i.e. exactly those who were least able to carry the burden.

In the spring 1933 the social democrats were busy to negotiate a compromise with the farmers' party to get a parliamentary majority for their government. They were then prepared to make a complete U-turn in their agricultural policy and accept the margarine tax in return for an agreement with the farmers' party on their labour market policy. The acceptance of the margarine tax was a major retreat of the social democrats and for the farmers' party it was a great victory since now they could be sure of a parliamentary support for the margarine tax whatever political changes there would be in the future. This compromise was then to pave the way for a political cooperation between the two parties for decades and it meant a historic coalition between agriculture and labour. It has been argued that this agreement was essential to prevent political right extremism to develop in Sweden and the margarine tax was the corner stone that made this delicate construction possible.

The margarine prices remained roughly unchanged during the crisis in spite of a decrease in raw material prices by more than 40 %. The margarine producers presented this as an act of responsibility in order not the challenge the dairies with still more problems. They wanted to avoid to the political risks of a challenging butter sales by a strong competition. Another way of describing the situation is to say that they used the opportunity for monopolistic pricing when the risk for political criticism was very low. It was even made clear from the politicians that a decrease of margarine prices would be eliminated by a corresponding increase in the margarine tax, Because of the decreased price margin there was a loss in sold margarine quantities. The reduction was 12 % between 1929 and 1932. Since profit margins increased, the net result for the margarine industry was an increase in return on equity. It was one of very few (if not the only?) industries that passed the crisis with rising profits.

The export market for butter did not improve until early 1934 when British butter prices turned upward again. The prices in Sweden increased already in 1933 but that was a consequence of the regulations. Exported quantities also increased from the very low level they had fallen to and consumed quantities at home increased because of the margarine tax.

The restrictions on margarine were not confined to the excise tax. In 1932 there had been a serious discussion about the conditions for production and marketing of margarine. Production of margarine at the same premises as butter was forbidden. There were lengthy discussions on the regulation of the marketing. It was considered essential that any association with butter in the promotion of margarine should be avoided. Words like butter, cream, milk, cow, dairy, cowshed, barn, manor or any other word that could create associations to agriculture were prohibited in advertisements. Pictures or drawings with such allusions were also forbidden.

There were politicians who asked for stronger measures than taxes and marketing regulation. The minister of agriculture appointed a Royal commission to investigate further policies on butter and margarine. At least one of the members was a very outspoken enemy of margarine. A number radical measures to promote butter at the expense of margarine were discussed for example mandatory disgusting colouring of margarine, "voluntary" agreements on quantitative reductions of production, ration cards for margarine only available for poor families, on one hand mandatory mixing of butter into the margarine and on the other a prohibition of such mixing (both were actually discussed at almost the same time!). Most of these issues were

obviously from the list of measures that had been discussed, and in some cases also implemented, in other countries. The commission however saw so many drawbacks with each of them that it was not prepared to recommend any of them. They instead proposed that an entirely new type of low cost butter that could be sold at a price competitive with margarine should be developed. This proposal was very much ridiculed by those who commented on their proposals and eventually it came to nothing. After this failure it was obviously more difficult to launch radical ideas about stopping the margarine. What thus looked like a failure maybe was exactly what the minister of agriculture wanted since the restrictive margarine policy was something he had been forced to agree to. The interest to introduce a harsher regulatory regime came from the farmers' party and the conservative party. The only party in the parliament that wholly wanted to safeguard the margarine from restrictive interventions was the Communists but they were entirely without political influence. The margarine industry was of course clearly embarrassed. When the board of the Pellerin margarine company discussed the firms' annual gift to the conservative party it was decided that the management should before handing over the money have a serious discussion with to the party leader admiral Lindman in person. There are no reports in the minutes of the board on the outcome of such talks.6

The agricultural crisis was worldwide. Grain farmers were protected by tariffs or other forms of regulations of imports. When it came to milk and butter products most countries with cattle husbandry faced problems similar to those of Sweden. i.e. to protect the farmers' milk incomes by protecting butter from competition from margarine. In France import quotas of margarine were introduced in September 1931 and later they were replaced by high tariffs and import licence fees. In Switzerland there were high import fees for butter, which only could be imported by a state monopoly in order to keep up prices for the domestic butter. There were fees on consumption milk as well. For margarine it was prescribed that it should contain at least 15 per cent domestic butter that should be mixed into it.

Norway also got a legislation in 1931 that demanded that butter should be mixed into the margarine. This system has been characterised as a cornerstone of its agricultural policy. In practice it enabled the government to decide both volumes and prices of butter. The percentage was initially 3,5% but was gradually increased to 20% which meant that 2/3 of all

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⁶ Margarinbolaget. Styrelseprotokoll.

butter produced in the country was consumed in this way.⁷ By margarine consumption Norwegian butter could thus find a secure outlet at prices far above those in the world market which enabled the dairies to increase production almost fourfold during the 1930s. This was obviously an efficient way to protect the butter production when it, as in Norway, was confined to the home market and the margarine consumption was high. In 1934 this system was supplemented by a special fee on margarine, which was used to subsidize agriculture, i.e. similar to the Swedish system.

In Denmark the government was authorised to impose a fee on all butter that was sold domestically. It could vary from at most35 öre when prices were low and less when they were high. In addition a fee was imposed on raw materials for margarine which increased the production cost by approx. 25 öre per kg. The revenues from this fee were used to support poor people to purchase margarine. In Finland the government was authorised to stabilise the price of butter by paying an export subsidy and to introduce a tax on raw materials used for production that competed with butter i.e. margarine.

Germany had the most far reaching policy of all European countries, it was called the National Fat plan and it was a part of a still broader plan aiming at autarchy for the whole food production. The policy was carried out by a new Reichsnährstand (National Board of Nutrition) created in 1933. Two ordinances were particularly important for margarine. The first amended one the old margarine law of 1897 so that the Government was empowered to prescribe the precise use of raw materials, their amounts and sources of supply. The government also got the right to set quotas for the production and to control, investigate and supervise the entire activity of all margarine factories. No legislation was necessary for this since the Parliament had been suspended and § 48 of Weimar constitution gave the Government dictatorial power⁸. The second ordinance came in March 1933 when the National Fat Monopoly Administration was established. The marketing of all fats was organized into a cartel and all production should be offered to the monopoly. If a certain quantity was rejected it should not be permitted to enter the market at all. The Finance secretary got the right to issue equalisation taxes on margarine. In all this meant that the government had a complete control over the whole margarine industry.

⁷ Hovland, Edgar, Smör og margarin blir ett fett in Historisk Tidskrift (Oslo)

⁸ Verordnung des Reichspräsidenten zur Förderung der Verwendung inländischer tierischer Fette und inländischer Futtermittel" Dez 23 1932. Reichgesetzblatt I 575.

We can see a great number of measures employed in the margarine policy of various countries. One purpose seems to be common, to prevent fraud by facilitating the discrimination between butter and margarine. In some countries however these ambitions went so far that the margarine was made loathsome with the obvious purpose to discourage people from using it. The mixing of butter into the margarine was obviously a double edged means. In some countries it was not allowed since it was considered to enhance the quality image of margarine which could make butter less competitive. In other countries it was seen as a method to increase the demand for butter and it was therefore mandatory. Special taxes or fees directly on the margarine or on its raw materials were rather frequent in spite of the obvious negative social effects. Sometimes they were balanced by appropriating a share of the revenues to support of poor people. Direct quantitative quotas prescribing maximum allowed production seems only to have been employed in Germany and prohibition of all production took only place in North America, primarily Canada.

Some consequences of the various national policies can be illustrated by a comparison of butter and margarine prices in a few countries.

Figure 3 Butter prices in 1938

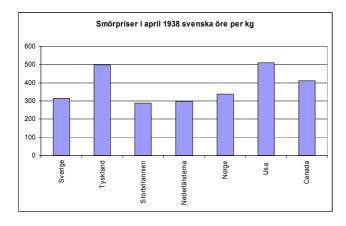
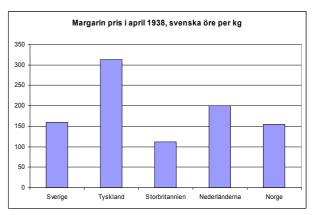


Figure 4 Margarine prices in 1938.



Butter prices were clearly higher in Germany than elsewhere in Europe (but not in the USA) and Germany was the country with the strongest governmental interventions. (To what extent the high price depends on the exchange rate of the nonconvertible German currency needs to be investigated). In the UK prices for both butter and margarine were lower than elsewhere which is reasonable since there was less government interference there. The price of margarine was only 38 % of that of butter. In the Netherlands butter prices were only marginally higher than in the UK but margarine prices were almost twice as high as in the

UK. The butter prices in Sweden were slightly higher than in the UK and the Netherlands and slightly lower than in Norway. The margarine prices were higher than in the UK and the difference almost exactly corresponds to the margarine tax. In spite of the extraordinary political intervention in the margarine –butter business in Sweden it does not look remarkably different from that of other European countries.

5. Private regulation

Margarine was a fairly homogenous product and the cost structure of both production and distribution favoured high capacity utilization. Every firm has much to gain from additional quantities and it is tempting to use price discounts to achieve this. But when everyone does so the result is price war. There is a strong reason for the firms cooperate to prevent this to happen. They can commit themselves not undercut the prices of each other. When the number of participating firms are few this may be achieved by mutual trust in an informal oligopoly club but when the number is greater it is necessary with some form of institutionalised agreement i.e some form of cartel. The margarine industry was a rather ideal text-book case for an industry with cartel agreements.

The first production unit in Sweden with industrialized methods was established in 1888. In the second half of the 1890s there were four new factories established of which three were closely linked with the Norwegian margarine industry and the forth and the biggest was owned by a French company that since long had interests in Norway too. By the turn of the century the time was ripe for cartelization. It was facilitated by the home market being protected. There was a fairly high tariff protection and import from Denmark was not feasible since the colouring of the margarine was forbidden there. Nor were the firms in Norway a threat against the Swedish ones since the ownership the firms to a large extent was mutual. There were thus a number of conditions that facilitated cooperation between the firms. The first price cartel we know of dates back to around the year 1900. Such cartel cooperation often developed through a learning process. The cartels suffered numerous breakdowns with short price wars, which were followed by a restoration of the cooperation a few months later. This can be seen in Figure 5.

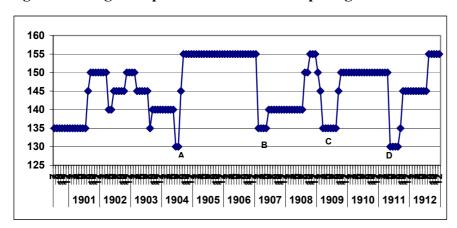


Figure 5. Margarine prices 1901 – 12 in öre per kg.

Source: Kylebäck (1974)

After World War I the producers re-established their cooperation in November 1920 but the new cartel was soon to be challenged when the Dutch firm Van den Bergh established a daughter company outside Stockholm in April 1921. They asked for a much larger share of the total market than the other cartel members were prepared to give away. Vandenbergh's (they called themselves so in Sweden) tactics was to break into the market by offering a 10 öre lower price than the cartel regardless what they did. Some prominent cartel members started planning to launch exports of margarine from Sweden to the Dutch market just in order to retaliate. This price fighting took place against the background of rapidly decreasing raw material prices so the price decreases were actually since long overdue. Still half a year later there was still another skirmish when the new margarine factory of the consumer cooperatives started which reduced the available market for the cartel by more than 20%. On the other hand the growing demand for margarine provided some compensation.

By 1926 the cartel firms had reached a point where they realised that a firmer organization of their cooperation was necessary if it were to survive at all. The 8 cartel firms agreed to form a joint sales company which meant that each firm gave up its own sales organization. The new company had initially approx 80 % of the market outside the consumer cooperative stores. One very important task for the sales company was to manage the competition with the outsiders and with the new entrants. In some cases it concluded secret agreements of non competition and in a number of other cases it made secret aquisitions. This meant in fact that although the official market share of the sales company was reduced in reality it could maintain an almost complete control of the market. The very high profitability of the margarine business was a constant enticement to new entrants.

In the early 1930s when the butter prices started to fall it would have been natural for the margarine producers to respond with corresponding price decreases but they now felt the pressure that it would not be politically correct. Margarine prices therefore remained rather stable in spite of the raw materials becoming cheaper. The result was increasing margins. When the margarine tax was introduced the politicians made clear to the industry that any reductions of the margarine price that would shrink the margin to butter would be met by increased taxes. There can be no surprise if the industry under such conditions refrained from price decreases. The political control over the margarine market in the 1930s meant a severe limitation on growth of the industry but it had no negative effects on profitability. On the contrary: all data on profitability that are available for this period agree that it was higher in the margarine industry than in almost all other industries⁹. It was high in comparison to other industries already from the outset and there was a clear trend for profitability to increase after the formation of the sales company, which is natural because of the reductions of sales costs. There was then a still further increase after the introduction of the margarine tax. This meant that the margarine industry could pass the crisis years of the early 1930s with an improvement instead of a deterioration of profits. Moreover the officially reported profits were not very reliable since there were many opportunities to disguise parts of the real profits from what was stated in their official reports. Bondeson has adjusted values for the firms Pellerin and Zenith and when they are related to sales one gets net profit margins between 15 and 20 % for the years 1929-38.¹⁰

6. Consumer cooperative Challenge

A great number of local consumer cooperatives were established in the late 19th century and in 1899 a national union of consumer cooperatives (K.F.) was established. It acted as a national organization to promote the cooperative ideas and as a wholesaler that supplied the local cooperatives,. This activity rendered an income that was partly repaid to the local unions as an extra provision. The private retailers had also a newly established a national organisation and it vehemently opposed the sales rebate that the KF got from the producers. The retailers' organization even forced the margarine cartel to boycott sales not only to the K.F. but also to the local cooperative union stores. The K.F. responded by acquiring a small margarine factory of their own, This move triggered the cartel to respond with a price war and strong price

⁹ Socialiseringsnämnden, Dahmén. Carlsson.
¹⁰ Bondeson

decreases. The K.F. skilfully utilized these decreases as evidence that the cooperatives had the power to smash cartels and reduce monopoly pricing.

This episode with the K.F. fighting the big evil cartel was to be heavily exploited by the KF in its propaganda in the following decades. It was used to promote the idea that the cooperatives could successfully combat trusts and cartels by establishing own production. And the margarine industry was to become the first example of this. During the 1910s the KF got financial resources to prepare for a new margarine factory. In November 1921 it was ready and it was far bigger than any other existing margarine factory in Sweden. It became an immediate success and could within a few mounts take over of the whole slice of the market made up by the total margarine sales of the cooperative stores, approx. 20 %. The cartel answered in it usual way, by a price war. When the cartel was re-established in 1920 prices had been 376 öre per kilo and now they fell until June 1922 when they were 127 öre Most of this was of course explained by falling raw material prices but the KF was of course not late to once again use this fact in their propaganda. They could once again claim that they had got evidence that their production could brake up cartels and give the consumers great benefits.

Once the cooperative margarine had been accepted by the customers of the cooperative stores the situation became more stable. Since the cooperative margarine was only sold in the cooperative stores and since these stores almost only sold the cooperative margarine there was very little direct competitive confrontation between the two. The competition took place between the private and the cooperative stores not the singular products.

After the establishment of the new factory the price war and the following reestablishment of the price level of the two groups seem to have run in parallel. Both parties seem to have accepted that there were two markets separated from each other. When there were price changes the two parties generally followed each other but it is not possible to distinguish one of them as a clear price leader. The competition with the K.F. was seldom discussed at the board meetings of the joint sales company¹¹. The KF maintained somewhat lower prices during the first years but later on the margin seems to have vanished although it is difficult to make exact comparisons since there was a price spread between various qualities.

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¹¹ Archiev of Margarinbolaget at Centrum för näringslivshistoria.

The cooperative margarine business was more efficient and even more profitable than the private firms. The production unit was bigger and there were clear technological scale advantages. KF:s sales and distribution required far less resources than the overstaffed sales organisations of the private firms. Representatives of the private firms recognized this and they used it as an argument to form the joint sales company, the MFA that was established in 1926. For the KF the struggle against trusts and cartels was high on the rhetorical agenda. But there can be no doubt that the establishment of the KF production was a strong incentive to a firmer cooperation between the firms in the cartel thereby actually reinforcing it rather than crashing it.

For the K.F. the great profits from the margarine were used to strengthen its equity fund that was crucial for its growth and ability to invest in other industries. By the coming of Word War 2 the KF had developed to one of the biggest industrial conglomerates in Sweden. But one firm that the KF had acquired was not particularly profitable. It was an vegetable oil factory in Karlshamn which the KF bought in 1931 for fear that the newly merged Unilever company would get too a tight control over the raw materials for the margarine. The capacity of this firm was far above their own needs. The cartel firms of which many had links with Unilever had however decided to boycott KF:s oil factory. The manager of the KF factory made contact with Pellerin one of the cartel firms, and proposed them to abandon their boycott. In return KF should cease selling oil to the small margarine firms that competed with the MFA and also to discuss prices more frankly with them. This initiative awoke interest from Pellerin's management but it came to nothing since the CEO of KF never authorised the discussions ton continue¹². That may be understandable since it was rather clearly against the officially declared policy of the KF.

The by far most important step towards a world-wide private regulation of the margarine industry was the merger of the two biggest international margarine firms Jürgens and Van den Bergh, both of Dutch origin. Together they got control over a substantial share of the market in a number of countries like Germany, the U.K., Norway, Belgium etc. When then this new company a year later merged with the British soap firm Lever to become Unilever they got control over a substantial part of the world's trade with vegetable oils.

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¹² Pellerin, Board of directors, Minutes,

Not only the Swedish KF was afraid for their strong influence. The Norwegian government in 1930 sponsored negotiations that resulted in an agreement to establish a common sales organisation similar to that in Sweden with the purpose to eliminate all price competition and make it impossible for the Unilever trust to use price reductions to increase their market share. The only way for them to increase the market share would be to buy production quotas from Norwegian firms. The issue of mandatory mixing of butter into the margarine came up at the same time as the political preparations for the sales syndicate and that meant that import was made practically impossible and it was therefore easily accepted by most of the margarine firms. It was presented as a proposal benefitting both agriculture and industry and the contradictions had been resolved.

In Germany a number of independent oil and margarine factories in December 1929 joined and established an organization Margöl to provide them with raw material in order to become more independent from Unilever. This was a loose organization where the only firm commitment required by the members was that they should not sell their plant to Unilever. When then the new regime came it was clear that the independent German firms got a priority when production quotas were distributed.

Denmark was one of the very few countries where Unilever did not get a strong position. The structure of the margarine industry was very different from Sweden. There was a great number of small factories quite often run in the same building as a local dairy and it had only a local outlet. There was little room for the Unilever in such a structure so the firms that the trust controlled had only about 1/5 of the market.

7. Conclusion

Margarine was a hot political issue that apparently had the power break up traditional ideological convictions. It made liberal free traders ask for governmental interventions and discriminations, right-wing conservatives demanded harsh state regulation and egalitarian socialists became adherents of highly regressive consumer taxation. The general mentality seems to have been a predilection to anything agricultural and it is difficult to avoid the suspicion that it got an extra strength from the association with cleanness, milk and thereby motherhood. There were natural tendencies for private regulation like cartelization in the margarine industry and these tendencies were obviously both strengthened and facilitated by the public regulation. That went further in this industry than in any other, and it was justified

by agricultural rather than consumer interests. The margarine industry was blocked in its expansion by the political interventions but the owners did not complain very loudly since they were let alone with their profits but they were handsome. The proceeds from margarine taxation and monopoly prices were used to finance butter subsidies, capital formation of the consumer cooperatives and extraordinary dividends to the owners of the private margarine firms. Margarine was also utilized by the social democrats to make compromises in order to secure a long lasting political power. The scapegoat rewarded all parties. Except the consumers.

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 $^{^{\}rm i}$ Hovland, Edgar, Smör og margarin blir ett fett in Historisk Tidskrift (Oslo) $^{\rm ii}$ Hovland