

The Evolution of the British Cheese Industry

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Preface

The British cheese industry is one of the most successful and significant parts of the British food sector. It is a key supplier to the UK cheese market, which is worth some £4 billion a year, cheese ranking as one of the nation's most loved foods. This monograph aims to explore the development of the British cheese industry from pre-Roman times through the ages to the present day highlighting the key turning points that have helped or hindered its development. It has been a far from straightforward evolution with many shocks caused by political decisions (or indecision), the industrial revolution, major economic depressions and changes in technology not to mention the impact of various wars. It has also had to contend with changes in the way that food is produced, transported and sold, changes in the way that consumers buy food and throughout the gradual increase in the population of these islands and its ever improving prosperity and health over the last 2000 years or so. The fate of cheese making has been closely linked to events affecting milk production and the demand for liquid milk. Liquid milk has always been a priority market generating higher returns than those generally available from manufactured milk products – particularly as government policy for so many years actively encouraged the consumption of liquid milk. No excuse is made for dwelling on those broader issues and events that affected the level of milk production in the UK and the liquid milk market and hence the availability of milk to make cheese. I have used the term British in the title of this monograph as cheesemaking was barely visible in either Southern or Northern Ireland until after the Second World War. Both are now major cheese making areas and references are made to them in later chapters. But the story really relates to what happened in Great Britain. For those wishing more detail on the development of the dairy industry in Northern Ireland a recently published book by the Ulster Historical Foundation by (the late) Dr George Chambers and Dr Ian McDougall (*The Origins of the Dairy Industry in Ulster*) will meet that need.

I am neither a historian nor a cheesemaker but have written this as someone who has been fascinated by the magic that is cheese and as someone who has spent much of his life working with cheesemakers in various roles. A large part of my career has been involved in either analysing the industry as an economist or promoting cheese as a marketer. I joined the MMB in 1971 as a trainee economist and spent 8 years analysing the international markets and helping to formulate policy options, then headed up the market research area before being appointed Strategic Planner in 1981 and subsequently, after the introduction of milk quotas, became Divisional Director of Sales and Marketing in 1984 and Operations Director in 1988. I left the MMB in 1990 and set up my own consultancy to advise food companies on their marketing and business strategy. In that role I acted as Secretary of the Stilton Cheese Makers' Association from 1993 to 2015 and Secretary of the British Cheese Board from 1995 to 2015. It has been a privilege to try to educate our consumers and the media they follow about all aspects of this wonderful food.

The British cheesemaking industry has a fascinating heritage and is something of which we can be rightly proud. Our cheeses are ranked as being amongst the best in the world and our range of cheeses as being second to none. How we have got to this position is what this paper is all about. I wouldn't describe this as a light read but I have tried to pull together available data over a long period that adds weight to the qualitative changes that occurred in the industry. It is, at least to me, an intriguing journey. I hope you agree.

Nigel White
Surbiton, Surrey – November 2018

1. Summary

The development of the British cheese industry over the last 2000 or so years has been heavily influenced by major historical events, social and economic change and policies adopted by the ruling elite, whether they were ancient kings or democratically elected governments. Cheese was originally one of the most important ways of preserving the natural goodness of milk. It was a staple food in the diets of rich and poor and an important food that could – at least in the case of hard cheeses – be eked out during the winter months. Europeans of course drank milk and most rural holdings would have had their own supply of milk and would have made some butter and cheese from surplus milk. The agricultural revolution of the 17th and 18th centuries undoubtedly enabled Britain to produce more of its own food to feed a growing population. However, it was the industrial revolution in the 18th and 19th centuries that saw a huge drift of the rural population to towns and cities; these new urban dwellers, many of whom formerly worked the land, needed feeding. Britain simply could not feed itself and became increasingly dependent on imports. British agriculture – and in particular the grain barons – prospered under the protection of the Corn Laws introduced in 1815. Cereal imports were taxed and levies applied on other imported foods. The poor got poorer and the rich, richer.

A reforming Government repealed those Corn Laws in 1846 and sought to develop free trade agreements with food producing countries across the world. In exchange Britain sought duty free access to their markets for industrial products. British agriculture was unable to compete and cereal production slumped as market prices fell from their previously inflated levels. Arable land was switched to pasture and with it production of milk and meat grew, helped by cheaper grain prices. Rather than seeing a growth in cheese production, the increasing milk supply went to the towns and cities to meet the growing demand for liquid milk. This process was accelerated by the development of the railway network. Many farmers found an easier life by simply selling their milk to dealers who arranged for its shipment into the metropolises rather than having to make cheese or butter and wait for months before they were paid for it. As a result, farm production of cheese declined.

The Americans were the first country to switch their production of cheese from family farms to larger cheese factories in the 1850s and the USA became the largest supplier of cheese to the UK. The quality of their cheese was generally better and more consistent than that produced on British farms. In due course, Canada, Australia and New Zealand became major suppliers of cheese to Britain – all three benefiting from preferential import arrangements for Empire produce and eventually replaced USA supplies. The first cheese factory came to England in 1869 but failed to make much impact as there was always going to be a residual market for milk not required for the metropolitan liquid markets. Irregular supplies and poor quality milk meant their cheese was not much better than that produced on farms: it was generally more expensive and not as good as the imported Cheddars. The policies of free trade and Empire preference provided consumers with cheaper food and resulted in a gradual decline of agricultural production in Britain with wealth being transferred from landowners to consumers. This so called cheap food policy was to continue in various guises until the 1970s when it became clear that the UK was set to join the European Economic Community.

The contribution of agriculture to Gross Domestic Product declined from around 16% in the middle of the 19th century to just 7% immediately before the start of the First World War (WW1). Despite a steady rise in milk production (most of which went into the liquid market) during the second half of the 19th century, British cheese production fell by more than 50% between the 1850s and just before the start of the first world war, when home production accounted for less than a quarter of the total market. Cheese production in 1913 was just 39,000 tonnes, two thirds of which was produced on farms. Imports were around 115,000 tonnes.

The outbreak of WW1 interrupted British food supplies and for the first time the Government introduced a whole range of measures designed to keep the nation and, more importantly the armed forces, well fed. Shortages began to appear and prices rose. The Government requisitioned the whole of New Zealand's output of cheese plus the exportable surplus from Australia in order to ensure the armed forces had sufficient supplies. Any excesses were sold back into the domestic market and earned the nickname of Government Cheese. Further intervention came in the form of price controls and the fixing of minimum prices payable to farmers for a range of products including cereals, meat and milk. Production of milk was required to rise to ensure sufficient supplies were available for liquid

sales. The nation was fed but only through unprecedented intervention by the government in the production, import and pricing of staple foods and the introduction of rationing for many foods. However, milk and cheese remained unrationed. Cheese production remained static. All controls were abolished after the end of the war and as the world trade reverted to normalcy, British agriculture came under the cosh as world prices fell and food security took second place to cheap food. However, the events of the war persuaded many politicians that something had to be done to improve the marketing of Britain's agricultural output. The so-called Linlithgow Committee of Enquiry concluded that a comprehensive review was required to improve efficiency throughout the supply chain and that farmers needed to take a more proactive role in the marketing of their produce. Producing more milk to raise consumption of liquid milk so as to improve the national diet was a key objective. The majority of cheese produced still came from farms and was of generally variable quality. Amongst other recommendations the Committee called for a national grading scheme for farm-made and factory cheese, the latter being seen as the route to getting more cheese produced in competition with imported supplies. The Committee also recommended the fixing of minimum fat levels for any whole milk cheese sold in Britain.

With world prices of agricultural produce in freefall decline, the Agricultural Marketing Acts were passed in 1933 allowing the establishment of five marketing boards for milk, which were to transform the organisation of milk marketing in Britain. A scheme for milk was proposed by the National Farmers Union and adopted in 1933. Cheese factories could now have improved access to milk supplies whilst many farms ceased to produce cheese, deciding instead to sell their milk to their country's Milk Marketing Board. Milk supplies grew, with more milk going to meet rising demand for liquid milk whilst creameries making products saw a large increase in their milk intake as farms withheld less milk. Total cheese production initially rose post-1933 but by 1939 was back to below its pre-MMB levels of around 44,000 tonnes but with factories accounting for about three quarters of output.

The Second World War (WW2) saw the Government take complete control of marketing and pricing of all food products. Domestic production of bulky products such as cereals, root crops and liquid milk were encouraged whilst scarce space on shipping bringing food into the country was reserved for nutrient-dense foods such as meat, butter and cheese. Whilst the MMBs were retained to act as agents of Government, all other Marketing Boards were suspended. By the end of WW2 the UK was producing just 25,000 tonnes of cheese a year. Marshall Aid from the USA saw imports of cheese rise to unprecedented levels, which meant that cheese was available throughout the war and thereafter albeit subject to a ration of about 2 ounces per person per week (equivalent to about 3 kg per person per year).

Government controls were eventually relaxed in the 1950s and the MMBs regained their powers in 1954 after which the Government set in place the future arrangements for the marketing of milk which included the adoption of a deficiency payments system under which a guaranteed price (GP) for milk was set relating to a fixed quantity of milk. Milk produced above the so-called Standard Quantity (SQ) only achieved the market realisation for milk used in manufacture. Producers were encouraged to produce more milk to feed the nation's growing appetite for liquid milk but over-production resulted in a dilution of the final pooled milk price in each of the five MMB regions. The system prevailed until the UK's transitional period to full EEC membership ended in 1977.

Production of milk rose during the 1950s and with it that of cheese, output of which reached 100,000 tonnes by 1960. Consumption of cheese rose gradually with imports still satisfying the majority of the market as a cheap food, while Commonwealth preference remained the order of the day. Only when the UK joined the EEC, with the prospect of rising ex-farm milk prices and increased milk supplies, did production of cheese and butter expand. This became established Government policy as set out in the White Paper: *"Food from our own resources"*. However, expansion was hampered by a weakened world economy in the wake of the oil price hike of the early 1970s and rampant inflation that raised significantly the costs of producing milk. Cheese output expanded after full transition to EEC prices, only to be stymied when EEC milk quotas were introduced in 1984, which again had the effect of not only shackling British milk production but also reducing it.

The milk marketing schemes came under intense pressure from disaffected on-farm milk retailers and a number of cheese and butter makers who wanted to expand but were prevented by the lack of milk and the MMBs' milk allocation systems, which prioritised higher value outlets such as

liquid milk, cream, yogurt and whole milk powder. Large retailers lobbied for change seeing an opportunity, which they took with open arms – to drive down the prices they paid for milk and dairy products and inflate their margins. Margaret Thatcher's government had privatised the utility companies and saw the MMBs as an anachronism, which she was determined to wind up. It took almost 6 years of acrimonious negotiations between 1988 and 1994 between the dairy trade, the Government and the MMBs to do so.

Out of this came voluntary co-ops leaving dairy companies and farmers free to buy or sell their milk how they wished. The changes were not without their problems as all parts of the industry adjusted to the changes. The resultant co-operatives went through various phases and eventually the UK dairy industry was left with a set of new corporate players. The old guard of the industry, such as Express Dairies, Unigate, Northern Dairies, Associated Dairies and the Co-operative Wholesale Society all disappeared. Their fortunes had been built on doorstep delivery of milk, which had been fast declining from the 1970s onwards as supermarkets increased their share and influence. Foreign buyers (Mueller, Lactalis, Irish Dairy Board) or farmer co-operatives or their offshoots (Arla, First Milk, Dairy Crest, Dale Farm) came to control large parts of the UK dairy industry. Interestingly this has left dairy farmer co-operatives supplying a significant proportion of the nation's now expanding cheese production. By 2017 UK cheese production had reached 455,000 tonnes. The cheese market is still dominated by imports but over the years consumption has risen from its pre-war levels of around 3 kg *per capita* to more than 12 kg now. How these dramatic changes came about is described in detail in the pages that follow.

2. Cheese before the Roman invasion

Much has been written about the origins of cheese for it seems that it was not so much as invented but rather was discovered by accident and perhaps eaten out of desperation. Milk might have simply been left out in the sun in a shallow container or in an animal skin and curdled leaving a solid mass that was found to be edible plus a liquid that was found to be potable. This would have been an acid curd cheese requiring no renneting or setting agent (in the same way as lemon juice added to warm milk causes coagulation). An alternative and much vaunted theory was that milk was being carried in an improvised container made perhaps from the stomach of a goat, lamb or calf and, with the action of heat and the motion of transportation plus the trace of rennet in the animal's stomach caused the milk to coagulate and separate into curds and whey. This would have been a rennet-based cheese. All of this is of course pure speculation. What we do know, regardless of how cheese was first discovered, is that the process was refined in many ways – including the use of salt whose preservation properties with meat was well known – to provide a method of conserving the goodness of milk. In due course the cheese might have been lightly pressed to remove more of the whey and so extend the life of the cheese. As the old saying goes, "cheese is milk's leap to immortality".

There is even more speculation about where and when these early processes might have originated. Some claim that the earliest cheesemaking dates back to the Stone Age and as early as 7,000 BC, this being based on archaeological finds of cheesemaking implements in the area between the Tigris and the Euphrates, the so-called cradle of civilisation, which is often referred to as Mesopotamia and is now mainly in Iraq. A key requisite for making cheese is a solid container in which to put the milk and make the cheese. Fired pottery is believed to have been in use from around 6,500 BC. Recent research has identified relics – believed to be cheese strainers – as having been used in cheese making in that area. In Europe, a UK-led team of researchers found traces of milk fats on sieve-like vessels excavated from Poland dating back to between 5,200 and 4,800 BC and most recently (McClure *et al.*, 2018) fatty acid traces on pottery residues recovered from the Dalmatian coast of Croatia suggested milk fermentation and cheese production in that area at approximately 5,200 BC. The oldest pictorial evidence for cheesemaking was found on a frieze at the Temple of the Great Goddess of Life, at Ninursag in Mesopotamia, dating back to 3,000 BC. The frieze illustrated how milk was processed into cheese. Proteomic analysis of cloth-wrapped material recovered from the tomb of Ptahmes in Egypt c. 1000 BC indicated a solid product made from ovine/caprine plus bovine milks and bearing evidence of contamination by *Brucella melitensis*, the cause of brucellosis (Greco *et al.* 2018).

In 2017, archaeologists excavating near Stonehenge in Wiltshire discovered the fragments of dishes dating back to 2500 BC that showed evidence of having contained amongst other things pork, honey and cheese. It is believed that this site was occupied by the workers who built Stonehenge, providing the earliest evidence of cheese having been eaten in the UK.

We know that there were references to cheese and cheesemaking in Greek mythology that was written around 900 BC. For example, Homer wrote of Odysseus finding cheese drying on racks (together with barrels of whey) when he entered the lair of Cyclops. Pliny – a Roman historian – reported that the prophet Zoroaster, a Persian philosopher of the 5th century BC, lived on a single cheese in the wilderness for 20 years: it must have been a big cheese! The ancient Greeks believed that cheese was a gift from the gods brought down to earth by Artistaeus the son of Apollo. Apollo was alleged to have been born on the island of Delos, the settlement of which dates back to 3,000 BC. Perhaps as a mark of the island's mythical link to cheese, the Governors of the island, which became a major trading centre in later years, portrayed cheese on its coinage. Such was the esteem in which cheese was held in ancient Greece that small cheeses were often given to children as a treat whilst well-behaved children were sometimes described as 'little cheeses'. It is also reported that cheese was one of the foods taken by athletes competing in the original Olympic games.

Cheese was also used in cooking. The Greeks of the Golden Age made much of cheesecake with each city/state boasting its own special recipe. This would almost certainly have been a curd cheese used fresh and young. Even now *tiropeita* (literally cheesecake or cheese pastry) is made in Greece; some baked, some moulded and some chilled without cooking. Cheese would also have been included in the rations of invading soldiers over many years. In fact so important was cheese to these

marching armies that when Alexander the Great defeated Darius at Damascus in 331 BC he spared the lives of 13 cheesemakers who were part of the Persian monarch's entourage.

In the Bible (1 *Samuel* 17:18) David was delivering 10 loaves of cheese on the day that he smote Goliath, this being one of only three references to cheese in the Bible. The others are in the second book of *Samuel* 17:29 and in *Job* 10:10. We also know that there is a valley near Jerusalem bordering the temple hill known as Tyropoeon, literally translated as 'Valley of the Cheesemakers'. The valley might have been the Phoenician section of the city in ancient times and could have been a place from which cheese was traded since the Greek word for Cheese is 'tyro' and from this comes the English word for a cheese lover or connoisseur – tuophile. Alternatively, it might just be an alternative translation of the 'Valley of the Tyrians', the natives of the ancient city of Tyre.

There are many other references that reinforce the view that cheesemaking pre-dates the Roman empire and the birth of Jesus in parts of Europe and Asia. But it was perhaps during the early centuries AD that the technology and understanding of cheese making techniques developed and spread throughout the Roman Empire. This occurred hand-in-hand with the improved understanding of livestock rearing. The Romans became great cheesemakers and the methods used in these early years have stood the test of time to such an extent that cheesemaking up until the mid 19th century was broadly similar to the methods used by the Romans.

The French and Italian words for cheese were derived from the Greek word 'formos' which was a wicker basket that was often used to strain (and also shape or form) the curds. In Latin this became 'forma' meaning to mould or shape, which became 'formage' in Old French (now 'fromage') and 'formaggio' in Italian. However, it is the Roman word for cheese – 'caseus' – from which the word cheese in many languages is derived – 'kase' in German and 'kaas' in Dutch. Caseus was also used as a term of endearment for young children or in simple terms 'my darling'.

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3. The Roman era – What did the Romans ever do for cheese?

Cheesemaking was almost certainly practiced in Britain before the Roman occupation with skills spread by traders and perhaps religious travellers. When the Romans invaded Britain, agriculture and farming were already well established. There were small settlements that were generally self-sufficient, growing crops and raising livestock. In some cases there were tradable surpluses and there is evidence that some cereals were exported to various parts of the Roman Empire. Cows, sheep and goats would likely have been milked and several types of cheese made, primarily fresh cheeses plus harder ones that were designed to last. With the invasion came many more mouths to feed and the new rulers routinely levied taxes on the local leaders, often in the form of grain. This put pressure on the settlements to increase output, which given the lack of knowledge of agricultural techniques would have been quite a challenge. It is likely that the Romans brought their own ideas and in later years these would have been put into practice. Resident Romans bought up land as an investment and put into practice the techniques used across the Roman Empire – particularly in terms of crop rotation, grazing animals on fallow fields and introducing new crops that would fix nitrogen in the soil. Amongst these new farmers were former Roman soldiers who on discharge from service were sometimes given a parcel of land and livestock near garrison towns as a retirement package. Ex-Roman army soldier Columella provided detailed instructions for those new to farming – including recipes for cheese. Cheese was an important part of the Roman soldier's daily diet and so it was vital that the garrison towns either had their own supply or had trading arrangements with local settlements.

Columella, Pliny, Varro, Martial and other Roman writers gave details of cheese-making methods and discussed the differences between hard cheese and soft cheese (probably something like a ricotta). According to Joan Alcock, cheese presses and/or strainers have been found in Britain at Camulodunum (Colchester) in Essex, Lower Halstow on the banks for the River Medway in Kent, Silchester (just North of Basingstoke) and Leicester and in the Roman fort of Bainbridge in Yorkshire; also at Usk in Monmouthshire, Holt in Flintshire and Corbridge (close to Hadrian's Wall in Northumberland), thus supporting the view that ex-Roman soldiers were making cheese. It is known that cheese was regarded as essential part of the Roman soldier's diet along with bread, meat and fruit. Indeed, Roman soldiers would routinely carry cheese in their knapsack whilst marching.

The methods described by these Roman writers included both acid-ripening varieties where the milk was simply left to acidify (not for too long!) and rennet based cheeses. The fresh cheeses were originally made without a coagulant using rough pottery vessels known as *mortaria*. They had a pouring spout and a gritty interior surface that carried bacteria from one batch of cheesemaking to the next. The milk was allowed to set and the spout enabled the whey to be poured off without unsettling the curd. The idea of using remnants from previous batches of cheeses to make new batches was to become commonplace in later years.

Palladius wrote his treatise on the farming practices in Britain some 300 years after the Roman invasion. From this it is clear that the basic methods of making various types of cheese were well known and indeed these changed very little over the following 1500 years. He suggested that the best cheese was made in early summer from milk curdled with rennet derived from the stomachs of not only calves but also kids or lambs. Other authors of this period had different views: Columella favoured lamb's rennet whilst Varro advocated rennet from the hare. Palladius also suggested that the milk of the fig tree or teasel flowers could be used. Other writers preferred the juice from wild thistle or nettles.

For hard cheeses the curds would have been placed in wicker baskets to drain the whey, then pressed in a mould for further drainage (possibly the same type of strainer as was used to drain soft cheese). Columella recommended sprinkling the cheese with salt before putting it in a cool, shady, place to drain further and harden. He also wrote of putting a hardened cheese into a brine bath, whilst Pliny suggested steeping the cheese in a solution of brine and vinegar, covering the vessel and leaving it in the sun. This apparently took "... away all mustiness and causes a pleasant odour". The Romans also flavoured their cheeses with crushed pine kernels, thyme and other herbs, with Columella suggesting that virtually any seasoning could be used. Smoked cheese was very common in Rome and

it has been suggested that it was well within the capabilities of cheesemakers in Britain to do likewise. Columella suggested the use of applewood.

Palladius mentioned cheese made in a distant garrison town in one of the Empire's "*less important colonies*" called Chester. The cheese was shipped to Rome and was probably the first recorded export of British cheese. It would be wishful to think that this cheese was a forerunner to Cheshire cheese. It would certainly have been a hard cheese strong enough to withstand the none-too-gentle trip to Rome and would have therefore been a long-keeping cheese.

These various references are simply to show how well advanced the Romans were in their cheesemaking skills. There were various methods of renneting, shaping and maturing cheese and innovative ways of presenting it by smoking or adding fruits and spices, which we would still recognise today. So in answer to the oft-quoted line from the Monty Python team "What did the Romans ever do for us?" you can add that they laid the long-lasting foundations for the successful production of cheese across Europe.

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4. The post-Roman era

When the Roman Empire began to crumble and the soldiers started to return to Rome from the late 4th century onwards, cheesemaking was well established in Britain employing the various methods introduced by the Romans. By the mid 500s Britain (or Britannia as it was called by the Romans) was entirely lost to the Romans and the country entered what was to be miscalled the Dark Age. Extensive immigration from Northern Europe created new communities, partly intermingling and partly displacing the original Celtic/Romano-British population westward, with Cornwall remaining Celtic. Jutes predominantly settled in Kent, Saxons in Southern England and what is now Essex and part of Suffolk, with Angles in the remainder of Suffolk plus Norfolk. Danes and other Nordic groups raided along the East Coast and subsequently settled. This fractionation led to the formation of regional kingdoms, the most important in England being Wessex, Mercia and Northumbria. The east midlands and East Anglia formed the Danelaw, often in conflict with the Anglo-Saxon kingdoms. After many setbacks, christianity became the main religion during the 7th century, so bringing the influence of the church to bear. Wales and Scotland were also divided into sub-kingdoms with inter-regional rivalries. The dominant force in the 7th century was Mercia, which continued to spread its influence and to build defences to protect it from neighbouring elites as well as marauding Vikings from Scandinavia. Offa, who was Mercia's ruler until the late 8th century, is reported to have demanded as tax 40 cheeses from Westbury on Trym. He allowed the cheesemakers to keep the buttermilk and whey from which the cheesemaker, normally a woman, would have made skimmed milk cheese and whey butter. The country eventually moved towards unity under the influence of Alfred the Great, whose daughter married the king of Mercia, before a further invasion by Sweyn Forkbeard in 1016 brought the Danish influence to bear. In the process, the most prominent English families were deprived of their wealth, which reverted to the Danes and their acolytes. Part of the Vikings' contribution to the British dairy economy would have been the importation of new and improved breeds of live cattle brought to England in Viking long ships.

Other groups were also making their contribution to the knowledge of dairying and cheesemaking. Itinerant monks who travelled across Europe – even after the fall of the Roman empire – spread not only the gospel of their religion but also other skills learnt within their monasteries. They had a vested interest in making good quality cheese since their orders often forbade the eating of meat on fasting days, which numbered in excess of 100 in a year, and depended on cheese and bread as their fasting staples.

England became united under Edward the Confessor in 1042 and his successor, from the powerful Goodwin family, Harold Goodwinson (subsequently known as Harold the second). Harold, having seen off Harald Hardrada, the Norwegian claimant to the throne, at the Battle of Stamford Bridge in 1066, was defeated by the opportunistic William, Duke of Normandy, at Hastings in the same year. William granted extensive lands to his loyal Norman followers and integrated (some might say subjugated) the former Anglo-Saxon elite into his cause.

The point of this potted history of post Roman Britain is to show the tumultuous changes facing the embattled population of what was now Britain, with constant wars, battles of succession to the throne and the influences of Germanic, Scandinavian and Norman invaders. The settlements and smallholdings continued to produce food and market their surpluses but many of the efficiencies introduced by the Romans were probably lost other than in the Monasteries where there was a strong vested interest in having sufficient food all year round to feed themselves. So it was in the monasteries that the accumulated knowledge of good husbandry and cheesemaking came to reside.

The Norman invasion

The Norman Conquest following the Battle of Hastings laid down the political and social system - the feudal system - that was to exist for the next 500 years. This was the dominant social system in medieval Europe, in which the nobility held lands gifted by the Crown in exchange for military service. Vassals were tenants of the nobles, while the peasants (villains or serfs) were obliged to live

on their lord's land and give him homage, labour, and a share of their produce, notionally in exchange for military protection.

After the Norman invasion there are references to cheese in the Domesday Book. This was to all intents and purposes a gigantic stocktaking of what property and resources existed in this newly captured kingdom. More importantly, it was commissioned to estimate what taxes could be collected into the King's coffers to defend the country against the still marauding Scandinavians, both in Britain and Normandy.

According to the National Archives web site:

'In 1085 William the Conqueror sent his men all over England into every shire [to] find out how many hides there were in the shire, what land and cattle the king had himself in the shire, what dues he ought to have in twelve months from the shire. Also he had a record made of how much land his archbishops had, his bishops and his abbots and his earls, and what or how much everyone who was in England had... So very narrowly did he have it investigated that there was no single hide nor yard of land, nor indeed ... one ox or cow or pig which was left out and not put down in his record, and these records were brought to him afterwards...'

Twenty years after King William's successful invasion of England, and the mass redistribution of land amongst his followers, it was time to consolidate and define. This survey and audit would clearly establish who held what, in the wake of the Norman Conquest itself. It would also clarify what rights and dues were owed to the King, and would settle the liability of his great barons to provide military resources, in soldiers or cash, for a monarch whose campaigning season never ended.

Diets in feudal Britain

The noblemen would have had a very varied diet including copious quantities of meat, fish and only the best cheese made from whole milk.

By contrast, the peasants in the villages of England had no such choice – theirs was a subsistence diet of bread, with beans, peas and root vegetables cooked as a stew, supplemented, when available, with cheese, fish and fowl and occasionally red meat. Game would almost certainly have been protected by the feudal estates; with severe punishment for those caught poaching.

Monks were supposed to eat a frugal diet, and their rules and customs usually outlawed the eating of meat except by the sick. In theory their standard fare was two simple dishes a day – cereal, beans, vegetables, eggs, cheese and bread – although in practice many Benedictine communities ate very well. Meat, fish, butter, lard, dripping, milk and honey all appeared on monastic tables at the time of the Domesday Book, although the reformed orders which sprang up from the late 11th century eschewed excessive eating.

Beer was the basic beverage for all tiers of society, the heat treatment implicit in its production making it far safer than the water typically available. Although it was brewed at a weak strength it was consumed in vast quantities: the average monk for example had an allowance of up to three gallons a day.

There are references to cheese confirming its role in the diets of the nobility as well as in the monasteries and amongst the peasants. King Henry II (reigning in England from 1154 to 1179) declared Cheddar cheese to be the best in Britain and in his official financial accounts (the so called 'Great Roll of the Pipe') it is noted that he bought 4.6 tonnes (12,240 lb) of Cheddar at a cost of a farthing a pound. His son - John - who reigned between 1199 and 1216 - clearly thought the same, as there are records of him continuing to buy the cheese for royal banquets.

The early monks who settled in England from France were looked upon kindly by William and were granted prime land on which to build their abbeys and monasteries. Later there were legacies of large tracts of land from Norman barons who often bequeathed gifts either in their lifetime or at death to particular monastic orders that they adhered to. The monasteries thus built up large estates that were expertly farmed by experienced managers who were expected to provide the monks with many of their basic necessities of food and clothing. Sheep were a mainstay of the farming operation providing meat (which was pickled for use in the winter months), wool for clothes and milk for cheesemaking. A prime example of this was the Cistercian monks who settled in the North and created

the abbeys at Fountains, Jervaulx and Kirkstall in North Yorkshire. The formula or recipe for making what we now know as Wensleydale cheese was probably introduced to the Yorkshire Dales by the Cistercian Abbots of Jervaulx and subsequently passed on to other Monasteries and later generations by word of mouth as no formal written version has been found. The monasteries became the repository for the skills of cheesemaking and remained so until the dissolution of the monasteries by Henry VIII in the 1540s. (See later on.)

Medieval Britain

Outside the monasteries the basics of the feudal/manorial system remained with large estates employing villagers beholden to the Lord of the Manor to look after the beasts and milkmaids to make the cheese and butter. Some of the villagers held small strips of land and occasionally kept a few animals for their own use. Produce from the manorial estates was used to feed the household and any surpluses were preserved for the Winter or sold into local markets. Nothing would have been wasted – it would have been consumed by the villagers or fed to livestock. Indeed what in the first half of the 20th century were regarded as by-products of butter- and cheese-making and fed to livestock - skim milk, buttermilk and whey - were everyday staples of workers who used these by-products to make cheese or simply to drink.

A 16th physician and writer Andrew Boorde divided cheese into 4 different types: '*Hard, Softe, Greene and Spermyse*'. All of these could have been made from whole milk, partially skimmed or skimmed milk or whey or buttermilk. The well-to-do would have eaten the whole milk cheeses whilst the poorer people relied on skimmed milk, whey or buttermilk cheeses. *Hard* cheese would have been more heavily pressed to remove as much of the whey as possible and might have been kept for a year. Skimmed milk cheeses that were pressed had an unenviable reputation being hard to get into but for the poorer people they were a way of preserving the goodness in milk and could be stored over the winter period. *Softe* cheeses would have been fresh cheeses like ricotta or curd cheese - often made from whey or skimmed milk. They were eaten within a matter of days. *Greene* cheese was young cheese – lightly pressed – eaten or sold within a matter of weeks. *Spermyse* was young curd that had been flavoured with juice extracted from herbs and was used in cooking.

Whereas the monasteries tended to concentrate on ewe's milk, the manorial estates and smallholders would also have had milk cows. Records from the 13th century show the payment of rents by the annual quota of cheese and butter per milking cow kept measured in stones (14 lb, 6.35 kg). Sheep were kept where the terrain might have prevented the grazing of cattle or where the traditions and skills developed by Monasteries spread to surrounding areas. Cows were generally milked from May, up to and beyond Michaelmas (at the end of September or beginning of October) whilst the sheep would have been milked through the spring and summer. Each cow was reckoned to yield sufficient milk to make seven stones of cheese (44.5 kg) and one stone of butter (6.35 kg). The milk of 10 ewes was reckoned to yield butter and cheese equivalent to that of one cow. The challenge then was to keep the animals through the winter as well as preserving the valuable produce derived from their milk. Some animals were slaughtered and the meat pickled or salted to last through the winter. Those beasts may well have been dried off beforehand in order for them to put on a bit of weight prior to slaughter. Any milk produced during the late autumn or early winter would have been insufficient to make cheese and so was sold off to the local liquid market, often at a very handsome price.

There are a few references to recipes using cheese, which appear to be aimed at the nobility and royalty. In *The Forme of Cury, a roll of ancient cookery* compiled by the Master Cooks of King Richard II at the end of the 14th century, reference is made to the use of grated cheese added to clear soup. In John Russell's book *Boke of Nurture*, written in the 1450s, there was a suggested inclusion of hard cheese in the diet for a healthy constitution whilst *The Boke of Kervynge*, written at a similar time, highly recommended the eating of cheese at the end of the meal '*after meat*' and with whatever fruits were in season. There were also several references to the dangers of eating old and dry cheese, which was seen to be difficult to digest. This may have been in particular reference to those hard cheeses made from skimmed milk.

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5. The dissolution of the monasteries and its aftermath

From time to time since the introduction of Christianity to Britain, there were issues over the relationship to Rome and matters came to a head in the 16th century. Henry VIII was determined to produce a male heir to the throne having failed to do so with his first wife of 14 years, Katherine of Aragon. He started divorce proceedings but found his way blocked by the Catholic Church. In order to circumvent the authority of the Catholic Church in Rome, Parliament passed the Act of Supremacy in 1534, which made Henry the supreme head of the Church of England. He then set about appropriating the Catholic Church's religious houses first in England and later in Scotland through the so-called Acts of Suppression of 1536 and 1539. These acts allowed Henry to confiscate all of their assets and income and effectively disband some 900 religious houses in England alone. Not only did this free Henry to marry his 2nd wife, Anne Boleyn, and subsequently others but it also provided a huge boost to the Crown's income. There was an income stream in the form of rents from these properties and also from their subsequent sale – both were needed to fund Henry's military campaigns in the 1540s. According to historian Professor George W. Bernard (2011) "*The dissolution of the monasteries in the late 1530s was one of the most revolutionary events in English history. There were nearly 900 religious houses in England, around 260 for monks, 300 for regular canons, 142 nunneries and 183 friaries; some 12,000 people in total, 4,000 monks, 3,000 canons, 3,000 friars and 2,000 nuns...one adult man in fifty was in religious orders (the total population was estimated at the time at 2.75 million).*"

The displaced monks and friars turned their hands to other things including the dissemination of the accumulated knowledge on farming and cheese making, resulting in general improvements across the land in livestock breeding and feeding and having a favourable impact on cheese production.

Enclosures

Much of the arable land in middle England had been developed as an open field system that incorporated grazing rights for commoners on common pasture or on fallow fields. The inheritance or granting of strips of land meant that fields were often owned by many people, each sharing a common interest in its cultivation. Heavy land required heavy ploughs using 6 or 8 oxen. Commoners and landowners came to together and pooled their resources and time to plough and sow these open fields. The process resulted in greater efficiencies and improved yields compared to the alternative of strip farming by individuals. However, starting as early as the 14th century, these open fields (along with common land and wasteland) began to be enclosed as individuals sought to protect their grazing rights. This stimulated the growth of sheep rearing on what previously had been arable land. The landowners in particular argued that enclosure led to improved efficiencies and avoided the over-farming of the common land – the so-called Tragedy of the Commons (where individuals allegedly simply put more animals onto the land so causing a degradation of the land and a loss of yield). Others argued that enclosure allowed the wealthy to develop their own farming systems and improve their own efficiencies against the interests of the landless and poorer sections of their community who lost their access to so-called common land. Landowners saw the opportunities as towns and cities grew and needed more and more food. The process of enclosure continued into the 1800s and was a key factor in shaping the landscapes we have today and the system of land ownership. Initially enclosure occurred by agreement between the villagers. Often this was a long drawn-out process. Prior to 1740 the larger landowners, keen to improve their output and enclose more land, could be thwarted by the refusal of some of the villagers with common grazing rights or with small strips of land. Parliament was persuaded to legislate to allow enclosure when agreement could not be reached. Acts of Parliament could be sought to enclose such land but required 80% of the land to be enclosed must be held by the petitioners. This was often the local squire plus three or four other larger owners. Other smaller land-holders were often required to sell their share as they were unable to afford the shared

cost of fencing or hedging or the fees of the Commissioners whose job was to settle any outstanding issues. In due course open field villages became a rarity and the system of enclosure, which continued until the 1800s, changed the nature of farming and land ownership. Between 1751 and 1810 almost 3,000 Enclosure Acts were passed.

Productivity increased and provided larger surpluses that could be sold into the growing industrialised towns and cities. More vegetables and potatoes were grown and became a staple for townfolk. More fresh meat was available throughout the year as more fodder crops were grown to sustain the animals through the winter. In this respect the work of Lord "Turnip" Townsend was an important milestone as it enabled more cattle to be sustained during the winter months on turnips. Richard Weston made frequent trips to what is now Belgium and the Netherlands and discovered the benefits of not just feeding fodder crops in the winter but also the use of clover to enrich the soil as part of a crop rotation system. All such improvements in land management and animal feeding increased agricultural output, including milk. This created an increased availability of cheese throughout the year but it also created a class of people called the landless poor, who had lost their access to common land. Many had to leave their rural homes and move to the cities to find work.

Cheesemaking

Cheese was made on most farms and smallholdings. Generally both fresh cheeses and long keeping cheeses were made for home consumption, with surpluses sold at local markets and fairs. There are references to Cheddar cheese being made on farms in Somerset whereby farmers would pool their milk to make bigger cheeses on a daily basis rather making smaller cheeses on a less frequent basis. Each farmer might have had only four or five cows producing maybe 20–30 litres of milk a day, which might have been enough to make one small cheese of about 2 kg. By combining their milk (effectively as an informal co-operative) each farmer had a share in any cheese made which would either be divided between the farms or sold into local markets or even taken into London. Reference has already been made to the purchase of Cheddar cheese by Royal households dating back to the 12th and 13th centuries and in the reign of Charles 1 (1625 to 1649) parliamentary records show that the cheese made in Cheddar was sold before it was even made and indeed was only available at the court.

London was by far the biggest city but up to 1500 had hardly grown above the population of 80,000 people that existed after the Norman invasion. This was due in part to the ravages of the Black Death in the 14th century. Thereafter London's population grew at an amazing rate, illustrated in Figure 5.1, and became the major trading hub for the South East of England and beyond. London's population grew exponentially after this, rising to 750,000 in 1750, 1 million in 1800, 3 million in 1850 and 7 million by 1900.

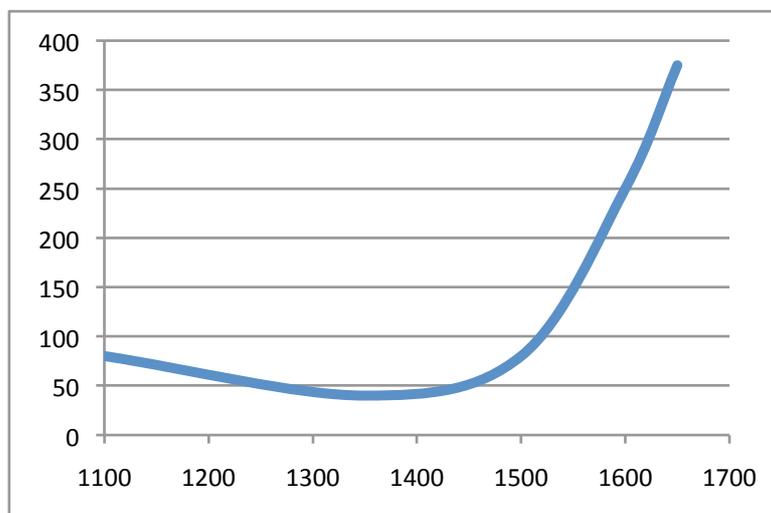


Fig. 5.1 Estimated population of London (thousands) over the period 1100–1650

As the City grew so its demand for food followed. Cheese was brought into London by various means. Farms in Suffolk became the largest suppliers of cheese to London due to the ease of a short ship journey from Yarmouth or Ipswich. The cheese was good but quality declined as the cheesemongers of London and makers connived to maximise the value of milk by skimming the cream from the milk for the lucrative butter trade and making a skimmed milk cheese with the rest. Suffolk cheese developed a poor reputation being impossible to get into other than with a hammer and chisel. It was thus known as 'Bang and Thump'. In his diary of 4 October 1661 Samuel Pepys wrote: "*and so home, where I found my wife vexed at her people for grumbling to eat Suffolk cheese, which I also am vexed at.*"

The poet Bloomfield sang of the same Suffolk cheese:

*"Mocks the weak effort of the bending blade,
Or in the big-trough rests in perfect spite,
Too big to swallow and too hard to bite".*

If this were not extraordinary notoriety to have two literary giants castigate the cheese, a local poet came up with the following:

*"Those that made me were uncivil,
For they made me harder than the devil.
Knives won't cut me; fire won't sweat me;
Dogs bark at me, but can't eat me."*

The Royal Navy, hitherto a longstanding buyer of Suffolk cheese, was forced to change supplies in part because of the quality but also due to dwindling milk supplies following a cattle plague in the Eastern Counties in the 1640s. This provided an opening for cheesemakers in other parts of Britain to step in. Farms in Cheshire were producing exportable surpluses and the London market provided them with a high priced outlet. In Camden's *Britannia* - originally published in Latin in 1586 and subsequently translated into English in 1616 by P Holland - it recorded that "*Cheshire Cheese is more agreeable and better relished than those of other parts of the Kingdom*". The 1637 edition refers to cheese making in Cheshire where "*...the grasse and fodder there is of that goodness and vertue that the cheeses bee made heer in great number of a most pleasing and delicate taste, such as all England againe affordeth not the like....*".

The first recorded shipments of Cheshire cheese to London were in 1623. They came by road and must have been a long and perilous journey given the state of the road network at that time. The year 1650 saw the start of the trade in Cheshire cheese to London by boat when 20 tons (20.32 tonnes) arrived in London on 21st October 1650 on the ship *James*. This was full-cream cheese and sold at a 30% premium to other cheese. At that time Suffolk cheese was selling retail at 2.3 p per kg (2.5 d per pound) and Cheshire sold at roughly 1 p per kg higher, a substantial premium. (Some guidance on the purchasing power of the pound is given in Appendix B.)

This trade by ship grew to almost 2,000 tonnes a year in the 1680s but then declined in the 1690s due to the loss of ships to the war with France, recovering thereafter into the 1730s (Foster, 1998). By this time the trade in Cheshire cheese to London was controlled by just 9 cheesemongers. This concentration of commercial interests led to Suffolk cheesemakers petitioning Parliament, blaming the cheesemongers for encouraging them to make the skimmed milk cheese. In so doing the cheesemongers capitalised on the increased volumes of butter available, so damaging the reputation of their Suffolk cheese - strange but true (Blundel and Tregear, 2006). Unlike other professions there was no guild representing cheesemongers in London.

Although the cheesemongers of London had their ordinances approved by the City of London Corporation in 1377, a London Company of Cheesemongers never existed. The Guilds and their members secured certain rights, which prevented people living outside of London, or those not licensed by the Aldermen of the City, from pursuing their trade. Various agreements would have been used to control the London market for various trades – be they tailors, chandlers, fruiterers or butchers. They were in effect legalised cartels. The cheesemongers were an informal grouping without legal status that was exerting control over the supply, quality and pricing of cheese in London. The cheesemongers set up warehouses in various parts of the country and organised the transport of cheese by sea, canal, river and by road - the latter being somewhat challenging due to the lack of proper roads. Over the years various groups of cheesemongers, who individually might also have been members of other guilds, successfully petitioned Parliament to prevent any scheme that might have threatened their

monopoly of the London market. An example was their opposition to river widening schemes in the North of England that might have facilitated other groups to ply their trade into London. It is estimated that in the 1740s there were 500 cheesemongers operating in London (Stern, 1979). By the 1851 Census their numbers had swelled to 2,156.

Anyway, the cheesemakers of Suffolk failed to make any impression on the activities of the London cheesemongers. The reputation of Suffolk Cheese had slumped further. Daniel Defoe later described Suffolk cheese in the 1720s as the worst in England whilst Pope, in his 1730's satirical *Imitation of Horace*, wrote

*'Cheese such as men in Suffolk make,
But wished it Stilton for his sake'*

Volumes of Suffolk cheese declined and from 1739 the Royal Navy only bought Cheshire cheese. By then Cheshire was the most purchased cheese in London and London was by far the major market for Cheshire cheese. In the year to 25 March 1730 supplies of cheese into London totalled 10,523 tonnes with more than half coming from Cheshire (Table 1).

Table 5.1. Deliveries of Cheese into London in 1730 (Source: Foster, 1998)

<i>Source</i>	<i>Tonnes</i>
Cheshire	5,756
Hull/Gainsboro'	1,407
Suffolk	985
Newbury/Abingdon (by barge)	2,375
Total	10,523

During this period it has been estimated that annual production of cheese in Cheshire was of the order of 9–10 thousand tonnes a year and that the majority of this ended up in London (Hanshall, 1823). In contrast to many other cheeses made at this time, which tended to be 5 or 6 kg in weight, Cheshire cheeses gradually increased in size as they were more resilient on their journey to London and were thus preferred by the cheesemongers. It must be said, however, that although the cheese may have been called Cheshire – in the main because that was from where it was shipped – it was hardly an homogenous product made from a single recipe.

The strength of the cheesemongers was not only their control over the marketing and pricing of cheese in London but their influence over the production, purchasing and distribution of cheese in the North West of England through a network of cheese factors. These factors were in the pay of the cheesemongers and routinely dealt with the cheesemakers and organised the transport of cheese, by whatever means available, into London. It was the responsibility of the factors to get the type of cheese that was needed with a degree of consistency. In some cases the cheesemongers exercised exclusive rights of docking in the major river estuaries or canals of the North West, so preventing other operators from getting into this lucrative trade.

The cheesemongers' influence also extended into the importation of cheese from the 1730s. Though initially (tens of tonnes) quantities grew over time to an estimated 20,000 tonnes by the early 1850s - mostly from Holland and France. We know of course that imports of cheese occurred well before this as Samuel Pepys recorded in his diary in 1666 that he buried his Parmesan cheese in his garden to save it from the Great Fire of London. There are also mentions of other imported cheeses such as Gorgonzola, Brie and Roquefort even before Pepys days. However, the volumes were small and purchases were limited to the wealthy elite in London. As with many cheeses, it is likely that most of the cheeses then on offer bore little resemblance to the cheeses bearing these names today. Journey times were longer and without refrigeration softer cheeses simply would not have lasted though, as we shall see later on, imports were to play a much more significant role in the evolution of the British cheese market as domestic makers sought to feed a rapidly growing population and Government policy decisions and numerous wars damaged the agricultural sector.

Daniel Defoe, who wrote in great detail about his travels through England in the 1720s, said that Cheddar was the best cheese made in the England if not in the world. He described the way that all of the households in the town of Cheddar in Somerset brought their milk every day to a community room where the quantities for each person was set down in a book. The milk was pooled to make one

cheese and no more, its size depending on the quantity of milk delivered that day. It is interesting that little is known of the trade - if any - of cheese from the West Country. With the difficulties of transporting cheese over longer distances it is likely that most of the cheese produced in Somerset, Wiltshire and Gloucestershire failed to find its way out of its home territory into the markets elsewhere other than under contract to the royal household.

It was mentioned earlier that English Kings, starting with Henry II, had purchased quantities of cheese from Cheddar for the royal household and this practice continued into the reign of Charles II in the late 17th century. It thus appears that the royal households cornered the market for their own enjoyment. Certainly there is evidence from parliamentary records that such was the demand at Court for cheese made in Cheddar that it was already sold before it was even made. This being the case it explains why so little was written about Cheddar being sold in the London market.

In his later writings Defoe also mentioned Stilton cheese and other regional cheeses. Cheeses tended to be identified by their origin. Rarely was there a single recipe for making any variety of cheese and quality, taste and texture would have been highly variable depending on age and origin. Even at the end of the 19th century there were three distinct recipes for Cheddar cheese.

Cheese in the diet

Cheese was an important part of the diet for all classes of people. The armed forces were major customers and in the absence of meat they were mighty heavy eaters of cheese. As early as the 16th century the daily ration for seamen and soldiers included half a pound (227 grams) of cheese as well as a quarter of a pound (113 grams) of butter, 3 biscuits and a bottle of beer. Cheese also formed a key part of the diet in 18th century workhouses whilst the weekly ration for the Pensioners of Greenwich Hospital was 40 ounces (around 1 kg) per week, equivalent to 143 grams a day. The consumption of cheese by these groups was exceptional but even at the poorer levels of society the intake of cheese, often known as white meat, was an important part of the diet. Fussell (1966) estimated that consumption by farm workers was as high as half a pound of cheese a week which equates to a daily intake of 32 grams, about the same as average per capita consumption in the UK in the early part of the 21st century. As was stated earlier, the cheese consumed would have been a mixture of fresh or green cheese and hard cheese, mostly made from skimmed or partially skimmed milk, whey or buttermilk. Farm worker's consumption gradually fell during the 18th century and by the start of the 20th century was estimated to have dropped to around 20 grams per person per day.

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6. The Corn Laws and the industrial revolution

There had been little change in the methods of producing cheese since Roman times. Farming methods had changed with enclosure acts and winter-feeding. This boosted agricultural production and made production of milk on small holdings more of an all year round activity; with the retention of dairy cows over the winter period (rather than slaughter) more milk was produced over and above the needs of the individual holding. This allowed cheese production to increase. No firm figures are available on the level of production although it has been estimated that production could have been as high as 75,000 tonnes at the start of the 19th century.

London became the key market for cheese, the bulk being supplied from British farms with most coming from Cheshire.

The Corn Laws

Aside from the Enclosure Act, the other event that helped shape the farming industry for the last 170 years was the repeal of the Corn Laws in 1844. The Corn Laws were originally introduced in 1815 following the blockade of the European continent during the Napoleonic Wars and were designed to weaken the French economy. At the same time the Government introduced controls on imported grain. Such imports were only allowed when domestic grain prices reached 80 shillings (£4) a quarter (12.7 kg). This provided a huge boost to the profits of British cereal farmers, benefitting primarily the major landowners. Universal suffrage was non-existent and it was land ownership alone that defined voting rights for Members of Parliament; the landowners thus held great sway over the government of the day. The escalation of grain prices caused extreme hardship for the working classes and resulted in a regressive redistribution of income from the landless poor to the (rich) landowners. It also ignited the traditional battle between the rich landowning cereal producers and smallholding beef and dairy producers, for whom grain would become an increasingly important input in livestock farming (the so called 'Corn versus Horn' battle). The Corn Laws encouraged domestic grain production and reduced the amount of land used for livestock farming. Of more significance was the knock-on effect of these higher grain prices on the broader economy: they caused a downturn as consumer spending on manufactured goods declined and this led to rising unemployment. The Reform Act of 1832 extended the right to vote to the merchant classes who saw the benefits of repealing the Corn Laws. Their pressure plus that of the Anti Corn Law League and the Chartist movement eventually resulted in the repeal of the Corn Laws by Sir Robert Peel's government in 1846; with it came a change of economic policy that eventually led to the liberalisation of food imports into the UK.

This marked a turning point for British agriculture and for farmers. It ushered in the Cheap Food Policy that was to dominate food production in the UK right up to our accession to the European Economic Community (EEC) in 1973. No longer were British farmers and food producers protected by heavy tariffs on imported produce. Britain had seen huge increases in coal, steel and textile production and increasingly depended on export markets for these commodities to pay for increased imports of food. It was felt that overall the economy would benefit from a liberalised trading environment that would allow our exports of these commodities and finished manufactured products to grow. Peel and other free traders also saw such liberalisation as a means of reducing the likelihood of further European wars. The repeal of the Corn Laws and the ensuing efforts by succeeding governments to create free trade agreements with all of its major trading partners signalled a gradual decline in UK agricultural output and increases in imports of many commodities, including cheese and butter.

Cheap food was to play a vital part in Government policy in the 20th century. Our early industrialisation ahead of the rest of the world and the huge shift of population from rural pursuits to the major towns and cities was unprecedented. For example, between 1750 and 1900 the UK's population grew by a factor of more than 3.5 whilst the proportion of the population living in towns grew from 15% to 85%. British agriculture, despite improvements in farming techniques and in the breeding and feeding of livestock, was incapable of feeding the nation. Only in times of war did the

issues of self-sufficiency, food security and the strategic importance of being able to feed the country in such times, become a hot topic. Despite this debate, our levels of self-sufficiency in most food groups fell and Britain became the largest export market for food producing countries around the world. Of particular importance was the preference through lower or zero import tariffs on food from the countries of the British Empire.

In 1842, prior to the repeal of the Corn Laws, the duties on foreign cheeses were 10 shillings and six pence per hundredweight, equivalent to £10.33 per tonne. A lower duty was charged on cheese imported from the Empire and British possessions abroad of 2s 3d per cwt (£2.21 per tonne). Duties on all cheese imports were abolished in 1859, the reduction in duty being equivalent to around one sixth of the basic import price. Market prices gradually adjusted to these new levels, putting home producers under severe economic pressure. Imports of cheese, estimated to have been of the order of 6,000 tonnes in 1800, almost trebled to 17,678 tonnes in 1850 and then trebled again to 52,883 tonnes by 1870. Imported cheese had an average value of £59 per tonne in 1874. A guide to equivalent values is given in Appendix B.

The industrial revolution

The advent of the steam engine resulted in a step change in the way that food was brought into the London market. Quicker than road, canal or ship, the railways became a key transport vehicle for milk and cheese into the major cities – particularly London. The first milk sent to London by train was in 1864 and led to the creation of what was to become Express Dairies. George Barham was the initiator of this trade, changing the company's family name of Barham to The Express Country Milk Supply, the name deriving from the fact that the company only used 'express' trains to transport their milk to London. Their main bottling plant, which would also have had limited processing facilities for other dairy products, was close to South Acton railway station. This allowed access for milk trains from both the West (via the Great Western Railway) and from the South (via the Southern Railway). Milk that would formerly have been made into butter or cheese in the counties to the West of London could suddenly be used to supply the London market for liquid milk. (There is conflicting information about the location of the Barham's dairy: the Dairy Council state that Barham's head office was close to Kings Cross station and Express was to purchase milk mostly from the Midlands and the North). The opportunity for the farmer to simply sell his milk into a lucrative market and be paid for it almost immediately (rather than having to make storable products, nurture them and then sell them some weeks or months or years later) was too good to miss.

In other parts of England the same issues meant that any producers close to the rail network had the opportunity to sell milk for the liquid market and this led to the decline of cheese- and butter-making. For example, the number of cheese factors in Wiltshire declined dramatically from 20 in 1859 to only 1 in 1911. Similar issues would have been apparent in the North West of England where the production of Cheshire cheese, almost a universal activity on every dairy farm in the 1850s, drifted to the South of Cheshire and into Shropshire as farms in the north of the county switched to supplying their milk into Manchester, Liverpool and the other great towns in the North West as well as into the Midlands. These trends were also well established in the South East of England where production of cheese virtually disappeared in Essex, Kent and Surrey. Alongside these structural shifts caused by industrialisation, a growing population to feed and the steady drift of population from rural to urban areas, led to a decline in cheese production on farms throughout most of Britain. It was not until the 1870s that the first cheese factories were seen. It was thought that their development, as in the USA, would lead to a new age of cheesemaking in Britain; but as we will see it took many years for their impact to be felt.

The technology used to make cheese, which had been virtually unchanged from the Middle Ages and Roman times, took a leap forward with the creation of cheese factories. It has been suggested that the first 'associate dairy' (as they were originally called) was formed in Switzerland in or about 1820. The one usually regarded as the first factory (or cheese dairy, as they were to be subsequently called) was created in the Oneida County of New York State in 1851 by a farmer by the name of Jesse Williams, who it is said was originally from Monmouth in Wales. Four others followed in New York State and by 1861 there were 21 in operation. The idea spread to other states, notably to

the major dairying state of Wisconsin. The first in that state was in Green County in 1864 with five farmers making Limburger cheese. They were one of 53 co-operative cheese factories set up in Wisconsin between 1864 and 1874. Farmers co-operated to supply their milk to a central plant in much the same way as the farmers in Cheddar in Somerset had been doing for some time, though on a larger scale. This model was developed across the main milk producing states in the USA and led to a huge increase in cheese production. By 1899 there were around 1,500 factories, normally sited at crossroads to facilitate transportation of milk from farm to dairy on a daily basis.

The USA had been exporting some cheese to the Britain since the early part of the 19th century and sales had reached 25,000 tonnes a year by 1860, accounting for around 80% of all British cheese imports. This grew significantly to more than 43,000 tonnes by 1874. Thereafter they declined and reached a plateau of 38,000 tonnes a year. Table 6.1 shows the main origins of British imports of cheese in 1874, British North America being the original name of the British controlled provinces before the formation of the Federal Dominion of Canada.

Table 6.1. British imports of cheese in 1874 (Source: Evans, 1876)

<i>Country</i>	<i>Tonnes</i>
Sweden	159
Germany	227
Netherlands	20,263
Belgium	83
France	279
USA	43,177
British North America	11,229
All Others	39
Total	75,451

The first cheese factory in England was opened in Derbyshire in 1869 when a group of landowners and farmers established a cheese factory in the city of Derby, funded by the subscribers. A second followed in the same year in the village of Longford near Derby. This was financed by a single landowner, Mr Coke, and involved collaboration with 13 local farmers. This factory was a model for others to follow in the way the dairy was laid out with provision for both making and storing cheese in more hygienic conditions than generally existed on most farms. It was managed by two Americans, Levi and Cornelius Schemerhorn. Initially these factories did well for at the start of their third operating year in 1872 the milk suppliers took over the finance and management of both factories and ran them as a co-operative venture. Accounts for the Longford creamery for 1873 revealed that 86 tonnes of cheese had been produced returning a milk price to the farmers of 0.7 ppL (7.5 old pence per gallon). By 1876 there were 9 factories operating in England, four in Derbyshire, three in Staffordshire, and one each in Cheshire and Somerset, with an estimated collective annual output of 400 tonnes. By 1878 it was estimated that there were 20 factories operating in 5 counties of England making cheese from 6,000 cows. This might have resulted in a production of around 1,200 tonnes a year. These dairies had a chequered history, some closing through lack of milk or profit. Such was the lure of the liquid market in London that at times it was more profitable for the Derbyshire dairies to ship milk to London by train than make it into cheese. Some of these dairies became milk-handling depots, cooling the milk prior to shipment to London or elsewhere. However, some cheese was generally being made in the summer flush of milk. Quality was little better than that available from farms and was probably just as variable; a constant complaint was that the factory cheese, be it imported or locally produced, lacked the flavour of cheese made in years gone by. Generally the cheese was sold at a young age, quite deliberately in the case of imported US cheese, as they were not looking to produce a slow maturing/long-keeping product. For the domestic producers, selling young cheese was simply a commercial decision to improve cash flow.

In 1881, 12 years after the opening of the first British cheese factory, it was reported by Gibbons that cheese made in Derbyshire was between a half and two thirds of its level 20 years earlier. Such was the lure of liquid market, which generated a net return to these farmers equal to or above that secured from making butter or cheese. Some continued to make cheese in the summer months with all

of their winter milk going into the liquid markets. Those liquid markets had continued to grow as urban incomes grew and as confidence in the quality of so-called railway milk increased, as stricter controls were introduced to deter contamination and adulteration of this perishable product.

Whereas other livestock enterprises and arable farmers were tending to get bigger and require hired labour, dairy farms remained essentially a family run business with little investment in buildings, stalls or even in a constant supply of water. Thus dairy farms in more rural areas, who were excluded from the liquid market by dint of their remoteness, continued to run a grass-based system of milk production, making butter and cheese for the local market and for on-farm consumption. During winter the cows were on a subsistence diet of hay and straw and either pasture in the West or roots in the North of England. Those farms supplying the liquid market were encouraged to extend their supply into the winter months as price differentials between summer and winter milk expanded. Better equipment for holding and transporting milk to the depots was required and these came in the form of tin-plated steel churns with lids. These farms also had to find ways of improving the feeding of their livestock during the winter months. Traditional crops such as root vegetables were not appropriate for the liquid milk market as they often tainted the milk. Alternatives such as brewers grain, imported maize or cottonseed cake were being increasingly used. In addition, greater attention had to be given to improving pasture. Such changes in farming practice were not seen as important on those farms either making their own cheese or in selling their milk to a cheese factory.

Thus traditional farm cheesemaking continued in rural areas in much the same way as it had for centuries. Factory cheesemaking was making very little contribution to cheese production, finding it hard to generate sufficient returns from the cheese market in competition with cheese imports and being unable to tempt milk from other milk producing farms whose milk was going into the liquid market.

Cheese production levels and quality

Reliable figures are not available but from various estimates it seems that British cheese production stood at around 75,000 tonnes in 1800 and by 1850s had reached around 90,000 tonnes. It then declined to around 37,400 tonnes by the time of the first census of agricultural production in 1908. This was a gradual decline, which accelerated during the cattle plague of 1865/66 and during the great agricultural depression of 1875 to 1885. Bad weather and poor harvests in the UK during this period, accompanied by a glut in world markets of cereals and wool, precipitated a collapse in market prices and a decline in all domestic agricultural output. Agriculture contributed about 16% of GDP in the late 1860s and this declined to 9% by 1890 and 7% immediately before the First World War (WW1). Dairy farmers were probably less affected by these calamities than beef, sheep, pig and cereal enterprises. In fact the Royal Commission Report on Agriculture published in 1894 devoted but a few pages to the dairy sector. The liquid markets continued to grow, sucking more milk away from farmhouse butter and cheese makers whilst dairy farms supplying the liquid market benefited from lower cereal prices. Most cheese continued to be made in the Northern and Western parts of the country with the same issues of inconsistent quality. The vast majority of cheese was still made on farms or in liquid milk depots where surplus milk had to be converted into something that would extend the life of the milk. British cheese creameries had made little impact on the cheese market.

In contrast, foreign factory-made cheese from the USA (and later Canada) was generally of a more consistent quality, although by all accounts it lacked the flavour of the best fully matured farm made Cheddar cheeses. However, due to the resultant economies of scale, imported cheese could be transported to the UK and undercut home produced cheese. The situation for British cheesemakers worsened as the cost of distribution from America declined with the development of the railroad network in the States and the arrival of steam powered ships. If that were not enough, New Zealand started to export cheese and butter in refrigerated ships from the 1890s, tempted by the increasing demand for cheese in a fast growing and fast industrialising Britain. The development of refrigerated transport also enabled increasing quantities of frozen beef and lamb to be imported undercutting home production and meat – hitherto a luxury for most households – became a viable substitute for cheese in the early part of the 20th century. To cap it all, there were a number of outbreaks of cattle plague in

the latter half of the 19th century in England that had the effect of reducing the availability of milk for cheese making.

Overall, the effect of increasing demand for liquid drinking milk as population increased and urban centres grew, the increased imports of factory-made cheese from North America and other countries allied with reducing distribution costs and the variable quality of much of the cheese made in Britain was to reduce British cheese production by 58% between the 1850s and 1908, as illustrated in Table 6.2.

Table 6.2. Estimated British cheese production in tonnes per annum (Sources: Fletcher, 1961; Taylor 1974; National Archives 1983)

Year	Production tonnes
1800	75,000
1850	90,000
1908	37,400

New Zealand, Australia and Canada were to become the major exporters of cheese to Britain in the early 20th century. Milk production estimates suggest that milk production, having grown in the first part of the 19th century, was virtually unchanged in the last 30 years of that century and with the increase in demand for liquid milk the proportion of milk used to make butter and cheese fell from 45% in 1870 to 30% by the mid 1890s and 23% in 1907 (Hall 1991). Taylor estimated that in England alone cheese production in the 50 years before the 1908 census dropped by 75% suggesting that Wales and Scotland were, as might be expected, less affected by the surge in population and hence the increased demand for liquid milk.

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7. British cheeses at the turn of the 20th century

At the turn of the 19th century there were probably some 20 named British cheeses, which generally took their name from the place of origin. Cheddar, Wiltshire, Dunlop, Lancashire, Caerphilly, Cheshire (Blue and White), Wensleydale (Blue and White), Coverdale, Swaledale, Single Gloucester, Double Gloucester, Leicestershire, Derby, Staffordshire, Stilton (Blue and White), various fresh cheeses (such as Colwick, Cambridge, Crowdie and Slipcote) and last but not least Dorset Blue made from semi skimmed milk. Cheesemaking had virtually ceased in some of the Eastern Counties of England and production was now concentrated on the western side of the country with small pockets in the Melton Mowbray area of Leicestershire, South Nottinghamshire, Derbyshire and in the Yorkshire Dales.

The majority of these cheeses was still made on farms and very much on a seasonal basis for although many farms may have calved a few of their cows in the autumn to take advantage of higher winter milk prices for the liquid market, most milk was produced in the spring and summer months. Where there was a demand for liquid milk this would be satisfied first and any surplus milk could be turned into cheese. Farms made fresh cheeses for their everyday consumption or for sale into local markets and made longer keeping cheeses that might help see them through the lean winter months.

The growing urban population in the major towns and cities outside of London had created a huge demand for all types of food and makers in the North West found that producing younger Cheshire and Lancashire cheeses, sold at perhaps a few weeks old, was a more profitable enterprise than keeping the cheese for a year's maturation. The market for this so-called 'white meat' was large and profitable. Much of the imported cheese from Australasia and North America was factory made and whilst consistent in quality was rather young and bland tasting. Urban dwellers therefore developed a taste for mild cheese. Cheshire and Lancashire makers responded accordingly as this demand for 'white meat' increased. Whilst their cash flow improved, the quality of cheese – at least according to contemporary commentators – did not.

Factories had made little impact since the 1870s but many liquid milk dairies close to major towns and cities did produce (mostly fresh) cheese from their surplus milk. Units formerly set up only to make cheese, although becoming liquid milk depots for supply of liquid milk by rail to the major cities, did still produce cheese from surplus milk. Thus the 1907/08 census of production estimated that about 12,000 tonnes of cheese of all types was produced in factories rather than on the farm. This represented just over 30% of total cheese production.

The main English cheeses

As the 19th century closed, there was a greater awareness of the role of different types of bacteria in the cheesemaking process, the importance of clean milk and good housekeeping in the cheese room whilst use of rennet was widespread. This development was concentrated primarily on Cheddar cheese and for that reason it will be reviewed first.

Cheddar cheese

Cheddar dates back to the 12th century. By the middle of the 19th century it was the second most produced cheese in Britain after Cheshire. Output had expanded from its Somerset origins into Wiltshire, Gloucester and even further afield into Scotland. Most notably America, Canada, Australia and New Zealand were all producing Cheddar towards the end of the 19th century and exporting it to Britain. Their success reflected the move to factory production, led by America, that made a more consistent cheese and, despite the distance travelled, was also cheaper than home produced Cheddar. The advent of steam-powered ships significantly reduced the cost of shipping food products into Britain. Efforts had been made in the 1850s by Joseph Harding to standardise the manufacture of Cheddar on British farms. He recognised the importance of good hygiene in the dairy and the need for high quality, clean milk from the farm. The sometimes-crude conditions in which the cheese was made

and stored were not conducive to producing consistent high quality. It was in the *Journal of The Bath & West Society* that the first written recipe for Cheddar was published in 1857 based in part on the work of Harding. Harding had lectured across the country aiming to raise standards of all British cheese regardless of region. His sons followed him, even going so far as to travel to Australia to pass on the newly received wisdom. In the summer of 1866 a representative of the American Dairyman's Association, one Mr X. A. Willard, toured the cheesemaking areas of England. His aim was "*the mutual improvement in the science of cheesemaking and more efficient action in promoting the general interest of the dairy community*". His report in the following year was very complementary about Harding's dairy management and cleanliness in particular but was critical of the appliances he saw being used on other farms for making the cheese. He admitted that the very best of the farmhouse Cheddar made in England, with its "fine delicate flavour", was better than that made in US factories. Despite the poorer quality of American milk their factory production was good enough to compete and even beat much of the farmhouse cheddar made in England.

Harding's work and that of other dairy experts enabled science to be introduced to the art of Cheddar-making with defined time and temperature combinations linked to the somewhat crude measurement of acidity levels in the curd. The use of commercially manufactured animal rennet, imported from Denmark from around 1875, also gave a more consistent product. However, quality issues still remained, not helped by the existence of three distinct recipes for making Cheddar cheese. These were known as the Harding system, the Cannon system and the Candy system. (For more details on these see Cheke (1959), pages 209–212.)

The matter did not go unnoticed in political circles. In 1899, a "*Report on the results of investigations into Cheddar making carried out on behalf of the Bath & West and Southern Counties in the years 1891 to 1898*" was presented to Parliament by its author, Dr F. J. Lloyd. The report concluded that the quality of cheese made owed much not just to the skill of the cheesemaker, the compositional quality of the milk and the conditions in which the cheese was made but also to the bacteriological quality of the milk. He wrote: "*Bacteria, those infinitely minute vegetable growths, which are now found to play such an important part in both the welfare and ills of mankind, were not absent from the milk and dairy, and were fighting either for or against the skill and intelligence of the cheese-maker.*"

Although there was no standardisation of recipe or size, the normal Cheddar of this time weighed anything up to 40.8 kg (90 lb) although the most common size was probably the 25.4 kg (56 lb) version measuring roughly 355 mm (14") in diameter and 406 mm (16") in height. English Farmhouse Cheddar from Somerset and Wiltshire was still regarded as the benchmark for quality having been aged for longer than most of the imported cheese. Many West Country makers had switched from their traditional 25 kg truckles of Cheddar to a 2.27 kg (5 lb) Caerphilly cheese, which was popular with Welsh miners.

Smaller Cheddar cheeses were made depending on milk availability and the market. They might have weighed 4.5 to 6.4 kg (10 to 14 lb) and measured 177–203 mm (7–8") in diameter and 229–254 mm (9–10") in height.

In Scotland, where these baby cheeses were often made, they were sometimes known as 'stiltons' owing to them being a similar size to the traditional Stilton. It was not unusual for Cheddars made for the Scottish and North of England markets to have been coloured with the use of annatto. As a result some of the imports of Cheddars from Canada and New Zealand would also have been coloured.

Cheshire cheese

Cheshire cheese, having been the cheese of choice in London for many years, was now at the beginning of the 20th century sold at a younger age, primarily into the industrial markets of the North West and the Midlands. Weights varied between 18.1 and 36.3 kg (40 and 80 lb) but with a fairly standard diameter of 305–380 mm (12–15") and a variable height depending on milk availability and the market. Coloured and uncoloured Cheshire continued to be made at this stage. Different styles of Cheshire were made depending on the various markets into which the cheese was to be sold. The three main types were known as 'early ripening', 'medium ripening' and 'late ripening' Cheshire. The first was made in early season when home produced cheese was in short supply and was usually sold at between 2 and 6 weeks of age; medium ripening cheese would be put onto the market during the

summer usually at between 2 and 3 months of age whilst late ripening Cheshire (usually at up to 12 months of age) was suitable for selling early the following year until new season cheese was available. London remained an important but declining market for Cheshire and most was consumed in the North West and West Midlands.

Stilton cheese

Stilton cheese, which had been made on farms from the early part of the 18th century, continued to enjoy an enviable reputation as one of the finest of British cheeses. There is much debate about the origins of Stilton cheese but it is clear that although cheeses bearing the Stilton name had been made from the early part of the 18th century they did not have a standardised recipe. It was a farmer's wife, Frances Paulett in the village of Wymondham near Melton Mowbray in Leicestershire, who is credited with the creation of a recipe that came to be recognised as the forerunner of what we know as Stilton today. This was an unpressed, unscalded cream cheese that was much prized as it tended to develop a blue-veined curd. The cheese became known as Stilton as it was from this village in Huntingdonshire that it was traded. Being on the Great North Road between London and Edinburgh, the cheese frequently found its way into London thanks to the efforts of one Cooper Thornhill, who was the Landlord of the Bell Inn in the village. Stilton was made on many farms in the Melton Mowbray area and enjoyed a high reputation for its quality for, like Double Gloucester cheese, it was originally made not just from full cream milk but also benefited from the addition of cream to the milk

The first factory to make Stilton was privately owned, set up in Beeby near Leicester by Thomas Nuttall who took over his father's manor house that had been making Leicestershire cheese. He converted the house into a factory for making Stilton, employing 30 people. Milk was purchased from surrounding farms and so began the decline of farmhouse manufacture of Stilton cheese. He later set up another dairy in Melton Mowbray in 1885, next to the Great Northern Railway. He was thus able to control the sale of his own cheese into the lucrative London market including, it is said, directly to the Houses of Parliament. In 1900 he purchased a defunct dairy that had been set up by the Duke of Devonshire in 1876, in the village of Hartington in Derbyshire. He transferred most of his Stilton business from Leicestershire to get clear of a cattle plague in Leicester and to benefit from the clean water from the nearby river Dove. His son John Marriott Nuttall took over the business.

Around 1903 the first farmers' co-operative cheese dairy was set up at Scalford near Melton Mowbray in Leicestershire, supported by the Duke of Rutland. Stilton-making started at Tuxford & Nephews' warehouse in Melton Mowbray in 1909. This later merged with a local pie-maker and eventually was re-named Tuxford & Tebbutt, which is still producing Stilton cheese today from the same site under the name of Arla Foods. In 1911, farmers around the village of Long Clawson in Leicestershire formed a co-operative to make Stilton cheese and Leicestershire cheese. A couple of years later this was followed by the formation near Nottingham of Colston Bassett and District Dairy (both of these co-operatives are alive and well in the 21st century producing excellent Stilton cheese).

Other units were built or expanded such that the last commercially-run farmhouse dairy making Stilton, in Somerby in Leicestershire, closed in 1935. The concentration of production in larger sites was seen as an economic necessity to produce cheese on a larger scale and to standardise the method of manufacture. This would improve the quality and consistency of the cheese and help it to compete more effectively with foreign imports of blue cheese. In its move from 100% farmhouse making in the 1870s to 100% factory manufacture in the 1930s, Stilton was ahead of all other British cheeses. Unlike other cheeses even today, the Stilton making process requires a large amount of manual rather than automated input. Stilton production was concentrated around Melton Mowbray, which was a major local outlet for its cheese. The draw of the liquid market was less than in other parts of the country and the existence of a premium market for this renowned cheese both locally and in London meant that farmers could be paid a competitive milk price. However, even here cheese making would wind down during the winter months with the liquid market offering a better return. The size, 7.3–7.7 kg (16-17 lb) and shape (cylindrical) was pretty well standardised as early as the first part of the 19th century.

Leicestershire cheese

The first references to Leicestershire cheese date from the 17th century. Farms in Leicestershire had a ready outlet for their red cheese at various markets not only throughout the County itself but also in

London and later at the markets in Melton Mowbray and the village of Stilton. The draw of the liquid market in the late 19th century was still present but its distance from London meant that returns from cheese were adequate to sustain production in the county. Some farms made both Stilton and Leicestershire cheese. The first dairy in the county to make Leicestershire cheese was set up in the 1870s but farmhouse manufacture was to remain the dominant place of manufacture up to the start of WW1. Leicestershire – or as it was later called, Leicester cheese, was produced using many types of recipe but from the 18th century all had in common the pronounced red colour of the cheese (which distinguished it from other long keeping cheeses) and its flat wheel shape of variable weight but often weighing around 18 kg (40 lb).

The red colour arose from the perception that the best cheeses in the 17th and 18th centuries were naturally orange owing to the rich milk used. For example, Double Gloucester cheese was originally made from the cream of the evening's milking together with the milk from the morning. Since the cows were mainly grass-fed, the carotene in grass was concentrated in the cream and gave the cheese an orange hue. Cheesemakers in Cheshire and Leicestershire sought to give their cheese the appearance of a rich creamy cheese by colouring the milk usually with a natural vegetable dye - annatto - derived from the fruit of the Achiote tree found in Central America and the West Indies. This practise was frowned-upon by many contemporary writers but it persisted and by 1900 Leicester cheese, as it had become known, was always a deep russet red colour. .

In his famous book *"Dairy Farming, being the theory, practice and methods of dairying"* published in 1879, John Prince Sheldon wrote in glowing terms of Leicester cheese (note the use of the word Leicester and not Leicestershire): *"Leicester Cheese ... With the single exception of a genuine Stilton, is the best cheese produced in these islands."* He went on to say that the cheese *"... has long borne a foremost reputation, and the finest samples of it usually commanded from 10 shillings to 20 shillings a hundredweight more than the best cheese made in any other county in the Kingdom."* He surmised that this quality was due to the *"peculiar herbage of the County"* *"The excellence of the cheese does not rest on any uncommon richness in butter for in this respect it is not superior to most other kinds of English cheese, but on some occult property communicated to it by the peculiar herbage of the County; there is a fullness of flavour about it, a meatiness, a warmth and wealth of quality that reminds us of fruit that is produced from a rich soil and ripened in a genial climate. It has no borrowed qualities, no peculiarities attained by a special system of manufacture or of ripening, it is a plain and substantial article, thoroughly English in character and as such is superior to every other kind of cheese similarly produced."*

In short, it was a well-regarded cheese in London but the majority of cheese was sold locally. In due course, milk supplies would be sucked away into the continually growing liquid milk markets in other towns and cities in the Midlands and with it production of Leicester cheese steadily declined

In another book *"British Dairying"* Sheldon (1893) was extremely critical of the practice of colouring the milk: *"To colour a cheese at all, indeed, is an absurdity, and the sooner it is dropped the better"*. He went in to describe as foolish the fact that consumers paid an extra halfpenny or penny a pound. *"Annatto costs money, and adds absolutely nothing to the quality of the cheese; but it adds value, so long as consumers are silly enough to prefer it."* This was an early insight into the power of marketing to add value.

Wensleydale Cheese

According to Calvert (1947), cheese making in Wensleydale can be traced back to the time when man began *"... to adorn our Yorkshire valleys with the now familiar network of limestone walls. The need for walls often arose out of the need for milk from which to make cheese."* This would have been sometime after the Norman Conquest when representatives of various religious faiths followed in William the Conqueror's footsteps to build monasteries on land bequeathed by the King. Cheese had been made in Wensleydale since 1150, when the Cistercian monks first settled in the Dale, and established a monastery at Fors, just four miles from Hawes. Some years later the monks moved, because of hostile natives and inclement weather, to Jervaulx in Lower Wensleydale. These French Cistercian monks brought with them their special recipe for the making of cheese, which continued to be produced at Jervaulx until the dissolution of the Monasteries in 1540. The cheese was made originally from ovine milk but over time bovine milk was also used. The art of making fine cheese, which the monks had developed, was passed from the Monks to local farmers' wives who, for more

than three hundred years, produced the cheese in their own farmhouses. Often the cheese came out as a blue cheese. As it matured so cracks in the coat would allow naturally occurring blue mould spores (allegedly from leather harnesses in the barns where the cheese was stored) into the cheese to create the blue veining.

Different cheeses were made on most farms, including pressed cheeses designed to last through the winter months and the recipes would have varied between farms. By the time we get to the turn of the 19th century, Wensleydale's reputation would have been for a blue cheese although the younger white cheese would also have been sold. In 1897 Mr Edward Chapman, a corn and provisions merchant of Hawes, began to purchase milk from surrounding farms for the manufacture of Wensleydale cheese on a larger scale, this being the first factory to make the cheese. Other factories followed in Masham, Coverham and Thoraby. Until this time most Wensleydale cheese was produced in varying sizes of between 1.8 and 9 kg (4–20 lb) with whole cheeses being sold to wholesalers and retailers. A customer is reported to have asked for a smaller cheese of just 0.45–0.9 kg (1– 2 lb) that would be easy for the retailer to simply sell as was, rather than having to cut a whole cheese; or if they were to be cut into smaller portions it would be easier for the retailer to do it more accurately with a smaller cheese. These cheeses, which came to be known locally as ‘smalls’, became very popular with traders in Leeds and could almost be recognised as the first pre-packed cheese. Factory output was limited mainly to the summer months and Christine Hall estimated that by the time of the 1907/08 census, factory production of Wensleydale cheese was estimated at 340 tonnes with farmhouse make exceeding that level. This compares with average annual production in the period 1874 to 1897 of around 500 tonnes.

Cotherstone cheese was made to a similar recipe as Wensleydale, as was Swaledale cheese but these were generally only available in their local areas. A Blue Cotherstone was also made and was sometimes known as ‘Yorkshire Stilton’. At the time of the 1907/08 census, Swaledale production was estimated at just under 200 tonnes.

Lancashire cheese

At one time everyone in Lancashire ate Lancashire Cheese and almost all farms in the county made it in one form or another. Evidence suggests that cheese was being made in Lancashire from the 13th century though the style, texture and taste is unlikely to be what we recognise as Lancashire cheese today.

Each farmer's wife used the surplus milk from their farm to produce cheese that would sustain their family and supplement their household income. Historical records show Lancashire cheese was being transported by boat to London from Liverpool in the 1600's. There were many different recipes but as with most British cheeses they all carried the name of their county of origin, sometimes being sold green (or very young) while at other times being kept for up to a year.

Around 1890, a Lancashire County Council employee named Joseph Gornall began visiting all the farms in Lancashire, observing the cheesemaking activity and giving practical advice on production and method. His aim was to standardise Lancashire cheese production across the county and create a formal recipe and method. In this he succeeded and the recipe is basically the same as that used today. Most farms had a small number of cows and often, even during the summer months, they did not have enough milk to make a whole cheese. Without refrigeration, the best way of keeping surplus milk was to turn it into curd and store it overnight in a cool room or larder. This curd was then mixed with the curd from the following day and in some cases blended again with the day after to make up a whole cheese, typically a flattish wheel of up to 22.7 kg (50 lb). The widespread use of this method was almost unique to Lancashire cheese (although there are references to some farm-made Stilton being made like that in the 19th century when the farmer had insufficient milk to make a whole Stilton). This became the standard traditional Lancashire cheese often known as ‘fatty’ Lancashire or in latter days ‘creamy’ Lancashire, which was typically matured for up to 6 months.

As the great industrial towns and cities of the North of England grew then so did the demand for food. As had happened with Cheshire cheese, many Lancashire makers also started to produce and sell young acid-style Lancashire cheese, sometimes referred to as white meat, rather than the famous ‘fatty Lancashire’. Young Lancashire could have been sold as young as a few weeks of age. In part this was a response to the increasing substitution of cheese by cheap frozen beef and lamb imported from Australasia and the Americas but also because of the growth in imports of Cheddar from North

America and Australia/New Zealand. The first factory producing Lancashire was set up in 1913 in Chipping.

Gloucester cheese

There were and still are two types of Gloucester cheese, Single and Double. Whereas the Double Gloucester was a prized cheese comparable in quality to the best Cheddar or Cheshire and was sold mainly out of the county, Single Gloucester tended to be consumed within the county. The latter was a semi-skimmed milk cheese generally half the size of a Double Gloucester and sold at a much younger age.

The first recorded reference to Gloucester cheese dates from the end of the 15th century when a permanent market was set up in Eastgate Street in the city of Gloucester. Originally the cheese was made from the milk of the Gloucester cow but the 1745 cattle plague all but wiped out the breed and was replaced by the Longhorn breed. Production eventually recovered and by 1789 output was estimated at more than 1,000 tonnes.

Double Gloucester had an enviable reputation as being the best cheese in the country owing to its use of cream-enriched milk, which gave it a distinct orange hue, a colour that unscrupulous cheesemakers in other parts of Britain sought to imitate by colouring their milk orange. Output was maintained until the middle of the 19th century but then collapsed as milk was drawn to the liquid market both locally and into London, so by 1900 production was confined to a few farms making both Gloucester cheese and Berkeley (a Cheddar-style cheese).

Derby cheese

As referred to earlier, Derbyshire was the first county to develop factory cheesemaking although the county had a rich history of farm-made cheese. It was the origin of Fowlers Dairy, the oldest cheesemaking business in the UK, which can trace its family's cheesemaking business back to 1670 and is still trading today and making high quality Derby and Sage Derby cheese (although they subsequently moved to Warwickshire in the early 20th century). Traditionally Derby was best eaten young, hence the old Derbyshire saying "Sell your cheese often and marry your daughter young". It was referred to as having a slightly sweet flavour that disappeared as it matured. Rarely was it eaten past 6 months. Every farm had its own recipe, as was the case with many of our cheeses, with the result that it varied greatly in texture, taste and appearance. The factory method of manufacture created a more consistent style of cheese more akin to a young Cheddar. Its cousin – Derby Sage as it was originally called or Sage Derby today – provided a rare point of difference. Sage leaves were laid across fresh curd often in several layers before pressing to produce a unique appearance and taste.

Soft cheeses

There were many different recipes for fresh soft cheese all with a generally short shelf life. Osbert Burdett (1935) refers to various cream cheeses that "*not infrequently appear and disappear in London so that cream cheeses come and go like other fashions in the market.*"

The ones that seem to have lasted the course up to the early 20th century were Slipcote from Rutland, York, Cambridge (from Ely), Victoria and Guildford (both made in Guildford but by different companies), New Forest (apparently a smaller version of Guildford), Horners (from Redditch) plus Cotslowe (from the Cotswolds) and Farm Vales from Wellington in Somerset (neither of which were regarded by Burdett as exceptional). Then too he identified other regional 'cream' cheeses that were simply fresh Cheddar or Cheshire curd sold at a low price, aimed at meeting a 'white meat' need in urban areas. He also mentioned St Ivel made in Yeovil, which was a lactic soft cheese. It was advertised as "*a cheese that is easily digested, dainty in appearance and delicious to taste*". Its point of difference to other cream cheeses was its lactic cultures which "*destroy harmful poisons which other foods set up in the system*", certainly not a claim that could be readily or legally made today!

Scottish cheeses

Scottish Cheddar

Production of Cheddar started in the 1870s, aided by the wisdom and teaching of Joseph Harding (see earlier section on Cheddar). The first Cheddar factory was set up in Dunragit with others following in Sorbie in 1891, Sandhead in 1893 and Stranraer in 1899. The Scottish market experienced the strong competition from American Cheddar towards the end of the 19th century and as the demands of the liquid market grew so farm production declined.

Dunlop

In the Ayrshire town of Dunlop, production of the traditional Dunlop cheese dates back to the 17th century. The poor quality of traditional farm cheeses previously made in the area prompted Barbara Gilmour, a farmer's wife in the town, to set about developing new methods of production. She upgraded the product by using whole milk that made a tastier, softer cheese compared to the former "*horny insipid*" skimmed milk variant. Dunlop is often described as a high moisture Cheddar but it was always uncoloured and in size resembled a Lancashire although it was made from one day's milk and had a tighter texture. It was reputed to be an excellent toasting cheese.

Fresh Cheeses

Scotland also had its own fresh cheeses routinely made on most farms. The most famous of these was Crowdie, which was reputedly introduced into Scotland by the Vikings in the 8th century. This was a cottage cheese style of cheese, eaten fresh with savoury or sweet dishes and sometimes flavoured with herbs. Caboc, allegedly dating from the 15th century, was a soft white cheese made using double cream and covered in toasted oatmeal. Subsequently, other recipes were developed which later became known as Hrasma, a soft cheese made from double cream and flavoured with wild garlic, and Morven.

Welsh cheese

Caerphilly cheese

Caerphilly, a hard, slightly crumbly, cheese, originated from the town of Caerphilly in South Wales and is believed to have been made there since the early part of the 19th century. Its recipe derived from other crumbly cheeses such as Cheshire and Wensleydale. The town was close to the great mining districts of South Wales and Caerphilly cheese was a firm favourite of those mining communities. Its shallow height and tough coat made it easy to eat down the mines whilst its salty, moist curd helped replace minerals lost during the hours spent labouring underground. The Caerphilly of that period was made only in local farms and sold predominantly in the local markets. According to Eurwen Richards in her book *Traditional Cheesemaking in Wales*, the practice of grading and marking Caerphilly began in the last decade of the 19th century. Most Caerphilly was sold at cheese fairs and shows staged in the town's Market Hall. Caretaker Edward Lewis would sample cheeses and if they were found to be of the required quality he would mark the cheese with an official stamp. This was one of the first examples of independent cheese grading and marking in Britain. Unfortunately no one replaced Mr Lewis on his death in 1909. However, by that time the decline in Caerphilly production in South Wales was well set. As in other parts of Britain a growing population in the major cities of South Wales required more liquid milk and for many farmers in South Wales this provided a much easier way of living. Towards the end of the 19th century, farm-based cheesemakers in Somerset and Wiltshire started to produce 2,25 kg (5 lb) Caerphilly wheels for the Welsh market in response to increasing competition from the 25 kg (56 lb) wheels of traditional Cheddar being imported from the USA.

Other British cheeses

Professor John Prince Sheldon (1893) listed other cheeses available at that time, including the notorious, but by then almost disappeared, Suffolk cheese along with Cotherstone (a Yorkshire

equivalent of Stilton), Wiltshire Truckles (small Cheddar style cheeses), Blue Vinney from Dorset (a skimmed or semi skimmed milk blue cheese), Rutland Slipcote (a fresh soft cheese sold at two days of age) and various cream cheeses. Cheese production in other regions of Britain obviously took place on farms but the attraction of the liquid market and the increasing difficulties experienced in finding labour in rural areas to take on the duties of milking and cheesemaking meant that many farms had ceased making cheese, other than for their own consumption, particularly in Counties close to London.

Thus, cheesemaking had virtually disappeared in Surrey, Sussex, Berkshire, Hampshire, Bedfordshire and Buckinghamshire, Kent, Essex, Norfolk and Suffolk. Counties distant from the major cities, mainly on the Western side of the country in Somerset, Devon, Cornwall, Wales, North West England and the West of Scotland, continued to have locally made cheese but here again sales were limited to the local markets.

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8. Cheese production statistics at the turn of the 20th century

Production of cheese

Unfortunately there is little trend data on production levels of cheese either nationally or by county. The first census of agricultural production in Great Britain took place in 1908 covering the 12 months to 4 June 1908, when milk production (excluding milk fed to calves) totalled 5,492 million litres *per annum* with average yields of 2,500 litres per cow. About 30% of the milk was used on farm to make butter and cheese. The census did not require information on the farm production of various dairy products but did collect data on sales. So, assuming that cheese sales were the same as cheese made in any year, production was of the order of 25,400 tonnes with on-farm butter production slightly less at 24,900 tonnes (Table 8.1). The other 70% of milk production, 3,864 million litres, was sold to liquid milk dairies or sold as liquid into the local liquid milk market (84%). This left 120 million litres of milk going to cheese factories, which made around 12,000 tonnes of cheese and almost 500 million litres of milk that went to make other products including butter, condensed milk and milk powder.

Table 8.1. GB Milk Production and Utilisation, 1907/08 (Source: 1908 Census of Production)

	<i>ML milk</i>	<i>Tonnes</i>	
Milk production	5492		
Milk used on-farm	1627		
Consumed as milk	736		
Used for cheese	255	25,349	
Used for butter	636	24,892	
Milk sold to dairies	3864		
Liquid milk	3251		
Cheese	120	12,000	
Butter/Other prods (as butter)	493	21,438	
Total Cheese Production		37,349	
Imports of cheese (excluding re-exports)		117,853	
Total supplies of cheese		155,202	
GB Population			38.5 million

Estimated cheese production in Great Britain thus accounted for less than 7% of available milk, while farm production accounted for 68% of total cheese output and factories 32%. Home produced cheese accounted for just 24.1% of available supplies and *per capita* cheese consumption averaged 4 kg *per annum* (11.5 grams per day). The census also provided a breakdown of ex-farm sales of cheese by region across GB, as shown in Table 8.2.

The major producing regions in England were the South West and the North West, which also accounted for about 48% of total GB sales. Similar figures on the regional distribution of the 12,000 tonnes of factory cheese produced in 1907/08 are not available but most of the factories were located on the Western side of the country with a couple of pockets in the East Midlands (Stilton) and in the North East (Wensleydale). The low level of ex-farm sales in South Eastern and Eastern counties (including London) reflected the low levels of cheese production in those regions.

Table 8.2. Regional sales of cheese off farms in Great Britain in 1907/08

<i>Region</i>	<i>Quantity (tonnes)</i>	<i>%</i>
Eastern	5.1	0.02
North Eastern	50.8	0.2
South Eastern	20.3	0.08
East Midlands	304.8	1.2
West Midlands	2286.0	9.0
South West	5638.8	22.2
Northern	3657.8	14.4
North Western	6452.0	25.5
Total England	18390	72.5
Wales	1219	4.8
Scotland	5740	22.6
Total GB	25349	100

Retail sales and prices

Within the cities, cheese was sold by independent grocers who, working hand in hand with cheese factors, wholesalers and importers, were able to offer a wide range of cheeses to their customers. Not surprisingly, in the London area imported cheese was freely available and an indication of this is an 1894 advertisement from the then recently formed J Sainsbury – Provision Merchant, Pork Butcher and Poulterer – advising the range of cheeses available from their flagship Croydon branch:

"English and Foreign Cheese of every variety. Cheddar and Cheshire. Stiltons - Rich, Ripe and Blue. Gorgonzolas of the finest quality. Gruyere (Gold Medal), Canadian Cheddars and American Cheese plus Bon-Dons, York Creams, Neufchatel, Port du Salut, Green Cheese, Roquefort, Alpine Cream and Camemberts".

Sainsbury may well have been exceptional in its range but it does indicate the extent to which foreign cheeses had penetrated the UK market, particularly in the London areas where Sainsbury operated. Storing and cutting these cheese cheeses required a high degree of skill and Sainsbury prided itself in the training it gave to its staff.

There are few references to retail prices in official documents before WW1 but a snap shot is provided by another leaflet produced in 1911 by a Sainsbury store at 146, Old Christchurch Road in Bournemouth. This simply listed the cheeses it was selling and their prices. It gives a feel of the ranking of prices of the different cheeses available at that time. The prices originally quoted in old shillings and pence per pound are converted to pence per kg in Table 8.3.

Apart from the cream cheeses, the range of other cheeses was impressive and those stocked are not dissimilar to the range of cheeses that would be available in the 1960s and 1970s. Stilton was by far the most expensive cheese at 18.4 p per kg, double the price of English Cheddar and Cheshire. Canadian Cheddar was cheaper than English and only two of the other imported cheeses - Gorgonzola and Edam - were cheaper than Cheddar.

The range of cream cheeses available was of interest; York was probably the most famous. Little Wilts was a young fresh cheddar style cheese. New Forest cream cheese was a locally produced fresh cheese. Bondon was a soft fresh lactic French cheese - similar to Neufchatel - made from milk rather than cream hence its lower retail price. Pommel was a brand of a French double cream soft cheese, which was (according to the great André Simon) unsalted and paper wrapped. There is no record of what Imperia was other than that it was categorised as cream cheese - probably a branded and larger pack of cream cheese judging by the price.

Table 8.3. Retail prices of English and other cheese (Source: Sainsbury, 1911)

<i>Cheese</i>	<i>p/kg</i>	<i>Notes</i>
Cheddar	9.2	
Cheshire	9.2	
Stilton	18.4	
Wensleydale		not available
Gorgonzola	8.3	
Roquefort	12.9	
Parmesan	14.7	
Edam	7.4	
Gruyere	10.1	
Brie	12.9	
Port du Salut	12.9	
Canadian Cheddar	8.3	
Cheese (White)	7.4	
Camembert		7.8 p per cheese
Midget Dutch		16.5 p per cheese
<i>Cream Cheese</i>		
Bondon	1.8	
Pommel	2.3	
York	12.9	
New Forest	4.1	
Little Wilts	5.5	
Imperia		9.6 p per jar

Advertisements for fresh cheese from the early 20th century are included in Appendix C and extol the virtues of lactic and processed cheeses.

The Graphic archives show an informational advert for St Ivel Lactic Cheese from 1915, which was widely available during WW1 and proclaimed that "Cheese is the best after all".

Other adverts from this war time period extolled the virtues of this English made lactic cheese which they said should be consumed "to obtain the benefit of the lactic cultures which are introduced into its composition ... which destroy harmful poisons which other foods set up in the system" and at 6.5 old pence a packet (2.7p) it was promoted as a bargain.

Later adverts placed in *Good Housekeeping* promoted St Ivel Lactic Cheese as a versatile and healthy ingredient in lots of snacks and meals.

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9. The First World War

It has been variously estimated that at the start of WW1 in 1914, Britain was importing 65 % of its consumption of butter and cheese. Dairying was not alone, 40% of our meat needs, over 50% of the sugar and some 80 % of the wheat used in the UK was imported. Ironically, much of the sugar beet was produced in Germany and the Austro-Hungarian Empire, the countries with whom Britain was to fight over the next 4 years.

The cheap food policy and low or zero tariffs had reduced the profitability of British farming, which was unable to compete with other countries around the world. Often those countries would have seen the British market as a dumping ground for their surpluses and were happy to take whatever price was on offer. Government policy towards British agriculture could be summed up in three phrases: Laissez Faire, Free Trade and Empire Preference. Politicians and economists strongly believed that this combination of non-intervention and encouraging trade worked to the benefit of the whole economy, allowing Britain to export its manufactured products under reciprocal trade deals.

Productivity levels on British farms were reckoned to be below those of other countries and, given the importance of British manufacturing, governments were seemingly uninterested in the plight of the rural communities. The only commodity foods in which Britain was more or less self-sufficient were storable bulky products like potatoes or perishable products such as liquid milk. Agriculture's contribution to GDP fell from 20% in the late 1850s to less than 7% at the start of WW1. Large areas of land had been converted to pasture due to the shortage of labour and the low cereal prices; cattle numbers consequently increased to 7 million by 1911.

The 1908 census estimated British cheese production to be just 37,349 tonnes, compared to an estimated 90,000 tonnes in the 1850s and 1860s. Various estimates suggest that at the start of WW1 British cheese production was still below 40,000 tonnes a year out of a total market of around 150,000 tonnes. Domestic cheese makers still held just over 20% of the market.

Scant attention had been paid to the possibility of food supplies being threatened as it was assumed that the Royal Navy would safeguard the sea-lanes and allow food supplies to be maintained. There were no real shortages of food in 1914 and 1915 despite some restrictions on supplies of sugar, cereals and meat. The Wheat Commission was set up in 1915, empowered to buy and stockpile wheat as a strategic reserve. This drove up the price of wheat and farmers responded by increasing the acreage under wheat by 22% by September 1915. The price of bread (and other food products) rose accordingly. Various Committees had recommended the adoption of guaranteed prices for up to 4 years so as to incentivise farmers to produce more but this was politically unacceptable to Asquith's government.

In 1915 the first attempt to stimulate agricultural production came with the formation of County War Agricultural Committees. They were created in all counties and given the task of briefing the Board of Agriculture on what resources were required to boost arable output in their area in terms of fertiliser, feed or machinery needs. The Committees were also required to liaise with local recruiting offices and labour exchanges to stimulate employment on farms by curbing the call-up to the armed forces. Ultimately these bureaucratic bodies made little impact.

Shortages did start to appear and retail prices of many foods continued to increase. Between July 1914 and October 1916 food prices had doubled with cheese (mostly imported) moving by even more from a pre-war level of around 7.3 p to 18.4p per per kg (8 d to 1s 8d per lb), an increase of 150%. (See Table 13.3, in July 1915 Sainsbury was advertising its Canadian Cheddar at 9.65 p /kg (10.5 d per lb) compared to 8.3 p per kg in 1911).

The Government needed to obtain increasing quantities of food to feed the growing number of men and women serving in the armed forces. Cheese was an essential part of the daily ration and, along with other foodstuffs, supplies were being interrupted by attacks on the convoys bringing food to Britain from America and Australasia. Keeping the armed forces fed, along with reducing the risk of further price rises and profiteering, stimulated the newly formed coalition Government of Lloyd George in December 1916 to start tackling these issues head on. In December 1916 the Board of Trade announced that it was considering requisitioning the whole of New Zealand's annual output of cheese to ensure supplies to the armed forces. In the end it bought not only that cheese but also the exportable surplus of Australian producers up to the end of June 1917. Any cheese not being taken up by the

armed forces was put back into the market and sold through the normal channels. This cheese became known as Government cheese and was celebrated in a well known poem:

*"Government Cheese! Government Cheese!
Warranted wholesome and flavoured to please;
Food for the Nation, a delicate treat,
Fresh from the dairies of Downing Street;
The genuine article needless to munch
Stamped with the seal of the Treasury Bench."*

This was the first direct intervention of the Government into the marketing of cheese but was not the last.

Lloyd George appointed Lord Devonport as Food Controller later that month and created the Ministry of Food in January 1917 to take over the Board of Trade's activities with regard to the importation of food supplies. A directive came down that profiteering on food in wartime was unacceptable. Maximum prices for cheese were set in consultation with the trade. These prices were set at three levels - the importer, wholesaler and retailer levels - with inter-trading between dealers only allowed if done on a zero commission basis. The Cheese (Requisition) Order of 1917 required all imported cheese from the USA, Canada, Australia and New Zealand to be placed at the disposal of the Food Controller, who fixed the price at which this would be sold into the various channels of distribution. There were fixed margins of 2% for the importer and not more than 5% for the wholesaler and no more than 15% for retailers. These controls were later extended to other imported foodstuffs including bacon, ham, lard and butter. The Food Controller thus had full control over the distribution and pricing of all imported cheese.

On the supply side of the food industry the Board of Agriculture was charged with improving the cultivation of agricultural land and given wide-ranging powers to do whatever was necessary to boost production of cereals and potatoes. The only constraint was that it should not interfere with the supply of milk to the liquid market. This would require ploughing up of hundreds of thousands of acres of permanent pasture to grow more cereals. Domestic cheese production was therefore unprotected as any reduction in milk supplies caused by the loss of pasture (and consequently dairy cows) would ultimately mean less milk available for butter and cheese production unless other measures were put in place. Minimum ex-farm prices were set for wheat, barley and oats and farm payments were guaranteed through a deficiency payment system that bridged the gap between minimum prices and market prices. A minimum agricultural wage was introduced and a rent freeze was imposed. These measures became law on 5 April 1917. The forerunner of the Women's Land Army was also created to get more women into work on farms, to replace men subscribed to the armed forces. Farmers duly responded and an extra 405,000 Ha (one million acres) of pasture and wasteland was brought back into use in 1917 with a further 810,000 Ha (two million acres) following in 1918. More tractors were put on the land and fertiliser use increased, so boosting productivity and yields. In 1918, helped by favourable weather, Britain produced the biggest harvest for 60 years.

There are no precise figures available on what the impact of these measures on the level of milk production in Britain but, as a result of these and other measures taken by Lloyd George's Government, it is generally reckoned that milk supplies were maintained at pre-war levels. This was achieved by fixing milk prices at the ex-farm and wholesale level and ensuring that dairy farmers had sufficient feedstuffs to maintain milk yields. Prices paid to farmers were fixed from December 1916 and were increased over the next 3 years to maintain production. Between January 1918 and January 1920, retail milk prices rose by 71% to 4.4 ppl (4 s per gallon) whilst producer prices rose by 85% to 3.57 ppl (3s 3d per gallon). Production of cream was stopped and consumption of milk in catering outlets was rationed under various orders in 1917 and 1918. To prevent profiteering under the 1917 British Cheese Order, retailer margins on British cheese were capped at 2.3 p per kg (2.5 p per lb).

These were unprecedented interventionist measures – the first time that any British government had intervened in the marketing of milk and cheese with the control of prices and margins erring on the side of caution to ensure that there was sufficient milk in the country. Opportunities for profiteering were also reduced.

The high levels of farm prices paid on milk going into the liquid market discouraged the production of other products except those made from surplus milk produced in the spring and summer months. The extra milk produced, however, did avoid liquid milk rationing. What is more, cheese did

not have to be rationed either. Immediately before the start of the war the UK was importing around 115,000 tonnes of cheese a year. These rose during the war to a high of 148,000 tonnes in 1917. With domestic production being maintained at pre-war levels, around 39,000 tonnes a year, the market was kept well supplied albeit at very much higher prices than those which prevailed before 1914. In 1918 cheese production increased by almost 10% to more than 43,000 tonnes helped by a good grass growing and cereal producing year, as shown Table 9.1.

Table 9.1. Imports, production and government stocks of cheese in tonnes at the end of December (Source: Beveridge, 1927)

	<i>Imports</i>	<i>Production</i>	<i>Available</i>	<i>Stocks</i>	<i>Months supply</i>
1914	120,599	39,936	160,535	16,000	1.2
1915	135,636	39,203	174,839	13,200	0.9
1916	129,743	38,973	168,716	12,900	0.9
1917	148,641	39,512	188,153	17,100	1.1
1918	119,380	43,389	132,769	21,800	2.0
1919	na	na	na	24,800	1.8*

Note: * Based on estimated supplies of 170,000 tonnes in 1919

At the end of the war, cheese stocks were still being controlled by the Ministry of Food, keeping both the armed forces fed and the market supplied. Their success in managing the supply chain and taking control over imported cheese is reflected in a much-improved stock position after December 1916, with stock cover almost doubling from one to two months supply. By contrast, many other foods were rationed including bread, meat, fats, sugar and potatoes.

Government control over cheese ended in the summer of 1919: milk prices were decontrolled in January 1920 and retail prices of milk dropped by 0.36 ppl (4 d a gallon). Control of imported cheese ended in May 1920.

The guaranteed prices for cereals were stopped in 1920 and all wartime controls were gradually relaxed. Seemingly the harsh lessons experienced during the war were quickly forgotten as agricultural policy returned to its pre-war laissez-faire dogma of cheaper food and free trade with Empire preference.

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10. Post WW1 – the 1920s

The expansion of UK agriculture encouraged during WW1 slowed down in the 1920s as the world economy adapted to peacetime conditions. Security of food supplies took second place to the need for cheaper food, which imports delivered. However, there was an increasing realisation that the switch in meat eating to imported lamb freed up pasture for an expansion of dairying, which was needed to achieve one of the underlying objectives of government policy, i.e. to increase consumption of liquid milk and deal with a growing population. Government was keen to improve the British diet following the scandal of so many men being physically unfit to enlist. Milk was seen as a key part of this and so with welfare and school milk schemes being proposed, even less milk was likely to be made available for cheesemaking unless milk supplies grew. Controls on milk prices ended in 1920 and markets were allowed to work as they had done before the war. As a result, farm-gate milk prices collapsed once price controls were lifted. Although retail prices for liquid milk fell they were still well above pre-war levels. With cereal prices low there was a switch in land use from arable to livestock farming as the market for liquid milk continued to grow. Dairying may not have been providing a brilliant return but it was doing better than alternative enterprises. Consequently, there was some recovery in milk production in some parts of the country to meet growing demand. For example, milk production grew by 40% in the years from 1920 to 1930 in Gloucestershire and by between 25 and 30% in Wiltshire, Hampshire and Shropshire whilst there were even increases recorded in Suffolk, Norfolk, Surrey and Sussex (Taylor, 1974). By 1930 it is estimated that 75% of all milk sold off farms in GB was being used for the urban liquid markets. The result of this was that milk available for cheesemaking was still somewhat restricted.

The first attempt at collective milk price agreements between milk producers and milk processors/distributors came with the establishment of The Permanent Joint Milk Committee in 1922. This laid out recommended terms for the contractual agreements between the dairy farmers and their first-hand buyers. The Committee was made up of representatives of the National Farmers Union and the Federations representing liquid milk distributors and retailers and the Creamery Proprietors. Its aim was to fix, by agreement, contract prices for liquid milk and manufacturing milk, which it was hoped would be adopted on a widespread basis. This was based on a (higher) liquid price for a basic quantity of milk, applied to the farm's production of milk in the trough month of production, and the (lower) manufacturing price for any surpluses above that level of output/sales. Uptake of these price agreements was patchy. The manufacturing price was determined by the price of imported cheese from New Zealand and Canada. Those farmers who were unable, due to their geographic position, to benefit from the liquid market therefore faced uncertain prices. And even those who were supplying the liquid market were not necessarily guaranteed a price for their milk as it depended on the whim of their buyer and the state of supply and demand in their particular part of the country. The more efficient country creameries were unable to exploit any economies of scale or to improve the consistency of quality of their cheese due to the sporadic nature of their milk supply. Faced with declining prices of imported cheese they simply were not in a position to pay a sufficiently high price to attract milk supplies except as a buyer of last resort.

The problem of poor and inconsistent quality of British factory and farmhouse cheese featured heavily in the discussions on the re-organisation of the milk industry in the 1920s and early 1930s and was often referred to by food writers of the time. However, the major concern in the immediate post-war period (1920 to 1922) was the collapse of world (and GB) prices of agricultural commodities. Wholesale and farm gate prices halved in this period, albeit from an immediate post war high.

A Departmental Committee on Distribution and Prices of Agricultural Produce, the so called Linlithgow Committee (GB), was set up in 1923 to consider the state of agriculture in the light of the collapse in farm gate prices. It looked at the disparity between producer and consumer prices and the costs of getting food to market. In looking at the milk sector, it concluded that there were large inefficiencies in the distribution of milk from the main producing areas to the town dairies and in turn from the town dairies to the doorstep. It commented favourably on the collective bargaining between farmers and distributors that had been established in 1922 with the setting up of the Permanent Joint Milk Committee. However, Linlithgow's high expectations of this mechanism were dashed, as the

take-up of this model though reasonable for the London market, did not percolate out to other parts of the country.

Linlithgow was dismayed at the lack of farmer co-operative marketing as had developed in other parts of Europe, though there were some unique factors operating in the British agricultural sector that mitigated against any form of voluntary co-operation between farmers. Co-operative models operated well in those countries that had a history of export marketing as national production exceeded by a large degree internal demand: neither had they experienced the same dramatic increases in consumption of liquid milk. In contrast, British farmers saw the local market as theirs and apparently did not consider the need to co-operate with their neighbours.

The general view that came out of the Linlithgow Committee was that something had to be done about the way that the country's agricultural commodities were being marketed. It suggested a comprehensive approach to the marketing problems and extolled the virtues of farmer co-operation. Reform was needed to increase the efficiency of the marketing and distribution machinery as a whole and for farmers to take a more proactive role in the marketing of their produce.

As far as cheese was concerned, the Committee listed 17 different kinds of cheese then being made in Great Britain. Most sales were done through local cheese factors at markets, then sold on to retailers. A later report by the Ministry of Agriculture and Fisheries (MAF) categorised these cheeses using the following categories: hard pressed, lightly pressed, soft and processed (Table 10.1).

Table 10.1. Categories of cheese (Source: MAF, 1930)

<i>Category</i>	<i>Type</i>
Hard pressed	Cheshire - white and red and blue
	English Cheddar
	Scottish Cheddar
	Lancashire
	Dunlop
	Derby
	Leicestershire
	Gloucester
	Lightly Pressed
Dorset Blue	
Stilton - White and Blue	
Wensleydale - White and Blue	
Soft	Cambridge
	Colwick
	Cream
Processed	Cheddar
	Cheshire
	Lancashire
	Wensleydale

The Linlithgow Committee stated that "*All but 2 or 3 of these commanded – and still do command – only a small and special high class sale if they come onto the market at all outside the locality in which they were made*".

Although originally these cheeses would have come only from their county or town of origin, as the methods of production became more widely known so production of each variety became more widespread.

In 1924 around three quarters of British cheese was made on the farm with the best getting a premium over imports. Most, however, were inferior and variable. Linlithgow called for a national grading scheme to include factory cheese; indeed factory cheese was seen as the only way the industry could go with lower costs and potentially more consistent quality. The Committee also recommended the fixing of minimum butterfat levels for any whole milk cheese offered for sale in Britain. This was

seen as being necessary to protect the consumer from sellers of partially skimmed milk cheese passing them off as full fat cheeses. Although the amount of skimmed milk cheese made in Britain was small, most of the Dutch cheese exported to the UK in the 1920s was reduced fat Edam and other cheeses (including English varieties): on these the fat content in dry matter was invariably stamped on the cheese. Whether this meant anything to retailer or consumer is far from clear. Most of this cheese appears to have been sold in the North of England during the winter months as 'half-meat' cheese.

This recommendation from the Linlithgow Committee for a presumptive minimum fat content for full fat cheese was not taken up at this time but was to be addressed in 1928 under the Agricultural Produce (Grading and Marking) Act. Such a move was strongly supported by the newly created Empire Marketing Board, who felt that any full fat cheese not reaching a minimum fat in dry matter (FDM) content should be labelled in the case of, say, a reduced fat Cheddar with the pre-fix 'Skimmed milk'. This topic will reoccur.

Empire-produced Cheddar, primarily from New Zealand and Canada, dominated the UK's cheese imports during this period and in the 5 years to 1924 these accounted for 88% of all cheese imports. The main imported cheeses were: Edam and Gouda from The Netherlands, Gruyere and Emmental from France and Switzerland, Camembert, Brie, Pont l'Eveque from France, Parmesan and Gorgonzola from Italy.

Processed cheese was also becoming more popular due to its mild taste and the lack of wastage (no refrigeration required and no rind to discard). Because the moisture levels were higher in processed cheese and they also contained added emulsifying salts, 1 kg of hard cheese might well yield 1.2 kg or more of processed cheese. These two factors more than offset the higher processing and packaging costs and enabled the brands to be sold at a discount to natural cheese. Coupled with widespread availability and publicity and the general desire for milder cheese, processed cheese sales grew strongly in the 1920s, albeit from a small base. Advertisements for two such cheeses found in Good Housekeeping magazine in 1930 are shown on the next page.

Because the market was dominated by imports which were generally younger and tending to blandness, consumers had come to accept imported milder cheese as the norm, which in turn made it more difficult for farm-made cheese to compete other than in some high end sectors, such as the restaurant sector in the major cities. The cheese factories had never really developed their potential as they were unable to pay a high enough price to secure a guaranteed milk supply in competition with the liquid milk market. The price of milk for manufacture was negotiated in the Permanent Joint Milk Committee based on market prices for imported cheese. Cheese making was sporadic and quality was generally not as high or as consistent as that found in imported cheeses which generally were better marketed and had gone through some sort of standardised grading scheme in their country of origin. Making cheese in Britain therefore almost became a last resort if there was nothing else to do with the milk.

In short, British factory cheesemakers could not compete with imports on price or quality and only in few instances was farm-made cheese able to command a decent premium over imports. Factory cheesemakers remained in a state of flux with uncertain quantities of milk available throughout the year and still the predominant proportion of cheese being made on the farm or in the milk depots from surplus milk bought for the liquid market. As a result imports continued to account for a significant part of the market.

Market analysis in the 1920s

Responding to the work of the Linlithgow Committee, the MAF undertook a series of studies (the so-called Orange Books) from 1927 onwards, detailing how the agricultural commodity markets were organised. These reports helped to inform the debate on future policy and lay the ground for the Agricultural Marketing acts of the 1930s. The report on Cheese (1930) was contained a wealth of information on the state of the cheese market in the late 1920s. It highlighted some of the key problems facing factory cheese makers apart from the irregularity of milk supply. Prime amongst these was the poor quality of milk. It referred to *"the frequent indifference of the milk producer to the condition of his milk"*. The milk fields from which milk was drawn had to be quite tight for, with most

milk delivered in the summer months, deterioration in quality during transit was a frequent issue. Milk depots that made cheese as a secondary activity were less picky about the condition of milk for their mainstream liquid market as most was due to be heat treated. But at this time heat-treating milk for cheesemaking was very much the exception. Rarely was milk from the closest farms isolated for use in cheese. Where pasteurisation was possible cheese was of a more consistent quality but according to many lacked the flavour of good farm made cheese. For the specialist cheese factory the ideal method of delivery was by the farmer himself so quality could be assessed at point of receipt. However, lack of accurate milk testing facilities often meant that unsuitable milk was difficult to reject and as such went into the vat. Most milk for cheesemaking was sold on a volume basis with no account being taken of fat content as long as it was above the presumptive minimum of 3%.

Cheese production statistics 1924/25

Production of cheese in Great Britain had risen gradually during the first part of the 20th century. The 1908 census of production estimated cheese production at 37,400 tonnes. Production stabilised during the first world war at around 39,000 tonnes a year but increased sharply in 1918 to over 43,000 tonnes due to price incentives to farmers to produce more milk. Production slumped in the post WW1 period but gradually recovered according to the 1924/25 Census of Production (Table 10.2), being 16% higher than in 1907/08 but was virtually unchanged from its level 5 years earlier, with a 3:1 ratio between farm and factory manufacture. This was slightly below an estimated factory production in 1907/08 of 12,000 tonnes, which accounted for 32% of total output. Factory production of cheese had therefore declined during those 17 years and there was no significant production in Northern Ireland.

Table 10.2. Cheese production in Great Britain 1924/25 (Source: 1924/5 production census)

	<i>Tonnes</i>	<i>England and Wales</i>	<i>Scotland</i>
Sold from farm	32,868	25,502	7,366
Factory made	10,668	na	na
Total	43,536		

The census also broke down the production of factory cheese between the milk selling depots/dairies on the one hand and specialist cheese factories on the other for both hard and soft cheese, shown in Table 10.3.

Table 10.3. Breakdown of factory cheese production in tonnes by type of unit (Source: 1924/25 production census)

	<i>Factory</i>	<i>Milk Dairy / Depot</i>	<i>Total</i>
Hard Cheese	6,553	2,946	9,500
Soft Cheese	1,118	51	1,168
Total factory cheese	7,671	2,997	10,668

Roughly 72% of the factory cheese made in 1924/25 was produced in specialist cheese factories or creameries and 28% in milk depots/dairies. Almost 90% of the cheese was categorised as hard cheese and 10% as soft cheese. The breakdown of factory cheese types, shown in Table 10.4, shows a different picture to that of Farmhouse making in that Cheddar was the dominant factory made cheese whereas on the farm Cheshire remained the most important variety.

These figures exclude processed cheese (also known as "pasteurised cheese") which first started to be produced in Europe in the early part of the 20th century. It provided manufacturers with an outlet for cheese that might not be at its best or needed to be moved quickly before it deteriorated. For consumers, it provided a longer keeping cheese that came attractively packaged and was well marketed by cheese factors, creameries and distributors, who imported the necessary equipment. Its main benefit however was its suitability for longer-term storage in the distribution chain and in the home at ambient temperatures. It came in a myriad of flavours, shapes and textures, which made them ideal for spreading.

Table 10.4. Factory production in 1924 by type of hard cheese (Source: 1924/25 production census)

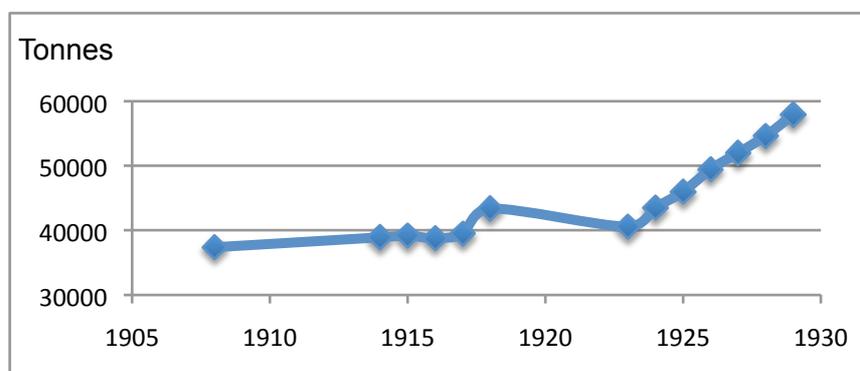
<i>Type of cheese</i>	<i>% of factory production</i>
Cheddar	52
Cheshire	30
Lancashire	14
Wensleydale	2
Caerphilly	0.8
Stilton	0.4

Maybe the processed cheeses were not have been appreciated by the gourmets of the 1920s and 1930s but they satisfied a demand for easy to use, spreadable cheeses with a mild taste that many consumers had come to expect from all cheese. Processed cheese was made by a variety of businesses, some were cheese factories, others were milk depots and others were set up by cheese factors. Imported cheese might have been used. According to the MAF, Cheshire, Cheddar, Lancashire and Wensleydale cheeses were often used in processed cheese manufacture which resulted in "*...if skilfully made, retaining its own characteristic flavour with some modification*".

Data on UK cheese production and imports

There is a high degree of inconsistency in the available statistics on British or UK cheese production in the first part of the 20th century. Census figures for 1907/08 and 1924/25 are the most reliable benchmarks but even here some businesses were excluded on the basis of size. In other sources, authors quote wildly different figures claiming to be an estimate of national cheese production but often relate only factory or farm made cheese and are sometimes only for England or Engand & Wales and exclude Scotland. Even figures used in various Government reports are inconsistent. For some years no data can be found. The best figures and apparently most consistent data on production of cheese up to 1929 are shown in Figure 10.1.

Figure 10.1. Estimated production of cheese in GB 1908 to 1929



Note: Data from 1923 from Cohen and Murphy (1933), early data from Beveridge (1928).

As government intervention in the milk sector was relinquished in the 1920s and milk prices fell dramatically, so milk available for cheesemaking declined and cheese production dropped from its war-end high of 43,389 to 40,589 tonnes in 1923. Thereafter, production grew gradually to reach almost 58,000 tonnes by 1929 reflecting increased milk availability.

Despite these increases, domestic cheese production continued to be dwarfed by imports, which accounted for between 72% and 78% of the total domestic market during the period 1908 to 1929. Imports rose steadily from the beginning of the 20th century and by 1929 had reached more than 150,000 tonnes. Table 10.5 gives the 5-year averages of UK cheese imports by country of origin from 1904 (an average of 1900 to 1904) to 1929 (an average of 1925 to 1929).

Table 10.5. UK imports of cheese in tonnes as annual averages over 5 years (Source MAF, 1930)

	<i>1904</i>	<i>1913</i>	<i>1924</i>	<i>1929</i>
New Zealand	3,556	23,485	68,138	79,817
Canada	86,543	74,097	53,650	48,737
Australia	36	269	3,393	2,915
Other Empire	10	0	183	198
Total Empire	90,145	97,851	125,364	131,667
Netherlands	14,869	13,061	7,793	10,003
Italy	67	310	2,962	7,285
USA	22,322	2,916	2,068	620
France	1,819	950	665	1,219
Switzerland	0	589	757	1,494
Belgium	3,637	41	584	117
Denmark	0	0	1,229	376
All other	81	117	340	244
Total Foreign	42,795	17,984	16,398	21,358
Grand Total	132,940	115,835	141,762	153,025
Empire share %	67.8	84.5	88.4	86.0

The key changes during this post war period, apart from the 15% growth in total imports, was the swing towards Empire countries, away from 'foreign' countries. Imports from the USA had virtually disappeared by 1929 having been an important source of cheese since the 1850s. In its place came New Zealand with their average exports to the UK growing from just 3,556 tonnes in the five years up to 1904 to an average of 79,817 tonnes in the five years to 1929. New Zealand accounted for more than a half of all cheese imports in that period.

Volumes from Canada declined but they still accounted for 32% of imports with Empire cheese accounting for 86% of all imports. Virtually all of these Empire imports were Cheddar, plus some Cheshire. Similarly imports from the USA would have been entirely Cheddar-type cheese, as would a small part of some of the imports from European countries. Thus approximately 90% of imports were of a Cheddar type. Actual imports in 1929 stood at 150,470 tonnes. The Netherlands was the major foreign supplier with Gouda and Edam as well as at times Leicester and Cheddar. Italian imports included Parmesan and Pecorino, as well as Gorgonzola, which according to some sources was a particular favourite in the North East of England.

At that time, trade data separated product that was imported into the UK that was due to be re-exported from home-produced cheese that was exported (Table 10.6). Most of these re-exports were Cheddar and other hard cheeses destined for onward shipment either to other parts of the Empire or into Europe. These re-exports peaked in 1925 at 7,000 tonnes but subsequently fell away to less than 2,000 tonnes. Exports of home-produced cheese rose from a modest 447 tonnes in 1908 to almost 3,000 tonnes in 1929. These were mostly farm-made Cheddar and factory-made Stilton and Wensleydale.

Table 10.6. UK supplies and disappearance 1908 to 1929 in selected years (Sources: Beveridge, 1928; EMB, June 1932; Imperial Economic Committee, 1927; Ministry of Agriculture, 1930)

	1908	1913	1923	1925	1927	1929
Total UK production (tonnes)	37,400	38,900	40,589	43,536	52,019	57,963
Imports net of re-exports	114,259	113,380	142,088	150,359	147,815	150,470
Re-exports	2890	3325	2103	7055	1999	1627
Exports of home-produced cheese	447	452	429	884	2,433	2,897
Disappearance	151,212	151,828	182,248	193,011	197,401	205,536
Population - millions	41.0	42.5	44.5	44.9	45.3	45.8
Consumption (kg/head)	3.69	3.57	4.1	4.3	4.36	4.49

Statisticians use these figures on production and trade to calculate how much product, in this case cheese, has disappeared into the home market. This is calculated by adding imports to home production and subtracting exports and is a proxy measure for consumption although with storable products like cheese much depends on the way that stocks of cheese might change from year to year. Putting these trade figures together with data on domestic production in 1929, domestic disappearance of cheese in the UK exceeded 200,000 tonnes for the first time.

Taking estimates of UK population, it can be seen that from 1908 to 1929 the consumption of cheese rose steadily from 3.69 kg to 4.49 kg *per capita*. This compared favourably with consumption in some of the Empire countries but was well short of the *per capita* consumption figures for the main European cheese producing countries (Table 10.7). Consumption in Switzerland was more than double the UK's figure whilst France, the Netherlands and Italy were between 36% and 20% higher. Conversely, Great Britain consumption was substantially higher than in the three major cheese producing Empire countries (New Zealand, Australia and Canada) and the USA.

Table 10.7. Estimated consumption in selected countries late 1920s (Source: Ministry of Agriculture, 1930)

Country	Consumption (kg per capita)
Switzerland	10.6
	6.1
Netherlands	5.6
Italy	5.4
GB	4.5
New Zealand	2.6
USA	2.0
Australia	1.7
Canada	1.4

These latter four countries were significant meat consumers whereas in the UK, and especially amongst low-income families, cheese was still an important alternative to meat. The 36% growth in UK disappearance of cheese in the early part of the 20th century (1908 to 1929) was significant. Imports contributed 36,211 tonnes of the 54,234 tonnes growth in disappearance compared to the 18,023 tonnes increase in UK production less exports but domestic producers had increased their share of the market marginally from 24.4% in 1908 to 26.8% in 1929.

Structure of the retail market for cheese

Little hard data are available describing the structure of the retail market for cheese in Britain. However, a snapshot is provided by a report prepared by the Empire Marketing Board in November 1929. The report described the overall market for cheese in Britain, concentrating initially on imports from Empire countries. In 1928 Empire products accounted for 84% of total cheese imports; these were shared primarily between New Zealand (52% of total imports) and Canada (30% of total imports). The seasonality of Northern hemisphere Canadian and Southern hemisphere New Zealand exports ensured all year round supplies with 70% of NZ shipments arriving between January and June and 74% of Canadian shipments arriving between mid-summer and December. The research into the London market entailed interviews with a representative sample of 500 retail stores in different neighbourhoods of London during the period June to November 1928. More than half of these respondents were independent shops and about one quarter were multiple retailers - both local and national.

The market was viewed as being relatively stable through the year, with a rising number of buyers in the summer months and at Christmas. (Possibly the lack of domestic refrigeration reduced meat purchases in summer.) This seasonal effect was offset by the fewer people that purchased cheese in the winter months, though each bought more on average. There were conflicting views amongst the retailers spoken to as to whether the overall market was growing, falling or static. Virtually none of the retailers spoken to, also acted as an *affineur*, maturing the cheese they bought to add value and flavour. About 60% of retailers said that their customers were looking for mild flavoured cheese, with the remaining 40% saying they preferred a more mature, stronger flavour. However, it was felt that the preference for stronger cheese was growing in most areas of London.

Cheddar was the most stocked cheese, being found in 88% of all outlets. Figures for all cheeses are given in Table 10.8. Whereas 84% of outlets stocked NZ Cheddar and 74% Canadian, only 40% stocked English. With Cheddar the overriding preference was for white rather than coloured cheese; the exceptions being those parts of London with families of Irish or Northern origin who by habit much preferred the coloured variety. Not one shop in London stocked solely coloured Cheddar although 35 % of shops stocked both white and coloured.

Table 10.8. Proportion of London stores stocking different cheeses (Source: EMB, 1929)

<i>Cheese</i>	<i>Percentage of stores</i>
Cheddar	88
Of which: New Zealand	84
Canadian	74
English	40
Cheshire	13
Stilton	36
Gorgonzola	63
Edam	48
Camembert	29
Gruyere	18
Roquefort17	17
Gouda	17
Parmesan	14
Processed - Blocks	64
Processed - Cartons	90

The dominance of New Zealand Cheddar is evident from these figures as was the popularity of Gorgonzola and Edam. According to the report, Edam's popularity was declining whilst Gorgonzola was universally popular. Both cheeses were priced at the lower end of the market with younger or lower fat versions often selling at the same price as or lower than New Zealand Cheddar. Typical London retail prices for the various key cheeses are listed in Table 10.9.

Table 10.9. Typical London retail cheese prices of cheese converted to p per kg (Source: EMB, 1929)

	<i>Summer</i>	<i>Winter</i>	
English Cheddar	14.7–16.5	16.5–18.4	
Canadian Cheddar	12.9–14.7	11.0–12.9	
New Zealand Cheddar	11.0	12.9	
Cheshire	11.0–12.9	14.7–18.4	
Blue Stilton	24–28	24–28	
Gouda – Young			7.3–8.3
– Mature			14.7
Edam – Skimmed milk			6.4–8.2
– Full Fat			9.2–14.7
Gorgonzola – Young			11.0–11.9
– Mature			12.9–14.7
Camembert			25.7–33.1
Parmesan			27.7
Gruyere			20.2
Processed – blocks			11.9

English Cheddar and Cheshire were normally more expensive than New Zealand Cheddar, with Canadian Cheddar coming between the English and New Zealand prices. Gorgonzola was generally half the price of Blue Stilton whilst younger (possibly skimmed milk) Gouda was priced at similar levels to young skimmed milk Edam. Other cheeses picked up in the survey as being sold in London were Bel Paese, Bella Milano, Stracchino, Pecorino, Port Salut, Old Dutch, Spiced Dutch and Schapzigar (a Swiss skimmed milk hard cheese grated for flavouring soups & cooked eggs).

British curd cheese (St Ivel), Gloucester, Leicestershire and Caerphilly were also mentioned but were quite rare. Wensleydale (almost certainly the Blue variety) was hardly known in London at this time with only a handful of shops handling it and this generally at Christmas. One shop sold White Stilton all year round and when the survey was done it had a price equivalent to 15 p per kg, making it one of the most expensive cheeses on the market.

The picture we have of the cheese market in late 1920's London - the biggest market for cheese in Britain - was one dominated by Cheddar with English the most expensive form, beaten only by Blue Stilton, Camembert, Gruyere and Parmesan that were all at least 50% more expensive. New Zealand Cheddar dominated the market and was the floor price setter. Thus we have a highly cosmopolitan market with plenty of choice and a price range of between 6.4 p per kg for young skimmed milk Edam and up to 28 p per kg for the best Stilton.

It is noteworthy that the survey commented on the role of processed cheese in the London market. Block sales of processed cheese, often imported from the Netherlands in 2.27 kg (5 lb) blocks, had a strong following but it was the newly created pre-wrapped packs of processed cheese in small portions that were capturing the public's and the retailer's attention. Consumers loved the range of flavours, the convenience of individual packs and the low spoilage. Retailers appreciated the ease of selling it, requiring no input from them in terms of preparing, cutting or specialised storage and for them also there was no wastage or deterioration in quality. Volumes sold at this time were very modest but growing rapidly and expected to grow a lot more in the future. This pre-portioning and packing of cheese was, even then, seen as being the way forward for cheese.

Cheese preferences outside of London

MAF estimated that by the end of the 1920s, Cheddar was the country's most popular cheese across the country and accounted for 70% of all retail cheese sales. Most of this was imported and would have been available throughout the length and breadth of the Britain.

Looking at other cheeses, MAF (1930) considered that "*the demand for certain varieties appears to be largely a matter of habit and is only kept alive by the maintenance of a continuous supply*". Thus, outside of London the major cities would have been dominated by locally made cheese

but with imported Cheddar increasingly taking a larger share of the market. In the far North, imported Edam, often reduced in fat, was popular due to its low retail price. As might be expected, in the North West of England Cheshire and Lancashire were the favoured home produced cheeses, whilst in the North East it was Wensleydale although the mining areas of Durham also favoured Caerphilly as an alternative to white Wensleydale or White Stilton. Leicester cheese and Blue Stilton were firm favourites in the East Midlands whilst in the West Midlands Cheshire was a firm favourite. Caerphilly, not necessarily made in Wales, was still popular in the South Wales mining areas whilst in the South West of England Cheddar was the cheese of choice. Local markets and fairs provided a ready outlet for fresh cheeses and other locally made cheeses.

The MAF report also commented on the change in public taste since the start of the 20th century. This was characterised by a growing demand for milder tasting cheeses. Whereas 'Tasty' Lancashire used to be the preferred cheese in the North West the reverse was now the case with younger milder Lancashire taking over. What is not clear is whether this apparent preference for younger, milder, cheese was truly driven by taste or by the purse. Well-matured English cheeses such as farm-made Cheddar, a ripe Blue Stilton, mature Cheshire or Leicester still remained firm favourites in the highest class retail outlets where price was less of a barrier to consumption. Whether it was the taste or price that was the driver of these changes is unclear but what is clear is that blandness was seen by many as a desirable, or at least an acceptable, characteristic. This was not so for the gourmets of this period, who frequently bemoaned what was to them tasteless, rubbery cheese.

Conclusions from the MAF report on cheese

This was a wide-ranging report looking at all aspects of the cheese industry and its suppliers. UK suppliers were seen as servicing less than a quarter of the market with the best examples securing high prices at the top end of the market meeting a specialised demand. The rest of home production, generally that produced in dairies, was seen as inferior to the imports from New Zealand and Canada, which accounted for about 90% of imports. If the British cheese industry was to grow and prosper then it needed to be better organised in order to compete. A national mark scheme for grading and certifying British cheese was suggested for both farm-made and factory-made cheese but this was unlikely to happen for as long as cheese was seen as an ancillary activity to supplying the liquid milk market. The cheese sector was disorganised and in its then present state, where little regard was paid to the quality of the raw material, production units were operating at low levels of throughput compared to other countries and where as a result there is no investment in processing facilities for whey, by which value can be added to the by-product of cheese making. Overall, future prospects were poor.

There was a need for organised marketing with all cheesemakers working together to promote their products. Notwithstanding the issues afflicting the whole of the dairy sector with weak prices and the dominance of the liquid milk market that left cheese as a supply balancer, the report made a strong case for better control of raw material quality, the introduction of industry-wide grading under a national mark, closer integration of all cheesemakers and the development of joint promotional activities. Some of these issues would be tackled in the years ahead. The problems were well known but the solutions were slow in coming forward.

Trade issues facing the dairy sector

Following the Linlithgow Committee Report, the needs of the dairy sector were becoming clearer but there were a number of constraints - both political and economic - that had to be considered when looking at reform. Free trade and Empire preference remained very firm tenets of government policy and successive British Governments seemingly put the interests of Empire food producers and British consumers before those of domestic food producers. These considerations were as follows:

1. The desire to maintain the principles of free trade on which the British economy still depended, although perhaps on a lesser scale than in the second half of the 19th century. This was seen as an essential part of the Government's economic policy that put the needs of the industrial and manufacturing sector ahead of those of agriculture.

2. Married to this tenet was the desire to maintain a cheap food policy that would benefit British consumers whilst also providing a ready market for Empire produced foods. The needs of consumers and Empire producers (in this case for cheese and butter) were put before those of UK farmers and butter/cheese makers, as had been the case since the repeal of the Corn Laws. In return, the Empire provided an important market for British manufactured products.
3. There was amongst part of the political establishment the desire to maintain a *laissez-faire* approach towards agriculture, with the state intervening as little as possible.
4. Fourthly, linked to this, were the economic constraints that would disallow substantial amounts of taxpayers' money going to support agriculture.

Demonstrating Empire preference, the UK Government funded the creation of the Empire Marketing Board (EMB), which was set up by the Imperial Economic Committee in 1926. Its aims were to promote economic analysis and supporting scientific research that would enable Empire produce to be marketed more efficiently. Backing this up was a further aim to actively promote Empire countries and the export of their produce to the UK. Armed with an annual grant of one million pounds from the British Government, the EMB film unit produced a series of documentary films and magnificent modern poster campaigns promoting Empire foods between 1926 and 1932. Lord Beaverbrook, the proprietor of the "The Daily Express Group" of papers, was an avid supporter of the Empire and he was to become one of the loudest critics of the proposed reforms of British agricultural produce marketing in the years ahead. Such reforms, he argued, would impact unfavourably on the quantity of Empire produce sold in the UK.

However, there were critics of this policy of promoting Empire foods in the UK even to the point of debates in the Houses of Parliament. Subsequently there was a requirement for half of the EMB budget to be spent on promoting home-produced food (including the National Quality Mark Scheme to which we will return to later). But for some even this was not sufficient. In a debate on 18 July 1927, Lord Bledisloe asked why British taxpayers "*should find £500,000 a year in these difficult times for expenditure which actually prejudices the British producer and over which he has no direct control*". The answer was that it was an act of faith promised during the Imperial Economic Conference of October 1923; the UK government had supported the recommendation that such a body as the EMB should be set up in return for a freeing up of tariffs on UK exports of industrial goods to the Empire. Government were thus continuing to favour the interests of British manufacturing against those of British agriculture/food.

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11. Major changes in the 1930s

The EMB continued until 1933 when its role was deemed to have finished with the conclusion of the Ottawa Agreement in 1932, which gave duty free access for Empire produced goods to the UK market for the following three years.

Despite this fixation on Empire preference there was a growing feeling amongst many politicians that agricultural reform was required and the Linlithgow Committee report gave plenty of ammunition and room for thought. As far as milk was concerned there was an increasing realisation that it had a vital part to play in raising the standard of nutrition in the country, particularly amongst lower income groups and children. Thus one of the key priorities of any reform was to remove barriers to increased production and consumption of liquid milk at all times of the year. In summary the issues to be addressed were:

1. The national dairy herd was not in the best of condition due to the ravages of tuberculosis (TB) and brucellosis; average yields per cow were poor compared to other countries and compositional quality (which was vital for cheesemaking) was not encouraged under the pricing arrangements for liquid milk.
2. There was a deep suspicion about the purity of milk owing to the incidence of TB, which had to be addressed to assure consumer confidence in the product. Some parts of the medical profession were reluctant to endorse milk until such time as the national herd was cleansed (and presumably all milk was pasteurised before sale).
3. The supply chain from farm to consumer was inefficient and fragmented.
4. There was little financial incentive to make cheese or butter either in dairies or on the farm, as the returns were determined by the huge levels of imported produce. The creameries concerned were unable to offer a competitive milk price that would have assured them of a predictable supply. Almost 30% of the factory-made cheese was manufactured by milk handling depots from surplus milk with irregular supplies and sometimes suspect quality.
5. Few of the cheeses made had a standardised recipe. Quality of cheese was dependant on the skill of the cheese maker and the particular recipe he was working to. This resulted in a very varied quality within and between dairies. There were no national grading standards for home-produced cheese and there was an absence of an independent grading system. By contrast, there were such schemes in the countries from which most of Britain's imports came. Consequently, imported cheese continued to be of a more consistent quality, albeit being somewhat younger than our traditional varieties used to be. Many British cheesemakers responded by reducing the maturation periods so that the cheese was sold younger, so generating an improved cash flow. This applied not only to Cheshire and Lancashire cheese but also to Cheddar. In some cases, as has already been stated, some farmhouse Cheddar makers had switched production from the traditional 22.7 kg (50 lb) Cheddar drum to a 2.27 kg (5 lb) Caerphilly, which required less ageing and was easier to make. It also had a ready market amongst the mining communities in South Wales.
6. Farmhouse cheesemaking was in decline during the 1920s with most farms tending to make only during the summer flush whilst selling milk for the liquid market at other times when prices were better.

Underneath all of these issues was the perennial problem of what was often referred to as surplus milk. A view persisted that the manufacture of dairy products was seen as a necessary evil arising from the production of milk for the liquid market, a nationally important market for the health of the nation and which could not be supplied by imports. If one wanted an all year round supply of milk to satisfy the liquid milk market then, because of the natural seasonality of milk production under the spring calving system that prevailed in Britain, there was always going to be a surplus of milk above the needs of the liquid market during the spring flush and the summer seasons. Cheesemaking was a last resort for the liquid milk depots and dairies and they would get whatever returns they could from a market dominated by cheap imports. Farms in areas outside the liquid milk zones had to be content with whatever local markets they could supply (with local cheeses) and only in rare cases would English cheese find its way into the large urban markets.

Surplus milk also had the potential to undermine the price structure of the liquid market by allowing producers ever more distant from the liquid market to undercut "normal" prices.

The National Mark scheme

An important first step addressing the issue of standards came with the introduction of a National Mark Scheme under the auspices of the Agricultural Produce (Grading and Marking) Act 1928, which could be applied to any agricultural or food product. Early adopters of the Mark were horticultural products. Promotion of the scheme commenced in 1930 when the government arranged "*for the Empire Marketing Board to provide a grant of £55,000 for the financial year for the purpose of providing and maintaining foreground publicity*" (Hansard, 1930). At that time only apples, pears, tomatoes and cucumbers and Cornish broccoli for export were included in the scheme. The first statute covering cheese came in 1933 with eventually nine British cheeses included: Cheshire in 1933, Stilton and Caerphilly 1934, Cheddar 1935, Leicester 1937, Derby 1937, Wensleydale 1937, Lancashire 1937, cream cheese 1938 and Gloucester in 1939. These regulations included provision for both Selected and Extra Selected grades in the cases of Cheshire, Stilton, Cheddar, Gloucester and Caerphilly and Selected grade alone for the others. In most cases the minimum age at grading, the flavour, texture and body, appearance, colour and any other general requirements such as the size or shape of the cheese were defined. Abridged details are shown in Appendix D.

In all cases the words "Selected" and "Extra Selected" could only be applied to the cheese if it also carried the National Mark logo which was a map of England & Wales in silhouette with the words "Produce of England & Wales" inscribed in a circle placed centrally in a map within which circle is a design representing the Union Jack and the words "Empire Buying Begins at Home". The mark is illustrated in Figure 11.1.



Figure 11.1. The National Mark incorporated into the grading designation stamps (Source: MAF, 1938)

It was extraordinary that a logo supposedly purporting to be supporting British produce should also require the addition of the words "Empire Buying Begins at Home". Presumably it was there to remind loyal Empire buyers that it was OK to buy British. It simply shows how embedded in government eyes was the notion of Empire preference. Until it's winding up in 1933 the Empire Marketing Board promoted the scheme along with occasional support from the Ministry of Agriculture.

Table 11.1 gives quantities of cheese were packed under the National Mark Scheme in England & Wales in the period 1936 to 1938. Only minimal quantities of other cheeses were so packed and graded.

Table 11.1 Tonnes of cheese packed under the National Mark Scheme (Source: Imperial Economic Committee, 1938)

	1936	1937	1938
Cheshire - Farm	2,654	2,952	3,771
Cheshire - Factory	1,965	886	822
Caerphilly	1,020	1,054	1,207
Lancashire	647	743	1,019
Cheddar	230	179	123
Blue Stilton	70	57	40
White Stilton	143	95	119
Total	6,729	5,966	7,101
Estimated UK Cheese Production	55,590	38,364	44,074
% in National Mark Scheme	12.1	15.5	16.1

By 1938 just over 16% of cheese produced in the UK was being sold under the National Mark. This was undoubtedly a big leap forward. Cheshire, which was still by far the most produced cheese in Britain at that time, accounted for almost two thirds of total National Mark Scheme cheese. This was not surprising, as the Cheshire Cheese Federation had introduced its own grading scheme in 1929, as had the Farmhouse Cheddar and Caerphilly Federation in the same year. The National Mark adopted their standards and paved the way for other cheeses to follow. The one weakness of the scheme was that it was the maker who was responsible for grading the cheese although all cheese was liable to verification by Government appointed officials.

Pricing of milk used for cheese

During the life of the EMB there remained strong voices promoting the reforms in British agricultural marketing in general (and milk, in particular) that were recommended in the various committees and research papers. Central to these debates was the need to sort out the way in which the market prices for manufacturing milk, including that used for cheese, should be priced whilst not disturbing the premium liquid milk market.

The Joint Milk Committee had been responsible for agreeing prices at which liquid milk dairies paid milk producers for such milk and the prices at which manufacturing milk was paid. Each farmer had a so-called 'basic quantity' equal to average quantities delivered in the trough months of production (from November to February). On this quantity the liquid milk price was paid in those 4 months and also in the months of October and March. In the April to September period the liquid price was paid on the basic quantity plus an agreed percentage above, of up to 10%. Any surplus milk produced above the basic quantity at any time of the year would receive only the manufacturing price, which was substantially lower than the liquid price. For example in 1922/23 the average liquid milk price was 1.47 ppl (16 d per gallon) and the manufacturing price 0.88 ppl (9.625 d per gallon). From these prices, transport and handling costs would be deducted. The manufacturing price was based on the realisation of Canadian Cheddar and New Zealand Cheddar sold on the London Provisions Exchange.

Adoption of the scheme was patchy, not helped by the continued decline in world commodity prices. By 1931/32 the liquid price had fallen by around 19% to just 1.19 ppl (13 d per gallon), whilst the manufacturing price had halved to just 0.44 ppl (4.75 d per gallon). The agricultural sector in general and the dairy sector in particular were in a state of near collapse as world market prices fell during the late 1920s and early 1930s. This intensified the debate on the need for reform.

Agricultural marketing reforms

The National Farmers Union was a key player in lobbying Government for measures to improve the state of the agricultural industry and, although not a universally held view amongst its Board

members, the NFU was trying hard to expand the co-operative marketing of Britain's agricultural commodities. In 1931 the Government introduced the Agricultural Marketing Act (GB), which formed the basis of the agricultural marketing schemes that were to be created for various products including milk, potatoes, hops and wool. The Act set out the principles and the general powers that would be vested in the marketing boards including their role and functions. This was followed in April 1932 by the setting up of the Re-organisation Commission for Milk in England & Wales under the chairmanship of Sir Edward Grigg. The report was published in January 1933 and dealt with the numerous issues confronting the dairy sector.

With regard to cheese, the report stated: *"...the spasmodic character of much factory production of cheese suggests that milk realises almost its lowest value as a raw material in the form of "factory cheddar" cheese."* The report also stated that *"...the main role of the factory cheese process in the dairy industry of this country is the conversion of milk for which no other use can be found."* The Stilton dairies were excluded from this statement as there was a strong market for the cheese and it achieved a premium price. The same could not be said for most of the cheese that was *"...produced in factories or country depots which exist primarily to supply the liquid milk market and in which much of the cheese made realises a lower wholesale price than that of Dominion cheese."*

The report commented on the disappointing development of the co-operative movement in England & Wales since 1900 *"...falling far short of what has been achieved in other countries"*. It dwelt on the major issue of the differential returns available from the liquid milk market on the one hand and the average (rather than specific) returns available from home-produced dairy products (including butter, cheese, cream condensed milks and milk powders) on the other. The Grigg Commission argued against the use of an average price on the grounds that every manufactured product tended to yield a different return. In the case of cheese the base price was, as noted earlier, the realisation for imported cheese from New Zealand and Canada. In contrast the actual realisation value for British cheese was determined primarily by the quality of the cheese. Since much of the cheese made by British cheese factories was of a generally poor quality, in part due to erratic supply and poor milk quality, this method penalised the manufacturer. He was paying a much higher price than that derived from the market. At the same time it was argued that the system based on these two imported prices disadvantaged the dairy farmer since much of the milk that went into the milk depots and was not used for liquid milk or cheese usually commanded a higher realisation for the dairy. Neither did the report lean towards a flat rate price for all manufacturing milk - not based on the price of imported dairy products but on some other parameter. The reason was that each market returned a different rate of profit and as such there would be some manufacturers, say of cheese, who could not compete with imported cheese and would either cease production or incur substantial losses. Equally, there would be manufacturers of other products who were making substantial profits. Thus the report commended the system used in the USA where different products commanded different milk prices, in other words pricing of manufacturing milk by end use. The US system had five categories -

1. Fluid (liquid) milk;
2. Cream, ice cream, condensed and homogenised mixtures;
3. Evaporated milk, condensed milk, milk chocolate, whole milk powder, soft and foreign cheese;
4. Butter
5. American cheese

In the USA fluid milk commanded the highest price and all other uses of milk returned a cascade of prices below that. Clearly any such system in Britain might require a different set of prices and differentials. Fundamental to this system was the requirement to put in place a price pooling system, whereby all milk producers in a given area (for instance making a demarcation between England & Wales on the one hand and Scotland on the other) received the same average price for their milk regardless of how that milk was used.

This was contentious as those farmers supplying the liquid milk market, either directly off the farm to consumers or via a dairy to whom they had sold their milk, would under this system be worse off with direct sellers paying a levy to cover the difference between the pooled price and the liquid milk realisation. Conversely those dairy farmers who in part or in whole sold their milk for manufacture would receive a higher price for their milk which, it was argued, would stimulate domestic milk production and in due course reduce imports of cheese and butter. However, recognising that those farmers who lived closest to the major towns and cities and who supplied most

of their milk to the growing liquid milk market should receive a higher net price than those producers living in more remote parts of the kingdom, the Commission suggested that differential transport costs should be applied on a regional basis. Underlying all of this was the belief that dairy farmers should not be competing amongst themselves to supply the large liquid market. With the existing differentials between liquid and manufacturing prices, surpluses in one part of the country might be better used not in making cheese; rather that milk could be shipped to London for the liquid market at a price below other suppliers closer to London and still obtain a better price than that obtainable from cheese. In this way the overall market price would be driven down.

Orderly marketing, via a voluntary national co-operative, might well be the best solution to this. However, as various committees concluded, British farmers did not like this idea of co-operation. The essence of the marketing schemes that were to come into force was that if, nationally, two thirds of registered producers of that commodity voted for the formation of a Marketing Scheme, then the controlling body, in this case a Milk Marketing Board, would be responsible for deciding where the milk went and in negotiation with the buyers of milk agree prices at which it would be sold. In essence it would be a compulsory co-operative; this was seen as being the only way to protect farmers from themselves. All the returns from the market would be pooled and an average price paid to all farmers with or without regional variations and with deductions of pooled or actual regional transport costs. Importantly, farms that were direct sellers of milk to consumers would be required to pay a levy to balance their return with those of wholesale milk producing farms.

The Commission wanted to be able to balance the interests of liquid milk dairies and product manufacturers on the one hand, and different groups of milk producers on the other, by fixing prices by agreement between the soon to be created Milk Marketing Boards and the Dairy Trade. Consumers would benefit from a growing supply of liquid milk at reasonable prices whilst farmers would benefit from a more stable milk price and a more equitable price across the country. Importantly, this model would allow creameries/factories in outlying areas to buy milk from the marketing board for manufacture into cheese (and other products) at market related prices and to secure a more regular supply of milk. Importantly, the Commission recognised that the consumer was effectively footing the bill for low manufacturing prices through a higher than necessary liquid milk price. It was by any definition an ingenious piece of construction balancing the interests of farmers, dairies, consumers and taxpayers.

The creation of the Milk Marketing Boards

There were lengthy debates in Parliament about the details of what came to be known as the Milk Marketing Schemes, initially in England & Wales and subsequently for Scotland and Northern Ireland. Whilst these debates were taking place during the early 1930s, international markets were in a state of collapse. The Permanent Joint Milk Committee became totally ineffective with larger buyers passing on lower prices to farmers. Some commentators urged farmers to withhold their milk but this was unrealistic given the parlous state of an industry that desperately needed cash to keep going. And so prices continued to fall. Worst off were those farmers in areas remote from liquid markets in the North West and the South West of England. A change of government in 1933 recognised that something had to be done about the high level of imports and the impact these continued to have on the domestic industry. The situation had not been helped by the Ottawa agreements of July 1932, which instituted a system of Empire preference to counter the impact of the Great Depression. They provided for quotas of meat, wheat, dairy products and fruit from the dominions to enter Britain free of duty. In return, tariff benefits were granted by the dominions to imported manufactured goods from Britain. Under the terms of the Ottawa agreement and the Import Duties Act, 1932 there were zero duties on imports of Empire cheese but duties of 10% *ad valorem* on Irish Free State imports and 15% *ad valorem* on foreign (i.e. non Empire) cheese. The impact was to allow even greater imports of cheese from Australia, New Zealand and Canada but at the expense of European cheese.

The 1933 Agricultural Marketing Acts (UK) provided for the regulation of imports for any product covered by a marketing scheme by levy or quota. A second act of 1933 allowed Marketing Boards to make loans and to purchase and trade in products. In the years that followed no use was

made of the powers to impose import quotas on cheese but the Boards would subsequently make use of the powers to trade in dairy products and make loans.

Further acts that year provided for the financial powers of Boards administering schemes and the contents of those schemes (further amendments were made in 1934 with an Act empowering the Northern Ireland parliament to introduce similar legislation). Based on the work of the Grigg Commission, the NFU drafted a Scheme for the creation of a Milk Marketing Board in England & Wales. This scheme was approved by both houses of Parliament on 27th July 1933 and the Milk Marketing Board for England & Wales was constituted on 29th July 1933 following a public inquiry that lasted 3 weeks. However, it had no powers to act until such time as a poll of producers was conducted to vote on the implementation of the scheme proposed by the NFU as required under the Agricultural Marketing Acts. The poll was held at the beginning of September 1933 and the result declared on 6th September with 84,496 (96%) voting in favour and just 3,136 voting against. There was then a month of suspension whilst efforts were made to put in place various elements of the scheme. On 6th October 1933 the Milk Marketing Scheme for England & Wales was formally established (BAXTER, 1973 p 74)

The Schemes in Scotland followed and this extract from Hansard (1933) summarises very succinctly what the Schemes were all about:

*"Passing from the consumption of milk and the means whereby it may be increased, let me turn to the scheme itself. The provisions of the scheme are designed to enable the administrative board, by the exercise of trading and regulatory powers, **to regulate the sale and price of milk to be consumed as liquid milk, to arrange for the disposal or otherwise of the surplus supplies, and to pay producers for the total quantity of milk supplied by them, irrespective of its destination, on the basis of an average price, with exceptions for officially graded or other milk which is sold at special prices, and subject to reductions for distant carriage. The cost of operating the scheme is to be met by deduction from the payments to the registered producers calculated at so much a gallon, and the cost of the scheme will not fall, therefore, on the State. Producer-retailers, producer-wholesalers and the producers of certified milk are to be exempt from the provision requiring the sale of milk to or through the agency of the board. That is an exception, but they will be required to observe the scale of prices fixed by the board and to contribute to the cost of operating the scheme. Generally speaking, the scheme itself will be one for the pooling of the milk produced in that wide area. Thus registered producers are in general not to sell the regulated product except to or through the agency of the board. To a large extent, producers will be allowed to continue to consign milk, as heretofore, to the same distributors and manufacturers, but it is assumed that the board will be a party to any contracts made between producers and buyers of milk, and the latter will make their payments to the board.**"*

The passage in bold type is interesting as it shows clearly that the schemes were about satisfying the liquid market and disposing of the surplus supplies. Production of cheese and other dairy products thus continued to be seen as a residual operation supporting the liquid milk market.

In summary, the Milk Marketing Schemes were trying to solve a number of issues as viewed by the Government:

1. It wanted consumption of liquid milk to rise but this could only be done by stabilising the dairy sector and so encourage farmers to produce more milk
2. It wanted to do so in a manner that did not add further costs to Government
3. It was content to see imports of cheap butter and cheese as part of its cheap food/Empire preference policies and recognised that the cost of dealing with the milk surplus to the liquid market should be shared between all milk producers and paid for in part by the consumer of liquid milk.
4. It hoped that by improving the marketing of milk British creameries would get a more regular supply of milk that would help to reduce costs and improve quality.

What then was the effect on the cheese makers?

Effects of the schemes on the cheesemakers

Total output of cheese had grown steadily from 43,536 tonnes in 1924/25 to more than 60,000 tonnes in the early 1930s. The share accounted for by farm-made cheese was estimated to have fallen from 75% in 1924/25 to 50% in 1927 and 43% in 1932/33, the year before the schemes came into being.

This drop in the share taken by farm made cheese was due, according to the 1936 report of the Re-organisation Commission (The Cutforth Commission), to the sharp decline in cheese prices in the years before the schemes came into being and "*...the growing unwillingness of farmers' wives and daughters to work long hours for small returns.*" The milk thus released from the farms was sold into the liquid market and/or where possible to local dairy product manufacturers.

Once the schemes were in place many farmers who had formerly turned all of their milk into cheese immediately switched to selling their milk wholesale to one of the MMBs, with the result that output of farm-made cheese fell quite dramatically from 28,000 tonnes in 1932/33 to just over 13,000 tonnes in 1933/34 (Table 11.2). At the same time, the quantities of milk fed to livestock on the farm decreased as many farmers found it more profitable to sell the milk wholesale to the Boards. So, without any major change in the quantity of milk produced the greater availability of milk for manufacture led to a substantial increase in the production of cheese, butter, condensed milk and milk powders. Factory cheese production increased from 37,500 tonnes to 52,900 tonnes in the first year of the schemes. The net effect was a modest 0.5 % overall increase in cheese production to just over 66,000 tonnes in the first year of the Milk Marketing Schemes.

The proportion of farm-made cheese fell further in the first 4 or 5 months of the schemes as farmers enjoyed "*...the simplicity of selling milk and the assurance of returns under the schemes.*" (Cutforth, 1936)

Table 11.2. GB cheese production and UK cheese Imports 1924/5 to 1934 – tonnes
(Sources: Imperial Economic Committee, 1938; Cohen and Murray, 1936)

	<i>Total production</i>	<i>Ex farms</i>	<i>Factory</i>	<i>Imports</i>
1924/25	43,536	32,868	10,668	144,272
1925/26	46,025	31,412	14,613	150,368
1926/27	49,478	na	na	151,130
1927/28	52,019	26,000	26,019	147,828
1928/29	54,661	na	na	151,130
1929/30	57,963	na	na	150,470
1930/31	61,011	33,776	27,235	156,567
1931/32	63,246	25,930	37,316	145,085
1932/33	65,716	28,258	37,458	151,282
1933/34	66,040	13,183	52,857	153,213
1934/35	58,704	11,000	47,704	150,266

The Milk Marketing Boards (MMBs) in England & Wales and in Scotland were urged by government to encourage farmhouse cheesemakers to retain more of their own milk on the farm. The Boards did this by making up the difference between the (higher) net value of milk sold off the farm (being the pool price less transport costs) and its lower value if made into cheese. This was made possible by the Milk Act of 1934 and was implemented in Scotland from February 1934 and in England and Wales in April 1934. The rebate was only paid initially on farms with eight or more cows although subsequently this was reduced to six. The rate in England & Wales was 0.22 ppl (2.4 d per gallon) for hard cheese and 0.17 ppl (1.9d per gallon) for soft cheese. The rate of assistance was increased in the second and third years of the schemes with differentials introduced between summer and winter milk. These seemed, according to the Cutforth Commission, "*...to have been sufficient to make the returns to farm cheese makers approximately equal to those which they would have received by the sale of their milk.*"

The aim was to try to maintain farm cheesemaking particularly in those Western counties far removed from a lucrative liquid milk market. Farm-made cheese production had slumped to just 13,183 tonnes in 1933/34 and 11,000 tonnes in 1934/35 but by 1938/39 had recovered marginally to

11,600 tonnes. Cutforth (1936) stated that without the introduction of these rebates, manufacture of cheese on the farm would have been significantly lower and confined to those cheeses for which there was a premium market. Presumably the Commission was thinking about Stilton and West Country Cheddar. The treatment of farm-made cheese was generous as it provided a small income even before the cheese was sold. This would be a feature of the Farmhouse Cheese Schemes in later years.

The extent of the effect on farm cheese of the implementation of the Milk Marketing Schemes can be seen by reference to the decline in the number of farms making Cheshire cheese (Table 11.3). In 1930 there were 1,200 farms making approximately 19,000 tonnes of Cheshire cheese (15.8 tonnes per farm) compared to only 3,000 tonnes being made in factories. Total farm cheese output in the GB was of the order of 33,500 tonnes in 1930/31. By 1939 there were only 400 farms in Cheshire making 6,000 tonnes of cheese (average of 15 tonnes per farm) out of an estimated GB farm output of all cheese around 11,600 tonnes.

Table 11.3. Effects on farmhouse Cheshire cheese production (Sources: Cutforth, 1936; MMB UKDF&F)

	1930	1939
Number of farms making Cheshire	1,200	400
Output of Cheshire cheese (tonnes)	19,000	6,000
Average production per farm (tonnes)	15.8	15.0
All farm cheese production (tonnes)	33,500	11,600
Cheshire share of all farm production	56.7%	51.7%

It is somewhat surprising that the farms did not get bigger but at the heart of this contraction in farms making cheese was the lure of an easier life achieved by simply selling all one's milk to the MMB. By 1939, farm-made Cheshire still accounted for more than half of all farm cheese production in the UK. The incentives given by the Milk Marketing Schemes allowed them to stay in business and compete.

Specialist cheese factories had made little impact on the industry up to the time of the formation of the MMBs. In 1930 farm made cheese still accounted for 55% of estimated national production. Around 25% of the cheese made in factories/dairies was coming from liquid milk dairies, which used cheese as a balancing product when they had surplus milk, usually during the summer months. As stated earlier, some of the factories set up in the 1880s in areas close to railway stations gave up production of cheese as a mainstream product and reverted to selling their milk to liquid milk operators in the major cities. Some specialist factories were running in Wales, the West Country, in South West Scotland and in the East Midlands (where the milk was used for Stilton manufacture). Although the data available on production of cheese are patchy and not always directly comparable between years due to different definitions, e.g. exclusion of very small enterprises from census data, it is widely accepted that factory production of cheese in Britain almost doubled between 1930/31 and the first year of the schemes in 1933/34. The schemes encouraged many small farm makers to sell their milk wholesale rather than make cheese, so allowing increased availability of wholesale milk to factories who could now bid for that milk on an annual basis. The rebated prices at which they could buy milk were related to the market in which they were operating. Cheese making was not the only beneficiary. Quantities of milk bought for buttermaking grew by a factor of five whilst condensed milk output and milk powder production also more than doubled just in the first year of operation of the schemes.

The Scottish and England & Wales Boards stipulated that these lower (rebated) milk prices for manufacturing use were conditional on buyers purchasing an average minimum of 1,364 L (300 gallons) a day. Buyers paid the full, i.e. liquid, price for their milk and then had to prove the use to which the milk had been put. Smaller manufacturers were disadvantaged under this system and the Cutforth Commission commented that this was something that needed to be looked at.

In the recommendations of the Cutforth Committee (1936) it was clear that much thought had been given to the various issues which the Schemes were aiming to address. It was considered of prime importance to create an environment where sufficient milk was produced all year round, to service the liquid market enable more milk to be produced as and when liquid consumption grew, as

Government hoped it would. But this left Cutforth with the problem of surplus milk. The report stated that: "...the development of the manufacture of milk products on a more systematic basis should be one of the features of any scheme of re-organisation." It went on to make the case: "The ability of countries overseas to place on our market at prices with which home producers and manufacturers cannot compete is another consideration of vital importance and it has led us to make recommendations ... in this report with a view to maintaining at a reasonable level the value of milk utilised in the manufacture of products in this country."

Cutforth posed the question as to whose responsibility it was to absorb the costs incurred in selling home-produced dairy products made in the summer months in competition with cheaper imports. A part of these surpluses arose because of the natural seasonality of milk production associated with a spring calving system of milk production that predominated in the UK at this time. Should it, therefore, be the farmer/manufacturer, the consumer or the Government? Cutforth had already suggested that consumers were paying a higher price for their milk and could not reasonably be expected to pay even more. Producers in general could not afford to bear all of these costs even with the pooling mechanism in place. Since it was a matter of Government policy to increase consumption of fresh milk Cutforth concluded that it was they who should bear these costs of dealing with surplus milk.

Milk supplies after the setting up of the MMBs

Milk production in England & Wales was estimated to have grown from the first year of the scheme to by 4.9% in 1938/39 (Table 11.4). Total sales through the England & Wales MMB, by contrast, rose by almost 31% over this period, helped by the inclusion in the scheme in 1937 of producers with fewer than 4 dairy cows and those farmers selling milk under the Certified and Tuberculin Tested (TT) designations, though own use of milk on farms plus milk used for manufactured products remained in the 'other' designation.

Table 11.4. Milk production and sales to the England & Wales MMB - billion litres (Sources: Cutforth, 1936; MMB UKDF&F)

	1933/34	1938/39	% change
Estimated Milk Production	5.77	6.05	+4.9
Sales off farms to MMB	3.9	5.1	+30.8
Other - used on farm	1.87	0.95	-49.2
Sales to MMBs as % of production	67.6%	84.3%	

The difference in magnitude between changes in estimated milk production and changes in MMB sales could not be accounted for by the inclusion of these small scale or specialist milk-producing farms alone. Rather, it reflected the reduction of farm manufacture together with further reductions in the feeding of livestock on farms with milk. Thus, MMB sales accounted for 84% of milk production in 1938/39 compared to just 67% in 1933/34. Of this increase in volumes of milk sold to the MMB of 1.2 billion litres, an extra 563 million litres went into the liquid market and an extra 632 million litres of milk was available for manufacture. Virtually all of that growth came in the first three years of the scheme as shown in Table 11.5.

Table 11.5. Sales of milk by the England & Wales MMB - million litres (Sources: MAF, 1947)

	<i>Total sales</i>	<i>For liquid use</i>	<i>For manufacturing</i>
1933/34	3891	2863	968
1934/35	4460	3023	1437
1935/36	4655	3019	1637
1936/37	4500	3096	1405
1937/38	4833	3419	1414
1938/39	5087	3486	1600
Change (%): 38/39 over 35/36	30.7	21.8	65.3

Market returns for cheese were still at pretty depressed levels and so incentives to produce more cheese were scarce. Much of the extra manufacturing milk went into dairy products other than cheese and, as best as can be understood from the available statistics, UK cheese production fell from a high of 66,000 tonnes in the first year of the schemes (1933/34) to an estimated 43,688 tonnes in 1938, a drop of one third (Table 11.6).

Table 11.6. UK Cheese Production – tonnes (Source: Cutforth, 1936; Imperial Economic Committee, 1938; Cohen & Murray, 1933)

	Total	Farm	Factory
1932/33	65,716	28,258	37,458
1933/34	66,040	13,183	52,857
1934	58,704	11,000	47,704
1937	38,608	na	Na
1938	43,688	11,600	32,088

Within these figures, farm production had dropped from 28,258 tonnes in the year before the introduction of the Schemes (1932/33) to just 11,600 tonnes by 1938. The subsidies paid by the MMBs to keep some production on farms halted the dramatic decline in on-farm production noted earlier in the first year of the scheme. Factory production, which peaked at almost 53,00 tonnes in 1933/34, had fallen to 32,000 tonnes by 1938.

This did not prevent investment being made in larger scale cheese factories and Davis (1981) referred to the existence by 1939 of factories capable of taking 227,000 litres (50,000 gallons) of milk a day. It was these that would come to dominate cheese production in later years. Such creameries were capable of each producing 3,000–4,000 tonnes of cheese a year, given the normal seasonality of milk supplies.

Cheese production by type of cheese

No exact breakdown is available on the production of cheese in the UK by type at this time but figures for England & Wales on milk used for different cheeses, shown in Table 11.7, provide a good proxy.

Table 11.7. Milk (M L) used for cheese manufacture in England & Wales – October 1938 to September 1939 (Source: MMB UKDF&F)

	<i>Creamery</i>	<i>Farmhouse</i>	<i>Total</i>	<i>%</i>
Cheshire	131.8	50.1	181.9	45.9
Cheddar	90.9	27.3	118.2	29.8
Lancashire	36.4	13.6	50.0	12.6
Stilton	18.2	0	18.2	4.6
Caerphilly	13.6	0	13.6	3.4
Wensleydale	4.5	0	4.5	1.2
Soft & cream	4.5	0	4.5	1.2
All Other	4.5	1.0	5.5	1.2
Total	304.4	92.0	396.4	

Cheshire cheese remained the most widely made variety in England & Wales immediately prior to the start of WW2, followed by Cheddar and Lancashire. In the same year some 50 million litres of milk was used to make cheese in Scotland but no breakdown by type of cheese is available. However, it is believed that Dunlop and Cheddar would have been the main varieties. Even if all the milk used in Scotland had been used for Cheddar (which it wasn't), Cheshire would still have been the most produced cheese in the UK. Cheddar was the second most produced followed by Lancashire and then Stilton although production of the latter amounted to less than 1,800 tonnes. Thus Cheshire, Cheddar, Lancashire and Dunlop together accounted for 90% of the milk used for cheese in Great Britain. At this point there was virtually no cheese production in Northern Ireland and so total milk use for cheesemaking in the UK was of the order of 446 million litres.

Using an average conversion factor of 10,250 litres of milk per tonne of cheese, UK production in 1938/39 was of the order of 43,500 tonnes, which was lower than at the 1934 census of production (58,704 tonnes) but similar to that recorded in the 1924 census (43,536 tonnes). Estimated production in 1938 from the Imperial Economic Committee (1938) was 44,074 tonnes which is consistent with that estimate.

The range of British cheese on offer therefore remained rather limited. It has been said by critics of these reforms that the creation of the MMBs reduced the range and quality of home produced cheese. However, without the MMBs it is highly likely that milk production would have crashed even further as dairy farms became insolvent, which would have resulted in even less cheese being made and a loss of many of the now famous English cheeses.

Imports

Did these changes have any significant impact on the volumes of cheese being imported? It appeared not as UK production was still in the minority, as illustrated in Table 11.8.

During the period from 1924 imports grew from 142,000 tonnes to an average of more than 150,000 tonnes in the following eight years up to the commencement of the schemes and the implementation of the Ottawa agreement in 1932. Thereafter, imports remained at around 150,000 tonnes a year with the limited amount of data available suggesting that the share taken by Empire cheese continued to grow with 87% of imports coming from Canada, Australia and New Zealand alone, virtually all of these being Cheddar. Imports of cheese remained relatively constant in the years following the adoption of the Milk Marketing Schemes at around 150,000 tonnes a year with the vast majority still in the form of Cheddar from Empire countries. The Netherlands and Italy were the major non-Empire suppliers of cheese.

Table 11.8. UK Cheese Imports by Country of Origin – thousand tonnes (Source: Imperial Economic Committee Dairy Produce Supplies, 1938)

	1924*	1934	1938	Change (%)
New Zealand	68.1	106.3	83.3	22
Canada	53.6	26.4	34.4	-36
Australia	3.4	5.8	12.1	256
Other Empire	0.2	0.4	2.2	1000
Total Empire	125.4	138.9	132	5.3
Netherlands	7.8	6.5	10.3	32
Italy	3	4.8	3.6	20
Denmark	1.2	0.3	1	-17
Switzerland	0.8	0.7	0.9	13
France	0.7	0.4	0.6	-14
Finland	na	0.1	0.2	na
Norway	na	0.1	0.1	na
Belgium	0.6	0	0	-100
USA	2.1	0	0	-100
Other Foreign	0.3	0.1	0.2	-33
Total Foreign	16.4	12.8	16.8	2.4
Total imports	141.8	151.8	148.7	4.9
Re-exports	na	1.5	0.9	na
Net Imports	141.8	150.3	147.9	4.3

Note: * Average of 5 years to 1924

Exports

There had been small quantities of home produced cheese exported, even in the 19th century. Only sporadic data are available on exports for the early part of the century up to 1920s and 1930s as shown in Figure 11.1. No information is available on the breakdown of these exports by type of cheese or by destination but it can be assumed that most were Processed cheese, Cheshire, Cheddar and Stilton.

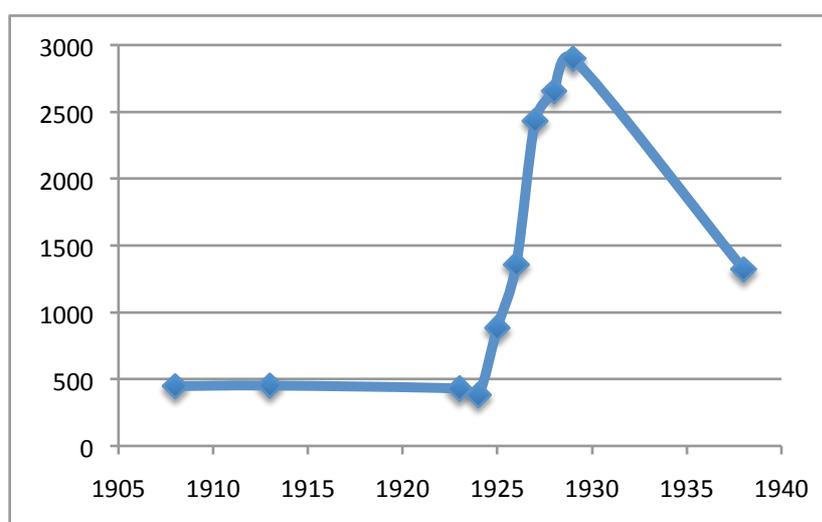


Figure 11.1. Exports of UK produced cheese – tonnes. (Source: MAF, 1947)

Cheese consumption

Consumption of cheese in Britain was falling in the 1930s. The Great Depression had an unfavourable impact on consumption levels of many foodstuffs, including cheese. Eating habits had changed and maybe the blandness of the cheese on offer was a deterrent to higher consumption despite the nutritional benefits. To some extent, liquid milk was seen as the ideal way of getting nutrients into the population and the 1930s saw the introduction of school and welfare milk schemes to improve the health of children and disadvantaged families.

Putting together these figures on production and trade before and after the setting up of the MMBs shows that total offtake of cheese fell by about 2.4% or almost 5,000 tonnes between 1924/25 and 1938/39 (Table 11.9). This was despite a rise of approximately two million, bringing the fall in *per capita* cheese consumption over this period to 6.5%.

Table 11.9. Domestic disappearance of cheese in the UK – tonnes. (Source: Imperial Economic Committee Dairy Produce Supplies, 1938)

	1924/25	1938/39	Change (%)
UK Production	46,025	43,500	-5.5
Plus Imports	150,368	148,692	-1.1
Less Exports	884	1,321	+49
Disappearance	195,509	190,871	-2.4
Estimated Population (Millions)	45	47	+4.4
Consumption (kg <i>per capita</i>)	4.34	4.06	-6.5

UK producers accounted for just 22% of the total domestic offtake of cheese, a decline of 1% over the period.

Summary of events in the period between the two world wars.

This period was characterised by a relinquishment by the UK Government of its emergency powers of cheese marketing, introduced towards the end of WW1, and the return to what was seen as normal working practice - *laissez-faire*, Commonwealth preference and cheap imports. A prolonged slump in world market prices for many commodities hastened the debate in the UK about how to manage agriculture whilst still promoting the production and consumption of liquid milk while maintaining low prices on imported dairy produce. The policy required incentives to drive up milk production and innovative ways of allowing home produced dairy products, made during the spring and summer flush of milk production, to compete with imports and be produced on a more consistent basis. Various ideas were proposed to resolve the many issues plaguing the dairy sector and in due course laws were passed to allow the creation of marketing boards for any agricultural produce if that was wanted by a two thirds majority of registered producers of any commodity. A scheme was proposed by the NFU that, after due process, resulted in the first MMB (for England & Wales) being formed on 6 October 1933. The Boards were required to buy all milk offered by registered dairy farmers and to sell it into the various markets at prices negotiated with a body representing all wholesale buyers of milk. Returns were pooled and after transport and administrative costs were deducted, a pooled priced was paid to all producers. Quantities of milk offered to the MMBs increased as farmers who were formerly processing their own milk on farm found it easier to sell direct to the MMBs and receive a higher price than they would have done by producing cheese. Farm production of cheese declined whilst factory output increased but after an initial increase in total cheese production output slumped in the face of a collapse in world market prices and more milk was diverted to other products as well as to the still growing market for liquid milk. As a result, UK cheese production by 1938/39 was lower than that recorded at the 1924/25 census. Imports of cheese remained at a high level in the run up to the start of WW2, averaging around 150,000 tonnes a year. Shares taken by Empire countries continued to rise

helped by the terms of the 1932 Ottawa Agreement, which allowed such cheese to come into the UK duty free. A squeeze on consumer incomes during the 1930s resulted in a small drop in estimated per head consumption of cheese.

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12. The Second World War

Following the experience of WW1, supply problems were anticipated and steps were immediately taken to avoid a crisis.

Government takes control of the food chain

At the outset of WW2, the Ministry of Food took over full control of the supply chain for food in the UK. For milk the machinery to achieve this was of course now in place through the MMBs – the peacetime marketing schemes being easily adapted to the needs of wartime. The officers of the MMB for England & Wales had already been asked by the Government in 1938 to prepare contingency plans for controlling the milk supply and distribution system in the event of a national emergency. The MMBs made the case for them to continue with their operations under the control of the Ministry of Food (MoF). This was accepted. However, their marketing powers to decide where and when milk was sent were suspended, whereas the marketing boards for other products were all effectively put into cold storage.

The government urged farmers across the UK to produce more food, to avoid shortages caused by the loss of shipping to German submarines. The priority was to produce more cereals not just for general food use, e.g. for bread, but also for livestock. In managing food imports the Government wanted to give priority for the scarce space on the merchant fleet convoys to high value, less bulky products like meat and dairy products. Incentives were given to arable farmers to grow more and much pasture was ploughed up which obviously had implications for milk supplies. Naylor and Falcon (2008) suggested: *"By providing more wheat to make bread, British farmers enabled the government to prioritise the import of condensed high energy foods such as meat and dairy products which filled the protein and calcium gap in worker's diets and added variety and interest to a monotonous menu based on bread."* The MoF negotiated with colonial suppliers, particularly in New Zealand (NZ), which before the war was the major supplier of butter (as well as cheese) to the UK, to switch some of their production from butter to cheese. By 1942 New Zealand was exporting 132,000 tonnes of cheese to the UK compared to around 80,000 tonnes pre-war. However, in 1942 the British government asked the NZ authorities to switch a proportion of the cheese make back to butter following Japan's entry in the war and the cessation of exports of vegetable oils, which had been used to make margarine, to the UK. New Zealand agreed and exports were increased even though it meant shorting NZ's home market; NZ annual butter consumption dropped in 1942/43 from an average of 21.8 kg *per capita* to 16.3 kg.

Australia also introduced rationing of butter and cheese for the domestic market so as to maximise quantities available for export to the UK. This was not an untypical example of the extent to which Commonwealth countries came to aid the war effort, not least of course was the provision of armed forces. At the same time meat imports from NZ continued but increasingly bones and excess fat were removed and the meat compressed into 22.5 kg boxes, which enabled 60% less space to be used to export the same amount of meat. These are just some examples of the control exerted by government over the supply chain during these troubled times and is a tribute to the ingenuity of the officials involved in making sure that the UK population was adequately fed during the war; the quantities of some foods may not have been there but the nutritional content of the ration was maintained with sugary foods cut back and the stress being put on wholesome nutritious foods.

Milk was central to these discussions about the balance of the diet and was seen to be a vital part of the overall strategy. More milk was needed to supply not only the ration but also the school milk and welfare schemes introduced by the Government in the 1930s.

Food rationing started on 8 January 1940 with cheese being brought into the scheme in May 1941. The typical ration was 56 g (2 oz) per person per week equivalent to just under 3 kg per person a year. Members of the armed forces had a ration of 112 g per week (4 oz), which was very close to the pre-war average consumption of cheese in the UK. The milk ration was typically 1.7 L (3 pints) per person per week. Other staples included in the system were butter 56 g (2 oz), sugar 226 g (8 oz), jam a 453 g (1 lb) jar every 4 weeks, bacon/ham 283 g (10 oz), eggs (one per week plus a packet of dried egg

every 4 weeks), tea 56 g (2 oz) and sweets 680 g (12 oz) every 4 weeks. Meat was rationed by price, as were all so-called luxuries.

Milk availability

The UK government pleaded with farmers to produce more milk but it wasn't until some financial incentives were introduced that farmers responded. Winter time was when milk was at its scarcest. From February 1942 price increases were introduced that heavily favoured winter production and these prices were fixed in advance so that farmers knew exactly what returns they could expect and hence have an incentive to tweak their breeding programme. Farmers were challenged to produce 10% more milk in 1942/43 and achieved an increase of almost 6%. This may appear to have been disappointing but it was a stark contrast to the declines seen in the first two years of the war during which time milk production fell by around 12%, illustrated in Table 12.1.

Table 12.1. Estimated UK milk production 1939/40 to 1944/45 - million litres (Source: Baker, 1973)

	<i>Production</i>	<i>Change (%)</i>	<i>Used for liquid</i>
1939/40	8051		
1940/41	7310	-9.2	4.5
1941/42	7110	-2.7	
1942/43	7532	+5.9	
1943/44	7783	+3.3	
1944/45	7851	+0.9	5.6

These increases would have been significantly greater had adequate supplies of animal feeds been available, as during this period cow numbers actually grew (and by 1946 UK cow numbers had grown to 4.4 million head compared to just 3.9 million in 1939). Supplies of imported animal feed, cereals and oilseed cake, had been stopped. However, as milk was seen as being more important than the pig and poultry sectors, scarce supplies of concentrated feeds were allocated to milk production. Despite these relatively modest levels of milk supply, at least compared with the pre-war levels, liquid milk sales grew dramatically from 3.8 billion litres a year before the war to 4.5 billion litres in 1940/41 and 5.6 billion litres in its final year. Here there was some substitution of milk sold by farmers directly to consumers to milk sold by dairies and so the figures are not strictly comparable but the fact remains that liquid milk consumption did increase quite sharply. Lord Woolton, the Minister of Food, introduced free school meals for 650,000 children as well as free school milk. Welfare milk schemes were extended.

How was this market satisfied? Two factors came into play. Firstly less milk continued to be used on the farm either to feed livestock or to make into butter and cheese either for home consumption or to sell locally; farmers saw an opportunity to make more money by selling milk to the government via the MMBs. Thus the proportion of estimated milk production that was sold to the MMBs rose from around 71% in 1939/40 to 81% by 1944/45. Secondly, and more importantly, there was a dramatic cut back in the volumes of milk going to creameries and factories making manufactured products – as can be seen from Table 12.2

The proportion of the MMBs' sales of milk off farms that were used for non-liquid milk purposes, i.e. for manufacture, fell dramatically even as total sales off farms grew from 1943 onwards. Total milk sold for manufacture fell from almost 2 billion litres in 1939 to a trough of just 0.7 billion litres in 1941. Volumes grew only modestly thereafter. Production of "luxury" products such as cream, ice cream and chocolate crumb was stopped. Farm butter and cheese production was restricted to a short period during the summer months and such milk as was available, after the demands of the liquid market had been met, were directed to factory butter and cheese production.

Table 12.2. Milk sales (million litres) from farms to the MMBs and % of milk manufactured. (Source: Commonwealth Economic Committee, 1948)

	<i>M L ex farm</i>	<i>% manufactured</i>	<i>M L manufactured</i>
1937	5273	30.9	1629
1938	5678	31.2	1772
1939	5910	33.6	1986
1940	5578	23.6	1316
1941	5560	13	723
1942	5769	12.2	704
1943	6064	13	788
1944	6264	12.5	783
1945	6474	12.7	822
1946	6797	12.7	863

Milk used for cheese

Table 12.3 shows the split of milk used for cheese pre-war and in 1944/45. Total volumes used for cheese halved from 451 million litres in 1938/39 to just 223 million litres in 1944/45. The winter months accounted for less than 10% of output in 1944/45 compared to 27% in 1938/39. Farmhouse manufacture had disappeared by Winter 1944/45 and summer output was only a quarter of its pre-war level. The number of on-farm cheese makers had also shrunk. Prior to the setting up of the Milk Marketing Schemes there were an estimated 1,320 farms making cheese in England & Wales. By 1939 this number had shrunk to 1,120 and by 1945 there were just 200. Most of these were in the West Country and in Cheshire but not all were actually making any cheese.

Table 12.3. UK milk (M L) used for cheese production before and during WW2 (Source: MMB and Government Reports)

	<i>1938/39</i>			<i>1944/45</i>		
	<i>Winter</i>	<i>Summer</i>	<i>Total</i>	<i>Winter</i>	<i>Summer</i>	<i>Total</i>
Factory cheese	97.3	234.1	331.4	20.5	180.0	200.5
Farm cheese	25.5	90.0	115.5	0.0	22.7	22.7
Soft Cheese	1.8	2.7	4.5	0.0	0.0	0.0
Total Cheeses	124.6	326.9	451.4	20.5	202.8	223.2

The Ministry banned the production of shorter life cheeses and prescribed that only Cheddar, Cheshire, Dunlop, Lancashire, Leicester, Derby and White Wensleydale cheeses could be made. The latter was only allowed after an impassioned plea from the farmers in Wensleydale. Hence Stilton, Caerphilly and Gloucester cheeses were no longer available. Furthermore the Ministry banned the use of colouring agents in cheese and so Leicester cheese, which had always been a deep russet red, now became a white cheese - as did some of the Cheshire cheese and Scottish Cheddar, which had traditionally been coloured orangey/red. Imported coloured cheeses were no longer allowed either. All varieties tended to morph towards a Cheddar style recipe, which enabled the rationing system to work well. The ministry prescribed that the cheeses had to be made from full cream milk and to a defined standard of hygiene. Large cheeses were found to be too difficult to handle and so smaller cheeses to a prescribed size were made. The Ministry also wanted cheese that would portion well without waste, which was another plus for Cheddar style cheeses. Thus crumbly cheeses, like Cheshire and

Wensleydale, became less crumbly to facilitate easier portioning and hence these cheeses changed in character during this period. The pre-war voluntary grading scheme under the National Mark was scrapped and in its place a MoF-managed scheme was introduced that would, at a minimum, sort out the good from the bad and hopefully reduce wastage by selecting cheese for sale before it started to deteriorate. Farmhouse cheese and creamery cheese were both included in the scheme. The challenge for these official MoF graders was assessing different types of cheese with different rates of maturation and different characteristics. If the cheese were satisfactory then it achieved an official Ministry stamp authorised by the grader. Makers were paid according to weight and quality. The lowest quality cheese was sent for processing and achieved only the lowest tier of price. It would later re-appear as processed cheese, which also counted towards the ration. Surplus cheese from the armed forces and the general ration gained the various sobriquets of ‘National Cheese’, ‘Mousetrap’ or ‘Government cheese’. (Incidentally, the USA also had something called ‘Government cheese’, which was processed cheese supplied to military kitchens during WW2 and in later years to welfare recipients, elderly people in receipt of social security payments and charities.)

The complete control exerted by the MoF over milk production, allocation, type of cheese made, the price of milk, the grading and the sale of cheese may have been an anathema to cheese makers brought up in a more open market but it did give them a cast iron profit guarantee so long as the cheese was of the right standard. This was a step change to the uncertainties experienced before the days of the Milk Marketing Scheme and would put the cheesemakers in a good position to adopt these disciplines when wartime controls were lifted. A number of efficiencies were generated by this totalitarian control of milk with distribution costs being reduced and illogical movements of milk eliminated. If milk could be left in the Western areas of the UK for butter and cheese production, then it was.

UK cheese production, imports and exports 1923-1946

The extent of the shortages of milk available for cheesemaking are evident in the data on cheese output during those war-time years as well as in the data on cheese imports. Figure 12.1 shows UK cheese production and imports during the years from 1923 to 1946.

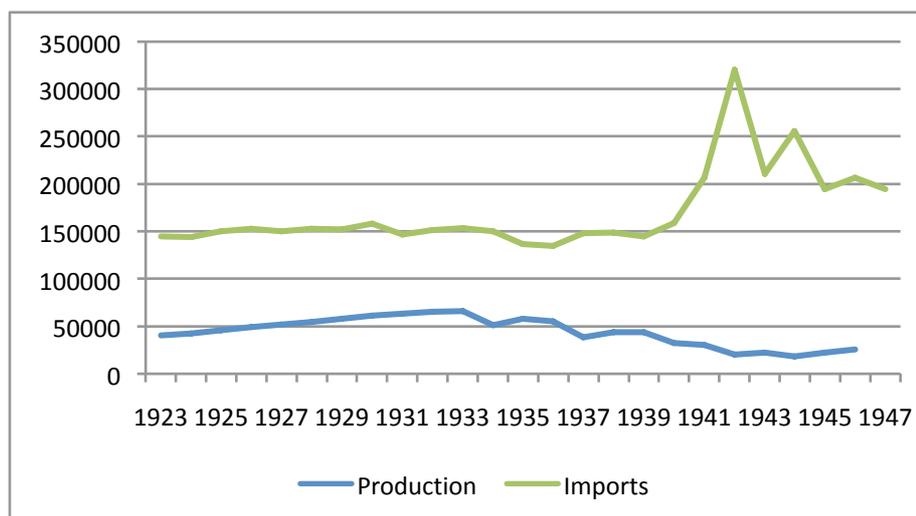


Figure 12.1. UK cheese production and imports from 1923 to 1947 – tonnes
(Sources: Empire Marketing Board, MMB, various years)

Domestic production slumped from its immediate pre-war level of around 44,000 tonnes a year to an all time low of just 18,288 tonnes in 1944. In that year, domestic cheesemakers accounted for just 7.5% of total supplies. In contrast, imports rose from an average pre-war level of 146,000 tonnes a

year in 1938 and 1939 to a peak of 320,000 tonnes in 1942. Never had the UK seen so much cheese in a single year.

Whilst Commonwealth supplies from New Zealand and Australia grew between 1939 and 1942 these were swelled by the start of 'Lend Lease' supplies of Cheddar from the USA in 1941, shown in table 12.4.

Table 12.4. UK Cheese Imports 1938 to 1945, thousand tonnes (Source: Commonwealth Economic Committee, 1948)

	Total	Commonwealth	USA	Others
1938	148.7	130.9	0	17.8
1939	144.5	128.9	0	15.6
1940	158.7	151.4	0	7.3
1941	206.7	159.9	34.9	11.9
1942	320.3	196.0	124.3	0
1943	210.3	155.8	54.6	0
1944	255.9	143.5	112.4	0
1945	194.6	148.3	45.5	0.8

Supplies from the USA in 1942 peaked at 39% of total imports in that year. New Zealand shipped 134,000 tonnes in the same year and Australia 56,000 tonnes. In 1942 and 1943 the only cheese imported into the UK came from those three countries plus Canada. Shipments from other countries in 1944 totalled just 49 tonnes, these being imported from a most unlikely source - Argentina. The sacrifices made by New Zealand, Australia and Canada to keep the mother-country fed during these wartime years were truly amazing.

Imports of cheese remained at historically high levels until 1948 when they returned to more normal levels. During the wartime years, total availability of cheese (ignoring exports and changes in stocks) averaged 240,000 tonnes a year, which for a population of some 47 million gave an average availability of 5.1 kg per person. Amazingly this was higher than at any time since the start of the 20th century. Government obviously had in mind the need to stockpile food and stocks of cheese would have been held in many different parts of the country in places where they would be safe from German bombs. However, it is unlikely that all of this cheese was actually consumed in the year of shipment and although there is no documentary proof the author's guess is that some of this cheese must have been pretty old by the time it was consumed.

What of other foodstuffs?

The corollary to these events in the cheese market was an almost opposite set of figures for cereals and potatoes. The incentives given to arable farmers to increase production, together with campaigns like 'Dig for Victory', which encouraged anyone with land to grow their own food, had a remarkable effect on domestic output.

Total cereal production during the war years was 65% higher than in the immediate pre-war period whilst imports fell by 30% (Table 12.5). This left average annual supplies 8% higher during the war than before. UK cereal producers raised their coverage of new supplies from 40% to 60%. Potato production rose by almost 80% whilst imports, which were relatively small pre-war, all but disappeared leaving total supplies up 72%. Contrast those figures with cheese where average annual production almost halved and imports rose by 60%.

Domestic production represented under 10% of new supplies of cheese compared to 24% pre-war. However, total cheese supplies were more than adequate to meet the needs of the ration and the needs of the armed forces. Butter, too, experienced the same issue as cheese with domestic production falling by 68% to an average of just 15,000 tonnes a year; with imports down by 63%. Total availability of butter fell from an average of 527,000 tonnes pre-war to an average of just 191,000 tonnes per year during the war. This was just about enough to meet the ration of 56 g (2 oz) per week plus the needs of the armed forces but resulted in a huge drop of average consumption which pre-war

had been 170–198 g (6–7 oz) per person per week. Margarine makers were able to partially fill the gap.

Table 12.5. UK Production and Imports of key commodities - pre and post WW2 in thousand tonnes (Source: MAFF, 1968)

	Production		Imports		Total Supplies pre-war	Total Supplies in war years	% cover Supplies pre-war	% cover Supplies in war years
	3 pre-war years	Average 40/41–45/46	3 pre-war years	Average 40/41–45/46				
Wheat	1651	2513	5631	4552	7282	7065	22.7	35.6
Barley	765	1533	889	58	1654	1591	46.3	96.4
Oats	1940	3159	117	34	2057	3193	94.3	98.9
Total cereals	4356	7205	6637	4644	10993	11849	39.6	60.8
Potatoes	4873	8752	206	14	5079	8766	95.9	99.8
Sugar	473	500	2170	1262	2643	1762	17.9	28.4
Cheese	45.7	24.4	144.3	229.8	190.0	254.2	24.1	9.6

The challenge for the ministry was to have sufficient stocks in hand to meet all year round demand. Failure to do so for the range of products included in the ration resulted in temporary reductions in the weekly ration on a regional basis.

References and further reading

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13. Post WW2 – the long recovery

At the end of the war the MoF maintained complete control over the food chain with rationing not totally phased out until 1954. The strategic importance of agriculture had again been recognised and there was much debate as to how in the future a better balance could be obtained between home production and imports, or more accurately the needs of consumers against the needs of British farmers. Liquid milk was at the centre of government policy at the end of the war and received priority over other livestock enterprises. Many of the other commodities, including cheese and butter, could be imported but importing milk was still not an option. In nutritional terms milk and dairy products were seen as an essential part of a healthy diet and, as the population grew in the post war baby boom, the need for more milk was agreed. It was recognised that the country could produce more milk but at the same time more effort was required to improve efficiencies on-farm and throughout the supply chain. Both hygienic and compositional quality had to be improved and the work that had started on TB and Brucellosis eradication before the war needed to be stepped up. Work had started during the war on standardising the milk recording system to provide valuable data to improve the quality of livestock. Artificial insemination was at its infancy but even here investment was made during the war in progressing and extending this new aid to better breeding.

The response of farmers to price incentives during both world wars showed the potential was there to produce more if the right signals were given. In both wars, government had been able to guarantee prices at levels that made it worthwhile for dairy farmers to expand. Put simply, they had incentives to invest in more livestock and introduce new methods of breeding, feeding and management that would increase yields, as well as investing in new facilities. This principle of guaranteed prices for farmers was therefore at the heart of the 1947 Agriculture Act. At this time the MoF maintained complete control over all aspects of agricultural production, pricing and marketing as well as control over the imports of many foodstuffs and seemingly it had no intention of surrendering these powers.

The 1947 Agriculture Act laid down that the aim of these guaranteed prices (and a guaranteed buyer) was to:

"...maintain a stable and efficient agricultural industry capable of producing such part of the nation's food and other agricultural produce as in the national interest it is desirable to produce in the UK."

In effect this gave to farmers the opportunity to expand in line with Government objectives by receiving a guaranteed price on all or part of their output. Annual price reviews at which these guaranteed prices and other measures could be amended, in line with the costs of production or the state of the markets, were introduced with various clauses preventing over-excessive downward adjustments in guaranteed prices. Government was required to consult with the National Farmers' Unions - one for E&W, one each for Scotland and Northern Ireland.

For the dairy sector, government continued to fix the prices at which milk was sold for different end uses, as well as the retail price for milk. Satisfying the liquid milk market was the priority; this was seen as a major welfare and public health issue that required more milk to enable the expansion of the school milk and welfare milk schemes (for expectant mothers, hospitals, school meals and invalids). Ministers also wanted to increase the milk ration for non-priority groups, i.e. the rest of the population, and maintain it all year round. This required more milk. Government knew that if the milk price was fixed at the right level then more milk would follow but the conflict was a higher than necessary liquid milk retail price (in order to ensure adequate margins for liquid milk in the supply chain). To do the same for milk used for other purposes would also require import levies on imported produce to enable UK manufacturers to compete. All this would have been at the expense of the consumer. In the event the consumer and the Empire countries won and yet again the domestic dairy product manufacturers would be left to pick up the scraps. Government control over milk pricing would continue until 1954 when the MMBs regained their marketing powers, by which time rationing of most foodstuffs had ended.

Reinstatement of the MMBs' powers

There were lengthy consultations and debates about how the marketing system for milk would evolve once government relinquished its control over pricing. At the 1954 Annual Price Review the government announced the re-instatement of the MMBs' marketing powers and the continued control by Government over the liquid milk market; this entailed fixing the maximum retail price for milk, the processing/distributive margin and the price at which milk for the liquid market was sold by the MMBs to the dairies. Manufacturing prices were to be negotiated in a newly formed Joint Committee. There were no controls on imports of dairy products, distribution of which returned to private hands. Here again the interests of consumers were rightly being put before those of dairy product manufacturers. However, the government also announced the introduction of the deficiency payments system for milk. This was designed to make sure that there were adequate supplies of liquid milk all year round (the natural seasonality of milk supplies required more milk to be produced in the summer months in order to ensure sufficient milk was available in the winter months). Guaranteed Prices (GPs) receivable by producers in each of the five MMBs were fixed and were paid on a 'standard quantity' (SQ) of milk. Initially the SQ for each Board area was set at the level of sales off farms in the previous year, 1953/54. The aggregate SQ for 1954/55 was therefore set at 8.9 billion litres compared with liquid sales in the same year of 6.9 billion litres.

Liquid sales accounted for 77.3% of the SQ, meaning that the residual supplies of around 2 billion litres, which went to manufacturing uses, achieved the GP even though in reality they only realised the average manufacturing price. The difference between the average manufacturing realisation and the GP was initially shared between the MMBs and the Government (by way of a rebate to the Exchequer) but in later years this was abandoned and all of the 'loss' on manufacturing milk was carried by the MMBs and hence the dairy farmers. In 1955/56 the GP for E&W was 3.48 ppl (38 d per gallon) whilst the average manufacturing realisation was roughly half that level at just 1.76p ppl (19.2 d per gallon). In E&W in that year the sharing agreement meant that the Government funded an additional £16.8 million to help compensate for the lower manufacturing returns.

In the first year of the re-instatement of the powers of the MMBs in the 1954/55 milk year only 2 billion litres of milk were used for manufacturing purposes against almost 7 billion litres going into the liquid market, the breakdown of usage being shown in Table 13.1.

Table 13.1. UK milk utilisation (M L) 1954/55 (Source: MMB, 1956)

	ML	ML
Liquid milk	6,900	
Manufacturing,	2,000	
of which: Butter		500
Cheese		700
Condensed milk		500
Whole Milk Powder		200
Cream		0
Other products		100

Manufacturing was still seen by the government as a necessary and perhaps unwanted consequence of ensuring that the liquid market was fully supplied at all times of the year. In the 1958 Annual Price Review the then Minister of Agriculture stated that UK milk production was now substantially above current requirements, suggesting that somehow the Ministry of Agriculture had in mind what share of the market domestic production of butter, cheese etc was desirable. This statement signalled the continuing belief that any milk produced above the needs of the liquid market was a surplus that had to be disposed of into the dairy product markets in competition with imports from the rest of the world, which in general were very competitively priced.

In subsequent years the SQ was increased roughly in line with increases in the liquid milk market, as shown in Table 13.2.

Table 13.2. Aggregate SQs for the five MMBs and Sales for the Liquid Market (M L)
(Sources: MMB, various years)

	<i>SQs</i>	<i>Liquid sales</i>	<i>% of SQ</i>	<i>Other sales</i>
1954/55	8899	6883	77.3	2023
1955/56	8899	6915	77.7	2091
1956/57	8899	6874	77.2	2873
1957/58	8915	6855	76.9	3232
1958/59	8915	6905	77.5	2582
1959/60	8947	7033	78.6	2641
1960/61	9035	7096	78.5	3373
% change: 54/55– 60/61	+1.5	+3.1	+1.6	+66.7

The government believed that this system would incentivise the MMBs to increase sales into the liquid market through an increase in sales promotion and advertising activities for milk. If milk production increased at a faster rate than liquid milk sales, so the 'surplus' over the standard quantity also increased and this surplus milk only achieved the average manufacturing realisation. The implications for dairy farmers were quite clear: the pool price will fall if milk production grows ahead of liquid sales and the SQ. As an example, and using the milk usage and realisation figures quoted above for 1955/56, the excess of milk production above the GP effectively reduced the gross return from the sale of milk by the MMBs by 0.03 ppl.

This was an ingenious system limiting the Exchequer's support of the milk producer and striking a balance between the needs of the dairy farmer and those of the consumer. Empire suppliers continued to export significant quantities of cheap(er) dairy products into the UK so maintaining not just Empire preference but perpetuating the cheap food policy instigated by the repeal of the Corn Laws more than 100 years earlier. Tariffs were still charged on imported dairy products from non-Commonwealth countries at a rate of 15% by value, the only exception being blue veined cheese on which the tariff was fixed at 10%.

Production of cheese in the 1950s

As can be seen from the data in Table 13.2, liquid sales grew only modestly between 1954/55 and 1960/61 whilst milk sold for manufacturing purposes grew by almost 67%. There may well have been dilution of the pool price but this did not prevent a gradual increase in milk sales off farms to the MMBs and with it a sharp increase in manufacturing supplies to levels not seen in the past. Manufacturing volumes reached almost 3.4 billion litres in 1960/61 with the share taken by cheese staying relatively constant at around 35%.

Never had the country seen so much milk coming off farms and being available to make the whole range of dairy products. With the ending of government control over the milk sector and the handing back to the MMBs of their statutory powers, production of all types of cheese was resumed, including Stilton, Leicester and Caerphilly. Cheese had been produced in Leicestershire during the years of control but it was, to all intents and purposes, a hard white cheese – a cross between Cheddar and a Leicester. When production of traditional Leicester cheese resumed in 1954 and the ban on colouring cheese was lifted, it was often referred to as 'Red Leicester' to distinguish it from its wartime predecessor. The name has stuck ever since despite the obvious contradiction of it being orange in colour!

Cheese makers benefited hugely from the increase in milk availability and over the period from 1944/45 to 1960/61 UK cheese production grew from around 18,000 tonnes to 112,000 tonnes, a more than six-fold increase. Production reached more than 100,000 tonnes for the first time ever in 1957. To handle these increased volumes required substantial investment in new processing facilities for cheese in the key milk producing areas on the western side of the UK.

Imports of cheese in the 1950s

As cheese production in the UK made a gradual recovery to levels not previously seen before, imports of cheese gradually drifted downwards from more than 200,000 tonnes a year in the immediate post war period to 138,500 tonnes in 1959 and 133,000 tonnes by 1960, illustrated in Table 13.3.

Table 13.3. UK imports by country of origin – thousand tonnes (Source: MMB, various editions)

	1946	1954	1956	1959
New Zealand	83.4	92.5	91.3	77.3
Australia	18.5	18.3	12.6	13.5
Canada	51.1	2.0	4.6	8.7
Other Commonwealth	0	1.0	0	1.8
Total Commonwealth	153.0	113.8	108.5	101.3
USA	49.9	0	0	0
Denmark	1.7	9.1	11.4	10.3
Netherlands	na	7.1	7.3	14.6
Ireland	0	na	0.3	0.8
France	0.8	1.0	na	na
Italy	na	1.0	na	na
Norway	na	na	na	4.1
All other	1.3	2.0	9.0	7.4
TOTAL	206.9	134.1	136.6	138.5
Commonwealth Share	73.9%	84.9%	86.7%	73.18%

Note: na – not available – included in All other

The Commonwealth share of imports initially rose during the 1950s as the substantial post-war exports of Cheddar from the USA (50,000 tonnes in 1946) were replaced by cheese from Australia and New Zealand. Canadian volumes also fell away, meaning that the Commonwealth share by 1959 was the same as it was in 1946 at 73%. Rising UK production of Cheddar was displacing some Commonwealth Cheddar but at the same time imports of other (Continental) cheeses were starting to rise.

There was a gradual increase in the quantity of cheese available in the UK during the period following the relaxation of Government control over imports and production. Total supplies, the sum of domestic production and imports, rose from 218,000 tonnes in 1954 to 241,000 tonnes in 1960 with various ups and downs in between (see Table 13.4). Of this total supply in 1960, it is estimated that about 160,000 tonnes were Cheddar, which if accurate, suggests that Cheddar accounted for two thirds of the market. Cheshire production had declined during the 1950s and as mentioned earlier only relatively small increases were recorded in production of the UK's other regional cheeses. Of the 37,000 tonnes of cheese imported from non-Commonwealth countries there was only a nominal amount of Cheddar from Ireland, less than 1,000 tonnes in 1959. However, Ireland was to become one of the countries that would look to build its share of the UK Cheddar market in the years ahead.

Exports of cheese remained insignificant during the 1950s reaching around 3,000 tonnes in several years but generally being less than this. Putting these figures together one may get a view of how much cheese was consumed in various forms during the 1950s, compared to the year immediately prior to the start of WW2.

Off-take

Off-take of cheese rose by 27% from 1938 to 1960 while the UK's population grew by 10% during the same period. Thus offtake per head grew by a rather more modest figure of 15% or by just 0.6 kg per head over a 22-year period from 4 to 4.6 kg per person. This was similar to the estimated

rate of consumption in the late 1920s and so over a 30-year period, per head consumption of cheese in the UK had hardly increased but at least had recovered from the economic problems of the 30s and the trauma of WW2 and its immediate aftermath.

Table 13.4. Estimated off-take of cheese in the UK, 1938 to 1960 (Source: MMB, various editions)

	<i>Units</i>	<i>1938</i>	<i>1953</i>	<i>1954</i>	<i>1955</i>	<i>1956</i>	<i>1957</i>	<i>1958</i>	<i>1959</i>	<i>1960</i>
Production	k tonne	43.7	82.3	83.8	73	91.4	115.9	96.8	89.2	110.4
Imports	k tonne	148.7	148.3	134.1	131	136.6	125.2	120.4	138.5	133.5
Exports	k tonne	1.3	0.3	0.8	2.9	1.6	2.8	3.1	1.6	1.7
Off-take	k tonne	191.1	230.3	217.1	201.1	226.4	238.3	214.1	226.1	242.2
Population	Million	47.5	50.9	51	51.2	51.4	51.6	51.8	52.1	52.4
Consumption	<i>kg/per capita</i>	4.02	4.52	4.26	3.93	4.40	4.62	4.13	4.34	4.62

References and further reading

Ministry of Agriculture, Fisheries and Food (1959) *Cheesemaking: Bulletin No. 43*. 4th Edition, HMSO, London. pp 84. (First published 1932)

MMB (various) *UK Dairy Facts & Figures*. Various editions published annually by the Federation of Milk Marketing Boards, Thames Ditton.

14. Expansion in the 1960s

In 1960/61 almost 1.2 billion litres of milk was used in the manufacture of cheese in both factories and on farms. Of this, 54% (roughly 60,000 tonnes) was Cheddar whilst Cheshire was now the second cheese with some 37,500 tonnes or 32 % of the total. These two cheeses accounted for 86% of the total UK production. Wartime rationing appeared to have whetted the appetite of consumers for harder, less crumbly, cheeses and this trend away from Cheshire has continued.

Table 14.1. Milk used in the production of cheese in the UK in 1960/61 (Source: MMB, 1963)

<i>Variety</i>	<i>Usage (M L)</i>	<i>Share (%)</i>
Cheddar	632	53.9
Cheshire	373	31.8
Lancashire	45	3.8
Caerphilly	32	2.7
Dunlop	23	2.0
Stilton	23	2.0
Wensleydale	23	2.0
Red Leicester	9	0.8
Double Gloucester	9	0.8
All other	3	0.3
Total	1172	

Of the other varieties, Lancashire was the most significant and like Wensleydale, Dunlop and Stilton was sold mainly its region of origin. Seven years after control of cheese making was lifted, only insignificant quantities of Red Leicester and Double Gloucester were being made. There was no reported farm manufacture of either variety. Total farmhouse cheese manufacture amounted to just 7,500 tonnes using 77 million litres of milk or just under 7% of the total. So although farm manufacture had resumed, many of the pre-war makers had decided that selling milk to the MMB provided them with a much quieter life and left their family time to do other things than making and looking after cheese on the farm. However, the MMB for England & Wales was keen to develop farm manufacture of cheese and it put in place measures to improve the quality and marketing of farmhouse cheeses in conjunction with the federations representing farmhouse cheesemakers in the West Country and the North West of England.

Farmhouse cheesemaking

The cheese industry remained very fragmented. At the start of the second world war there were 1,303 registered farmhouse cheese makers in the UK; at the end of the war there just 295 registered but not necessarily producing. Restrictions on the type of cheese made remained in place until 1954 and when the MMB's regained their powers the numbers had fallen further to around 160 makers, of which about 128 were in England & Wales. The Boards were very keen to foster the development of on-farm manufacture of cheese and introduced schemes that were highly advantageous to those wishing to make their own cheese. In England & Wales there were two selling companies owned by the MMB, Emberton Brothers in Crewe and Crump Way in Wells, which stored, graded and sold the cheese on a commission basis that was made under the Farmhouse Cheesemakers' Scheme. Makers received the average realisation achieved for that type and grade of cheese less the cost of marketing and less the average manufacturing milk price for that grade of cheese. In essence, they were selling their milk to the MMB and receiving the average pool price for that region but then bought back that milk at the average manufacturing milk price used for cheese. Since the latter was always smaller than the former

they benefited hugely from the scheme. In addition, rather than having to wait for the cheese to be sold, which might be as long as 12 months in the case of Cheddar, they received their milk price payment from the Board at the same time as other milk producers. The balancing payment on the sale of cheese was only remitted after it had been sold. The schemes required all farmhouse cheese to be graded by independent graders appointed by the Board. Cheese that reached the required standard was eligible to show the MMB-owned trademark (shown in figure 14.1) for farmhouse cheese, which effectively certified that the cheese had been made on the farm and had reached a certain standard verified by an independent grader.



Figure 14.1. The MMB farmhouse trademark (UK 00001002887) (Source: UK Intellectual Property Office, 1972)

By 1963 the number of Farmhouse cheesemakers had grown to more than 300 (of which 287 were in England & Wales). In England & Wales the quantities of milk being used on the farm for cheese making grew from 32 million litres in 1953/54 to 86 million litres in 1963/64 and 104 million litres in 1969/70.

Table 14.2. Farmhouse Cheese Making in England & Wales (Source: MMB, various editions)

	1938/9	1953/4	1963/4	1969/70
N ^o of cheesemakers	1121	128	287	237
Milk used (M L)	91	32	86	104
Cheese (tonnes)	9,000	3,100	8,500	10,000
Output per maker	8.0	24.2	29.6	42.2

Average output per farm increased in the post-war years but still remained modest, reaching only 42 tonnes per year by 1969/70. In the same year milk used by farmhouse cheese makers accounted for 10.6% of the total amount of milk used for cheese production in England & Wales.

Private dairy companies

Most of the major dairy companies in the UK, not surprisingly, had their roots in the liquid milk business. They moved into the manufacture of dairy products as a means of using milk surplus to the liquid milk market in the most profitable way possible. However, with the post war increases in milk supply and a liquid milk market that was static or at best growing slowly, all of the major private companies expanded and upgraded their cheese making facilities.

The major players in the 1960s were Associated Dairies (who later became ASDA), Associated Co-operative Creameries (and other Societies within the Co-operative movement), Express

Dairies, Northern Dairies, Unigate Dairies and the MMBs' Creameries Divisions (that of the MMB of E&W was to become Dairy Crest, the commercial arm of the MMB of E&W but was not formed until 1981). For the purposes of the story of cheese making it is sufficient to say that all of these groups in due course diversified their businesses away from liquid milk to other dairy products and with the exception of Northern Dairies all became significant players in the production of cheese.

The cash flow derived from these big dairy companies' doorstep delivery service was phenomenal. They sold most of the bottled milk on a weekly basis but paid the MMB's monthly (normally by about the third week of the month following). This enabled all of these companies to diversify into other activities or, as was the case with Express Dairies to be taken over by others (in their case by the then hotel and drinks group Grand Metropolitan). Dairy Crest is the sole surviving dairy company from that era. The other major dairy companies subsequently exited the liquid milk market and concentrated on other activities or were taken over by their competitors.

The MMBs

The powers granted to the MMBs under the various pieces of legislation enabled them to take over or purchase a milk processing business. In the early days of both the E&W MMB and the main Scottish MMB, some private businesses were taken over by the boards as they had defaulted on their milk payments. This may have been because an outlet for milk was needed in that area and closing it would have led to uneconomic movement of milk, or the business was sound but lacked cash flow or the capital to continue. Either way, the two main boards had collected 13 cheesemaking businesses by the early 1960s as well as a number of liquid milk dairies and butter/powder facilities. In 1965/66 these MMB-owned business units in Great Britain, listed in Table 14.3, together handled more than 1 billion litres of milk out of the 11.1 billion litres of milk sold off farms. Their share of sales off farms was just over 9%.

Table 14.3. Cheese making businesses owned by the MMBs in the early 1960s

	<i>Acquired</i>	<i>Manufactured on site</i>
<i>E&W MMB</i>		
Aspatria, Cumbria	1934	Cheddar and Cheshire cheese
Wem, Cheshire	1935	Cheshire cheese
Sturminster Newton, Dorset	1937	Cheddar, Caerphilly, Double Gloucester
Four Crosses, Montgomeryshire	1957	Cheshire, Caerphilly
Cannington, Somerset	1961	Cheddar and Caerphilly
J M Nuttall & Co Ltd, Derbyshire & Leicestershire	1962	Stilton
Barrow Dairies, Cumbria	1963	Cheshire
<i>Scottish MMB</i>		
Dalbeattie, Kirkcudbright	1933	Cheese
Stranraer, Galloway	1933	Cheese and other products
Port William, Wigtownshire	1933	
Mauchline, Ayrshire	1937	
Torrylinn, Isle of Arran	1946	Cheese
Rothsay, Isle of Bute	1954	Cheese and other products

In the years ahead the share taken by farmer owned/run businesses would increase. The growth of such farmer controlled businesses would have pleased those wise men who sat on the Linlithgow and Grigg Commissions that commended the British dairy industry to co-operate in much the same way as farmers in other European countries had done.

Cheese production and imports during the 1960s

Cheese output grew steadily during the 1960s, which in turn prompted the MMBs and the dairy companies to step up their investment in promotion of British cheese. This modest growth, illustrated in Figure 14.2, was despite the constraints imposed by the GP/SQ system and by 1970 it had increased by 20,000 tonnes or 18% since 1960.

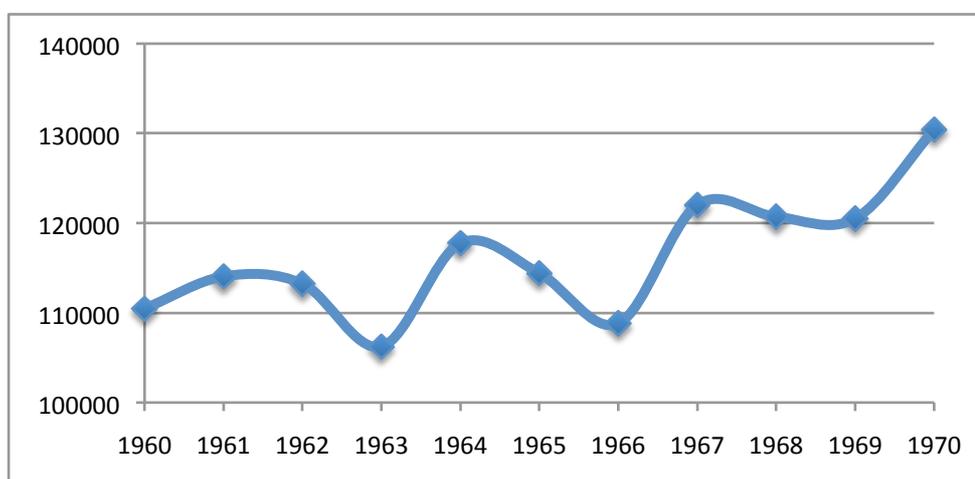


Figure 14.2. UK cheese production – tonnes (Source: MMB, 1961–71)

Most of the growth in cheese production occurred from 1967 onwards, with liquid sales relatively flat and no significant increase in the Standard Quantity (SQ) any increases in milk supplies found themselves being channelled into cheese and butter production.

As the country crawled out of the post-war depression and became more prosperous so consumption of cheese started to rise. Fed on a diet of fairly bland Cheddar cheese from the Commonwealth, and with farmhouse cheese much more expensive and in relatively short supply, consumers were glad to have the freedom to buy more of anything that had previously been on ration. Sugar was a well-publicised example and once the rationing was lifted there was a substantial increase in sugar consumption in hot drinks, sugar confectionery and chocolate, in cooking and on and in breakfast cereals. Cheese was no exception. Even though domestic production had risen quite sharply, since the end of WW2 imports of cheese had been running at an average of 146,000 tonnes a year in 1938 and 1939 and in the 1950s were only slightly lower at an average of 140,000 tonnes a year. By the 1960s imports had risen to an average of more than 150,000 tonnes a year, with New Zealand maintaining its dominant position (Table 14.4).

Commonwealth imports, having peaked during the post war years, slipped back in the 1950s and stabilised in the 1960s at just over 100,000 tonnes a year. In contrast, the volumes taken by non-Commonwealth countries more than doubled from 18,000 tonnes in the pre-war years to 37,200 tonnes in 1959 and then rose again to almost 50,000 tonnes in the 1960s (Table 14.5). US trade had stopped after the ending of the Lend/Lease scheme in the 1940s.

In the 1930s 88% of all cheese imports were from Commonwealth countries and virtually all were of a Cheddar type. The Netherlands (Edam and Gouda) was the largest non-Commonwealth exporter along with Italy (Gorgonzola and Parmesan). Imports from Ireland, the third largest non-Commonwealth country, accounted for just 900 tonnes in each of 1938 and 1959 all of this being Cheddar. In the 1950s Denmark and the Netherlands were the most significant source of UK imports. By 1970 Ireland was the biggest seller of non-Commonwealth cheese, as its exports of Cheddar to the UK rose dramatically in this period.

Table 14.4. UK cheese Imports by main exporting country – k tonnes (Sources: MMB, various dates)

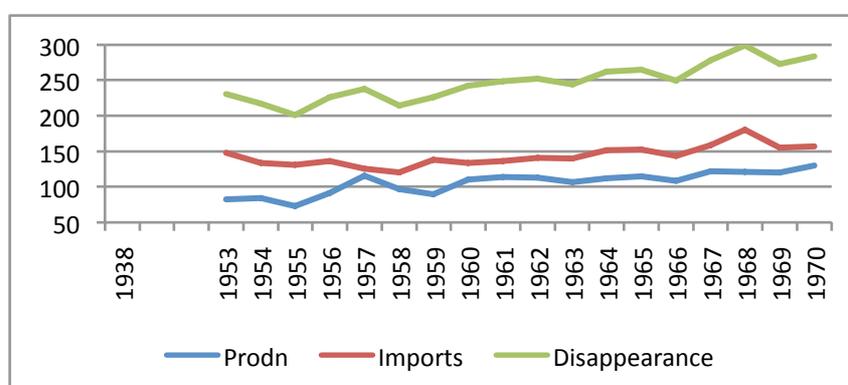
	1938	1959	1960s (Mean)	Change %
Australia	12.0	13.5	13.4	+11.7
Canada	34.4	8.7	13.7	-60.2
New Zealand	83.3	77.9	77.1	-7.4
Other Commonwealth	1.2	1.8	0.5	-58.3
Total Commonwealth	130.9	101.3	104.7	-20.0
All Others	17.8	37.2	49.5	+178.1
TOTAL	148.7	138.5	154.2	+3.7
Commonwealth share (%)	88.0	73.1	67.9	

Note: Mean for 1960s is based on the 7 years for which a detailed split of imports by country of origin is available, namely 1962-1965 and 1967-1969.

Table 14.5. UK Imports from non-Commonwealth countries in 1959 and 1969 (Source: MMB, 1960, 1970)

	1959	1969	Change (%)
Netherlands	14,630	14,396	-1.6
Denmark	10,262	9,488	-7.5
Ireland	762	17,669	nc
France	na	7,280	na
Norway	4,065	4,850	+19.3
All other	7,417	7,251	-2.2
Total	37,136	60,934	+64.1
Excluding Ireland	36,374	43,265	+18.9

Imports from France grew from virtually nothing in 1959 to 7,000 tonnes by 1969. By the end of the 1960s the Commonwealth share of imports had dropped to 68% but due to the growth in imports from Ireland, Cheddar still dominated these figures (Commonwealth Cheddar plus Irish shipments accounted for 112,686 tonnes out of total imports in 1969 of 156,05 tonnes, a share of 72%). However, British consumers were starting to get a taste for the wide range of more exotic cheeses coming from the rest of the world and increasingly had the spending power to go with it, as illustrated in Figure 14.3. In 1969 imports of "foreign" non-Cheddar cheese had grown to 43,000 tonnes.

**Figure 14.3.** UK cheese production, imports and disappearance, k tonnes, 1953 to 1970 (Source: Dairy Facts and Figures, 1954–71)

The Cheese Regulations

Almost 45 years after it was first raised in the Linlithgow Commission report in 1923 the Government introduced in 1965 the first Regulations that defined cheese and standards for the production and labelling of cheese. Initially they only applied to England & Wales. Writing in the *Journal of the Society of Dairy Technology* in 1966 Dr J. G. Davis, one of the most influential writers on all matters dairy, welcomed these regulations (possibly the first of their kind in the world) but regarded the definition of cheese as unsatisfactory as it omitted to mention rennet which he argued was "...the crucial material in making proper cheese." He was also critical of the fact that the definition of whey cheese allowed through simple heat precipitation a substance (precipitated albumin) to be legally labelled as cheese.

However, putting these technical issues to one side, the regulations gave for the first time legally binding minimum fat levels and maximum moisture levels for all the main home produced cheeses as well as the most popular imported varieties. These were designed to maintain the integrity of cheese as a natural and wholesome product and also to prevent the passing off of inferior, higher moisture, cheese as the real thing, be it Cheddar or any of the other varieties specified in the schedules. The meaning of the various descriptors in use for cheese including "Full Fat", "Medium Fat", "Low Fat" and "Skimmed Milk" was laid down; they also listed the permitted added ingredients including colouring agents such as annatto which had been condemned in previous generations by such esteemed writers as John Sheldon Prince as a ploy to deceive consumers. The Regulations were updated and amended in 1970 and again in 1974 and 1984.

Appendix E contains more details on the Regulations but the key thing to note is that most of the home-produced hard and semi-hard cheeses were required to have a minimum fat in dry matter content of 48% and maximum moisture contents of between 39% for Cheddar and 48% for Lancashire. The use of the term "fat in dry matter" (FDM) is very much a cheesemaker's tool for understanding the balance in the cheese between the fat and the milk protein (primarily casein) in cheese and is not helpful for the consumer. In fact, it is downright misleading and is partly responsible for consumers over-estimating the actual fat content of cheese. For many years, many imported cheeses such as French Brie included a reference on pack to the FDM and might have quoted "58 % FDM" which consumers equated to the actual fat content. In fact the fat content of typical Brie is about 29%, whilst the protein content is 20%. Fat as a percentage of fat plus protein is 59%. Cheddar has a minimum of 48% FDM but is generally nearer 58%, which is remarkably similar to that of Brie. Camembert and Edam both have lower absolute fat contents of 22% and 26% but have FDMs of around 50%.

References and further reading

Davis JG (1966) Technical aspects. *Journal of the Society of Dairy Technology*, **19**(2), 85–101.

MMB (1954–1971) *UK Dairy Facts and Figures*. Milk Marketing Boards, Thames Ditton.

15. The 1970s – brighter times ahead and accession to the European Economic Community

As the 1960s drew to a close the future was definitely looking brighter for the cheese industry. Statutory compositional standards had been put in place for most of the cheeses eaten in the UK, production was rising and market share for British cheese was increasing. Investment had taken place not only in processing capacity but also in the promotion of British cheese through the Cheese Bureau and the English Country Cheese Council (see pages 89, 122).

Accession to the EEC

More significantly, the basic tenets of government policy with regard to agriculture and trade were about to be challenged, namely the cheap food policy, Commonwealth preference and the shackling of British agriculture through the deficiency payment system.

The Conservative Government of Edward Heath, which was in power between 1970 and 1974, was reformist in nature and Heath was an ardent supporter of the European Economic Community (EEC). He conducted the negotiations that led to the UK joining the EEC in January 1973. This was a step change for the UK economy in general and for agriculture in particular. It was to sweep away during an agreed five-year transition period all of the structures for the agricultural sector so carefully and skilfully introduced by successive governments since the middle of the 19th century. During this transition period the UK was allowed to keep the GP/SQ system for milk and the Government would continue to fix the selling prices charged by the MMBs for liquid milk, along with the maximum retail price and the distributive margin. The government was also free to fix the level of the SQ on which the GP was paid and decided early on in the transition period that to all intents and purposes the SQ would cover all the milk produced. The dairy farmers welcomed this abrupt U-turn by the government, as any increase in milk sales through the MMBs would no longer dilute the pool price. Instead the government effectively gave milk producers *carte blanche* to produce however much milk they wanted. There were likely to be budgetary issues for the UK Government as it would continue to make good any difference between market returns and the GP.

The UK would now be trading freely with all of the original 6 members of the EEC - Belgium, France, West Germany, Italy, Luxembourg and the Netherlands – along with two other new entrants to the EEC, the Irish Republic and Denmark, who joined at the same time as the UK. Commonwealth suppliers, however, would now face potentially crippling import levies although the UK did negotiate preferential terms for the import of New Zealand butter and Commonwealth cheese during the 5 year transitional period.

For the agricultural sector it meant adopting the Common Agricultural Policy (CAP), which operated under very different principles to those inherent in UK agricultural policy. The main aim of the CAP was to produce food at a reasonable cost to the consumer and provide a fair standard of living to the farming community. This was done by fixing a target price for the farmer for each of the main agricultural commodities. All EEC prices, subsidies and levies were fixed in terms of an accounting currency – the Unit of Account or UA. There were then fixed exchange rates for each currency against the UA used to convert these prices to real values.

The target price was not a guaranteed price but one which the Council of Ministers assisted by the bureaucrats in the European Commission in Brussels would strive to deliver through the operation of an intervention price system, the imposition of import levies and the granting of export subsidies (to give EEC preference). The Commission also operated various subsidy schemes to stimulate internal consumption of EEC-produced food products not normally produced in Europe such as oilseeds, tobacco and rice. In the dairy sector, imports of dairy products from non-EEC countries were to be subject to penal import levies whilst exports to non-EEC countries were eligible to receive a subsidy to close the gap between (high) EEC prices and (lower) world market prices. The reason for this protectionist policy was exactly the opposite of what UK governments had been trying to do. The consumer would pay a higher price than that ruling in most non-EEC countries and on world markets while EEC producers would therefore be protected from ‘cheap imports’ and would receive subsidies

to bring their export prices down towards world market prices. Imports from non-EEC countries could only be sold at above the so-called Threshold Price for various products - the minimum import price that was maintained through penal import levies. Both the import levies and the export refunds were reviewed periodically to maintain EEC market prices when world market prices or currencies were fluctuating.

The UK government fought hard for special terms to be introduced to protect the interests of New Zealand dairy producers who had been the major supplier of dairy products to the UK for the previous 70 years. Import quotas were agreed for New Zealand butter and cheese over the 5-year transition period, which could be imported at reduced rates of import levy. This at least gave New Zealand some time to find alternative markets for their milk (see Trade Deals on page 92).

Underpinning this blatantly protectionist regime was the Intervention System, which allowed Government agencies in each member state to buy any surplus products of the required quality covered by the CAP and to take them off the market until such time as they could be sold without disrupting market prices within the EEC. In the dairy sector this was done through the fixing of intervention prices for butter and skimmed milk powder (SMP). These two storable products used all of the solids naturally in milk and through the intervention system effectively put a floor in the milk price paid to farmers. Seasonal or short-term surpluses of other dairy products could be avoided as dairies sold surplus milk to butter/powder creameries which could, if market prices slumped, be sold into intervention. Hence there was a safety net for the processors of butter and SMP and it was this that set a safety net for dairy farmers although in so doing the basic principle of supply and demand setting market prices was undermined.

For the other member countries of the EEC this was a very sensible policy, as most were more than self sufficient in various agricultural commodities. In the case of milk Italy was the only major net importer of milk and dairy products. France, Germany, the Netherlands, Belgium, Ireland and Denmark were all net exporters. Along with Italy, all had significantly more farming units and a greater proportion of people employed in agriculture, all making a greater contribution to Gross Domestic Product (GDP) than was the case in the UK. In general the farms were substantially smaller than those found in the UK. Table 15.1 compares average herd sizes found in these countries in 1973, along with data on the per cent contribution made to GDP by agriculture and the proportion of the labour force employed in agriculture.

Table 15.1. Herd size, numbers employed in Agriculture and Contribution to GDP in 1973 (Source: MMB, 1974)

	Average dairy herd	Labour force in agriculture (%)	Contribution to GDP (%)
Belgium	12.0	3.8	3.5
France	11.0	10.4	6.1
Germany	8.7	7.3	2.9
Italy	5.0	16.7	8.8
Luxembourg	14.4	6.8	4.0
Netherlands	21.5	6.6	5.2
Denmark	14.8	9.7	6.2
Irish Republic	9.7	23.3	18.9
UK	36.5	2.8	3.0
Average EEC	10.4	8.6	

In short, the UK was the odd one out and was required to adopt a system that looked for self sufficiency, wanted to maintain a high level of employment in rural areas for political reasons and wanted to support a part of the economy that carried greater political weight than it did in the UK.

The CAP allowed over-production of many agricultural products knowing that the EEC authorities (and hence the taxpayers) would pick up the bill for the costs of disposal of surplus products. The EEC's CAP was highly protectionist and effectively excluded imports from non-EEC countries of many foodstuffs that could be produced in the EEC. As a result EEC consumers faced food prices way ahead of world market levels.

In summary, under the CAP the producer held sway over the consumer and the taxpayer, whereas historically in the UK the interests had been skewed in the other direction.

Economic uncertainty and price inflation

In the dairy sector any structural, rather than seasonal, surpluses would show up as rising stocks of butter and SMP. To avoid surpluses turning into mountains there were disposal schemes for SMP used in the production of manufactured calf feed, whereby a subsidy brought down the price of SMP to a level where it could compete with alternative (imported) feeds such as soya meal. Disposal schemes were also used to sell parcels of butter to distinct industrial markets such as the cake and biscuit sectors to substitute for imported fats and oils. The intervention system was meant to be a short-term expediency measure during a cyclical period of surplus. It was never intended to be the solution to longer-term structural surpluses as it unfortunately turned out to be.

The UK adopted this system from 1 February 1973 with its own intervention prices for butter and SMP that over a 5-year transition period would rise to the same level as those in the other EEC member countries. This would force up realisations from manufactured products whilst in the liquid market the government was allowed to increase the guaranteed price (fixed in sterling) in line with any increases in the EEC's target price for milk. This was good news for UK dairy farmers, who would see a gradual increase in the realisations for milk, including cheese, over the course of the five-year transition period and with it an increase in the average pool price, effectively the GP, towards levels found in the original six EEC member countries.

No decision was made on the continuation of the MMBs although a huge question mark existed about their legality as a monopolistic seller of milk, which appeared to fall foul of EEC competition law. A final decision on the operation of the MMBs was to be made before the end of the transition period.

However, the EEC considered that the operations of the MMBs were beneficial for consumers as they ensured all year round supplies of fresh liquid milk and the GP/SQ mechanism was kept intact until the end of the transition period. The UK market for fresh liquid was by far the biggest in the EEC. Consumption per head was significantly higher than in most of the other EEC countries, owing to the UK's high consumption of tea, coffee and breakfast cereals as well as the inertia created by a near universal doorstep delivery system. This market was sustained through a heavyweight programme of advertising and promotion, not just for milk but also for the doorstep delivery service. Liquid milk was a premium product in terms of milk allocation, commanding by far the highest return of any product. The EEC Commission was reluctant to do anything that might have endangered that sacred market. In the rest of the EEC it was UHT milk that dominated the liquid milk markets and due to its commodity nature (long shelf life and standard quality) meant that market returns to farmers were significantly lower. In fact, in some countries returns to dairy farmers from the liquid UHT milk market were generally below those obtained from manufactured products such as cheese.

The operation of the EEC's pricing system was complicated, particularly for the UK during the 5-year transitional period. It was further complicated by large swings in currency values and resulted in the introduction of so-called 'green' currencies to convert the common EEC prices into national currencies, which differed from actual currency values. As well as balancing levies and subsidies on UK trade with other EEC countries (so called accession compensatory amounts (ACAs)) which operated during the transition period, monetary compensatory amounts (MCAs) were introduced to compensate for differences between actual and green currency rates. (For more detail on how milk was priced during the transitional period go to Appendix E.)

The key point, putting aside the intricacies of the CAP, was that UK market prices for all dairy products were set to increase quite markedly from 1 February 1973 to the end of the transition period on 31 December 1977.

Prices

At the time of joining the EEC in 1973, the UK butter intervention price was set at 87.96 UA per 100 kg, which at the conversion rate used at that time was £483.63 per tonne. The minimum CIF price for

NZ butter was £361.28 per tonne. The special levy on NZ butter was fixed at £31.92 per tonne. By contrast, the butter intervention price in the original six EEC member states was £826 per tonne. The then current first hand selling price (FHSP) for butter in the UK was around £455 per tonne for English and £419 per tonne for NZ butter.

This meant that over 5 years the average UK butter prices had to just about double to reach the then current EEC levels and that was discounting any change in the EEC intervention price, or the impact of any currency changes. Thus the actual increase was to be even more as successive years saw the target price for milk and hence intervention prices for butter and/or SMP rising. On top of this there were a series of green pound devaluations to come, as Sterling's value tumbled in the international currency markets in the wake of the oil price hikes imposed by the oil producing countries' cartel - OPEC.

The EEC intervention price for SMP was running at 54 UA/100 kg (£315 per tonne) when the UK adopted the CAP in February 1973 but from 1st April of that year it was increased to 66 UA/100 kg (£385 per tonne). At February 1973 UK market prices for SMP were running at around £226 per tonne and prices would have to increase quite sharply shortly thereafter.

This gap would widen even further as the EEC Commission was looking to change the ratio between the butter and SMP intervention prices, to devalue butterfat and increase the value of the milk proteins in SMP. By October 1974, just 18 months later, the SMP intervention price had increased to 82.74 UA per 100 kg (an increase of more than 50% above the UK's starting point) whereas the EEC butter intervention price had risen by just 0.2%. These changes supported a 20% increase in the EEC target price set in UAs per 100 kg, which the Council of Agriculture Ministers deemed necessary to provide a fair standard of living to its milk producers.

The knock-on effect of increasing these base intervention prices for butter and SMP was that market prices of all milk and dairy products would have to rise substantially. In the case of Cheddar, UK FHSP which was running at around £492 per tonne on accession, would have to rise considerably over the next 5 years. The EEC's threshold price for Cheddar cheese in February 1973 was £812 per tonne. The minimum CIF import price for New Zealand Cheddar was fixed at £307 per tonne and the special levy at £138 per tonne. The FHSP of New Zealand Cheddar on accession was £512 per tonne.

This was to be a period of rampant inflation caused not just by our adoption of the CAP but also by an oil price hike that destabilised the world economy. On top of this, the weakness of sterling resulted in a series of actual and green pound devaluations, which pushed up the price of all commodities. The rate of inflation picked up to an alarming degree and with it discontent against the Conservative government was worsened by a series of strikes by disaffected trade unions and their members. In the March 1974 general election Edward Heath's government failed to win a majority of seats and, being unable to negotiate a coalition deal with the Liberal Party, Harold Wilson established a minority government that struggled to make an impact. Another election was inevitable later in the year and Wilson secured a small working majority of seats.

In an effort to slow down the rate of increase in food prices, the Government introduced consumer subsidies on a range of basic foodstuffs including bread, milk, butter and cheese. These were massively expensive. Small subsidies had been introduced already from May 1973 on butter, to cushion the aforementioned forecast doubling of retail prices. The butter subsidies continued on and off until May 1985, whilst the cheese subsidies ran from 4th May 1974 to 16th July 1976 and milk subsidies until the end of 1977. The various changes in subsidies are summarised in Table 15.2.

Today it is inconceivable that any Government would contemplate subsidising the retail price of any food product to the general population but such was the importance of dairy products in the shopping basket of the average family, and hence on the retail price index, that Harold Wilson's Labour Government felt obliged to soften the blow of the accession arrangements and the weakening of the pound.

The cost to the Exchequer was enormous but there was another cost that economists love to examine, namely the impact of price changes in lowering consumption. Typically the elasticity of demand for butter was calculated to be of the order of -0.4, meaning that a 10% reduction in price would increase consumption by 4%. For cheese the elasticity of demand was calculated to be somewhere around -0.2 and for liquid milk, which was also subsidised, probably around -0.1. At its peak the butter subsidy in 1975 was equivalent to a subsidy of more than 22 p per kg on an average retail price in 1975 of 70.2 p/kg (31.9 p per lb); if the price had gone to 92.2 p/kg (41.9 p per lb), an

increase of more than 30%, this could have been expected to drop consumption in a full year by some 12%. So effectively the subsidy kept butter consumption artificially high and required perhaps another 60,000 tonnes of butter to be imported in that 12-month period.

Table 15.2. UK Consumer subsidies on Butter and Cheese - £ per tonne (Sources: MMB Internal documents – Key Statistics of the UK Dairy Product Markets, various editions)

<i>Start date</i>	<i>End date</i>	<i>Butter</i>	<i>Cheese</i>
14 th May 1973	30 th March 1974	46.20	
1 st April 1974	6 th October 1974	124.75	
7 th October 1974	2 nd March 1975	181.88	
3 rd March 1975	5 th June 1976	229.32	
6 th May 1974	10 th November 1974		103.34
11 th November 1974	24 th January 1976		185.03
25 th January 1976	13 th November 1976		154.52
6 th June 1976	13 th November 1976	148.81	
14 th November 1976	27 th December 1976	88.18	107.28
28 th December 1976	16 th July 1977	0	44.29
1 st May 1977	15 th September 1977	187.96	
17 th July 1977	15 th September 1977		44.29
16 th September 1977	30 th March 1978	190.73	0
1 st April 1978	16 th December 1979	193.59 **	0
17 Dec 1979	19 May 1982	284.00	0
20 May 1982	22 May 1983	278.00	0
23 May 1983	1 April 1984	315.51	0
2 April 1984	26 May 1985	78.87***	0
27 May 1985		0	0

Notes: ** 8 upward adjustments to £284 from 17th December 1979

*** 4 downward adjustments to £78.71 on 2nd May 1984 and then to zero on 27th May 1985

For cheese the subsidy was £185 per tonne at its peak, equivalent to 18.5 p/kg (about 8.5 p per pound) on an average retail price in 1975/76 of around 99 p/kg (45 p per pound). This again was a very significant figure, representing a price reduction in a full year of 19%. The effect on consumption of this might have been of the order of 3%, suggesting that consumption in that year was maybe 10,000 tonnes higher than it otherwise might have been. Of course we will never know exactly what the impact might have been but in qualitative terms it is certain that consumption was held up, the retail prices index was kept down and the balance of payments was worsened through higher than otherwise imports of both butter and cheese.

The extent of consumer price increases

The rise in retail prices was unprecedented during and after the accession period, as illustrated in Figure 15.3. Retail prices of bottled milk, the maximum price for which was still being fixed by the UK government, rose by 209%, a factor of more than 3, between 1972 and 1980 while the retail price of English Butter rose by 167% and retail prices of English Cheddar rose by 193%, all in just 8 years.

The use of subsidies to slow down these increases was a strange decision and the cost to the exchequer huge. In just one year, 1975, if the subsidies had been paid on all of the butter and cheese consumed in the UK the cost to the Exchequer would have been of the order of £180 million. Assuming that actual retail purchases were perhaps 70% of total sales then the actual cost was £125 million.

The cost of supporting the liquid milk price was even larger and went on until 1977. The cost for supporting the retail price of liquid milk was shown in a different way, via the deficiency payments on the milk account. In 1973/74 this showed a deficit of £96 million; this was before the liquid milk subsidy was introduced and ran into the 1976/77 milk year. Table 15.3 includes not only the impact of

the consumer subsidies paid on liquid milk but also the effect of the SQ being increased to cover total production of milk.

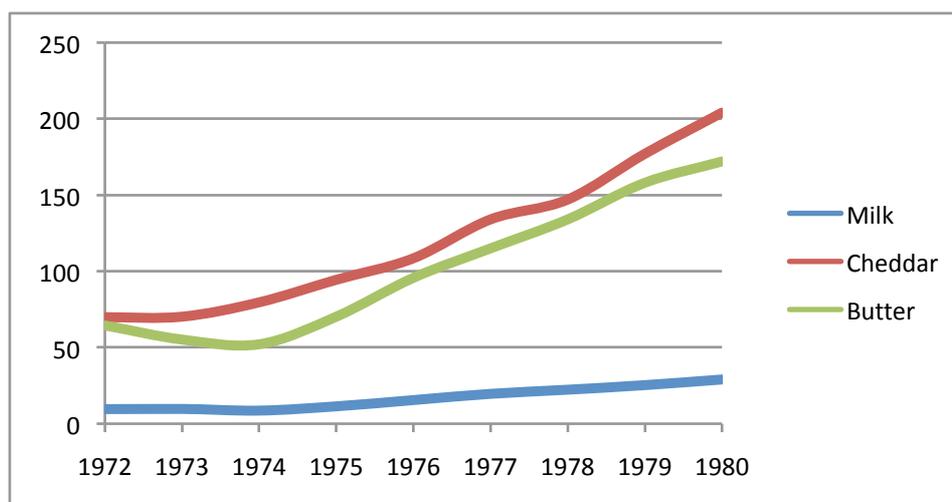


Figure 15.1. Retail prices of English milk, Cheddar cheese and butter – ppL or per kg (Source UK Dairy Facts and Figures, various editions)

It is not possible to break out how much of the subsidy was attributable either to the ‘lower than might have been’ retail milk prices or the raising of the producer milk price above what it might otherwise have been. Either way, the impact felt by the Exchequer and the taxpayer was substantial.

Table 15.2. Deficiency payments on the Milk Account (£ M) and prices of milk as sold to the MMB and sold for liquid use (ppL) (Source: MMB, various editions)

	£ M	Price sold to MMBs (p/L)	Price sold as liquid (p/L)
1972/3	20.1	0.15	0.26
1973/74	96.1	0.72	1.28
1974/75	352.6	2.68	4.54
1975/76	267.9	2.00	3.43
1976/77	239.2	1.75	3.10
1977/78 (April-December)	81.9	0.56	1.11

A change of government thinking

Subsidies were only delaying the inevitable that UK food prices had to move from world market levels to the higher protected levels in the EEC. Effectively the UK had moved from a Cheap Food Policy that had worked to the benefit of the consumer (and the tax payer) for over 125 years to an EEC food policy where the consumer/taxpayer interest was placed second to those of the farmers.

To some extent this switch of policy caught the mood of the country struggling with recurring balance of payments issues, relatively high interest rates and inflation. It was reinforced with the publication in April 1975 of a Government White Paper - *Food from our own Resources* (Cmnd 6020), which laid down a blueprint for increasing the UK's agricultural sector and reducing our reliance on imported food. The White Paper analysed the pros and cons of the then current agricultural policy and decided, unequivocally, that an expansion of British agriculture was in the best interests of

the nation. Interestingly this conclusion was reached regardless of “*whether or not the UK decided to stay within the European Community*”. At that stage a referendum had been called to vote on this issue and the outcome was far from certain. In the event the UK voted to stay in. Such an expansion in output would “...*give the country an insurance against periods of shortage and higher prices*”. This was the first hint that security of supply was even being considered as a part of national policy.

The UK was already producing about two thirds of its requirements in foods that could be farmed in this part of the world. But the Government wanted an even higher coverage. The paper concluded that output of cereals (for animal feed), sugar beet, oil seed rape, pig meat (for preserved products such as bacon), sheep meat, beef and milk could all be increased. Broad targets were set aiming to increase net agricultural output by around £500 million a year by 1980. It was deemed feasible to raise the quantity of milk sold off farms in the UK from 13,256 million litres a year to more than 16,000 million litres by 1980 - an increase of more than 20%. The value of the increased output of milk would account for more than 40% of increased net agricultural output.

In some sectors the increased output was expected to come from the higher prices promised under the CAP but this was not deemed to be sufficient. There was scope for greater efficiencies in production of all products which the government felt were easily obtainable, especially as they had great faith in the advisory services run by MAFF's ADAS organisation. However, it would also require greater certainty amongst farmers that other issues would make expansion possible, such as changes to the tax regime and future government investment in agricultural research and development.

For the milk sector this was an open door to increase output and to increase the UK's market share. Most of the extra milk would go into butter/powder creameries and cheese factories where, as the White Paper noted “*manufacturers have already invested in extra plant, particularly for cheese production, and it would be advantageous to use this as economically as possible.*”

The remarkable thing about this paper is that there is no mention of the consumer interest. It was also remarkable that this was the first time that any Government had explicitly commented positively on the benefits of an increase in the production of cheese. Previous decades had seen Governments at best indifferent to any change in the quantity of cheese made in the UK and more likely to see it as a problem. The analysis was done primarily on the benefits of expansion of the agricultural sector on national income and on the balance of payments: of course at full EEC price levels the analysis was bound to show that expansion was viable compared to the pre-EEC days when the cheap food policy was still in operation.

Government effectively took their foot off the brake, which had been holding back the agricultural sector, and effectively said ‘go for growth’. The lifting of the SQ to cover all milk produced was an invitation to expand in 1974 and with even higher producer prices in sight at the end of the transition period the future did indeed look good for dairy farmers.

Farmgate prices for milk

The adoption of the CAP raised farmgate prices dramatically. In 1972/73 the average UK ex farm price of milk was 4.439 ppl. By the end of the transition period 1977/78 it had risen to 9.954 ppl - an increase of almost 5.5 ppl or 124%, as illustrated in Figure 15.2.

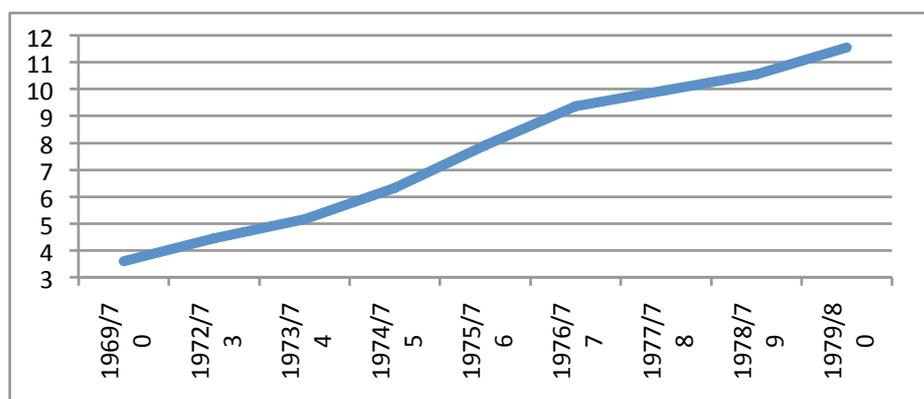


Figure 15.2. Ex-farm wholesale milk prices (ppl) in the UK (Source: MMB, various editions)

Prices continued to rise thereafter as the EEC target price was increased despite the fact that surpluses of milk, in the form of intervention stocks of butter and SMP, continued to rise. By the end of the decade the average ex farm milk price had reached 11.566 ppl.

Sales of milk off farms by the MMBs during the 1970s

The early 1970s saw a surge in milk production with sales off farms for the five MMBs, growing by 12.8% from 11.9 billion litres in 1969/70 to 13.4 billion litres in 1972/73 immediately prior to the UK's adoption of the CAP in February 1973.

From 1974/75 UK milk producers were free to produce whatever quantity of milk they wished without this directly diluting the average pool price as the SQ was fixed at a level close to the final level of sales in the year concerned. The data is given in Table 15.3.

Table 15.3. MMBs' sales off farms (M L) 1972/73 to 1977 compared to SQ (Sources: MMB, various editions)

	<i>SQ (ML)</i>	<i>Sales (ML)</i>
1969/70	9,844	11,863
1970/71	9,810.7	12,103
1971/72	9,665.7	12,534
1972/73	9,733	13,377
1973/74	12,471.9	13,314
1974/75	13,183.4	13,167
1975/76	13,386.9	13,388
1976/77	13,629.4	13,646
1977 (9 months)	11,104.8	11,104
1977/78		14,653

Between 1972/73 and 1977/78 sales of milk off farms grew by a further 1.1 billion litres (+ 9.5 %) and during the transition period the GP was applied to virtually all of the milk sold off farms in every year but 1973/74. Most of that growth occurred in the last year of the transition period in 1977/78 when they rose by more than 7%, compared to a cumulative growth in the previous 4 years of just 2%.

Why was the response so slow? In simple terms the profitability of dairy farming was adversely affected by the rampant inflation in input costs; fuel, fertiliser, feed and labour all increased dramatically. For those farmers who were operating on borrowed money, interest rates remained at historically high double-digit levels. It was not a good time to be borrowing money to expand or to install a modern milking parlour.

Liquid sales were more or less constant during the transition period (despite real price increases) and so virtually all of the increase in milk supplies went into manufactured products, as shown in Table 15.4.

Table 15.4. Manufacturing milk supplies (M L) during the transition period (Sources: MMB, various editions)

	<i>Total supply</i>	<i>To cheese</i>	<i>To butter</i>	<i>All other</i>
1972/73	5944	1837	2286	1821
1973/74	5783	1932	1925	1926
1974/75	5407	2263	1194	1950
1975/76	5513	2228	1498	1787
1976/77	5957	2041	2111	1805
1977/78	7230	2093	3308	1829
Change (%)	+21.6	+13.9	+44.7	+0.4

Milk for butter fluctuated from year to year, eventually rising to a new peak in 1977/78 of 3.3 billion litres. Milk used for all other products, excluding cheese, remained virtually constant while milk for cheese rose to 2.26 billion litres in 1974/75 and declined thereafter to below 2.1 billion litres.

UK cheese production in the 1970s

Given the increase in milk supplies available for manufacture and the high level of cheese imports, UK cheese production was expected to grow quite quickly. Under the MMBs' milk pricing system, which effectively determined where milk was allocated, butter/SMP generally commanded the lowest price with Cheddar slightly above, followed by other cheeses and then all other uses such as evaporated milk, whole milk powder, cream and yogurt commanding higher prices. Thus demand for milk for these other products would always be satisfied before the demands for Cheddar and butter/SMP. The milk was available if the cheese makers wanted it as the returns to the MMBs were always higher for cheese making than for butter/SMP. The conclusion must be that they were taking as much milk as they wanted, given the state of the market – reasons for this will be explored later.

So how much cheese was being made and what types of cheese? Actual data on the weight of cheese produced tended only to be published on a calendar year basis rather than on a milk year basis. Output of cheese rose from 130,410 tonnes in 1970 to just over 184,000 tonnes in 1972 when it became clear that the UK was joining the EEC and adopting the CAP system. Production peaked at 234,800 tonnes in 1975 and then fell sharply in 1976 and 1977 before growing again. In the decade to 1980, UK cheese production grew by more than 100,000 tonnes (+82%).

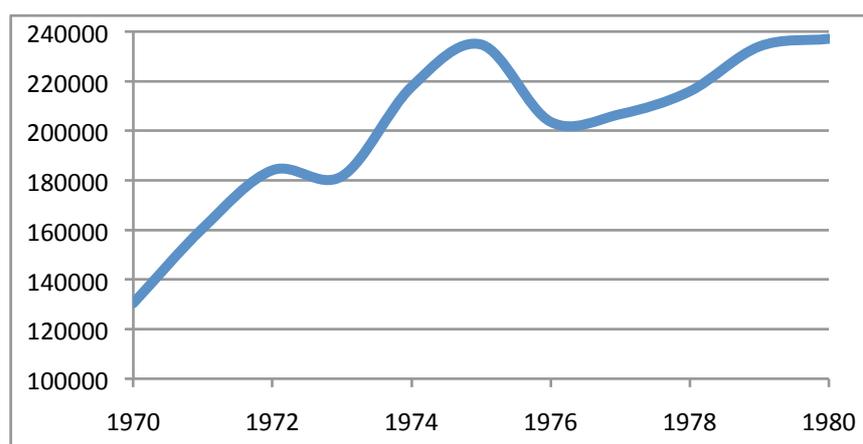


Figure 15.3. UK cheese production – tonnes (Sources: MMB, various editions)

UK cheese production by type

Cheddar cheese continued to be the most consumed and produced cheese in the UK. It accounted for 57% of UK production in 1970 and 68.5% by 1980 and in absolute terms grew by 112% or by 86,000 tonnes. In contrast, production of all other cheeses in the UK grew by just 30 % and in absolute terms by just 17,200 tonnes from 57,400 tonnes to 74,600 tonnes. Details of production by type of cheese are given in Table 15.5.

The key trend here was the decline in production of crumbly cheeses in total from 47,900 tonnes in 1970 to 38,800 tonnes by 1980 with only Wensleydale holding its own. By contrast Double Gloucester and Leicester cheese showed substantial growth with combined output rising from 5,500 tonnes in 1970 to 20,600 tonnes in 1980. Reasons for this will be explored later on.

Data on milk use by type of cheese is shown in Table 15.6 for selected milk years with a split between factory made cheese and farm made cheese.

Table 15.5. UK cheese production (k tonnes) by type in the 1970s (Sources: MMB, 1971–81)

	1970	1974	1978	1980	Change (%)
Cheddar	76.6	144.5	148.9	162.7	+112
Caerphilly	3.5	3.7	2.5	2.2	-37
Cheshire	35.4	35.2	25.9	28.0	-21
Derby	0.6	1.2	1.4	0.9	+50
Double Gloucester	3.0	6.7	7.5	9.6	+220
Lancashire	5.6	6.7	4.7	4.7	-16
Leicester	2.5	7.2	8.4	11.0	+340
Stilton	2.5	4.6	5.8	6.7	+168
Wensleydale	3.4	4.8	3.8	3.9	+15
Soft and cream	0.9	2.7	3.2	3.0	+233
Other	0	0.4	3.8	4.4	+77
Totals	134.0	217.7	215.9	237.1	

Table 15.6. Milk (in ML) used for cheesemaking in the UK during the transition period (Source: MMB, 1974–1979)

	1972/73	1975/76	1977/78	Change (%)
Caerphilly	27.3	23	19	-30
Cheddar	1227.4	1566	1466	+12
Cheshire	304.6	301	249	-18
Double Glos	45.5	65	62	+36
Dunlop	9.1	4	4	-56
Lancashire	50.1	55	47	-6
Leicester	45.5	76	77	+69
Stilton	36.4	44	52	+43
Wensleydale	36.4	40	35	-4
Others	54.6	54	82	+50
Total	1837	2228	2093	+14
Of which:				
Factory	1682	2038	1903	+13
Farmhouse	155	190	190	+23

The interesting point here is that during the transitional period the volumes of milk used on farms actually increased at a faster rate than in factories, its share of total output rising from 8.4% to 9.1%.

New cheesemaking capacity was brought on stream to handle this extra milk and companies such as Unigate, Express and the Co-operative movement all expanded, along with the MMB commercial arms in E&W and Scotland. Production of cheese also grew substantially in Northern Ireland, a region, which prior to WW2 was making virtually no cheese. As recently as 1969/70, it produced less than 10,000 tonnes of cheese but by 1980 output had more than doubled to 24,000 tonnes. Unigate and Express were also building up links with co-operative creameries in the Irish Republic and Northern Ireland whose cheese would be marketed on the British mainland.

Developments in the UK cheese market

It is perhaps worthwhile considering why, with all this extra milk availability, that UK cheese production didn't go even higher. The simple answer is that the market had stopped growing, in part due to the higher prices imposed on accession and through the frequent devaluations of the green pound. The cutting back of subsidies after 1975 accelerated price rises, which impacted on off-take, leaving the cheese industry holding exceptionally high stocks of cheese. Production therefore stalled and excess milk continued to flow into the sink products of butter and SMP.

The other factor was that other EEC countries had decided to attack the Cheddar market. The Irish had become a major supplier through the 1960s and 1970s but the Netherlands and Denmark, and in later years Germany, France and Belgium, started to sell Cheddar into the UK. A Dutch producer, anticipating the rising cost of cheese as the UK adopted the CAP, was the first to offer Mild Cheddar into the market. Hitherto there were probably just three types of Cheddar – 'Farmhouse' (generally matured for at least 9 months), 'Canadian' (made from raw milk and matured for anything up to 2 years) and 'Cheddar'. Standard Cheddar was what we would probably call medium Cheddar today, matured for around 5 to 6 months. The Dutch saw an opportunity to offer a major supermarket chain, Sainsbury's (who at the time was the leading supermarket), who saw the advantage of being able to offer a cheaper Cheddar to its customers. Now of course the only way you can cheapen Cheddar, particularly now that the Cheese Regulations were in place defining minimum milk fat and maximum moisture levels, was to sell it younger. At this time of world recession caused by the oil price hike and hence very high (double digit) interest rates, cutting maturing times by perhaps 3 or even 4 months represented a major cost saving.

Sainsbury's were pleased to snap this up and so evolved the market for mild Cheddar. Over the years into the 1980s and early 1990s, mild Cheddar would come to dominate the retail cheese market, taking up to 60% of the total volume of Cheddar sold retail. Domestic manufacturers responded and with the Irish co-operatives and cheese makers in Belgium, Germany, France and the Netherlands fought hard to gain a share of this growing segment. Consumers liked the price, which generally made it one of the cheapest cheeses on the market; generally it was second lowest to Cottage cheese or at times young Edam or Cheshire. The latter was cheaper since it was typically sold at just 5 weeks of age as against mild Cheddar's two and half to three months of maturation.

This was a very competitive market and UK producers had increased their share of the market quite sharply. The market for Cheddar was extremely price-sensitive with the major multiple retailers starting to exert their muscle over pricing. All suppliers to the market were conscious of the impact that a glut of cheese, particularly Cheddar, would cause. The E&W MMB was acutely aware of these frailties in the market and sought, by agreement with the creameries, to limit the amount of Cheddar that could be made by controlling the allocation of milk to those farms and creameries making Cheddar. A view was formed on what the market would look like in the year ahead and milk allocations for each customer were agreed. The Boards had also developed a close working relationship with the Commonwealth suppliers to the market as well as the Irish producers all coming together to promote Cheddar, initially through the Cheese Bureau in the 1970s and later (without the Commonwealth producers) through the Cheese Information Service (see also page 120). In pre EEC days there was probably some sharing of information about how much cheese was likely to be produced, in much the same way as Government had done during WW2 and beyond. Within the farmhouse Cheddar Scheme the MMB allocated milk quotas to each maker, which restricted how much Cheddar they could make.

This management of the milk flows into Cheddar did not prevent creameries or farms making other types of cheese. Consequently, output of Double Gloucester and Red Leicester started to grow, not so much in response to consumer demand but as a way of securing more milk to feed the modernised factories in which so much money had been invested by Unigate, Express and the Co-ops. The Express Group (which by this time was a subsidiary of the giant Grand Metropolitan Group of hotels and alcoholic drinks brands) had invested in the first multi-product dairy in North Tawton in Devon. Until now most of the large creameries in the UK were single purpose plants designed to make either butter and skimmed milk powder or cheese. North Tawton in Devon was designed to do both so that milk could be switched between products depending on market circumstances. Express and

Unigate invested heavily in the so-called Tebel Crockett two tier cheese making system for their existing plants. This was characterised by enclosed vats standing at a higher level than large mechanised finishing vats/tables into which curds were drained for cutting and stirring. This system was designed to be able to make any of the English varieties apart from Stilton. Unigate had major plants at Davidstow in Cornwall and Johnstown, Newcastle Emlyn and Haverfordwest in Wales as well as plants in Northern and Southern Ireland. Express had plants at North Tawton, Ruyton XI towns in Shropshire, Appleby in Yorkshire and Lockerbie in Scotland as well as having interests in Northern and Southern Ireland. The Co-operative Society had a large cheese dairy at Llandyrnog in North Wales and had a shared interest in the Sorbie Cheese Company in Scotland. All the companies also had their own butter and powder creameries. The Creameries Division of the E&EW MMB had also invested in a new creamery in North Wales at Maelor, which could produce butter, SMP and Cheddar.

The key point here is that the major private dairy companies were able to influence production levels of cheese in all regions of the UK and Ireland and although direct competitors of each other worked with the MMBs to keep the market supplied and to avoid big swings in production that would disrupt the market. Should their Cheddar stocks start to rise above acceptable levels then the safety valve was to either give up some milk (which would have gone into butter plus SMP production) or put the milk into making other hard cheeses.

However, although these modernised creameries produced high quality, consistent cheese with a reduced labour input, the cheeses tended to lose their traditional characteristics and produce what we might call today bland and rather tasteless cheese compared to the best of the original farm-made variants. This was an echo of the past when commentators in the late 19th and early 20th centuries made the same comments about the factory cheese being produced then. Commentators in the 1970s felt that the Red Leicesters and Double Gloucesters made in these creameries were clones of mild Cheddar and lacked the true characteristic flavours and textures associated with these coloured cheeses. Supermarkets were growing their share of the retail cheese market and increasingly looking to sell cheese pre-packed. Sales through the deli counter were in freefall decline and the quest for crumbly cheeses that would pre-pack with minimum wastage meant that Lancashire, Wensleydale, Cheshire and Caerphilly tended to lose their distinctiveness and morph into a less crumbly, young white cheese often indistinguishable one from another, a throwback to the second world war when all cheese was required to be made to a government set standard in terms of texture and cut-ability.

The quest for value also meant that most of the hard cheeses were sold very young and tended in any case to lack flavour. To top it all, most of the pre-packed cheese offered by the supermarkets was sold increasingly under their own label and to their particular specification. The uniformity in packaging and labelling of cheese to reflect the corporate branding of the individual supermarket meant pretty boring displays of cheese in flat packs of different colours with labels that required close scrutiny to determine what the alleged variety was. The displays were likened to rows of coloured tombstones.

There were few branded cheese products. The MMB's Farmhouse Cheese logo adorned a high proportion of all farmhouse cheese sold both from the deli counter and in pre-pack but the promotional budgets behind them were minimal. Crump Way, the MMB owned selling agency in Wells, did have a brand name that was used in the catering sector on high acid, strong, farmhouse Cheddar that was considered to be 'over the top' for use in the retail market. It was a popular cheese for pubs to offer as part of their ploughman's lunch and was traded under the name "Cathedral City", which of course the City of Wells was. More was to be seen of this brand in the years ahead as the ownership of Crump Way changed.

The major retail brands at this time were Black Diamond Mature Cheddar from Canada, Cracker Barrel Cheddar from Kraft, Philadelphia cream cheese (also from Kraft) and various brands of processed cheese such as Kraft Dairylea and Primula. The Anchor brand for the NZ butter was also just starting to be used on Cheddar cheese. To these can be added the basic company branding that Unigate (under the St Ivel brand), Express (Eden Vale) and Dairy Crest tried to create on some of their cheese sold into various parts of the retail market. In total branded products represented under 10% of all retail cheese sales.

A decision on the future of the MMBs

There had always been a feeling that the operation of the Milk Marketing Schemes was incompatible with the basic tenets of EEC law. Effectively the Boards were monopsonistic buyers in their own regions, although their customers (the UK dairies) were free to source milk from other Board areas or from overseas (or in the case of Northern Ireland across the land boundary with the Irish Republic). With the fresh liquid milk market supplied entirely from home produced milk the Boards in effect had a monopoly on the supply of milk for that market. Neither role sat well with the Treaty of Rome. The UK government was determined to keep the MMBs as this model of a compulsory co-op had served the country well. It argued strongly that Community Law should be amended to allow the MMBs to continue after the end of the transitional period. The EEC Commission was conscious of the role the MMBs had played in developing and sustaining what was (and still is) the largest market for fresh liquid milk in the EEC. The Commission did not wish to undermine that market in any way and so legal minds set to work on how the seeming incompatibility of the MMBs to the Treaty of Rome could be woven into EEC Law.

The intervention system was regarded as a cornerstone, albeit an expensive one, of the common dairy policy but the Commission proposed to the Council of Ministers in the preamble to Regulation 1421/78 amending Article 25 of the basic dairy regulation No. 804/68 that because of its high cost it was "...appropriate to provide for other mechanisms... to stabilise the dairy markets and ensure a fair standard of living for the agricultural community". It argued that the MMBs channelled the predominant quantity of milk produced into direct human consumption and concluded that the apparent inconsistencies with Community law, the MMBs' exclusive right to buy all milk produced in their respective region, coupled with the obligation to find a market for all milk offered for sale, would be allowable subject to certain conditions. These were that at least 80% of registered producers accounting for more than half the amount of milk produced for the MMBs (subsequently interpreted as a bovine milk producers' vote) must agree to the continuation of the MMBs, conditional on:

- (1) The proportion of milk produced going into the liquid market in that country being at least equal to 150% of the proportion used across the whole of the EEC and
- (2) That per head consumption of liquid milk in that country was greater than the average for the whole of the EEC (the liquid market was to be defined as the markets for all types of liquid milk, buttermilk, cream and yogurt).

Council Regulation 1422/78 introduced detailed rules but in effect enshrined in EEC law basically what the MMB had been doing for many years; amongst other things it allowed on farm processors to market their own milk and allowed small producer retailers of liquid milk to be exempt from the scheme (as indeed was the MMB exempted from having to buy their milk). It also enshrined the principle of price pooling.

These regulations did not specifically mention the UK or the individual MMBs. They were drafted as being applicable across the whole of the EEC with any Government wishing to take advantage of these provisions having to make a formal application. But of course they were written with the UK and its MMBs clearly in mind as no other country in the EEC would be able to meet the conditions laid down. It was a further regulation (Commission Regulation 1565/79) that provided for the MMBs to continue and with it the milk allocation and pricing policies that would underpin the cheese industry into the post accession era.

The MMBs met the conditions laid down and the polls of producers in each MMB region in October 1978 overwhelmingly supported the continuation of the MMBs, as detailed in Table 15.8.

Table 15.7. Result of polls under EC Regulation 1422/78 - % votes in favour based on producers and proportion of milk production (Source: Baker, 1973)

	<i>Producer %</i>	<i>Milk production %</i>
England & Wales	99.5	97.3
Scottish	99.5	98.5
Aberdeen & District	99.2	99.0
North of Scotland	100	100
Northern Ireland	99.1	95.9

The maintenance of the MMBs was a key element of Government policy aimed at increasing agricultural output in the UK as laid down in the 1975 White Paper *Food from our own Resources*. In a follow-up White Paper in February 1979 entitled *Farming and the Nation* (Cmnd 7458) the government noted that having resolved the uncertainties surrounding the future of the MMBs and the post-transitional arrangements for liquid milk, the industry had “...a secure framework within which to operate”.

Milk sales off farms had grown by almost 11% between 1974/75 and 1977/78 and would rise further to just under 15 billion litres by 1980/81. This was well below the "target" set out in "Food from our own Resources" which had aimed for 16 billion litres. This failure was attributed to a number of unhelpful factors such as bad weather (two very hot summers), rampant inflation in farming input costs and slower than expected increases in ex farm prices helped by the continuation of the EEC's Green Money system for agriculture, which limited the extent to which Sterling's slide was reflected in agricultural support prices. Nonetheless, the Government remained committed to the objectives contained in the earlier White Paper and stated that “...the continued expansion of agricultural net product over the medium-term is in the national interest”. This, they said, could be achieved “without undue impact on the environment”. The government was determined “to frame their policies (so) as to enable a progressive and efficient industry to make an ever-increasing contribution to the well-being of the nation”. There was no mention of the consumer or the tax-payer in this unequivocal support for the agricultural sector and by corollary, since dairying accounted for about one fifth of the nation's agricultural output, this showed a very strong commitment to the dairy sector.

Trade deals

The Government had fought hard to keep the MMBs but it wasn't just the MMBs that the Government were determined to protect. The New Zealand economy and dairy industry remained a high priority due to that country's long history of supplying butter and cheese to the UK for more than 80 years. Reference has already been made to the negotiated settlements with the EEC affecting imports of butter and cheese from New Zealand so that these could continue to be sold in the UK market without disruption to the aims of the CAP during the transitional period. Under Protocol 18 of the Treaty of Accession maximum quantities of butter and cheese could be exported at preferential cif import prices (below the threshold prices) from New Zealand were laid down for each of the 5 years of the transition period as shown in Table 15.8.

Table 15.8. Maximum New Zealand imports – tonnes (Source: Protocol 18 of the Treaty of Accession)

	<i>Butter</i>	<i>Cheese</i>
1973	165,811	68,580
1974	158,902	60,960
1975	151,994	45,720
1976	145,085	30,480
1977	138,176	15,240

These quantities “...shall be imported into the UK at a price...which must be guaranteed at the CIF stage by New Zealand...(and be) fixed at a level which enables New Zealand to realise a price representing the average price obtained during the period 1969 to 1972. “...Special levies shall be fixed on the basis of this CIF price...and of the market prices of the products...at a level such as to allow the quantities of butter and cheese to be effectively marketed without prejudicing the marketing of Community butter and cheese” (Articles 1 and 2 of Protocol 18 of The Treaty of Accession).

The 1973 minimum CIF import price for butter was set at £355.55 per tonne and for cheese at £307 per tonne. In both cases these were above typical world market prices but below the EEC threshold prices. Added to these were the special levies referred to earlier. This still left NZ getting a higher price than they would have achieved on world markets. These initial prices applied only to

direct shipments to the UK and were way below ruling EEC market prices. They would rise in gradual steps towards the full threshold price for both products. It was not foreseen that these special arrangements for cheese would last beyond the transition period although they did. On butter, a renegotiation on maximum quantities allowed to be imported into the UK on preferential terms was negotiated before the end of the transition period. For cheese, new arrangements were negotiated through the General Agreement on Tariffs and Trade (GATT) which came into effect in January 1980 and allowed NZ to export to the EEC (and not just the UK) 9,500 tonnes of Cheddar a year of which 6,500 tonnes were to be for retail use and 2,500 tonnes for manufacturing use.

Canada also gained a small concession under the same GATT agreements, being allowed to export 2,750 tonnes of mature Cheddar at preferential rates of import levy whilst Australia was allowed to export 3,000 tonnes of Cheddar to the UK of which 2,500 tonnes were to be for retail use and 500 tonnes for manufacturing use.

Imports of cheese in the 1970s

UK cheese imports dropped by 25.9% during the 1970s reflecting the near 100,000 tonnes growth in domestic production. Cheddar imports fell by 40% (- 49,100 tonnes) whilst imports of other types of cheese rose. Processed cheese imports increased by 20%, Blue veined by 2.6% and all other cheese by 30%, the full data is given in Table 15.9.

Table 15.9. UK cheese imports (k tonnes) by type of cheese 1970 to 1980 (Sources: MMB, 1971–81)

	1970	1974	1977	1980	Change (%)
Cheddar	121.8	77.3	81.1	72.7	-40
Processed	6.1	5.5	5.6	7.3	20
Blue Veined	3.9	3.7	3.3	4.0	2.6
Other	25.2	35.8	32.3	32.7	30
Total	156.9	122.3	120.4	116.7	-26

Imports of Cheddar from Commonwealth countries fell from 88,000 tonnes in 1970 to just 11,000 tonnes by 1980. Conversely imports of Cheddar from EEC member countries more than doubled to 61,000 tonnes with the Irish Republic accounting for almost half (Table 15.10).

Table 15.10. UK Cheddar imports by country of origin, 1970–80, k tonnes (Source: MMB, 1971–81)

	1970	1974	1977	1980	Change (%)
Belgium	0.6	1.4	0.2	2.1	250
Denmark	1.2	2.7	9.2	8.2	7333
France	4.6	9.8	8.3	6.7	47
West Germany	0.7	1.7	4.3	7.9	1029
Ireland	17.4	39.5	35.7	29.9	72
Netherlands	4.5	4.0	7.8	6.3	40
Total EEC	29.0	59.1	65.5	61.1	111
New Zealand	64.6	16.6	15.1	7.1	-89
Australia	11.2	0	0	2.5	-78
Canada	12.9	0	0.5	1.5	-88
All others	2.5	1.6	0.5	0.5	-80
Total Non-EEC	91.2	17.8	15.6	11.6	-87
Grand Total	120.2	77.3	81.1	72.7	-39.5

The 1970 figure for Cheddar imports in Table 15.13 differs from that in Table 15.12. The value is 1,600 tonnes lower, reflecting a revision in imports from one or more countries. It is not possible to adjust individual country data.

The promotion of cheese

Under the GP/SQ arrangements, the dairy industry in the UK had a strong incentive to increase the consumption of liquid milk. If milk used for the liquid market increased it was understood that upward adjustments would be made to the SQ and so in the post WW2 era much attention was given to the promotion of milk and dairy products. For milk the case was obvious, whilst for cheese and cream the MMBs and the dairy processors were conscious that should lucrative markets be found for home produced cheese then this too would be an incentive to produce more milk. The dynamics of the markets for butter and cheese had not really changed in the sense that the majority of these two products consumed in the UK were of foreign origin and it was typically Empire produced butter and cheese that set the market price.

A mechanism for the joint promotion of milk and dairy products by farmers and processors had existed since February 1920 when a group of gentlemen met at 13 King's Bench Walk in Temple, London, for what was the first official meeting of the National Milk Publicity Council (NMPC). This was to be jointly funded between farmers' organisations, milk processors and retailers and, during the 1920s and 1930s, undertook informational campaigns promoting the benefits of milk drinking. This work continued with the formation of the MMBs but of course was interrupted by WW2. However, when the MMBs regained their marketing powers in 1954 and the annual review set out the terms under which they would operate, fairly quickly funding arrangements were put in place to re-commence these educational and promotional campaigns. The Boards provided a simple mechanism for the collection of money from the milk processors under terms agreed within the Joint Committee and any monies so collected were passed to the NMPC and were matched by the MMBs.

Levies were charged on some manufacturing milk used for cream and cheese and campaigns were developed. A separate Committee was set up in 1955 to manage the cheese campaigns and this operated as a separate branch of the NMPC. It was called the English Country Cheese Council and its role was simply to promote the main English & Welsh cheese varieties, the so called 'Magnificent Nine'; namely Cheddar, Cheshire, Double Gloucester, Leicester, Derby, Wensleydale, Caerphilly, Lancashire and Stilton (Blue and White). At the same time the main suppliers of cheese to the UK market - namely the Australian Dairy Board, the New Zealand Dairy Board, the Ontario Milk Marketing Board, the Irish Dairy Board and initially the E&W MMB (although later the other Boards were involved) - formed and funded the Cheese Bureau. Its role was to encourage sales of cheese irrespective of origin or variety although it was unsurprisingly tilted towards Cheddar, which was the most consumed cheese in the Country.

Expenditure through the Cheese Bureau grew steadily from around £100,000 a year to a peak of £535,000 in 1970. It was disbanded at the end of 1971, reflecting the declining volumes of Empire/Commonwealth cheese being imported but more importantly the fact that the UK was on the brink of joining the EEC. Although preferential terms would be provided for a limited import of Cheddar from Australia, New Zealand & Canada the quantities involved were substantially below earlier levels and understandably the Dominion bodies withdrew their support.

In its place The Cheese Information Service (CIS) was formed in 1972 with a remit to promote UK and Irish Cheddar with funding coming from all of the MMBs plus the Irish Dairy Board. Its budget started at £318,000 in 1972, rising to a peak of around £1.5 million in both 1979 and 1980. The CIS was disbanded the following year, 1981, when the Irish Dairy Board withdrew their support.

Funding of the English Country Cheese Council grew from around £120,000 per annum in the years up to 1960 to a peak of an average of more than £3 million a year between 1979 and 1983. A large chunk of the spending in those latter 5 years was on the launch and promotion of The Cheese Mark Scheme, which was an attempt to bring in a national grading mark for British cheese. It met with limited success for although the major cheese making companies were involved, the retailing sector

had moved on and generally did not support or need to use the cheese mark. Increasingly the major retailers were setting their own standards for the cheese they bought from across the world and in the absence of any major cheese brands the UK retail cheese market progressively turned into a supermarket own label market.

The health debate

Government attitudes to milk and dairy products during the first 70 years of the 20th century had been unequivocal: they were an essential part of a healthy, balanced diet. Milk was often referred to in MAFF publications as being “...*the most complete of all foods containing nearly all the constituents of nutritional importance to humans...*” (MAFF, 1945). Agricultural policy had been built on ensuring sufficient milk was produced in the UK to meet the needs of a liquid market. There was, in short, an unshakeable belief that milk and products made from it were beneficial to health. Moving from a period of relative food shortages (and for many a shortage of money to buy all but basic foods) for much of the time since 1914, the late 1950s and 1960s saw unrationed food supplies, increasing levels of disposable income and with it a noticeable increase in overweight/obese people. Greater attention in the media was, by the start of the 1970s, increasingly concentrating on health and diet issues. Initially this took the form of weight loss initiatives that focused on the role of carbohydrates and, for a period, slimming programmes tended to involve a reduction in consumption of potatoes and bread. Professor John Yudkin had for many years believed that the overconsumption of refined white sugar was a cause of obesity. In his book, *Pure, white and deadly: The problem with sugar*, he argued that sugar consumption was a factor in the development of health problems such as dental caries, obesity, diabetes and heart attacks.

This was fiercely contested by the sugar industry and manufacturers of products containing sugar, who recruited medical experts and PR companies to discredit Yudkin's findings. A nutritionist in the USA, Ancel Keys, was a fierce critic of Yudkin's work for it contradicted his own work on the aetiology of heart disease, which he claimed was due to excessive consumption of saturated fats. For many reasons; Yudkin's work was sidelined and further research work across the world, some funded by vested interests involved in the fats and oils business, tended to take centre stage and this led to a questioning of the benefits of whole milk and full fat dairy products such as butter and cheese. Saturated fat in whatever form it was consumed was regarded as a demon and should be replaced with mono-unsaturated and poly-unsaturated fatty acids, which were typically found in fats and oils derived from vegetable and marine sources. Diets were influenced and increasingly consumers bought into the theory that any saturated fats were bad and consumption therefore had to be reduced. In the UK in the 1970s, virtually all the liquid milk bought by consumers and caterers was full cream. A small farm in Worcestershire, Bennett's Dairies, was the first to launch semi-skimmed milk in the early 1980s and from there it grew at a rapid rate. That switch from whole milk to lower fat milks had already occurred in the rest of Europe, driven not so much by diet or health issues but by the desire to stretch what had been limited supplies of milk by taking some of the fat off the milk to make butter.

UK butter consumption was adversely affected by increasingly harmful reviews in the popular media and of course by the rapid increase in retail prices, which came with accession to the EEC and was exacerbated by the weakening of sterling. Advertising campaigns for margarine products tended to focus on the health-giving benefits of polyunsaturated fat of their products versus the high saturated fat content of butter. The major manufacturers invested large sums of money in their branded products (mainly from Unilever and Kraft).

By inference, consumers became a little anxious about eating too much cheese, not just because of the concentrated calorific content of cheese but also the potential health risks of over-consumption of products containing saturated fat.

In later years, the initial work done by Ancel Keys has been challenged and found to provide no correlation between consumption of saturated fat and heart disease. Hydrogenated fats (so called trans fats) widely used in the margarine industry in the 1970s, 1980s and 1990s have now been proven to be a far more serious threat to health and in most countries are being phased out. Also, more recent research done in the 2000s has consistently found no correlation between cheese consumption and heart disease, in fact it seems that because of the complex mix of nutrients in cheese (various fats,

protein, minerals and vitamins) it may even be beneficial in reducing the risk of a number of diet-related conditions.

The perpetrators of much of the research done on fats conveniently failed to research the risks of trans fats, so convinced were they of the harm done by saturated fat. Perversely, attention has now turned yet again to over consumption of sugar as a cause of many diet-related conditions including obesity, heart disease, type 2 diabetes and so on. But there is no doubt that the marketing of food products and their consumption has been strongly influenced by the plethora of anti-dairy research published since the 1950s. It provided a catalyst for a raft of reduced fat products in the spreads, cheese, milk and yogurt sectors of the dairy industry. So what did happen to consumption of dairy products during this period of dramatic change in the 1970s?

Changes in consumption and production in the 1970s

During this period when prices were forecast to rise so rapidly, consumption of all dairy products was expected to fall, though the overall pattern was more complex as illustrated in Table 15.11. The figures for butter and cheese sales in 1975 were almost certainly inflated by the consumer subsidy schemes with consumer and trade stocks almost certainly being carried over in to the subsequent year.

Table 15.11. Consumption of milk (G L) and dairy products (k tonnes) (Source: MMB, various dates)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	Change (%)
Liquid Milk	7.43	7.53	7.76	7.88	7.69	7.42	7.40	7.29	7.14	-4
Butter	391	425	490	512	444	413	403	390	352	-10
Cheese	300	324	332	350	341	312	324	337	349	+16

And for butter, fall it did, not just because of higher retail prices but due also to strong competition from substitutes for butter and growing health concerns about the alleged harmful effects of excessive saturated fat consumption. Consumption peaked in 1975 tonnes (helped by consumer subsidies) and then fell back steadily over the remainder of the decade, a drop of over 30% in just 5 years.

Liquid milk sales through the MMBs dropped by 4% between 1972 and 1980, while cheese consumption, having initially peaked in 1975 when consumer subsidies were still in place, fell back in the following years as price increases took their toll. However, the 1975 figure was an inflated figure due to the effects of the subsidy scheme and the under-recording of true stock levels. Calculated off-take, therefore, slumped in the following 3 years before recovering in 1980. Total disappearance of cheese therefore rose during the 1970s by around 50,000 tonnes from 300,000 tonnes in 1970 to 349,000 tonnes recorded in 1980.

Estimated *per capita* consumption of cheese rose by 0.78 kg during the 1970s to reach 6.2 kg per head by 1980, driven by increased consumption of home produced Cheddar, Double Gloucester, Red Leicester and Stilton as well as a growth in imports of speciality cheeses (Table 15.14).

However, *per capita* consumption still lagged behind that seen in other EEC countries, as illustrated in Table 15.13, where consumption rose by an amazing 3.9 kg per head (+35.5%) during the decade as against an increase of just 0.8 kgs per head (+14.8%) in the UK. (It should be noted that the methodology used by MAFF for calculating stocks was changed in 1977 and so off-take figures are slightly skewed as a result). Only in Denmark was the percentage change lower than in the UK. The main contributor to increased consumption in the other EEC countries was in the consumption of soft cheese and fresh cheese although in general consumption of all types of cheese were growing,

Table 15.12. Estimated domestic disappearance of cheese (k tonnes) during the 1970s (Sources: MAFF and MMB, various dates)

	1970	1975	1976	1977	1978	1979	1980	Change (%)
Opening Stocks	59	70	100	107	114	91	113	+92
Production	134	235	204	207	216	234	237	+77
Imports	156	152	148	123	101	140	117	-25
Total supplies	349	457	452	437	431	465	467	+34
Exports	3	7	10	11	16	15	16	+433
Closing Stocks	46	100	100	114	91	113	102	+122
Domestic Disappearance	300	350	341	312	324	337	349	+16
Population (M)	55.4	55.9	55.9	55.9	55.8	56.3	56.3	+1.6
Consumption (kg ph)	5.42	6.26	6.10	5.58	5.81	5.99	6.20	+14

Table 15.13. Estimated *per capita* consumption (kg) of cheese in EEC Countries (Sources: MMB (EEC), various dates)

	1970	1980	Change (kg)	Change (%)
Germany	10.0	13.7	+3.7	+37
France	14.0	18.4	+4.4	+31
Italy	10.6	14.2	+3.6	+34
Netherlands	8.5	13.1	+4.6	+54
Belgium	8.8	13.4	+4.6	+52
Luxembourg	7.6	9.6	+2.0	+26
Irish Republic	2.2	3.3	+1.1	+50
Denmark	9.4	9.6	+0.2	+4
Greece	13.6	17.6	+4.0	+29
Average EEC 9	11.0	14.9	+3.9	+36
UK	5.4	6.2	+0.8	+15
Average EEC 10	9.8	13.1	+3.3	+34

Changes in the structure of the retail cheese market during the 1970s

Throughout the 1970s, the UK retail cheese market continued to be dominated by Cheddar in much the same way that Gouda dominated the market in the Netherlands. According to market research data supplied by Attwood Statistics to the MMB, Cheddar's share of the cheese market in Great Britain (Northern Ireland was not covered in this research but Cheddar dominated there too) grew from 64 % in 1970 to 65.8% in 1977 and dropped back slightly to 64.3% by 1980. English and Scottish Cheddar together accounted for 50% of household purchases by 1980, having grown from a share of just 38% in 1970 (Table 15.14).

Table 15.14. Percentage share of household purchases of cheese in Great Britain, 1973 to 1980 (Source: MMB, various dates)

		1973	1974	1977	1980	1980/1973
Cheddar	English	31.7	38.9	39	44.3	+39.7
	Scottish	6.2	6.3	5.9	6.5	+4.8
	New Zealand	15.7	7.3	8.6	0.9	-94.3
	Irish	5.5	5.8	7.3	6.2	+12.7
	Dutch	}	0.6	1	2.8	na
	French	} 2.8	0.7	0.8	0.6	na
	Other	}	2.7	3.2	3.1	na
Total Cheddar		64.0	62.3	65.8	64.3	0.5
Territorials	Cheshire	10.5	11	8.5	8.4	-20.0
	Other	11.6	13	12.3	13.8	+19.0
Total Territorial		22.1	24	20.8	22.2	+0.5
Continental		5.4	6.4	6	6.3	+16.7
Processed		8.5	7.3	7.4	7.3	-14.1
Total		100	100	100	100	
Estimated Household Purchases		218.0	223.5	240.3	248.4	+13.9

Summary of changes in the 1970s

Overall then the 1970s eventually saw a small growth in domestic off-take of cheese, a substitution of Commonwealth imports of Cheddar by imports from the EU and by UK producers. The UK's share of the market (production less exports divided by off-take) rose from 44% in 1970 to 62% by 1980. Cheddar continued to dominate the market with a share of more than 63% but this was down from almost 70% in 1970. Crumbly cheese off-take fell whilst that of other hard British cheeses, mainly Double Gloucester and Red Leicester, grew substantially. The market was dominated by young, mild tasting cheese and had become very price sensitive. Whilst imports of all cheese fell it was primarily Cheddar that suffered with volumes reduced by 40% during the decade. Imports of processed cheese rose slightly, those of blue veined cheese were virtually static and it was imports of other cheeses, mainly soft French-style cheeses and Dutch hard cheeses that benefitted. These changes in total market off-take were generally reflected in changes in household purchases.

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16. The 1980s

Within the Cheddar market, as already mentioned, mild Cheddar was the dominant product taking 58% of all household purchases of Cheddar by 1981. On top of this there were undisclosed amounts of mild Cheddar imported from time to time from other EEC member countries. They would have ended up being sold primarily into the catering or manufacturing sectors and in some cases being sold as supermarket own label Mild Cheddar. So, mild Cheddar's share of total household purchases of Cheddar was probably nearer 65% by the early 1980s.

Market researchers tended to lump all other home produced cheeses under the heading of 'Territorials' (these being the main regional cheeses) plus fresh cheeses such as cottage and cream cheeses. Cheshire remained the single most important variety but its share of the cheese market had fallen from 10.5% in 1973 to 8.4% by 1980, though still running at 20,000 tonnes a year. All other British cheeses accounted for around 39,000 tonnes of cheese. Purchases in 1981 were split roughly as shown in Table 16.1.

Table 16.1. Household purchases of territorial and continental cheese (k tonnes) in GB in 1981 (Source: MMB - internal publications)

<i>Territorial variety</i>	<i>k tonnes</i>	<i>Continental variety</i>	<i>k tonnes</i>
Cheshire	20.0	Dutch Edam	11.0
Cottage	10.0	Gouda	1.0
Leicester	8.5	Danish Blue	1.8
Double Gloucester	5.5	Other Blues	0.2
Lancashire	5.0	Brie	1.1
Wensleydale	3.0	Camembert	0.6
Stilton	3.0	Gruyere/Emmental	0.3
Caerphilly	1.5	All others	2.0
Derby/Sage Derby	0.5		
Cream cheese	2.0		
Total	58.5		18.0

Household purchases of Continental cheeses had grown but still only accounted for 6–7% of household purchases, equivalent to around 18,000 tonnes of cheese, compared to about 12,000 tonnes in 1973. Edam was the most significant, with purchases of around 11,000 tonnes followed by Danish Blue with purchases of just under 2,000 tonnes.

The average retail price of cheese in 1981 (Table 16.2) was £2.27 per kg (£1.03 per lb) with Cheddar averaging just under that at £2.24 per kg and Mild Cheddar at £2.18 per kg. However, it is noteworthy that the premium for Mature Cheddar over Mild Cheddar was 30p per kg, almost 14%. In later years that premium was set to rise further as retailers and manufacturers encouraged more consumers to trade up to stronger-tasting cheese.

The only cheeses cheaper than Mild Cheddar were Cottage and Edam. However, all the other Continental cheeses were significantly more expensive than Mild Cheddar, generally running at more than £2.86 per kg with the Blue cheeses being the most expensive. Stilton averaged £2.95 per kg, Danish Blue £2.70 per kg and other Blues more than £3.50 per kg (most likely Roquefort which was made from ovine milk which was and still is significantly more expensive than bovine milk).

It was very much a price sensitive market with consumers (and supermarkets) looking for good value and low prices. If you want cheaper cheese then you simply sell it young. And as can be seen from all the above data the UK had become primarily a mild cheese market. Consumers had become accustomed to the blander offerings available going back even as far as the latter part of the 19th century when young American Cheddar flooded into the UK. It was for commercial reasons that historically dating from the late 19th century much of our crumbly cheeses moved from a mature profile to cheese that was a matter of weeks old, designed to satisfy the industrial markets in the North and the Midlands for cheap protein.

Table 16.2. Average retail prices of cheese in 1981 (Source: MMB - internal publications)

<i>UK variety</i>	<i>£/kg</i>	<i>Continental variety</i>	<i>£/kg</i>
Mild Cheddar	2.18	Dutch Edam	1.99
Mature English Cheddar	2.48	Dutch Gouda	2.19
Farmhouse Cheddar	2.62	Danish Blue	2.70
Cheshire	2.24	Other Blues	3.52
Leicester	2.34	Brie	3.06
Double Gloucester	2.43	Camembert	2.89
Lancashire	2.37	Gruyere	3.01
Wensleydale	2.44	Emmental	3.08
Stilton	2.95		
Caerphilly	2.33		
Derby/Sage Derby	2.56		
Cottage cheese	1.88		

There was certainly a demand for more mature cheese in the up-market retailers and restaurants but over a period of almost 100 years the mainstream market had become characterised by younger cheese, nutritionally sound but lacking in flavour. Even our other wonderful hard cheeses, Leicester and Double Gloucester, were being sold younger and increasingly tasting more like mild Cheddar.

This may have been a key reason why speciality imported cheeses had failed to make much impact on this price sensitive market. The lack of branded products and the increasing dominance of the major supermarket chains effectively meant that the UK cheese market exhibited many of the characteristics of a commodity market, one driven almost exclusively on price rather than one built on trusted brands and quality.

Dairy Crest is born

UK milk supplies continued to grow in the producer friendly environment of the CAP but as mentioned earlier most of these additional milk supplies from 1980 went into butter/SMP plants. Unigate, which was the largest dairy company in the UK, decided in 1979 to sell 16 of its butter and cheesemaking creameries to the E&W MMB for £89 million. This was done as part of the restructuring of Unigate who were frequently accused by the financial markets of being over-dependent on the dairy sector. Unigate also anticipated problems ahead with rising surpluses of agricultural produce in the EEC and could see better places to invest than the dairy sector. It subsequently purchased an array of unrelated companies including Giltspur (a specialist removal company), Turners Turkeys and Casa Bonita, a US Mexican fast food restaurant chain. The creameries were absorbed by the MMB into what was to become Dairy Crest, which was incorporated in 1981. Almost overnight the MMB had become one of the largest milk processors in the UK with a substantial share of both the butter and cheese markets. Dairy Crest was required to operate at arm's length from its parent, the MMB.

Handling the increased milk supplies

The MMBs' prime aim, as the sole buyers of all milk offered for sale off farms, was to find a market for that milk and return the best possible pooled price back to its farmers. It was an open-ended commitment to buy all milk and find an outlet for it. At most times of the year there was adequate processing facilities in the UK to handle such supplies. It was only at the peak of milk supplies in May that butter/powder creameries could be run at full tilt and cheesemakers persuaded to handle more milk when required, though there came a time when all of this processing capacity was full. Over the years, various schemes were initiated to handle peak milk supplies in May. A subsidy scheme was introduced on several occasions to encourage pig farmers to take skim milk during times of surplus. Skim concentrate was produced on other occasions and exported at rock bottom prices to dairies on

the Continent, However, when even these schemes were unable to handle the peak of milk supplies, or that it seemed likely to be the case two or three years ahead, then the E&W MMB would invest in a new milk handing facility. This would normally be to produce butter/SMP, most of which was likely to be sold into intervention. Farmers were free to produce however much milk they wished even if there were no true markets for it other than intervention. It was a ludicrous position and one that was not sustainable. Working in the strategic planning department of the MMB, the author gained few friends by concluding that milk quotas were probably going to be the only route open to the EEC Commission, even if as an economist he recognised that this was seen as a serious distortion of the market for milk. Experience of milk quotas in Canada showed that they simply added an extra cost of production for those farms wishing to expand. As such this acted as a deterrent to expansion and improved economic efficiency but also fossilised the production sector by allowing smaller, less efficient units to stay in production. The system was only sustainable in Canada by protecting the industry from external competition and by maintaining a higher level of ex-farm milk prices and hence higher retail prices. Effectively consumers were paying to keep farmers in production, as was already the case in the EEC. However, the EEC dairy sector was characterised by thousands of small holdings with fewer than 20 cows and for these a quota system would enable them to either stay in production or in some countries, where quotas became a tradable asset, to provide a handy nest egg if they decided to quit dairying. But the issue in the EEC was not about higher than necessary consumer prices, for they already were too high but about an increasing burden on taxpayers. A quota system would limit the taxpayer's funding of the common dairy policy.

Increasing surpluses in Europe

The UK was not alone in seeing increased milk supplies. Across most of the EEC milk production and deliveries to dairies were rising and, although in some cases extra milk was going into the growing domestic markets for liquid milk, cheese and yogurt, the production of butter and SMP was rising fast and with it an increasing stockpile that would at some stage have to be disposed of.

During the 1970s and early 1980s milk delivered to dairies in the ten countries that then made up the EEC in 1983 had grown from around 74 million tonnes in 1970 to 104 million tonnes by 1983, an increase of 40%. This had been a consistent trend with 8 million tonnes growth in the first 5-year period, 12 million tonnes in the second 5-year period and 8 million tonnes in the last 3 years. Self-sufficiency had been achieved long ago and, although population and consumption per head across the enlarged EEC were both still growing, milk deliveries were outstripping such growth. As early as September 1977, a co-responsibility levy had been imposed on all milk producers across the EEC (initially at 1.5% of the target price, rising to 2.5% in 1981) to provide the European Commission with funds to promote consumption of milk and dairy products across the EEC and put a brake on milk supplies. This had little effect as milk deliveries continued their inexorable rise.

Surpluses were rising and the cost of handling them was taking a disproportionate share of the EEC budget. The cost of running the common dairy policy had continued to grow through the 1970s and early 80s with expenditure on the dairy sector accounting for 30% of budgeted expenditure on agriculture and 21 % of the proposed total EEC budget in 1984 of 27 billion ECUs. The costs of supporting the dairy sector had risen to such an extent not only because of rising milk production in the EEC but because of poor returns on world markets as other countries in the world also increased their output of milk. An increasing part of the EEC budget was therefore being used to keep EEC products competitive on world markets through ever-higher export refunds.

Under the CAP, surplus milk would ultimately find its way into the production of butter and SMP, the extent to which this occurred depending on what other disposal schemes the Commission were running, be they to promote exports or internal consumption of dairy products. Butter production had risen by 31% between 1975 and 1983 to 2.3 million tonnes compared with typical annual domestic consumption of around 1.5 million tonnes. Stocks of butter had risen by the end of 1983 to just under 1 million tonnes, a butter mountain indeed. Stocks of SMP had also risen to more than 1 million tonnes by the end of 1983. Given the state of world markets and the forecasts for EEC milk production over the next few years, the Council of Agriculture Ministers agreed, contrary to the

wishes of many EEC member states, to impose milk quotas across the whole of the EEC. They were to be implemented with immediate effect starting from 1st April 1984.

Milk quotas introduced

Quotas would be given to each member state and then rolled down to individual farms. Should a member state exceed its national quota, then any farm which had exceeded its individual quota would be subject to a levy equal to 100% of the target price, which for most farms meant a levy on surplus milk way above the price that marginal milk commanded in the market place and much higher than the average cost of production. There was a really positive incentive for farmers to stay within quota.

Although there was the usual horse trading between member states in the EEC Council of Ministers under which some countries for special reasons got a more advantageous outcome than others, the essence was that if super-levy was to be avoided then EEC milk deliveries and production would have to be cut by more than 4% compared to the 1983 level. The quota covered both milk deliveries to dairies and direct sales of milk and milk products off farms. It should be noted that the quota system only applied to production of bovine milk. Sheep, goat and buffalo milks were outside of the regime. In due course this was to be seen as an opportunity for these alternative dairy enterprises to develop,

For the UK this meant a 6.2% cut in bovine milk deliveries. Further cuts across the board of 1.2% (1.4% for the UK) were to be imposed in the following 5 years, after which time the system would be reviewed. (In fact quotas remained in place for 32 years, finally being discontinued on 31st March 2015).

During the years that followed, the introduction of quotas placed an effective cap on the level of milk production in the EEC. It fossilised the milk production sector and introduced in most countries, where quota became tradable, an extra cost of producing milk. Structural change was retarded, which was probably seen as desirable in those countries with many very small-scale farms but generally resulted in higher than necessary costs of production within the EEC when compared to countries outside. One of the other consequences of this policy was the gradual loss of the EEC's share of world trade in dairy products as exportable surpluses were at last brought, at least partially, under control. New Zealand and eventually the USA would be the long-term beneficiaries of this change in EEC policy.

For the UK dairy industry the management of quotas was complicated enough, even though the MMBs knew exactly how much milk each registered producer had sold. There were questions about hardship cases to be resolved. A typical hardship case would have been a farm that was in the process of expansion having invested in parlours to milk say 200 cows but had only managed to get to a herd of 100. In other countries managing the quota scheme was administratively challenging and there always remained a nagging suspicion that governments in some other countries might have been lax in implementing the quota system and in accurately recording volumes of milk sold off farms.

Production of cheese

Be that as it may, cheesemakers did not fare too badly in the UK. They had access to milk from the MMBs and it was the butter/powder plants that were robbed of milk. The E&W MMB implemented a series of rationalisation schemes in the 1980s under which dairy companies were encouraged to close less efficient butter/powder plants. They received compensation and in turn the MMB benefited from the resultant improved capacity utilisation of the remaining plants. Under the so-called Common Approach to Financial Information (CATFI) system of negotiating manufacturing milk prices in the Joint Committee, any changes in capacity utilisation up or down resulted in an increase or reduction in the price of milk used for butter/SMP.

During the remainder of the 1980s, the quantity of milk used for butter production dropped from the high of 5.2 billion litres in 1983/84 to 2.77 billion litres in 1990/91. In contrast, quantities of milk used for cheese rose gradually from 2.5 billion litres to 2.8 billion litres in the same period, as shown in Table 16.3. Across the whole of the 1980s, whilst milk sales off farms dropped by 7.7%, the quantities of milk used for cheese rose by 21%. This was reflected in an increase in cheese output from 237,000 tonnes in 1980 to 313,000 tonnes in 1990 (+32%).

Table 16.3. UK milk utilisation (G L) 1980/81 to 1990/91 (Sources: MMB, various editions)

	<i>Liquid</i>	<i>Butter</i>	<i>Cheese</i>	<i>Other</i>	<i>Total</i>
1980/81	6.9	3.9	2.34	1.83	14.97
1983/84	6.7	5.2	2.53	1.74	16.17
1986/87	6.6	4.5	2.61	1.42	15.13
1989/90	6.6	2.9	2.76	1.68	13.94
1990/91	6.6	2.8	2.83	1.59	13.82
Change (%)	-3.7	-29	+21	-13	-7.7

The trends in cheese production that had been evident in the 1970s continued, with production and sales of crumbly cheese falling by 30% (Table 16.4). Production of Double Gloucester and Leicester combined rose by one third and Cheddar by just under a third. The combined shares of these hard cheeses remained constant through the decade whilst the share taken by 'Other' cheese rose from 2% to 10.5%. These other cheeses included Mozzarella and Brie, the significant production of which started in the UK in the early 1980s.

Table 16.4. UK cheese production by type (k tonnes) (Sources: MMB, various editions)

	1980	1983	1984	1987	1990	Change (%)	1980 % share	1990 % share
Cheddar	162.7	160.9	159.3	186.1	214.4	+2	68.6	68.5
Caerphilly	2.2	1.6	1.4	1.2	1	-56	0.9	0.3
Derby	0.9	0.7	0.6	1	0.7	-23	0.4	0.2
Cheshire	28	25.5	27.6	17.1	19.6	-30	11.8	6.3
Double Gloucester	9.6	14.2	14.3	11.5	10.5	+17	4.0	3.4
Lancashire	4.7	4.4	3.6	3.8	4.1	-13	2.0	1.3
Leicester	11	13.7	15.7	17.4	17.1	+56	4.6	5.5
Stilton	6.7	8	7.8	8.3	8.7	+30	2.8	2.8
Wensleydale	3.9	3	2.7	2.6	2.5	-36	1.6	0.8
Soft/Cream	3	3.4	2	0.7	1.8	-40	1.3	0.6
Other	4.4	9.7	10.9	14.6	32.9	+648	1.9	10.5
Total	237.1	245.1	245.9	264.3	313.2	+32		

The 32% increase in production compared to a 21% increase in milk use reflects the growth in production of reduced fat cheeses and soft cheeses such as Cottage cheese and Mozzarella where less milk is required to make a tonne of cheese. Most of the traditional hard UK cheeses had yield factors of between 9,500 to 10,500 litres per tonne, while the newer cheeses like Mozzarella typically needed just 7,000 litres and other fresh cheeses even less.

There had been a few small manufacturers of Mozzarella located on the Eastern side of the UK run by Italian families, making traditional Mozzarella from bovine milk for the Italian delicatessen market. These were joined by larger players based in Wales and Scotland who would be producing different styles of Mozzarella tailored to meet the needs of the pizza makers, both high street takeaways and makers of frozen pizza for sale through supermarkets. Unlike the traditional Mozzarella, these new styles were designed to melt and go stringy when heated. Mozzarella was set to become the country's second most produced and second most consumed cheese during the 1990s.

Lymeswold

Lymeswold cheese was launched in 1982 by Dairy Crest. It was proclaimed to be the first new British cheese to be made for more than 300 years. Lymeswold was to all intents and purposes a replica of Bavarian Brie or Cambazola, a soft white mould cheese with blue veining. The cheese was originally produced using a batch process, in a small experimental creamery in Cannington, Somerset. The name was derived from the village of Wymeswold in Leicestershire where Dairy Crest had a small Stilton

dairy. Originally, Dairy Crest wanted to call the cheese Wymeswold and tried to trade mark the name. But as it the name referred to a geographical place where there was a history of making cheese the application was rejected. They therefore settled on a hybrid name, Lymeswold. When launched it received rave reviews as it happened on a very quiet day for the media and featured in virtually every national newspaper; most showing a picture of the then Minister of Agriculture, Peter Walker, feeding it to his dog. Walker claimed it as an important initiative in reducing the country's balance of trade as it would be replacing imports from Germany. At its best it was indeed a beautiful cheese, soft, creamy with delicate blue cheese notes. It quickly became a victim of its own success with demand completely outstripping supply. Cannington was only capable of producing a few hundred tonnes of the cheese as everything was handmade on a batch basis.

A proposal was put forward by the Chief Executive of Dairy Crest to use one of the closed sites previously purchased from Unigate, at Aston near Nantwich in Cheshire, as a dedicated plant to make up to 5,000 tonnes of this type of mould ripened cheese. To do this required investment in a mechanised continuous coagulator of the type used in some dairies in the EEC to make Brie-type cheeses but which had never been used in the UK. The investment was approved by the MMB but turned out to be disaster. The automated plant was unable to replicate the quality of the hand-made batch process at Cannington. The cheese suffered from inconsistent blueing and secondary mould growth on the cut surface of the pre-packed portions, which did not endear it to consumers. The cheese never achieved its true potential - which realistically, given the size of the blue cheese market in the UK, was likely to have been in the hundreds of tonnes rather than the thousands. Handled in a different way using traditional cheesemaking equipment in a smaller well-designed plant producing to the same standard as the original plant would have created a profitable market for Dairy Crest to complement their traditional Stilton business. The investment of several millions of pounds was written off and the site and plant eventually sold off.

Farmhouse Cheese

Farmhouse cheese makers were increasingly finding it difficult to compete with the factory producers. The larger creamery plants that had come on stream were producing much more consistent quality cheese. There was still a discernible difference in flavour profile and texture between the best farmhouse and the best creamery made cheeses but the creamery cheese was cheaper and becoming more consistent. Strong flavoured cheese was still the smaller part of the market. The Farmhouse Cheesemakers' scheme continued to give various benefits to the makers although there were limits on how much milk could be put into Cheddar.

In 1984 the E&W MMB sold its Crump Way and Emberton Brothers businesses to Mendip Foods, a relative new comer to the industry, run by two former Unigate executives Simon Oliver and David Gerhardt. They were granted the agency charged with running the storage, grading and marketing of Farmhouse Cheese. As a result, a number of the larger makers in the West Country and in Cheshire broke away from the centralised marketing offered by the MMB. However, since their cheese was no longer graded by MMB graders it was not eligible to carry the Farmhouse Cheese logo.

In 1987 the MMB decided, on the basis of legal advice that certain aspects of the Farmhouse Cheesemakers' schemes were potentially in breach of EEC State Aids regulations, to wind up the scheme in March of that year. Makers then had the choice of either withholding their milk from sale to the MMB for part or all of the year, or selling all of their milk to the MMB on the same terms as other milk producers in that region and buying back milk on the same terms as other buyers. The two transactions would be simultaneous and the cash flow benefits granted under the old scheme were eliminated. Also, whereas previously the farmhouse maker was able to choose, within reason, the co-operating farms whose milk was used in their cheesemaking, it was now down to the MMB to decide where the milk was best sourced based so as to minimise transport costs. This change of arrangements was welcomed by some cheesemakers as it enabled them to expand their production. For others it was a retrograde step. As a result of these changes, no figures were subsequently produced showing the amount of cheese made on farms but it is likely that the volumes actually grew. Although the Farmhouse Cheese logo could still be used by farms whose cheese was graded by MMB appointed graders, quantities of cheese going through this route started to decline. Supermarkets were happy to buy farm-made cheese that had not been so graded but which met their specifications and could legally be sold as 'Farmhouse'. The more progressive on-farm cheesemakers such as Barbers of Ditcheat and

Wyke Farms, both in Somerset, and Joseph Heler and Belton Farm in the North West saw these changes as an opportunity to grow. It was now easier for them to buy milk from the MMB on the same terms as other buyers, particularly for new types of cheese, which commanded a higher milk price. For other makers it led to the decision to cease cheese production and revert to being a milk producing business only.

Imports of cheese in the 1980s

The 1980s saw a steep rise of 73% in UK cheese imports, illustrated in Table 16.5.

Table 16.5. UK cheese imports (k tonnes) from 1980 to 1990 (Sources: MMB, various editions)

	Cheddar	Processed	Blue	Other	Total
1980	72.2	7.3	4.0	32.8	116.3
1981	91.2	8.1	4.5	36.2	140.0
1982	80.0	7.6	4.6	37.89	130.1
1983	80.2	12.6	5.0	36.6	134.5
1984	79.1	20.5	4.9	40.8	145.4
1985	91.8	20.3	5.5	43.9	161.5
1986	99.4	20.5	6.0	46.8	172.7
1987	80.2	20.7	5.7	53.5	160.1
1988	104.3	23.9	5.9	64.3	198.4
1989	77.9	25.1	5.4	70.4	178.8
1990	90.5	29.5	5.6	76.4	202.0
Change (%)	+25	+304	+40	+133	+74

Growth was seen in all of the main categories as shown above. Cheddar imports had always fluctuated year-to-year, depending on exchange rates and the overall supply/demand balance in the Irish Republic, who by now was by far the major exporter. Between 1980 and 1984 Cheddar imports averaged 80,000 tonnes a year whereas in the period 1985 to 1990 they averaged 91,000 tonnes. Imports of processed cheese grew sharply reflecting not only its growing popularity due to product and packaging innovation in the sector and the growth of hamburger bars, but more importantly the transfer of processed cheese production by Kraft from the UK to Belgium. Blue cheese imports grew modestly, perhaps due to younger consumers being prepared to experiment with milder blues such as Dolcelatte. However, the most significant growth in volume terms, accounting for 43,600 tonnes of the overall growth of the 85,700 tonne increase in total imports, came in the 'Other' sector in which is included Fromage Frais, Ricotta and Mozzarella. These fresh cheeses were to become increasingly important in the UK cheese market as fast food volumes grew year on year (Mozzarella for Pizza), as parents looked for healthier snacks for their children (flavoured Fromage Frais) and as the Mediterranean diet started to become more popular (Ricotta and Mozzarella).

Exports of cheese

UK cheese exports grew steadily during the 1980s from 16,400 tonnes in 1980 to 40,400 tonnes by 1990, as shown in Table 16.6. Most of this growth came in the second half of the decade. Although Cheddar exports grew from their low level of 10,600 tonnes in 1980 to 18,800 tonnes by 1990, most of that growth came in the first half of the decade. In contrast exports of other cheeses grew from 5,700 tonnes to more than 21,600 tonnes.

Table 16.6. UK cheese exports (k tonnes) Source: MMB, 1981–91)

	<i>Cheddar</i>	<i>Others</i>	<i>Total</i>
1980	10.6	5.7	16.4
1981	16.5	6.1	22.9
1982	25.9	7.7	33.3
1983	20.0	7.4	27.4
1984	23.7	8.1	31.8
1985	19.4	12.1	31.6
1986	21.8	11.8	33.6
1987	25.3	11.3	36.6
1988	16.6	11.5	28.1
1989	21.7	13.9	35.6
1990	18.8	21.6	40.4
Change (%)	+77	+279	+146
Average 80–84	19.3	7.0	26.4
Average 85–90	20.6	13.7	34.3
Change (%)	+6.7	+96	+30

Some explanation is required here. The Customs and Excise statistics in the 1970s and beyond did not distinguish between exports and re-exports. A part of recorded exports relate to cheeses not produced in the UK but which may have been imported by dealers and traders specifically for re-export. Of the 21,600 tonnes of other cheese exported in 1990, for example, 5,100 tonnes were processed cheese, 500 tonnes were fresh cheese and about 1,000 tonnes were blue cheese. This left a balance of 15,000 tonnes of all other cheeses, including re-exports. These included amongst others Roquefort, Gorgonzola, Emmental, Gruyere, Brie, Edam and Gouda, Camembert and Parmesan, none of which was produced in the UK. There were of course some exports of other British territorial varieties as well as cheese destined for processing in Europe.

Estimated domestic disappearance of cheese in the 1980s

The estimated domestic disappearance of cheese increased by about one third during the 1980s reaching 465,000 tonnes by 1990 (Table 16.7). This represented an increase of more than 117,000 tonnes - the biggest increase recorded in a single decade. The cheese production data in this table excludes skimmed milk cheeses such as Cottage cheese, which had started to represent significant quantities during the 1980s. The figures also do not take account of the added ingredients used in the manufacture of processed cheese, which would have been purchased and consumed. Actual cheese consumption was therefore somewhat higher and in 1990 was estimated at more than 490,000 tonnes.

Part of the growth in total consumption came as a result of a 2 % growth in population during the decade. Part also came from an increase in Cheddar consumption, which accounted for about a third of the increase in off-take, although Cheddar's share of the market actually fell from around two thirds to 60%.

Table 16.7. Domestic disappearance of cheese (k tonnes) in the 1980s (Sources: MMB, various editions plus internal MMB publications)

	1980	1984	1985	1987	1988	1989	1990	Change (%)
Opening Stocks	113.0	113.0	105.6	123.5	112.6	145.6	135.8	+20
Production	237.1	245.9	255.7	264.3	298.9	279.2	313.2	+32
Imports	116.3	145.4	161.5	160.1	198.4	178.8	202.0	+73
Total supplies	466.4	504.3	521.4	547.9	609.9	603.6	651.0	+39
Exports	16.4	31.8	31.5	36.6	28.1	35.6	40.4	+153
Closing Stocks	102.0	105.6	115.2	112.6	145.6	135.8	145.2	+42
Domestic disappearance	348	366.9	374.7	398.7	436.2	432.2	465.2	+34
Estimated population (M)	56.3	56.6	56.8	57.1	57.3	57.5	57.7	+2.1
Estimated consumption (kg/head)	6.18	6.48	6.60	6.98	7.61	7.52	8.06	+30

It was, as stated earlier, the growth of Cottage cheese, Continental cheeses, processed cheese and Leicester cheese that grew disproportionately and this is evident from the data in Table 16.8 on household purchases of cheese in 1981 and 1991.

The share taken by Continental cheese almost doubled from just below 8% to almost 14% (Table 16.8). Reflecting the trend towards reduced fat products, household purchases of cottage cheese grew from 10,000 tonnes to 17,500 tonnes during the decade. In addition, this decade saw the development of reduced fat hard cheeses, both home-produced and imported. Initially the producers of these cheeses found it very to emulate the taste and texture of full fat hard cheeses. However, in the years ahead these issues were gradually addressed and such cheeses took an ever-increasing share of the market. Unlike the period between the two world wars when there was a fair amount of reduced fat Gouda and Edam being sold in the UK at rock bottom prices, the reduced fat hard cheeses of the 1980s and 1990s were premium priced products catering for the weight watching consumer.

From Table 16.8 it can be seen that household purchases of cheese were estimated to be at 281,000 tonnes in 1991. This is an underestimate of actual household purchases in the UK not only because the figures exclude Northern Ireland but also because of the market research methodology using household panel data where purchased products were either entered manually into a diary or scanned in the home; this methodology tended to result in an under-recording of actual purchases. This was estimated to be some 23,000 tonnes higher at around 305,000 tonnes.

Domestic disappearance, as mentioned earlier, was of the order of 470,000 tonnes with the difference between the two figures representing the volumes of cheese being used in the food industry, e.g. sandwiches, frozen pizza, sauces, soups and dips, as well as in the food service (catering) sector – both restaurants/cafes and takeaways.

The food industry and catering use of cheese grew rapidly in the 1980s with ready to eat sandwiches and pizza (both takeaway and in retail packs) so that by 1990 these two sectors were accounting for an estimated 34% of total cheese off-take compared to just 17% in 1980 (Table 16.9). This growth reflected the changing ways in which consumers were using cheese in the home including the ending of compulsory school lunches and their substitution by packed lunches which boosted consumption of cheese as cheese sandwiches; in addition there had been increases in disposable incomes which lead to more meals being taken out of the home in restaurants, cafes and takeaways.

Table 16.8. Household purchases of cheese in GB, 1981 and 1991 (Source: Attwood data supplied to the MMB)

	<i>k tonnes</i>		<i>Share (%)</i>	
	<i>1981</i>	<i>1991</i>	<i>1981</i>	<i>1991</i>
TOTAL	264.6	281	100	100
Cheddar	167.9	164.4	63.3	58.5
Territorials (total)	47.8	35.0	18.1	12.5
Cheshire	19.8	9.2	7.5	3.3
Double Gloucester	5.4	5.1	2.0	1.8
Lancashire	5	2.6	1.9	0.9
Leicester	8.5	11.8	3.2	4.2
Blue Stilton	2.6	2.8	1.0	1.0
White Stilton	na	0.3	na	0.1
Wensleydale	2.8	1.8	1.1	0.6
Caerphilly	1.4	0.6	0.5	0.2
Derby/Sage Derby	0.5	0.2	0.2	0.1
All other	1.8	0.6	0.6	0.2
Cottage Cheese	9.9	17.5	3.7	6.2
Continental*	20.4	38.6	7.7	13.7
Processed	18.6	25.5	7.0	9.1

Note: * Includes some home produced cream cheese but excludes fromage frais.

Table 16.9 Estimated structure of UK cheese market in 1980 and 1990 (k tonnes) (Sources: Internal MMB documents)

	<i>1980</i>	<i>1990</i>	<i>Change (%)</i>
Total disappearance	353	470	+39
Household purchases	282	305	+8.2
Catering	45	110	+167
Food manufacture	15	50	+300
Other	11	5	-55

Note: Other includes purchases by foreign tourists and holidaymakers plus wastage in the retail chain and includes skimmed milk cheeses.

Cheese usage in the home

A study in 1984 by the MMB looked at the way cheese was used in the home and revealed that 42% of all cheese used in the home was accompanied with bread in sandwiches, rolls or with toast. Around 20% was used as part of a cheeseboard with biscuits and just 4% was eaten on its own as a snack. Other uses are shown in the table 16.10.

Table 16.10. Cheese usage in the home as % by weight of cheese (Source: MMB, 1984)

Usage	% by weight	Usage	% by weight
With biscuits/crisps/nuts	20	With salad/fruit	5
On toast/toasted sandwiches	17	On its own	4
In sandwiches	16	Scones/pastry/bread	2
With bread/rolls	9	Omelette	2
Cheese sauce	8	Cheesecake	1
Grated for topping	7	Others	4
Quiche or similar	5		

What this shows is the dependency of cheese consumption on complimentary products such as bread or pasta, which were, and indeed still are, very much staple foods with very broad appeal across all age groups. Packed lunches for spouses and children were an important usage with cheese sandwiches regularly topping the charts of favourite fillings. However it is the sheer versatility of cheese that makes it such a desirable product in meal preparation. It competes against meat and fish based products in sandwiches and salads. In other areas of usage it is the range of cheese types available that makes it such a valuable food to have in the fridge. Dieters can use Cottage cheese or soft cheese with high moisture content, such as Mozzarella. With the advent of reduced fat hard cheeses as a topping for salads, or hot dishes with grated cheese could also fit in with a reduced calorie diet. Despite the adverse publicity given to products containing saturated fat, cheese was able to ride the storm reasonably successfully, partly because of the range of products available but also because many consumers would find it hard to eliminate cheese from their diet. We will return to this topic of consumer attitudes to cheese and how they changed later on. The diet/health debate would continue to be an important influence on the cheese market in the years ahead.

References and further reading

- MMB (1984) *Cheese usage in the home*. Internal MMB publication/market research, Milk Marketing Board, Thames Ditton.
- MMB (1979–1992) *Key Statistics of the UK Dairy Product Markets* (This was an internal MMB statistical publication that was published annually.)
- MMB (various editions) *UK dairy facts and figures*. Milk Marketing Board, Thames Ditton.

17. The 1990s

Perhaps the most significant change for the whole of the dairy industry in the 1990s was the winding up of the MMBs. The Boards had played a central and decisive role in the development of the UK dairy industry. It was somewhat ironic that it would be the British Conservative government in the late 1980s that embarked on the process to force the ending of these schemes, which a previous Conservative administration fought so hard to preserve in their negotiations with the EEC in the 1970s

The winding up of the MMBs

For some years there had been disquiet amongst a number of the major dairy companies about the control exerted by the MMBs over the marketing of milk in the UK. Other sectors of the industry also felt that the schemes were not best serving their interests: some of the cheese makers for example, were highly critical of their inability to purchase more milk and the butter/SMP manufacturers were always bemoaning the lack of milk supplies during the winter months. Also, the larger (more than 100,000 litres per year) producer-retailers of liquid milk were always complaining about the 'unfair levy' placed on their sales that equalised the difference between the MMB's firsthand selling price for liquid milk and the average pool price. Such complaints were not new; they had been a feature of the industry since the formation of the Boards in the 1930s. Government had always seen the schemes as being a balancing act between the interests of different parts of the dairy industry and also between the industry on the one hand and tax payers and consumers on the other.

On top of these rumblings the major supermarkets became frustrated at their inability to bid down the price at which they bought packaged liquid milk from the major dairy companies. Government had relinquished control over the maximum retail price for liquid milk in December 1984 in England & Wales and Northern Ireland (and in September 1981 in Scotland). In every other food category supermarkets had been able to drive down prices through their buying power but in the case of liquid milk, sales of which through supermarkets had grown dramatically at the expense of doorstep delivered milk, this was not possible due to the operation of the Milk Marketing Scheme. Under this scheme milk was still sold on the basis of its end use with liquid milk still commanding the highest price. That price was negotiated in the Joint Committee (made up of representatives of the MMB and the dairy companies) and effectively related to tanker loads of milk delivered from farms to the dairies. Whether a dairy bought one tanker a day or 100 tanker loads a day, the unit price per litre was the same and therefore dairies were unable to discount their sales to the supermarkets and pass back the 'loss' to farmers as might have happened in other sectors.

Supermarkets were quite vociferous of these arrangements and made clear to Government their dislike of this system, which they argued was keeping retail milk prices at an artificially high level. They were right of course, as that underpinned the prime objective of the Milk Marketing Schemes, which was to keep the liquid market supplied with fresh milk that at this stage was impractical to import. Government was happy to see prices of dairy products that could be imported set by the market and in so doing the Joint Committee negotiated prices for manufacturing milk were much lower than the liquid milk price. However, at the end of the 1980s there was a reformist Conservative Government that had succeeded in emasculating the militant trades unions, gone through a privatisation programme of the utility companies in the UK and saw the MMBs as an archaic structure and out of keeping with the market-led industries elsewhere in the UK. There was an important issue here of course, which was that the MMBs were not a government body or a nationalised organisation and in financial terms stood on their own two feet without subsidy or interference from government.

Nevertheless the Government was increasingly being badgered by vested interests to do something about the schemes. There had been a number of court cases involving direct sellers who objected to paying the equalising levy. One of these was even referred to the European Court of Justice. There was a feeling within parts of MAFF that the MMBs had outlived their usefulness and that with EEC milk quotas in place the market for milk needed to be liberated from a *dirigiste* regime

to allow innovation and greater competition. However, the Conservative government knew that it would be impossible for them to propose the winding up of the MMBs, due to the political clout milk producers had in a large number of Conservative-held rural constituencies. In addition, any legislation introduced would probably meet with the disapproval of many Labour MPs for whom co-operative marketing was seen as a desirable activity. So behind the scenes, government ministers exerted strong pressure on the MMBs to reform themselves and come up with a scheme of re-organisation that met with the approval of the private dairy companies.

Hence there emerged what turned out to be a 6-year period of acrimonious discussions between the MMBs, MAFF and the dairy companies about how the system should be reformed. It culminated in the revocation of the Milk Marketing Schemes in November 1994. This would have been unthinkable twenty years earlier when the UK joined the EEC. Successive governments had fought hard to retain the system for marketing milk, even though at the time of accession the EEC Commission had expressed severe reservations about the compatibility of the Milk Marketing Schemes with EEC Law.

It would be fair to say that the solution that the MMBs came up with did not meet the concerns of the dairy trade but they went far enough to satisfy both the UK government and the EEC Commission, which had been keep keeping a close eye on the process. Revocation of the Schemes allowed individual farmers to decide who they sold their milk to and allow the processors to buy milk from wherever in the UK they wished (they had always had the right to buy milk from outside the UK but it was rarely used except across the land boundary between the Irish Republic and Northern Ireland). The compulsory farmer co-operative model was therefore abandoned and in its place a voluntary co-operative was formed in England & Wales called Milk Marque, with equivalent bodies formed in Scotland and Northern Ireland. Dairy Crest, the commercial arm of the E&W MMB, was totally independent of the successor although all registered producers were allocated shares in the company once it was incorporated. In Scotland and Northern Ireland by contrast, the major co-operative company also held on to the milk processing facilities previously owned by the main Scottish MMB and the Northern Ireland MMB.

Effects of the breakup on the market

There followed a period of significant adjustment with the successor bodies to the MMBs having to recruit farmer members who at this stage had a choice of selling their milk to a local dairy company or to the successor body. Milk Marque attracted the support of about two thirds of the registered milk producers in England & Wales. Many dairy companies were keen to sign up some of their own supplying farms rather than being totally reliant on Milk Marque but to do this had to offer better pricing terms than Milk Marque. The Milk Marque system of pricing relied on a bidding system for different types of contract, underpinned by a daily spot market. Initially, because of the uncertainties of getting exactly the right amount of milk that each buyer wanted, companies tended to over-bid and hence drove up the price. In the seven months before the revocation of Schemes producer prices in E&W averaged 22.1 ppl. Within 12 months the UK average price had risen to more than 26 ppl and although the prices eased back somewhat they still averaged close to 25 ppl throughout 1995 and 1996 before collapsing over the next four years to 16.91 ppl in 2000, a drop of one third from the peak price in 1995 to the base price in 2000, as illustrated in Figure 17.1.

Never, since the introduction of the Milk Marketing Schemes had there been such violent fluctuations in prices paid to farmers. In fact it had been one of the undersold benefits of the schemes that price volatility was minimised.

Initially, these higher milk prices had little effect on the FHSPs for Cheddar but during 1995 and the first part of 1996 prices rose by around 10% before falling back in 1997 and subsequently in the years to 2000 to below levels seen prior to the revocation of the Scheme. Whereas producer milk prices dropped by around 25%, between 1994 and 2000 the FHSP's of Cheddar dropped by less than 15%. The fall in FHSP's from peak in 1996 to the trough in 2000 was just 18% compared to the 33% drop in ex farm milk prices.

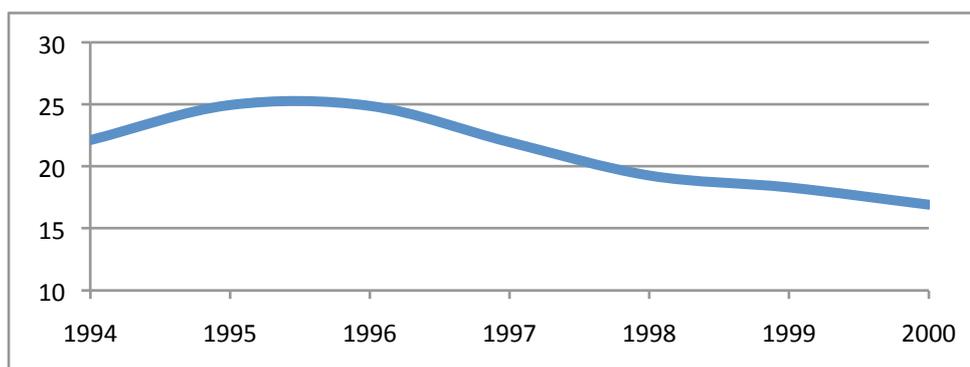


Figure 17.1. Average producer milk prices (ppl) in England and Wales (Source: MMB, 1994–96; NDC 1997–)

Retail prices of cheese followed a slightly different path by initially rising in the period 1995 to 1997 before falling back slightly through to 2000 ending some 12% higher than in 1994 (Table 17.1).

Table 17.1. Average first hand selling prices for Cheddar and average retail prices of cheese (Sources: UKPTF, 2001; NDC, 2001)

	<i>Cheddar FHSP (£/tonne)</i>	<i>Average retail cheese price (£/kg)</i>	<i>Ratio Retail:FHSP</i>
1994	2581	4.38	1.70
1995	2663	4.52	1.70
1996	2750	4.82	1.75
1997	2575	5.08	1.85
1998	2400	4.96	2.07
1999	2194	5.02	2.29
2000	2206	4.92	2.23
Change (%)	-15	+12	+31

It must be said that the two series are not entirely compatible as the average cheese price would include all types of cheese (except processed) and as such would be slightly inflated by the growing importance of more mature Cheddar in the mix and some more expensive speciality cheeses. However, the widening gap between wholesale or first-hand selling prices of dairy produce on the one hand and retail prices on the other was unmistakable as retailers managed to inflate their margins. Whereas the average retail price of cheese actually increased in that 6 year period by 12%, the FHSP of Cheddar, which still accounted for 60% of the market, fell by more than 14%. As can be seen from the table, as FHSPs fell after 1997, retail prices of cheese stabilised and the ratio between the two prices in kg terms moved from 1.70 pre-revocation to above 2.20 by 2000.

Supermarkets had promised that getting rid of the MMBs would be good for the consumer, particularly for liquid milk where prices had been maintained at artificially high levels. Certainly that was the case as far as liquid milk was concerned, with the average price dropping on an indexed basis from 100 in 1994 to 89.6 by 2000. Average retail milk prices also slumped due to the growth in sales of cheaper semi-skimmed milk and as the proportion of milk sold through the milkman continued to decline, doorstep-delivered milk being substantially more expensive than supermarket milk. The collapse of the doorstep-delivery system was accelerated by the ending of the MMBs, as it significantly widened the gap between the price of milk in supermarkets and the price on the doorstep. However, while retail prices of liquid milk fell, the same could not be said for butter and cheese. By 2000, average retail prices of butter were 15% higher and those of cheese 12% higher.

This disparity between changes in retail prices and ex-farm milk prices has continued to the present day. Supermarkets had been able to drive down margins through the dairy chain and

subsequently increased their margins significantly. Before the ending of the MMB Schemes, retailer gross margins on butter and cheese were typically in the range of 20 to 30%. Over time these have risen to between 30 and 50%. The ability of supermarkets to drive down the retail price of liquid milk meant that it became a key item in the various supermarket wars that erupted in the years ahead. The impact of this and wild fluctuations in world and EEC market prices for butter and cheese meant that ex-farm prices for milk went through periodic slumps. As we will see later this led to many of the supermarkets having to disconnect the retail price of milk from the price they paid for that milk so as to ensure an adequate all year round supply of milk for the supermarket shelves. On a micro level the supermarkets mimicked the policy pursued by UK Governments since the 1950s ensuring they always had sufficient (home produced) milk to meet the needs of their customers.

It probably took 15 years for the effects of the revocation of the Milk Marketing Schemes to be resolved. For many years there were irrational movements of milk, so raising total costs of distributing milk from farm to final buyer. First-hand buyers needed to ensure that they had enough milk for their customers but not too much as this would mean putting surplus milk onto the spot market where fluctuations were even greater than those seen in ex-farm milk prices. Milk Marque and subsequently the successor co-ops could manage that aspect of the market for their customers. However, those companies, including many cheesemakers, who opted to buy their milk direct from farms, rather than through the co-ops, had to develop new skills in managing their milk suppliers, including arranging haulage, managing milk quotas and developing good working relationships with their supplying farms plus getting to grips with the evolving spot market for milk.

Cheesemakers do not like big swings in milk prices especially when they are making mature cheeses that have to be kept for up to 18 months or two years. Of course the fluctuations in milk prices were not entirely due solely to the demise of the MMBs but were also due to large fluctuations in world market prices for butter, milk powder and cheese. What the MMBs had succeeded in doing was dampening those fluctuations through the price pooling system and through the manufacturing milk price negotiations with the dairy trade.

Rationalisation, mergers and acquisitions in the cheese world

The winding up of the MMBs was not the only significant factor in shaping the British cheese industry. Rationalisation was occurring as the industry adapted to a new era of strong competition from other EEC cheesemakers in the battle for the key supermarkets' business. Structural change involved numerous plant closures, mergers and takeovers with the big set to get bigger and more efficient and the small and medium sized plants seeking niches in which they could compete.

Dairy Crest was the largest cheesemaking business in the UK through its purchase of most of Unigate's butter and cheese creameries. It was looking to rationalise its production into fewer, larger plants particularly for its non-Cheddar making dairies. In 1992 Dairy Crest closed three of their specialist cheese dairies making traditional cheese, namely Sturminster Newton in Dorset (making Cheddar and other hard cheeses), Four Crosses Creamery on the Welsh border with Shropshire (making Cheshire) and the Wensleydale Creamery at Hawes in North Yorkshire (making Wensleydale cheese). Earlier rationalisations had already seen the closure of other small creameries making Wensleydale in the Dale at Coverham and Kirkby Malzeard. Production of the crumbly cheeses was transferred to the Dairy Crest creamery at Longridge near Preston in 1992, which continued to make Lancashire cheese and now the full range of English regional cheeses, so aiming to exploit some economies of scale. However, in October 1994 Dairy Crest announced the scheduled closure of Longridge the following year due, they claimed, to the rise in milk prices promised by the deregulation of the marketing schemes.

The closure of Hawes in 1992 provoked a public outcry as it meant that Wensleydale cheese would no longer be produced in its homeland. After a well publicised PR campaign by enthusiasts in Yorkshire, Dairy Crest was persuaded to sell the Hawes site to a consortium of ex-managers and a local businessman who re-started production of Wensleydale but on a much smaller scale, later that year.

The Dairy Crest Creamery at Aston, near Nantwich in Cheshire (the site of the ill-fated Lymeswold project (see page 105) was also sold in 1992 having laid dormant for a number of years.

Elsewhere in 1992, Grand Metropolitan Group offloaded their dairy businesses that operated under the Express name with the liquid milk branch (Express Dairies) being sold to Northern Dairies and the cheese making business (Express Foods) was sold to a management buy-out led by managers of Express Foods and Simon Oliver, Chairman of Mendip Foods. (This excluded the businesses Express had in Northern Ireland, which were sold separately). The new Company was simply called 'The Cheese Company'. This buy-out resulted in the closure of two cheesemaking plants, at Ruyton XI Towns in Shropshire in 1993 and later at Appleby in Westmorland with production being transferred to other plants in the company. They retained the butter/Cheddar/milk powder plant at North Tawton in Devon and the Lockerbie Cheddar Creamery in Scotland. In addition they owned the Reece's creamery in Malpas, Cheshire making the full range of regional cheeses and the Tuxford & Tebbutt Stilton Dairy in Melton Mowbray. Most of their cheese was pre-packed at a large unit in Oswestry in Shropshire. Three years later the managers sold the The Cheese Company to Glanbia, one of Ireland's largest dairy farmer co-operatives. Glanbia also bought and closed a small Mozzarella plant in Whitchurch (the former Goodwins dairy) and proceeded to invest in a former Dairy Crest butter/powder site at Llangefni in Anglesey to produce Mozzarella on a much larger scale. Glanbia had already purchased a former Express Foods site in Northern Ireland at Magheralin and in due course would invest heavily to produce Mozzarella there on a large scale.

In 1995 Dairy Crest bought out the shares of Simon Oliver and David Gehardt in Mendip Foods, who had started to develop the Cathedral City brand for mature Cheddar. Dairy Crest proceeded to invest heavily to make it the country's largest cheese brand in a relatively short period of time. Cheese for the brand was initially sourced from a number of the Dairy Crest Cheddar creameries but in due course the company sourced all cheese for the Cathedral City brand from their Davidstow Creamery in Cornwall.

In 1997 the Irish Dairy Board (IDB), already the largest exporter of Irish Cheddar to the UK, bought out the shares of David Hardisty in his North Downs Dairy operation. North Downs Dairy owned the Pilgrims Choice brand of Cheddar, which had been built up from the early 1980s to become the second biggest Cheddar brand in the UK. Its success was built on buying in and maturing Cheddar from selected farms in the West Country and through expert grading managed to build up a strong following. As happened with Cathedral City, the IDB gradually moved the brand away from a farmhouse style of cheese to become a vehicle to market creamery made cheese not just from selected larger farms and dairies in the UK but also from the Irish Republic.

The end of the decade saw the workings of the Milk Marque co-operative, the successor body to the E&W MMB, come under the scrutiny of the Competition Commission in 1999. In 1999/2000, Milk Marque controlled roughly half of all milk deliveries to dairies in E&W. It had itself formed a subsidiary company 'Milk Marque Developments' whose aim was to invest in milk processing in order to exert some control over the milk market. It bought two medium sized Cheddar cheesemaking businesses, North Bradon Farms in Somerset and Aeron Valley Cheese in West Wales. Milk Marque was accused of abusing its dominant position in the supply of raw milk and furthermore its intended expansion into the processing of dairy products would, in the view of the Competition Authorities, operate against the public interest. It was threatened by an enforced break up unless they did it voluntarily. Accordingly, it split itself into three smaller regional co-operatives, First Milk (operating primarily in Scotland, North Wales and the North of England), Milk Link in the South of England and Xenith primarily in the Midlands and South Wales. From 1st April 2000 they would operate as 'mini Milk Marques' buying milk from their members and selling on to processors in competition with each other. All three of the new supply co-ops had visions of entering milk processing in order to gain some of the margin further up the supply chain. But apart from this desire to get into milk processing all of the new co-operatives wanted to get bigger and thus competed to recruit new members. That was good news for cheesemakers who now had an increased number of milk wholesalers from whom to purchase, as well as having the opportunity to buy directly from local farms.

The 1990s in figures

The 1990s was a decade of significant change for the dairy industry and the cheese sector with the winding up of the MMBs, the rationalisation of the cheese production industry, the increasing influence of the multiple retail grocers, the changes in consumer attitudes and demands and an increasingly competitive market with imports playing an ever more important role. We can now look at some of the basic statistics to see what happened as well as looking at the way the structure of the market changed between 1990 and 2000.

Cheese Production

Cheese production oscillated during the 1990s, depending very much on the state of the Cheddar market and the degree of competition coming from imports. Total Cheddar production was actually lower in 2000 than it was in 1990 (Table 17.2) although total production grew during the decade by 8.6%, helped by the rise in Mozzarella production to 40,000 tonnes to become the second most made and second most consumed cheese in the UK.

Table 17.2. UK cheese production (k tonnes) excluding farmhouse cheese (Sources: DEFRA/MAFF, various issues)

	1990	1995	2000	Change (%)
Cheddar	214	196	196	-8
Other Hard	28	27	22	-21
Crumbly	27	20	17	-37
Blue Vein	9	8	10	11
Mozzarella	na	43	40	na
Other	34	57	46	35
Total	313	362	340	9

Production of the crumbly cheeses - Caerphilly, Cheshire, Lancashire and Wensleydale - fell by 37% during the decade reflecting changing tastes and a switch in purchasing habits to cheese with more flavour, particularly stronger tasting Cheddar. Crumbly cheeses were seen as being less convenient and generally blander owing to their short maturation. Production of the other hard cheeses, primarily Double Gloucester and Red Leicester, also declined by 21%. This reflected the closure of several larger dairies making hard cheese. Production of other cheeses grew by more than a third, reflecting the growth of speciality cheeses like Brie and Camembert, Cornish Yarg and sheep and goats' milk cheeses.

Imports of Cheese

The decade was most notable for the growth in imports of cheese from 202,00 tonnes in 1990 to 260,000 tonnes by 2000 (Figure 17.2).

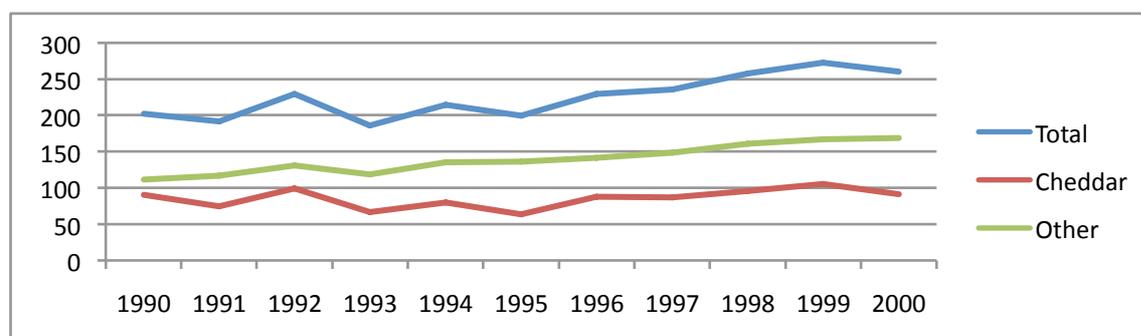


Figure 17.2. UK cheese imports (k tonnes), 1990 to 2000 (Sources: MMB, 1990–96; NDC, 1997–)

This was hardly a gradual process as Cheddar imports fluctuated between 64,000 tonnes in 1995 and 105,000 tonnes in 1999 and as a result total imports moved up and down during the decade in line with Cheddar imports.

In contrast, imports of all other cheeses grew pretty consistently through the decade rising from 111,500 tonnes in 1990 to 169,100 tonnes in 2000. Whereas imports of Edam and blue cheese imports fell, those of processed, Brie/Camembert, fresh and other all grew. The biggest growth came in fresh cheese, primarily *fromage frais*, domestic production of which remained very limited in the UK.

Table 17.3. UK cheese imports (k tonnes) by main category 1990 to 2000 (Sources: MMB, 1990–96; NDC, 1997–2001)

	<i>Total</i>	<i>Cheddar</i>	<i>Processed</i>	<i>Blue</i>	<i>Edam</i>	<i>Brie/Cam</i>	<i>Fresh</i>	<i>Grated</i>	<i>Other</i>
1990	202	90.5	29.5	5.6	na	na	na	na	76.4
1991	191.2	74.8	29.1	5.7	13.4	na	24.3	6.2	37.9
1992	229.5	98.8	33.3	5.7	13.8	na	39.8	6.6	31.5
1993	186	67.1	29.3	5	8.7	na	45.2	6.1	24.7
1994	214.8	79.9	39.5	5.2	10.3	5.6	45.1	6.4	23
1995	199.5	63.6	29.9	4	10.4	5.4	55.9	6	24.4
1996	229.6	88.1	30.5	4.4	10.4	6.1	57.6	5.8	26.8
1997	235.5	86.9	31.7	4	9.2	8.3	54.2	6.2	35.1
1998	257.2	96	32.9	3.5	7.9	8.2	57.7	6.7	44.2
1999	272.3	105	33.2	4.2	8.6	9	50.5	7.1	54.6
2000	260.1	91	39.3	4.4	7.9	8	52	7.1	50.1
Change (%)	+29	+0.8	+33	+22	-41	na	+114	+15	+32

Note: Percentage changes for those categories not covered in 1990 have been based on 1991 data

Most of the growth in imports occurred in the second half of the decade reflecting a general improvement in the economy and some population growth. This decade saw an acceleration in the rate of acceptance of imported non-Cheddar cheeses, sparked off by the wave of celebrity chefs promoting dishes from all over the world that required imported ingredients. As this happened so the share of market taken by Cheddar started to fall. Until now, the size of the market was determined by what happened to Cheddar off-take. That was now not the case and in the years ahead we would see the share of the market taken by other cheeses continue to grow, albeit with Cheddar still dominating the market with a share of 50% or more.

Exports of cheese

At the same time, UK cheesemakers were now tending to look for markets further afield. During the decade total UK cheese exports grew from 40,200 tonnes in 1990 to 56,700 tonnes in 2000 with strong growth seen in exports of fresh cheese and processed cheese, illustrated in Figure 17.3.

Exports of non-Cheddar cheese grew from about 22,000 tonnes in 1990 to 38,000 tonnes by 2000. However, these figures are potentially misleading. Many of the country's cheesemakers were happy to take more milk than they had immediate markets for in the hope of actually pinching market share but if not, then maintaining throughput and reducing average production costs. Surplus cheese could be held to maturity or sold as young curd into the processing sector in Europe. Such cheese could end up being categorised in Customs and Excise data as either Cheddar or fresh cheese, so explaining in part the growth of fresh cheese from 1992 onwards.

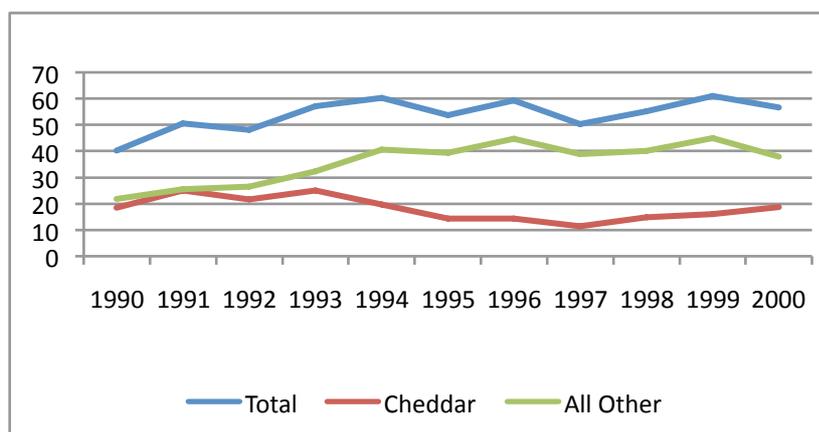


Figure 17.3. UK cheese exports (k tonnes) (Sources: MMB, 1990–96; NDC, 1997–2001)

Domestic disappearance of cheese

The total market for cheese was estimated to have grown by 19% or by 88,000 tonnes during the decade. With UK production growth slower than that of imports, and with exports growing, the UK producers' share of the market fell. One measure of market share is to subtract exports from domestic production and then take that figure as a proportion of total off-take (this is a crude measure as it does not take account of any changes in stocks of cheese but since the Government decided to drop its own stock survey in the 1990s no such data were available). In 1990 the UK's share of the market was 58.6%; by the year 2000 this had dropped to just below 50% (Table 17.4). Data for intervening years are given in Appendix G.

Table 17.4. Estimated off-take of cheese (k tonnes) between 1990 and 2000 (Sources: MMB 1991; NDC 2001)

	1990	2000
Production	313.2	332.0
Imports	202.0	260.1
Exports	40.2	56.7
Stock Change	9.4	-18
Domestic disappearance	465.6	553.4
UK share (%)*	58.6	49.7
Population (M)	57.68	59.51
Off-take (kg <i>p.c.</i>)	8.01	9.3

Note: * UK production less exports expressed as a percentage of domestic disappearance

The table includes an estimate of the change in stocks between the two years and derives an estimate of per head consumption of cheese, which shows a 15% increase during the decade to 9.3 kgs - a lower percentage change than total off-take reflecting a 3% growth in population.

Stiff competition in the Cheddar market from the Irish Republic restricted the extent to which British producers could increase their share and although Cheddar remained the single biggest cheese consumed in the UK, it was in the non-Cheddar sector that British producers lagged. Although total demand for the crumbly hard cheeses continued to decline during the decade, Wensleydale was the exception, helped by the emergence of the Wallace and Grommet characters for whom Wensleydale was a firm favourite. There were a number of successes though in the non-Cheddar sector: UK manufacture of Brie and Camembert increased with the Lubborn Creamery successfully taking on the French producers. Mozzarella was produced in Wales, at Dansco's Newcastle Emlyn plant in the South and Glanbia Cheese's plants in Anglesey in the North plus their plant on Northern Ireland. Output of Mozzarella grew to more than 40,000 tonnes a year. Some of the smaller makers also enjoyed growth,

notably Lynher Dairies with their Cornish Yarg and Lincolnshire Poacher. The Stilton Cheese makers were also managing to stave off increasing competition from a growing range of home-produced and imported blue cheeses having invested in a number of small but successful advertising and marketing campaigns in England during the 1990s. Stilton continued to dominate the blue cheese sector with a market share in excess of 50% of the 13,000 tonnes blue cheese market. They also saw the opportunities of a co-ordinated campaign involving all of the makers and their respective export agents and export departments in jointly funded marketing campaigns in the USA, helped by grant aid from MAFF under the Regional Development Scheme. Total exports of Stilton by this time were close to 1,000 tonnes a year. Unperturbed by the dominance of Stilton in the UK market many artisan cheesemakers added blue cheese to their repertoire in what some might have seen as masochistic behaviour. It's hard enough to make good hard cheeses but blue cheeses are probably the most difficult to make in a consistent manner. By the turn of the century there were some 70 different named blue cheeses being produced in the UK.

References and further reading

DEFRA (various issues) *Statistics on milk utilisation and dairy product manufacture*. Published on a monthly basis plus other statistical reports .

MAFF (1994 onwards) *Statistics on milk utilisation and cheese production*.

MMB (to 1996) *UK Dairy Facts & Figures*. Milk Marketing Board, Thames Ditton.

NDC (1997 on) *UK Dairy Facts & Figures*. The National Dairy Council, London

Note: Over this decade there was a shift in data production from MMB to the MDC and MAFF, then to DEFRA.

18. Speciality cheesemakers and the quests for quality and profit

The rise of the artisan cheese maker

During the mid 1980s, following the introduction of milk quotas, small on-farm milk processing businesses started to be set up as some farms sought to add value to their milk by making and selling their own produce. Milk producers were allowed to withhold milk from sale to the MMBs and in some cases could opt to withhold on some days of the week and not on others, though always with agreement from the MMB. This development was not confined to cheesemaking as there also emerged entrepreneurial on-farm ice cream and yogurt makers looking to service local markets. The MMB was concerned that small milk producers might make rash decisions that could put their livelihoods at risk or would offer for sale products that were of poor hygiene or quality. For that reason a small team of MMB advisors was made available to any producer wanting to add value to their own milk. The advisers could guide them through the start-up phase, ensuring that proper business plans were prepared and that as far as possible best practice was applied in terms of production skills and packaging. Some years earlier Randolph Hodgson, who wanted to specialise in the sale of British artisan cheese, had set up a retail outlet in Covent Garden. He had worked closely with some of the farmhouse cheesemakers who had been selling through the MMB farmhouse cheesemakers' schemes such as Montgomery and Keens (Cheddar), Appleby (Cheshire). As he cast his net wider he decided that these small and emerging cheesemakers needed to have a voice and with other interested parties set up the Specialist Cheesemakers' Association (SCA). The MMB agreed to provide a secretariat for the SCA, hoping that it would create guidelines for these emerging makers on hygienic cheese production standards for what in many cases were raw milk cheese. The MMB were rightly concerned that any cheese-related food contamination incidents amongst these emerging makers would have damaging consequences for the reputation of all British cheese. The SCA would grow over time and become a strong voice for the small cheesemakers in discussions with Government agencies, particularly in the area of codes of best practice. It became a champion for raw milk cheese in particular and helped to raise and maintain standards throughout the UK. The MMB's support was rarely publicly acknowledged but there is no doubt that the movement benefited greatly from the Board's support. The politics of the dairy industry meant that the support for small cheese producers was frowned upon by the major cheesemaking companies, who saw this as giving small producers an unfair advantage.

Randolph Hodgson remained Chairman of the SCA for many years and through the Neals Yard business became a major seller and supporter of raw milk cheeses in the UK for which he was to be recognised in later years in the Queens Honours list.

One of the initiatives introduced by the MMB in its role of providing the Secretariat for the SCA was to produce a directory of known small-scale cheesemaking businesses in England & Wales. The first of these was published in September 1986. This listed makers by county and gave details of the cheeses made and the approximate quantities. The directory was widely circulated to retailers, wholesalers and consumers. It listed 92 bovine milk cheese producers, 61 caprine milk cheese producers and 27 ovine milk cheese producers, so making a total of 180 small-scale cheese makers (although there were a few who made cheese from more than one species). Of these 92 bovine milk cheese producers, 42 were involved with the MMBs Farmhouse Cheese schemes for Cheddar, Cheshire and Lancashire. They were generally longer established and much bigger operators than those who had started in the 1980s. Collectively these 'other' makers, who had been withholding their milk from the MMB (and later Milk Marque) or using caprine or ovine milk, only produced a tiny proportion of the cheese made within England & Wales but the cheeses they made tended to be characterful and different from the rather limited range of cheeses made by the larger dairies that were fixated on Cheddar and the main regional or so called territorial cheeses. Most of the farm-made cheese used raw milk and included fresh, soft, mould-ripened and blue veined cheeses, many of which people from outside their immediate geographical area would be unaware of. These other makers

accounted for 50 of the bovine milk producers, all 61 of the caprine cheesemakers and the 27 ovine milk producers, making 138 in total. This however, was a fast changing group of makers with new entrants and leavers every year, but through the rest of the 1980s and into the 1990s their numbers gradually increased, more so with the winding up of the MMBs in 1994.

After 1994, a new group of cheesemakers appeared, who were neither farmers nor cheesemakers but what some people may have called hobbyists, people who had always yearned to make cheese. It was now easier for these people to set up a small production unit and make a deal with a local farmer to buy whatever milk was needed. A number of other farmers also decided in this deregulated market, where prices had so spectacularly collapsed, that the only way forward for them was add value to their own milk. Many succeeded, helped by another development - the mushrooming of farmer's markets.

These started on a small scale in the late 1980s and early 1990s. The idea was brought from America and today there are around 750 such markets operating throughout the UK. They provided a ready outlet for farmers wanting to sell their produce locally and enabled them to build up a strong relationship with a regular clientele. Coupled with this there was a desire by some consumers to buy local and who were prepared to pay a bit more for locally produced food that was different to that available in the supermarkets. Consumers were becoming more adventurous; they were travelling more and were prepared to experiment; increasingly they had the money to be able to trade up to more expensive foods be they locally produced, organic or special in some other way. Farm shops too were becoming better organised and more numerous, plus in the catering world locally produced food was being seen as an essential part of the tourist industry. It was later termed "food tourism".

Milking cows, then making cheese from the milk and then maturing, packaging and selling it is a time consuming business; but buying in your milk from a neighbouring farm and having a ready local market reduced that workload considerably. By 2012 there were an estimated 170 cheesemaking businesses producing less than 100 tonnes of cheese a year and collectively these produced around 3,000 tonnes of cheese a year. By sheer size they would be categorised as artisanal makers of specialist cheese, although there is no official definition, and they accounted for under 1% of total cheese production in the UK. Although still insignificant in volume terms, these artisan makers added a huge variety to the range of cheeses made in the UK and have continued to grow. There are now Cheese Shows exclusively for artisan cheese and special classes for such cheese at the many cheese competitions held throughout the UK each year.

If the winding up of the MMB's stimulated the formation and growth of very small cheesemakers using raw milk, then it also saw the demise of some of the larger farmhouse makers who operated as processors or on farm makers under the MM Schemes. The crash in milk prices in the years following deregulation and the ensuing drop in first hand prices of cheese led a number of these makers to decide that they were of the wrong size to succeed.

The larger creameries were by now producing much more consistent quality cheese of all types under the watchful eye of the supermarkets who increasingly were developing their own recipes for own brand products. The concentration of production in larger units, particularly for Cheddar, and the growing price differential between West Country farmhouse Cheddar on the one hand and creamery Cheddar on the other, meant that farmhouse sales were under pressure. The farmhouse Cheddar makers therefore were faced with remaining small and niche by producing a traditional cloth bound Cheddar, or growing to a size that might enable them to still call themselves farmhouse (by virtue of the fact that the cheese was made on the farm) but reduce their average costs to be more competitive with factory-made cheese, be it of UK or imported origin. Thus the survivors split into two. The traditional makers, like Keen, Gould, Quicke, Montgomery, Ford Farm, on the one hand and the expanding farm-based producers like Alvis, Parkham Farms, Barbers and Wyke on the other. Those in between found life to be too difficult and eventually either diversified into other things or just returned to being a milk-producing farm.

A similar evolution was apparent in the North of England where gradually, as the sales of Cheshire and Lancashire cheese declined, there was a split between those smaller makers who continued to produce very traditional Cheshire cheese in cylinders, cloth bound and matured for up to a year, on the one hand and the block Cheshire makers on the other, selling the cheese young but also producing a wide range of crumbly and hard territorial cheeses. In the first group were makers like Bourne, Appleby, Knowlton and Windsor and in the latter Joseph Heler and Belton Farm.

The Lancashire makers by contrast were less affected by these changes with the traditional makers continuing to make on a small scale for the specialist premium market, like Shorrocks, Kirkham and Leagram, whilst the larger Lancashire makers, like Butlers, DewLay and Singletons, continued to make their own versions of traditional Lancashire cheese but also diversified into other cheeses and other markets. The difference between the Cheshire makers and the Lancashire makers rested on the fact that whereas demand for Cheshire cheese had at one time been national, demand for Lancashire had been and remained much more concentrated in the North of England. Some retailers of Lancashire cheese in the North West continue to stock not just the range of different types of Lancashire – crumbly, creamy and tasty but also cheese from up to 9 different producers.

In contrast, even in its heartland, Cheshire consumers had long ago switched to Cheddar whilst in the rest of the country the availability of Cheshire decreased. As demand fell so its rate of sale declined leading many retailers to replace it with faster selling, often imported, cheeses. Attempts were made in the early 2000s to revive interest in Cheshire cheese as the three major producers, Belton, Heler and Reeces (then part of The Cheese Company), ran a joint PR campaign for Cheshire cheese with the support of the Milk Development Council, positioning Cheshire as a recipe cheese capable of substituting Feta cheese particularly in salad dishes. The benefit of Cheshire in this case was that it contained between a half and third less salt than Feta and so fitted in well with the Food Standards Agency (FSA) campaign on reducing salt intake. This slowed but did not stop the unmistakable trend that had been apparent for many years, namely the decline in demand for crumbly British cheeses. Hence sales of crumbly Lancashire, young Caerphilly and Cheshire were all falling whilst the firmer versions of Lancashire, creamy and tasty, were just about holding their own. The exception was Wensleydale where the support of Arden Animation's films featuring Wallace and Gromit had a positive impact on demand. Underpinning these changes it seems clear that the crumbly cheeses were victims of a more important trend that would transform the Cheddar market and create opportunities for other British cheeses - the consumer's quest for more flavour in their cheese.

The quest for flavour

The 1990s saw the gradual increase in market share being taken by the more mature Cheddars. This was a consumer-led trend stoked by the desire of both the major UK cheese makers and the supermarkets to de-commoditise the Cheddar sector. This was not an altruistic gesture but one aimed at improving the profitability of Cheddar cheese sales.

Maturing Cheddar is a skilled job developed over many years and requiring an experienced grading team who can decide at various ages, perhaps at 3, 6 and 9 months of age, whether that particular batch of cheese is going to develop well with the desired flavour profile and texture. For many years the Mild Cheddar market had been highly price sensitive with imports coming from many EEC countries, often at prices that reflected the continuing surpluses of milk throughout the EU. Simon Oliver was the first to see the opportunities for strong brands and it was his company's development of the Cathedral City brand at Mendip Foods that led the way. The IDB had developed a strong position in the market packing supermarket own label products and developing its own brand, Kerrygold, which was originally a successful butter brand throughout the world. Their position was later to be strengthened with the purchase of the North Downs Dairy Company (NDD) and their brand 'Pilgrims Choice', which had used exclusively for farmhouse Cheddar since the early 1980s. Pilgrims Choice was one of the secondary brands operating in the 1990s and had invested heavily in both consumer advertising and trade promotions to build the brand. The IDB saw the brand as being a carrier for Irish cheese and in due course most of the sales of Pilgrims Choice Cheddar would be sourced from the Irish Republic.

However, turning a desire for higher margins into reality depended on there being sufficient consumer interest. It was the growing consumer preference for cheese with a bit more flavour that was a defining trend during the 1990s and beyond. This was good news for retailers and manufacturers as the mature (and later, extra mature and vintage) variants of Cheddar were less affected by competition from suppliers in the rest of the EEC. Consumers were prepared to pay more for cheese that had been matured for 3 or more extra months. Premium pricing meant increased margins in absolute, if not percentage, terms and enabled the producers to run attractive-looking promotional schemes to generate

trial and repeat purchase. Dairy Crest led the way in this regard: they repositioned the Cathedral City brand as an everyday mellow but mature Cheddar. Large advertising budgets accompanied its re-launch and coupled with a strong price promotion programme discounting off a seemingly high retail price. Cathedral City quickly became Britain's leading brand of cheese. Pilgrims Choice embarked on a similar strategy

McLelland's, a well established Scottish cheese wholesaler who had previously bought the former Sorbie Cheese dairy in Stranraer, later developed the 'Seriously Strong' brand, entered the national market and helped to create a lively segment of the Cheddar market with plenty of consumer promotions and advertising in main stream media. The development of these brands moved the Mature Cheddar segment of the market over a period of 15 years from a predominantly own label market to one with brands being dominant.

Promoting cheese in the 1990s and beyond

A previous section dealt with the way the industry came together to promote cheese in a generic way from the 1960s onwards. The budgets for the National Dairy Council campaigns on cheese were cut back towards the end of the 1980s but the MMBs were still actively involved in promoting cheese through retail promotions and in providing budgets to the SCA and for the promotion of farmhouse cheese. In the lead up to deregulation, the MMBs had cut back on all of their generic advertising and promotional campaigns. In 1990/91 the E&W MMB was budgeting to spend well over £20 million on its own sales and marketing campaigns, including a substantial £7.3 million going into organisations such as the National Dairy Council (NDC) and the Butter Council. Contributions to the NDC were matched by the milk processors and so gave the NDC an impressive £14+ million fund not only for the generic campaigns on liquid milk and health education but also for limited work on cheese and cream. By 1994 these campaigns were being wound down and by the end of the 1990s, the Dairy Council budget had been reduced to under £1 million a year.

In the early 1990s branded advertising on cheese was dominated by Kraft with its various processed cheese products (Dairylea, Kraft Cheese Slices and Philadelphia, its cream cheese). From 1993 onwards there was virtually no generic spending on cheese and the chart below on advertising expenditure on cheese was mostly for branded products. The boost in expenditure from 1996/97 was due to the start of heavyweight advertising for Cathedral City by Dairy Crest and to a lesser extent by the challenger brands of Pilgrims Choice and Seriously Strong. Total expenditures are illustrated in Figure 18.1.

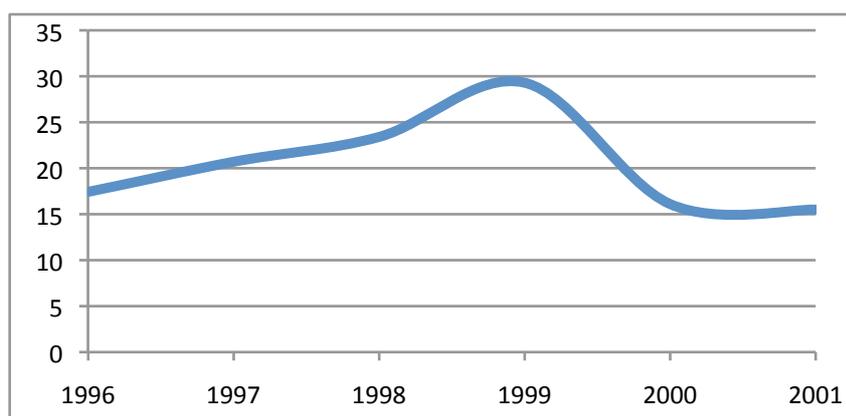


Figure 18.1. Generic and branded advertising expenditure (£M) on cheese (Source: British Cheese Board - internal data derived from various trade sources)

The British Cheese Board

It was realised that with the ending of the ending of MMB funding for generic advertising and promotion and with the budgets cut back to the National Dairy Council the cheese industry had no voice. Of course the Dairy Industry Federation (DIF) had continued following the demise of the MMBs and spoke on behalf of the UK dairy processors to Government and Brussels, though with liquid milk still the dominant user of milk and hence the major funder of the DIF, cheesemakers were always going to be a lower priority. Although Unigate, Dairy Crest and The Cheese Company, the three largest cheesemaking businesses in the UK, were members of the DIF, the overall representation of the cheese industry within the DIF was far from dominant. Many of the former farmhouse makers still viewed the larger processors with suspicion and were reluctant to join the DIF. So it was that Simon Oliver proposed the setting up of a separate body that could be responsible for representing the whole of the cheese industry and act both as a promoter of cheese and a lobbyist to make sure that the specific voice of the cheesemakers was heard. He, along with 30 or so other cheesemaking businesses, established the UK Cheesemakers' Association on 9th May 1995. This was funded by a small voluntary levy based on the quantity of cheese that each member produced/handled. Initially the organisation was stationed within the DIF offices. Little happened within the first year and so it was that the author was invited to take over as Secretary of the Association and take the organisation away from the DIF offices so that it became a stand-alone body. Consumer research was commissioned to find out what British consumers thought about British cheese and cheese in general: this was to help develop a PR campaign promoting the range of British cheese. Included in the research was a question about what consumers thought would be a good name for an organisation representing and promoting British Cheese. They certainly didn't like the crusty, formal sounding UK Cheesemakers' Association and out of a choice of other options agreed that they liked the name 'The British Cheese Board' (BCB); it was a nice play on words and as a Board it sounded authoritative. The name stuck and was duly registered as a company, though not without some difficulty, as two of the words were regarded as "sensitive" – "British" and "Board". The use of the word British meant that the members did indeed have to be exclusively British or based in Britain; and if you were a Board then you had to represent a significant proportion of the industry to which it was attached. The membership accounted for more than half the cheese made in the UK and this was endorsed by MAFF and the UKPTF.

The British Cheese Board Ltd was formally set up on 8th April 1997 with the objectives of educating the great British public about cheese in general and British cheese in particular as well as acting as a trade association in meeting the needs of its members. The budgets were limited as the levy was initially set at £1 per tonne of cheese produced. This was sufficient to enable the setting up of a press office and the creation of an information based web site that aimed to provide consumers with information about cheese, the cheeses made by its members and to answer any questions the media, trade or consumers might pose. In a short-while the BCB came to be recognised as an authoritative source of information and an enthusiastic spokesperson for the industry. It subsequently gained some much-needed support from the Milk Development Council (MDC) who for several years match-funded the BCB's subscriptions from cheesemakers. This enabled the work of the BCB to be expanded although still operating with budgets of less than £400,000 a year. It should also be mentioned that the MDC were keen supporters of other parts of the cheese industry providing matched funding for West Country Farmhouse Cheddar makers, the Cheshire makers, the Stilton Cheese Maker's Association, the Lancashire Cheese Federation and the four major manufacturers of blended cheese all of whom had initiated PR campaigns for their particular cheeses. In total the MDC was investing up to £400,000 a year in various cheese projects which helped to raise the national profile of British cheese in the national and regional media. Unfortunately this support ended 2007/ 2008 when the MDC decided that their focus should be on activities up to the farm gate only - in spite of many farmers urging the Council to continue its generic marketing support for milk and dairy products.

Protected food names

The system of protected food names was well established in France, having been introduced in the 1920s with Roquefort the first product to be awarded what was to become an *Appellation d'Origine Controllee* (AOC). This gave such products protection from counterfeit or lookalike products trading under that name. However, the system was only enforceable in France. To protect the name in other countries required the registration of a trade mark of some form in important overseas markets, which is an expensive and time consuming task. The French government supported by governments and producers in Italy, Spain and Portugal, all of whom had their own protection schemes, persuaded the European Commission in the early 1990s to introduce a pan-EEC Protected Food Name (PFN) scheme. Under the PFN scheme, member states were invited to apply for protection of regional speciality foods that were unique to a specific geographical area by virtue of history, local knowledge or as the French say *Terroire* (flora, fauna, soil type and/or climate) that gave the product its unique characteristics. The basic regulation was published in 1993 and applicants were invited to apply through their national governments for one of three designations:

Protected Designation of Origin (PDO) – produced in a defined area from local raw materials to a defined recipe and historical link with area

Protected Geographical Indication (PGI) – produced in a defined area with specific raw materials, not necessarily produced in the area but with a historical link to the area

Traditional Speciality Guaranteed (TSG) – a traditional recipe and can be produced anywhere

This was a long drawn out procedure as all applications had first to clear a national consultation in the country of origin and then be submitted to the EEC Commission in Brussels for their amendment and approval: after that the application was subject to a pan-EEC consultation. Once approved, the protected name could only be used on products made to the specified recipe. Effectively the product name was granted the same status as a registered trade mark across all current and future EEC member states and required each member state to put in place legislation that enabled them to prosecute violations of use.

It was a demanding application procedure and required proof of a link to the geographical area. The initial applications from the UK went through the so called "fast-track procedure" and resulted in nine British cheeses being granted PDO status in 1996:

UK protected name cheeses

Eight cheeses were initially given protection. These were:

- Bonchester cheese (PDO)
- Buxton Blue Cheese (PDO)
- Dovedale Cheese (PDO)
- Single Gloucester (PDO)
- Swaledale Cow's Milk Cheese (PDO)
- Swaledale Ewe's milk cheese (PDO)
- Blue Stilton (PDO)
- White Stilton (PDO)
- West Country Farmhouse Cheddar (PDO)

In later years a further 6 cheeses were added to the list (see Appendix I for further details).

One of the requirements of the Scheme was that all products should carry the respective logo and designation enabling consumers to identify these products at point of sale.

For the consumer it was a guarantee of genuineness and that the product had been produced in its designated area and to the traditional recipe using local (in case of PDOs) ingredients. The scheme has had limited success in the UK not because of a lack of eligible products but because of low consumer awareness and to some extent a lack of consumer interest. Ideally, of course, it would have been better if all of the main territorial cheeses had only been made in their county or town of origin. But many of them had been produced all over the UK and, as such, the cheese names had become generic rather than unique to their historical origin. Thus, Cheddar has been produced all over the UK, Cheshire had been produced in Lancashire, Wensleydale, Shropshire and probably in Somerset. Most Caerphilly was produced in Somerset, Cheshire and Shropshire; most Wensleydale was produced in Cheshire and Shropshire. Very little Leicester cheese was produced in the County and Double Gloucester was produced, like Leicester, by many of the large creameries across the UK. Therefore the names of our most popular cheeses became ineligible for a PDO or PGI although they could have applied for a TSG; this was seen as impractical because so many different recipes for the same cheese had evolved. This is why the UK regional cheeses that were registered had pre-fixes describing a specific geographical area like West Country, Yorkshire or Beacon Fell. The only cheese that could proudly claim that its name was unique to a defined area was Stilton, which had been produced mainly, but not exclusively, since the 18th century in Leicestershire, Nottingham and Derbyshire. Cheeses produced to a different recipe were produced in Rutland, Huntingdon and Cambridge in the 18th or 19th century and called Stilton but produced with a variety of recipes. Not since the early 18th century had a cheese called Stilton actually been made in the village of Stilton but to a very different recipe to that which brought the cheese and the village a national reputation in subsequent years. It was the village's function as a trading post that enabled its reputation spread up and down the Great North Road.

It could be argued that Stilton didn't need protection under the EEC Scheme as it had already secured a UK Certification Trade Mark (CTM) for Stilton cheese (Blue and White) in the late 1960s. Subsequently, CTMs were achieved in most of the main export markets for Blue Stilton in the USA, Canada, Australia, New Zealand and the main EEC member states. What the PDO did for Stilton was to provide protection in all existing and future EEC/EU member states and should have provided the basis in law for prosecution of miscreants wrongly using the name Stilton on their products. Unfortunately the UK Government never got around to implementing enabling legislation in the UK and any prosecutions had to go through trading standards offices under general food labelling regulations. Trading Standards proved reluctant to prosecute as there was little quantitative evidence of financial harm. As the holder of the CTM, the Stilton Cheese Makers' Association had a duty of care to ensure that the name was used correctly and over the years legal action had been taken or threatened against producers (or others), not just in the UK but also in the USA, who were falsely labelling other cheeses not made by any of the registered Stilton dairies as Stilton.

Of course there was, and indeed still is, a core of food buyers for whom authenticity and origin are important factors. For the cheesemakers the PDO or PGI badge was an added extra on packaging on products that were generally reasonably well known, particularly for West Country Farmhouse Cheddar, Beacon Fell Traditional Lancashire and Yorkshire Wensleydale. For these cheeses it was more of a question of distinguishing themselves from cheeses of the same name that were not produced in the traditional way in its home area. For the lesser known cheeses such as Swaledale and Dorset Blue the logo simply reinforced their obvious origin. It was unfortunate that the EEC Commission never actively promoted the scheme in a consistent manner to consumers and retailers across the EU, as had initially been promised when the scheme was launched.

This was a potentially important development for the UK cheese industry and one that is still waiting to be fully exploited. What will happen when the UK exits the EU in 2019 is still totally unclear.

Consumer attitudes to cheese at the turn of the century

The BCB undertook a series of research projects looking at consumer attitudes to cheese in the UK. The baseline study was completed in 1999 and was designed to research in both qualitative and quantitative terms consumer attitudes to British cheese and how cheese was used in the home. More

details are given in Appendix F but there follows a summary of the main findings of this and other research done by the BCB in the early part of the next century.

1. Cheese was seen as a staple food with nearly all households buying some cheese in a year. It was seen as versatile. There was a low awareness of the range of cheeses available and typically respondents could spontaneously name just 5 cheeses. Most households bought Cheddar and this was used for every purpose, in sandwiches, in sauces, with pasta and with crackers. For special occasions other varieties of cheese would be considered, especially imported cheeses. However, one group who were christened 'cheese lovers' and accounted for about one fifth of the sample had a wide repertoire of cheeses and showed a greater knowledge of cheese in general and consumed well above average volumes.
2. Respondents saw cheese as a natural product and especially important for children. There was a reasonable awareness that cheese was a source of calcium but respondents struggled to identify the other nutrients in cheese. However, this halo of goodness was being eroded by concerns about its fat content. This was not just about its calorific content but also a result of the changing attitude of health professionals who were advising consumers to cut their consumption of products with a high saturated fat content. When asked about the actual fat content of cheese many consumers had no idea and others seriously over-estimated the true fat content. Typically, amongst those who gave a guess, cheese was assumed to have more than 50% fat. As a result there was strong agreement with the statement "*I try not to eat too much cheese because of its fat content*". Around two thirds of respondents agreed that "*Cheese is one of my favourite foods*". This is an amazing strength for any food to have and suggests that despite concerns about fat cheese had a loyal following.
3. In subsequent pieces of research respondents were asked whether they regarded cheese as a healthy product. Typically around 60% agreed with this. Asked the same question about milk more than 90% agreed. This is perplexing but indicated the strength of the anti-fat environment in the 1990s and the early 2000s.

The conclusions drawn from the research were that more needed to be done to educate the consumer about the range of cheeses available and their particular uses, the nutrients in cheese and the naturalness of the cheese making process, which had remained virtually unchanged for centuries.

These challenges remain broadly the same today.

References and further reading

BCB Internal papers and reports not previously circulated to non-members.

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Wilson B. *Dairy Industry Newsletter*. www.dairyindustrynewsletter.co.uk [Accessed October 2018]

19. Market instability in the 21st century

The break-up of Milk Marque in 2000 created further uncertainty in the milk supply chain, which had started with the deregulation of the MMBs in 1994. It coincided with a collapse in milk prices driven by a whole host of factors, some UK-based; most was due to the reform of the CAP and the beginning of what was to become a defining factor in world dairy markets, market volatility. In turn this caused sharp fluctuations in prices paid to farmers and, with a time lag, big swings in the level of milk production in the UK, illustrated in Figure 19.1.

Post deregulation ex-farm milk prices had risen to the giddy heights of almost 27 ppl in August 1996 and averaged 25 ppl in that year. Thereafter they declined to 16.93 ppl in 2000 and stayed at between 18 and 19 ppl until 2006.

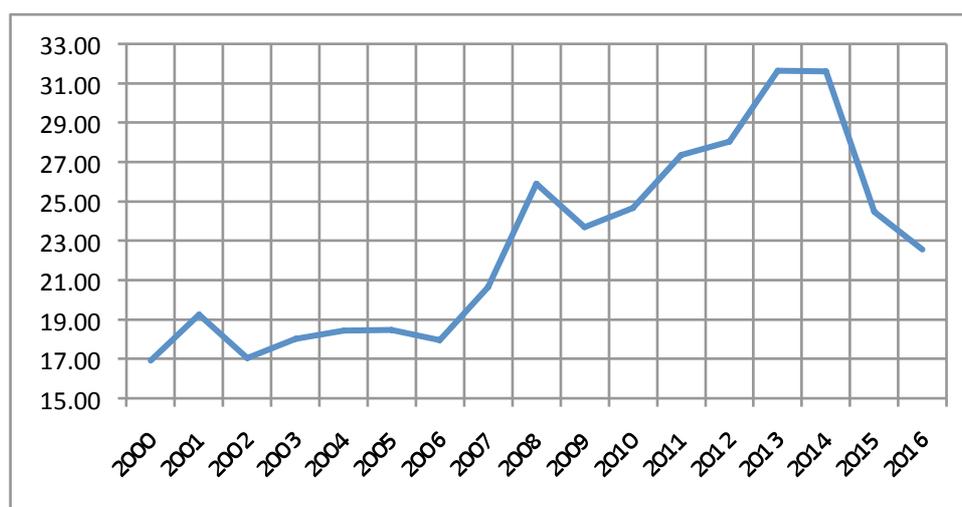


Figure 19.1. Average UK ex-farm milk prices (ppl) (Source: AHDB, 2017)

The result was a slide in UK milk producer numbers as many farmers quit the industry seeing little prospect of making a decent living. Numbers halved in the period from 2000 to 2010 from 30,000 to 15,000, as shown in Figure 19.2.

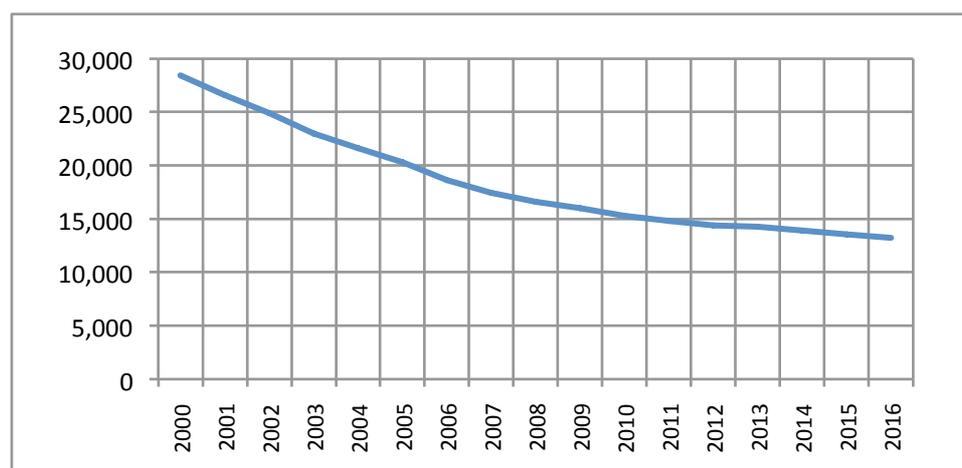


Figure 19.2. UK milk producer numbers (Source: AHDB, 2017)

The remaining farms boosted output to counteract the drop in price, which for many remained below the true costs of production. Deliveries peaked in 2003 at above 14 billion litres and subsequently would fall in the next 6 years by 1.28 billion litres or by 9% to a post deregulation low of 12.8 billion litres in 2009.

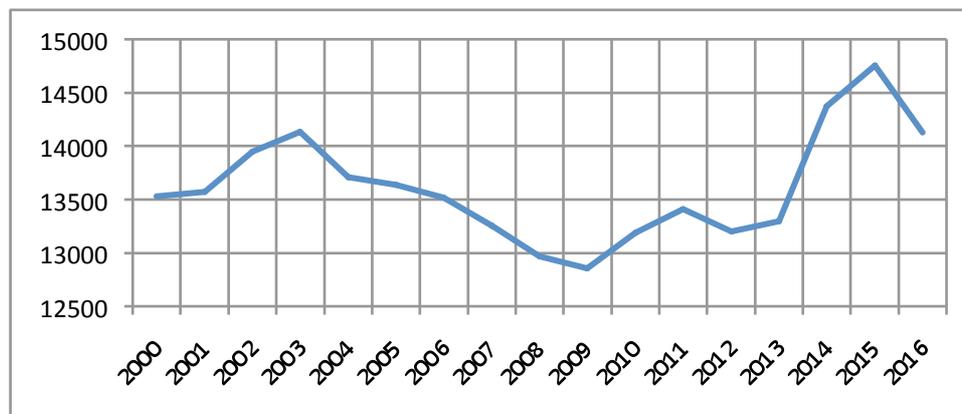


Figure 19.3. UK milk deliveries (M L) (Source: AHDB, 2017) web site

Milk deliveries only started to recover in 2010; they then stabilised for a couple of years and grew again in 2013 when the annual average milk price peaked at 31.6 pp. Milk producer confidence grew and as a result deliveries expanded again, peaking at 14.75 billion litres in 2015, which was still below the UK's annual quota.

During the first part of the 21st century policy decisions were taken by the EU Council of Ministers to reduce the cost of the CAP over time. Support prices for butter and SMP were to be reduced and, as such, producer prices would also fall. Compensation would be paid to farmers based on the acreage being farmed. Over time this would enable export refunds on all dairy products to be phased out as agreed under various WTO rounds. Initially under the Uruguay Round of talks there were limits placed on both the tonnage of dairy products exported and the maximum permitted expenditure on refunds. For cheese, from 2000/01 there was a limit for the EU of 321,000 tonnes of cheese that could be exported with refunds totalling a maximum of 342 million Euros. They were phased-out and now under the terms of these agreements the EU is not permitted to reintroduce them. Import levies however were retained in order to protect the single market. The level of protection was agreed under the WTO system along with minimum access volumes for named cheeses that could be imported each year at reduced levy rates, listed in Table 19.1.

Table 19.1. Minimum access volumes (k tonnes) under the WTO agreements (Source: Dairy UK)

<i>Variety</i>	<i>k tonnes</i>
Emmental	16.4
Gruyere	5.2
Cheddar	15.0
Cheese for processing	20.0
Mozzarella type	5.3
Other	19.5
Total	81.4

These products could be sourced from any non-EU country. In addition to these volumes Australia, New Zealand and Canada, who had all been given preferential access to the EU under an earlier WTO agreement in the 1980s, had their original volumes restored so allowing the importation of a further 18,750 tonnes of (mainly) Cheddar and also other cheese that was to be used for processing.

The effect of these various agreements was to bring EU market prices for butter and cheese towards world market levels; it also meant that they would tend to move in line with changes in world market prices. As international market prices fluctuated so ex farm milk prices for UK farmers supplying non-liquid milk dairies moved up and down quite erratically. These increased levels of price volatility were set to become the norm and would worsen with the planned abolition of EU milk quotas, which was agreed as part of the CAP reform package later in the century.

There was a huge expectation that, as milk quotas were abolished on 31st March 2015, world dairy markets would continue to grow and as a result producers in many EU countries had already anticipated the end of quotas and started to expand in 2014. The Irish Government foresaw huge opportunities to expand and having invested heavily in new plant during the early part of the decade had ample processing capacity, particularly for cheese and whole milk powder. Forecasters had predicted continuing buoyant demand for dairy products from China and Russia but this did not materialise. The Chinese market stalled as consumers reacted to a number of product contamination issues on both home produced and imported dairy products. The 2015 Russian annexation of the Crimea in the Ukraine led the EU to impose bans on imports of Russian goods and Russia duly retaliated with a ban on the import of most EU dairy products. The result of these factors was another collapse in world market prices for butter, cheese and milk powder. Producer prices across the EU, particularly in the Baltic States who were heavily dependent on the Russian market, crashed.

Despite the UK's strong liquid market, average producer prices slumped back down to the low 20s ppl. The EU provided temporary support measures but the main impact was to suppress milk production across the EU as the industry re-balanced itself to the new market realities.

The 21st century in figures

As ever we have to look at both what was happening not just to UK milk production but also to liquid sales during this period. UK liquid milk sales had fluctuated around 6.7 billion litres a year since the year 2000 but their share of total milk deliveries gradually fell from 49% in 2000 to 45% in 2016 although in between it fluctuated depending on the absolute level of milk deliveries. Somewhat surprisingly liquid sales fell quite sharply in 2015 and 2016 from 6.9 billion litres to below 6.6 billion litres in 2016, shown in Figure 19.4.

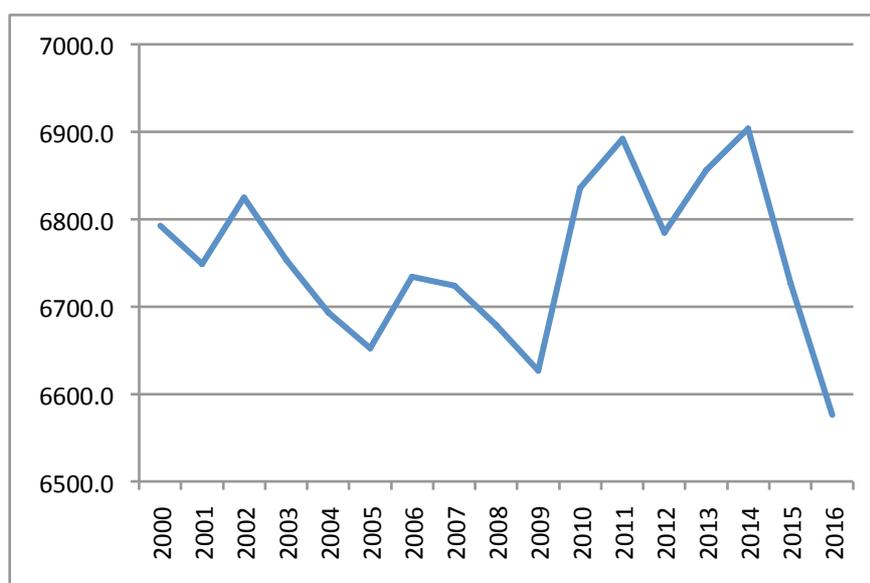


Figure 19.4. UK liquid milk sales (ML), 2000 to 2015 (Source: DEFRA, 2016)

As a result, in 2015 more milk was available for manufacturing purposes, which meant more milk going to cheese and butter. Over the early part of the century, butter/SMP capacity had been

taken out due to the slump in milk availability and cheese production had tended to take on a balancing role, With higher milk deliveries in the period 2014 to 2016 there simply was not enough capacity to take more milk into the butter/powder creameries at the May and Christmas peaks. Butter production managed to be held at just over 140,000 tonnes from 2012 onwards whereas in normal circumstances a pretty substantial increase would have been seen.

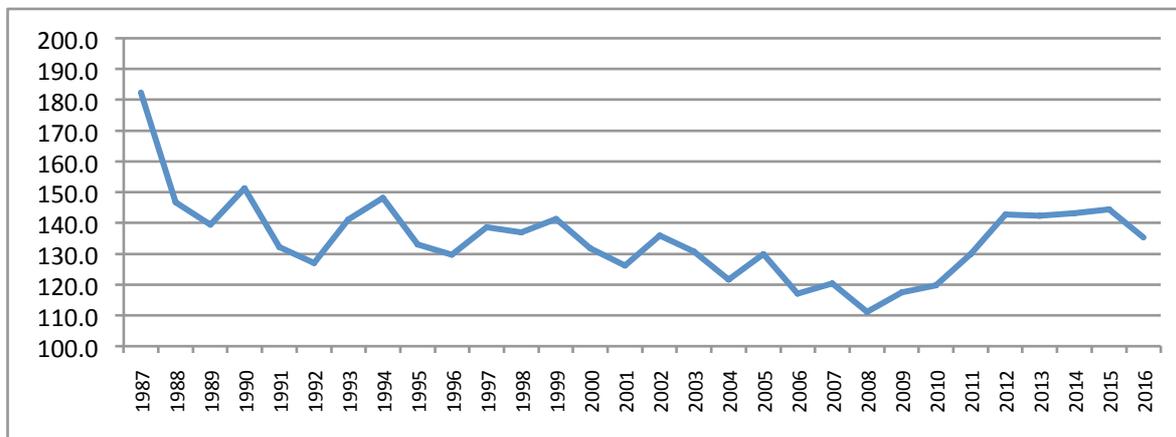


Figure 19.5. UK butter production (k tonnes), 1987 to 2016 (Source: DEFRA, 2017)

And so it was that cheese production really took off from 2014 and the share of milk deliveries taken by cheese rose from 22% in 2000 to 28% in 2016, its highest ever level.

Cheese production

Between 2000 and 2013 the production of cheese oscillated between 333,500 tonnes to 393,000 tonnes (Figure 19.6). With the surge in milk deliveries from 2014 and inadequate processing capacity to make more butter, cheese production rose strongly to exceed 400,000 tonnes for the first time ever in 2014 and climb even higher to 442,000 tonnes in 2016. Thus in recent years the major dairy companies have been obliged to produce more cheese in the peak months of production and over the Christmas period.

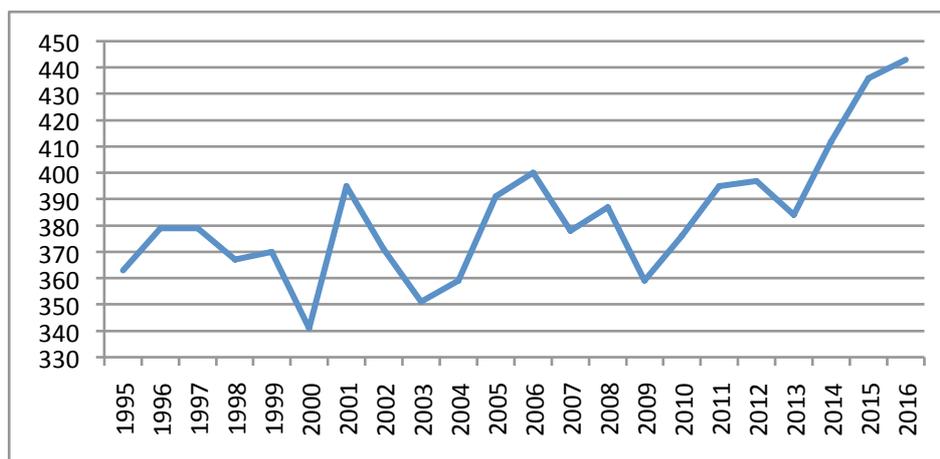


Figure 19.6. UK cheese production (k tonnes) (Source: DEFRA)

Production of cheese by type is shown in Table 19.2 and shows the familiar story of growth in Cheddar, and a decline in the production of crumbly cheeses. When Cheddar output rose or fell, total cheese output rose or fell, with production of all other cheeses in total remaining pretty constant.

Table 19.2. UK cheese production (k tonnes) by type (Source: DEFRA)

	<i>Cheddar</i>	<i>Crumbly</i>	<i>Other hard</i>	<i>Blue Vein</i>	<i>Other</i>	<i>Total</i>
2000	197	17	22	10	95	341
2001	239	17	26	11	102	395
2002	226	16	26	10	93	371
2003	227	14	25	10	75	351
2004	232	12	25	10	79	359
2005	257	13	24	11	86	391
2006	264	14	24	11	85	400
2007	245	16	24	10	84	378
2008	260	13	24	10	80	387
2009	235	13	25	10	77	359
2010	249	12	25	10	81	376
2011	261	12	24	11	88	395
2012	264	11	24	11	88	397
2013	243	12	25	12	98	388
2014	283	14	17	12	82	412
2015	302	10	23	13	86	435
2016	312	11	21	12	86	442
2017	324	8	28	12	83	455
Change (%)						
2000/17	+65	-53	+27	+20	-13	+33

Note: Other includes all farm made cheese, mozzarella, cottage cheese, fromage frais and other fresh cheeses

UK cheese imports in the 21st century

The UK's import and export data are dominated by three categories of cheese: Cheddar, fresh cheese and processed cheese. Together those three categories account for more than 70 % of trade. Details are given in Table 19.3.

Imports peaked at a record high of 482,000 tonnes in 2015. Cheddar imports oscillated around 100,000 tonnes a year and grew by just 6% whereas processed cheese imports grew by 25% and imports of fresh cheese grew by more than a factor of 3 and imports of other cheeses more than doubled.

Fresh cheese includes Mozzarella, spreadable white cheese (e.g. Philadelphia type cheeses of different fat contents), Ricotta, Mozzarella and Fromage Frais and accounted for almost half of all cheese imported into the UK in 2016. Mozzarella alone accounted for 61,750 tonnes. Imports from the EU accounted for 98.7 % of all imports. New Zealand exported 4,000 tonnes of cheese directly to the UK and this accounted for around two thirds of all third country imports.

The most important cheeses within the Other category in 2016 and 2017 are listed in Table 19.4. These main categories of import are similar to those recorded nearly 100 years ago, the relative newcomer being Feta.

Table 19.3. UK imports of cheese (k tonnes) (Source: BCB - derived from HMRC data))

	<i>Total</i>	<i>Cheddar</i>	<i>Processed</i>	<i>Fresh</i>	<i>Other</i>
2000	252.3	87.3	38.8	52.0	74.2
2001	271.2	85.0	41.2	60.3	84.7
2002	285.9	87.2	44.8	63.8	90.1
2003	318.2	96.3	43.0	76.6	102.3
2004	334.7	104.6	44.0	87.4	98.7
2005	354.2	109.3	36.8	90.8	117.3
2006	376.9	113.6	41.9	114.9	106.5
2007	402.7	103.1	41.5	131.1	127.0
2008	420.0	136.1	37.6	133.7	112.6
2009	418.3	130.0	42.0	130.9	115.4
2010	438.7	120.7	51.2	144.8	122.0
2011	414.1	99.0	49.3	156.5	109.3
2012	431.3	101.8	51.8	163.3	114.4
2013	468.5	110.6	56.5	176.9	124.5
2014	466.7	100.3	51.2	179.5	135.7
2015	481.9	101.6	55.3	185.4	139.6
2016	472.0	96.5	54.5	175.1	145.9
2017	478.3	92.3	48.3	180.3	157.4
Change (%)	+90	+ 6	+25	+247	+112

Note: The data in this table have been drawn from a different source to the total import data shown in other tables. Consequently there are minor differences in certain years that are not easily reconcilable.

Table 19.4 Main named cheeses imported in 2016 and 2017 (k tonnes) (Source: BCB derived from HMRC data)

	<i>2016</i>	<i>2017</i>
Edam/Gouda	19.2	19.8
Camembert/Brie	15.6	16.4
Feta	11.3	12.7
Ready grated	9.4	12.5
Parmesan/Grana	8.4	8.3
Emmental/Gruyere	8.2	11.4
Blue Veined	5.7	5.6
St Paulin style	5.2	4.5
Jarlsberg	1.2	1.2
All Other	61.6	76.0
Total	145.9	157.4

UK exports of cheese

Exports of cheese from the UK grew by 191% during the first seventeen years of the century rising to a peak in 2017 of 167,600 tonnes. This represented more than one third of total UK production, although of course not all of the cheese exported was made in the UK.

Exports of processed cheese fell by 25% while exports of Cheddar grew by a factor of three and fresh cheese by a factor of four, with exports of other cheeses just about doubling, as illustrated in Figure 19.7.

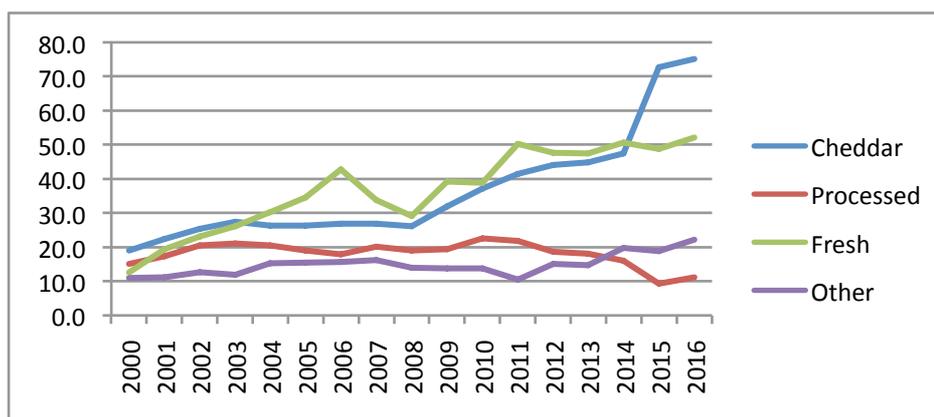


Figure 19.7. UK cheese exports (k tonnes) by type (Source: BCB derived from HMRC data)

Cheddar remained the most important variety exported, with sales going to many different countries all over the world. The actual figure might be even higher as there is a blur in official trade statistics with young Cheddar curd able to be categorised as either a fresh cheese or as Cheddar. In other words some of the fresh cheese might well be Cheddar curd. Within the Other category are blue cheeses (mainly Stilton) and English regional cheeses such as Leicester, Wensleydale and Lancashire, which together accounted for about 5,000 tonnes a year in recent times. More than three quarters of all exports went to other EU countries in 2016 and 201, with the USA being the single biggest outlet amongst third countries taking more than 7,000 tonnes of cheese in 2017, representing about 22% of all third country sales.

Off-take of cheese

The growth in output of 80,000 tonnes (+30%) in the period from 2000 to 2016 is impressive and could have been expected to result in the share of the domestic market taken by home produced cheese to have risen. In fact the reverse was probably the case (Table 19.5). During this same period imports of cheese rose from 255,000 tonnes to 490,000 tonnes whilst exports grew from 57,600 tonnes to 164,000 tonnes.

Table 19.5. UK cheese production, import and exports (k tonnes) (Source: DEFRA, BCB)

	2000	2016	2017	Change (%)
Production	341	442	455	+33
Imports	252	472	478	+90
Exports	58	161	168	+190
Offtake	538	750	765	+42
Prod ⁿ less exports	283	278	287	+1.4

Off-take, excluding any change in stocks, grew by an amazing 42% during this century and virtually all of this growth was accounted for by the increase in imports. The bottom line of the table shows how much of current domestic production might have been available for the market after taking account of exports. It is a crude measure as clearly not all exports were of UK-made cheese and the figures also do not take account of what has happened to stocks of cheese. The result, however, is an indication of the extent to which domestic supplies entered the UK market and on the face of it the quantity had hardly increased during the 21st century. Offtake reached a record level of 765,000 tonnes in 2017.

Consumption of cheese in the 21st century

There was a steady increase in calculated consumption of cheese in the UK in the first 7 years of the 21st century from around 560,000 tonnes in 2000 to 712,000 tonnes in 2007, an increase of 27% (see Table 19.6). However, due to poor economic conditions following the financial crisis in 2008, consumers cut back their spending on cheese in 2009 and although apparent consumption rose in 2010 it remained below 700,000 tonnes in the next two years. Consumption recovered in 2013 when it reached an estimated 726,000 tonnes. In 2015 and 2016 calculated off-take of cheese averaged 757,000 tonnes. So in the space of 16 years the UK cheese market had grown by more than 200,000 tonnes or by 36%.

This was growth on an unprecedented scale, driven by sharp increases in consumption of fresh cheeses (of around 120,000 tonnes) and imported speciality cheeses mainly from the EU. In fact several other categories also grew including Cheddar, blue cheese, processed cheese, artisan cheese and reduced fat hard cheeses but not as rapidly as the aforementioned categories. The only major category that did not grow was that for crumbly cheese where, at best, volumes stabilised but almost certainly fell in total.

During the first 16 years of this century the population of the UK grew by 11.5% and using these figures one can calculate what happened to consumption per head. It grew from 9.56 kg *p.c.* in 2000 to 11.65 kg *p.c.* in 2016, a growth of 21%. (There is a small error introduced by the inclusion of non-cheese ingredients in the processed cheese, which might be 5–6,000 tonnes per year, equivalent to about 0.1 kg *p.c.*)

The reasons for this large growth in consumption, mainly in the first seven years of the decade, are difficult to quantify but it is clear that consumers found new ways of using soft and fresh cheeses, which is where most of the growth has come from.

Table 19.6. UK domestic disappearance (k tonnes) of cheese 2000 to 2016 (Sources: Figures derived from BCB and DEFRA data)

	<i>k tonnes</i>	<i>kg p.c.</i>
2000	563	9.56
2001	572	9.68
2002	586	9.87
2003	595	9.98
2004	628	10.48
2005	645	10.68
2006	670	11.01
2007	712	11.61
2008	710	11.48
2009	678	10.89
2010	720	11.46
2011	675	10.66
2012	697	10.93
2013	726	11.32
2014	727	11.25
2015	769	11.81
2016	765	11.65

At times during this 16-year period, consumption was boosted by declines in real prices as first hand prices of cheese moved up and down in line with world market prices. Figure 19.8 shows the

index of the retail price of cheese as reported by the Office for National Statistics, deflated by the RPI for the period June 2000 to March 2011.



Figure 19.8. Inflation-corrected index of the real price of cheese, 2004–2014 (Source: BCB)

This so-called real, i.e. inflation corrected, price of cheese moved down steadily from early 2002 to 2007 before rising quite sharply over the following two years and the falling back slightly thereafter. The 10% fall in real prices in the period 2002 to 2007 might, given a reduced estimate of a price elasticity of demand of -0.15, have induced a 1.5% increase in cheese sales. Subsequent price increases would probably have cancelled that out and contributed to the slump in off-take in 2009 in the wake of the financial crisis.

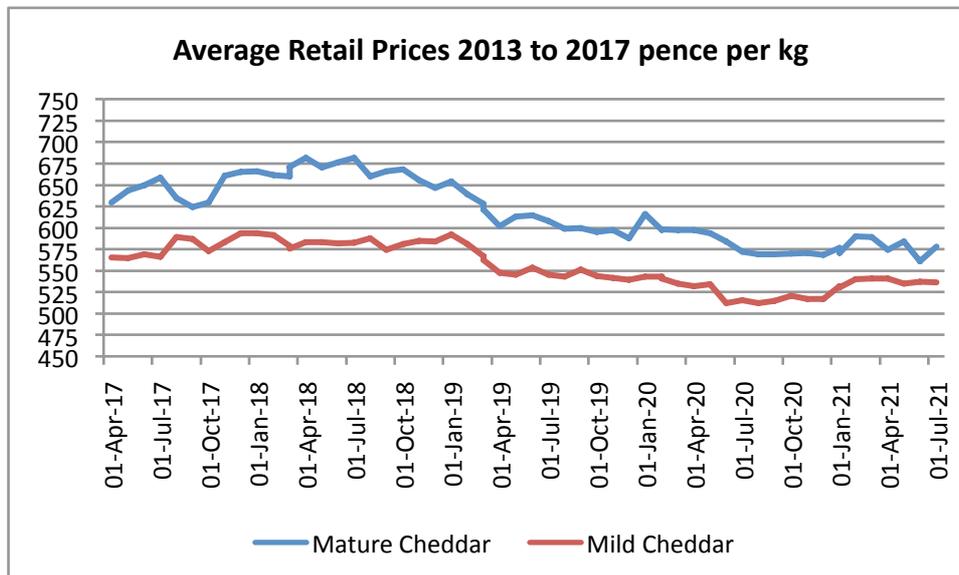


Figure 19.9. Average retail prices 2013 to 2017 - pence per kg (Source: MDC)

Since 2013 average retail prices for mild and mature Cheddar gradually drifted downwards with mature dropping by more than £1 per kg from its peak in 2014 and mild dropping from its peak in 2015 by around 50 p per kg (Figure 19.9). Thus, even with inflation running at very low levels, real prices of cheese continued to fall up until mid 2017. Since then, and following the referendum on the UK's future membership of the EU, sterling has devalued by something of the order of 20% against the Euro and as such imported cheese prices have risen and will continue to do so into 2018. This will

eventually impact on total off-take, as will the general squeeze on disposable incomes since wage rises have consistently fell below price inflation levels until the early part of 2018.

Key changes in the industry in the 21st century

There were three defining trends that shaped the cheese industry during the early years of the 21st century:

- The re-emergence of a two-tier milk pricing system
- Corporate activity and the growth of farmer controlled businesses in the cheese sector
- The segmentation of the Mature Cheddar market

We will deal with these in turn.

The re-emergence of a two-tier milk pricing system

The break-up of Milk Marque led all the major milk processors to hedge their bets by buying not only from the individual supply co-ops but increasingly looked to build up their own pool of dedicated milk producers. Serious questions were being asked in the early part of century, as milk production and deliveries slumped, about whether the UK would have enough milk in the years ahead to service the fresh liquid milk market at all times of the year. If that sounds familiar then so it should for this was the question governments in the early part of the 20th century were asking themselves. The major food retailers were anxious to safeguard their liquid milk businesses, which were vitally dependent on having fresh UK-produced milk. It was Tesco that led the way in 2006 by effectively ring fencing all the milk producers that were supplying milk to its liquid milk suppliers (Wisemans, Northern Dairies) and introducing buying prices that reflected the costs of producing milk. Independent farm management consultants Promar were appointed to determine what that price should be every six months (Spring/Summer and Autumn/Winter). These prices were significantly higher than the general level of ex-farm milk prices and effectively led to the segregation of milk destined for the liquid market and the re-emergence of a two-tier milk pricing system reminiscent of the government-controlled GP system. Tesco wanted to ensure that they had a reliable, British supply of milk for the liquid market, and were desperate to be seen to be supporting British farming. This was a key feature of their advertising programme. Other retailers subsequently imitated this having a contract price which their liquid milk processors were obliged to pay the supplying farmers. Prices paid to farmers for milk going into other products such as butter and cheese were significantly lower and were determined by the individual markets into which they were selling. Some retailers did not follow this route of trying to manage the ex-farm price, notably Iceland, Aldi and Lidl; in these cases the prices returned to farmers where the milk went to liquid milk dairies were significantly lower than those paid to farms who were selling to dairies that supplied the other retailers, such as Tesco, Sainsbury, Waitrose and Marks & Spencer.

Tesco and the other major supermarkets had now set themselves a knotty problem. No longer were the retail prices charged for their milk determined by what they were paying their processors; rather they had to be chopped to take account of what their competitors were doing. Aldi, Lidl and Iceland all charged their customers significantly less for their milk than did the major supermarkets. The majors were losing customers and they decided that they had to match the retail prices being charged by Aldi etc, which at that time was of the order of £1 for 2.23 litres (4 pints) of milk. And to make matters worse, the discounters then reduced their prices to 89 p. Margins on liquid milk had been seriously eroded and all retailers had to take this ‘on the chin’, processors were squeezed but the dairy farmers with these ring-fenced contracts continued to do very well. These guaranteed prices were way above returns from the cheese market and the lower retail milk prices meant that consumption of milk held up. Given the collapse of UK milk production this left cheesemakers running at well below optimum capacity. So ironically, even with a market free from the shackles of the Milk Marketing Scheme, it was the liquid market that was the premium market and dairy product manufacturers of cheese and butter in particular were left to fight for available supplies.

Corporate activity and the growth of farmer controlled businesses in the cheese sector

As mentioned earlier, the break-up of Milk Marque led to the creation of three new farmer controlled cooperatives : First Milk, Xenith and Milk Link. First Milk was looking to increase its share of the processing market. At the time of the break-up of the MMBs in the UK, First Milk was a successor body to the Scottish MMB and had inherited some of their businesses including a couple of smaller cheese creameries in Scotland, in Campbeltown in Argyll and on the Isle of Arran. In a major move into milk processing in 2006 First Milk purchased the Dairy Crest creameries that were producing own label cheese for a number of the major supermarkets, namely Aspatia in Cumbria and Haverfordwest in South West Wales, along with cheese packing facilities at Maelor near Wrexham in Wales. This left Dairy Crest to concentrate on the development of its branded cheese business under the Cathedral City and Davidstow brands. A year earlier in 2005, Dairy Crest had doubled the capacity of its Davidstow plant in Cornwall to be able to produce up to 50,000 tonnes of Cheddar a year. This made it by far the largest cheesemaking plant in the UK and probably the largest Cheddar making plant in Europe. As a result of the sale of the two plants, First Milk became the largest cheesemaking business in the UK with production of around 70,000 tonnes of cheese.

One of the more successful farmer co-ops that had operated in competition with Milk Marque was The Milk Group, which had a very focused strategy of only selecting milk producing members of the right size and in the right geographical location. They acquired their own processing facilities through the purchase of Nene Valley Foods near Peterborough and subsequently Piers Feilden's Lubborn Cheese creamery in Crewkerne, which was the UK's first and foremost producer of Brie and Camembert.

The Xenith Coop merged with The Milk Group and changed its name to the much more impressive Dairy Farmers of Britain (DFOB) in 2003. In 2004 DFOB acquired the milk processing businesses of the Cooperative Group which was trading under the name Associated Cooperative Creameries (ACC). It cost them £75 million. This included a number of liquid milk dairies, large and small, the Llangadog butter/powder creamery in South Wales and the Llandyrnog Cheddar creamery in North Wales which had a capacity of around 25,000 tonnes of hard cheese a year. Other companies had looked at purchasing ACC in previous years as the Cooperative Group looked to streamline its food processing and farming activities. Most had concluded that the facilities in general had been under-invested. On the liquid milk side of the business their smaller dairies were in a difficult position: they were being squeezed as the major liquid processors got bigger and had invested significantly in up-to-the-minute processing facilities to service the supermarket liquid milk sector. It was eventually going to be one of the reasons why DFOB failed and went into receivership in June 2009. By then, some of the liquid dairies had already closed. The Llandyrnog creamery was sold to Milk Link and Lubborn Cheese was snapped up by French dairy giant Lactalis McLelland. They were the owners of the Seriously Strong brand of Cheddar developed by McLellands Cheese in the 1990s and the dairy where it was produced in Stranraer. Lactalis was already a major importer of French Brie, Camembert and Emmental under the President label and was one of the world's largest cheesemakers with businesses spread across the world. Lactalis made about the same amount of cheese world-wide as was made in the whole of the UK and became the largest supplier of Brie and Camembert to the UK market. Lactalis had already acquired the former Milk Marque-owned Aeron Valley Dairy. Later Lactalis acquired the Galbani cheese business in Italy so adding a range of soft and fresh cheeses to its already impressive repertoire of cheeses sold into the UK market.

After their creation, Milk Link had started cautiously buying up a couple of small UHT milk processors. They developed their interest in the butter/powder site at Westbury, which became a centralised milk handling plant for the three coops acting as a safety valve where surplus milk could be processed into butter and SMP. They subsequently purchased The Cheese Company from Glanbia and with the purchase of the Llandyrnog creamery from the failed DFOB became the largest cheesemaking business in the UK with total output approaching 80,000 tonnes of cheese a year.

In Northern Ireland (NI) the successor body to the NI MMB (Dale Farm) took over the running of their commercial operations. Manufacture of cheese and butter/SMP has always been more important in Northern Ireland as typically only 20% of their milk supply went into the liquid market. Dale Farm became a significant producer of cheese with output in excess of 25,000 tonnes of cheese a year (out of a total NI output of more than 60,000 tonnes).

In the space of ten years these large farmer owned co-operatives had increased their share of the milk processing industry significantly to around 6 billion litres. First Milk, Milk Link and Dale Farm together today produce around 175,000 tonnes of cheese a year.

In the cheese sector there were already a number of smaller farmer owned co-operatives:

- South Caernarvon Creameries making around 7,000 tonnes of Cheddar and other hard cheeses,
- Long Clawson Dairy in Leicestershire making Stilton, blended cheeses and other speciality cheeses (around 6,000 tonnes)
- Colston Bassett Dairy in Nottinghamshire - also a Stilton maker (less than 1,000 tonnes).

In addition there were a number of farmer-owned cheesemaking businesses that had grown during the 1990s and 2000s to be important players, namely - AJ & RG Barber who later merged with Ashley Chase Cheese/Ford Farm (collectively making more than 10,000 tonnes of cheese a year) and Wyke Farms, owned by the Clothier family, with production also in excess of 10,000 tonnes of cheese a year. Both had been members of the MMB's Farmhouse Cheese Makers Scheme but pulled away in the early 1980s to market their own product. Still in the South West, there were Parkham Farms (an own label supplier of Extra Mature Cheddar to Tesco) and Alvis Brothers (organic cheese), both farmhouse Cheddar makers who had evolved and found niches within the cheese market. In the North West, Belton Farm Ltd and Joseph Heler Ltd who were originally farmhouse Cheshire makers broadened their businesses to make the full range of British cheeses. Together they produce in excess of 15,000 tonnes of cheese a year. They prospered when Dairy Crest in 1994 decided to close their Longridge creamery that had been making crumbly territorial cheeses, effectively handing the market to these smaller makers and Milk Link's Malpas dairy in Cheshire that was also producing a range of territorial cheeses. However, the latter also ceased production of crumbly cheeses in 2014, so providing Belton Farm and Heler almost exclusive access to the dwindling Cheshire cheese segment. Belton and Heler were also major producers of virtually all of the other territorial cheeses including crumbly cheeses such as Caerphilly, crumbly Lancashire and Wensleydale. Belton have become significant trophy winners for their cheeses at most of the major cheese shows.

As mentioned earlier, there are three distinct types of Lancashire cheese: Crumbly, sold young and made mostly by dairies outside of Lancashire in block form, plus two traditional variants made in rounds and only by the nine traditional dairies in Lancashire, Creamy, aged about 3 months, and Tasty at about 5 months. All nine dairies in the Preston area are family owned with most having their roots as independent farmhouse makers.

Wensleydale Dairy Products at Hawes in North Yorkshire is still focused on production of its native cheese and because of its location and dependence on locally produced milk almost operates as a farmer focused business.

In total all these "farmer centric" businesses produced close to 250,000 tonnes of cheese in 2016, which accounted for more than 55% of output.

To complete the picture of the major corporate moves, Arla Foods, one of Europe's biggest farmer co-operatives, merged with Milk Link in 2014 and with its other milk processing facilities, having taken over the liquid milk business of Northern Foods, became the UK's largest milk processing company. In completing the deal it signalled the end of the four major dairy companies that had dominated the UK dairy industry in post war Britain, The Cooperative Society, Express, Unigate and Northern. All had now exited the mainstream dairy sector leaving Dairy Crest, Arla Foods, First Milk and newcomers Mueller Wisemans (liquid milk, butter and yogurt) and Lactalis McLelland as the leading companies processing the majority of milk produced in Great Britain.

Market segmentation and the growth of mature Cheddar

To a large extent the growth in the share of the Cheddar market taken by more mature variants was driven by the three major brands - Dairy Crest's Cathedral City, North Downs Dairy Pilgrims Choice and Seriously Strong owned by McLellands, a private Scottish company. At times in the 1990s and the 2000s the latter was the number two brand of Cheddar in the UK. In 2005 the company was purchased by a private French dairy company Lactalis and became known as Lactalis McLelland. The cheese continued to be produced at the former Caledonian Cheese Company creamery in Stranraer and apart

from Seriously Strong the company also continued to make and market Galloway and Orkney Cheddar.

In the 1990s, mature Cheddar was typically sold at about 9 months of age. In subsequent years Dairy Crest introduced an extra mature variant aged for 12 to 15 months and then a Vintage variant aged for 18 to 20 months (later still they introduced, almost by chance, a 3 year old Cheddar sold exclusively as a private label product through two selected supermarkets).

Conscious of the consumer concerns about the fat content of cheese, the 1990s saw the launch of a number of reduced fat and half fat hard cheeses made to a Cheddar-style recipe but unable to be called Cheddar under food labelling laws. These products were initially rather hard and lacked the taste and mouth-feel of Cheddar. In the early days it was smaller farmhouse makers who entered this market with W H Longman and Cricket Malherbie Farms in Somerset then later Joseph Heler in Cheshire leading the way with a number of branded and supermarket own label products. They were decidedly niche products with steady but undramatic sales. It wasn't until Dairy Crest launched Cathedral City Lighter in 2005, after several years of production trials, that the market took off. Others followed with me-too products (Pilgrims Choice and own label) but without the same weight of advertising and merchandising support that Dairy Crest had invested.

Milk Link's Cheese Company had decided that it too needed to develop a brand and Tickler was later launched. Other company's followed suit with Fayrefield Foods launch of a Welsh Cheddar, branded as Colliers and First Milk's Lake District and Pembroke brands.

The success of these brands can be seen by the increasing share of the Cheddar market and accounted for by all variants of mature cheese, mature, extra mature, vintage and farmhouse, from about 20% in 1990 to more than 60% by 2010. Within the Cheddar market the share taken by branded products grew from virtually zero in 1990 to almost 50% by 2010.

Some of these brands diversified into mild Cheddar (Cathedral City Mild) or processed cheese spreads (Seriously Strong), and into snack packs of cheese, pickle and crackers (Cathedral City) or savoury cheese biscuits (Cathedral City). Supermarkets demanded new specifications for their own label mature variants and here too Dairy Crest lead the way with unique names for different supermarkets such as Cornish Cruncher and Cornish Cove (for Marks & Spencer) and Cornish Quartz (for Waitrose) and had some years earlier launched a second brand 'Davidstow' which sat alongside Cathedral City in some stores. All of these cheeses were made at Dairy Crest's Davidstow plant in Cornwall with the cheese shipped to their purpose built maturation store and packing centre at Nuneaton. Dairy Crest's transition from an own label supplier in the early 1990s to the leading cheese brand owner was complete.

First Milk's efforts to get into the branded sector initially succeeded, generating a 5% market share with their Lake District and Pembroke brands, but eventually had difficulty funding the advertising and promotional budgets necessary to sustain them. In 2014 they also lost a major own label contract with ASDA that they had inherited and developed with the purchase of the Dairy Crest own label business in 2004. This was a catastrophic loss and led to the closure of their Maelor pre-packing plant and a rescue by Adams Foods (IDB). Adams agreed to purchase virtually all the cheese made at Aspatria and Haverfordwest and then pack and market it under a variety of brands (including Pilgrims Choice) plus various retailer own labels. With this deal Adams Foods became by far the largest pre-packer of cheese in the UK with volumes well in excess of 100,000 tonnes of cheese a year going through their plant in Leek.

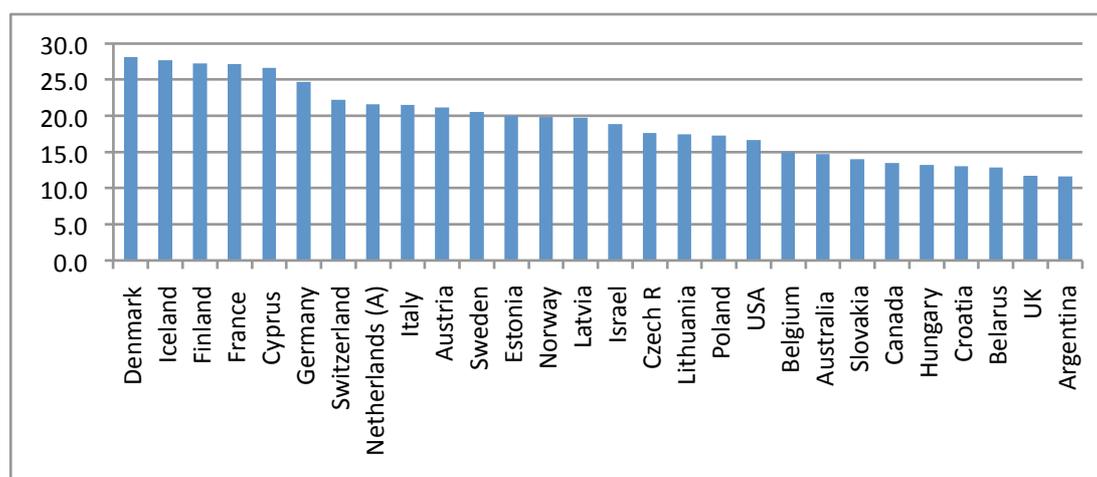
UK consumption compared to other countries

Despite these gradual increases in cheese off-take, the UK's *per capita* consumption still lags, by quite a significant margin, consumption in other developed countries. Within the EU, consumption is lower only in some of the East European countries and in Spain, Portugal and Ireland. In several countries, France, Italy, Germany and Greece, consumption *per capita* is almost double that found in the UK. In an earlier chapter we looked at differences in per head consumption between selected countries in the 1920s. IDF data for 2016 (Table 19.7) showed that the gap between UK cheese and that in many other countries has now widened quite considerably.

Table 19.7. Cheese consumption (kg *p.c.*) (Source: MAF, 1930; IDF, 2017)

	1920s	2004	2016	Change (%) 1920–2004	Change (%) 2004–2016
Switzerland	10.6	19.7	22.2	+86	+13
France	6.1	25.1	27.2	+312	+8
Netherlands	5.6	18.9	21.6	+238	+14
Italy	5.4	21.7	21.5	+302	-1
UK	4.5	10.4	11.6	+158	+12
New Zealand	2.6	8.3	8.2	+219	-1
USA	2.0	17.7	16.7	+485	-6
Australia	1.7	11.7	14.7	+588	+26
Canada	1.4	14.4	13.4	+927	-7

Whereas in this list of countries the UK ranked fifth out of nine countries in the 1920s, by 2016 it ranked eighth out of nine. If the data set is expanded to show developed countries where cheese consumption per head is higher than in the UK then the UK ranks twenty-seventh, illustrated in Figure 19.10.

**Figure 19.10.** Consumption (kg *p.c.*) of cheese in selected countries (Source: IDF, 2017)

Reasons for these differences in absolute levels of consumption and indeed between the different growth rates seen in the last 90-odd years, are many and various. In some cases it is the UK's relatively low level of consumption of fresh and soft cheeses, such as fromage frais, which in other countries are routinely served with main courses, both hot and cold, as well as a dessert. UK consumption *per capita* of fresh cheeses (fromage frais, Cottage, Mozzarella, Ricotta, curd cheese) is relatively small at around 180,000 tonnes a year, equivalent to 2.7 kg *p.c.* per year. In the high cheese-consuming countries of France, Germany, Italy and Switzerland it averages between 6 and 9 kg *p.c.*

Even adjusting for that factor, many countries consume more hard cheese per person than the UK, with the UK's estimated 6 kg *p.c.* being dwarfed by France's 8.2 k, Germany's 9 kg, Italy's 10 kg, Norway's 10 kg and the Netherland's 15 kg. In some of these countries, along with Sweden and Norway, cheese is a standard item on the breakfast menu and eaten with bread. Lunch too is often a bread meal with cold meats, fish or cheese, whereas in the UK our breakfasts are dominated by cereals served with milk. As a result the UK is a relatively small consumer of bread than many other

countries, as shown in Table 19.8 that compares consumer expenditure on Bread and Rolls in 2014 in 21 European countries, UK expenditure being about 55% of the average found in the 21 countries covered.

Table 19.8. Household Expenditure on Bread and Rolls - 2014 - \$US *p.c.* in selected European countries (Source: MarketLine, Oct 2015)

	\$US <i>p.c.</i>
Germany	179.5
Italy	191.7
Spain	143.5
France	114.5
UK	79.3
All others	109.9
All 21 countries	142.8

Historically, it was always said that high cheese consumption in countries such as Germany, France and Italy was linked to their high consumption of wine. Certainly there seems to be some correlation between the two products in that higher cheese consumption tends to be found in countries with higher wine intake as suggested in Figure 19.11, which plots consumption of wine (litres *p.c.*) against that of cheese (kg *p.c.*) for 19 countries for which data are available. It is not a perfect correlation but it suggests a degree of complementarity, despite wine not normally being consumed at breakfast.

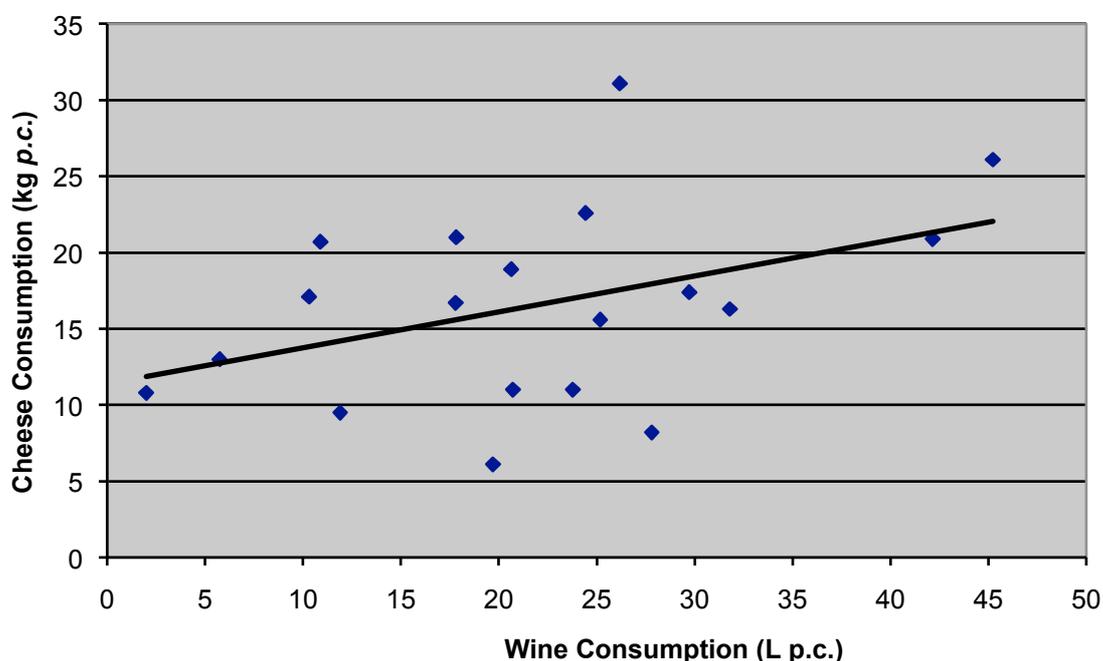


Figure 19.11. Per Head Consumption of Cheese (kgs) and wine (litres) in 19 of the EU countries (Source: BCB - internal papers)

UK wine consumption has increased quite substantially in recent years taking a growing share of a declining market for alcoholic drinks. Data on expenditure on wine are potentially misleading as far as inter-country comparisons are concerned due to the varying rates of tax imposed on alcohol in different countries. In the UK and some of the Nordic countries taxes are very high whilst in Germany

and the Mediterranean countries they are significantly lower, reflecting the importance of the wine industry in those countries. However, It is safe to say that whereas the UK consumes just over 20 litres of wine per person per year, France and Italy consume more than double that amount whilst in Germany and Spain their consumption is roughly 20% higher.

Higher consumption levels of soft cheese, bread products and wine seem to be important determinants of why many of our European neighbours eat more cheese than we do in the UK. So what is that we are eating and drinking more of than these other countries? Well, breakfast cereals have already been mentioned as a peculiarity of the British diet which along with our high tea consumption explains why we tend to drink more milk per person than many of our neighbours. The author has often heard commentators say "*well of course the reason we eat less cheese than other countries is that we are heavy consumers of meat, chicken and fish*" along with, of course, the compulsory vegetables. However, our meat and fish consumption also seems to be lower than in many of these European countries as is our consumption of fruit and vegetables.

Data from MarketLine covered 21 European countries on expenditure on Meat, Fish and Poultry, showing that on a per capita basis much less is spent in the UK than in Germany, France, Spain and Italy. On a volume basis, for example, MarketLine (2013) estimated that in Germany consumers bought 3.5 billion tonnes of meat, fish and poultry, whilst in the UK the figure was just 1.92 billion tonnes. Of course Germany has a much larger population than the UK but the *per capita* consumption was still more than 40 % higher than in the UK, with UK expenditure on meat, fish and poultry at just \$253 per head compared to an average of \$324 per head in all 21 countries. Similar differences were noted for fruit and vegetables; the two provision groups are illustrated in Table 19.9.

Table 19.9. Annual household expenditure (\$US *p.c.*) on meat, fish, poultry in 2011 plus fruit and vegetables in 2012) (Source: MarketLine, 2011, 2015)

	<i>Meat, fish & poultry</i>	<i>Fruit & vegetables</i>
Germany	488	455
France	466	512
Italy	404	449
Spain	388	538
UK	253	260
Rest of Europe	192	273
Average for Europe	324	348

This is something of a mystery, with other European countries generally consuming more and in some cases significantly more, bread, meat, fish, poultry and fruit and vegetables than UK consumers. In part this reflects the UK's growing dependence on convenience foods -ready to eat or ready to heat sales of which would not be picked up in these broad categories. But this is symptomatic of a significant difference in food eating and food preparation habits between the UK and other developed countries. This is emphasised by looking at what the UK consume more of, apart from breakfast cereals, milk and tea.

There is one category that can help explain why the UK's cheese consumption may be relatively low. This relates to the very high consumption, compared to other countries, of various snack foods such as biscuits, crisps/extruded snacks and sweetened/chocolate confectionery. Although it is difficult to get accurate figures on consumption of all of these it does seem that our consumption of these products is roughly double that of other EU countries, shown in Table 19.10.

Table 19.10. Consumption of snack food products in Europe (M \$US)

	(1) Savoury snacks	(2) Sweet biscuits	(3) Chocolate confectionery	(4) Sweet confectionery	(5) Total spend (M US\$)	Share (%)	Population (M)	Spend (p.c.)
UK	6208	2463	7753	2274	18698	19.9	65.637	285
Germany	2364	2775	7943	1323	14405	15.3	82.667	174
France	1735	1845	4569	735	8884	9.5	66.996	133
Italy	1218	2594	3287	700	7799	8.3	60.600	129
Spain	2667	816	955	700	5138	5.5	46.444	111
All other	8829	6948	19182	4068	39027	41.5	399.576	98
Total	23022	17441	43689	9800	93952	100	721.920	130
Excluding UK	16814	14978	35936	7526	75254		656.283	115

Notes: Data in columns 1, 2 and 3 are from MarketLine reports (2016, 2013 and 2015 respectively).

Data for column 4 are from Data Monitor (Sugar Confectionery 2004) and relate to the year 2004; data for Italy and Spain are estimated.

The data above show estimates of purchases in millions of dollars of various snack food products, savoury snacks, sweet biscuits, chocolate confectionery and sugar confectionery, for 22 major markets in Europe. The UK has the largest expenditure on savoury snacks and sugar confectionery and the second highest of sweet biscuits and chocolate confectionery. Converting these figures to a *per capita* basis shows average expenditure on these products in the UK was \$285 per year, which was more than double the average of the other 21 countries and more than 60% higher than Germany, the next biggest purchaser per head of population.

The inference here is that the UK is much more of a snacking nation than some of our European neighbours. Apart from this, as previously mentioned, the UK also leads the world in its consumption of convenience meals, suggesting that many households are more likely to buy-in a meal solution rather than prepare it themselves from raw ingredients. There is no doubt that cheese consumption has grown in the UK on the back of changing eating habits from the 1960s and onwards, with the growth of pasta-based dishes and pizza as well as from readymade sandwiches (in which sector cheese is a key ingredient) but our cheese consumption has simply not grown at the same rate *per capita* as in other countries.

One other factor that should be considered is the changing structure of the UK population arising from the higher levels of immigration from Eastern Europe and to a lesser extent from Asian and African countries. Asian and African countries are generally low consumers of cheese. Hence it is not unreasonable to suppose that these immigrants brought with them, at least in part, different traditional diets that do not rely so heavily on cheese. This has certainly been the case in the USA, where *per capita* consumption of cheese is declining as Hispanic and non-white segments of the population have grown faster than the white Caucasian segments. The same may also be true in Canada, where *per capita* cheese consumption has dropped in recent years and where in some provinces white Caucasians are now in the minority.

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20. Progress in specialist sectors of the cheese industry

Aside from the development of cheddar production in the larger dairy companies, many changes were being made in the rest of the UK dairy industry.

West Country Farmhouse Cheddar

The number of West Country Farmhouse Cheesemakers producing Cheddar continued to decline in the 21st century. A H Warren (Coombe Farm) had exited cheese production in 2004 to concentrate on supplying the organic milk market, Greens had decided to merge with Brue Valley Farms with the production of traditional Cheddars under their name continuing. Brue Valley suffered a TB outbreak that meant they lost a large proportion of their dairy cows and subsequently ceased production of Farmhouse Cheddar having decided they could not compete in the market place. W H Longman finally ceased cheesemaking in 2012 but retained a presence in the market with niche products made under license by other local cheesemakers, while Bakers (Kingston Farms) came in and out of production caused by TB issues.

Cricketer Farm, a well established cheesemaking business that had been bought by Angus Wielkepolksi in 1999 to complement his growing caprine milk operation and produce more caprine milk cheese, closed for business in 2015 and sold the caprine milk cheese business to Tyne Tees based processed cheese maker Kavli (who had also acquired the Ilchester Cheese Company in 2010). Denhay, for many years the main supplier of farmhouse Cheddar to Waitrose, gave up in 2015 as it was unable to make sufficient margin in a turbulent environment and decided that its capital was better invested in other enterprises, notably air-dried bacon.

The remaining farmhouse makers had either stayed in their own market niche of traditional Cheddar making - Quickes, Goulds, Keens, Montgomery, Westcombe Dairy, Cheddar Gorge Cheese Company, Times Past Cheese Dairy - or found other niches in which they had a competitive advantage. Alvis, for example, concentrated on organic cheese in various formats, both block and traditional; Parkham Farms with their block Farmhouse Cheddar had been for some time a key supplier of Vintage Cheddar to Tesco and effectively gave up its farmhouse status. Barbers and Wyke Farms continued to compete with the big Cheddar makers using their farm based image (even though they were by any definition medium sized creameries) as a key point of difference. Barbers were a long-term supplier to Sainsbury whilst Wyke developed its own farmhouse brand - Wyke Farm - against the big creamery brands of Cathedral City, Seriously Strong and Pilgrims Choice. Barbers remain one of the only suppliers of home-grown starter cultures, which they continue to use and supply to other smaller makers as well. This is a key point of difference in retaining traditional recipes for farmhouse Cheddar while other makers had long since moved to freeze dried cultures.

The Mozzarella story

The growth of Mozzarella production had been driven by the surge in demand for Pizza, not just in sit-down restaurants but in takeaways and in frozen and fresh form at the retail level in all of the supermarket chains. Glanbia Cheese had become the biggest player in the UK with its plants in Northern Ireland (Magheralin) and North Wales (Llangefni). Glanbia Cheese is a joint venture between Glanbia in Southern Ireland and Leprino in the USA where there is another large Mozzarella plant. Glanbia Cheese in the UK is probably the largest producer of Mozzarella cheese and other pizza cheese-type toppings in Europe with output of around 85,000 tonnes a year. A large part of their output is not legally cheese as some of the dairy components are replaced with non-dairy ingredients (such as vegetable oil instead of milk fat or soya protein instead of casein). Its main competitor from

the 1990s was Dansco-Tolona who was owned by the Canadian food company McCains, which was essentially a frozen potato chip manufacturer. Dansco had invested heavily in the 1990s in another former Dairy Crest cheese production site at Newcastle Emlyn in South Wales. Both Glanbia Cheese and Dansco were involved in the export and domestic markets and faced strong competition from imports from the rest of Europe. Dansco got into financial difficulties and was sold to Saputo, who eventually sold out to Dairy Partners, owned by the Irish Dairy Board, in 2013. Throughout, the Newcastle Emlyn plant used the patented Individual Quick Frozen shredded Mozzarella that had been its hallmark since the 1990s. Mozzarella production in the UK has hovered around 40,000 to 50,000 tonnes a year according to DEFRA figures on cheese production. For the first time in 2015, Customs and Excise data on UK cheese imports had a separate code for Mozzarella, which showed that in both 2015 and 2016 the UK imported 61,000 tonnes of the cheese out of total imports of around 475,000 tonnes (the average for those two years). In the same two years the UK exported around 11,000 tonnes a year. Taking these figures, UK off-take of Mozzarella was of the order of 90,000 tonnes with a possible 40,000 tonnes or more of analogue pizza topping.

The Stilton story

Mention was made in an earlier chapter of the fact that Stilton was one of the first cheeses to adopt the factory system of manufacture, so that by the 1930s there was no significant manufacture of Stilton cheese on farms. The factories were not big by today's standards but they bought milk from local farmers and produced significantly more than any individual farm. With dedicated staff focused on producing cheese (rather than other farm based chores that a farmer's wife would have had to do), a more consistent quality was achieved. Two of them (Long Clawson Dairy and Colston Bassett Dairy) were farmer co-operatives who survived the rigours of two world wars when Stilton production was banned. In the post WW2 period when production resumed in the 1950s, Stilton was still a handmade cheese with 10 small dairies around Melton Mowbray in Leicestershire, in South Nottinghamshire and Derbyshire.

In the 1970s, Unigate decided that the time had come to introduce more modern, mechanised methods of manufacture and through its subsidiary company St Ivel built a new large dairy at Harby, north of Melton Mowbray. This was done in collaboration with Robert Watson the former proprietor of the Watson Lane Stilton dairy in Harby. According to Trevor Hickman in his book *The History of Stilton Cheese* the old dairy in Harby had outgrown its premises. Construction of the new dairy was started in 1974 and had a rated capacity of up to 4,000 tonnes of Stilton cheese a year. Putting this into context the total output of Stilton cheese in that year was of the order of 4,000 tonnes and the total blue cheese market in the UK was estimated to be about 8,000 tonnes. This was therefore a huge project with potential market changing implications for the Stilton and blue cheese market. However, the factory never fulfilled its promise. Stilton was, and still is, a very difficult cheese to make and the taste and texture of the final product are very sensitive to minor changes in time and temperature combinations. Generally, Stilton was made in vats with capacities of 4500 litres or less: Harby had installed much larger vats and therefore the size of each batch was significantly increased. The traditional Stilton method of manufacture requires the curd to be handled gently and placed into moulds; after filling the curd is allowed to drain through the specially made moulds with holes in the sides to facilitate drainage. Those moulds have to be turned regularly during its first week of life to ensure an even distribution of moisture throughout the cheese. Mechanisation of the process coupled with much larger batches did not produce consistently good cheese and in 1988 St Ivel conceded defeat and accepted an offer of a management buyout. The new owners named their company Millway Foods Ltd. Then in 1990, Millway Foods was purchased by Bongrain, a large private French dairy company. Quality issues remained and shortly after they recruited Richard Davies, an experienced manager from Dairy Crest's Hartington dairy, who in due course amended the production system, removing most of the automation and managed to turn around the quality of cheese.

However, the story doesn't end there. Dairy Crest, by now one of the top three dairy companies in the UK acquired Millway Foods for £2.5 million and added the Stilton produced there to its own output at Hartington in Derbyshire to become the largest Stilton maker in the UK. In due

course they then embarked on a twin investment programme to boost production of blended cheeses at Hartington and also, in a somewhat secretive way, decided that they wished to modernise Stilton production at Hartington. They had been suffering from labour recruitment and retention issues at Hartington and, following their success in doubling the capacity of their Cornish Cheddar plant at Davidstow, took a massive gamble on investing in a mechanised flow system of cheesemaking using a continuous coagulator. Companies in Europe had been successfully using the continuous coagulator to produce soft cheeses like Brie and soft blue cheeses like Cambazola but it had not been tried on a cheese like Stilton. Plant suppliers and the Dairy Crest Hartington management team were convinced that it could be made to work. The hoped-for prize was a more consistent quality and a less expensive, less labour intensive production system.

Work on the new dairy started in 2005 and immediately ran into problems, not helped by the departure of the site manager. Once the plant was commissioned they experienced issues of poor and inconsistent quality compared to the fine cheese that was being produced at the same time in the old part of the dairy using open vats and traditional skills. Dairy Crest persevered and incurred significant financial losses on the operation before accepting an offer from Long Clawson Dairy to buy the site in 2008. The Office of Fair Trading referred the merger to the Competition Commission for clearance in October 2008 as it involved the two largest producers of Stilton cheese who at their peak probably accounted for 60% of all Stilton sales. However, when the offer to buy was made in 2008, Hartington had lost significant sales volumes due to the poor quality of cheese produced and the combined share was probably nearer 50%. This was a surprising intervention by the Competition authorities given the fact that Stilton sales accounted for just over 1% of the total cheese market. However, the authorities were concerned that the new grouping would be able to push up market prices to the detriment of consumers. It showed a lack of understanding of this niche within the cheese market, although Stilton accounted for more than half of all blue cheese sales in the UK (including retail, catering and manufacturing outlets). The blue cheese sector was subject to strong competition not just from 70 or so locally made blue cheeses but also from three of the largest international dairy companies in the world. These companies (Bongrain with St Agur, Lactalis with Roquefort and Arla Foods with Danish Blue and Castello) were marketing their own blue cheeses in the UK with marketing budgets way ahead of anything the Stilton makers could afford and with the exception of Danish Blue all were sold at a significant premium to the average retail price of Stilton.

In January 2009 the Competition Commission cleared the merger with a warning that they would not sanction any further acquisitions of Stilton makers by Long Clawson in the future nor any aggressive sales drives designed to get new major retail customers. Long Clawson subsequently sold the Hartington site and transferred production to its own plant in Leicestershire.

Blended cheese

Blended cheese is the generic name given to cheese that has been blended with savoury or sweet ingredients. There is often a presumption that this cheese is a modern phenomenon. However, it is something the Romans did routinely mixing their soft cheeses with herbs or fruit. Sage Derby is traditionally seen as the forerunner of many of today's blended cheeses, which generally use hard cheese rather than soft cheese. The original Sage Derby was made by sprinkling dried sage between layers of fresh Derby curd, then pressing to form the cheese. That is still done today by Fowlers Forest Dairies, who are the oldest surviving family-run cheesemaking business in the UK having a history that dates back to the 17th century.

Today most of the modern blended cheeses are made by chopping good quality hard cheese, then adding the fruit, herbs or spices and mixing well before extruding into the desired shape. It was probably Ilchester Cheese who developed the first of these new variants, Beer Cheese. However, it was Long Clawson Dairy that really accelerated the development of this sector with a wide range of variants using different base cheeses and different added ingredients. Others followed: Dairy Crest, Wensleydale Dairy Products, Adams Foods, Ford Farm, Cropwell Bishop Creamery, Millway Foods, Singletons Dairy and Snowdonia Cheese to name but a few. The most popular base cheeses are White Stilton, Wensleydale, Cheddar, Red Leicester and Double Gloucester. There are literally hundreds of

variants many having a short life cycle and a few being long term favourites such as White Stilton or Wensleydale with Apricots or Cranberries, Cheddar with caramelised onion and Double Gloucester with chives. In recent years the rest of the world has been invited to try these cheeses and although there are so-called cheese snobs who wouldn't want to touch these cheeses because they have been "mucked about with", they do have a loyal following and pander for those with a sweet tooth. There is certainly scope for further development in this sector both in the UK and abroad.

Goats' milk cheese

There were a handful of small caprine milk producers in the UK in the 1980s producing tiny amounts of liquid milk that was often frozen, plus some cheese. The sector gained some momentum with the introduction of milk quotas for bovine milk and some new enterprises started as a diversification move.

Metford Jeanes, whose family owned Cricket Malherbie Farms in North Somerset, was convinced of the market potential for good quality caprine milk cheese and being a Cheddar-making farm played around with making a Cheddar-style cheese from caprine milk in the late 1980s. It was launched as "Nanny's Cheddar" and was not, initially, a commercial success but he persevered. The main issue was that caprine milk was expensive to produce, typically twice the price of bovine milk, and hence cheese made from it was also expensive and needed to be of a very high standard to justify its premium price. There was a small demand for Goats milk products from those people unfortunate enough to be allergic to something in bovine milk, possibly related to the protein.

There was an additional problem in that many of those people who had tried caprine milk cheeses when on holiday in France or Greece were probably not likely to be customers in the UK. French consumers were used to the unique and sometimes powerful flavours in artisan style caprine cheese but for the typical British consumer, brought up on some fairly bland supermarket cheese, it would be a step too far. Part of the challenge was that caprine milk could develop some very strong 'billygoat' flavours if it is not chilled quickly and then processed. Many of the French cheeses and indeed some of those made in the UK were not being produced on a big enough scale to warrant the investment in high quality chilling and processing equipment. Consequently the products were variable and did not have widespread appeal.

The breakthrough came with the formation of a small co-operative of caprine milk producing farms in the South West of England who pooled their milk and supplied it to milk processors for liquid milk, or yogurt or cheese. Goat Farmers UK Ltd (GFUK) acted on behalf of the producers and managed the distribution of milk from farm to processor. This enabled some of the smaller cheese makers to expand including Abergavenney Fine Foods, who were making soft caprine cheese logs. Other groups had sprang up to service the growing demand for liquid caprine milk: Roger and Liz Sutton's Delamere Dairies in Cheshire and Angus Wielkopolski's company St Helens Dairy in Yorkshire not only had their own goats but also bought in milk from other farms and in the case of Delamere Dairies bought milk from GFUK. Piers Feilden, founder of Lubborn Cheese in Somerset, had built up a supply group to produce soft white mould caprine cheeses alongside his bovine milk Somerset Brie. He called his cheese, fittingly, Capricorn. Cricketer Farm expanded their production of Nanny's Cheddar, sourcing milk from GFUK. The founders of GFUK, Neil Walker and John Gaylard, then purchased a redundant food factory in Cornwall near Newquay and with the aid of a Regional Development Grant converted it to make a range of bovine and caprine cheeses including Gevrik (the Cornish word for baby goat) a soft white mould cheese. (Some years earlier they had arranged for a caprine milk Cheddar, Village Green, which was coated with green wax, to be made by Alvis Brothers.) The company, Cornish Country Larder, was later bought by Milk Link and enlarged to produce increasing quantities of white mould cheeses. Angus Wielkopolski then purchased Cricketer Farm, aiming to develop still further his interests in the caprine milk sector. He later sold the business to Kavli Foods - a processed cheese maker in the North East of England - to complement their range of niche cheeses which included an array of Norwegian cheeses.

Quickes in Devon have been making a wonderful Cheddar from caprine milk for some years. The major caprine milk farms supplying these markets were well invested with modern parlours and

chilling equipment and the result has been that the UK is producing a fine range of very high quality caprine milk products including cheese.

Sheep's' milk cheeses

In the 2012/13 British Cheese Directory there were around 39 dairies listed as making some ovine milk cheese. The most celebrated cheeses were Lanark Blue, Berkswell, Parlick Fell, Swaledale Ewes Milk Cheese, Yorkshire Fettle, Sussex Slipcote and traditional sheep milk Wensleydale. Ovine milk is very expensive, typically close to £1 per litre although it has a higher level of milk solids than bovine or caprine milks and hence fewer litres of milk are needed to make standard cheeses. The key issue is the lack of an all year round supply due to the difficulties of getting sheep to breed out of season. It is estimated that national production of sheep's milk cheese is less than 1,000 tonnes a year. The most celebrated imported cheeses are of course Roquefort and Feta, together with various Italian Pecorino cheeses. In total the UK imports between 15 and 20 thousand tonnes of sheep milk cheese a year meaning that in total sheep milk cheeses account for around 2.5% of the total UK cheese market.

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21. The future outlook for the British cheese industry

There are clearly concerns about what impact Brexit may have on the way the dairy industry in the UK evolves in the future. As has been noted in various chapters, the fate of cheesemakers is irrevocably lined to the fortunes of the milk producing part of the industry as well as to the development of the liquid milk market. It is a pointless exercise to predict where the industry will be post-Brexit when it is uncertain what trading environment the UK will be locked into with the current members of the EU and other countries around the world. What is known is that despite a rapprochement of market prices for dairy products in the EU and on world markets, EU and UK cheese prices are currently protected by penal levies on imports from non-EU countries; in a free trade world UK-produced Cheddar cheese would face very strong price competition from the USA and New Zealand. Arguably, when negotiating trade deals with many non-EU countries, food and agriculture would be a key area of concern. Thus, in exchange for preferential access for British exports of say whisky, salmon and cheese, the other parties would be looking for preferential access for their agricultural and food products. At the same time if there is no trade agreement between the UK and the EU, exports from both would be subject to penal import levies putting at risk not only UK cheese exports to the EU but also EU exports to the UK. As has been noted earlier, most of the UK's trade in cheese is with EU member states and very little with third countries. Recent data are given in Table 21.1.

Table 21.1. EU/UK cheese trade in 2016 (Source: BCB from HMRC Data)

	<i>k tonnes</i>	<i>% of total</i>
UK Cheese Imports from the EU	466	98.7
UK Cheese Exports to the EU	128	77.0

It is unthinkable that there won't be some sort of deal between the EU and the UK that would ensure that trade continues at some level in the future. There is no way that the UK could in the short term export much more than the 32,000 tonnes it exported to non EU countries in 2016. Trade deals might be negotiated with the likes of Canada and the USA in due course but the *quid pro quo* for more preferential access to their cheese markets (which are constrained by a combination of import quotas on most cheese types and/or import duties) would be freer access to the UK cheese market. Canada does have a preferential tariff for some of their Cheddar exported to the UK but theirs is a premium product anyway and has limited potential. Of more serious concern would be free access for US Cheddar, which would be much cheaper than home produced mild Cheddar. This sounds similar to the situation that existed in the late 19th century. Typically the market price of Cheddar in the USA in \$US is similar to the UK price in £ sterling. Depending on exchange rates, their Cheddar could be between 16% cheaper at £1 = \$US 1.20 and 33% cheaper at £1 = \$US 1.50. We could then be harking back to the late 1800s when the USA was the major exporter of Cheddar to the UK.

There are so many possible outcomes that it would be pointless to even try to second-guess where we will end up, so for the time being in looking to the future it is more productive to look at what the consumer demand for cheese may look like in the future.

What the UK produces in the future should be led by what the consumer needs and here we have a number of clues as to how demand may move in the future. At the outset our cheese market, like that in the rest of Europe, is a mature one in the sense that it is fully developed and that the growth in household purchases has slowed down in the last few years; growth has occurred in the areas of manufactured products where cheese is an ingredient (as in pizza, sauces and ready meals) and in the hospitality sector. This reflects:

- Changes in eating patterns with more meals taken out the home, particularly for fast food such as Pizza.
- More pre-prepared dishes being bought by busy households who for most of the week have time pressures which makes convenience foods a preferred choice.

- Increasing demand for ethnic foods and dishes that may or may not require cheese, e.g. Asian dishes do not generally use cheese whilst Italian and Mexican dishes do.
- Greater awareness of what constitutes a healthy balanced diet and for many people the need to eat fewer calories; this provides opportunities still for what are perceived to be healthier options such as reduced fat or enhanced protein cheeses. Here the ageing population across the UK will create demands for products targeted directly at more elderly groups who need more concentrated nutritive foods.
- Growing awareness of environmental issues (be they related to farming methods, CO2 emissions, food miles) and the drift of younger people towards vegetarian or even vegan diets. The latter group will provide an opportunity for cheesemakers to diversify into non-dairy alternatives to cheese for if the dairy sector does not do this then it is certain that others will.
- Increasing interest in wine and high quality breads, both of which are complementary products to cheese, and
- Continued interest in locally produced foods.

All this augurs well for cheese, particularly as recent research on diet and heart disease is leading people to question the validity of the anti-saturated fat research of earlier years. It seems that cheese is starting to regain its position as a natural healthy food (albeit with a high calorie label) and hence a food that can be safely eaten in moderation. It would be a pleasant surprise if the guidelines adopted by the FSA and DoH, based on advice from the Nutrition Advisory Committee, reflected the latest medical research and gave cheese a green light rather than its existing amber/red light.

Total demand is likely to be maintained at around its current level of 11 to 12 kg per person per year. Within that total it seems likely that softer cheeses will continue to grow, partly because of their ease of use (spreadable), partly because of their lower energy content and partly because they feature heavily in pre-prepared and convenience dishes like pizza (Mozzarella) and Italian dishes (Ricotta). As a result, the share taken by hard cheeses is likely to fall.

Manufacturers will develop new recipes with tastes and textures that various parts of the market are looking for. There is a bright future for small artisan cheesemakers who have, by necessity, innovated to provide a point of difference to the large operators. Food tourism has been an important development in recent years and there is nothing to suggest that this will not continue in the future. We have more small-scale beer and wine makers, clever local bakers as well as the cheesemakers to provide a bedrock of locally produced offerings throughout the UK.

We will see.

Appendices

Appendix A. – Abbreviations

ACA	Accession compensatory amount
ACC	Associated Cooperative Creameries
ADAS	Agricultural Development Advisory Service
AHDB	Agriculture and Horticulture Development Board
AOC	<i>Appellation d'Origine Contrôlée</i>
BCB	British Cheese Board
CAP	Common Agricultural Policy
CATFI	Common Approach to Financial Information
CIF	Cost, insurance & freight
CIS	Cheese Information Service
CTM	Certification Trade Mark
d	Old pence
DC	The Dairy Council
DFOB	Dairy Farmers of Britain
DIF	Dairy Industry Federation
EC	Economic Community
EEC	European Economic Community
EU	European Union
E&W	England and Wales
FHSP	First Hand Selling Price
FDM	Fat in dry matter
FSA	Food Standards Agency
G	Giga / billion
g	Gallon (imperial unless otherwise stated)
g	gram
GATT	General Agreement on Tariffs and Trade
GB	Great Britain
GFUK	Goat Farmers UK Ltd
GP	Guaranteed price
Ha	Hectare
IDB	Irish Dairy Board
k	Kilo- / thousand
kg	Kilogram
l	Litre
lb	Pound weight
M	Mega / million
MAF	Ministry of Agriculture and Food
MAFF	Ministry of Agriculture, Fisheries and Food
MCA	Monetary compensatory amount
MMB	Milk Marketing Board
MoH	Ministry of Health
NDC	National Dairy Council
NDD	North Downs Dairy Company
NMPC	National milk Publicity Council
NZ	New Zealand
MoF	Ministry of Food
OPEC	Organisation of Petroleum Exporting Countries

<i>p.c.</i>	<i>Per capita</i> (per head)
PDO	Protected Denomination of Origin
PGI	Protected Geographical Indication
PFN	Protected Food Name
ppl	Pence per litre
s	Shilling (£0.05)
SCA	Specialist Cheesemakers Association
SMP	Skim milk powder
SQ	Standard quantity
TB	Tuberculosis
TSG	Traditional Speciality Guaranteed
UA	Unit of account
UK	United Kingdom of Great Britain and Northern Ireland
UKPTF	UK Provision Trade Federation
WW1	World War 1
WW2	World War 2

Appendix B. – Inflation 1750–2011

Figure B.1 illustrates the trend in purchasing power based on the price index in 1974 having a reference value of 100. The plot, based on data at 10-year intervals, tends to smooth out the variability from one year to the next and understates the implications of inflation in the earlier years.

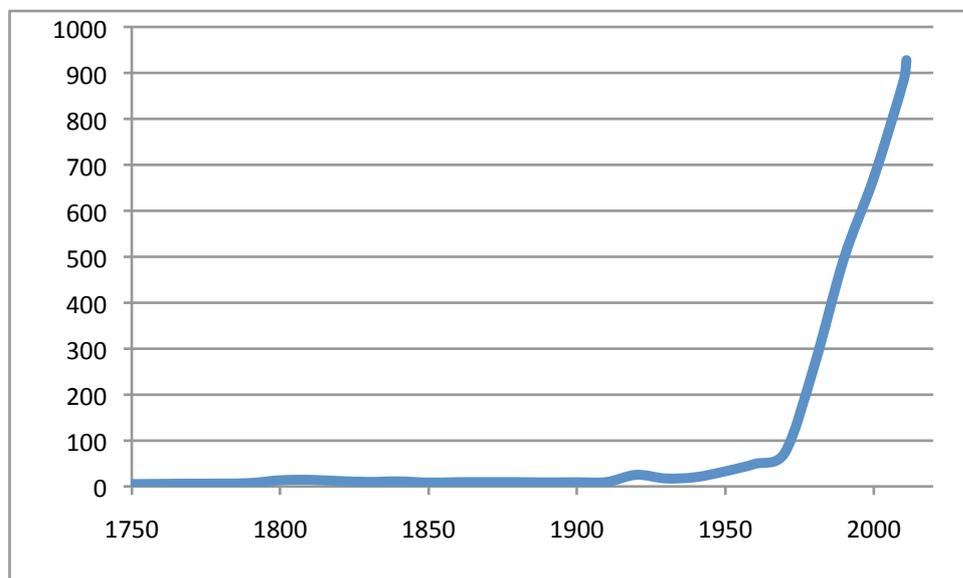


Figure B.1. Price index based on 1974 at 100 as the reference point, as a linear plot
(Source: Allen, 2012)

Converting the values to a logarithmic scale gives a better indication of fluctuations in the earlier years, as shown in Figure B.2, though this still smoothes over year-by-year spikes in inflation and deflation that affected the population.

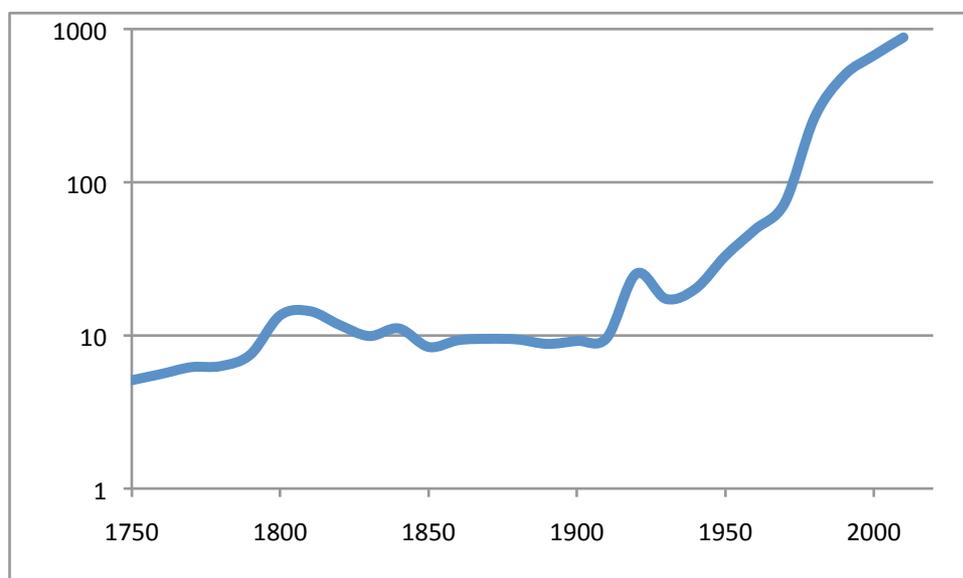


Figure B.2. Price index based on 1974 at 100 as the reference point, as a logarithmic plot
(Source: Allen, 2012)

Price comparisons are notoriously difficult to make, especially over large time gaps. Table B.1 gives comparative data based on 20-year intervals as an approximate guide. A full annual listing is given by Allen (2012).

Table B.1. Comparative purchasing power of the pound, assuming a value of 100 for the reference year (Source: Allen, 2012)

	1755	1775	1795	1815	1835	1855	1875	1895	1915	1935	1955	1975	1995	2005	2011
1755	100	141	189	254	178	211	197	172	221	319	864	2699	11778	15164	18578
1775	71	100	134	180	126	150	140	122	157	226	613	1914	8353	10754	13175
1795	53	75	100	134	94	112	104	91	117	169	458	1430	6240	8.34	9842
1815	39	56	74	100	70	83	78	68	87	126	340	1063	4640	5975	7320
1835	56	79	106	143	100	119	111	96	124	179	486	1518	6622	8526	10445
1855	47	67	89	120	84	100	93	81	105	151	409	1278	5576	7179	8795
1878	51	72	96	129	90	107	100	87	112	162	439	1372	5985	7706	9441
1895	58	82	110	148	104	123	115	100	129	186	503	1573	6863	8836	10825
1915	45	64	85	115	80	96	89	78	100	144	391	1221	5329	6861	8406
1935	31	44	59	80	56	66	62	54	69	100	271	847	3695	4757	5828
1955	12	16	22	29	21	24	23	20	26	37	100	312	1363	1755	2150
1975	4	5	7	9	7	8	7	6	8	12	32	100	436	562	688
1995	1	1	2	2	2	2	2	1	2	3	7	23	100	129	158
2005	1	1	1	2	1	1	1	1	1	2	6	18	78	100	123
2011	1	1	1	1	1	1	1	1	1	1	5	15	63	82	100

Source

Allen G. (2012) *Inflation: the value of the pound 1750–2011*. Research Paper 12/31, House of Commons Library, London. pp 17.

Appendix C. – Examples of magazine advertisements before WW2

"CHEESE IS THE BEST AFTER ALL."

An old West Country saying which conveys the truth that cheese is the best food of all, and that cheese is the best finish to all good meals.

But some people cannot eat cheese—a hard cheese may not digest—and the mould in blue cheese sometimes causes alimentary troubles.

St. Ivel Lactic Cheese is digested easily by everyone. It is the most delicious cheese in the world.

It is the only cheese that corrects evil effects caused by other foods. It feeds and purifies the system. It promotes health in every way. It contains the germ of long life.

A delicious light lunch for the Spring is a cup of hot Ivelcon, biscuits and St. Ivel Lactic Cheese.

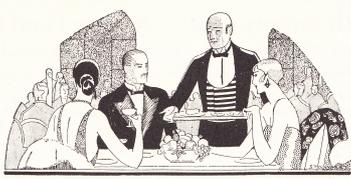
Thousands of these wonderful little cheeses are sent daily to all towns in the Kingdom, direct from Yeovil in the West Country.

All grocers and dairymen sell them at the popular price of 6½d. each.

St. Ivel Lactic Cheese—the cheese of active good.

FOOD
(Glorious)
FOOD

1925



A delicacy always in season

HAPPILY, unlike such delicacies as plovers' eggs and oysters, St. Ivel Lactic Cheese is always with us.

If you have a palate for cheese you can tell St. Ivel with your eyes shut, by its cool creaminess, its smoothness, its clean Cheddar flavour.

Every day gallons of rich foaming milk from West Country cows are turned into these delicious little cheeses—in the sportless gleaming dairies at Yeovil.

But there is more than the mere richness of good things in St. Ivel Lactic Cheese. It abounds in that Lactic Culture—the wonderful *Bacillus Bulgaricus*—which is the keynote of Metchnikoff's famous life-prolonging treatment.

There are many delightful ways of serving St. Ivel. Spread it on biscuits or sandwiches (it spreads just like butter), adding, if you will, lettuce, cream, celery, or even jam. It is in itself the ideal light lunch or tea, and as a digestive, the perfect close of any meal.

No Nightmares

When you get home from a dance or theatre, St. Ivel sandwiches are just the thing. St. Ivel is so digestible—there's no fear of nightmares. It is delicious combined with lettuce, cream, tomatoes, or jam.

Snatching a lunch

The "snatched meal" problem is solved delightfully. A St. Ivel "Minnie" (price 2d) is just the right size for a quick lunch. Light nourishes you and carries you on to your next meal. It's so clean on the palate, too. Try it to-morrow at lunch-time, and a cup of hot Ivelcon with it.

*** * ***

'Lucullus' Salad

On a foundation of young lettuce leaves or endive lay alternate sections of oranges with grape-fruit and chopped apples with walnuts. In the middle place a square of St. Ivel Lactic Cheese. Serve this with a cream dressing.

*** * ***

Metchnikoff at home

St. Ivel Lactic Cheese is a miniature Metchnikoff repastose in itself. Metchnikoff discovered that Lactic culture which works off Old Age by keeping the internal organs in perfect health. St. Ivel Cheese is rich in this very Lactic culture.

*** * ***

St. Ivel LACTIC CHEESE

From your dairy or your grocer in 8½d. cartons, or a miniature form—called St. Ivel "Minnies"—for 2d.

ST IVEL LIMITED HEAD OFFICE YEOVIL SOMERSET

Figures C.1. and C.2. Advertisements for St Ivel Lactic Cheese in *The Graphic* (1915) and in *Good Housekeeping* (1925)



Make these original
St. Ivel sandwiches
for your party

WHEN it comes to making sandwiches for a party St. Ivel Cheese simply radiates inspiration. There really seems nothing that won't combine deliciously with its fresh creaminess. Things as far apart as marmalade and smoked haddock, pineapple and ginger, raisins and chopped olives, make the happiest alliance with St. Ivel. You can serve St. Ivel sandwiches even at a children's party, for this creamy cheese is so digestible and the phosphates in it are very, very good for you. The St. Ivel Book, compiled by Miss Florence B. Jack, the well-known cookery expert, tells you how to make all kinds of original sandwiches. It also gives you new and attractive ideas for cutting and garnishing them. Send a card to-day for your free copy of 'St. Ivel Cheese Recipes' to St. Ivel Ltd., 56 Newton Road, Yeovil, Somerset.



'Open Face' Sandwiches



Harlequin Sandwiches

Harlequin sandwiches of brown and white bread and 'open face' sandwiches spread with St. Ivel and chopped radish are as decorative as they're delicious

Figure C.3. Advertisement for St Ivel Lactic Cheese in *Good Housekeeping* (1927)

FOOD
Glories
FOOD
1930



DIPLOMA "RAREBITS"



*This wondrous Cheese, beyond compare,
That's honoured in select Mayfair,
Is relished, too, in other scenes
By people of quite modest means!*



DIPLOMA
The ENGLISH
CRUSTLESS CHEESE

The 'richer you are the better you fare' can never apply to 'Diploma.' Riches cannot buy better cheese, yet modest purses can afford it because of its economy.

Cheddar or Cheshire, Box of 6, 8 or 12 portions, 1/4³

P. 113, G. 111-112

Figure C.4. Advertisement for Diploma English Crustless Cheese in *Good Housekeeping* (1930)

Diploma was a brand name owned by Wilts United Dairies, which subsequently merged with Cow & Gate and then Aplin and Barrett, owners of the St Ivel brand, to form Unigate.

NOW... at last recaptured

the rare, smooth flavour of old-time cheeses

TIME was not a factor in cheese-making long ago! Months of cool ripening developed and brought the smooth flavour of old-time cheeses to perfection.

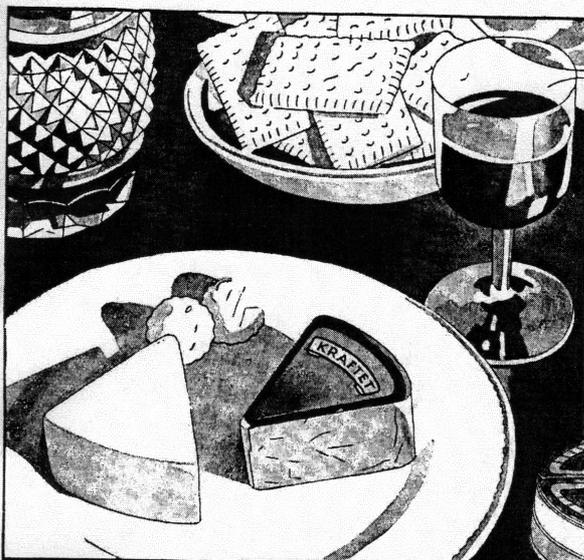
For, centuries ago, cheeses were first made in the sweet country dairies of England. Deep, thick walls and stone-flagged floors, wide windows letting the free moisture of the air reach every corner! There for six, nine, ten months, even a year — the cheeses were ripened slowly, carefully. No wonder that their flavour was so round and full and smooth!

But now, those sure leisurely methods which made old-time cheeses

famous for delicious smoothness, are almost forgotten! Too often cheese is ripened hurriedly, under high temperatures.

At last, the Kraft Company have found a way to give you that very same rare flavour of the cheeses of long ago. For, owing to the wonderful resources at their command, they have been able to reproduce the long, cool ripening — to allow the full deliciousness of flavour to develop. Following the methods of the old-time dairies — they ripen Kraft Cheese almost three times as long as is the custom nowadays — in cool rooms with air and moisture perfectly adjusted.

MELLOWED 3 SEASONS TO GIVE IT THE OLD-TIME DELICIOUSNESS

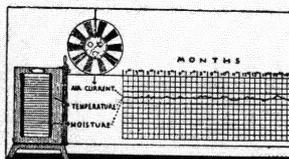


Like old wine, Kraft Cheese is matured to perfection! It comes in 1-lb. and ½-lb. packets, 5-lb. blocks and Kraft portions

KRAFT CHEESE

C H E D D A R

*Made in England
by Kraft Cheese
Co., Ltd., Hayes
Middlesex*



*By a secret method
— the same mellow goodness in
every single pound*

By a wonderful combination of temperature, moisture and air currents, the Kraft Company reproduce the perfect conditions for ripening *always*. A special instrument has been devised — called a Kygrometer, which ensures that through the long months of maturing there is no variation at all from those conditions. This means that every single pound of Kraft has the same perfect texture, mellow smoothness you long for in cheese. Pasteurized and wrapped in tinfoil — Kraft keeps moist and fresh to the last creamy, golden slice!



FOOD
Glorious
FOOD

1930

Figure C.5. Advertisement for Kraft Cheese in *Good Housekeeping* (1930)

Appendix D. – The National Mark Scheme for Empire foods

Although the Agricultural Produce (Grading & Marking) Acts came into force in 1928 it was not until the early 1930s that specifications for cheese were enacted. The specification for all of the cheeses covered the following aspects:

- Minimum age at time of grading
- Flavour
- Texture & Body
- Appearance
- Colour
- General requirements

These parameters are still used today for assessing cheese quality. The table below summarises the key characteristics that the graders were looking for when granting a cheesemaker the right to use the National Quality Mark on their cheese.

	<i>Age (days)</i>	<i>Flavour</i>	<i>Texture & body</i>	<i>Appearance</i>	<i>Colour</i>	<i>General</i>
Cheshire						
Extra Selected	28	Clean mellow	Silky texture & firm body	Rind intact No stains	Uniform colour	Hard pressed Full cream milk (min 45% FDM)
Selected	14	Clean, mild	Flaky texture. Firm body	Rind intact No stains.	Uniform Colour	Full cream milk (min 45% FDM)
Cheddar						
Extra Selected	90	Clean and mild	Firm/smooth body. Close texture	Clean rind and not broken	Uniform colour	Hard pressed Full cream milk (min 45% FDM)
Selected	42					
White Stilton						
	na		Firm not spongy Flaky open texture	Smooth rind, regular shape, no external mould	Unblemished creamy white curd, no mould growth.	Full cream milk (min 45% FDM)
Blue Stilton						
Extra selected	na	Clean and mild	Velvety body, flaky open texture	Thin moist coat, wrinkled, no mould growth & no mites	Creamy white curd, even blue/green mould	Unpressed Full cream milk only (min 50% FDM)
Selected	na	Clean and mild. Free from any undesirable taints	Chalkiness OK in selected	Some mites OK in selected as is irregular shape	Ueven mould is OK in Selected as is discolour	Full cream milk (min 45% FDM)
Leicester						
	28	Full/clean	Open and short Firm/Mellow	Cylindrical with diameter 3x depth. >7.27 kg	Rind intact, smooth and thin. Uniform	Hard pressed Full cream milk (min 45% FDM)

						colour	
Double Gloucester							
Selected	42	Full/clean no taints or sourness	Close texture, firm body	Unstained	Coloured or not, uniform shade throughout	Hard pressed Full cream milk (min 45% FDM)	
Single Gloucester							
Selected	14	Clean and mellow	Flaky texture not hard or spongy	Rind intact & unstained	Uncoloured and uniform shade throughout	Hard pressed Full cream milk (min 45% FDM)	
Derby							
	30	Clean and mild	Smooth/close texture. Firm body	Rind intact smooth/thin Diameter 3x depth typically	White, uniform shade throughout	Hard pressed Full cream milk (min 45% FDM)	
Lancashire							
	10	Clean and mild.	Open texture Buttery/friable. Firm body	Rind intact, smooth, not dry. Depth > 0.5 diameter	Uniform colour, not deeper than cream	Hard pressed Full cream milk (min 45% FDM)	
Wensleydale							
> 0.9 kg (2 lb)	14	Cylindrical Stilton shape or flat	Clean and mild, free from any bitterness	Moderately close texture, not flaky, firm body not hard or spongy.	Rind smooth or finely wrinkled. Bandages intact. No stains, creamy white curd.	Hard pressed Full cream milk (min 45% FDM) No mould growth inside.	
0.45-0.9 kg (1-2 lb)	5	Height \geq diameter					
Caerphilly							
Extra selected	4	Clean and mild	Firm body not hard or spongy. Smooth texture	Rind intact. Free from dark stains or mould	White and uniform shade throughout	Hard pressed Full cream milk (min 45% FDM)	
Standard	4	Clean and not over-acid	Firm body not hard or spongy. Flaky texture	Rind intact, free from dark stains or slime	White or creamy, uniform shade throughout		
Cream Cheese							
Selected Double Cream Cheese	na	Clean, rich and free from taints or rancidity	Soft creamy body	Clean. Complete absence of rind. Regular shape	Uniform cream throughout	Min 70% fat FDM .No preservatives or colouring Min 55% FDM No preservatives or colouring	
Selected Cream Cheese	na						

Appendix E. – The Cheese Regulations

The Cheese Regulations - as amended by in 1974 and 1984 and by other amendments to the general Food and Drugs Composition and Labelling Regulations.

(Ref 1970 No 94 Food and Drugs Composition and Labelling)

This is the basic regulation covering the production and labelling of cheese and came into operation on 31 January 1970. They have been amended notably by The Cheese (Amendment) Regulations 1974 (1974 No 1122), The Cheese (Amendment) Regulations 1984 (1984 No 649) and by other amendments to the Food and Drugs Composition and Labelling Regulations. Manufacturers are also subject to various EC Regulations and Directives and in particular Council Directive 92/46/EEC of 16 July 1992 laying down rules for the production and placing on the market of raw milk, heat treated milk and milk based products.

Further amendments of the UK Regulations may now be expected in the light of the EEC Directive and possibly in line with a number of recommendations made by the Food Standards Committee Report on Cheese in 1982.

Under these Regulations Cheese is defined as:

" The fresh or matured product intended for sale for human consumption which is obtained as follows:

- a) In the case of any cheese other than whey cheese
 - (i) By coagulating any or a combination of any of the following substances, namely milk, cream, skimmed milk, partly skimmed milk, concentrated skimmed milk, reconstituted dried milk and butter milk, and
 - (ii) partially draining the whey resulting from such coagulation.
- b) In the case of whey cheese -
 - (i) By concentrating whey with or without the addition of milk and milk fat, and moulding such concentrated whey, or
 - (ii) By coagulating whey with or without the addition of milk and milk fat;"

In addition other cheese products are defined as follows:

"Cheese Spread" – cheese which has been subjected to a process of melting and mixing with milk products other than cheese, with or without the addition of emulsifying salts.

This definition is also used to describe "Cheese Food" which is freely interchangeable with cheese spread.

"Processed Cheese" – Cheese which has been subjected to a process of melting with or without the addition of emulsifying salts i.e. it contains nothing else but cheese and emulsifying salts.

"Soft Cheese" – Cheese which is readily deformed by moderate pressure, but which does not include whey cheese, processed cheese or cheese spread, but includes cream cheese or curd cheese.

"Hard Cheese" – Cheese which is not soft cheese, whey cheese, processed cheese or cheese spread i.e. all other types of cheese are defined as hard.

Quite apart from these broad descriptions the Regulations also define for each type of cheese additional descriptors relating to the fat content and moisture content of the cheese;

Hard Cheese

The Regulations define the minimum % FDM and Maximum water content of a non-exhaustive list of different varieties e.g. Cheddar, English Territorials and certain imported hard cheeses. These are the

required standards and are shown as Appendix 1. Where these designations are not used the following descriptors may be used:

	Fat (% FDM)	Water (% by weight)
Full Fat	> 48 %	< 48 %
Medium Fat	> 10 % – < 48 %	< 48 %
Skimmed Milk	< 10 %	< 48 %

Such hard cheese must carry one of these descriptors as well as either the minimum milk fat per cent in dry matter and the maximum water content; or the minimum fat content by weight.

Soft Cheese

Soft cheese must be sold under one of the following designations even if it is accompanied by a name such as Brie or Camembert since these are not specifically defined in the Regulations.

	Fat (% by weight)	Water (% by weight)
Full Fat	> 20 %	< 60 %
Medium Fat	> 10 % – < 20 %	< 70 %
Low Fat	> 2 % - < 10 %	< 80 %
Skimmed Milk	< 2 %	< 80 %
Cream	> 45 %	No standard
Double Cream	> 65 %	No standard

Most cottage cheese is sold as either low fat or skimmed milk soft cheese; curd cheese would normally be defined as a medium fat soft cheese; full fat soft cheeses would include Philadelphia types.

Whey cheese

	Fat (% FDM)	Water
Full Fat	> 33 %	No standard
Whey Cheese	> 10 % – < 33 %	No standard
Skimmed	< 10 %	No standard

Processed Cheese

Where a processed cheese is sold incorporating a variety named in the non exhaustive schedule of varieties, the composition of the processed cheese must meet the relevant % FDM and % water contents defined; the only exception is processed Cheddar where a higher maximum water content (43%) is allowed (compared to 43 % for natural Cheddar). Otherwise the processed cheese must carry one of the following designations:

	Fat (% FDM)	Water (% by weight)
Full Fat	> 48 %	< 48 %
Medium Fat	> 10 % – < 48 %	< 48 %
Skimmed Milk	< 10 %	< 48 %

Where these designations are used cheese must carry either the minimum milk fat per cent in dry matter and the maximum water content; or the minimum fat content by weight.

Cheese Spread

Cheese Spread or Cheese Food must not contain less than 20 % fat and not more than 60 % water. The labelling may carry the name of the cheese from which it is made but this must appear before the description cheese spread or cheese food.

Permitted Ingredients

The Regulations (as amended) prescribe permitted ingredients as follows:

Emulsifying Salts – ammonium, sodium, potassium or calcium salts of citric and orthophosphoric acid; sodium, potassium or calcium salts of diphosphoric acid; pentasodium triphosphate; pentapotassium triphosphate; ammonium, sodium, potassium and calcium poly-phosphates; sodium, potassium or potassium salts of tartaric acid.

Colouring matter – any colouring matter as permitted by the Colouring Matter in Food Regulations.

Emulsifiers and Stabilisers – as provided for in the Miscellaneous Food Additives Regulations.

Miscellaneous Additives – as provided for in the Miscellaneous Additives in Food Regulations.

In addition:

Hard Cheese may contain common salt (calcium chloride), starter, any enzyme preparation capable and used for the purpose of coagulating milk in a manner suitable for cheesemaking, permitted miscellaneous additives (calcium chloride anhydrous, calcium chloride and calcium hydroxide) and various permitted colouring matters including various carotenes, annatto and cathaxanthin and certain synthetic equivalent identical colouring agents (see Appendix 2 for full details).

Soft cheese and whey cheese may contain the above ingredients together with flavourings, starches and various permitted emulsifiers and stabilisers (see Appendix 2).

Processed cheese may contain all or any of the above as well as any enzyme preparation suitable for the acceleration of ripening and the permitted stabiliser carboxymethyl cellulose, sodium salt; emulsifying salts, a further list of colouring matters (See Appendix 2) and gelatine.

The kind of hard cheese may contain any permitted colouring matter other than aluminium, silver, gold or methyl violet.

Sage cheese (hard, soft or spread) may contain sage or any permitted colouring matter.

Mozzarella cheese may contain the permitted colouring matter titanium dioxide.

Blue veined cheeses, Feta cheese and Provolone cheese may contain the permitted colouring matters chlorophyll and copper complexes of chlorophyll and chlorophyllins.

Sliced hard cheese, grated hard cheese, sliced processed cheese and grated processed cheese may contain as anti-caking agents, the permitted emulsifiers and stabilisers microcrystalline cellulose and lecithins (the latter used in conjunction with soya bean oil) and the permitted miscellaneous additives silicon dioxide and aluminium sodium silicate but the weight of such agents used alone or in combination shall not exceed 1 % of the weight of the cheese.

Feta, Provolone, Pecorino and Romano cheese may contain lipases from animal sources for the purposes of flavour production.

Table E.1. Minimum % FDM and Maximum Water Content of Named Cheeses

	Min % Fat in Dry Matter	Maximum % water by weight of cheese
Cheddar	48	39
Blue Stilton	48	42
Derby	48	42
Leicester	48	42
Cheshire	48	44
Dunlop	48	44
Gloucester	48	44
Double Gloucester	48	44
Caerphilly	48	46
Wensleydale	48	46
White Stilton	48	46
Lancashire	48	48
Edam	40	46
Loaf Edam	40	46
Baby Edam	40	47
Baby Loaf Edam	40	47
Gouda	48	43
Baby Gouda	48	45
Danablu	50	47
Danbo	45	46
Havarti	45	50
Samsøe	45	44
Emmental	45	40
Gruyere	45	38
Tilsit	45	47
Limburger	50	50
Saint Paulin	40	56
Svecia	45	41
Provolone	45	47

Source: Schedule 1 of 1970 Cheese Regulations

Appendix F. – Milk pricing in the transitional period

For the UK the main implications of the transitional period was that market prices (and intervention prices for butter and SMP) would have to rise substantially during the 5-year transition period. A weak pound compounded that issue making the sterling price increases even higher. Government was also constrained by Regulation on the extent they were allowed to increase the Guaranteed price for milk. During this period the complexities of both the EEC CAP and the UK's deficiency payments system for milk had to be married together.

The target price for milk and the intervention prices for butter and SMP were set each year by the European Council of Agricultural Ministers. They were set in an accounting currency (originally 1 UA equalled the price of 1/35th of an ounce of fine gold and at one time was equal to the \$US). These prices were then converted to each national currency using fixed exchange rates, even if individual currencies on foreign exchange markets moved. This had no impact on the national currency value of EEC prices fixed in Units of Account. In times of economic stability this system was fine.

However, the early 1970s were a time of wild economic disruption (caused in the main by a sharp increase in oil prices) and with it came wild fluctuations in currencies. Subsequently, the EEC adopted so-called green exchange rates for the purposes of the operation of the CAP, which did not routinely move in line with commercial rates of exchange but which could be changed when rates grew too far out of line. These devaluations or revaluations of a green currency could be requested by any national government but were subject to EEC Commission and Council approval.

A revaluation of a green rate would reduce the value of all prices, levies and subsidies fixed in UAs whilst a devaluation of a green currency would have the opposite effect by increasing prices. This meant that as currencies fluctuated, normally downwards for most countries except West Germany, returns from the dairy product markets would rise in line with changes in the national currency values of butter and SMP. In most countries these changes would also filter through into all other dairy products including the liquid milk market but not in the UK.

The whole system was complicated enough without currency fluctuations. So-called ACAs (Accession Compensatory Amounts) were to be paid on trade between the original EEC members and the UK during the transitional period equalising prices between the two areas: subsidies were paid to EEC exporters to the UK and levies paid by UK exporters to the EEC. These would be reduced in five equal stages during the transitional period. With the various currency changes and green currency devaluations the whole system then had to accommodate the introduction of MCAs (Monetary Compensatory Amounts) on trade between devaluing currency countries and those whose exchange rates were broadly in line with their green rates.

Within these changes the UK was continuing to operate a deficiency payments system that revolved around a regulated liquid milk market in which Government fixed the maximum retail price, the processing and distributive margin and the prices at which the MMBs sold milk destined for the liquid market. The GP was fixed in pence per litre terms and was now payable on the whole of the quantity of milk produced. Because manufacturing realisations were way below the Guaranteed price there was a huge subsidy being paid to UK dairy farmers through the MMBs. In 1973/74 - the UK's first year of EEC membership - this amounted to £96 million, which was equivalent to a subsidy of 0.7 ppl on every litre of milk sold through the MMBs. Given the then guaranteed price of 5.447 ppl, the subsidy amounted to almost 13% of the price received by dairy farmers. This reflected the importance of safeguarding the dairy industry during this period of change and in so doing protected the doorstep delivery system, which was part of the fabric of British life.

The UK Government sought and obtained a dispensation from the rules of the CAP to allow the GP system to continue for all commodities throughout the transition period after which it would be terminated. For milk, limits were placed on the extent to which the GP for milk could be increased by

the Government. This was to be based on the percentage change that took place in the target price for milk expressed in UA. Since changes in the target price were based on the changes in the intervention prices for butter and SMP, this would normally have seen the liquid milk price maintaining a premium over manufacturing realisations. However, the UK's GP was set in pence per litre terms whilst the target and intervention prices were fixed in terms of UA. With currency changes it would be quite feasible to see the guaranteed price for liquid milk sold by the MMBs fall below manufacturing realisations, a technicality that could have serious implications in the future. Not only would average pool prices to dairy farmers fall behind those in the rest of the EEC but it would turn on its head the allocation policy employed by the Boards based on maximising market returns and minimising transport costs of raw milk.

The constraints put on the UK Government in continuing with the GP/SQ system and the control of the first hand selling price charged by the MMBs for milk going into the liquid market, meant that as the target price for milk and intervention prices for butter/SMP went up, the gap between returns from manufacturing and liquid uses would close quite quickly. This put a ceiling on the extent to which average pool prices paid by the MMBs would rise in this period of inflation. If sterling had retained its value during this period then the problem would not have arisen. But during the accession period the green pound was devalued over time by 20%. Whereas manufacturing realisations might increase by that amount plus the percentage increases in intervention prices for butter and SMP, the GP would only rise by the percentage increase in the target price expressed in UA. During 1974 whilst the author was on secondment to the European Commission's Milk Division in Brussels, the Commission was persuaded of the need to do something. The outcome was that changes in the value of the green pound could in future be reflected in the UK's Guaranteed price of milk. A Commission Regulation was drafted in the summer of 1974 and duly approved, which effectively allowed the Government to adjust the GP for milk to take account of green pound devaluations. In turn this allowed the MMB's first-hand selling price for milk sold into the liquid market to be similarly increased and in so doing allowed UK producer prices to rise. It was a mere technicality of the original terms of accession that was unforeseen at the time. The direct impact on the EEC budget was zero and it was a typical example how simple tweaks of EEC regulations, which left other countries and Commission expenditure untouched, could be made to appease individual member states. (Another more trivial example of compromise was the Portuguese Government's desire to protect their carrot jam, which under EEC regulations could not be called a jam, as carrots were a vegetable. However, an amendment to the Jam Regulations allowed the humble carrot to be re-classified as a fruit for the purposes of that regulation).

Appendix G. – Summary of British Cheese Board market research in the 1990s and 2000s

In essence the research confirmed the dominance and versatility of Cheddar and the generally favourable attitudes to cheese as a food category. Cheese was seen as a natural product and generally regarded as being a healthy product - especially for children. However, that halo of goodness was eroded by a misunderstanding of the true fat content of cheese, which made many consumers rather wary about buying or eating more. Nevertheless, cheese was a firm favourite of all the family and for most uses Cheddar would do the job. Consequently, consumption of territorial cheeses was at a much lower level, except in the areas of origin of those individual cheeses; so Cheshire, Lancashire and Wensleydale were most heavily consumed in the North of England. Consumers were rather conservative in their repertoire of cheeses, with imported cheeses seen as being somewhat exotic but useful for special occasions.

The research explored other aspects of the presentation and labelling of cheese and what needed to be done to persuade consumers to buy and use more.

The main conclusions from the group discussions were as follows:

1 Cheese in general retains a favourable healthy image and is seen as essential for children. Although in the discussion groups there appeared to be a low level of awareness of how cheese was made or what its key nutrients were, in the quantitative stage a clear understanding emerged that it was made from milk and that the key nutrients were seen as calcium, protein and fat but the levels of understanding were disappointingly low.

2 Respondents believed that the fat content of cheese was significantly higher than its actual level, in general over 50%. For some parts of the population the actual or perceived fat content of cheese acts as a barrier to increased usage.

3 Price promotion appears to encourage respondents to buy that particular product but it is unlikely that this results in more cheese being consumed in total. Current prices are not seen as a barrier to increased purchase, cheese is seen as good value for money.

4 It is seen as a staple food and virtually every household buys cheese every month. It is highly versatile and is eaten by most people in the household.

5 There is a low level of awareness of the range of cheese available and there exists an inherent conservatism amongst most consumers, apart from the one cluster identified as cheese lovers, who account for about one fifth of the sample and who consume above average volumes of cheese.

6 Cheddar is universally bought and used for most purposes in the home by most members of the household. Just over one third of households had any British cheese other than Cheddar in their fridge at the time of the survey. Increasing usage of other British cheeses remains a key challenge for the industry. Cheddar is such a versatile cheese that it can be used in most applications

7 There are a wide number of uses to which cheese can be put. British cheeses and Cheddar are seen as being more for everyday usage (although quite appropriate for special occasions). Continental cheeses tend to be used more for special occasions than for everyday use. Children are key users of processed cheese products.

8 The origin of cheese, be it by country or by region, was not a key determinant for purchase.

9 To encourage greater cheese usage will require action in a number of areas by both retailers and manufacturers including:

- a. Better nutrition labelling on pre packs and on the deli counter to educate consumers about the true fat content of cheese and the role that other nutrients such as protein and calcium play in the diet of different age groups
- b. a. Develop different uses for non-cheddar varieties and improve the labelling on and off-pack of these cheeses to indicate how they compare with better known cheeses in terms of taste (strength), texture and recommended uses.
- c. Develop ways of encouraging consumers to try new and different types of cheese. Consumers see in-store sampling as being the most effective along with free samples, promotional offers or linked promotions with other products.
- d. Produce more innovative packaging with easy opening and sealing. Cheese packaging was seen as boring.
- e. Encourage consumers to sample before purchase.
- f. Experiment with different display techniques for pre-packed cheese to make it easier and more interesting for the consumer to “shop the fixture”
- g. Advertise relevant website addresses more extensively both on-pack and on the fixture as sources of more information.
- h. Target specific consumer segments individually on the basis of their attitudes, identified in this research.
- i. Develop the natural snack end of the market.

In later years the BCB then tracked some of these key attitudes on an annual basis using a telephone questionnaire run by Taylor Nelson Phonebus. Consumers were asked about the constituents of cheese, the perceived fat content of Cheddar and the level of agreement/disagreement with a number of statements about cheese, namely:

- Cheese is one of the most nutritious foods you can give to children
- I try not to eat too much cheese because of its fat content
- Cheese is one of my favourite foods
- I regard cheese as a healthy product
- I regard milk as a healthy product.

The annual survey was run from 2002 to 2010 and over that period there was a slight improvement in the number of respondents correctly understanding what the key nutrients were in cheese; those spontaneously mentioning calcium rose from 37% to 45%; protein from 28 % to 31%; vitamins 8% to 15% and, interestingly, salt from 1 % to 5% (stimulated by the FSA’s campaign on reducing salt consumption). Asked about the fat content of Cheddar, 57% of respondents either didn't know or said that it was above 50% in both 2002 and 2010.

The scores on strength of agreement or disagreement with statements about cheese were calculated by scoring +2 or - 2 for agreeing or disagreeing strongly and +1 or -1 for agreeing or disagreeing, with zero for a neutral response. This gave net positive or negative scores (Table F.1). Over the 8-year period there was a marginal decline in the scores on all of these attitudes, which although not always statistically significant still suggested that attitudes had certainly not improved.

Table G.1. Consumer attitudes to cheese (Source: British Cheese Board - Taylor Nelson Phonebus Research 2002 and 2010)

	<i>Agreeing (%)</i>		<i>Net Score</i>	
	<i>2002</i>	<i>2010</i>	<i>2002</i>	<i>2010</i>
One of the most nutritious foods you can give to children	58	52	0.44	0.30
One of my favourite foods	64	61	0.63	0.60
I try not to eat too much cheese because of its fat content	51	43	0.16	0.00
I regularly use cheese as a meat substitute or as part of a meal	36	31	-0.35	-0.50
I regard cheese as a healthy product	63	57	0.53	0.40
I regard milk as a healthy product	92	87	1.51	1.47
I regard milk as a healthy product	92	87	1.51	1.47

The onslaught from the DoH and the FSA about the need to reduce consumption of fat and salt and the percolation of those messages through to health professionals, doctors, nurses and nutritionists continued unabated. The fact that, to a large degree, consumers still felt that 'cheese was one of the most nutritious foods you can give children', that it was 'one of my favourite foods' and that cheese was still 'regarded as a healthy product' speaks loudly for the country's love of cheese. In most cases younger age groups were less likely to see cheese in a strong light and that of course was a worrying trend for the future. In general men had a more favourable attitude to cheese than women.

The one exception to these marginal declines in favourable attitudes to cheese came with the question 'I try not to eat too much cheese because of its fat content'. Here there was a clear drop in the number of people agreeing with this statement from 51% to 43%, suggesting that fat content, real or imagined, was becoming slightly less critical in influencing purchasing decisions.

The final question 'I regard milk as a healthy product' was there to provide a direct comparison with cheese. Cheese is made from milk and yet consumers see a marked difference between the two products, driven perhaps by the misperception over the actual fat content of cheese.

By and large these general attitudes to cheese have remained pretty much unchanged to the present day. Younger people are less inclined to see cheese in a favourable light and are more likely to purchase soft continental cheeses, particularly those with a lower fat content, than older people.

Appendix H. Consumption of cheese (kg p.c.) in selected countries

Country	2014	2015	2016				
EU 28	18.1	18.5	18.6	Argentina	11.9	11.9	11.6
Germany	24.0	24.5	24.7	Chile	9.0	9.1	9.3
France ^a	26.7	27.0	27.2	Colombia	1.4	1.4	1.4
Italy ^a	22.3	22.1	21.5	Uruguay	7.7	7.9	8.7
United Kingdom	11.5	11.9	11.7				
Poland	15.4	16.1	17.3				
Spain ^a	9.6	8.9	9.0				
Netherlands ^a	18.2	23.2	21.6	<i>Asia</i>			
Sweden	20.6	20.7	20.5	Turkey	7.7	8.1	7.8
Czech Republic	16.5	16.5	17.6	Iran	4.8	4.7	4.7
Austria	21.7	21.6	21.1	Japan ^b	2.2	2.4	2.4
Belgium	15.2	14.8	15.0	Israel	17.0	17.5	18.9
Denmark	24.5	26.4	28.1	Korea, Republic of	2.3	2.6	2.8
Finland	25.7	27.1	27.3	China	0.1	0.1	0.1
Hungary	11.6	12.9	13.2	Kazakhstan	2.5	2.8	2.4
Slovakia	11.5	12.3	14.0	Mongolia	0.2	0.3	0.3
Croatia	11.2	12.3	13.0	Nepal	0.0	0.0	0.0
Lithuania	18.6	18.3	17.4	<i>Africa</i>			
Ireland	11.2	13.8	8.6	Egypt	4.1	4.2	4.2
Latvia	17.4	19.8	19.8	South Africa	1.8	1.9	1.9
Estonia	21.5	16.3	20.0	Zimbabwe	0.6	0.6	0.6
Cyprus ^a	19.2	24.2	26.7	<i>Oceania</i>			
Other ^a	12.3	12.6	13.4	Australia ^c	13.6	13.9	14.7
<i>Other Europe</i>				New Zealand	8.8	7.6	8.2
Russia	5.8	5.7	5.7				
Switzerland	21.4	21.7	22.2	^a All cheese types			
Ukraine	3.9	3.6	3.6	^b Dairy years ending March of the following year			
Belarus	13.3	13.8	12.9	^c Dairy years ending June of the following year			
Norway	19.3	19.5	19.8				
Iceland	26.2	26.6	27.7				
<i>North and Central America</i>							
USA	15.7	16.1	16.7				
Mexico	3.8	3.8	3.9				
Canada	12.5	12.7	13.4				
<i>South America</i>							
Brazil	3.7	3.8	3.8				

Source: IDF (2017) *The World Dairy Situation 2017 Bulletin* International Dairy Federation, Brussels.