



Wiley Trading Advantage

The International Cocoa Trade

Robin Dand

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Preface



Over the past few years the cocoa market has had to alter its manner of operation. Continued low prices, fewer companies trading and both the perceived and real element of *del credere* risks have brought about the change. Gone are the days when the trader could dodge in and out of deals with a commodity that just so happened to be cocoa. Nowadays the 'CIF-artists' have largely disappeared and those that remain have had to revert to the fundamentals of their business — knowing the needs of their clients and, above all, knowing the commodity. While citing the trader here the same is true of others directly involved in cocoa, the exporter and, final user of the beans, the factory. In the past exporters could rely on dealers sorting out some of their problems for them, likewise the factories off-loaded much of the risk of delivery on to the dealer. Current trading conditions make this more difficult. Therefore all those in the chain of trade, from the exporter, dealer, broker through to the factory not only have to improve their understanding of the market but also some of the difficulties faced by others in the commodity. It is hoped that this book will help all involved in the international trade of cocoa to achieve this.

The requirement of understanding the cocoa trade is not limited to those in the string of buyers and sellers. There are others outside this chain that now have larger roles in cocoa than in the past, in particular the

banks, but also the shipping companies and warehousekeepers. Banks need some knowledge of the commodity and its trade practice to assess the risk when either financing companies that trade cocoa, or their involvement in individual transactions concerning cocoa. The increased use of financial derivatives, the futures and options, underline the importance by those lending money in understanding these highly geared instruments and their valuation as well as the underlying commodity and its attendant risks. Likewise developments in the transport of cocoa, bulk shipments for example, and the rise in services offered by warehousekeepers at destinations require a greater knowledge of the commodity by all involved.

The recent expansion of cocoa production from South-East Asia has raised questions over the quality of cocoa. Such concerns are not new; manufacturers were worried over the quality of West African cocoa when it first appeared and continued to worry about it when it represented over 60% of the world production. Such concerns began discussions in the 1930s over how best to assess the quality of cocoa beans – a discussion that rumbled on before the 1930s and continues today. The results of this earlier work laid the foundations for the quality assessment used today, which has not advanced much beyond what was done in the 1950s. The advent of another region entering the market, together with the chocolate consuming public wanting ever higher standards, has once again brought the discussion to the fore.

Working on this book has underlined the importance of earlier writings on cocoa and previous market situations. For example, it was interesting to see that some techniques in the post-harvest processing of cocoa recently propounded were the practice in the early eighteenth century (in fact the assessment of some aspects of cocoa quality has not changed a great deal since then, either). Looking at the past shows that in real terms the international price of cocoa is now at its lowest, certainly since 1854. Principally because they have complete sets of data from 1960 onwards, analysts tend to compare the current position with that occurring in the mid-1960s when there was also a sharp fall in prices. Actually, the current situation may have more in common with conditions at the turn of the century. That period saw the emergence of West Africa as a major cocoa producing area that resulted in a similar decline in prices from the high in 1907 as that experienced since 1977, the all time high in cocoa prices. Expansion in Asian production during the 1980s, which together with the doubling of production by the Côte d'Ivoire (and the recent collapse of consumption in what was the Soviet Union) exacerbated the fall in cocoa prices; producing a similar shaped curve to that from 1907 onwards. The pessimists will note that prices failed to recover fully until after World War II.

While there are other similarities between the two periods, condi-

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tions are not the same. The cocoa market is far more sophisticated than it was even ten years ago and despite the low prices it is still the fifth largest food commodity exported from developing countries and the seventh largest food commodity exported in the world.* Trading techniques have developed in tandem with improvements in communications that allow businesses all over the world access to information that was previously hard to obtain. It is hoped that this work will add to this and help some in understanding more about the commodity. Starting with the history of European and North American development of cocoa, the book covers its agronomics and marketing; the actuals and futures markets and their contracts (the details of which form the appendices), together with the supply and demand of the product, its quality and lastly, its processing. In covering these areas, an attempt has been made to keep an eye on the past for the explanation of much that occurs now.

My thanks go to the administrators of those institutions involved in cocoa who have allowed me to reproduce their contract terms: Frederick Dhotel of the Association Française du Commerce des Cacaos; Robin Dauncey of The Cocoa Association of London Ltd and Hans Scheu of the Cocoa Merchants' Association of America Inc. I am also grateful to the London Commodity Exchange and their counterpart, the New York Coffee, Sugar and Cocoa Exchange for allowing the reproduction of their exchanges' rules and regulations.

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Robin Dand

* UNCTAD Commodity Yearbook 1991.

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CHAPTER

1



History and origins

The beginning

European discovery of cocoa

When Hernan Cortes first set foot on what was to become Mexico, little did he think of one of the lasting effects of his arrival. Out of favour with his king and the local Spanish governor in the West Indies, his main concern must have been that he needed to show success on this venture. Had he known that he would, in some cases literally, be propagating what was to become one of the largest traded food commodities in the world, his actions may have been more muted. However, arriving at a small village (he renamed La Villa Rica de la Vera Cruz) on Good Friday 1519, he gave orders that the small fleet of ships be unloaded and, sometime later, burnt. He and his band of 600 men now had no option but to find their fortune in the area. Apart from the usual trappings of wealth that Cortes found at the Aztec court of Montezuma, he saw that the drinking of a beverage called xocoatl was highly regarded. The Mexican indians considered that the beans from which the xocoatl was made had religious significance.

Myth had it that the tree was brought to man by the god of air, Quetzalcoatl, after man had been driven from the equivalent of the

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Garden of Eden. Having helped man, Quetzalcoatl departed, leaving the 'quachahuatl' tree. The Indians therefore included the tree and its fruit in many of their religious ceremonies. Two other reasons why the Indians considered cocoa so highly were, first the taste, and second because the beans that were used to make the beverage were highly prized, rates of exchange of one hundred beans for one slave were recorded amongst central Americans. In 1586 Thomas Candish recorded that 150 beans were the equivalent to a Real of Plate.¹ The fact that Montezuma had some 900 tonnes of dried beans in a store shows the comparative wealth of the Aztec king.

The drink was prepared from dried beans that had been roasted, the shells removed and remaining nib pulverised into a brown, fatty and, to our modern taste, gritty liquid. This was done on a special concave stone called a metate. The brown liquid would have spices added, such as vanilla or pepper, as well as maize. The maize helped to reduce the cost of the xocoatl in addition to making the resulting brew milder. One method included the use of fermented maize, thereby giving the drink alcoholic properties. The resulting mixture was then made into small cakes and placed in a cool place to solidify. When required a cake would be mixed with water, either hot or cold, and beaten with a wooden instrument known as a molinet so that the drink became foamy. Montezuma reportedly drank fifty cups a day of xocoatl, mixed with honey and spices to reduce the bitterness. Before entering his harem he would be presented with a golden chalice of xocoatl, so the presumed aphrodisiac properties of cocoa are first noted.

The beans or 'cacao nuts' came from the cacao tree, not a native of Mexico but to the northern region of South America. Trade routes to this area of South America from Mexico existed and it is presumably by this means that the cocoa moved northwards to the court of Montezuma. Used since at least 1000 BC, the Maya, who also drank cocoa, had set up plantations by AD 600.

Grown under the shade of others in the forest, the cacao tree grows pods that develop out of its branches and trunk. Within each pod there may be up to forty beans covered in mucilage² and attached to the placenta. In optimum conditions a mature tree may easily produce more than 50 pods a year. Although the exact process the Aztecs and others followed when they picked the pods is not truly recorded, it is surmised that either the beans were removed from the pods and piled up for a while, or that the pods were kept for a time before being opened. Placing the beans in a pile is, as shall be explained later, an important stage as it

1 A small silver coin, circulating in Mexico until 1897 and equivalent to an eighth of a dollar or $6\frac{1}{2}$ d circa 1900.

2 A viscous mass or pulp surrounding the beans in the pod.

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allows the mucilage to ferment. It is this process that produces the precursors of the chocolate flavour in the beans.³ However, the Aztecs may have fermented the cocoa in order to remove the mucilage as it becomes liquid⁴ and runs off and to kill the beans which would otherwise begin to germinate, thereby spoiling their flavour. Once fermented, they dried the beans in the sun, which meant that they could be stored for future use, a practice they also undertook with potatoes. Drying the beans correctly is important because otherwise the beans become mouldy, thereby destroying the delicate chocolate flavour.

Cortes was not the first Spaniard to witness the drinking of xocoatl, or to bring it to the attention of Europe. In 1502 Columbus took some of these beans back to King Ferdinand of Spain. Perhaps Columbus did not discover the proper way of preparing the beans for a drink, or the beans were spoilt during the arduous homeward voyage, but the king was not impressed with this gift and there was no demand for the drink. This changed when Cortes returned to Spain and wrote to Charles I about a 'divine drink' that banished tiredness. The Spanish court accepted the drink, perhaps in part because of the recent discovery of sugar, which greatly enhanced the drink of chocolate.

In 1631 a recipe, supposedly based on Aztec practices, was published in Madrid⁵ that consisted of:

Take seven hundred cacao nuts, a pound and a half white sugar, two ounces of cinnamon, fifteen grains of Mexican pepper called Chile or pimento, half an ounce of cloves, three little straws or vanillas de Campecho or want thereof, as much aniseed as will equal the weight of a shilling, of archiot⁶ a small quantity as big as a filabead, which may be sufficient only to give colour, add thereto almonds, filabeards and the water of orange flowers.

The use of the sugar in the recipe is likely to be a later addition and not an original part of the recipe.

Spain kept the secret of chocolate for some 90 years after its discovery in Mexico. The religious element continued as monks took over the preparation of the cakes from the beans. Drinking chocolate was the preserve of the king, his court and presumably some inquisitive monks. Certainly the use of cocoa was not appreciated by the British during the

3 Some early accounts do not refer to this fermentation stage but it would seem probable that some form of fermentation took place.

4 Later plantation owners in the West Indies were to describe it as the 'sweatings'.

5 de Ledesma Colomenero: 'Curioso tratado de la naturaleza y calidad de chocolate', 1631.

6 The seed of the annato tree, *Bixa orellana*.

first part of its progress into Europe. In 1604 Joseph Acosta described it as '...loathsome to some such as are not acquainted with it...' This was confirmed by John Parkinson, Apothecary who wrote '...but to the Christians at first it seemeth a wash fitter for hogs, yet by use even accepted by also in the want of better.'⁷ Words were backed up with deeds according to an account written in 1671 by Ogilby, 'When the *English* commander *Thomas Candish* coming into the Haven *Guatulco* burnt two hundred thousand Tun⁸ of Cacao, it prov'd no small loss to all *New Spain*, the Provinces *Guatimala* and *Nicaragua* not producing so much in a whole year'.⁹ English ships that captured Spanish merchant men would throw overboard sacks of cocoa beans as they had no idea of their use. So things continued, the preparation of the drink not changing very much except for the inclusion of other spices; oranges, nutmeg, cloves, aniseed, almonds and even rose water, to name a few. Still served cold, it would come in a modified version of a coffee pot with an extra hole in the lid to accommodate a molinet to beat the mixture before serving.

At the beginning of the seventeenth century the secret seeped out to the rest of Europe. In 1606 Antonio Carletti took the drink to Italy. In 1609 the first book on cocoa was published in Mexico, *Libro en el cual se trata del chocolate* (Book of treating chocolate). However the seepage became a stream in 1615 when Louis XIII married Anne of Austria. She brought to the court of her husband the secret of chocolate. Like the Spanish court the French began to take to the new taste and the use of the cocoa beans began to spread. In 1648 Thomas Gage published 'A New Survey of the West Indies' in which he records that chocolate drinking was liked by all on the plantations without the inclusion of sugar or spices. Two years later in 1650 the first use of chocolate in England was noted to have taken place in Oxford. By 1657 chocolate, in the form of a drink or the ingredient to make a drink, was on sale in London. At a price of ten to fifteen shillings per pound, it was reserved for those who had a purse to match the price. 1660 saw the marriage of Spain's Princess Maria Theresa to Louis XIV. The marriage further popularised chocolate drinking in Paris. What was the preserve of the Spanish court now became available to anyone with the money.

7 Parkinson J: 'Theatrum botanicum', 1640.

8 Tun here must mean a container or barrel. Two hundred thousand tonnes would be a prodigious level of production in the seventeenth century.

9 Ogilby J: 'America, being the latest and most accurate description of the New World', 1671.

Early production

Spanish propagation

During the course of his voyages Cortes did more than carry the dead dried beans with him. He, and others, took seeds and planted them in the course of their travels. In a little over a century from Java to Jamaica the Spanish introduced cocoa as a crop. In 1525 cocoa was taken to Trinidad, 1560 saw the Celebes and Java with cocoa, and by the end of the century Haiti and Fernando Po had also joined the list. Whether by accident or design all the locations used by the Spanish to grow cocoa were islands, the last of which was Jamaica in about 1640.

The type of cocoa grown in Mexico at that time seems to have originated from an area of southern Mexico to Nicaragua. It came to be called Criollo, meaning 'native'. Although of a quality eminently preferred by consumers in terms of flavour, it is a dainty variety of a delicate species. It is particularly susceptible to disease and drought. Although growers probably knew of other varieties the flavour of these other stronger stock was not preferred. The Criollo cocoa was the pre-eminent variety at the time.

The French influence

From about the middle of the seventeenth century the spread of cocoa as a crop fell more to the French. Martinique and St Lucia both had started plantations that provided most of the cocoa consumed in France by the end of the following century. In 1702 the first exports of cocoa from Surinam took place. Planters there grew the cocoa without the benefit of shade trees. Although the trees grow quickly they require larger amounts of nutrients and water. For Surinam the end came in the 1890s when practically all their crop died. This technique of growing has recently re-emerged in Indonesia, although the growers use a different variety and method of propagation (see Chapter 4).

Trinidad

Many of the plantations of cocoa subsequently started elsewhere in the world were based on seeds grown from Trinidad stock. The introduction of the first cocoa to Trinidad from Mexico laid the foundations of much of the development of the crops for the future, the effect of which we still benefit from today. Initially Criollo cocoa was brought in and became well established until 1727 when the whole area of the West Indies was subjected to a 'blast'.

The 'blast'

The French continued to plant cocoa in new areas. In 1714 they introduced cocoa to Grenada from Martinique. However, the expansion of the cocoa grown in the Caribbean area suffered a major setback. In 1727 a 'blast' destroyed cocoa grown in the area. Interpretations to the meaning of the blast include hurricanes, drought or a fungal attack. It should be remembered that most cocoa cultivated at that time was the Criollo variety, a type naturally susceptible to all manner of diseases and drought, and therefore all of the interpretations to the 'blast' are valid. The effect on the West Indian population was dramatic as cocoa was the sole export. In Trinidad, where cocoa represented the main export, many of the colonists and their slaves left the island for the mainland; by 1733 the adult male population, excluding the indigenous Indians, had dwindled to 162.

The disaster of 1727 in the Caribbean was the forerunner to many similar occurrences where the Criollo cocoa had been introduced from Mexico, which, up to the middle of the eighteenth century, included most of the commercial plantations. It is of interest to note that historians say one plantation (owned by a planter called Rabelo) survived the 'blast'. Tradition had it that he planted the 'inferior' but hardier Forastero variety. For cocoa this perhaps serves as an early lesson in the perils of monoculture.

It is also of interest to know why this information survives. Growers in Trinidad faced paying tithes on their cocoa. Apparently many evaded the payment by selling their crop in advance (why the administration could not cope with this is not known) but Rabelo was unable to sell his cocoa forward, because the buyers considered it an inferior variety. Consequently the records show he invariably paid the tithe. The interesting point concerns the forward sale of cocoa. These days forward sales (selling something now for delivery at some time in the future) is very common. It does not appear to be greatly favoured in the cocoa trade much before the twentieth century, but in the early eighteenth century Trinidadian growers seem to have utilised this form of sale.

Recovery

Either Arogonese Capuchin Fathers or the Dutch re-introduced cocoa into the devastated plantations in Trinidad in 1756. This was a hardier variety of cocoa from eastern Venezuela, also a Forastero like Rabelo's. These trees were crossed with the few existing Criollo trees giving a hybrid, hardier than the Criollo although with an inferior flavour. This hybrid was named 'Trinitario' and, in one form or another, went on to become the basis of

many plantations that needed to be replanted after the 'blast' or other misfortunes.

The trend of replacing the original Criollo variety with hardier Forastero stock occurred throughout the world with only a few exceptions of 'pure' Criollo remaining. (There were, however, some blended versions using existing Criollo stock, as was the case with Java cocoa in 1888.)

Early consumption

Drinking houses

By the middle of the seventeenth century coffee houses were beginning to be opened in England and, within a few years of their only providing chocolate coffee was also on offer. By the end of the century such drinking houses had become popular places for the gentry to meet, talk business or just gossip. The government was quick to impose an excise duty on cocoa; in 1650 that meant chocolate was soon advertised at half a shilling a pint. To help put this price into perspective a foreman would expect to earn about £20 a year. On top of the cost of the drink the house would also charge an entrance fee of one or two pennies per person. Such venues provided the meeting place for like minded people. It was therefore not surprising that some houses became known for their gaming activities (White's in St James Street); others for business (Lloyds in Lombard Street) and some for political discussion (The Cocoa Tree). The latter category caused some concern for Charles II as in 1676 he attempted to close down the drinking houses. He felt that they were fomenting political dissent, a view that failed to be enacted.

The drinking houses helped to set the trend for those who could afford chocolate. As the chocolate houses faded away or became private clubs they had left their former clients still wanting the taste of chocolate. Partly as a result of this, sales of cocoa to be prepared as a breakfast drink continued to grow during the eighteenth century. The other main reason why sales continued to grow in the United Kingdom as well as in the rest of Europe concerned the unfounded claims that chocolate had therapeutic benefits. Sales of chocolate were promoted at the spa towns for those who were there to 'take the waters'. Against the tide of chocolate consumption at this time some medical practitioners sanctioned caution on drinking chocolate. In 1624 Johan Rauch¹⁰ considered chocolate to inflame the

10 Rauch Johan: 'Disputo medico diotetica de aere et esculent de necnon porta', 1624.