

CHAPTER III : PRODUCERS, CONSUMERS AND TERMINAL MARKETS

1. INTRODUCTION

Chapter II illustrated how the volume of trading on terminal markets has increased over the past decade for a wide range of commodities. To understand why terminal market trading has grown in importance, we shall now examine how producers and consumers of commodities can make use of terminal markets, and what advantages they offer. In the next chapter, we shall study the reasons behind the expansion of non-trade interest in terminal markets.

The positive advantages of terminal market trading for producers and consumers are dealt with in the following sections. But, first of all, a 'negative' reason for using terminal markets can be noted here. We observed in Chapter I that the alternative to terminal markets was a system of producer pricing. Insofar as this alternative becomes unviable, whether in the form of a strict producer controlled market or a commodity agreement between producers and consumers, then terminal markets will tend to fill the gap.

A clear example of the collapse of a producer system under the pressure of economic events is provided by the recent demise of producer pricing in the US copper market. We made the point in Chapter I that producer prices will tend to be below the free market when prices are strong, and above the free market when prices are weak. The ultimate cause of the collapse of the US Producer Pricing system was the exceptional duration and severity of the recession in the world copper market in the mid and late 1970's.

The peak LME copper price was recorded in April 1974. During the following months, the price fell back sharply, and even by

1979 had not regained its nominal value in 1974, let alone its real value, allowing for inflation. Throughout this period, the US Producer Price stood at a considerable premium to the LME, as can be seen from Table 3.1. The consequence was a rapid build up of US producer stocks of refined copper to record levels, despite efforts to restrain US mine output.

Table 3.1 : US Producer Prices, LME Copper Prices and US Producer Stocks of Copper, 1974-1978

	<u>US Producer Price (c/lb)</u>	<u>LME Price (c/lb)</u>	<u>Difference (c/lb)</u>	<u>Year-End US Producer Stocks ('000 mt)</u>
1974	76.65	93.10	-16.45	137.6
1975	63.54	56.11	+ 7.43	236.5
1976	68.82	64.05	+ 4.77	247.5
1977	65.81	59.38	+ 6.43	260.1
1978	65.51	61.83	+ 3.68	181.7

Source : WBMS

High US Producer Prices caused consumers to reduce their purchases from domestic producers to minimum, while accepting copper priced on the lower LME quotation (via imports) or from Comex. Meanwhile, the US mines faced pressure from the US Administration to cut prices, as part of its anti-inflation package, and felt direct financial pressures upon resources, stretched by the tying up of some \$400 million of working capital in stocks, during a period of low profitability.

Eventually, in May 1978, Kennecott, formerly one of the main advocates of the producer pricing system, changed its tactics. It decided to introduce a price for its cathodes which was set at a fixed 2.5 cents per pound premium over Comex. Shortly

afterwards, Anaconda, another major US producer, followed suit. While the remaining large US producers, e.g. Phelps Dodge and Asarco, were reluctant to drop the producer price system entirely, they had no choice but to keep their quoted prices closely in line with the Comex price, and they altered their 'producer prices' very much more frequently in response. In 1979, Phelps Dodge changed its copper price an unprecedented 39 times; while Asarco, in order to keep itself competitive, changed its price no less than 82 times, equivalent to once every three working days.

The result was as desired. US producers were able to increase their sales of copper and run down stocks almost immediately. End-1978 stock levels were some 80,000 tonnes below those recorded twelve months before; and they fell by another 90,000 tonnes during 1979. However, the pressure that had built up over the previous four years had spelt the end of the US Producer Price system. In the following sections, we shall bring out other problems of producer pricing which enhance the relative merits of a terminal market pricing system.

The example of copper is a vivid one, because it encompasses the demise of a very long-standing producer pricing system, but the lessons to be learnt from it are wide-ranging. Producer pricing systems can generate considerable benefits for consumers and producers alike, by increasing the stability of commodity prices. However, producer pricing systems come under great pressure in periods both of high and low prices. When demand is strong and commodity prices are tending to rise, there are obvious attractions for producers to break ranks, and take advantage of the higher prices available in the terminal market. But, producers don't always gain commensurately when free market quotations fall below producer prices in times of recession, because, at such times, free market supplies tend to nibble away at the market shares of those producers sticking

loyally to a producer pricing system, just when they hope to be rewarded by customers for their under-pricing during the earlier boom. As long as the ups and downs of the commodity cycle are of a roughly comparable duration, producer pricing systems are fairly well equipped to survive, even alongside well established and thriving terminal markets. The difficulties arise when the cycle proves to have an unusually long peak or trough. In either case, the restraint of those producers setting their own administered price becomes sorely tried before the market turns; and it may need only one modest sized producer to break ranks for the whole system to collapse.

2. HOW PRODUCERS CAN USE TERMINAL MARKETS

There are a number of facilities that terminal markets offer the producers of commodities. To what extent these are used depends on the sophistication of the producer in question. However, changes in economic and market circumstances may force producers to look more closely at the potential benefits they can derive from trading on commodity futures markets.

Firstly, terminal markets can be used as a 'market of last resort' for the physical commodity. We have noted earlier that deliveries to and from exchange warehouses form only a very small part of the total business transacted. However, a producer who wishes to sell excess output, produced over and above his regular contractual commitments, can sell onto the terminal market. The commodity has to meet a minimum necessary quality standard to be acceptable by the exchange for trading on its contract; but in practice, in order to generate sufficient interest in trading, futures markets rarely stipulate top quality requirements. This also means that producers of second grade material, who tend to find some difficulty in making direct sales to customers during times of market weakness, have a ready made outlet when they most badly require one.

On the other hand, producers may also buy from terminal markets. If they are faced with production difficulties and do not want to declare 'force majeure' - i.e. an inability to meet the customers' contracted requirements - it may be possible, conditions of quality permitting, to supply commodities from the exchange. This is not a common use of terminal markets, and may also prove very costly if the current price level is high and heavy transport costs from an exchange warehouse to the consumer are incurred.

A second use of terminal markets by producers is to finance stocks. In Section 1, we saw that stocks can absorb considerable amounts of a company's working capital. This burden can be alleviated somewhat through using terminal markets. In 'normal times', when there is not a shortage of the commodity, its spot price tends to be less than its forward price; in market terminology, a 'contango' rules.

A knowledgeable producer, with surplus stocks of raw material awaiting processing, can finance some of the costs of holding onto these stocks by selling forward the tonnage tied up in surplus stocks. By doing so, he "earns" the contango. For example, consider the case of a company recycling lead batteries, and with surplus stocks of batteries on its hands at a time when the spot price of lead (which determines the value of the batteries) is £300 per tonne, and the three month forward price is £310. The company can gain £10 per tonne by selling three months forward the tonnage that it expects to require for processing in three months' time. Then, when the three months has elapsed, he buys back the contract that he sold on the terminal market, and the price that he pays will be the spot price ruling at that time. By means of these transactions, the company has, in fact, met two objectives at one and the same time. It has earned the contango, and thereby reduced the costs of financing and storing stocks, while also hedging the value of the metal in its stocks (since the effect of the transactions is to shift the purchase price of the metal from that ruling at the start of the period, to that ruling when the three months have passed).

At times of market weakness, when stocks are large, the contango moves very close to its theoretical limit - equal to interest charges and warehousing costs (plus the costs of deteriorating quality, where these are relevant). The deadweight

of large stocks tends to push up the contango during a recession, but, if the contango rises above this limit, it becomes profitable for an institution such as a bank to intervene to reduce the contango by buying the commodity on the physical market and selling the same tonnage forward simultaneously. Therefore, at the very time that stock financing will, in all probability, be a serious problem for producers, the terminal market is most likely to offer attractive opportunities for reducing the burden of working capital.

The possibilities for using terminal markets to reduce stock financing costs exist only when there is a contango. Sometimes, the spectrum of forward prices is characterised, as it often is during a boom, by a scarcity of physical metal for delivery in the immediate future, with forward prices standing below spot prices (in market terminology, this is known as a "backwardation"). In these circumstances, the logic of the pattern of prices is that those people holding surplus stocks of metal should be encouraged to sell these stocks to the market, (and, if necessary, buy a similar tonnage for future delivery, at a discount equal to the backwardation), rather than seek to use the terminal market to reduce financing costs.

The example of a scrap lead processor, presented above, demonstrated not only that terminal markets can assist in stock financing, but also that they provide facilities for producers to meet another major objective - the hedging of price uncertainty.

In practice, producers do not make great use of hedging facilities, but they are important for reducing the price risks faced by producers. The technical name for the hedging operation that is specific to producers of commodities is a 'price fixing hedge', where producers can fix a price for the future delivery of commodity, even if the contract with the

consumer stipulates that the delivery price will be the spot price on the future date, which is, therefore, unknown. This type of hedge protects producers from an unexpected fall in the delivery price.

An example of a price fixing hedge can be given for the Chilean copper refiner Enami. In May 1979, Enami's futures trading on the LME made Chile the first CIPEC country to hedge on a large scale on a terminal market. Enami sells futures on the LME for the day when it is to make physical delivery at the ruling LME cash price. When the delivery date arrives, Enami purchases cash LME contracts to cancel out its futures position. If the LME price falls by £100 per tonne, Enami will lose this amount on its physical transaction, but regain it when buying the cash LME contracts at the cheaper price. The result is that the change in the LME cash price falls out of the reckoning, and Enami has fixed its selling price at the futures price known when the hedge was initiated. Enami is reported to be covering over 8000 tonnes per month of its copper sales in this way, or almost all its production of refined copper.

The position of Enami is unusual, in that the company exists primarily to buy and process the production of ore from Chile's small mines sector. Since Enami has to buy the ore on the basis of the price ruling on the day of purchase, it could find itself very exposed if it had not hedged during a collapse in the market price.

A more representative example of the manner in which producers benefit from the facilities that a terminal market affords for hedging is that provided by the vast US agricultural sector. Many banks making seasonal loans to farmers growing crops such as soya beans, maize wheat or oats, insist upon the loan recipients insuring themselves against adverse price

movements by making price fixing hedge sales of a significant proportion of their likely output.

The commodities examined in detail in Chapter II have longer gestation periods between investment and production than grain crops, but an illustration of a growing trend towards hedging by mineral producers is given by the Philippines gold producer, Benguet Consolidated. Faced with a major investment in new machinery to expand a low grade, high cost gold mine, Benguet, last year, made a price fixing sale of roughly half of the output from the mine at prices which guaranteed a reasonable profit, enabling a go-ahead decision to be made without undue risk.

3. HOW CONSUMERS CAN USE TERMINAL MARKETS

Consumers can make use of terminal markets in a similar manner to producers, but with the obvious distinction that they stand at the opposite end of the flow of commodities, with all the differences in risk that this implies.

Terminal markets can play the role of a market of last resort for consumers as well as producers. If consumers are faced with a shortage of raw material, or else are holding stocks in excess of their requirements, they may be able to eliminate the imbalance through buying from or selling onto the commodity exchange. However, for consumers, much more than producers, the quality stipulations of the exchange contract in a particular commodity are a limiting factor.

The broadly based contract favoured for terminal markets often means that a consumer purchasing from the exchange is unable to obtain material of the desired quality. Consumers then have to enter into a deal with a merchant to provide a specific brand of the commodity from his own stocks; and, of course, consumers are obliged to pay for this service. For this reason, terminal markets are only used for consumers' marginal physical needs.

Consumers are also similar to producers, in finding a terminal market's hedging facilities of value. However, in general, producers face only one kind of price risk in commodity dealings, namely that the price received for the commodity will not be sufficient to cover production costs and yield a satisfactory profit. Consumers, by contrast, are vulnerable both on the buying and selling side. When buying their raw material inputs consumers face fluctuating prices, where they buy cocoa beans, refined copper or wool etc., for processing. And subsequently, when they sell their manufactured product, they often find that

the market price of the product is directed related to the ruling price of the raw material. To protect their processing costs and profit margins, therefore, consumers are forced to hedge. The extremely active terminal markets in soya products - soya beans, soya bean oil and soya bean meal - are firmly based upon the hedging operations of soya bean processors.

These considerations explain why hedging is much more widespread among consumers of commodities, than among producers, of course, consumers are glad to take advantage of the stability of a producer price system when one exists, but once such a system cannot guarantee reasonable stability of prices, the need for a means of offsetting price risks - hedging on a terminal market - emerges.

In a third respect, too, consumers are similar to producers in their use of terminal markets. In much the same way that producers can use the contango to reduce the costs of financing inventories of commodities, so also can consumers. By analogy with the example of producers, consumers are not restricted solely to the commodities actually traded on terminal markets when it comes to "earning the contango". They can also use the terminal market to finance stocks of processed and semi-processed goods, whose prices move in line with the primary commodity in question. For example, a producer of cocoa butter, or a maker of woollen yarn, or a manufacturer of lead strip for car batteries, can use a cocoa, wool or lead terminal market respectively to reduce the financing costs of inventories of their finished products.

4. CONCLUSION

The previous sections have outlined the main advantages for producers and consumers of using terminal markets. It will be evident from the discussion of the advantages that exist for consumers in using terminal markets that intermediaries, such as merchants, buying commodities from a supplier, and subsequently selling them, are particularly vulnerable to small movements in commodity prices. Hence, both the hedging and inventory financing facilities provided by terminal markets are very widely used by this special group.

As administered producer price systems have weakened in commodity markets as diverse as those for zinc, sugar, aluminium and copper, trade interests, comprising producers, consumers and merchants, have had perfectly valid, non-speculative reasons for increasing the volume of terminal market trading activity undertaken by them. If we leave aside, for the moment, the influence of speculators and non-trade involvement, we can see that, in a situation of growing market instability, terminal markets will tend to be used more by 'legitimate' trade interests. Producers can use the futures prices on terminal markets to fix a price for the future sale of their output, and so hedge the risk that they face. Consumers will also trade in futures contracts to offset the risk of losses in processing margins, caused by price fluctuations. And, both producers and consumers will utilise terminal markets for their physical commodity requirements, and to ease the burden of inventory finance. For merchants, the need for a straightforward hedging of commodity price risks is paramount.

An important conclusion, therefore, is that at least part of the increased volume of business on terminal markets is accounted for by producers, consumers and merchants of the

commodity concerned. This is not to say that 'legitimate' traders do not speculate, nor that involvement in the market is necessarily beneficial to overall market stability. To assist in assessing the importance of such issues, the next chapter will examine the controversial issue of non-trade involvement in terminal markets.