PREDICTING CHANGE IN AGRICULTURAL TRADE

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INTRODUCTION

Economists and consultants who attempt to project the price of our commodities in future years always seem to be in trouble for being wrong.

Market research and analysis is however a recognised necessity for all businesses to undertake and primary producers are certainly no exception. Every decision to plant or breed has implications for at least a year ahead in production and possible profitability.

Why then does our market intelligence appear to be so difficult to analyse and present to producers in terms which can help the decision-making process?

The prediction of supply, demand and prices in world trade is difficult even without the uncertainty of weather which can exert a major influence on agricultural trade patterns.

There are certain key pieces of information which should always be available to any market analyst. For any commodity we should know:

- How much is normally produced worldwide?
- Who are the main producers?
- How much is traded outside country borders?
- What are the world stocks?
- What Government policies exist or are projected in the main import and export countries?
- Who are the main exporters?
- Who are the main importers?
- What does the historical trend in production, consumption and prices show?
- What is the price history?
- Where are prices now relative to the past?
- How sensitive is price to over-supply or under-supply?
- Are there any cyclical indicators?
- What technical analysis techniques might be relevant?

- What are the current projections for production, consumption, quantity traded and stocks for the next year or so?

Some of these are discussed, with illustrations, in the following sections.

WORLD PRODUCTION AND TRADE

The world production of the commodity we are examining as well as the quantity of that commodity traded throughout the world are essential pieces of information we require before we attempt to project future trends.

By looking at this over time we can see trends which are emerging or are well defined in the trade pattern.

TABLE 1.

WORLD COMMODITY TRADE

	Total World Production (Kt)		Total Traded			
	1980	1989	1980		1989	
	Kt	Kt	Kt	%	Kt	%
Wool (Greasy)	2802	3261	1392	49.7	1439	44.1
Cotton	14312	18330	4984	34.8	5548	30.3
Beef (carc wt)	4300 (est)	46768	2577	6.0	3050	6.5
Wheat	429000	535000	86000	20.0	97800	18.3
Coarse Grain	744800	807000	99200	13.3	96600	12.0
Oilseeds	173118	199053	33000	19.1	31800	16.0
Grain Legumes	40429	55000	2865	7.1	5100 (est)	9.3
Mutton & Lamb	5900	6500 (est)	650 (est)	11.0	600 (est)	9.2

Table 1. shows world production and world trade for the major bulk commodities (ABARE, 1989). With the exception of beef and grain legumes the % of total production traded has declined from 1980 to 1989 although the actual quantity traded may have risen.

If we analyse the grain legume and beef figures further, they reveal the trend towards increased grain legume imports in India and Western Europe and increased beef imports into Japan, USA and the EEC.

One of the key factors to recognise is that most of the world's agricultural production is consumed in the country where it is produced. For most commodities only a few countries are major exporters and it is important to know who the main importers and exporters are in world trade for any one commodity and what the trends in imports have been over previous years as well as the world stocks situation.

Changes or foreshadowed changes in government policies in various countries can be critical and changes in export and production support schemes, import quotas, tariffs, etc can grossly distort the expected outcome of world trade analysis. The relaxation of import quotas on beef into Japan, the increase in beef quotas into South Korea and the Export Enhancement Program of the USA are all examples of government actions changing world trade patterns.

TRENDS IN AGRICULTURAL TRADE

General

While the whole area of agricultural trade on a worldwide basis can be complex, it is often possible to identify consistent trends which need to be understood and which should be taken into consideration when analysing any commodity situation.

In developed countries consumers are demanding greater quality, greater variety and are eating greater quantities of food prepared outside the home. Corporate investors have provided the most efficient means of meeting these factors in some cases (eg chicken, pork, wine etc). In other cases family operations need to understand how these trends vary.

There is also a growing awareness worldwide that freer trade is of benefit to all and so it is anticipated that the current GATT round will actually make some limited progress in reducing protectionism in world agricultural trade. If this does not eventuate and protectionism continues then agricultural trade will continue to be difficult.

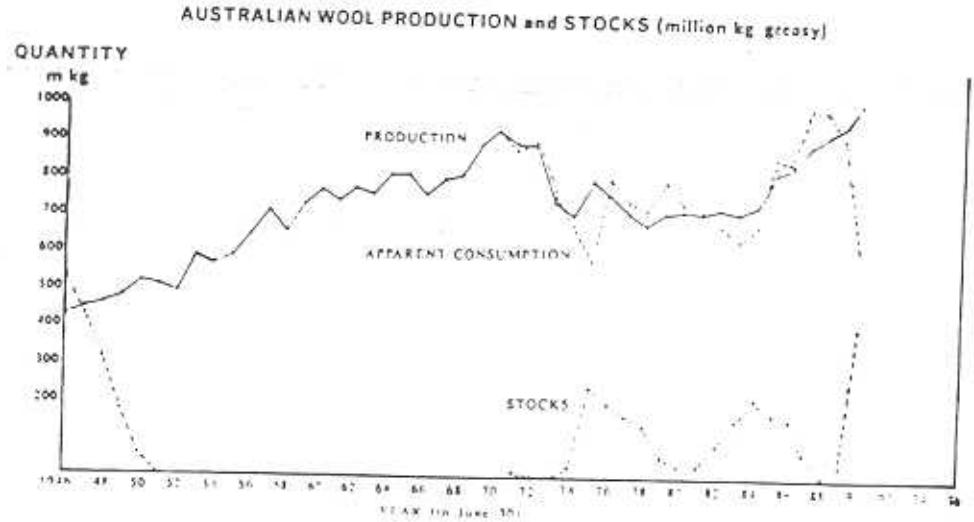
The almost instant knowledge worldwide of significant events in production, demand, price and seasonal events is a product of new technologies and ensures better and faster market knowledge for those in the trade and also for producers who are keen to follow changing trends.

Long Term Trends

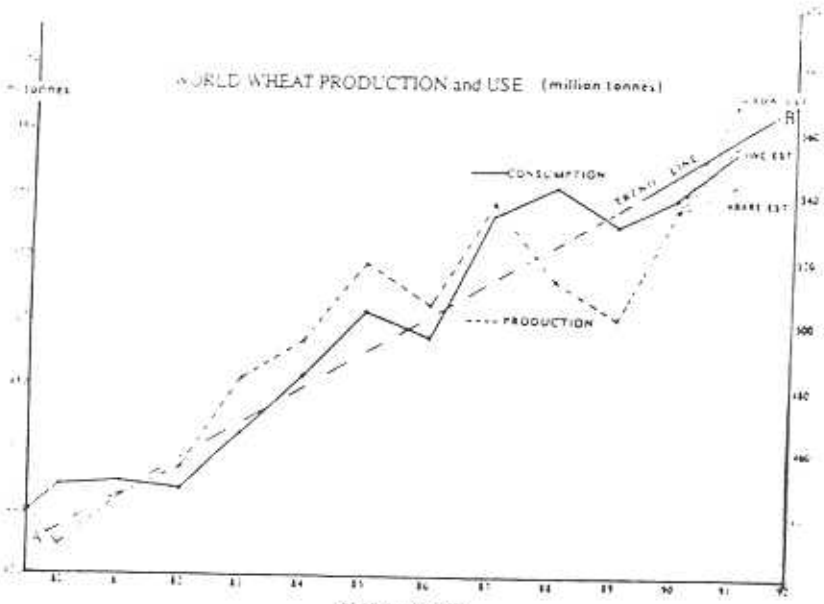
By analysing the historical performance of commodities and then predicting influences likely to affect future demand, longer term trends can be identified.

For instance wool production in Australia after the 70/71 crisis settled at around 700 million kilograms (m kg) till 1984/85 after which production increased to the current 1020 m kg (Fig 1). World consumption has varied between about 650 & 800 m kg from 1972 to 1984/85 and with devaluation and the entry of new buyers rose to around 980 m kg

at its peak in 1986/87. With the increased price demand has now dropped. The key question now is whether the world can absorb more than an average of around 750–800 m kg at current higher prices.



Conversely wheat production and consumption has been increasing steadily over the last 40 years (Fig 2) reflecting the fact that it is a basic foodstuff and demand increases as world population rises.



The growth in the economies of developing countries is also a key factor to increasing world demand for agricultural products. Very few developing countries can produce the variety or quantity of food required to satisfy demand once they have developed past the subsistence level. The potential in the long term for increased trade in Asia is well known to all. Just how quickly and in what areas this trade will develop is a little harder to predict.

Understanding longer term trends can provide the basis for producers to invest in or change production to a certain industry or enterprise.

Changes in world production patterns due to development, climatic changes and government policy are generally gradual and must be taken into account in our planning.

Short Term Trends

Shorter term trends are more likely to influence seasonal decisions and affect the emphasis a mixed farmer might place on alternative commodities.

It is important to realise that when a particular commodity becomes attractive to produce because of a shortage and subsequent price increases, the world has the capacity to overproduce that commodity in a fairly short period of time.

ANALYTICAL SYSTEMS

In attempting to predict changes in world trade and thus in price and production profitability there are two main techniques used by economists and market analysts.

The two systems fall into the broad categories of fundamental analysis and technical analysis.

Much of our agricultural economic forecasting is based on fundamental analysis using economically based analytical techniques which examine supply, demand, price relationships; variability factors; macroeconomic influences and trends and often uses econometric models to forecast future supply, demand, stocks and price outcomes.

Fundamental analysis

Fundamental analysis looks at the historical supply and demand for a product and the price relative to the balance of supply and demand.

The fundamental analyst then looks at current forecasts for both supply and demand (including economic trends in exporting and importing countries) and projects an expected price based on these factors.

Such projections can have some degree of accuracy in the shorter term (1-3 years) but cannot hope to cope with seasonal changes, government changes or unexpected production or consumption shifts.

The wheat industry projections are an interesting case in point. After the USA drought, production worldwide has recovered and is now predicted in 1990/91 to be somewhere around the expected long term trend line (see Fig 1). Production is expected to exceed consumption and prices are expected to weaken a little over the next 12 months.

However, given the low level of stocks and the uncertainty of sowing areas and weather conditions, the reverse could easily occur and within 12 months the price could be substantially firmer. The projected world shortage of coarse grains over 1990/91 could also substantially influence the wheat outcome.

The conclusions reached by this type of analysis give the best projection based on facts known at that time. As events unfold the projections need to be continually updated and may change substantially.

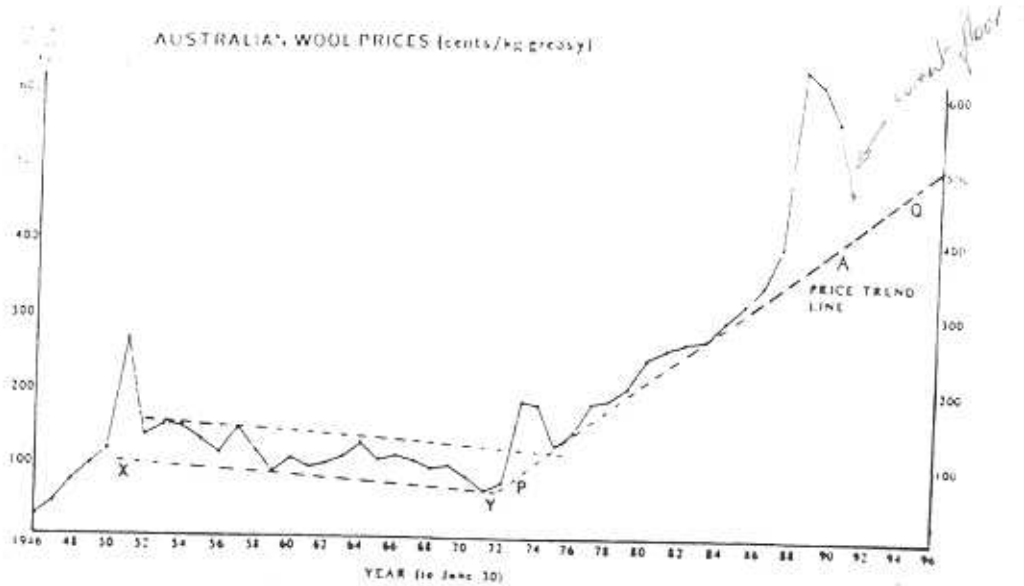
Technical Analysis

A graph of past prices is generally the basis for most technical analysis. The technical analyst looks for chart patterns which have occurred before as well as using quite sophisticated analytical processes to predict a market's future movement.

Short term commodity traders tend to use these techniques more than producers. With computer technology, however, it has become easier to use these techniques and they should form at least part of the competent analysts system.

Longer term trends in agricultural commodity prices are often reflected in identifiable cycles. The study of cycles is often ridiculed by traditional economists but some remarkable coincidences have occurred in the past and we should be prepared to note these as part of our attempts to predict changes.

Fig 3 shows the price of wool since 1946. The price peak in 1951 was followed by a decline to 1970/71 and then by an increase up to 1989. The cycle from high to low is around 18-19 years in both cases, implying a downward drift for some years ahead. This would not be so unnerving if the previous lows about 1932/33 and 1893/94 with a World War I high in between had not been of the same duration.



We can believe what we want with cyclical analysis and other technical systems but one coincidence that no-one wishes to acknowledge is that the medium term cycle lows for wheat, beef, copper, corn, wool and cotton all seem to occur around 1994/95.

CONCLUSIONS

Predicting changes to world trade will always be difficult. Successful producers, however, need to make these assessments regularly. A basic knowledge of the structure and present trade patterns of any commodity you are producing is essential. This knowledge will at least enable you to read real meaning into the many and often conflicting press reports regarding prospects for your commodities.

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