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Articles in the field of agricultural economics, suitable for publication in the journal, will be welcomed.

Articles should have a maximum length of 10 folio pages (including tables, graphs, etc.) typed in double spacing. Contributions, in the language preferred by the writer, should be submitted in triplicate to the Editor, c/o Department of Agricultural Economics and Marketing, Pretoria, and should reach him at least one month prior to date of publication.

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# Salient facts of slaughter stock and meat production and marketing in South Africa

by

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Limited

## INTRODUCTION

The supplies and the prices of slaughter stock and meat have become subjects of topical interest in the Republic. Alleged deficiencies in the production and marketing arrangements are being widely criticised and opinions are being freely aired on possible (and impossible) improvements. Discussion is all very well, if it takes due account of the facts underlying the industry. These have unfortunately not in recent times been written up in a convenient form, either in an official publication or in any of the journals of economics. To fill that gap the salient facts of slaughter stock and meat production and marketing in South Africa are treated briefly in this article.

Meat production and distribution are very important activities. White and Non-White families in this country spend about one-quarter of their monthly income on meat and fish, although the total outlay by White households is three times that of Non-White households. And in 1970/71, meat production accounted for 19 per cent of the season's gross value of farm output - R282 million out of R1 510 million.

## THE SLAUGHTER STOCK AND MEAT MARKETING SCHEME IN OUTLINE

The practical task of equating this demand and supply is complicated by the fact that the demand for meat is spread fairly evenly over the year (though purchases of most foodstuffs are concentrated on Fridays and Saturdays), while cattle and sheep reach their peak marketing condition at certain times of the year. Consequently, although the different climatic regions of the country are to some extent complementary, with cattle in the eastern parts becoming ready for marketing some months before those to the west where it rains later and less, the supply of beef and mutton tends to be markedly seasonal. This has to be counteracted since South African consumers (like consumers in Europe and the U.S.A.) greatly prefer fresh beef and mutton to the frozen product. Though costly, it is physically possible to carry slaughter stock forward to ensure the required regular offtake over the whole year. In fact, the practical marketing task is precisely to equate demand and supply in this way over the year. To achieve this is the acid test for the success or failure of a slaughter stock and meat marketing scheme.

From 1944 to 1955, a fixed-price slaughter stock and meat marketing scheme was in operation in South Africa, under which producer prices were fixed a year in advance by grade and weight, with predetermined seasonal variations, and maximum wholesale carcase prices and maximum retail prices for the various grades and cuts of meat were fixed as well. Conceived during the war as an essentially anti-inflationary measure, this fixed-price scheme later came to be accepted by Organised Agriculture as an integral part of the declared policy of agricultural price stabilisation. The scheme was thus kept in existence notwithstanding that the fixed pattern of producer prices caused such an irregular flow of slaughter stock to market that meat queues became common and thawed-out frozen joints the standard fare on the controlled markets, although fresh meat was freely available outside them. Producer prices were, moreover, held down so rigidly under this scheme that disparate price structures arose inside and outside the controlled areas and production was discouraged to such an extent that real shortages later arose. In the end the fixed-price scheme was therefore abandoned in favour of the present scheme which came into operation in 1951 for mutton and lamb, in 1956 for beef and in 1958 for pig meat.

The meat scheme is administered by the Livestock and Meat Industries Control Board comprising 24 members of whom -

- 9 represent producers, in the Republic, of cattle, sheep and goats;
- 2 represent producers of slaughter stock in South-West Africa;
- 1 represents stud book members;
- 2 represent pig producers;
- 3 represent consumers;
- 3 represent the butchery trade;
- 1 represents hide and skin curers;
- 1 represents livestock auctioneers;
- 1 represents local authorities; and
- 1 represents the Department of Agricultural Economics and Marketing.

The essential features of the meat scheme which the Board administers are:

- (i) That all slaughter stock introduced into the Republic's 9 large urban agglomerations (called the controlled areas) has to be slaught-

ered there at the central municipal abattoirs, where the local meat trade must also purchase all its meat.

- (ii) That meat may not be introduced into the controlled centres from outside, other than under permit of the Board which is confined to imports of carcasses and cuts of beef from the states adjoining the Republic, including South West Africa. The maximum weekly quantities that may so be imported are determined annually by the Meat Board.
- (iii) That the carcasses are weighed and graded according to prescribed standards and then compulsorily auctioned at the controlled area abattoirs, subject to guaranteed minimum producer prices per kilogram of each grade. Imported meat is also auctioned.
- (iv) That producers' floor prices are fixed at the beginning of each season by the Meat Board with the approval of the Minister, having due regard to the previous season's market realisations, at levels for the different grades which are intended to serve as a guide as to the directions of production to be pursued by the farmers.
- (v) That offal and hides and skins are not auctioned but sold to offal pools and curers at prices that are fixed by the Meat Board from time to time in relation to prevailing trade realisations.

Outside the 9 controlled areas, slaughter stock may be marketed freely and, as is customary practically all over the world, this takes place chiefly at live cattle and sheep auctions or by private treaty. At a few auctions the animals are pre-weighed but at most they are sold on an estimated grade and weight basis, the prices of the outside auctions being very strongly influenced by the net realisations, less the costs of movement, at the alternative outlets provided by the controlled area carcass auctions.

At these, the Meat Board buys in at the guaranteed floor prices any carcass not taken up by the trade. Up to 1961 the Board's residual purchases of beef were frozen and eventually sold for use by the mine compounds, but thereafter purchases were deboned or frozen in carcass form for early export. To facilitate the disposal of carcasses taken up at abattoirs which do not qualify for entry into the British or European markets, exports to the former Belgian Congo, a traditional market for South African beef, were reserved exclusively for the Meat Board. The Board exports any pigs which it buys in, but in the main surpluses are taken off the market by manufacturers under subsidy from the Board. Finally, as there is no reasonably priced overseas outlet for South African mutton and lamb, the Board's purchases are simply off-loaded on the local market as and when opportunity offers.

Subject to these price supports, use is made under the existing meat marketing scheme of competitive price formation to establish true values for the producer and also to even out supplies over the year. Despite criticisms, the scheme has had the outstanding merit of ensuring that the public gets a supply of fresh meat the year round. As this is a paramount requirement, and although both the nature and implementation of the detailed arrangements under the meat scheme are a source of contention, it is generally agreed in Organised Agriculture, in the meat trade, amongst informed consumer groups and amongst agricultural economists that the auction system of price formation and distribution of supplies is fundamentally the right marketing device for the marketing of bovines and small stock under the conditions obtaining in the Republic's beef cattle and sheep industries.

## SUPPLIES AND PRICES

### Basic production factors

South Africa's production of poultry and pork, like that of the rest of the world, is rising faster than that of beef and mutton, and generally poultry and pork are also cheaper than beef and mutton.

This is due to the fact that poultry and pigs are the more efficient converters of concentrate feeds into meat. Beef cattle need 6,5 to 8,0 kg of concentrates to add 1 kg to their live mass, bacon pigs 3,5 kg and broiler chickens as little as 2,1 kg. A factor which offsets this is that cattle and sheep can digest roughages and crop residues which would otherwise go to waste, but unfortunately the demand for beef has outstripped the supply of grazing in Europe and the United States and is increasingly doing so in South Africa as well, so that supplementary concentrate feeding has to be resorted to, augmenting supplies but also pushing up costs.

Because of the different periods of gestation of the main meat-producing animals, the rates at which the industries based on them can be expanded are different (poultry within less than a year, but beef cattle at best after 3 to 4 years). On the other hand, intensive poultry production is subject to severe onsets of fowl pests, which in conjunction with the short period of gestation makes for a fluctuating supply and short-term price instability. The same is true of beef and mutton, despite their more protracted production cycles, because droughts or good rains significantly influence mortality as well as average slaughter masses. The latter vary by as much as five per cent from season to season, which represents a material variation in supplies. The effects of high cattle mortality are also of longer duration than with poultry.

### Production and consumption trends

F.A.O. statistics reveal the following world growth in red-meat output between 1948 and 1967:

Mutton	-	54 per cent
Beef	-	71 per cent
Pork	-	99 per cent

World poultry statistics are unreliable, but in the Western countries, the USSR and Japan together, poultry production increased by 180 per cent during the period referred to above.

Similar disparate production trends are evident from the following per capita meat consumption figures in South Africa. These figures include beef imports from adjoining states and clearly show that beef remains by far the largest source of meat to the South African consumer.

South African meat consumption (kg per head)

Period	Beef and veal	Mutton and lamb	Pig meat	Total red meat	Fish	Poultry
					1959/60	
1956/60	32,0	9,0	3,6	44,6	10,2	2,6
1961/65	30,7	8,5	3,1	42,3		
1966/70	25,9	9,1	3,4	38,4		
					1969/70	
1970/71	24,8	10,4	3,7	38,9	9,0	5,0

Notwithstanding the declining per capita consumption, the total production of beef, like that of the other meats, has had to increase considerably in order to feed our growing population. South Africa's declining per capita consumption of beef is, however, contrary to the trend in affluent Europe and North America. In the United States the already high beef consumption per capita is steadily rising further and is now exceeded only in the Argentine. In Europe pork consumption per capita is on the increase, but the same applies to beef as well especially in France where it is now at the U.S. level of 10 years ago. Mutton consumption per capita is highest in the English-speaking countries of the world and is increasing in Japan.

Forward projections made by the F.A.O. point to a further growth of import demand for beef in Europe, particularly in the Mediterranean and Eastern European countries, and in Japan. These estimates also point to an upward world beef price trend.

South African beef supplies (expressed in carcasses)

Year	Nine controlled markets		Uncontrolled areas	Imports of carcasses & portions	Exports	Net total available	Average carcase mass (kg)	Imports as percentage of total supply
	Local cattle	S.W.A. & Swaziland (1)						
1965	913 788	231 096	625 852	39 784	11 676	1 798 000	189	15
1966	948 948	174 540	622 933	55 141	62 490	1 739 072	189	13
1967	751 282	214 596	561 761	120 000	42 115	1 605 534	203	21
1968	694 978	216 804	530 298	175 066	18 772	1 599 274	209	24
1969	742 512	203 640	490 180	170 950	21 982	1 585 300	208	24
1970	830 103	229 128	577 083	214 974	45 632	1 805 656	202	25
1971	901 911	267 862	635 285	221 814	136 356	1 890 516	205	26

(1) Mainly South West Africa, since Swaziland cattle seldom reach 5 000 a year

## BEEF SUPPLIES AND PRICES

Subject to their reliability, our agricultural censuses and official estimates show that South Africa's total cattle population did not change from the immediate pre-war years until the early sixties, remaining constant at around 12 million. Numbers declined to as low as 10,5 million during 1966/68 on account of prolonged drought but have since recovered. The proportion of the national cattle herd in White ownership also appears to have remained fairly static at 65 to 70 per cent during the past 30 years.

In Rhodesia and South West Africa, cattle numbers are on the increase and now total 5,5 and 2,0 million, respectively. Hence, these two countries, together with Botswana, play an increasingly important role in keeping the South African market supplied with beef. In this way they have also indirectly enabled our beef cattle industry to try out the export markets. Such exports were only possible on a subsidy basis during the period of marketing pressure in 1970, but now take place on a profitable basis, especially since the devaluation of the rand.

The table below reflects local cattle marketing, cattle and beef imports and beef exports from 1965 to 1971. It should be noted that at the beginning of every season, and with due regard to the domestic situation, the South African Meat Board determines the number of cattle that can be marketed weekly in the controlled markets by South West Africa and Swaziland, as well as the permitted weekly imports of carcasses and cuts of beef from Rhodesia, Botswana, South West Africa and Swaziland. In the strictly legal sense there is free trade between the Republic and all these territories, other than Rhodesia, but all accept the need for regulation of their marketings in South Africa.

During the past ten years the auction prices realised by our producers for beef have doubled. Floor prices have risen as materially as the Meat Board fixes minimum guaranteed prices annually in conformity with the price trend on the market. The table below reflects the average prices ob-

tained at the predominant Newtown carcass auctions in the past 20 years:

Producer price for beef at Newtown (c per kg)

1950/51 to 1954/55 .....	17,5
1955/56 to 1959/60 .....	25,6
1960/61 to 1964/65 .....	26,6
1965/66 to 1969/70 .....	39,6
1970/71 .....	44,9

Taking 1958/59 to 1960/61 as 100, the index of producer prices for beef stood at 181 in 1970/71, compared with 128 for mutton, 130 for pig meat, 83 for wool, 126 for dairy products and 129 for all farm products together. Notwithstanding this differential price stimulus, cattle numbers have not grown and although more beef is produced from the constant herd, it is apparent from the supply table that the Republic is becoming less and less self-supplying as regards beef. Such increased supplies as are produced locally are due mainly to the advent of supplementary feeding. This was necessitated by the 1965/67 droughts, but remained standard practice with many producers thereafter. More of them are also preparing 1 to 2-year-old steers for the market, thus responding to the public preference for tender beef.

In the early sixties the Department of Agricultural Technical Services launched a performance testing scheme since it had become apparent that the only scientific way of selecting bulls is to determine the feed conversion rates with accuracy and then to select for breeding in accordance with this heritable character. This positive measure to make beef production more efficient, coupled with artificial insemination which as yet is almost non-existent in our beef cattle industry, is imperative if the lag in production behind domestic demand is to be made up and the remunerative export outlets which exist are to be exploited.

#### MUTTON SUPPLIES AND PRICES

Most of the mutton produced in the Republic is a joint product with wool; consequently supplies depend on sheep numbers and these fluctuate with wool prices. It was inevitable that the 40 per cent drop in the price of wool during the 1970 and 1971 seasons would lead to a reduction in the Merino flock. This was aggravated by drought and by the State-subsidised stock reduction scheme, which together caused total sheep slaughterings in the Republic to rise from 6,6 million in 1967/68 to 7,7 million the next season, with a further jump of 1,2 million in 1969/70 and then to the record figure of 9,3 million in 1970/71, in consequence of which woolled sheep numbers (White-owned) declined from 33,6 million in 1965 to 25,9 million in 1971.

Conversely, throughout these years the numbers of non-woolled sheep remained fairly stable at 4,6 million. They are the principal source of the country's lamb production.

Over the past 10 years, advancing mutton and lamb production was able to make an important contribution towards supplementing the practically static supplies of beef, because the average monthly slaughterings of sheep increased from 420 000 to 764 000 between 1961 and 1970. A decrease has since set in.

It is evident from the producer price indices quoted above that the market prices for mutton and lamb did not increase by nearly as much as those for beef up to and including most of the 1971 season. But, as from the middle of 1971, the position has been reversed, declining supplies causing prices to rise to as much as 100c per kg for super lamb. These improved realisations are undoubtedly a welcome offset to the low wool prices, although the Merino sheep industry's possible recovery will depend ultimately on the future level of wool prices. The present high prices are, however, bound to stimulate lamb production and may induce cross-breeding with Merino ewes as well.

Whereas beef exports are financially feasible, South African lamb and mutton prices far exceed world levels. It is, for instance, possible to land New Zealand lamb in South African ports at about 50c per kg, after payment of 5,5c import duty, and Australian ewe mutton in quantity at half that figure. The ruling auction prices of super lamb and prime mutton at Newtown are about 70 and 65c per kg. The only feasible way of importing would therefore be for the Meat Board to do so, auctioning the imports and apportioning the profits to industry funds, while forcing down the general market price through stepping up total supplies. From this consumers would obtain an immediate benefit, but it could easily happen that domestic lamb and mutton production is so discouraged by resorting to importation that there might be bigger shortages in the future, thus perpetuating the need to import, also at times of high world prices.

#### PIG SUPPLIES AND PRICES

Pig production differs radically from the production of beef and mutton in that it is independent of climate, can be curtailed or increased substantially within one year, is vitally dependent on the price relationships of baconers to porkers and on the prevailing cost of balanced rations, and is characterised the world over by recurrent cycles of under- and over-supply.

In an effort to stabilise the South African pig industry, the Meat Board has adopted an import-export scheme and a flexible price policy designed to counteract our domestic pig cycle.

In the first instance the Board determines minimum floor prices which are calculated to be sufficiently remunerative to yield a permanent small surplus, thus ensuring that the country will be adequately supplied most of the time.

Secondly, the target prices are made effective by exporting, if necessary under subsidy, any surplus that may arise, and by importing any shortfall in the event of shortages, and selling the imported supplies at the target prices, if necessary at a loss. While the Board itself exports any surpluses which it may buy in, the removal of surpluses by exportation is in the main undertaken in cured, canned or cut-up form by manufacturers under subsidy from the Board. The subsidy rate is equal to the operative floor price plus export costs less the export realisation on the British market. In order to establish that price, the Board undertakes regular barometer shipments to the United Kingdom, South Africa being a member of the U.K. Bacon Understanding with supplying countries. In view of likely restrictions as a result of Britain's entry into the E.E.C., the Meat Board is actively seeking recognition for export purposes in Japan - a large and growing market.

In the third place, while the Meat Board as a rule fixes the producer floor prices subject to the Minister's approval, the Board also determines a price range of a cent or two above and below the mid-floor price within which the administering Pig Marketing Committee of the Board has the power at short notice to vary the actual market support prices according to circumstances. It will, for instance, implement the upper level of the floor price if the emergence of a small export surplus causes a lack of confidence among producers which may result in curtailment of production, while it will apply the lower limit of the floor price if there are indications of an incipient excessive expansion of pig production.

Fourthly, in order to encourage or discourage production, as circumstances demand, the Board will alter the level of target prices suitably, or it may appropriately adjust the stabilisation levy imposed on pig producers.

There are three main reasons why the implementation of this sophisticated price stabilisation scheme has been only partially effective. Firstly, owing to stringent veterinary precautions, imports are possible in times of shortage from Rhodesia, only which has the same pig diseases as South Africa, and from Sweden and New Zealand, which have none that pose a danger. But limited supplies can be secured at short notice from Rhodesia only. Secondly, it is very difficult to gauge in advance, or even to gain certainty at a later stage, whether a pronounced expansion or contraction of pig production is under way. As a guide, the submission of returns by producers has recently been instituted, in which they advise the Board of the numbers of sows put to boar. Thirdly, the forward estimates of demand by the administering Pig Marketing Committee are not infallible.

Despite these drawbacks the pig market has been kept reasonably supplied since the adoption of the stabilisation scheme, except during part of 1971. And during its currency no huge surplus has emerged, as happened previously, to exhaust

the pig industry's stabilisation reserves. Concurrently, pig meat prices have advanced less than either beef or lamb prices, and pork now being the cheapest of the red meats, its consumption per capita is on the increase. This has been aided by a virile sales promotion campaign financed from the Meat Board pig levy fund.

The following operational statistics summarise the affairs of the pig industry:

Pig meat supplies (in 1 000 kg) and prices (in c per kg)

Season	Local production	Exports	Imports	Total	Grade I price at Newtown	
					Porkers	Baconers
1967	51 917	2 853	780	49 843	45,9	42,1
1968	54 246	1 827	1 496	53 916	47,2	42,1
1969	63 442	4 818	1 068	59 689	43,0	39,0
1970	69 933	4 999	1 753	66 687	46,1	41,0
1971	63 339	654	2 146	64 831	54,5	49,1

The principal bacon factories in the Republic are co-operative concerns, situated outside the controlled meat centres. They are therefore at liberty to obtain supplies from their members in accordance with grading standards and at prices which they determine. The principal proprietary concerns, in turn, are located within the boundaries of the controlled areas and their choice of supplies is therefore confined to the limited supplies that are on offer in abattoirs that are too small. The disadvantage inherent in this became most pronounced in recent years when the controlled markets were short of supplies from time to time while the factories located outside the controlled areas were exporting surpluses under Meat Board subsidy. In order to effect freer movement of supplies, and in recognition of the fact that the auctioning of bacon pigs in any event proved ineffective because of the strong price leadership to which the industry is subject, the Meat Board acceded to the request of the pig industry to modify the pig marketing scheme in respect of factory pigs so as to permit factories within or without the controlled areas to purchase supplies from any source and indeed to erect their own pig abattoirs. The protection of minimum producer prices and of the import-export scheme, however, remained in operation.

## CONTROL OF SLAUGHTERING

### Origins and methods

In 1934, South Africa's first meat scheme was introduced, providing that the newly-established Meat Board raise producers' revenue to the optimum by regulating under permit the numbers of slaughter stock admitted to the livestock auctions then held in South Africa's 9 major urban centres. This scheme continued until replaced by the war-time fixed-price, dead-mass-and-grade scheme of 1944, but this latter scheme of necessity retained the permit system as a cardinal element since it suspended market prices which could therefore no



longer help to regulate the inflow of slaughter stock. In actual practice, the fixed prices resulted in a completely unpredictable supply pattern and in variable permit usage so that at times permits had to be issued for 800 per cent of the required number of cattle or sheep in order to make sure of the arrival of the minimum market requirement. Discrimination in the issue of permits and false applications were also features of the system.

When, in the fifties, these and other failings of the fixed price scheme eventually led to the institution of the present scheme of compulsory carcase auctions in the 9 major centres, coupled with guaranteed producer floor prices according to grade and mass, the permit system was nevertheless still retained, although basically it had become redundant. It should be noted that the present scheme deliberately relies on the prevailing auction prices to regulate the inflow of slaughter stock. Prices rise if supplies are short and so draw in more stock, while they fall if there is an over-supply, thereby counteracting it. Consequently the permit system was abolished in 1961, though also because of its costly administration and its openness to abuse.

Subsequently things did not work out quite as expected, mainly because the guaranteed floor prices, necessary as they are to safeguard producers' interests, seriously inhibit the regulatory function of the auction system of pricing and regulating supplies in that when there is very strong marketing pressure (for whatever reason) the auction prices cannot fall below the floor; and if farmers are then still prepared to sell at those floor prices, they will send in stock even to the extent of causing a glut. This is all the more likely to occur if the minimum floor prices are fixed close to the average market prices of the preceding season, as the Meat Board often tended to do, when the carcase auctions begin to assume the character of a fixed-price scheme. Thus it did happen that supplies came forward to the controlled markets in excess of the available abattoir capacity, leading to the institution in April 1962 of the system of agents' quotas so as to conform to the available abattoir facilities.

Under the quota system, if oversupply to a controlled centre persists, its weekly requirements of sheep, pigs or cattle (excluding cattle from South West Africa which are governed by permit issues made in that Territory) are divided among the livestock receiving agents who have been appointed by the Meat Board in the centre in question in proportion to their average performance during the preceding 12 months. The agents then re-allocate their quotas among their suppliers. It was provided from the outset that, if they fell short of their quotas, agents would in due course lose part of their allocation. The result is that they strained every nerve to get full supplies. To that end they gave preference to suppliers who sent in regularly, irrespective of price movements at the controlled area auctions, and this led to more and more of the smaller producers patronising the country auctions, while a limited number of larger

farmer-speculators took the risk involved in buying at those auctions and sending under quota to the carcase auctions in the controlled markets. The agents further gave preference to the growing number of feeders whom they often helped to finance. In the event of failure of one or more of these regular suppliers, agents would on occasion even themselves buy expensive stock at the country auctions rather than face a loss of quota, notwithstanding the provision in their needs of appointment that they may not handle livestock in which they have a direct or indirect interest - an unenforceable condition with separate companies.

After the incident in January 1969 when the Newtown market was heavily oversupplied, partly on account of breakdowns in the abattoir, stringent penalisation was also introduced by the Meat Board against agents who exceeded their weekly quotas.

The upshot was that the quota system resulted in a more even flow of supplies to the controlled markets than had ever before been achieved. This regularity, in turn, induced greater price stability, to the benefit of all concerned, although the trade continued to complain that there was a lack of qualitative consistency. For that matter, only if the trade is free to buy where it pleases and is also able to make forward arrangements will supplies conform strictly to demand as regards quality; there must always be imbalances in the grades supplied and those demanded by the market if it is supplied by numbers of producers and agents acting independently.

For many years the carcase-auctions-cum-quota scheme succeeded in maintaining approximate parity of prices as between the controlled areas (which represent about 60 per cent of the demand) and the uncontrolled area. This is only possible if the annual supply of slaughter stock is in fact being absorbed by the two markets together. Normally, there is a seasonal flush in the first part of the year, and prices on the outside markets then tend to show a discount compared with the controlled markets; on the other hand, there is a tendency towards shortage in the second half of the year, when the outside markets tend to show a price premium over the controlled markets, particularly since they then have the benefit of the regular supplies of imported carcase meat from Rhodesia and Botswana.

In 1970 there was considerable cattle-marketing pressure owing to drought. This was repeated during the first half of 1971 despite good grazing conditions. For a while the controlled and outside markets together could not take up the offerings and a substantial discount - at times as high as R20 per animal - arose on the outside markets compared with the controlled area auctions. This caused serious dissatisfaction, especially among producers who had not built up a performance and did therefore not qualify for a quota from the livestock receiving agents.

The resultant disquiet culminated in the Meat Board's decision in July 1971 to appropriate 40 per cent of the agents' cattle quotas in Pretoria and on the Witwatersrand (excluding the Wynberg Abattoir) and to allocate this direct to producers on application. So many applications were received by the Board (including an unidentifiable number of spurious ones) that lots had to be drawn between the applicants. In that way a quota of only 12 cattle was given to each applicant for the entire ensuing 3-month period! Of necessity, this new deal was soon suspended by the Board. Meanwhile agents had to do their utmost with their reduced quotas to accommodate feeders, who market mainly during the second half of the year, and there is no doubt that if a 100 per cent permit scheme had been attempted on this haphazard basis, as some producer groups did request, the cattle-feeding section of the industry and the consumer public alike would have been dealt a very serious blow. Fortunately, the new permits had been made transferable so that almost all of them were actually used and the arrangement did not at the same time result in the Witwatersrand-Pretoria markets being kept artificially short.

The Meat Board has since decided to register producers and has asked them to complete a return giving very rudimentary information about their stock on a given date, their marketings during 1971 within and outside the controlled areas, and their marketing intentions for 1972, which data will certainly not provide a very reliable basis for a renewed future attempt at direct permit allocation.

Permit issues can, in fact, never be done on a rational basis by the Meat Board, but will always have to be decided upon arbitrarily. The very best way in which it could operate would be to ask producers to submit applications, say every two months, supported with information about stock numbers, grazing conditions and feed supplies, so as to enable the Board's management to determine rationally which applications are more deserving than others. (It must, of course, be assumed that applications exceed abattoir capacity during the permit period, for if this is not so, there will be no need for permits at all.) But these forward estimates by producers can never be relied upon: rains or price changes can cause the estimates to change overnight. Moreover, the Board will never be able to verify the supporting information by inspection, and random tests will be of no use. Therefore it will be necessary to cover up the many mistakes that will be made, permits having been issued which were not deserved and others refused which were, by making the permits transferable, thus giving them a speculative value. In the circumstances it seems clear that the system of agents' quotas, though imperfect, remains the best method for effecting an equitable allocation between marketers, since the livestock agents do have a far more intimate and reliable knowledge of the affairs of their clients. The Board must, however, watch out for abuse by obtaining weekly returns of quota issues from the agents, as it has been doing since October 1971.

## ABATTOIR FACILITIES

In any event, the ideal solution for such acute marketing pressure as occurred in 1971 lies in adequate abattoir facilities. This is vital, since no conceivable scheme can function successfully (including the present one, which is the best that has so far been devised) if a substantial supply of slaughter stock builds up regularly that cannot be accommodated over the season. At the same time it must be appreciated that it would entail gross overprovision of expensive facilities if the mistaken objective were adopted that stock should be slaughtered exactly when the producers want to market, and that compliance with such an objective would be diametrically opposed to the insistence of consumers on a supply of fresh meat regularly through the year. The only practical target is to avoid a build-up beyond the season, slaughtering over-time to cope with emergencies like drought.

Since 1965, the controlled abattoirs have been extended to cope with 35 per cent more sheep, but not with significantly more cattle. From the statistics it does indeed appear that in the Witwatersrand-Pretoria area, the scene of the controversy over 'permits' and 'quotas', the real cause of the accumulation of slaughter cattle lay in the failure even to maintain abattoir throughput as from 1969 at the levels which had been customary three years earlier. Thus:

Witwatersrand-Pretoria - monthly average sheep and cattle killings

Year	Witwatersrand		Pretoria	
	Sheep	Cattle	Sheep	Cattle
1965	137 250	48 900	22 950	8 580
1966	150 843	44 900	24 752	8 489
1967	150 827	37 936	23 051	7 726
1968	168 311	35 114	26 671	7 237
1969	180 411	36 997	33 759	6 945
1970	191 129	39 707	36 334	7 330
1971	191 085	44 610	38 403	8 019

The reduced throughput at the Witwatersrand-Pretoria abattoirs, where White job reservation is in force, was due mainly to the labour shortage. A relaxation to permit of the introduction of Bantu labour on the abattoir floors therefore had to be secured before throughput could be stepped up. This involved delicate negotiations between the Meat Board and the trade unions and took time, but ultimately the Board succeeded. It was then able to step up killings at Newtown by 1 000 cattle a week as from July/August 1971. In addition the Board arranged for the slaughter of 500 to 600 cattle per week at Vryburg for Johannesburg. The Meat Board sought to solve the special problems of South West Africa (arising from the growth in cattle numbers, the inability of the Republic's controlled markets to absorb more cattle

from the Territory and the limited capacity of the Railways to transport all that is on offer to South Africa) by increased killings in the Territory itself for export abroad.

Considerable marketing pressure had already occurred in the cattle industry in 1970 because of drought. This the Meat Board had also met by encouraging and subsidising exports, not only to the traditional market of the United Kingdom but also to new markets in Greece, to the free ports of Europe and to France as well. In fact, notable success has been achieved in the past few years by the Meat Board and the meat traders who possess approved export facilities, in opening up such new outlets. There is at present a world shortage of beef, with the result that the larger exports during 1971 were effected at little or no cost to the Board. For the present, therefore, the most serious deterrent to relieving the pressure on the South African beef market by exportation lies in the fact that so few South African abattoirs and meat works have gained international acceptance in terms of the standards of construction and hygiene on which the beef importing countries insist.

Different lines of approach therefore all lead to the same conclusion: that the meat industry's overriding problem is the inadequacy and obsolescence of most of the abattoirs. In remedying that situation lies the key to the future success of the meat marketing scheme and of the development of our cattle and pig industries to a permanent export basis.

Since Union, the public health responsibility of providing the necessary abattoir facilities has rested with our local authorities. The 1964 Abattoir Enquiry Commission did recommend that room should also be made for private abattoirs, and for several years after that two contending sections of the meat industry were at variance on the matter. The South African Agricultural Union's representatives on the Meat Board and those of the livestock marketing co-operatives contended that no relaxation of the compulsory carcase auctions in the controlled centres could be contemplated since this would prejudice the minimum floor price protection of producers. They further put forward the view that abattoirs ought to be owned and operated by producer organisations since producers used and in the end paid for these facilities - on which contention most South African public institutions ought, of course, to be managed by the general public at the expense of the State.

The wholesale butchery trade favoured an arrangement whereby half the needs of the controlled centres would be provided by means of municipal service abattoirs, while half the remainder would be owned and operated by butchers and the other half by producer organisations; such private abattoirs could be located inside or away from the urban centres, but for their functioning the owners should be free to draw supplies from any source and should also not be required to auction the meat. This, they contended, would result in integrated American-type abattoirs cum meat works under a single roof, thereby minimising

transport and handling costs, and obviating the very costly duplication of chilling facilities at the municipal abattoirs as well as at the adjacent meat works. At the same time representative carcase auctions would be retained at the municipal service abattoirs which would therefore continue to exercise their present pervasive influence on producer price formation outside the controlled areas and still function as the centres of implementation of the guaranteed producer floor prices.

The interested parties were agreed that decentralised abattoirs to supply our cities would not be feasible. They would have to comply with high standards of hygiene and refrigeration and, therefore, be costly, and there is no area outside South West Africa where sufficient stock is available nearby or en route to operate throughout the year. Under-utilisation would cost a fortune.

After two departmental enquiry committees on a possible modification of the meat scheme, the Government finally decided in 1970 to leave things as they were and not to allow private abattoirs; instead the first right to erection of the local authorities was confirmed. They had previously operated abattoirs as public utilities on a cost basis, inclusive of capital redemption and interest. But, having obtained a new lease of life, they demanded a profit on the invested capital as well. The Minister decided to award them a 1 per cent return, but several insisted on a 4 per cent return or else they would not build abattoirs whereupon the Minister had no option but to decide that in such cases the Abattoir Commission would take over, which the Abattoir Commission is in the process of doing, ill-equipped though it is as a planning body to operate decentralised abattoirs throughout the country, each having its own local peculiarities and problems. In adopting this demanding attitude, the local authorities were no doubt influenced by the current shortage of capital funds. And they were also confronted with the fact that inflation and the stringent hygiene requirements introduced by the Animal Slaughter, Meat and Animal Products Hygiene Act (Act 87 of 1967) had pushed up the capital cost of new Grade A abattoirs (slaughtering at least 100 cattle units a day) to the almost prohibitive level of R7 500 per cattle unit, which will necessitate an abattoir fee payable by the producers of at least R10 per head.

The opinion is therefore still held in the private sector of the meat trade that the administration of the above-mentioned Act is being overdone and that controlled private abattoir ownership should be permitted (with corresponding relaxation of the one-channel carcase auctions) so as to ensure early relief of the present abattoir shortage and to avoid the costly duplication of cold storage facilities at the municipal service abattoirs as well as at the premises of the wholesale butchers. Meanwhile, little or no progress in abattoir development is taking place in the Republic: most of the current plans are paper plans.

## MEAT DISTRIBUTION

In the belief that overtrading is prejudicial to producers and consumers alike and also in order to prevent local butchery monopoly situations from arising, the Meat Board applies a policy of restrictive butchery registration. In pursuance of this policy, the Meat Board's Registration Committee considers each application for a new butchery on its merits, and a new retail (or wholesale) outlet is approved if, after examination of the local set-up and the quality of the service rendered by existing butcheries, the Committee finds this to be desirable for the convenience of consumers. No hard-and-fast arithmetical formula of allocation is followed, nor is an unduly restrictive policy applied, as is demonstrated by the fact that from 1966 to 1971, for example, the Board granted 630 additional butchery registrations in White areas, representing a growth factor of about 2,5 per cent per annum. Over the same period some 800 White owned butcheries ceased to trade, including some of the new entrants who never opened, with the result that at the end of the period there were 4 023 White-owned butcheries in operation, compared with 4 124 at the start.

Thirteen per cent of these White-owned butcheries are located in grocery supermarkets, nearly 90 per cent of them on lease in favour of specialised and independent butchers; the balance belong to some of the smaller self-service food stores. The Meat Board insists that butcheries housed in multi-purpose stores must be full-fledged butcheries, regarding this as a legitimate method of promoting parity of competition between them and conventional butcheries. The Board also prefers that the supermarket butcheries be owned by independent operators, in order to safeguard competition in meat distribution which could easily be disturbed if the multi-purpose stores were themselves to own the butcheries and then use them

temporarily as leaders, at the expense of other food divisions, in order to eliminate the conventional butcher who does not have the shelter of a similar wide range of foods. American experience has demonstrated beyond doubt that there is real danger of a monopoly situation arising, to the detriment of the primary producer, through the concentration of meat distribution in the hands of a few chain-store groups.

A recently published survey of meat distribution in Pretoria by the Division of Agricultural Marketing Research of the Department of Agricultural Economics and Marketing shows that the wholesale distribution margin equalled 3,1c per kg or about 5 per cent gross, the gross retail margin 21,3 per cent and the net return on capital 1,3 to 2,1 per cent, according to location. In the light of this, and the keen competition which characterises the butchery business, statements that consumers pay three to four times more for meat than the price the producer gets are probably quite true of fillets, but there are only 2,7 kg of trimmed fillet in a beef carcass weighing 180 kg. It is well-known, moreover, that South African meat prices are far lower than those ruling in North America and Europe, or even in Great Britain, as the following current retail price quotations show:

Prevailing retail prices (c per kg)

	U. K.	S. A.
Fillet	385	189
Sirloin, boneless	280	150
Sirloin, bone-in	139	119
Rumpsteak	322	154
Topside	205	119
Stewing steak	154	119