exhibits showed that handlers using "average" milk would experience little if any change in their net margins. However, handlers using low-testing milk would experience a higher net margin than under the present pricing plan, while handlers using high-testing milk would experience a lower net margin. This result, the narrowing of handlers' net margins when compared to the skim-butterfat pricing system, would occur no matter which of the proposed pricing plans is used to price the components.

Analysis of data presented at the hearing, using price computations based on each of the proposals and averaged over the 21 months of data included in exhibits, shows a range of net manufacturing margins for cheese using the recommended pricing system of \$1.57 per hundredweight compared with the \$3.34 range in cheese manufacturing margins per hundredweight of milk purchased attributable to the current skim-butterfat pricing system. The three component pricing plans discussed at the hearing would result in ranges in net cheese manufacturing margins of \$1.16 per hundredweight for the NAJ proposal, \$1.62 per hundredweight for the CMPC proposal, and \$1.70 per hundredweight for the NCI proposal.

Even though the NAJ proposal yielded the smallest spread in net margins, further analysis of the NAJ results shows that the net margins increase and then start to decline. The decline in margins occurs when there is not enough butterfat in the milk to fully utilize the protein available, thus reducing the increase in cheese yield as protein content continues to increase. Accordingly, if the price of protein is greater than the increased return from cheese, the net return will start to decline.

The decline in net returns under the NAJ proposal indicates that the NAJ proposal would overprice protein, at least when there is not enough butterfat to fully utilize the protein. The result is that the marginal return using the NAJ proposal peaks within the protein and butterfat range of average milk while the marginal return using the protein and other solids price as recommended in this decision continues to increase, although at a decreasing rate. A mandated pricing system should not set prices at levels that result in a declining marginal return, particularly when the decline occurs at or near average market component levels. Therefore, the whey protein factor should not be included in the computation of the protein price.

Exceptions to the recommended protein price reflected the positions that

the respective parties expressed at the hearing and in post-hearing briefs. NAJ and Swiss Valley reiterated their position that the protein price should be computed by multiplying the block cheese price by 1.32 and adding the result of multiplying the whey protein concentrate price by .735. They stated that the higher protein price that would result from this computation is appropriate since protein is the highestvalued component in milk. They suggested that even though the recommended decision was theoretically correct in its analysis, the analysis was flawed because of the assumption that butterfat could be a limiting factor in the yield-determining role of protein. They also pointed out that by using a higher protein price the resulting other solids price would be closer to the market value of lactose, the main component in the other solids.

Although a manufacturer could purchase additional sources of butterfat under the NAJ/Swiss Valley scenario, the cost would not be the same as the original source of butterfat and would therefore have to be included in the analysis of the manufacturer's returns. Since no data was included in the hearing record to undertake this analysis, the effect of the purchase of additional butterfat on net margins was not computed. However, since the decline in net margins under the NAJ proposal begins in the range of average testing milk, it is appropriate to adopt a protein price that does not include the value of whey protein.

CMPC, Mid-Am, WCMA, Dean Foods, Kraft, NFO, Independent Milk Producers Cooperative, and Lakeshore Federated Dairy Cooperative also opposed the recommended protein price computation in comments filed in response to the recommended decision. They specifically opposed the use of the block cheese price for computing the protein price. Their main objection was that a protein price computed on the basis of the block cheese price is not the lowest possible protein price that could be adopted based on the proposals included in the notice of hearing. Their exceptions reiterated their position that Federal order prices should be minimum prices. Their comments also suggested that use of a lower protein price and a correspondingly higher other solids price would result in smaller changes in payments to producers.

Kraft, A–E and TAPP argued in exceptions that since the only difference between the block and barrel cheese prices is packaging, the higher protein price resulting from the use of the block cheese price in the protein price computation is not warranted.

The monthly average price for 40pound block cheddar cheese on the National Cheese Exchange in Green Bay, Wisconsin, is the appropriate price to use for determining the protein price. Use of the block price results in producers receiving a higher price for protein than if the barrel price were used without handlers incurring any significantly higher cost for milk. In addition, although the record showed that more cars of barrel cheese were sold on the Exchange than block cheese, the predominant cheese form in which American cheese is manufactured in the five-market region is in 40-pound or 640-pound blocks.

The price difference between block and barrel cheese may be due to packaging and other nonmilk factors. However, the protein price must be established at a level that best meets the needs of all concerned. The block cheese price should be more effective than the barrel price in establishing a sufficiently high protein price to accomplish the goal of encouraging producers to produce protein without having a detrimental impact on handlers, and does result in a narrower range of manufacturing margins for cheese.

Over the period January 1992 through September 1993, a protein price computed by multiplying the block price by 1.32 would have resulted in an average protein price of \$1.6851 per pound. The CMPC and NCI proposals, using the barrel cheese price, would have resulted in an average protein price of \$1.6337 per pound of protein over the same time period. A comparison of the net margins resulting from the recommended protein price versus the CMPC and NCI proposals shows that the slightly higher protein price and correspondingly lower other solids price adopted herein have a negligible affect on net margins. In fact, the spread between the highest and lowest cheese manufacturing margin declines slightly while the margin per pound of cheese remains virtually unchanged. At the same time, the producer is paid a higher protein price and thereby has a greater incentive to increase protein production.

The question to be addressed should be the level of protein price that will best accomplish the goals of component pricing rather than the magnitude of the protein price. Analysis of the data in this decision shows that using the block cheese price results in a protein price that accomplishes three goals: (1) Components will be priced at levels that reflect their value in the marketplace,