			Retail Valu Organic Produce	es of CSA Shares (\$) Conventional Produce		
CSA Farms	Share Price (\$)	Total Pounds	Regional Store	Regional Store	National Chain	Local Store
arm 1	\$450	644	\$998	\$736	\$677	\$595
arm 2	\$250	213	\$399	\$312	\$295	\$267
Farm 3	\$450	701	\$1,133	\$833	\$785	\$729

Table 2. CSA share prices and retail values for three Massachusetts farms

share rather than buying conventional produce at the national chain store. The magnitudes of consumer savings are smaller when comparing the CSA share prices to the retail value of the same conventionally produced market basket of produce. However, all three CSA operations still provided monetary benefits to consumers.

Table 2 also illustrates potential variation in consumer savings for the shares of different CSA farms. As discussed above, cultural practices, scale of the CSA operation and resource availability, as well as individual CSA philosophy, can affect consumer benefits. One additional consideration may be differences in the composition of the CSA shares. The three farms provided different quantities of produce in their full shares. The differences in quantities were reflected in the share prices and also the retail values of the shares. However, the three farms also provided different combinations of items. For example, the items included in farm 1 and farm 2's shares each week were different. It is difficult to summarize concisely the differences in share composition. However, market prices provide information on relative consumer values for the different items included in shares. The estimated retail values of shares can then be used to infer differences in the items included in the shares if all shares are put on an equal-weight basis. Table 3 presents a comparison of CSA farm shares on a price per pound basis to illustrate differences in share composition.

The price per pound for farm 2's CSA share was the greatest of the three farms included in this study. Over the marketing season, consumers paid an average of \$1.17 per pound for the produce included in the farm 2 share. The share price per pound for farms 1 and 3 were fairly similar with averages of \$0.70 and \$0.64, respectively, over the market season. Scale of the CSA operation, philosophy, and resource limitations were probably important factors in these cost differences across CSA shares. However, the market basket of produce provided by farm 2 also differed in composition from those provided by farms 1 and 3, as illustrated by the retail values in table 3.

In column three of the table, equivalent retail values for organic produce are provided for each of the three CSA shares. The average retail value per pound for the items included in a share from farm 2 was greater than the average retail values per pound for shares from both farms 1 and 3. If market prices (retail prices) reflect relative consumer values for different items in the CSA shares from the three farms, then the higher average price per pound for the farm 2 share indicates a market basket of produce that included relatively high-valued items.

Table 3. CSA share prices and retail values per pound for three Massachusett farms

	Share Price (\$ / lb)	Retail Values of CSA Shares (\$ I lb) Organic Conventional Produce			
CSA Farms		Produce Regional Store	Regional Store	National Chain	Local Store
Farm 1	\$0.70	\$1.55	\$1.14	\$1.05	\$0.92
Farm 2	\$1.17	\$1.87	\$1.46	\$1.38	\$1.25
Farm 3	\$0.64	\$1.62	\$1.19	\$1.12	\$1.04

Conclusions

Comparisons of CSA share prices and retail values for equivalent amounts of produce showed substantial benefits for CSA shareholders of all three farms. We found CSA shares to be less expensive than equivalent amounts of both organic and conventional produce at retail groceries. While this study found substantial benefits, it is important to remember that data were collected for only one year. An important aspect of CSA is that both the farmer and the CSA members share the risks associated with farming. Thus, comparisons of share prices and retail values will vary from year to year depending upon crop yields and prices. The comparisons made here also presumed equivalent amounts of waste for consumers, whether the produce was obtained through the CSA share or at a grocery. As noted, waste was a problem for 24% of the consumers surveyed in this study.

The comparisons presented here provide important information for CSA operators and potential CSA operators. Cost savings associated with share purchase is useful to farmers when developing a CSA marketing plan for several reasons. One of the first questions farmers consider when developing a CSA operation is, What is an appropriate amount and mix of produce for a CSA share? The information presented here provides one method by which farmers can assess the value of their CSA shares. A second aspect of share value is not only the retail value of the full share, but also the value per pound. This additional dimension is useful for considering the composition of the share and the amounts of relatively high value product included.

CSA is relatively new and many consumers are not familiar with the concept. Consumers may be concerned about getting their money's worth when purchasing a CSA share. For the three CSA operations considered in this study, this was certainly not the case in 1995. In addition, by comparing share prices and retail values on a per pound basis, a summary of the relative values of items included in CSA shares can be provided. The quantities of produce provided in CSA shares as well as their compositions and relative values are factors important to operators when developing a CSA, and to consumers when choosing a CSA to join.

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Appendix I. Season average prices (\$ / lb) for items included in the CSA shares

TEM	ORGANIC	CONVENTIONAL
ARUGULA	\$3.60	\$4.03
EANS - GREEN	\$1.70	\$1.07
BEANS - YELLOW	\$1.98	\$1.14
SEANS - WAX	\$1.98	\$1.29
EETS - WITH GREENS	\$1.18	\$0.76
SEETS - NO GREENS	\$1.40	\$0.94
SOK CHOY	\$1.27	\$0.79
BROCCOLI	\$1.87	\$1.14
CHINESE CABBAGE	\$1.19	\$0.83
CABBAGE GREEN	\$0.64	\$0.34
CABBAGE - PURPLE/RED	\$0.69	\$0.58
CARROTS - WITH GREENS	\$1.59	\$0.64
CARROTS - NO GREENS	\$0.98	\$0.55
CAULIFLOWER	\$2.35	\$1.17
CELERIC	\$2.49	\$1.49
CELERY	\$1.21	\$0.61
CHARD - RUBY	\$1.49	\$0.89
CHARD - SWISS	\$1.31	\$0.93
CUCUMBERS - SLICING	\$0.95	\$0.77
CUCUMBERS - PICKLING	\$1.43	\$0.87
GGPLANT - ORIENTAL	\$1.92	\$1.49
EGGPLANT - REGULAR	\$1.29	\$0.90
	\$1.29	\$3.32
NDIVE	\$2.63	\$1.99
ENNEL	\$5.73	\$2.82
GARLIC		\$0.69
ALE - GREEN	\$1.12	\$1.26
ALE - RED	\$1.69	T
EEKS	\$1.95	\$1.31
ETTUCE - BOSTON	\$1.97	\$2.12
ETTUCE - GREEN LEAF	\$1.77	\$1.16
LETTUCE - RED LEAF	\$1.88	\$1.12
LETTUCE - ROMAINE	\$1.46	\$0.94
MELON - MUSKMELON	\$1.05	\$0.61
MELON - WATERMELON	\$0.98	\$0.52
MIZUNA	\$3.58	\$0.79
ONIONS - SWEET	\$1.09	\$0.67
ONIONS - WHITE	\$1.09	\$0.67
ONIONS - YELLOW	\$0.96	\$0.63
ARSNIPS	\$1.69	\$1.02
PEAS - SNAP	\$4.32	\$2.87
PEAS - SNOW	\$3.98	\$2.99
PEPPERS - GREEN	\$1.68	\$1.04
PEPPERS - HOT	\$2.98	\$2.71
OTATOES - KENNEBEC	\$0.81	\$0.81
OTATOES - RED	\$1.01	\$0.79
POTATOES - RUSSET	\$0.81	\$0.67
POTATOES - YUKON	\$0.89	\$0.85
RUTABAGAS	\$0.69	\$0.35
ALAD MIX	\$8.90	\$6.31
CALLIONS	\$2.89	\$2.00
SPINACH	\$1.64	\$1.65
SOUASH ACORN	\$0.88	\$0.28
OUASH BUTTERCUP	\$0.74	\$0.29

Appendix I. Continued

AVERAGE PRICE - ALL ITEMS	\$1.86	\$1.23	
TURNIPS	\$1.29	\$0.76	
TOMATO - SLICING	\$3.03	\$1.11	
TOMATO - PASTE/PLUM	\$1.91	\$1.07	
TOMATO - CHERRY	\$2.52	\$1.61	
TOMATILLOS	\$3.49	\$2.19	
STRAWBERRIES	\$4.78	\$2.60	
SQUASH - ZUCCHINI	\$1.51	\$0.80	
SQUASH - SUMMER	\$1.47	\$0.96	
SQUASH - SPAGHETTI	\$0.89	\$0.40	
SQUASH - RED KURI	\$1.14	\$0.32	
SQUASH - PUMPKIN	\$0.69	\$0.32	
SQUASH - DELICATA	\$0.87	\$0.40	
SQUASH - BUTTERNUT	\$0.74	\$0.39	

Missing prices were encountered for the items below. Prices were estimated using available price information on the same conventional items and the difference between the average prices of all organic and conventional items as shown above. The prices below that were estimated are shown in italics. Note that for Paddy Pan Squash, only the price of organic squash was found; the conventional price was estimated.

ITEM	ORGANIC	CONVENTIONAL
BROCCOLI RAAB	\$3.01	\$1.99
BRUSSELS SPROUTS	\$1.89	\$1.25
CABBAGE - SAVOY	\$0.94	\$0.62
CORN-ON-COB	\$0.48	\$0.32
KOHLRABI	\$1.63	\$1.08
MUSTARD GREENS	\$2.56	\$1.69
PEAS -SHELLING	\$2.25	\$1.49
PEPPERS - RED	\$3.65	\$2.42
PEPPERS - YELLOW	\$6.03	\$3.99
RADICHIO	\$7.54	\$4.99
RADISHES	\$1.87	\$1.24
RASPBERRIES	\$6.02	\$3.98
SQUASH - HUBBARD	\$0.56	\$0.37
SQUASH - PADDY PAN	\$1.29	\$0.85