Are compacts the best way to save family farms?

Congress's Dairy Dilemma

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Last fall, congressional authority expired for the Northeast Interstate Dairy Compact (better known as the New England compact), a landmark agreement that empowered a special regional commission to regulate wholesale milk prices for six New England states. Under the compact, farmers in the participating states — Maine, Vermont, Connecticut, Massachusetts, New Hampshire, and Rhode Island — were guaranteed a minimum return on at least a portion of the milk they sold to processors located in those states. Together, the states' farms produced 2.8 percent of the United States' milk supply in 2000.

When it was first authorized in 1996, proponents hailed the compact as an effective way to stabilize milk prices for small family farmers without the infusion of federal tax dollars. What is more, proponents said, the compact helped to maintain tourism, rural economic development, and green space in New England. But compact opponents — mainly processors and consumer groups in the affected areas and farmers in the Midwest — claimed that the compact amounted to a price-fixing cartel that artificially protected farmers in compact states while lowering farm prices in non-compact states. Consumer groups also argued that it created a regressive milk tax on the poor who resided in compact states.

Lawmakers on Capitol Hill now are considering whether to reauthorize the compact and expand it to include such large dairy states as New York, Pennsylvania, and Ohio. There also is consideration of authorizing similar compacts for the Southeast (encompassing 17 states from Virginia to Florida to Texas to Nebraska), West (Washington, Oregon, and California), and Mountain (Colorado, Nevada, and Utah) regions of the country. If all four of those compacts are authorized, they will regulate milk prices for farms that produced 58.7 percent of the total U.S. milk supply in 2000.

Although a number of prominent lawmakers — including Senators James Jeffords (I-Vt.), Patrick Leahy (D-Vt.), and Arlen Specter (R-Pa.) — have endorsed the reauthorization of the New England compact, others on Capitol Hill are expressing concern over the effects of such legislation on consumers and farmers nationwide. Lawmakers now seem inclined to step back and evaluate the economics of compacts, as well as alternative policies for shoring up small farms, as part of the debate over a new farm bill.

HOW ARE MILK PRICES ESTABLISHED?

Dairy compacts work within the current structure of milk pricing, rather than replacing it with a new system. Most milk in the United States is marketed under federal or state regulations known as "milk marketing orders." Currently, there are 11 federal orders that regulate how milk is priced in distinct geographical regions. The Northeast federal order, for example, covers milk prices for an area that stretches from the southern border of Maine to northern Virginia and includes eastern New York and eastern Pennsylvania.

Milk classes Federal orders set different prices for milk depending on whether it is marketed in a fluidic form or in a solid form such as butter or cheese. Each month, a market administrator announces four separate class prices for milk: Class I is bottled milk and fetches the highest price, Class II is used mainly for ice cream, yogurt, and cottage cheese, Class III is used to manufacture hard cheeses, and Class IV is used to make butter and nonfat dry milk. The federal order class prices are determined monthly by economic formulas that are based on the wholesale prices for cheese, butter, nonfat dry milk, and whey. Thus, they vary each month with changing market conditions.

The Class II, III, and IV prices are announced nationally each month by the federal Department of Agriculture (USDA) and apply to all federal orders. The Class I price, however, is

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different. It is equal to a Class I mover, which moves up and down each month with market conditions, plus a unique Class I differential that varies by county and market order.

The stated purpose of the differentials is to reflect the market value of fluid milk across the country, and to allow it to move from surplus to deficit areas. (However, some observers argue that the differentials merely preserve the existence of local producers in all areas of the country regardless of their relative efficiency.)

The current Class I differentials were set by Congress. Generally speaking, they increase from north to south, and from west to east. For example, the Class I differential is $1.80 per hundred pounds of milk ("hundred-weight" or cwt) in Minneapolis (Upper Midwest order), $3.25 per cwt in Boston (Northeast order), and $4.30 per cwt in Miami (Florida order). If the Class I mover for a given month is $14 per cwt, the Class I price will be $15.80 per cwt in Minneapolis, $17.25 in Boston, and $18.30 in Miami.

DEPENDENT ON COMPACTS?
Holsteins at milking time.

GRAEME NORWAYS/STONE

Blend price At the end of each month, processors report to the market administrator how much milk they used for each class in each local order. The market administrator then "pools" the higher and lower-valued milk revenues and computes a weighted average price called the "blend price." Thus, while processors pay the class price depending on how the milk they purchased was used, all farmers receive the blend price.

Federal orders work in conjunction with the dairy price support program. That program, which was first used in the 1930s and later formalized in the 1950s, was designed to provide price support to milk used for manufacturing purposes. The federal government indirectly supports "farm-gate" milk prices (i.e., the price paid to the farmer) by purchasing unlimited quantities of surplus dairy products such as cheese, butter, and nonfat dry milk at approved prices. Today, the U.S. government purchases some surplus quantities of nonfat dry milk, and a very small amount of butter and cheese, in order to support the manufacturing price of milk at $9.90 per cwt for milk testing 3.67 percent butterfat (the industry standard). Because federal order prices are all conditioned on wholesale prices for dairy commodities (cheese, butter, and nonfat dry milk), the federal program also indirectly supports all federal marketing-order prices.

DAIRY POLICY AND INDUSTRY CHANGES

Federal milk marketing orders and the dairy price support program were created in the 1930s as temporary responses to the Great Depression. Despite the fact that the U.S. economy recovered many decades ago, the institutions still persist.

Economists have long argued that the marketing orders and price supports result in a transfer of wealth from consumers and taxpayers to farmers because the farm-gate prices resulting from the programs historically have been higher than what they otherwise would have been. But federal orders have been maintained over the years for reasons other than just income enhancement for dairy producers.

One reason they were implemented originally was to provide 1930s-era farmers with an economic incentive to upgrade their dairy facilities and equipment to meet the higher Grade-A standards required for the sale of fluid milk. At the time, most U.S. milk was Grade B and could only be used to manufacture butter or cheese. Many cities had enacted Grade-A fluid milk standards in order to prevent the spread of disease, and the federal programs provided the cash flow for farmers to upgrade their equipment.

A second reason for why the orders system was maintained was to encourage a year-round local fluid milk supply. Up until the 1970s, milk could not be transported long distances and had to be produced locally. Federal orders encouraged a local supply so that milk would be available during the fall months when production seasonally declines and demand increases.

Third, federal orders would never have been maintained over the years had it not been for tacit political support from dairy processors. Federal orders have created an orderly pricing system for a perishable product, and ensured similar raw milk costs for all processors in a given order.

Despite the benefits, some economists have argued that federal regulation of milk pricing has resulted in a high economic cost to both consumers and taxpayers. For example, Kevin McNew, in a recent Cato Policy Analysis, argued that the net cost of federal orders to consumers is greater than the net gain of dairy farmers. McNew cites earlier work by Peter Helmberger and Yu-Hui Chen that concluded the federal order program resulted in losses to fluid milk consumers of over $1 billion in 1990. Even after accounting for a gain of $600 million by consumers of cheese, butter, and dry-milk dairy products who faced lower prices, the annual net loss to consumers was $400 million in 1990. Helmberger and Chen also determined that the dairy price support program cost consumers $660 million in 1990 as a result of higher prices for milk and dairy products.

Restoring market forces The federal order system and the dairy price support program make easy targets for policy critics who call them a Byzantine and outmoded patchwork of federal regulations. But one should be careful in reaching simplistic conclusions given the many changes that have taken place in the dairy industry. Milk pricing today is much more market-driven because of recent policy changes.

Congress and the USDA have both made major efforts to improve the economic efficiency and performance of the federal order system and the dairy price support program. According to McNew, the cost of the dairy price support program declined from $2.6 billion in 1983 to less than $500 million as Congress reduced the support price for milk from over $13 per cwt in the early 1980s to just $9.90 today. As recently as last May, the secretary of agriculture lowered the support price for nonfat dry milk in order to reduce government purchases and to encourage exports of surplus product. Market forces today determine the wholesale prices for cheese, butter, and nonfat dry milk, and those prices determine federal order prices. While that has also resulted in tremendous instability in milk and dairy product prices, farmers can use the futures markets at the Chicago Mercantile Exchange to forward-price their milk up to 16 months in the future.

Milk prices, particularly for fluid milk, are already above minimum federal order prices in many parts of the country. The difference between the higher market price and the minimum government price is called the over-order premium. Given the presence of those over-order premiums in many federal order markets, it is not at all clear that processors would pay less for fluid milk if federal orders were eliminated. For example, it is likely that the price of milk in Florida would be higher than in the Upper Midwest and West, even if federal orders were eliminated, because milk is relatively scarce in the Southeast and more abundant in other areas of the country.

THE CURRENT MARKET

As directed by Congress in the 1996 Farm Bill, many new changes were introduced to federal orders in January of 2000. One change was to consolidate the number of orders from 32 to the current 11. Another was to pay farmers in many federal orders on the basis of milk quality (somatic cell count) and the level of components in their milk (butterfat, protein, and other solids such as lactose and minerals).

The pricing plan, called "multiple component pricing," is a market-oriented program that rewards farmers who produce what the market wants (components and quality milk) and punishes farmers who produce what the market does not want (low quality milk). That is a significant departure from milk pricing during the first six decades of federal order pricing when all farmers were guaranteed a common blend price no matter how their milk was used, if it met minimum quality standards. Today, quality differences result in different milk prices for each farmer.

Dairy farmers operate in a very competitive market that rewards producers who prudently invest in assets, increase their sales each year, and control their operating costs. Partly as a result, the industry is undergoing intense consolidation. Farm sizes are growing from the traditional farm, with 35 to100 cows, to large-scale operations with 1,000 to 3,000 cows. That reality contrasts with the public's perception of dairy farming as a bucolic lifestyle isolated from financial concerns and complete with a red barn and the family's small herd of prized show cattle.

According to USDA statistics, just 78 counties produced 50 percent of the milk in the United States in 2000. The unit cost of producing 100 pounds of milk varied from $10 to $25, depending on the size of operation (number of cows), productivity of each cow, location and land costs, number of farm enterprises, and intensity of management skills. For example, many studies show unit costs of producing milk tend to fall significantly as farm managers achieve higher levels of milk productivity per cow. In 2000, state average milk production per cow ranged from 22,667 pounds in Washington to 12,155 pounds in Louisiana, and per unit production cost was much lower in the former state than the latter.

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The differences in competitiveness have resulted in a situation where some states are investing in new dairy operations and are increasing milk production significantly while other states are undergoing a rapid reduction in milk output. Western states (led by California, Arizona, New Mexico, Idaho, Oregon, and Washington) have adopted modern technology and business practices and have expanded the size and scale of their dairy operations significantly. In short, they have embraced the challenges in the new marketplace and have been rewarded for that effort. However, other parts of the country have struggled to adopt and change.

Policymakers in Washington also are struggling to deal with the realities of the new agricultural marketplace. On the one hand, they want to encourage competition between farmers in an effort to allow the market to ration capital and set a price to maintain the lowest possible cost for milk and dairy products to consumers. On the other hand, there is widespread concern that the traditional family farm is becoming eclipsed by larger, more modern dairy operations. Some legislators are looking to policy options like compacts as a method to stop the decline in the number of family farms. Thus, policymakers are not concerned with whether the market will provide an adequate supply of milk and dairy products, but rather who will provide those products.

HOW COMPACTS WORK

An interstate compact is an agreement between two or more states to "solve" a problem that transcends state boundaries. The U.S. Constitution, under Article I, requires Congress to approve such multi-state compacts in order for them to be implemented.

According to the now-defunct Northeast Dairy Compact Commission, the New England compact was established "in an effort to restore the authority of the six New England states to set prices for Class I fluid milk sold in the region." The commission was created to operate the compact and derived its regulatory authority from the compact legislation approved by Congress.

The New England compact required fluid processors to pay at least $16.94 per cwt for milk used for Class I purposes. (About 40 percent of all milk used in New England is for fluid purposes.) If the federally regulated Class I price in Boston fell below the $16.94 floor price, fluid processors paid the difference to the commission, who then distributed the proceeds to compact farmers in monthly checks.

The Class I price regulated under federal orders for New England averaged $14.80 per cwt in 2000. The difference between the compact price of $16.94 per cwt and the 2000 average federal Class I price was $2.14 per cwt. Called the compact over-order obligation, that difference was collected by the compact commission directly from fluid milk processors.

The commission decided that the premium should be distributed to all farmers, not just those who shipped to fluid milk bottling plants. In other words, farmers who shipped milk to cheese and butter/powder plants benefited also. The commission weighted the amount of compact dollars collected from fluid processors each month by the percentage of milk used in the market for fluid purposes. That averaged 43.9 percent in the Northeast federal order in 2000. Thus, an average price of 91¢ per cwt (43.9 percent X $2.14) was paid to all farmers who participated in the compact, after certain deductions were made. (See Table 1.)

The compact commission essentially fixed a stable floor price on fluid milk in New England that in most months was higher than the more volatile federal order Class I price. Since the compact became effective in July 1997, the Class I price in New England ranged from a high of $20.58 per cwt in February of 1999 to a low of $13.51 per cwt later that April. Given the fixed floor price of $16.94 per cwt, the highest over-order obligation was $3.43 per cwt that April. The lowest over-order obligation was zero, which occurred in just 15 of the 51 months between July 1997 and September 2001.

Table 1

The Compact's Creation

The federal order prices ($ per cwt), over-order obligations, and price adjustments for farms in the New England compact in 2000.

	Federal Class I Price*	Over-order Obligation	Price Adjustment
January	14.15	2.79	1.21
February	13.96	2.98	1.29
March	14.09	2.85	1.23
April	14.18	2.76	1.11
May	14.73	2.21	0.92
June	14.95	1.99	0.80
July	15.71	1.23	0.43
August	15.20	1.74	0.91
September	15.09	1.85	0.76
October	15.14	1.80	0.74
November	15.07	1.87	0.82
December	15.38	1.56	0.65
Average	14.80	2.14	0.91

* The compact's price floor is $16.94 per cwt. Source: Northeast Dairy Compact Commission.

EXPANDING DAIRY COMPACTS

As noted earlier, there is a movement afoot to create several new dairy compacts in the mold of the New England model. In a 2000 study, I analyzed the economic impact of creating three regional interstate dairy compacts (Northeast, Mid-Atlantic, and Southeast) that would include 27 percent of the nation's milk supply. As part of the study, I utilized an intermediate-run regional economic simulation model of the U.S. dairy industry that reflected the economics of state and federal orders and market elasticities derived from the literature. My study analyzed the effects of a $1-per-cwt and $2-per-cwt compact premium set above the Class I price.

My study found that, within the compact regions, milk prices for farmers rose between 19¢ and 43¢ per cwt under the $1 compact premium scenarios, and between 62¢ and 86¢ per cwt under the $2 scenarios. Even though processors

paid an extra $1 or $2 per cwt for fluid milk depending on the scenarios, compact farmers received a lower weighted average price based on an average of fluid and non-fluid milk deliveries.

By assumption, higher fluid costs created by the compact were fully passed on to consumers. I estimated that consumers paid between 4¢ and 9¢ per gallon extra for milk under the $1 per cwt compact premium, and between 13¢ and 17¢ per gallon more under the $2 premium. As a result, fluid milk consumption in the compact regions declined 0.5 to 1.9 percent because of higher retail milk prices using a retail fluid price elasticity of -0.32, based on a review of the literature.

I estimated that dairy farmers in the compact regions expanded milk production 0.4 to 1.4 percent because of higher prices, using regional supply elasticities that ranged from 0.17 for the Southeast and Florida federal orders to 0.47 for the Southwest, Western, and Arizona-Las Vegas orders. The combination of higher milk production and lower fluid milk use in the compact regions resulted in more milk being processed into storable dairy products such as cheese, butter, and nonfat dry milk. Wholesale prices for those dairy commodities fell, thus directly lowering farm-gate milk prices in non-compact regions between 4¢ and 7¢ per cwt under the $1 compact premium and between 10¢ and 14¢ per cwt under the $2 compact premium.

Effects Of course, dairy producers within the compact regions benefit from higher farm-gate milk prices. However, my study indicates that processors and retailers in the compact region face economic losses because they have to raise retail prices (and thus decrease the volume sold) or cut into profits to pay the over-order obligation. Dairy farmers outside the compact region also face economic losses because of the decline in the price they are paid for milk used to produce storable dairy products.

The federal General Accounting Office (GAO) recently released a study that concurs with my analysis of the economic effects of dairy compacts: Farm prices and revenue in non-compact states will decline as more and more regions become involved in dairy compacts. In addition, the GAO found evidence indicating that the New England compact did not help protect small farms. According to the GAO, "The number of dairy farms decreased, and the average size of herds increased, both prior to and following the Northeast Dairy Compact."

It also is not clear that compacts preserve green space, a stated objective of the New England compact. To be sure, it is likely that compact subsidies are slowing the exit rate for small family farmers in New England. But, in the absence of the compact, small dairy farmers likely would sell their dairy assets (cows and land) to larger farm operators who would continue operations, a trend that has been underway since the end of World War II. Thus, an end to the compact in New England probably would result in about the same amount of land remaining in farming, even though there would be fewer operators.

CONSUMER PRICES

One of the central issues raised in various debates on the New England compact is its effect on consumer fluid milk prices. That became a political issue when opponents charged that the compact effectively created a regressive milk tax on the poor who were located in the New England compact states. Several agriculture economists have attempted to resolve that issue but, so far, no study appears to be definitive.

Lass et al. For instance, researchers Daniel Lass, Mawunyo Adanu, and P. Geoffrey Allen, in a recent paper, described how they developed an econometric model to study the relationship between the farm price of Class I milk (which includes the compact premiums) and the retail price of milk in Hartford and Boston. For their study, they used data from January 1982 through June 1996 to project the effect of the compact on retail prices. They concluded that a 12-month compact over-order premium of $1.40 per cwt, or 12¢ per gallon, increased retail milk prices by 6.9¢ per gallon in Boston and 5.7¢ per gallon in Hartford. Thus, according to Lass et al., processors and/or retailers did not fully markup milk from cost and, in fact, absorbed part of the cost of the compact's over-order premium.

Cotterill and Franklin But another recent study by Ronald W. Cotterill and Andrew W. Franklin indicated that retail milk prices in New England increased from $2.49 per gallon prior to the compact to $2.78 per gallon after the compact. The authors' stated hypothesis was that fluid milk margins should decrease, not increase, under the compact because it reduces price volatility and, hence, input price risk for processors. They estimated that the effect of the compact itself accounted for just 4.5¢ of the retail price increase, while 11¢ of the 29¢ increase was the result of "increased profits by dairy processors and supermarkets."

Some agricultural economists have questioned Cotterill and Franklin's findings because their of methodology. In particular, they derived (rather than determined by measurement) a compact elevated retail milk prices of only 4.5¢ per gallon. They did not develop an econometric model to estimate the farm-to-retail markup based on historical data because, they claimed, "visual inspection suggests and statistical analysis confirms that there is absolutely no relationship between farm and retail prices." Instead, they created a "no-compact scenario" by making certain assumptions regarding the retail impact of the compact and increased processing costs. That was then compared to what actually occurred, enabling the authors to derive what they claim is the effect of the compact.

Bailey's studies To resolve the controversy, I examined the effect of the New England compact on retail milk prices using 42 months of data before and after implementation of the compact in July 1997. I estimated an economic markup model that explained the difference between the farm cost of Class I milk (including compact premiums) and

retail prices for milk. The "farm-to-retail markup" model was estimated using variables that explain the markup, including processing and distribution costs for fuel, labor, and electricity, as well as the existence of the compact.

There are fundamental differences between my model and the Cotterill and Franklin study. The actual farm-to-retail markup margin was observed both prior to and after implementation of the compact. (Actually, the farm price and retail prices were observed and the margin was derived.) The variation in the markup was then explained using factors such as the compact premium, farm prices, and processing costs. The markup model was then used to predict what would have occurred if no compact existed. Cotterill and Franklin simply made assumptions about their no-compact scenario, rather than use an econometric model to predict it.

My study found that processors paid an extra $1.31 per cwt, or 12.3¢ per gallon, because of the creation of the New England compact. That was reflected in the model by raising the farm price of milk to processors by the amount of the compact premium. The markup was then added to the farm price to determine the retail price. Under the no-compact scenario, the farm cost of milk fell by the amount of the compact, or by 12.3¢ per gallon. The retail price was then adjusted in the model after adding the econometrically determined markup to the now-lower farm price. After comparing the compact and no-compact scenarios, the model concluded that retail consumers paid an additional 20.7¢ per gallon for milk in Boston and 21.5¢ per gallon in Hartford in response to the creation of the New England compact.

There are two weaknesses with my approach. First, the model assumes that any increase in the farm cost of milk, whether it be due to the compact or market forces that affect the Class I price of milk, are marked up and passed on to consumers. Second, the model does not allow for the possibility that market premiums to dairy farmers in New England (called over-order premiums) would have increased in the absence of the compact. Either one of those assumptions would reduce the model effects of the compact.

Table 2

The Alternative

General and additional payment rates ($ per cwt) for eligible dairy producers under the Santorum-Kohl bill.

Class III price during the preceding fiscal year	General payment rate	Additional payment rate*
$10.50 or less	0.50	0.30
$10.51 through $11.00	0.42	0.26
$11.01 through $11.50	0.34	0.22
$11.51 through $12.00	0.26	0.18
$12.01 through $12.50	0.18	0.14

*Applicable only for producers who did not increase total milk production above the previous year's amount.

THE SANTORUM-KOHL BILL

To aid small family farmers without the economic distortions associated with compacts, U.S. senators Rick Santorum (R-Pa.) and Herb Kohl (D-Wis.) have proposed a targeted income stabilization program for dairy farmers, entitled "The National Dairy Farmers Fairness Act of 2001." The senators have taken a national, rather than regional, approach to achieving revenue protection for a targeted group of small dairy farmers.

The Santorum-Kohl bill basically is a counter-cyclical revenue assurance policy designed to assist dairy producers when annual milk prices fall below certain trigger levels. Under the bill, assistance varies inversely with market prices. Price support is highest when milk prices are the lowest. (See Table 2.) For example, eligible dairy farmers would receive 50¢ per cwt if the Class III price, over the course of a fiscal year, sinks to $10.50 or less per cwt. Because the Class III price historically has ranged between a high of $17.34 per cwt (December 1998) and a low of $8.57 per cwt (November 2000), the threshold price for assistance is relatively low. On the other hand, dairy farmers would still receive 18¢ per cwt if the Class III price in a given fiscal year falls to between $12.01 and $12.50 per cwt — a price range slightly above average. Dairy farmers would also receive an additional payment if they do not expand their milk supply from the previous year (column 3 of Table 2). That provides farmers an incentive to not expand milk production.

The program benefits are targeted to smaller dairy farmers because payments would be made on the first 26,000 cwt (or 2.6 million pounds) of production. At a $10.50 Class III price, a farm with 130 cows shipping 2.6 million pounds of milk would receive a general program benefit of $13,000 (50¢ per cwt) on all their milk sales. A farm with 500 cows producing 20,000 pounds per cow per year and shipping 10 million pounds of milk per year would also receive a general program benefit of $13,000. However, the program benefit will average just 13¢ per cwt for that farm's annual milk sales. Thus, the Santorum-Kohl program would have a greater financial effect on smaller-size dairy operations.

Fellow researcher James Dunn and I recently evaluated the economic impact of the Santorum-Kohl bill. To carry out our analysis, we projected the results of the program in two different theoretical price scenarios: a "low-price" year with a Class III price of $10 per cwt, and a "high-price" year with a Class III price of $12.01 per cwt. We used a short-run supply elasticity of 0.15 to forecast the regional milk supply in 2001 under each of the price scenarios. The purpose of the alternative forecasts was to reveal the farm-level impact of the Santorum-Kohl bill on farm prices under a variety of market conditions.

Low-price scenario As part of our analysis, we compared the results of the Santorum-Kohl bill to what we projected would happen if, instead, regional dairy compacts were implemented in the Northeast, Mid-Atlantic, and Southeast (including Florida), and if neither a compact bill nor the Santorum-Kohl bill were passed by Congress.

Let us look at the results under the three legislative scenarios for what would happen in a low-price year. As shown in Table 3, the compacts scheme would result in a higher payment rate for farmers in compact regions than the Santorum-Kohl bill. For example, in the Northeast, the Class I price for Boston would be $15.25 per cwt. That would result in a compact premium of $1.69 per cwt (the difference between the compact price of $16.94 and the Class I price of $15.25). That represents the additional amount that fluid processors in the Northeast must pay for milk used for fluid purposes because of the compact. Farmers, however, would receive a weighted average of the compact premium. Given a Class I utilization rate of 44 percent for the Northeast, that would result in a compact payment rate to farmers of 74¢ per cwt. Thus, the farm price of milk in the Northeast under the low-price scenario would be $13.31 per cwt with no compact, and $14.05 with a compact.

Payments from the Santorum-Kohl bill under the low-price scenario would result in farm prices very close to the compact scenario. Given a Class III price of $10 per cwt under the low-price scenario, the minimum payment rate under the Santorum-Kohl bill would be 50¢ per cwt and the additional payment rate for producers who did not expand production from the previous year would be 30¢ per cwt. Again, using the Northeast as an example, the minimum farm price under the Santorum-Kohl bill would be $13.81 per cwt (which includes the 50¢ minimum payment rate) and the maximum farm price (including the 30¢ additional payment) would be $14.11. Thus, producers in the Northeast who did not expand milk production would receive slightly more under the Santorum-Kohl bill than under the compact scenario. Producers who did expand milk production would receive slightly less under the Santorum-Kohl bill than under a compact scenario.

High-price scenario What would the comparison be between no compacts, compacts, and the Santorum/Kohn bill under a high-price scenario?

The economic benefits of the compact would be minimal, we determined. Using the Northeast again, the Class I price rose from $15.25 per cwt under the low-price scenario to $16.71 under the high-price scenario. Given a compact floor price of $16.94 per cwt in the Northeast, the compact premium was reduced from $1.69 per cwt under the low-price scenario to 23¢ per cwt under the high-price scenario. The farm price without a compact for the Northeast would be $14.95 per cwt. Under a compact, it rose to just $15.05 per cwt ($14.95 + $0.23 X 44 percent) — a net increase of just 10¢ per cwt relative to the no-compact scenario.

Both the minimum and maximum payment rates under the Santorum-Kohl bill resulted in higher farm prices when compared to the effects of a compact. A Class III price of $12.01 per cwt under the high-price scenario resulted in a minimum payment rate of 18¢ per cwt and an additional payment rate of 14¢ per cwt for producers who do not expand. Again, using the Northeast as an example, the minimum farm price for the Santorum-Kohl bill under the high-price scenario was $15.13 per cwt, and rose to $15.27 per cwt for producers who did not expand production. While the compact uses a fixed Class I floor price, the San-

Table 3

The Comparison

Farm-gate milk prices ($ per cwt) for low- and high-price years under multi-regional dairy compacts, no compacts, and the Santorum-Kohl bill.

	$10/cwt Class III Price				$12.01/cwt Class III Price			
	No Compact	With Compact	Santorum-Kohl Bill [1] Min	Max	No Compact	With Compact	Santorum-Kohl Bill [2] Min	Max
Compact Regions:								
Northeast	13.31	14.05	13.81	14.11	14.95	15.05	15.13	15.27
Appalachian	14.31	15.47	14.81	15.11	15.81	15.96	15.99	16.13
Southeast	13.95	15.05	14.45	14.75	15.51	15.65	15.69	15.83
Florida	15.64	17.13	16.14	16.44	17.11	17.32	17.29	17.43
Non-compact Regions:								
Mideast	12.40	12.40	12.90	13.20	14.05	14.05	14.23	14.37
Upper Midwest	10.83	10.83	11.33	11.63	12.73	12.73	12.91	13.05
Central	11.58	11.58	12.08	12.38	13.37	13.37	13.55	13.69
Southwest	12.89	12.89	13.39	13.69	14.57	14.57	14.75	14.89
Az-Las Vegas	12.10	12.10	12.60	12.90	13.74	13.74	13.92	14.06
Western	11.45	11.45	11.95	12.25	13.23	13.23	13.41	13.55
Pacific NW	11.98	11.98	12.48	12.78	13.62	13.62	13.80	13.94

1. The "general" payment rate under this scenario was 50¢ per cwt and the "additional" payment rate was 30¢ per cwt. 2. The "general" payment rate under this scenario was 18¢ per cwt and the "additional" payment rate was 14¢ per cwt. Note: the Santorum-Kohl bill assumes that farm payments are based on marketings at or less than 26,000 cwts per fiscal year. Source: Bailey and Dunn (2001).

torum-Kohl bill would use a sliding scale relative to the Class III price. Thus, even with a relatively high annual average Class III price of $12.01 per cwt, there is still a positive program payment.

Economic tradeoffs The advantage of the Santorum-Kohl bill relative to the compact scheme is that it would produce fewer market distorting effects because it does not mandate wholesale price floors for fluid milk. What is more, dairy farmers in such diverse geographic areas as the Northeast and the Upper Midwest are both eligible for the benefits of the program. Because of that, the Santorum-Kohl bill avoids the criticism commonly leveled against compact schemes, that they help some farmers but harm others.

The Santorum-Kohl bill also would favor smaller dairy farms over larger ones because the program's benefits would be capped at annual milk shipments of 2.6 million pounds. The compact scheme, on the other hand, generates a farm-level payment rate for all dairy producers who are eligible for compact benefits, regardless of their size. While there are a very limited number of "large scale" dairy farms in the New England compact states, that is not the case in the other areas of the country that are considering implementing dairy compacts.

In contrast to compacts that raise consumer prices, the revenue to fund the Santorum-Kohl bill would come directly from federal coffers. Dunn and I estimated that the fiscal year cost of the program would range from $570.4 million under the low-price scenario to $205.7 million under the high-price scenario.

Some would argue that the main benefit of the Santorum-Kohl program — the small-farm targeting feature — is also the main flaw because it prolongs the existence of small, inefficient dairy farms that keep industry costs higher than they otherwise would be. But we believe that, even with the program in place, simple market forces would work to eliminate inefficient dairy farms and reduce industry costs for producing milk.

CONCLUSION

Even though the dairy industry is still governed by marketing-order and price-support policies, their effects on dairy markets are now at the lowest point that they have been since they were enacted during the Great Depression. The cost of the dairy price support program declined from $2.6 billion in 1983 to less than $500 million today. Congress has reduced the support price for milk from over $13 per cwt in the early 1980s to just $9.90 today. Milk prices in many parts of the country are already above minimum federal order prices and farmers in many federal orders are paid on the basis of milk quality. That is a significant departure from milk pricing during the first six decades of federal orders when all farmers were guaranteed a common blend price no matter how their milk was used, if it met minimum quality standards.

The increased role of market forces is resulting in intense market consolidation and greater competition between farmers. There are tremendous differences between farmers in terms of herd size, farm investments and debt per cow, productivity, and per-unit cost of production.

Policymakers in Washington are struggling to deal with the realities of that marketplace. On the one hand, they want to encourage competition between farmers in an effort to allow the market to ration capital and determine milk prices that maintain the lowest possible cost to consumers. On the other hand, there is widespread concern that the traditional family farm is becoming eclipsed by larger, more modern dairy operations.

Now that the New England compact has expired and debate on a new Farm Bill is heating up, lawmakers should take time to step back and get a broad perspective on dairy policy. They should set clear goals and debate policies such as regional compacts along with alternatives such as the Santorum-Kohl bill. Congress should realize that market forces are changing the face of the U.S. dairy industry rapidly, and that government can only slow the exit rate of farms, not stop it. R

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