WP 2002-34
November 2002

Working Paper

Department of Applied Economics and Management
Cornell University, Ithaca, New York 14853-7801 USA

The Decision to Merge: A Case Study of U.S. Dairy Cooperatives

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THE DECISION TO MERGE:
A CASE OF U.S. DAIRY COOPERATIVES*

by

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For Presentation at the NCR-194 Committee Meeting
St. Louis, Missouri
November 13, 2002

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**This research was funded in part by the Cooperative Foundation. The author recognizes support from the University of Wisconsin Center for Cooperatives where he was a visitor during the Fall of 2001 in designing and developing this research project. The comments of Bruce Anderson are greatly appreciated. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author and do not necessarily reflect the views of organizations which supported this research.

Abstract

A significant number of mergers and unifications have occurred among U.S. agricultural cooperatives over the last ten years. A recent report from USDA, RBS, summarized over 50 unifications of selected U.S. cooperatives of various types that occurred from 1989 through early 1999. Of the fifty-one cases cited, forty percent involved dairy cooperatives. Several recent mergers have resulted in the creation of the largest dairy cooperatives formed in U.S. history, serving members spread out across the country.

The increased occurrence and scope of mergers of dairy cooperatives and the resulting impact on dairy farmer-members warrants additional study. A large body of literature and research exists on mergers of publicly-held corporations. Fewer studies have been conducted on the mergers of agricultural cooperatives. Two recent papers identified the need for further research on the impact and expectations associated with agricultural cooperative mergers and acquisitions.

A case study approach was used to analyze two U.S. dairy cooperatives which merged in 1995. Economic and management data for the case studies were collected through comprehensive, structured interviews with the board chairs, advisors, and managers directly involved in making the merger decision. Financial statements were reviewed and financial ratio analysis undertaken to measure the economic impact of the merger.

The selection of a cooperative merger partner is influenced by previous, long-term relations with a given cooperative. Having leadership open to the possibility of merging combined with previous positive experiences with mergers are key ingredients in considering future merger options. Driving forces identified for motivating mergers in the dairy industry are: consolidation at the retail and processor levels, potential cost savings from consolidated operations and increased uncertainty over the role of government. The greatest potential benefits mentioned were: cost cutting, avoiding destructive competition, higher returns to members, and increased leverage in the marketplace. The greatest barriers to merging were loss of the identity and control by the predecessor cooperative, and individual decision makers unwilling to take the associated risks of merging.

Financial ratios were used to measure pre and post-merger performance in the areas of profitability, debt capacity, returns on equity as well as general and administrative expenses. The newly merged cooperative was able to achieve better financial performance than it=s predecessor cooperatives in regards to improving profitability, increasing returns on equity and decreasing expenses related to administration and marketing on a per hundred weight of milk marketed.

Background

A relatively large number of mergers and unifications have occurred among U.S. agricultural cooperatives over the last ten years. A recent report from USDA, RBS, (Wadsworth) summarizes over 50 unifications of selected cooperatives of various types which took place from 1989 through early 1999. Of the fifty-one cases cited, 40 per cent involved dairy cooperatives.

Another recent USDA report (Liebrand) describes the structural changes in the dairy cooperative sector from 1992 to 2000. This study reports that a total of 84 dairy marketing cooperatives exited the industry during that time period. Out of that total, 36 dairy marketing cooperatives were involved in a merger with one or more dairy cooperatives.

Several recent mergers have resulted in the creation of the largest dairy cooperatives formed in U.S. history serving dairy farmer-members spread out across the country. These organizations are testing the capacity of cooperatives to be both successful at competing in global markets as well as representing of the interests of members.

Justification

A large body of literature and research exists on the subject of mergers of publicly-held companies. Fewer studies have been conducted on the mergers of agricultural cooperatives. Given the increased occurrence and scope of mergers of dairy cooperatives with the resulting impact on farmer-members, this subject warrants additional study.

Two recent studies identified the need for additional research on the impact and expectations associated with agricultural cooperative mergers and acquisitions, (Hudson and Herndon) and (Wadsworth). Further research on mergers of agricultural cooperatives and the associated impact on members has been identified as a research priority by the Midwest Cooperative Education, Research, and Extension Consortium.

Unique Aspects of Dairy Cooperative Mergers

Whereas, publicly-held dairy companies have access to a range of external data generated by financial markets and industry analysts to assist executives and directors in making the merger decision, the decision to merge dairy cooperatives is typically based on data and information generated internally. Cooperative managers and directors considering a merger need to arrive at a set of objectives which will enhance cooperative performance for the benefit of members beyond an investor orientation.

Measuring the impact of cooperative mergers on members is more complex than measuring the results of investor-oriented firm (IOF) mergers on stockholders. Members receive a mix of economic benefits from their cooperatives as both owners and patrons. There are usually strategic implications affecting member businesses over and above equity valuation and future cooperative earnings potential. Stockholders typically measure the impact of mergers of companies they are invested in by using stock valuation, future earnings potential, and other investment oriented measures. Post merger performance of agricultural cooperatives has been recently analyzed through an econometric model developed (Richards and Manfredo) to determine the motivating factors for the sample cooperatives who merged over the period 1980-1998. This study concludes that capital constraint is the most significant economic factor motivating cooperatives to partake in mergers, acquisitions, joint ventures, or strategic alliances. Typically little cash changes hands in a dairy cooperative merger, as current member equity is used to finance the consolidation of the merging cooperatives on a dollar for dollar basis.

And so, there are a number of unique aspects to the decision to merge cooperatives. Cooperative decision-makers are challenged to generate most of the data and measures of success internally. Directors of cooperatives may be voting themselves out of the position of director as the newly merged cooperative downsizes it=s board. Measuring the economic impact of mergers on member-owners is a more complex task than determining the economic

value of mergers of publically held companies to stockholders. There are a number of situations where members may benefit from passing risk or costs back to the cooperative, resulting in less profitable operations for the cooperative business.

Objectives

The overall purpose of the project is to improve the understanding of how dairy cooperative decision-makers consider, evaluate, and make the decision to consolidate operations with other cooperatives.

Specific objectives include:

- Identify the motivation for considering consolidation for cooperatives that have recently merged
- Review the criteria used to make the decision by their boards of directors.
- Ascertain what barriers to mergers are unique to cooperative businesses and how they were overcome by the cooperatives studied.
- Examine how selected financial ratios may measure the impact of the merger at the cooperative level.
- Identify what criteria were used to analyze whether proposed objectives were achieved following the merger.

Methods

The methodology used to conduct the research is to develop a case study focusing on two dairy cooperatives which underwent merger over the last ten years. Economic and management data for the case studies were collected through comprehensive, structured interviews with the chairs, directors, and managers directly involved in making the merger decision. Additional data were collected from Annual Reports and financial statements of the dairy cooperatives for time periods preceding and following the merger. Financial ratios will be developed to analyze financial performance of the cooperatives pre and post merger. A review of potential financial measures of the impact on members of the merged cooperatives will be undertaken.

Assessing the Impact of a Dairy Cooperative Merger

Attempting to assess the impact of a merger on the financial performance of the newly created cooperative creates several analytical challenges. It is can be difficult to correlate improved performance to the merger itself. A number of external forces can come into play such as: market conditions, structural changes in the industry, weather, or government policy. Finding useful comparative measures or benchmarks can be problematic (Henehan and Anderson). In dairy cooperatives, premiums paid out the members during a given year or dues paid by members can add up to significant amounts yet may not appear in the cooperative's operating statement.

Given that a cooperative business by definition is designed to deliver economic benefits to members, an analysis of the impact of a merger of cooperatives must consider how the merger affects both the cooperative firm as well as the member. It will be assumed that a profitable and financially stronger cooperative will be in a better position to serve members over the long term.

Financial Statement Analysis

Financial statement analysis can provide a useful measure of an individual firm's performance at a given point in time or over a specified time period. Deriving a set of financial ratios can further explore various aspects of a firm's financial performance. Determining a firm's levels of liquidity, leverage, profitability, and turnover can shed light on the longer term success of that firm.

Limitations arise when these categories of financial performance are used to compare individual firms with groups of firms or across industries. A number of empirical problems surface as differing accounting alternatives or industry practices may distort financial ratios making accurate comparisons questionable.

For the purpose of this study, financial statement and ratio analysis provide a useful measure of pre and post merger performance because the cooperatives were: operating in the

same industry over the same time period experiencing similar external influences. And the newly formed cooperative "inherited" the same assets and markets that the predecessor cooperatives brought to the table.

This study primarily analyzes financial performance at the cooperative firm level. However, several financial ratios are proposed to measure return on equity as well as estimated equity revolvement periods which benefit the dairy farmer members directly.

The Dairy Cooperative Growth Dilemma

Dairy marketing cooperatives, as a type of business firm, operate under distinctive set of economic limitations. They are designed to serve dairy farmer-members and as such, are typically limited in a number of choices such as: where they operate, who supplies the raw product, product line, product ingredients, raw product costs, types of processing operations, access to capital, their role in formulating government policy and the impact of government payments to producers. These limitations can translate into, at times strategic advantages or disadvantages, vis-a-vis other types of firms operating in the same industry and markets.

Table 1. summarizes some of the factors which can present a competitive disadvantage for cooperatives when developing strategies for pursuing economic growth. These overall economic limitations on dairy cooperative operations create constraints on strategic options to achieve cooperative growth. The set of growth or diversification strategies typically available to dairy cooperatives is more limited than for other types of dairy companies. These constraints on strategic options may result in stimulating more interest in selecting merger with another dairy cooperative as the most attractive alternative for achieving desired economic growth or diversification.

The Case of the Merger of Eastern Milk Producers Cooperative and Milk Marketing Inc.

Eastern Milk Producers consolidated operations with Milk Marketing Inc., MMI, on April 1, 1995 resulting in a merged organization retaining the name of MMI. Eastern Milk

Producers headquartered in Syracuse, NY operated in the Northeastern U.S. with 3,200 members located in Pennsylvania, New York, Vermont, Maryland, Delaware, and Massachusetts. In fiscal year 1994, Eastern marketed nearly 2 billion pounds of milk and generated more than $275 million in milk sales and other revenues. MMI headquartered in Strongsville, OH had 5,700 members located in Ohio, Indiana, Pennsylvania, Kentucky, Maryland, Michigan, New York, and West Virginia. In fiscal year 1994, MMI marketed nearly 5 billion pounds of milk generating revenues in excess of $725 million.

Individuals interviewed for the MMI case included the former CEO, the former Chair of MMI at the time of the merger and the former Chair of Eastern Milk Producers at the time of the merger. Interviews were conducted in Kansas City in January 2002.

The analysis of this merger is broken down into two general sections: 1) making the decision, and 2) evaluating the financial performance of the cooperatives before and after the merger. The decision making section included several categories: arriving at the decision point, selecting a merger partner, barriers to merging, and making the decision.

EXPLORING THE OPTION TO MERGE

Driving Forces

A number of over-riding forces were mentioned that drove these dairy cooperatives to consider merging which included: consolidation in the retail and processing segments of the dairy industry, increased global competition, and the need to increase volume to remain competitive. One Chair stated, " The handwriting was on the wall. It was constantly getting harder to generate or maintain returns to members". Their current capacity allowed for members to receive the blend price plus a small premium for their milk but not much more. The need to improve prices to members and better utilize assets including both plants and people were key

driving forces towards exploring alternatives. An additional reality was that as each cooperative grew in size and geographic reach, the potential for engaging in destructive competition rose.

In one cooperative, the Chief Financial Officer walked the board through a strategic planning exercise aimed at analyzing economic viability over the long term. The conclusion was reached that "although the cooperative was currently on sound financial footing, looking seven years we couldn't get to where we needed to go, given our equity and debt capacity". "We stood back and looked at the overall view of the industry and asked, How capable are we? Can we be a player moving forward?" They realized that there were limited growth opportunities operating within their current structure and level of operations.

Arriving at the Decision Point

In both organizations, members were encouraging directors to pursue merger opportunities. One Chair stated "Members were ahead of us (directors)" as far as encouraging the pursuit of merger opportunities. Another Chair reported that "Our members told us they wanted three things: 1) get into more value-added activities, 2) become a player in global market, and 3) grow the business." The discussion was "very much member driven. We struggled as a board about how to accomplish these goals. We lacked equity capital and growth potential. And so, merger became the most viable option in light of these goals."

Relationships between the Chairs of the two cooperatives were built up over a long time. Both organizations were involved in various associations such as the National Council of Farmer Cooperatives, National Milk Producers Federation as well as other trade associations. Communications were ongoing between: directors, managers, and employees through these and other business connections. Trust was built up between the cooperatives so that when merger discussions arose they were not "dealing with strangers". The CEO commented that "We knew each other's businesses very well".

The Chairs initiated the preliminary discussions to explore merging. They both agreed that the primary goal of merger was not a defensive one ("to solve problems") but should be an offensive one to cut costs and achieve market share or market leverage. They also agreed that a merger should not just be considered when a manager is about to retire. There should be ongoing exploration of merger opportunities. Although both Chairs took a lead role, they kept their respective boards informed throughout their preliminary discussions.

Selecting a Merger Partner

Respondents were queried regarding the process of seeking a prospective merger partner. A Chairman responded: "We sought a partner who: had a compatible vision (not necessarily the exact same vision); shared interests in similar markets (fluid and processing), and common territory. Other critical factors mentioned were: existing relationships, timing, and market conditions.

Initial Barriers

One of the cooperatives involved had a policy of limiting the terms that directors could serve on their board. This policy resulted in an ongoing, rotating leadership on the board, particularly at the Chair level. It was difficult for potential merger partners to develop an ongoing, working relation with the Chair, given the rotation in that position. That cooperative eventually did change their bylaws to eliminate term limits which allowed the Chair to serve a longer term and to engage in an extended conversation with potential merger partners over time.

Other barriers to merger that were mentioned included: extended member territory, geography of plant locations, fear of change, and elimination of director positions. Members had reservations such as a loss of their cooperative's identity and history. One Chair replied that "The cost of maintaining that independence became too great."

Potential merger brought various levels of uncertainty. A number of critical questions arose as reported by a manager: "What will the new organization look like? Will it work? How will management and director positions shake out?"

Analyzing the Option to Merge

Respondents were asked to describe the process for analyzing the option to merge. Following discussions of the board Chairs, the full boards were engaged in reviewing the decision. Boards then directed managers to work on a number of related issues.

As valuation issues and due diligence reviews were undertaken, it was helpful to have developed the previous working relations to be able to proceed through the process. As a manager put it, "we were not dealing with strangers".

Respondents were asked what were the most important decision criteria used in conducting the analysis of the option to merge? The following factors were reported: efficiency and improved financial performance at the cooperative level and pay-outs to members at the farm level. A number of "intangibles" were given priority in analyzing the choice to merge including: compatible relationship at the board levels as well as with managers.

A number of questions arose during this phase of the decision making process about potential risks or negative outcomes. There was a chance of "merging for the wrong reasons" and not being able to solve problems beyond the scope of the merger. The newly formed organization might not be able to deliver on addressing identified problems or not being able to communicate the benefits of merger to members. There were clearly risks associated with not merging including: the realization that each of the individual cooperatives had reached peak it's growth stage with limited opportunities for sustained, internal growth over the long term.

MAKING THE DECISION

Board Deliberations

Both boards of directors utilized advisors and consultants. Several facilitators familiar with the dairy industry and cooperative businesses worked with each of the boards as they deliberated over the decision to enter into the merger. Professionals from an accounting firm interviewed directors to survey their views and concerns about the merger.

The key facilitator to lead the combined discussion for both boards was selected to be an unbiased, objective advisor with credibility with both groups. He had a legal background and had worked previously on agricultural cooperative mergers. He had an ability to work effectively with both directors and managers. Both boards reached consensus on approving the merger and moved into a due diligence review as the next step.

Due Diligence Process

Accountants who were not regularly employed by either cooperative were retained to examined all major assets and associated book values. Agreement was reached on setting minimum economic thresholds to limit the extent of the review yet insure that a thorough job was done. Again familiarity of the organizations with each other minimized potential problems. A manager mentioned that "We knew each other". They did have to arrive at common definitions and terminology regarding: patronage, equity revolvement, equity plans, assets, and governance structures as well as voting systems at local, district, and regional levels. No major problems arose during the due diligence review.

Approval Process

After detailed discussion by the two Board Chairs as well as committees of the boards, a meeting of both boards was organized. Following approval of both boards, a recommendation to merge was submitted to votes by delegates and members. The decision to merger received

strong support from the memberships of both organizations. The new organization that was formed on April 1, 1995 and retained the name of Milk Marketing Inc. adding the Eastern Milk Producers cow's head icon to the MMI logo.

Analyzing the Economic Impact of the Merger

The study adopted an approach that developed an analysis of the financial performance of the individual cooperatives before the merger took place and an analysis of the performance of the newly consolidated cooperative following the merger. Financial statement analysis was utilized to generate data for calculating selected financial ratios.

Annual reports for Eastern Milk Producers and Milk Marketing Inc. were reviewed for three years preceding the merger (1992-94). Financial statements for the selected years combined into a 3 year average operating statement and balance sheet. Average member milk volume over the same time period for both cooperatives as well as equity revolvement or redemptions were reported. (see Table 2.). Annual reports from the newly formed MMI for two years following the merger, (1995-96) were analyzed to develop a comparison of pre and post merger performance.

Financial Ratio Analysis

A set of key financial ratios were calculated for the pre-merger and post-merger period performance of the selected cooperatives. Financial ratios measuring profitability, debt capacity, return on equity, and expenses were developed. Table 3. Summarizes the pre and post merger financial ratios.

Post Merger Performance

The newly merged MMI showed improved performance using the selected financial performance indicators in the following areas:

- Gross margins improved over Eastern Milk Prod. pre-merger performance from 4% to 5% in the newly formed MMI

- Net margins improved from pre-merger levels for both cooperatives to 1% in the new MMI.

- Lowered debt to equity ratio from Eastern M.P. pre-merger level resulting in a relatively strong balance sheet for combined operations. Although MMI pre-merger debt to equity ratio was lower than the post merger level.

- Significant improvement for return on equity from .2% for Eastern M.P. and 7% pre merger MMI to 12.2% post merger.

- Reduced estimated equity redemption period to 7 years from pre-merger levels of 11 years and 9 years.

- Reduced administrative and general expenses to 36 cents on a per-hundredweight of milk basis from 55 cents and 40 cents in pre merger cooperatives.

It is not possible to attribute empirically, all of the improved financial performance over the first three years operations of the newly formed MMI to the merger. However, one can assume that the significant elimination or reduction of various costs combined with the larger volume of milk handled, helped to create favorable conditions stimulating improved financial performance.

There were mixed results in regard to the debt ratio. To meet the increased capital needs associated with larger volume operations, the post merger cooperative utilized more debt. And so the post merger performance resulted in a higher debt ratio than the MMI pre-merger level but lower than the Eastern Milk Producers per-merger level.

Conclusions

Over the past twenty years, there has been an increased use of merging as a strategic option for U.S. dairy cooperatives. Dairy cooperatives operate under a set of growth constraints which may limit the number of strategic options available to support growth over the long term.

Given the increased interest in and use of mergers by dairy cooperatives, it is important to better understand the decision making process as well as develop effective analytical tools to measure the economic impact.

Mergers of dairy cooperative involve extensive discussions between a number of key individuals including boards chairs, CEO's and boards of directors. In the end, members must be

convinced that the decision is in their best interest and vote to approve. Measuring the impact of dairy cooperative mergers is difficult.

Financial statement and ratio analysis provided a useful approach for evaluating the financial performance of cooperatives following merger. The set of ratios developed for this study can provide a starting point for considering other measures which might further analyze the economic impact of mergers. In this case, using the selected ratios, the pre-merger financial performance of cooperatives improved following the merger. Improved financial performance can translate into maintaining a financially strong cooperative better able to serve member's interests over the longer term. Improved returns on equity as well as the estimated redemption period enhance the member's return on their investment in the cooperative.

Limitations to the Study

Conclusions drawn from case studies are limited to evaluating the specific situation and performance of the firms being studied. However, there are typically common experiences exhibited by individual firms that apply across a larger number of firms. A number of valuable lessons could be learned from examining how other cooperatives approached and arrived at the decision to merge. Additional research would be needed to test whether the experiences of these cooperatives are applicable to cooperatives at large.

The selected financial ratios do not represent an exhaustive set of financial characteristics of the cooperative involved in the study. And therefore cannot be taken as measuring the complete performance of the firm. Additional ratios or other measures of performance might provide a more robust analysis of financial performance at the cooperative business level as well as at the member level.

It is difficult to compare these cooperatives performance with other cooperatives operating in the dairy industry over the same period to better understand whether they achieved better than average performance compared to their cohorts. Benchmarks to compare the level of benefits received at the member level from a cooperative (comparative prices for milk) are hard to come by.

Areas for Further Study

More work is needed on measuring the impact of mergers at member farm level. Ratios could be developed to assess the pre and post merger levels of dues, over market premiums, cash portion of patronage refunds, and other qualitative measures of improvement. Collecting additional data on the impact of mergers at the member level was beyond the scope of this study.

Table 1. Potential Constraints to Growth for Dairy Cooperatives vs. Other Types of Dairy Marketing Firms

Factor	Cooperative	Private or Publically Held Firm
Geography: - procurement - plant location - distribution	Limited to member production area Plants sited to serve members Distribute from member-oriented plants	Flexible procurement areas Flexible plant locations Flexible distribution
Products: - types - volume - ingredients	Focus on products derived from member supply Limited non-member volume Limited non-member ingredients	Wide range of products Grow any product line No volume constraints Utilize lower cost ingredients of substitutes
Processing: - fluid milk - balancing - bulk commodity	Typically have poor record in fluid business Often assume cost of balancing regional supply & produce bulk commodity	On average better performance in fluid business Leave costly balancing to cooperatives More emphasis on value-added, consumer products
Government Payments to Producers	Can dampen producer interest in pursuing and investing in riskier marketing strategies.	Can insure lower cost raw supply of milk from subsidized producers.
Government Affairs: - producer representation - Market Order rules - Federal policy	Dedicate significant resources to government affairs at various levels that benefit non-members as well	More focus of government affairs efforts on activities that benefit individual firm
Access to Capital: - limits to member equity - limited access to public markets - earnings to reinvest	Can exhaust member investment capacity Typically don't use public markets Slim earnings to reinvest	Greater access to capital markets Tend to operate in sectors or level of industry generating greater profits
Size and Scope: - small to mid-sized - multi-national - state or regional scope	On average, tend to be small to mid-sized firms Even largest are relatively small Usually limited to region or one nation (at least in U.S.)	Trend towards larger, global dairy firms with operations in various countries
Potential for Acquisitions	Member interests can limit types of acquisitions Limited capital to finance acquisitions	Can acquire wider range of businesses On average, greater capacity to finance acquisitions

Table 2. Pre and Post Merger Financial Statement Data

Item	PRE- Eastern M. P.. 1992-94 ave.	MERGER MMI 1992-94 ave.	POST MERGER MMI 1995-96 ave.
<u>Operating Statement:</u>	($000)	($000)	($000)
Total Operating Revenue	248,891	323,464	664,870
Cost of Goods Sold	239,088	303,541	633,492
Gross Margin	9,803	19,922	31,378
Gen. &Admin. Expenses			
Net Income	52	2,594	7,416
<u>Balance Sheet</u>:			
Current Assets	16,427	60,519	469
Current Liabilities	20,392	45,966	87,486
Long Term Debt	5,367	3,200	15,184
Equity	11,556	36,936	52,026
Total Assets/ Liabilities	38,179	87,163	155,558
<u>Statement of Cash Flow:</u>			
Equity Pay Out	739	3,835	6,255
Annual Milk Volume (billion pounds)	1.78	3.82	7.01
Source: Annual Reports			

Table 3. Pre and Post Cooperative Merger Financial Ratios

Financial Ratio	PRE- Eastern M. P.	MERGER MMI	POST MERGER MMI
Profitability			
Gross Margin on sales (Gross margin/total revenues)	4%	6.2%	5%
Net Margin on sales (Net income/total revenues)	.01%	.8%	.96%
Debt. Capacity Debt ratio (cur. liab. + long term debt)/total assets)	.67	.56	.66
Debt to equity (long-term debt/equity)	.46	.09	.29
Equity Return and Turnover Return on equity (Net income/equity)	.2%	7.0%	12.2%
Equity redemption period in years (Annual redemption/total equity)	11	9	7
Marketing Overhead Administrative & general expenses per hundred weight of member milk	.55	.40	.36

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