

Merger Mania in the Farm Machinery Industry

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Introduction

- 174 billion dollar industry
- Minimal growth
- Industry in transition



Objectives



1. Examine market reaction to merger announcements
2. Examine pre and post acquisition market performance
3. Examine pre and post acquisition operating performance

Types of Mergers

- Horizontal
- Vertical
- Conglomerate



Reasons to Merge

- Synergistic benefits are key
 - Economies of Scale
 - Increasing Market Share (market power)
 - Gain Market control of raw material
 - Unused tax shields
 - Cash on hand



Reasons not to Merge (but are sometimes argued for)

- Risk diversification
 - Research has not provided evidence that the market will pay more for a diversified firm
- Increasing earnings per share
- Lowering financing costs



Who gains in a merger?

- Sellers usually do better than buyers
- Stockholders of acquiring firms lost about 10% over the five year period
- Target firm gained 28%, acquiring lost 1%
- Shareholders of acquiring firms gain (20%)
- Weak evidence of negative performance for a 5-year period but stronger evidence for a 3-year period

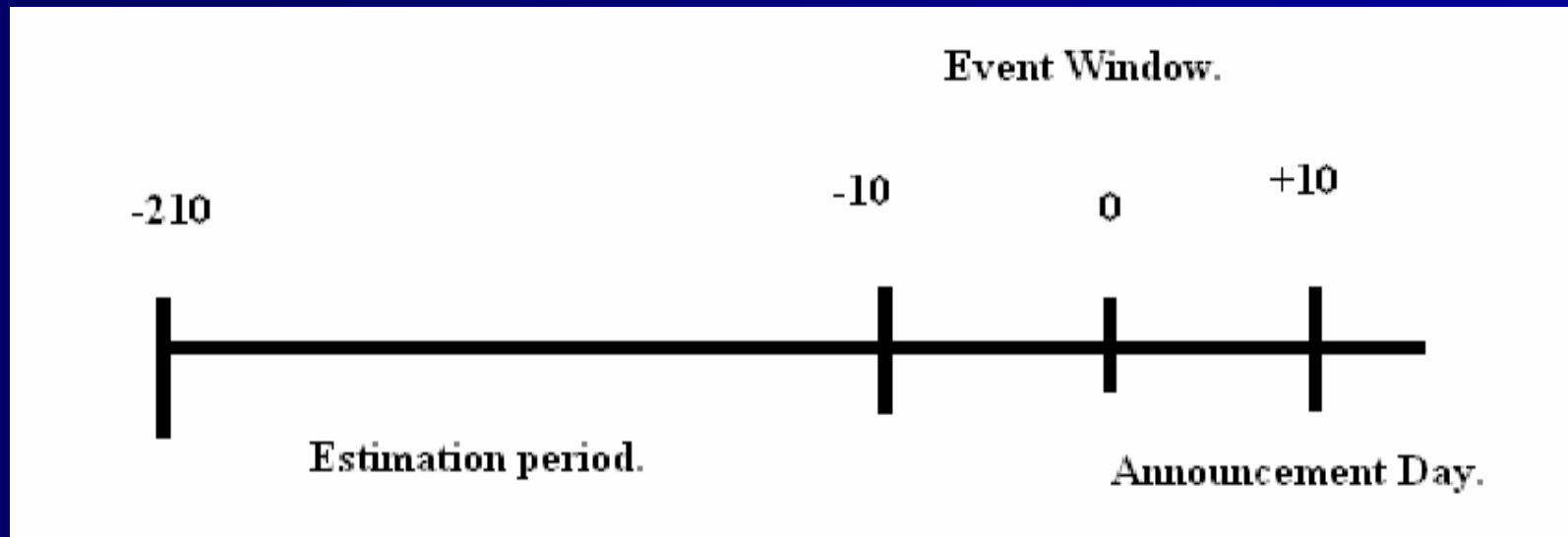
Determining Mergers and Acquisitions

- Developed using several methods
 - De-listed companies in CRSP
 - List of market capitalization
 - NYSE industry classification

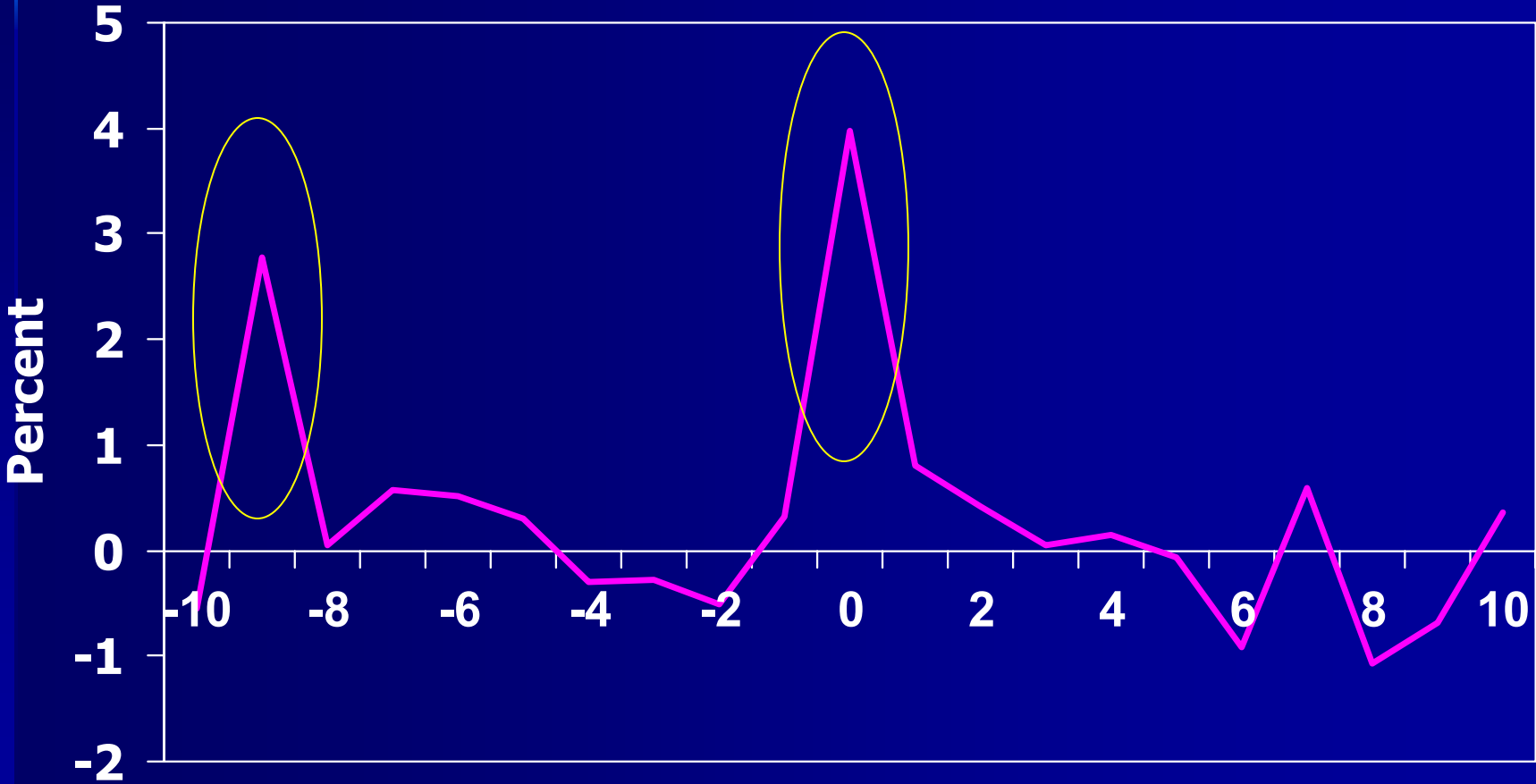
Heavy Construction
- Matching Process
 - 2 digit SIC code eg. 3523
 - Assets between 25% to 200%
 - Closest but higher OIBD / Assets ratio

Schematic to Examine Performance

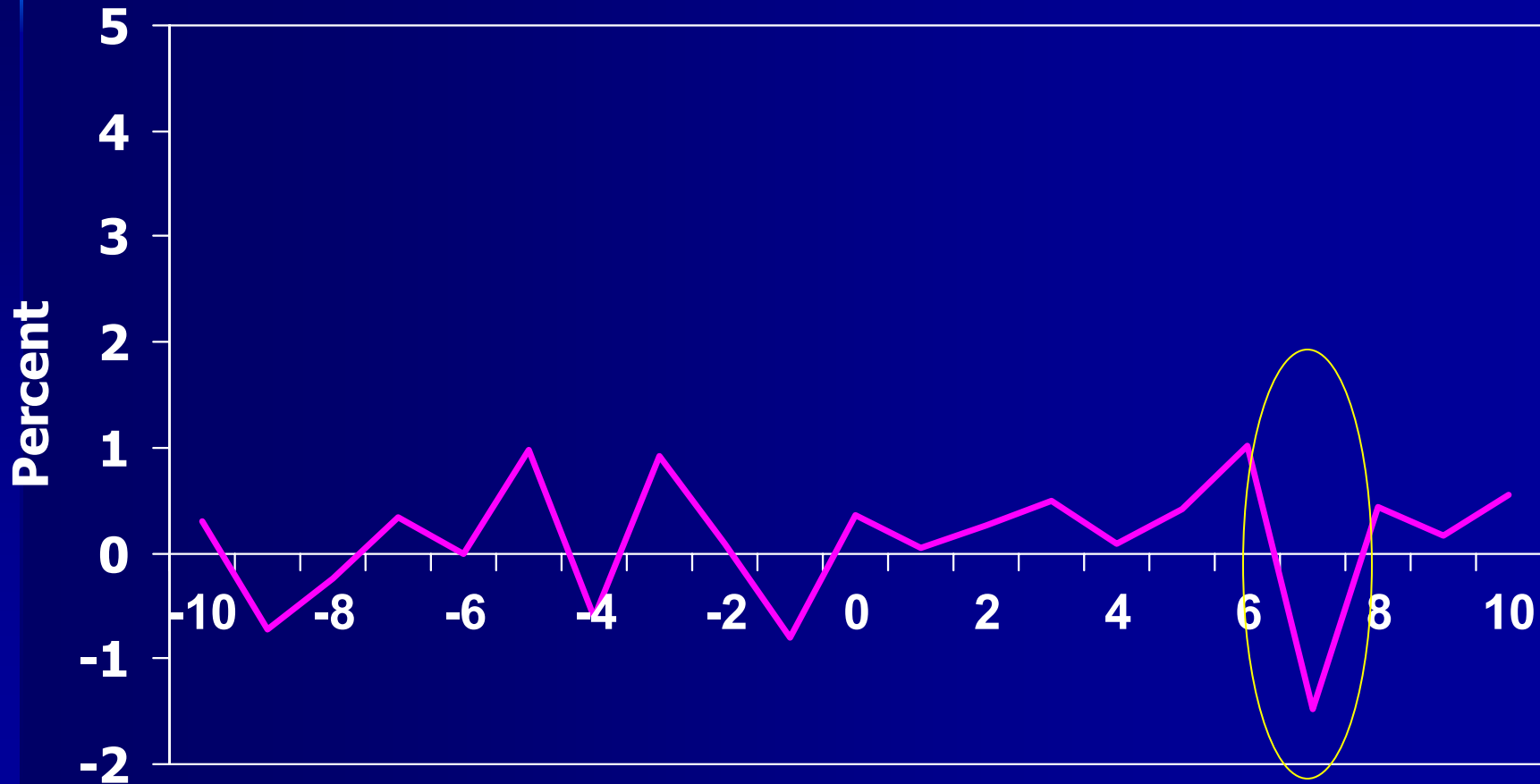
- Daily returns were collected from CRSP



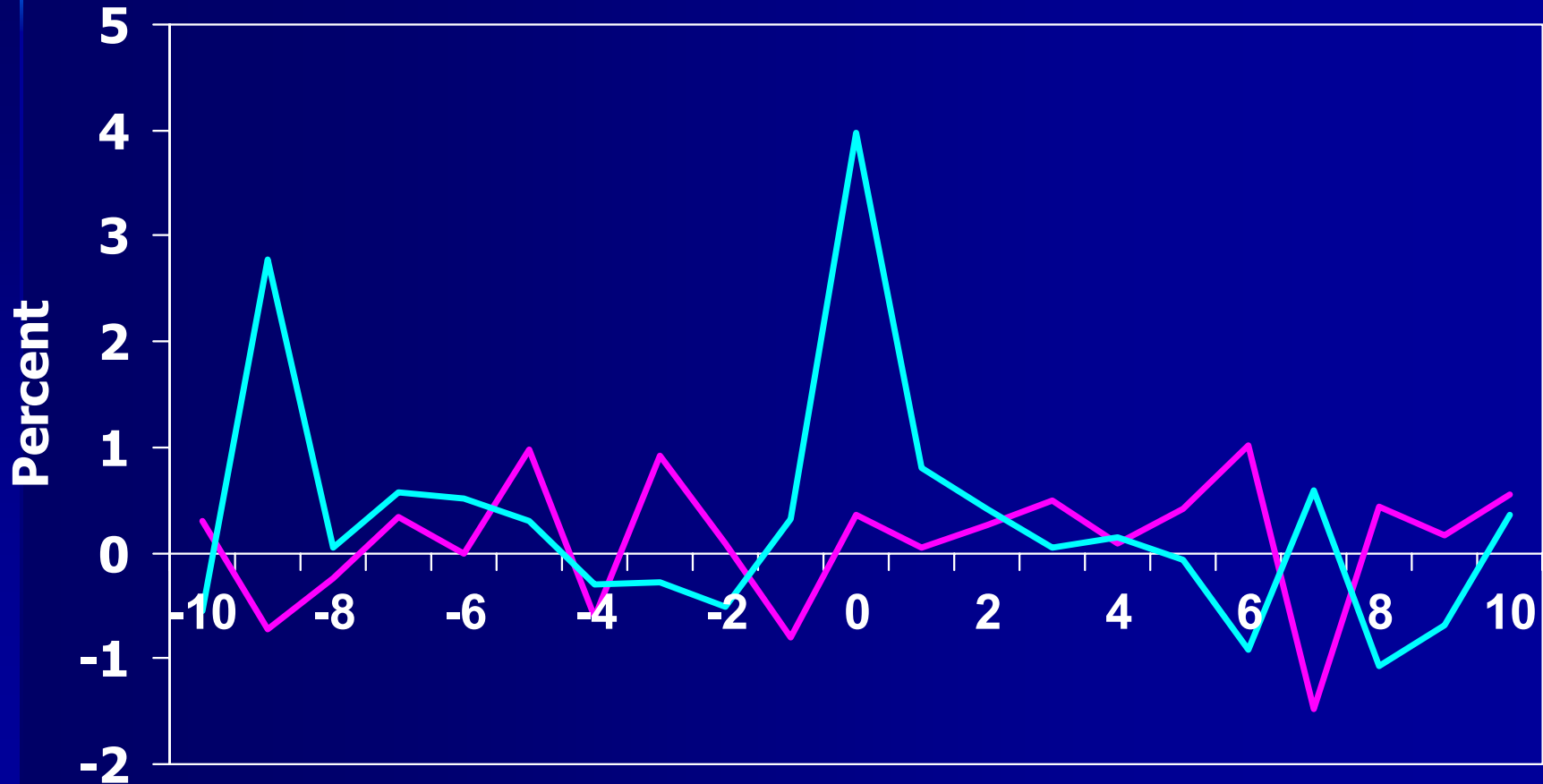
Acquiring Abnormal Returns



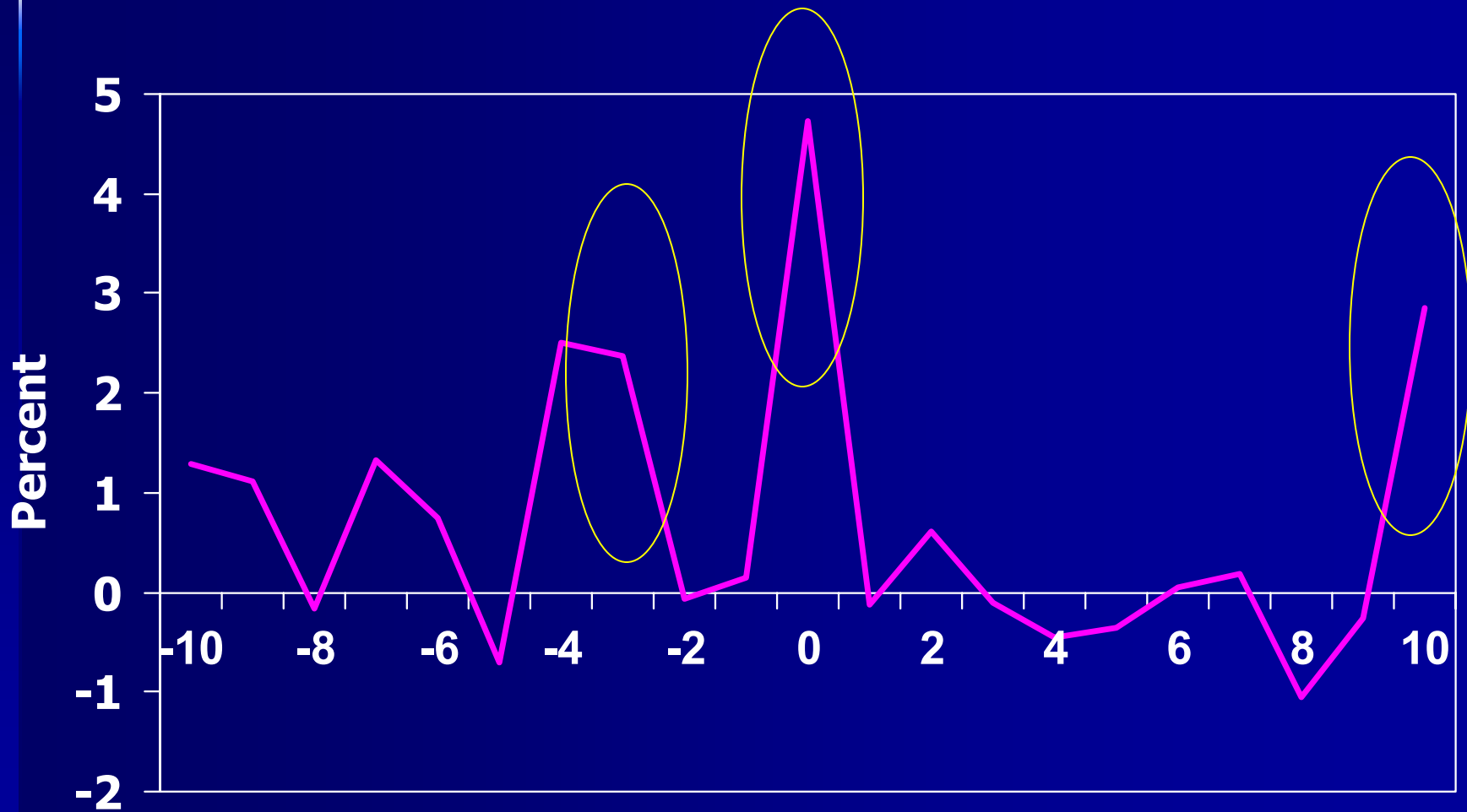
Matching Acquiring Abnormal Returns



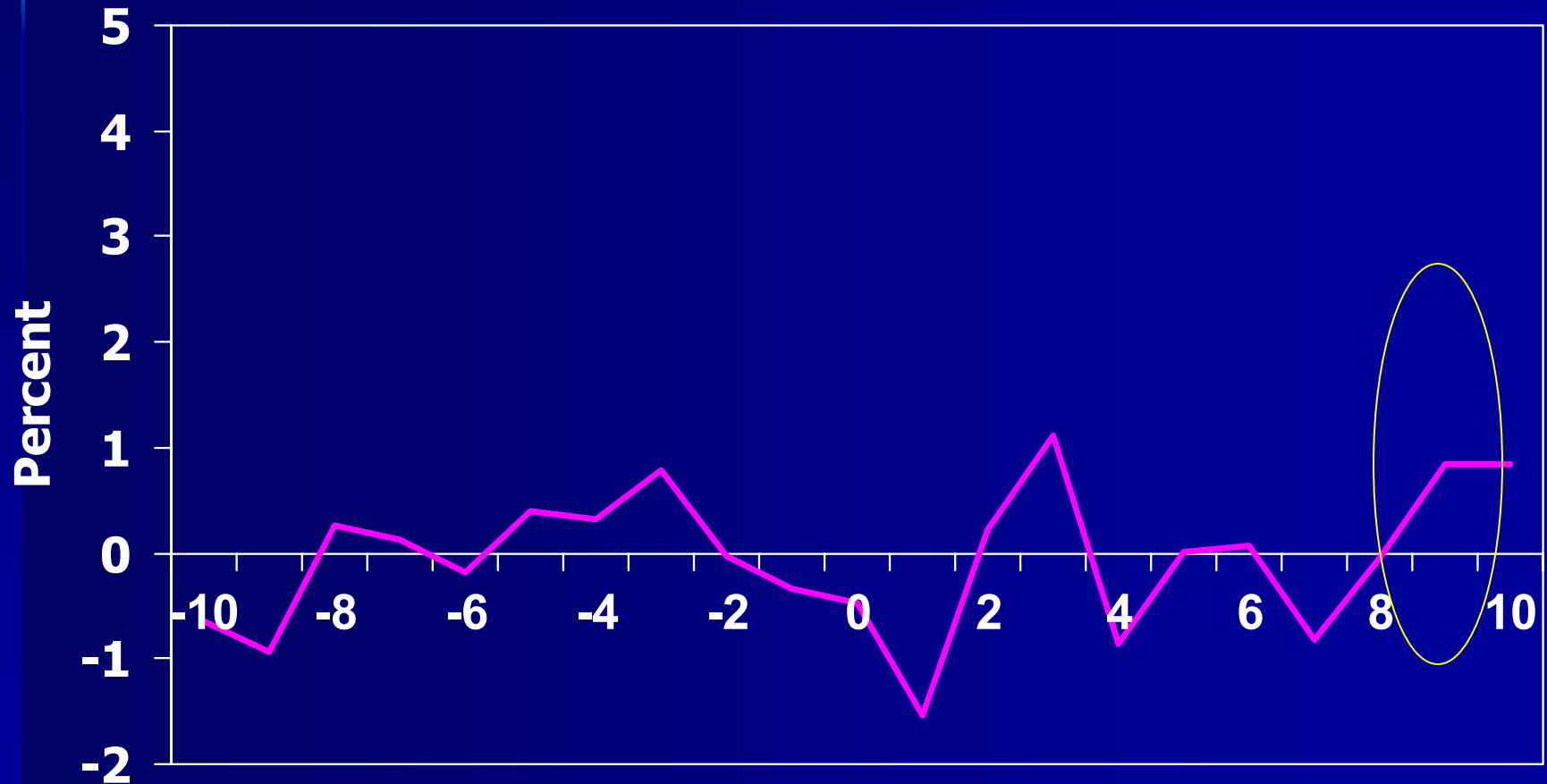
Acquiring & Acquiring Abnormal Returns



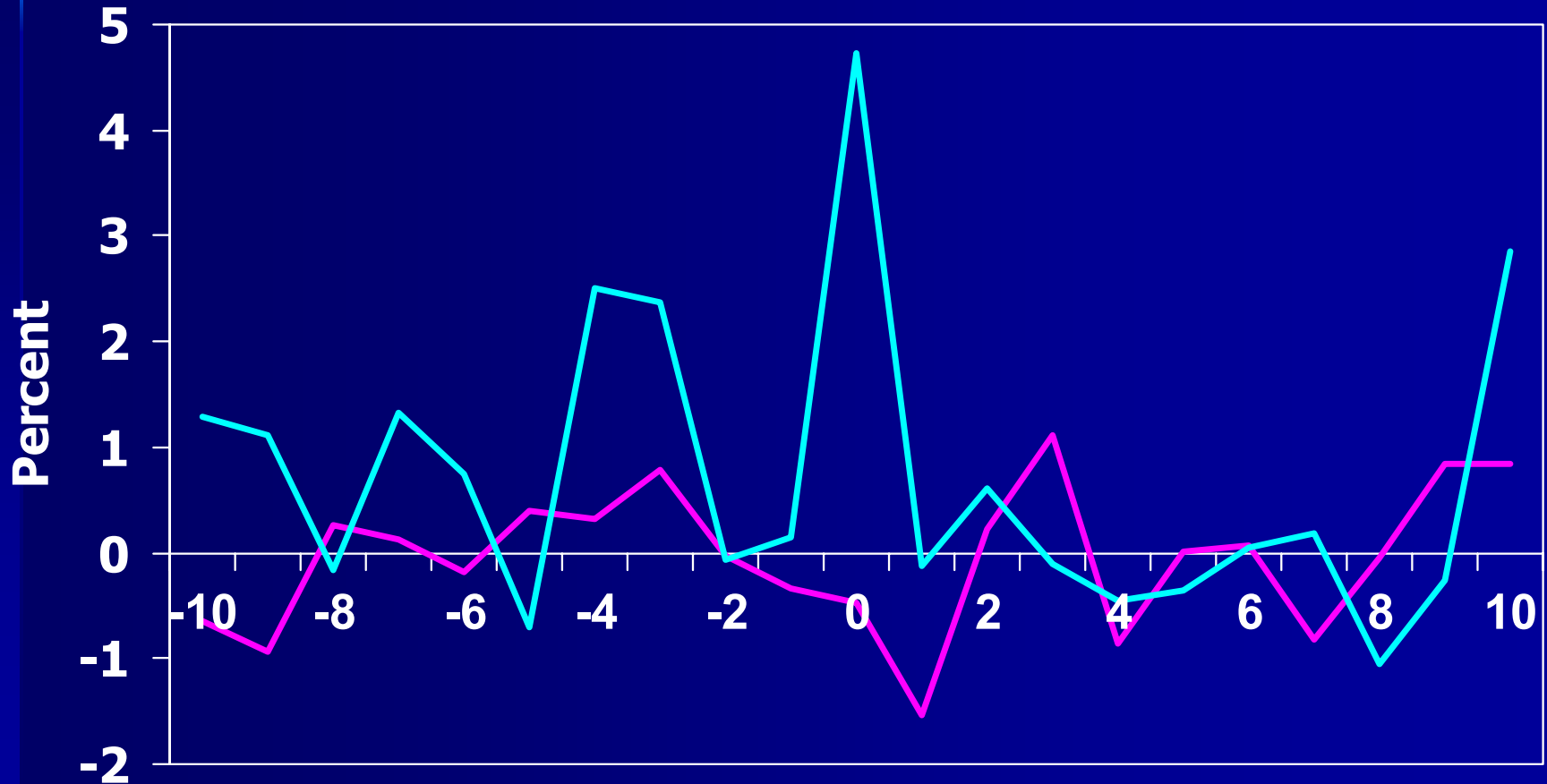
Target Abnormal Returns



Matching Target Abnormal Returns



Target & Matching Abnormal Returns



Abnormal Performance Results

- The acquiring firm gained on average around 5% near the announcement
- The target firm gained on average around 5% near the announcement
- Total gain is near 10%
- The gains are distributed somewhat evenly to the acquiring and target shareholders

Abnormal Performance Implications

- Our results are contrary to what is generally found in broader studies
- Why?
 - Could be industry specific
 - Could be specific to “mature to declining” industries

Post Acquisition Results

- How do the pre- and post-acquisition returns compare to the target firms?
- Examined the one year returns from stock ownership before the merger for both entities
- Examined the one and two year returns for the acquiring firm

Post Acquisition Results

- None of the results were statistically significant
 - Implications there is no difference in the market valuations
 - There may be an implication but the sample is small enough not to pick it up

Post Acquisition Results

■ Implications

- The acquiring firm performed worse than the matched firm for the year before and after the acquisition
- Better than the matched firm the 2nd year
- The target firm performed better than the matched firm the year before the merger

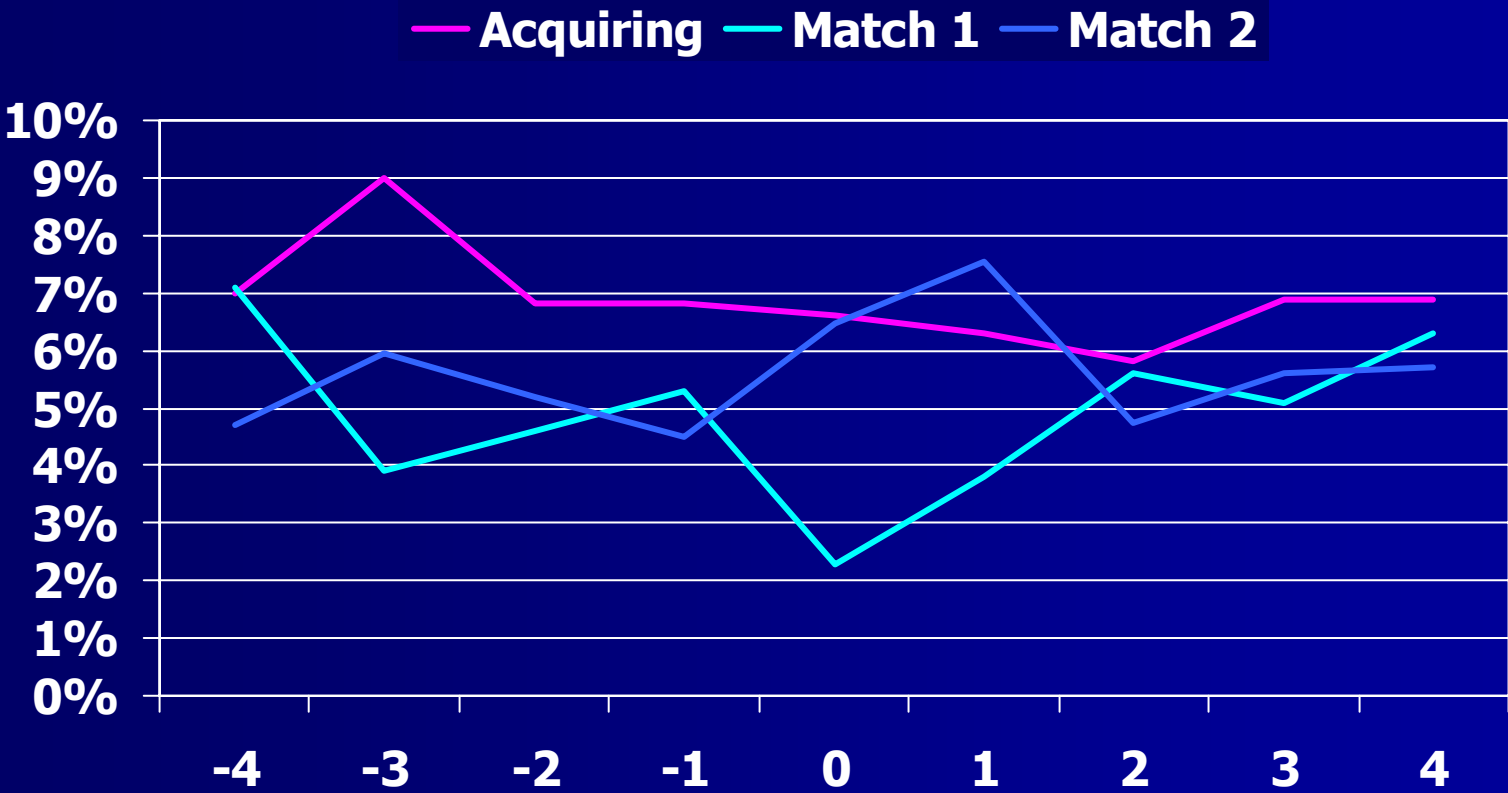
Financial Ratio Methods

- What are the actual operating effects of the merger?
- Four years prior for acquiring, target and matching firms
- Four years following the merger for the acquiring and matching acquiring firms

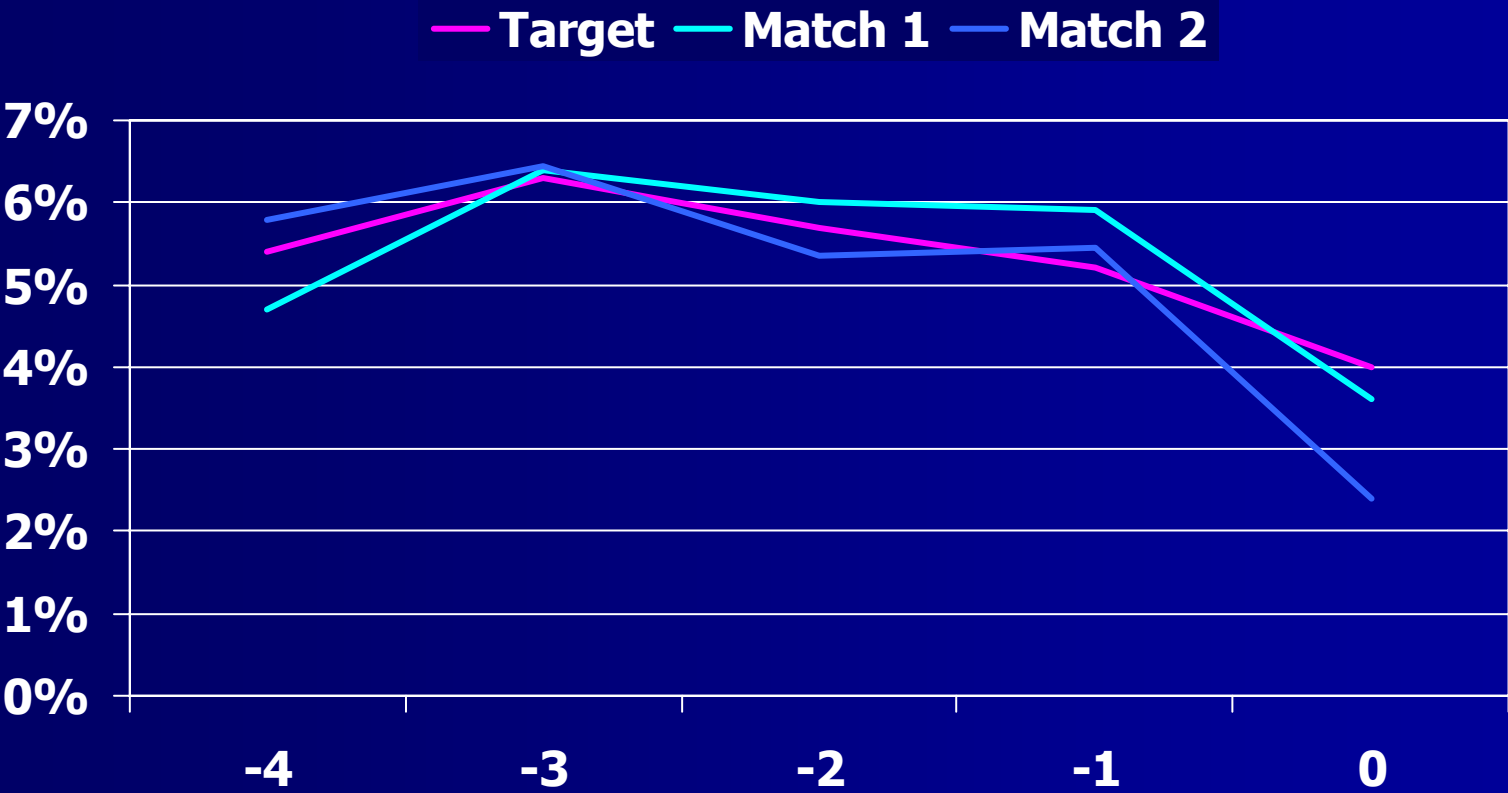
Operating Ratio Analysis

- Ratios
 - Profit Margin
 - ROA

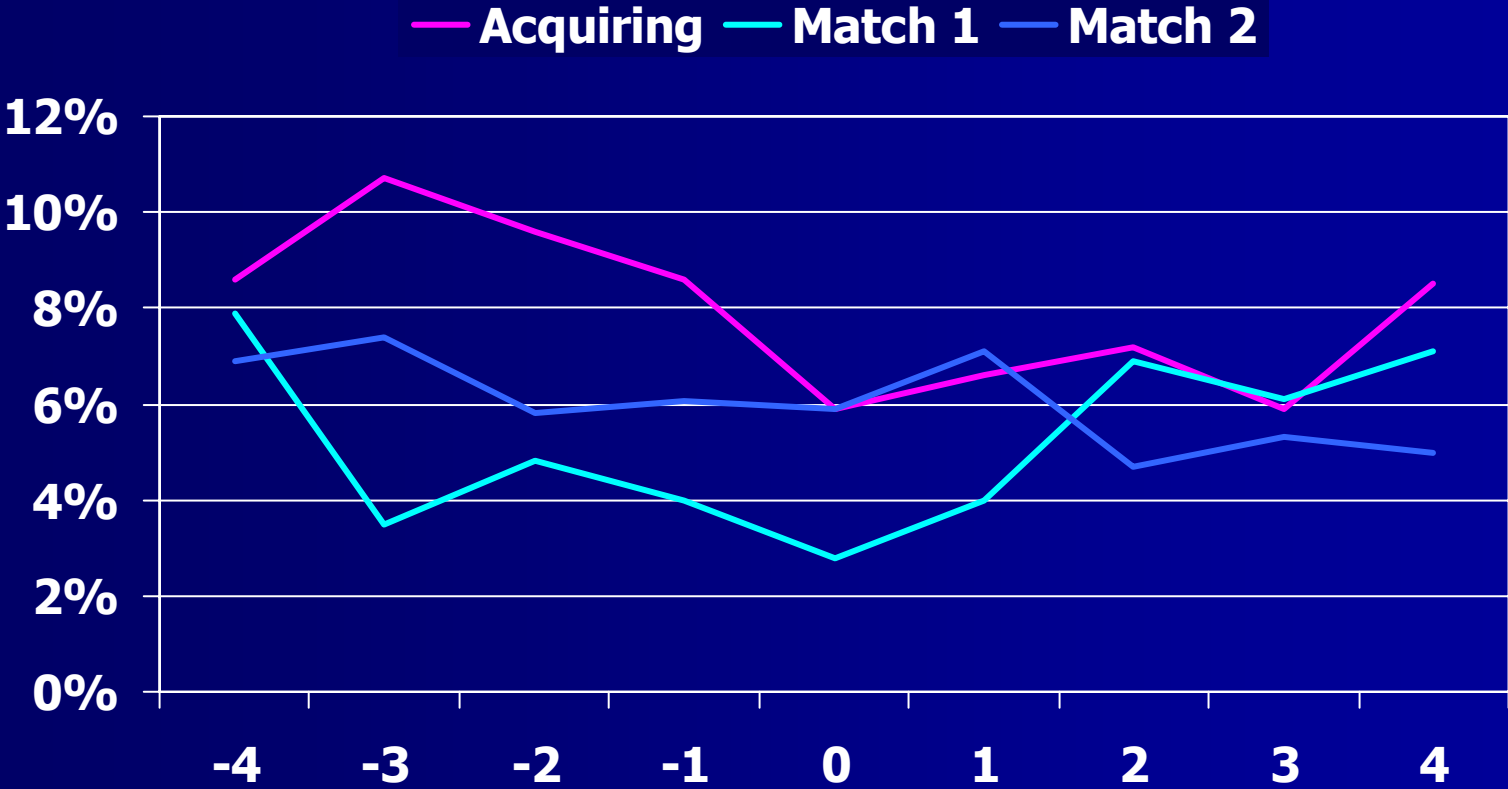
Profit Margin Results



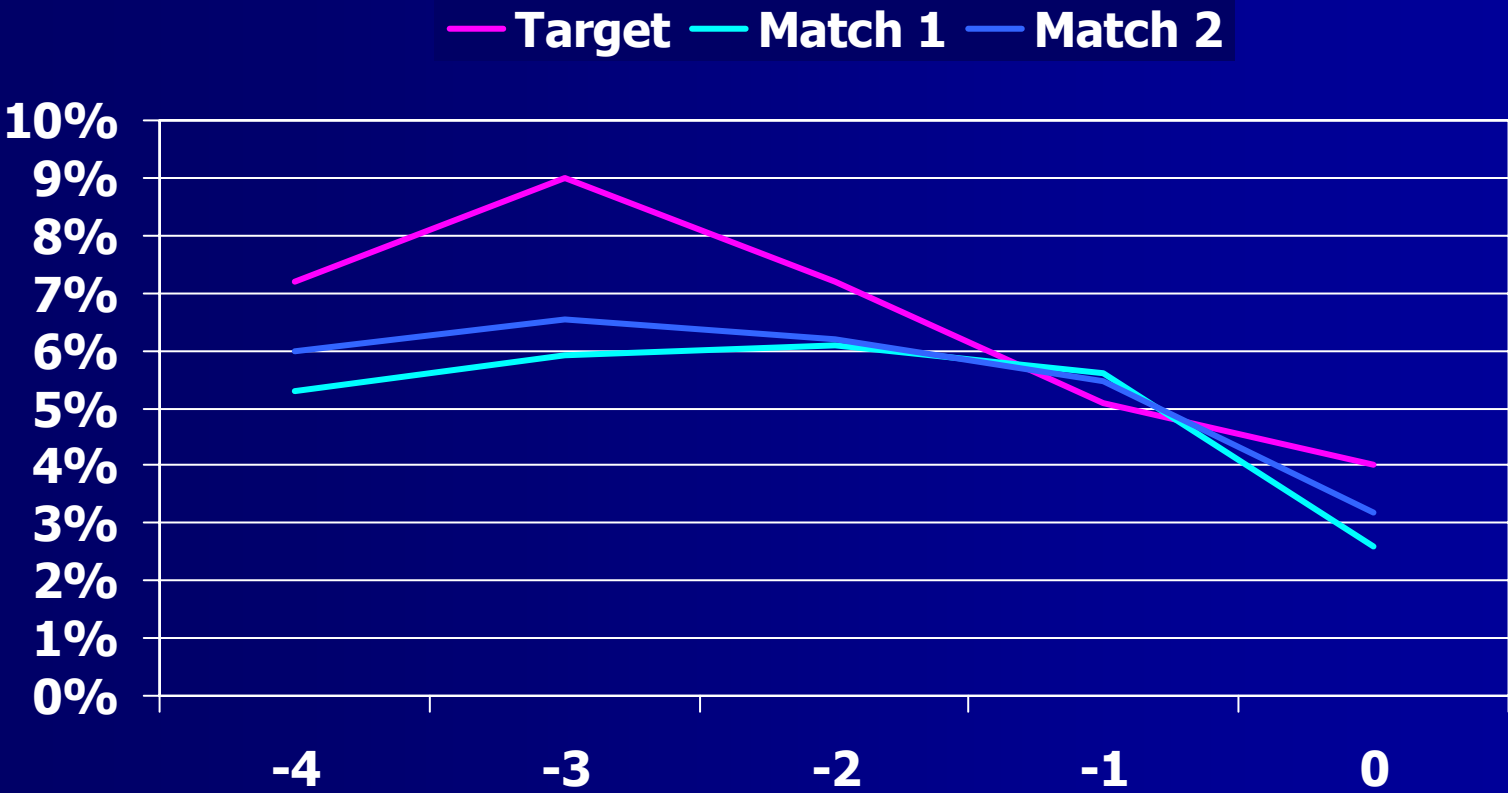
Profit Margin Results



Return on Assets Results



Return on Assets Results



Implications

- The operating results do not indicate a statistically significant difference in the ratios, however, there are some trends that are important.
- The profit margin from the acquiring firm generally decreases from before until after the merger.

Implications

- The return on assets also generally decreases after the acquisition, but appears to begin to recover during year 4.
- The return on assets on the target firm generally declines prior to the merger.

Conclusion



- Research in the finance literature has generally indicated that the acquiring firm suffers at the expense of the target firm from a market standpoint.
- This is not the case for agricultural machinery.
- This may be a result of “mature” industries, such as the food sector.