Module 4

The Role of Global Capital Markets

Market Linkages
(All prices are connected)

Presenter: Paul Kofman
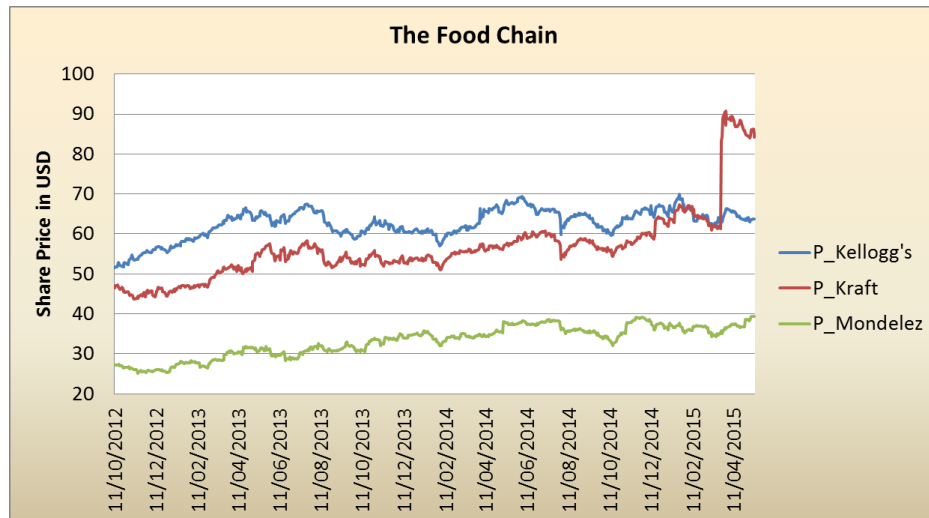
THE UNIVERSITY OF MELBOURNE   BNY MELLON

Share prices are related – systematic risk

Share price movements reflect the company's unique (changing) earnings forecasts,
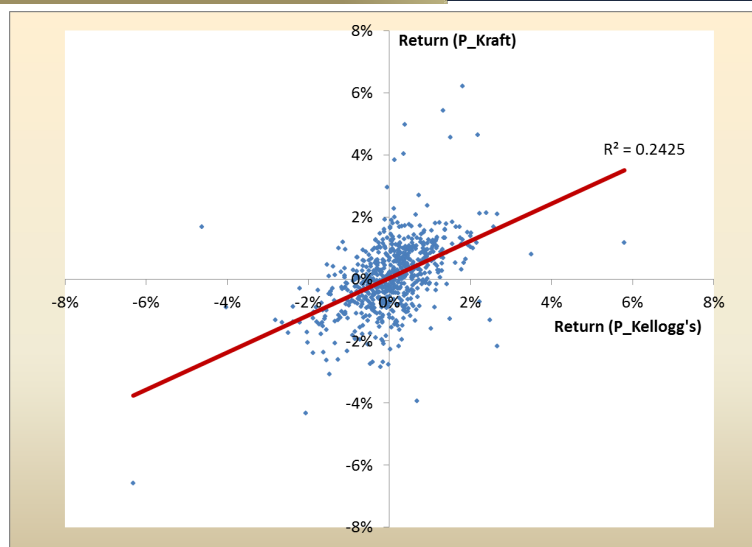but future earnings for Kellogg's are clearly related to future earnings for Kraft …

- Similar inputs
- Similar technology
- Similar outputs
- Same regulation (food/health)
- Similar global exposure
- Similar consumers.

Share prices are related – systematic risk

The Food Chain

Share Price in USD

- P_Kellogg's
- P_Kraft
- P_Mondelez

A closer look…

Return (P_Kraft)

R² = 0.2425

Return (P_Kellogg's)

Share prices are related – systematic risk

Even beyond direct competitors, some (or a lot) of the daily share price movements are shared with many other corporations – in entirely different industries.

The binding forces?

- Macro-economic factors (inflation, exchange rates, economic growth)
- Common exposures (to interest rate changes, energy prices)
- Investor demand (e.g. a tax break on pension contributions)
- Overseas demand (safe havens in times of crisis)
- Institutional investor portfolio allocation strategy shifts.

Shared macro factors affect all corporations
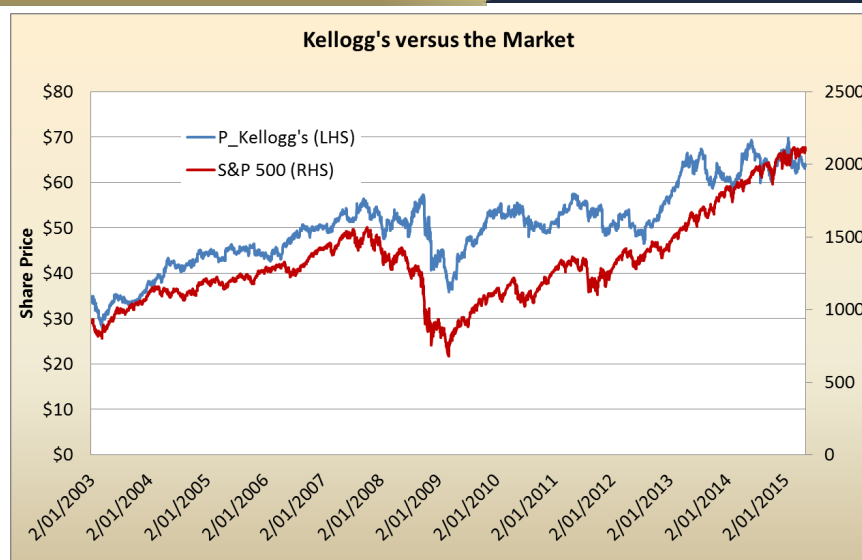
Share prices are related – systematic risk

We can "tie" the price movements for individual stocks to the market movement.

For example:

$$R(\text{Kellogg's}) = \beta R(\text{S\&P500}) + \varepsilon$$

The β-estimate is a measure of the risk/ variability in the returns on a Kellogg's share that can be explained by its exposure to the variability in the market – as distinct from Kellogg's-specific value drivers.
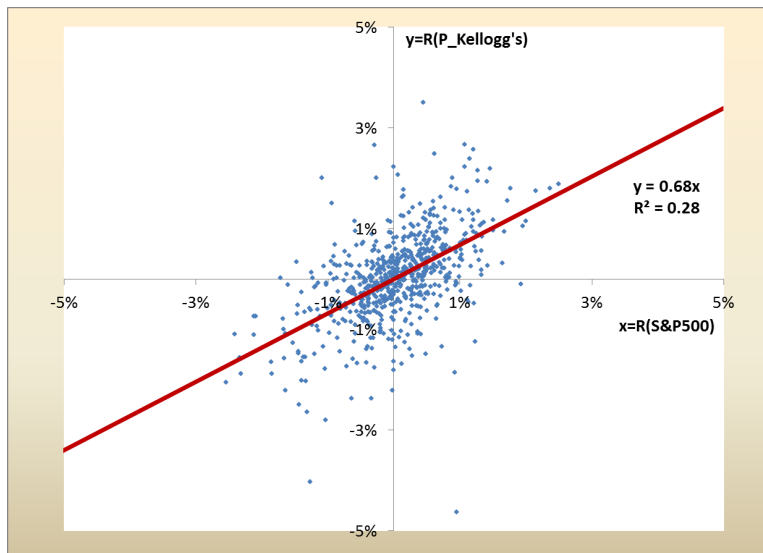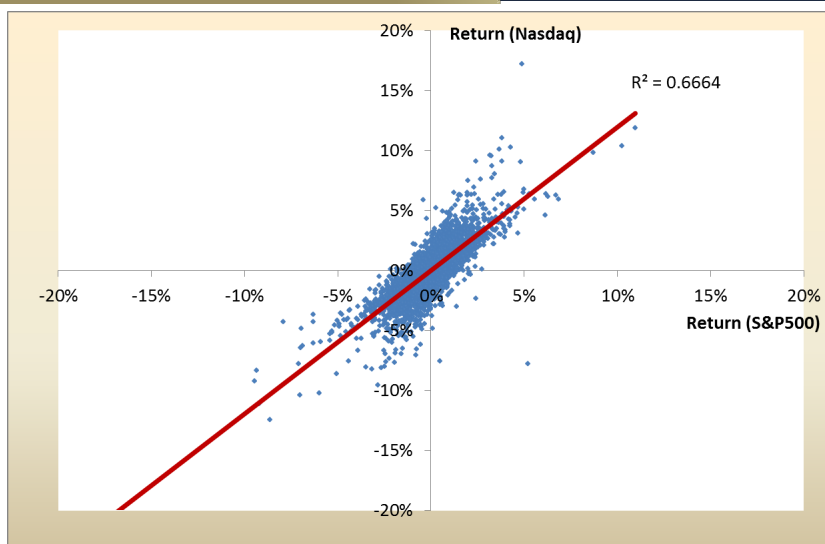
All corporations are related to "the market"

Kellogg's versus the Market

Kellogg's exposure to "the market"

$y=R(P\_Kellogg's)$

$y = 0.68x$
$R^2 = 0.28$

$x=R(S\&P500)$

And even markets are closely related…

Return (Nasdaq)

$R^2 = 0.6664$

Return (S&P500)

Connecting markets

So individual stock price movements are related, and different equity market movements are related.

Similarly, bond market movements are related to money market movements, and both are related (sometimes inversely) to equity market movements.

… and commodity market movements are related to (most) equity market movements.

It truly is a "complete" market!

Source list

Slide 3:
The Food Chain graph. Prepared by Paul Kofman from data sourced from Yahoo!7 Finance (https://au.finance.yahoo.com/). © The University of Melbourne.

Slide 4:
Return (P_Kellogg's) vs Return (P_Kraft) graph. Prepared by Paul Kofman from data sourced from Yahoo!7 Finance (https://au.finance.yahoo.com/).
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Consumer Goods graph. Prepared by Paul Kofman from data sourced from Yahoo! 7 Finance (https://au.finance.yahoo.com/). © The University of Melbourne.

Source list

Slide 8:
Kellogg's versus the Market graph. Prepared by Paul Kofman from data sourced from Yahoo!7 Finance (https://au.finance.yahoo.com/). © The University of Melbourne.

Slide 9:
R (S&P500) vs R (P_Kellogg's) graph. Prepared by Paul Kofman from data sourced from Yahoo!7 Finance (https://au.finance.yahoo.com/). © The University of Melbourne.

Slide 10:
Return (S&P500) vs Return (NASDAQ) graph. Prepared by Paul Kofman from data sourced from Yahoo!7 Finance (https://au.finance.yahoo.com/). © The University of Melbourne.

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