RIVALRY

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AGSM

Rivalry

- What is rivalry?
  - What forms does rivalry take?
  - What other ways can we think about business interactions?
- Pricing rivalry
  - What is pricing rivalry?
  - Is it always (ever?) a good idea?
  - How does market structure affect dynamic strategies?
  - A case study: a firm's strategy in Australian wine.
- Co-opetition
  - A new way of looking at business, using five PARTS and the Value Net

In Managers, Markets, and Prices, you learnt:

— about applying the *tools of game theory* to analyse *oligopolies* (markets with few sellers), including two-seller *duopolies.*

— with the concept of *Nash equilibrium:* a situation where no player wants to alter its strategy, given others' strategies

—oligopolies (including duopolies) can be modelled as *Prisoner's Dilemmas:*

- — collectively you'd both be better of *cooperating*, but
- — individually you're each netter *defecting* (cutting your price in a price war, or expanding your capacity as in OPEC)

— but *repetition* may allow firms, players, to escape from this logic, without recourse to contracts, trust, or third parties — indeed, even without direct communication — to sustain cooperative behaviour.

Today: we explore repeated rivalry, an why some industries have more cooperation, while others are more competitive.

An Example

- Rupert Murdoch's *New York Post* takes on the *New York Daily News*

	N.Y. Post	*N.Y.News*
January 1994	40¢	40¢
February 1994	50¢	40¢
March 1994	25¢ (in Staten Island)	40¢
July 1994	50¢	50¢

Until Feb 1994 both papers were sold at 40¢. Then the *Post* raised its price to 50¢ but the *News* held at 40¢ (since it was used to being the first mover). So in March the *Post* dropped its Staten Island price to 25¢ but kept its price elsewhere at 50¢, until *News* raised its price to 50¢ in July, having lost market share in Staten Island to the *Post* and having accepted that the *Post* would henceforth be the leader in any price hike. So both were now priced at 50¢ everywhere in NYC.

Business is a Game, of Sorts

Business is a game, but different from structured board games or arcade games or computer games:

- it is not win-lose (not zero-sum): possible for all players to win
- apart from the law, there is no rule book
- others will change the game to their advantage
- the game is made up of five PARTS
- success comes from playing the right game

So game theory provides a framework for an ever-rapidly changing world.

The PARTS of the Business Game

Players: customers, suppliers, rivals, allies;

Change any, including yourself

Added Values: what each player adds to the game (taking the player out would subtract their added value)

Ways to raise yours, or lower theirs.

Rules: give structure to the game; in business — no universal set of rules

from law, custom, practicality, or contracts

Can revise exiting rules, or devise new ones

Tactics: moves to shape the way:

— players perceive the game, and hence

— how they play

Tactics to reduce misperception, or to create or maintain misperception.

Scope: the bounds of the game: expand or shrink.

PARTS give more than a framework, it provides a complete set of levers, using the Value Net, see later.

Question: Left or Right?

You can choose Left or Right:

Profits:

	Left	**Right**
You	$40 m	$80 m
Rival	$20m	$160 m

A Pricing Rivalry Duopoly Game

- You (and your team) are sellers of a homogeneous, unbranded commodity.
- There is one other seller of this product in the market.
- Since the product is a commodity, buyers will automatically buy from the seller with the lower price.
- I both sellers charge the same price, then the two sellers split the market.
- If one seller charges a lower price, then that seller gets all the sales.

Demand for the Product

The Industry Demand for the product is as follows:

Price	Quantity
$9	0
$8	1
$7	2
$6	3
$5	4
$4	5
$3	6
$2	7
$1	8
$0	9

Profits and Costs

- If you price at \$4 and the other team at \$5, then you make all the sales, selling 5 units for a sales revenue of \$20. The other team has zero revenue.

- There is an average cost of \$2 per unit, so your profit π would be

$$\pi = \$20 - (5 \times \$2) = \$10$$

The other team has zero costs and so zero profits, when you undercut them.

- Your aim is to maximise your team's ***profits.***

The Game

- We will play the pricing game for several rounds.
- Each round, you and your opposing team will simultaneously (and secretly!) choose a price,
- You will have a minute to decide your price.
- Write your price on the cards provided.
- As soon as prices are submitted, I'll collect the prices and show you your profits and the other team's profits
- Total profits will be calculated at the conclusion of the game.
- Your aim is to maximise your team's ***profits.***

Game Debrief

Questions:

- How did your game evolve?

- What signals did you send? How? Were they effective? Consequences?

- What did the other side do? Why – what did they mean? Your response?

- What patterns of play can you see across the score sheet?

Dynamic Pricing Rivalry

- What should pricing rivalry mean in practice?
  — Should you compete by cutting price, trying to capture market share
    or should you keep prices high, and take a share of (monopoly) profits?

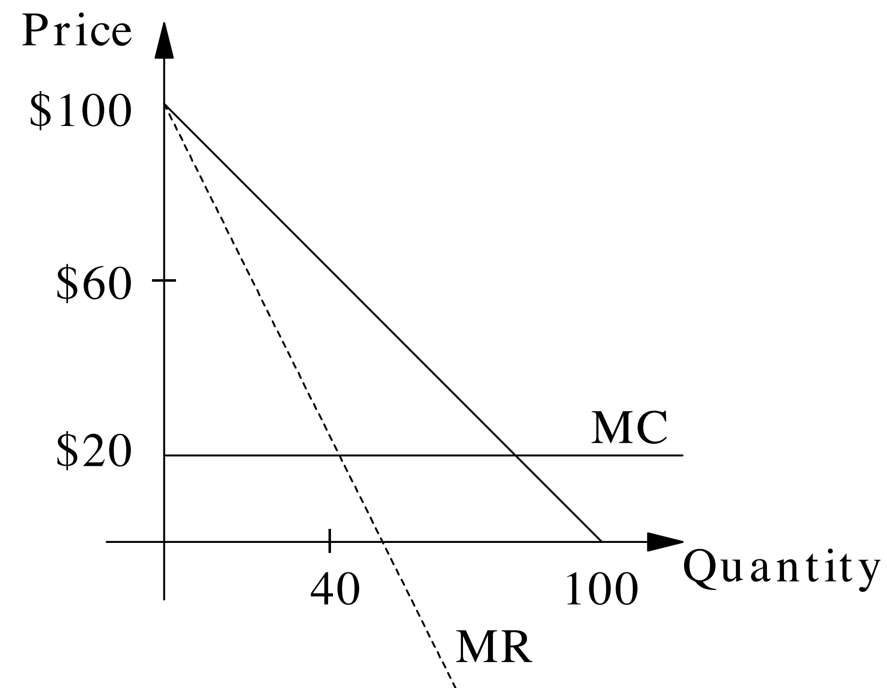
- Why is it important to consider the dynamics?
  — Because most interactions in most markets are repeated

A Market With Two Firms.

Two equally sized firms in a stable market.

Demand curve shows annual demand.

Firms set prices once a week.



To Defect or Not To Defect?

Suppose two firms, Alpha and Bravo, are cooperating by charging the monopoly, joint-profit-maximising, price of $60.

Bravo is considering whether to continue with this pricing policy or lower price to $40 to gain market share.

What influences this decision?

Bravo needs to consider what its profits will be in each case, over the likely period of interaction.

It does two calculations:

— Its profit if it keeps its price at $60.

— Its profit if it lowers its price to $40.

It conjectures how Alpha might respond.

The Calculations

A discount rate of 0.2 percent per week.

Bravo keeps price at $60:

It should anticipate that Alpha will keep its price at $60 for the foreseeable future:

$$\$15.38 + \frac{15.38}{1.002} + \frac{15.38}{(1.002)^2} + \frac{15.38}{(1.002)^3} \cdots$$

$$= \$15.38 + \frac{15.38}{0.002} = \$7705$$

Bravo lowers price to $40:

It should anticipate that Alpha will keep its price at $60 for the first week, then drop back to $40 in the second week:

$$\$23.08 + \frac{11.54}{1.002} + \frac{11.54}{(1.002)^2} + \frac{11.54}{(1.002)^3} \cdots$$

$$= \$23.08 + \frac{11.54}{0.002} = \$5793$$

At some (high) discount rate, it will pay Bravo to lower its price to $40. Why?

Profit Calculations

Bravo's first-period weekly profit if defecting ($40) and undercutting Alpha:

$$\pi_{\text{annual}} = \$40 \times 60 - \$20 \times 60 = \$2400 - \$1200 = \$1200$$

$$\therefore \frac{\$1200}{52} = \$23.08 \text{ profit per week}$$

Bravo's second-period weekly profit once Alpha reduces its price to $40 too:

$$\pi_{\text{annual}} = \frac{\$40 \times 60 - \$20 \times 60}{2} = \frac{\$1200}{2} = \$600$$

$$\therefore \frac{\$600}{52} = \$11.54 \text{ profit per week}$$

Bravo's weekly profit if both Bravo and Alpha keep their prices at $60:

$$\pi_{\text{annual}} = \frac{\$60 \times 40 - \$20 \times 40}{2} = \frac{\$1600}{2} = \$800$$

$$\therefore \frac{\$800}{52} = \$15.38 \text{ profit per week}$$

To D or not to D

- Need to consider more than just one period's profit
    — *Look forward and reason backwards*
- Depends on*:*
    — each firm's pricing *strategy* (what to do, how to respond)
    — each firm's *expectations* of its rivals' strategies
    — the *discount rate* and the time horizon
- Some general concerns:
    — How quickly can my rivals respond?
    — What is the difference between defection profits versus monopoly profits?
    — Will my actions in this market affect market?

Coordinating an Equilibrium

- How do firms decide on a price and stick to it?

- Firms must coordinate on a strategy
  - — A collusive agreement would achieve this …
    but it's illegal

A Scenario

- Suppose you are meeting a friend in Paris on the 6th June next.
- You don’t have a time or a specific place picked out — just the day.
- You don’t have their email address or mobile number.
- Where will you wait?
- And at what time?

Focal Points

- Firms need a focal point — a strategy so compelling that it is natural to adopt and expect others to adopt
  - — Can be facilitated by traditions and conventions
- Tit-For-Tat is such a strategy (remember, you met it in MMP)
  - — a variation of the “eye-for-an-eye” rule of behaviour
  - — cooperation in the first period (nice),
    then mimic your rival’s action from the previous period

Four Attributes for an Effective Strategy

1. Clarity: it’s easy to recognise and follow.
2. Niceness: it starts out cooperating
3. Provocability: one defection and you’re on.
4. Forgiving: if your rival cooperates, then you relent.

An Ideal Strategy?

- Tit-For-Tat manages to encourage cooperation wherever possible, but avoids exploitation.
- Flaws?
  - — Misperceptions costly: mistakes “echo” back and forth
  - — No way of saying “enough is enough”
  - — And what if there is more than one other player?

Other possibilities?

- *The Grim Strategy*: cooperate until the other defects, then defect for all eternity.
- *Tit for Two Tats*: cooperate until the other player has defected twice in a row, then defect until the other cooperates.
- *Tat for Two Tits*: need tow successive cooperates by the other players to defecting
- *Always Defect*: you bastard!

Price Competition

- So far we have discussed:
- When should a firm match the price of a rival, and when should it not?
- How do repeated interactions with rivals affect a firm's decisions?

Now:

- A Case Study: the wine industry and Southcorp.
- Which conditions influence the intensity of price competition?
- What is the value of committing to match any prices charged by rivals?
- Why are firms in some markets able to coordinate prices while others engage in price wars?

Today's presentation

- What's happening to economic value in the Australian wine industry
- The strategic agenda for wine companies

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Australian wine industry - 1970 to 2003

Exports
Domestic Aust sales
Vineyard area
Production

'000L: 0, 200,000, 400,000, 600,000, 800,000, 1,000,000, 1,200,000, 1,400,000

ha: 0, 20,000, 40,000, 60,000, 80,000, 100,000, 120,000, 140,000, 160,000, 180,000

1970-71, 1971-72, 1972-73, 1973-74, 1974-75, 1975-76, 1976-77, 1977-78, 1978-79, 1979-80, 1980-81, 1981-82, 1982-83, 1983-84, 1984-85, 1985-86, 1986-87, 1987-88, 1988-89, 1989-90, 1990-91, 1991-92, 1992-93, 1993-94, 1994-95, 1995-96, 1996-97, 1997-98, 1998-99, 1999-00, 2000-01, 2001-02

Wine industry value under assault since 2001, despite strong industry growth

Wine Industry Growth vs All Ord Growth

Wine Index Growth
All Ordinaries Growth

110%
90%
70%
50%
30%
10%
-10%

1997 1998 1999 2000 2001 2002 2003

Year

Expectations of increased exports and record sales due to weak AUD.

Initial Forecasts of grape oversupply

Increasing merger and acquisition activity and takeover speculation. Bigger Australian wine makers were targets for multinational liquor companies and smaller firms began considering

Southcorp and Fosters achieve less than expected profit

Southcorp profit plunge, CEO resigns

New Southcorp CEO

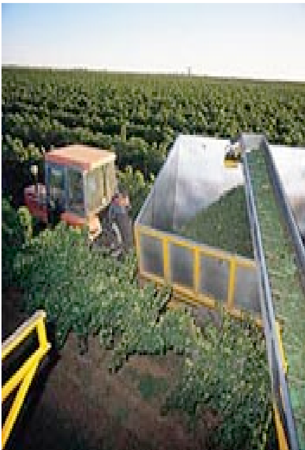
BRL / Constellation merger

Industry-wide, reasonable financial year performance announced

♣ **Source: PricewaterhouseCoopers analysis**

♣ **Index has been reweighted to include new floats in period 1997 – 2003.**

♣ **Index excludes dividends**



Excess winemaking capacity remains.

Wine sales and capacity, 2001-02

(ML)

900
800
700
600
500
400
300
200
100
-

Top 15 companies
1300 companies

Total sales volume
Production capacity

Source: Australian Wine & Brandy Corporation and PricewaterhouseCoopers analysis

Despite strong export growth projections…

AUD mil

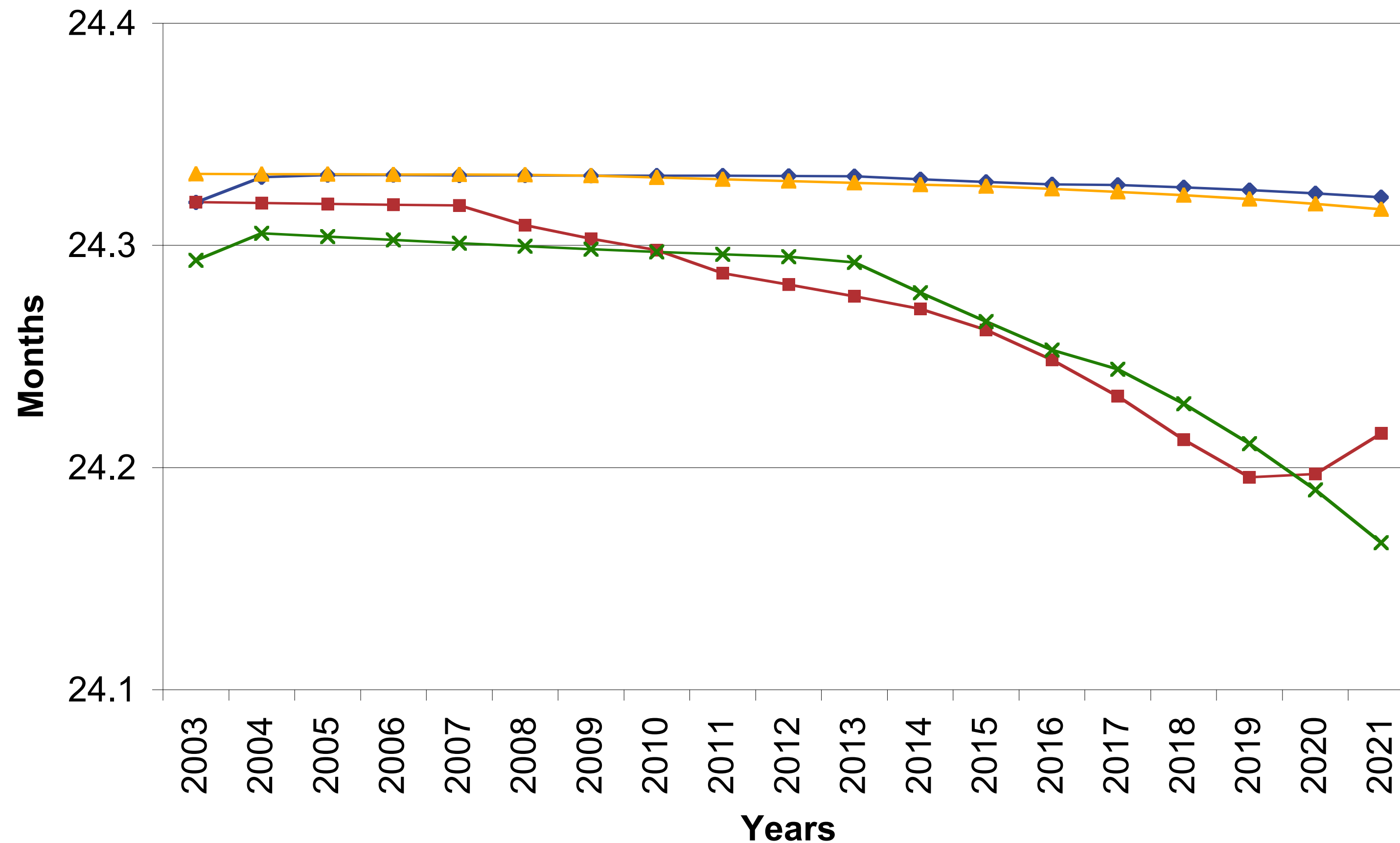
7,000
6,000
5,000
4,000
3,000
2,000
1,000
-

1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003E 2004E 2005E 2006E 2007E 2008E 2009E 2010E

JAP
NZ
CAN
GER
UK
US

Source: PricewaterhouseCoopers analysis

… the outlook for inventory remains high.



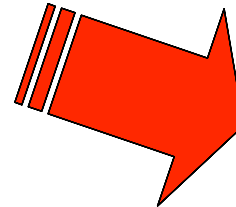
Source:PricewaterhouseCoopers Wine Capital Model

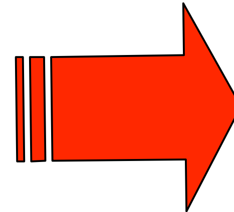
What is happening?

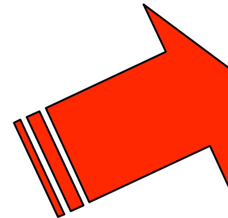
High inventories

Excess capacity

Growing retail power







Imbalance of market strategy and profitability
- price discounting
- channel "stuffing"

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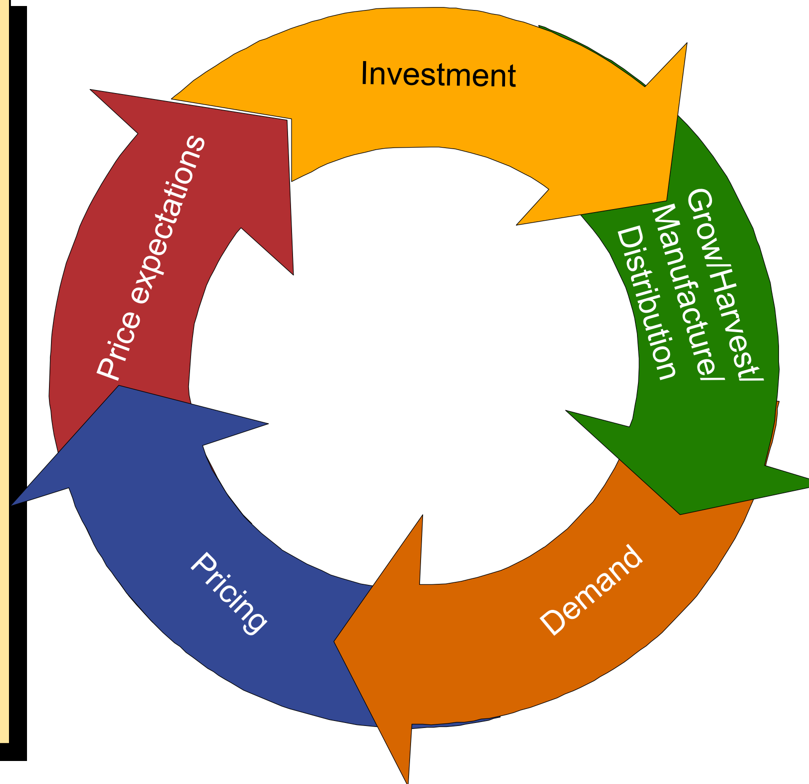
Based on PwC’s Wine Capital Model

Key inputs:
- Current inventories
- Current capital stocks
- Current prices
- Costs of capital
- Expected demand growth



Key outputs:
- Projected inventories
- Projected capital stocks and investment
- Projected prices
- Projected expected prices
- Projected sales
- Projected utilisation

The plethora of brands

Sample cumulative SKU distribution

Frequency: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

Cumulative Brands: 0, 100, 200, 300, 400, 500, 600, 700

Retail price: $0, $5, $10, $15, $20, $25, $30, $35, $40, $45, $50

Brands

Cumulative Number of Brands

Source: Thomson’s Liquor Guide

Market share by company..

Key Domestic Competitors' Market Share by Revenue

Company	% Share
SOUTHCORP	30.2%
BRL HARDY	18.7%
ORLANDO WYNDHAM	13.4%
BERRINGER-BLASS (EXCL. US)	10.9%
MCGUIGAN-SIMEON	4.9%
McWILLIAM'S	2.4%
SAMUEL SMITH & SON	2.4%
DE BORTLI	2.3%
CRANSWICK/EVANS & TATE	2.0%
LION NATHAN PETALUMA/BANKSIA	2.0%
PETER LEHMANN	1.4%
MIRANDA WINES	1.4%
TYRELLS	1.3%
BROWN BROTHERS	1.3%
REST OF AUSTRALIAN PRODUCERS	5.0%

0% 5% 10% 15% 20% 25% 30% 35%

% Share

Based on 2002 numbers

Key brands of the big 4

Southcorp	Hardy Wine Co.	Orlando-Wyndam	Fosters / BBWE
Penfolds	Hardy's	Jacobs Creek	Wolf Blass
Rosemount	Banrock Station	Wyndham Estate	Annie's Lane
Lindemans	Leasingham	Poets Corner	Jamieson's Run
Wynns	Moondah Brook		Rothbury
Seppelt	Houghton		Saltram
Cold Stream Hills	Omni		Matua
Devil's Lair	Chateau Reynella		Mildara
Rouge Homme	Renmano		Greg Norman
	Berri Estates		Black Opal
	La Baume		Ingolby
			Yellow Glen
			Andrew Garrett
			Eaglehawk

Wine is an Experience Good

- "Try it, you'll like it!" but ...
- To the light tippler, price is a cue to quality
- There is information asymmetry between the average wine drinker and the experts: as blind tastings reveal – hard to judge the price, the variety (especially for red wines), or the country of origin – for the naive palate
- There are also taste idiosyncrasies: "I know what I like."

Brands

- *Wine-making inputs* – quality grapes, technical know-how – are easily accessible to new entrants.
- The scarcest resource in the wine industry is *retail shelf space*, which gives retailers bargaining power over wine producers.
- Retailers stock *brands* they believe will sell.
- Strong brands – such as Penfolds, Rosemount, and Lindemans – are *very valuable* in reaching retail customers.
- **.:.** Branding is the most effective way to create sustained margins

Brands are Valuable

- Brands create market power, but costly to build and to maintain
- Early-mover advantage
- How?
  - Via product differentiation, and so consumer loyalty
    - but advertising can overcome this
  - By deterring entry of new, unknown competitors to the market
    - the higher the fixed costs of entry, the greater the deterrence
    - the greater the expected market growth, the lower the deterrence

Shifting Inventory

- You have excess capacity/inventory, so you decide to cut price to sell liquidate inventories and sell more.

Q: Is this a good thing?

A: Yes, if you achieve your goal –

  - without sparking a retaliatory price war
  - without damaging your brand equity
  - without changing your customers' expectations

- At some time in the future, you will want to price back up, and want to carry most of your customers with you.

The Wine Industry's Prisoner's Dilemma

SC and H will decide how to compete:

- using *Price* or
- using advertising of their brand's *Benefits*

		H	
		Benefits	**Price**
SC	**Benefits**	3,3	1,4
	Price	4,1	2,2

TABLE 1. The payoff matrix (SC,H)

Ranking outcomes is OK: 4 = best -> 1 = worst

What can go wrong?

1. Retaliation by rivals

- The worst for you: they respond with a full-scale price war – your margins fall, and your sales don't shift

  (The Prisoner's Dilemma)

- Or: They target their retaliation, only discounting their cheaper brands

- Or: They bundle their products

- Or: They give quantity discounts

What can go wrong?

2. You lose brand equity

- To the extent that customers use price as a cue to quality, your discounted brands are seen as lower-quality because of the lower prices.
- That's true for light and less frequent drinkers.
- So, cutting price could actually reduce revenue, not raise it.

3. There is hysteresis: costly to regain brand equity

- What if the market remembers the discounting?
- Could be difficult to change customers' perceptions of lower quality from lower prices, to relaunch the brand etc., especially given the uncertain perception of quality in the market
- Your customers might baulk at higher prices after the war, and shift to other brands of the same variety or appellation

What could you do instead?

- Instead of across-the-board discounting, which might well spark a price war, what could you do instead?

I. You need to know:

1. Your customers' loyalty to your brands:
   - their sensitivity to price changes
   - the customer segments of the market
   - how they perceive the quality of a new brand

2. Your own firm's abilities:
   - your broad, long-term strategy
   - your costs (both FC and VC)
   - your time discount rate
   - your tax arrangements

What could you do instead?

You need to know:

3. Your rivals' likely responses:
   - their *past histories* of pricing (changes, timing)
   - their *public statements* on strategy and tactics (in the media and their annual reports)

     (but talk is cheap - because supply exceeds demand)
   - their *special situations* – inventories, costs (FC/VC), technology

- And who are your rivals?
  - Other premium wine companies?
  - All other wine companies?
  - Beer and spirits companies?
  - Who?

What could you do instead?

You need to know:

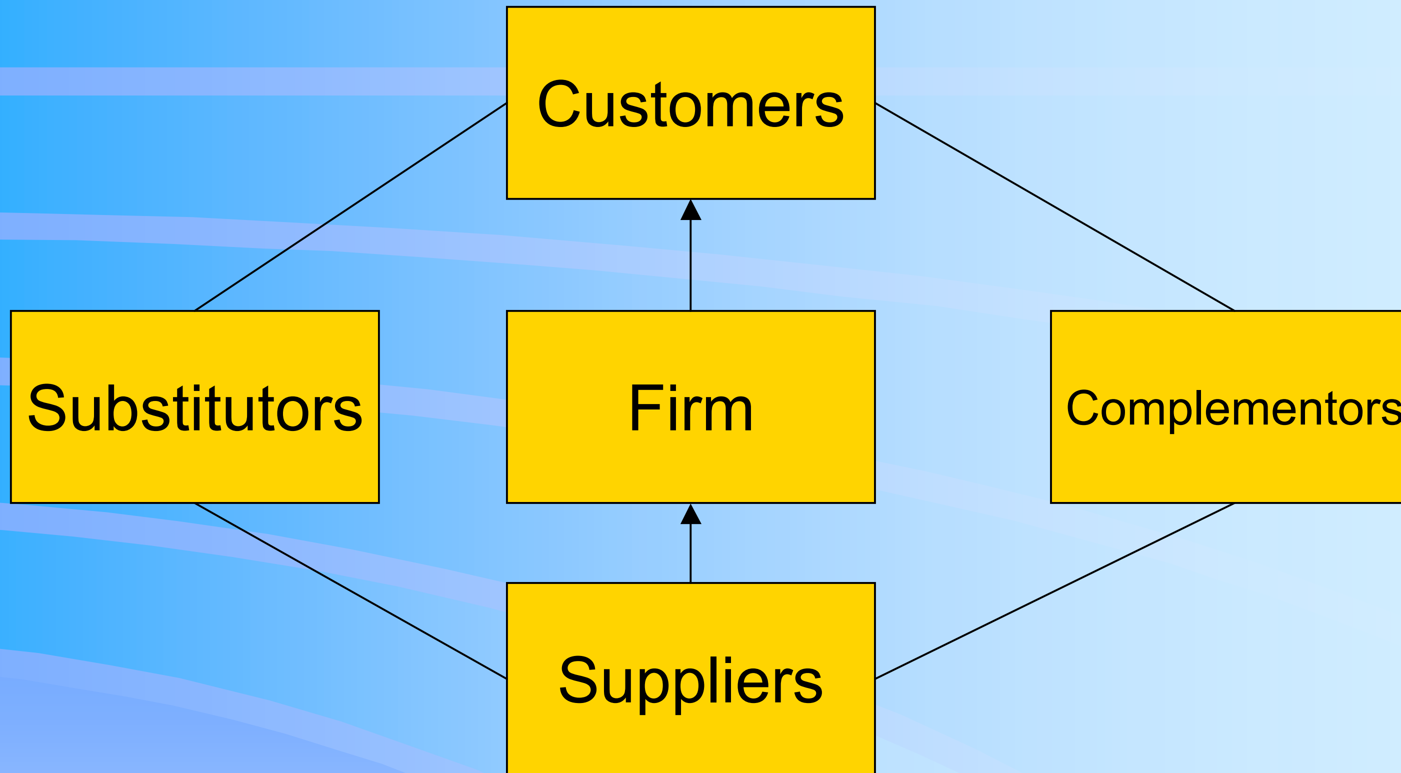
4. Your stakeholders' positions:
   - Suppliers
   - Distributors
   - Complementors
   - Government agencies (DFAT, Treasury, Finance, etc.) and overseas regulators

- **Use the Brandenburger & Nalebuff’s Value Net to identify**

Co-opetition

- Is “rivalry” always the best way to approach business interactions?
- Cooperation: coming together to create value
- Competition: dividing up the “pie” of value created
- Requires a new way of thinking about other players in the market
- Framework: a Value Net

The Value Net



Complementors v. competitors. (Customers)

A firm is your **competitor** if:

if customers value your product *less* when they have the other firm's

product than when they have your product alone.

e.g.?

A firm is your **complementor** if:

if customers value your product *more* when they have the other firm's

product than when they have your product alone.

e.g.?

Complementors v. competitors. (Suppliers)

A firm is your **competitor** if

If it's less attractive for a supplier to provide resources to when it's also supplying the other firm than when it's supplying you alone.

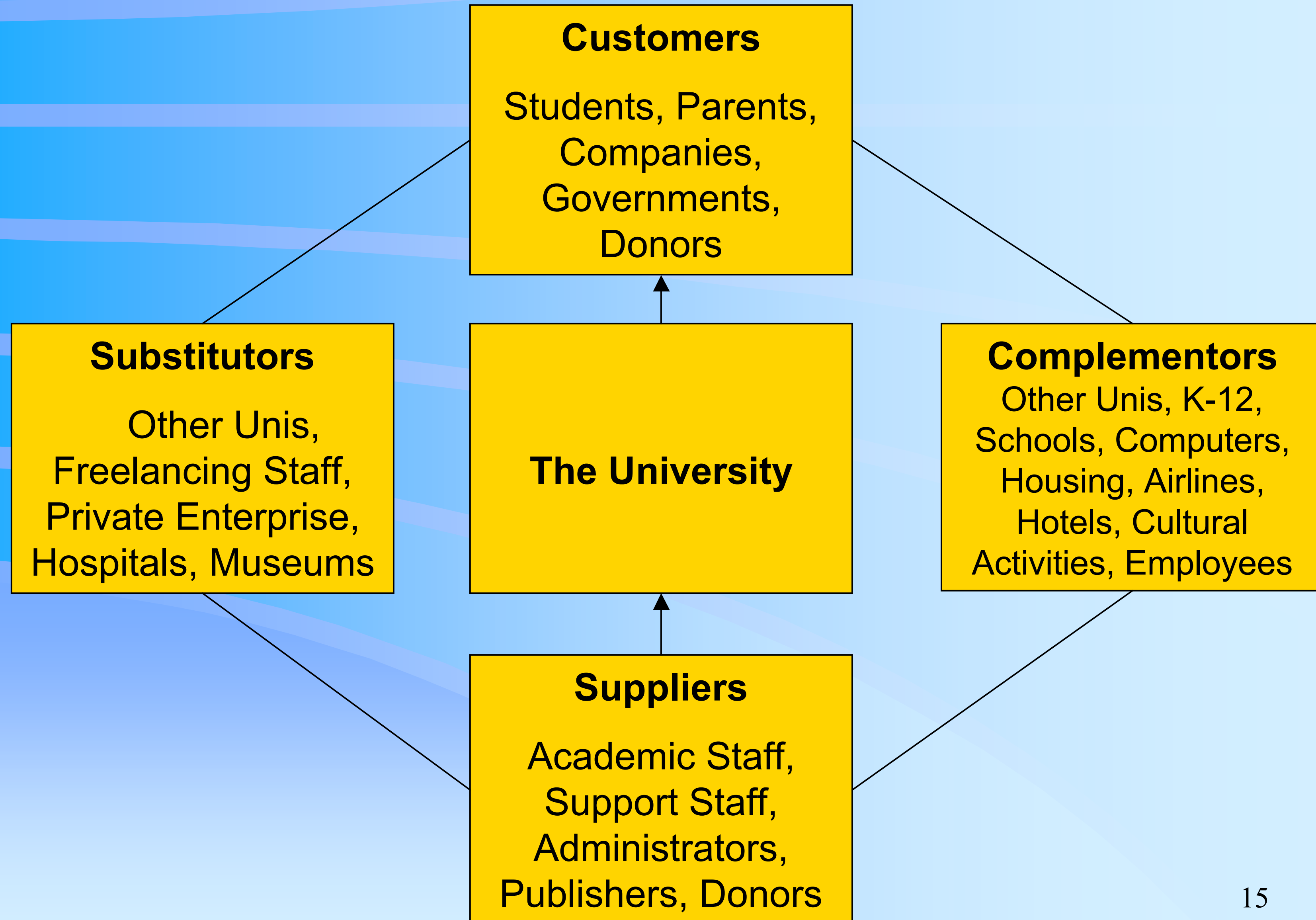
e.g.

A firm is your **complementor** if

If it's more attractive for a supplier to provide resources to you when it's also supplying the other firm than when it's supplying you alone.

e.g.

The Value Net



The Value Net is Useful.

The Value Net is:

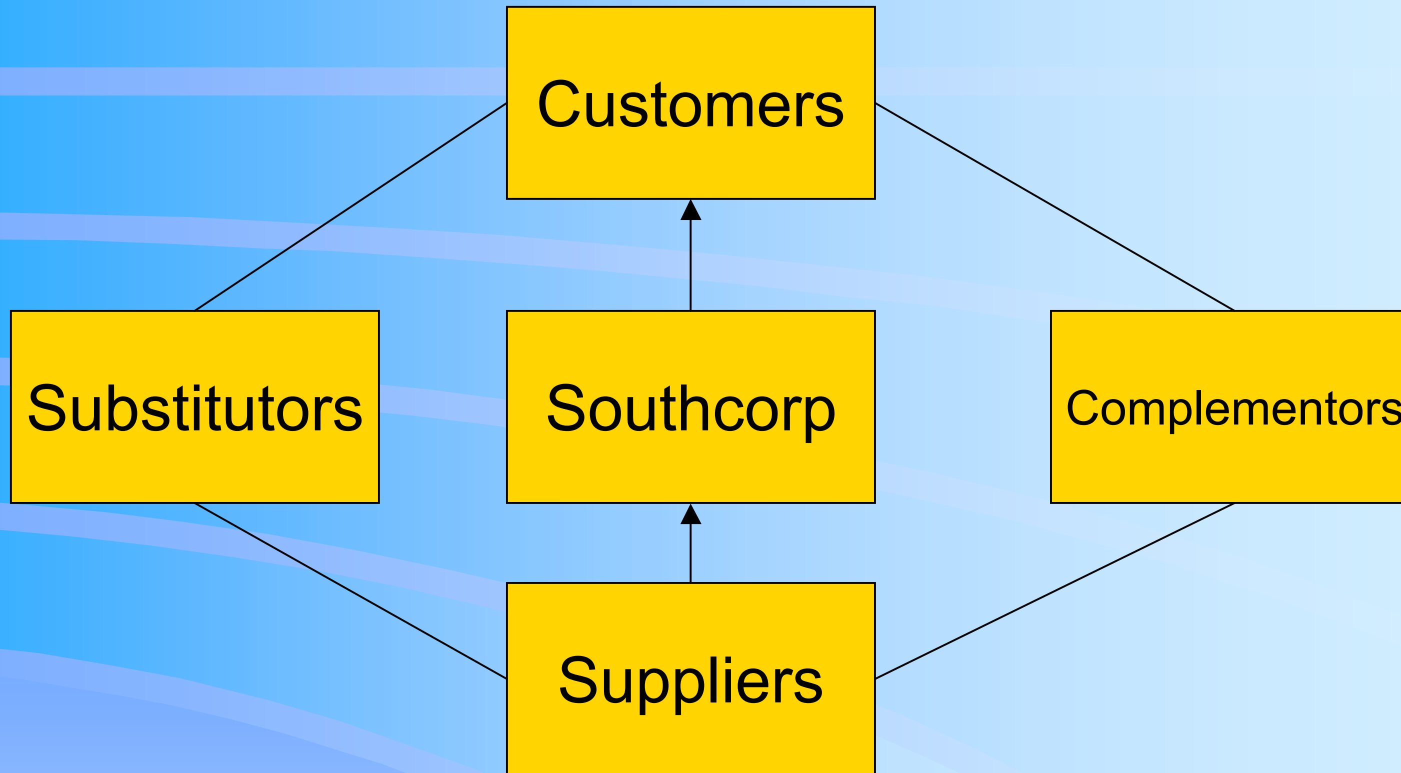
— a complete map of a firm’s relationships

— a counter to limited thinking (e.g. “outsmart the competition”)

— a prompt to understand a firm “outside-in”

— a shared template for discussions of strategy.

The Value Net



What could you do instead?

II. Reveal your situation to your rivals

- overstocked inventories
  - -> lower prices

III. Reveal your cost advantages, if any

- if you have high FC and low VC, then
  - -> greater ability to price low

What could you do instead?

IV. Use selective price actions:

- bundling your brands
- use quantity discounts
- develop loyalty programs
- target your brands for discounting –
  perhaps develop a "fighting brand?”
- cut price in certain channels only ("stealth" marketing)
  - off-trade or private labels
  - via wine clubs and supermarket chains
- export bulk wine

The strategic agenda going forward

What works

- Brand building
- Compete on quality and differentiation
- Long-term supplier and customer relationships
- Strengthen core business/ products
- Increased specialisation and outsourcing

What does not work

- Brand dilution
- Competing on price
- Short-term focus on relationships
- Aggressive channel supply
- Strategy and action without the data

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How to exit price discounting

Exiting price discounting:

1. Seek long-term contracts
2. Actively engage competition
3. Communicate benefits of price stabilisation
4. Publicise products benefits, not price position
5. Refocus on core profit-generating products
6. Exploit niches

Strategies for improving position

- Accelerate cash receipts
- Consider industry-consolidation options
- Sell marketable assets to reduce debt
- Inject new equity
- Lock in sales contracts before investing
- *Long-term* strategic shift upmarket
- Tight rein on costs and capital expenditure
- Protection of core cash cows

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How does Market Structure affect Sustainability of Cooperation?

Market concentration (number and size of firms)
— greater concentration *implies* greater benefits from cooperating

Reaction speed, detection lags
— the greater the speed of reaction, the easier to sustain cooperation

Why would a firm have a delayed response to rivals' actions?
— Infrequent interaction
— Lags in confirming rivals' prices
— Ambiguities in identifying who is cutting price
— Difficulties in sorting out market effects from rivals' actions' effects

Multi-market contact:
— Cooperation may be easier because of potential for retaliation in other markets

Which Structural Conditions affect Speed of Response?

Market concentration
— greater concentration means lower monitoring costs

Lumpiness of orders
— long response lags

Information about sales transactions
— private information

Number and size of buyers
— buyers' incentives to play sellers off against each other

Volatility of demand and cost conditions
— harder to detect price cutting

Firms' Practices to Facilitate Pricing Cooperation

Advanced announcement of price changes

Price leadership

Most-favoured customer clauses

Uniform delivery prices

Strategic use of inventories and order backlogs

Most-favoured-customer (MFC) clauses.

Under a MFC clause, a supplier undertakes to give the favoured customer (MFC) a price at least as low as the best price given to its other customers. (Remember meeting them in MMP.)

So a discount to any customer requires a discount to the MFC too.

MFC clauses can be retrospective or contemporaneous.

How do MFCs change the game?

They:

- make discounting "expensive" (the *price effect*)
  ∴ there is a tendency for prices to remain both rigid and higher
- facilitate price-fixing arrangements across customers by acting as a signalling mechanism (*collusion effect*)
- raise barriers to entry (*entry effect*)

The Bottom Line

Price competition may be more harmful than helpful

— Weigh benefits versus costs

Look forwards and reason backwards

Notice the signals from other players in the game, without explicit collusion

Co-opetition: it’s valuable to think about your rivals as potential complementors.

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