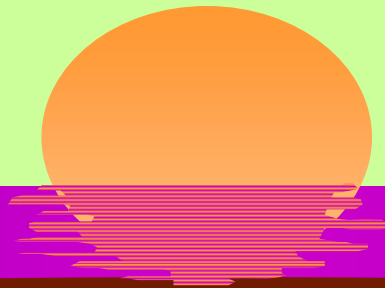
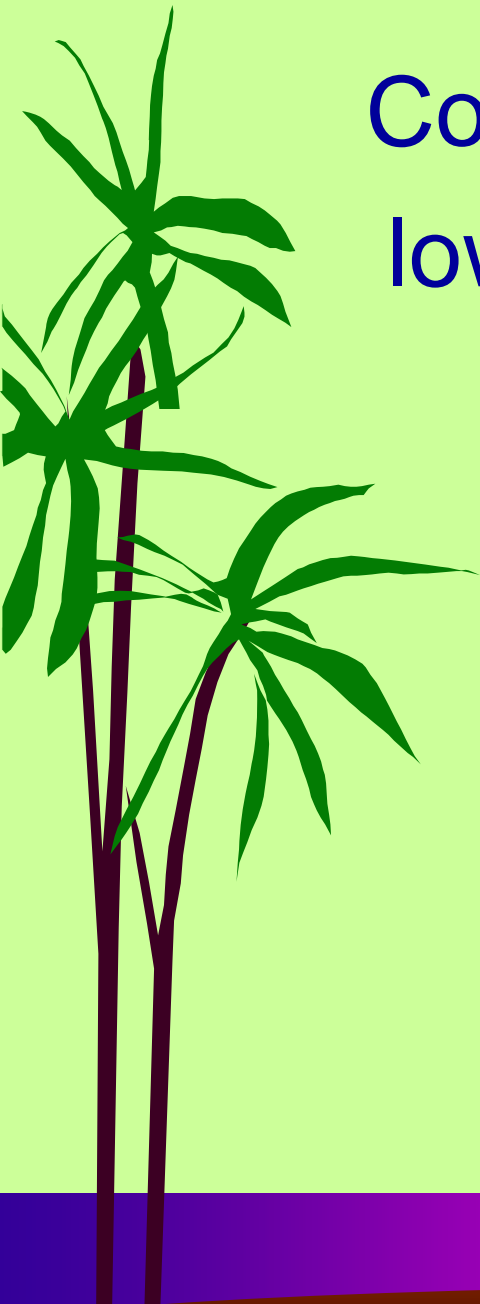


Cost Comparison of network, low-cost and charter airlines

Dr George Williams
Reader in Airline Economics
Cranfield University



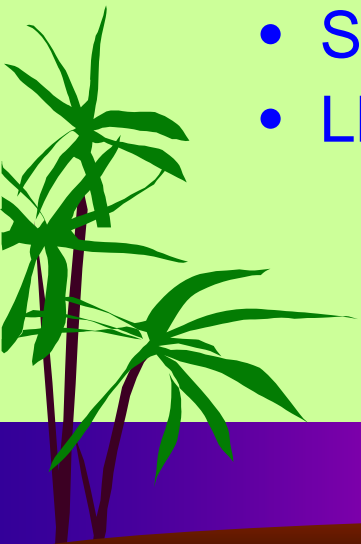
Estimates of the Cost difference

“The evidence suggests that low-cost no-frills operations can achieve unit costs as low as half those of a major network carrier” CAP 685 Single European Aviation Market: The First Five Years (June 1998)

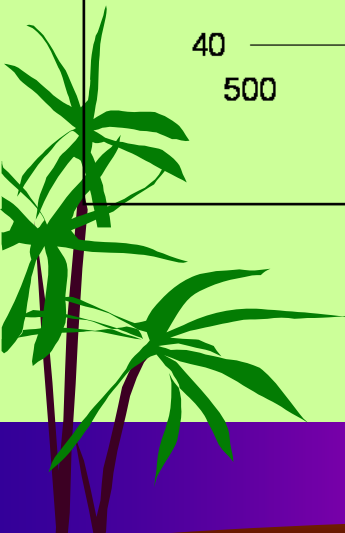
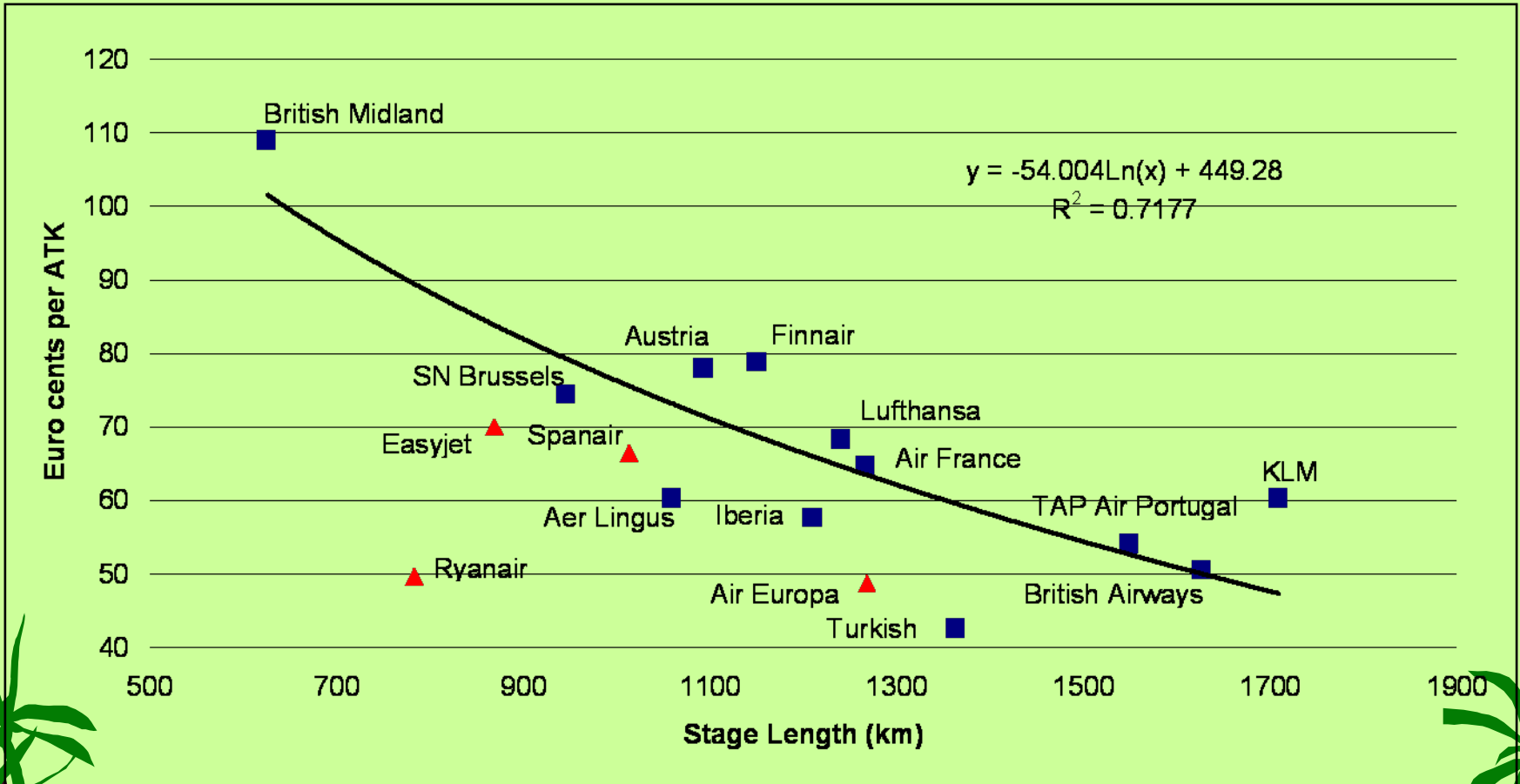
Comparison of a low cost operation with a network carrier @ 68% load factor

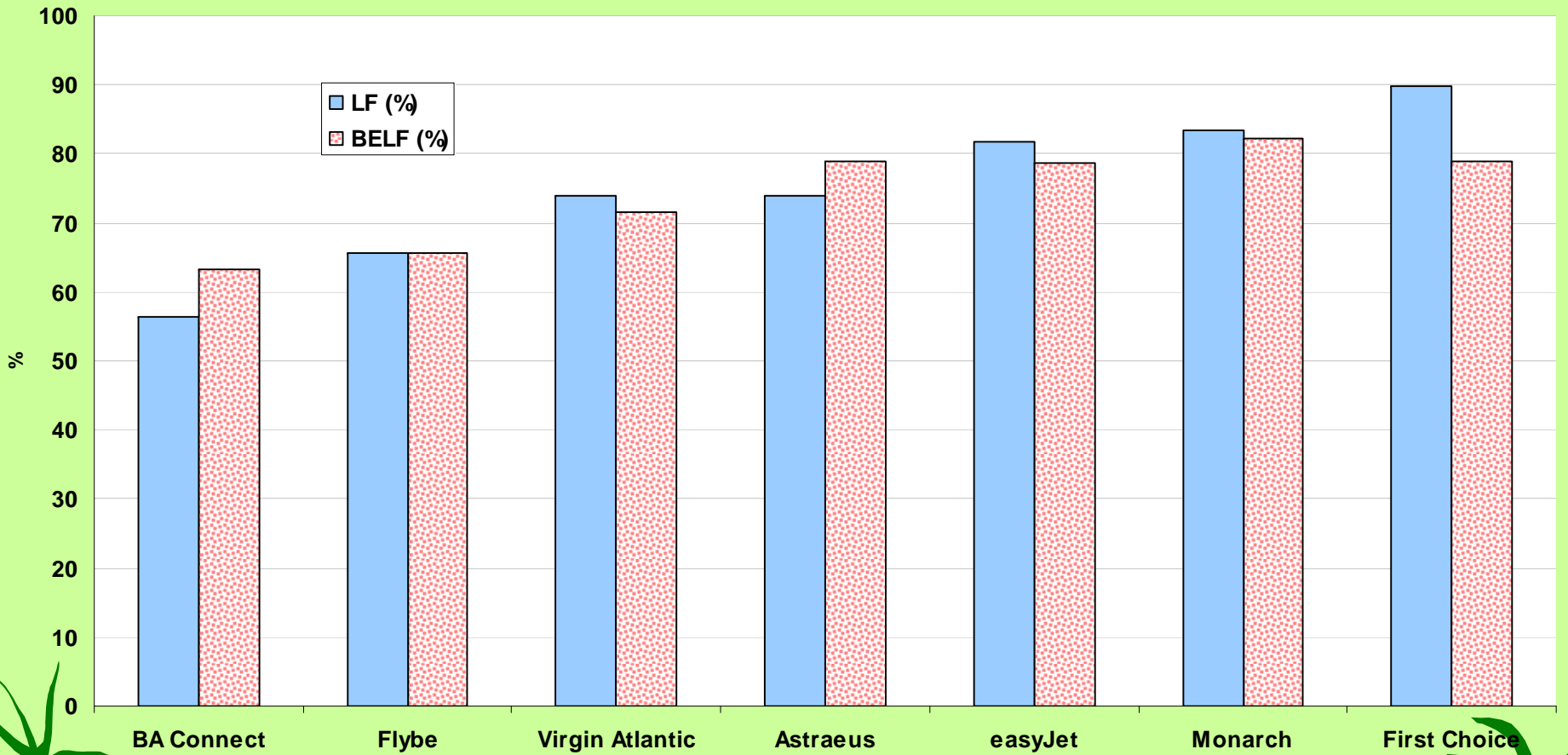
- STN-BVA, using 737-200, cost per seat = £27
- LHR-ORY, using 737-400, cost per seat = £52

(Source Aviation Strategy)



Influence of stage length on unit costs in 2003





Pax Breakeven Analysis (2005/6)

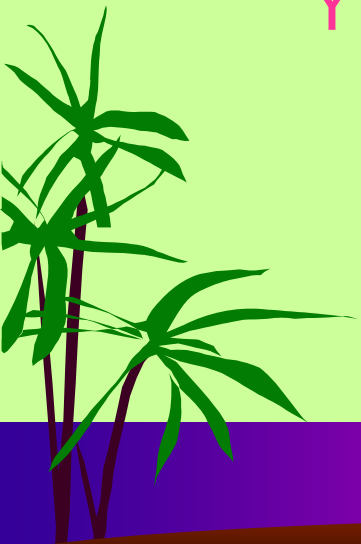


Passenger Breakeven Load Factor

$$\text{BELF (\%)} = \text{Unit Cost} \div \text{Yield}$$

$$\text{Unit cost} = \text{Total Operating Cost} \div \text{ASK}$$

$$\text{Yield} = \text{Total Operating Revenue} \div \text{RPK}$$



Sources of Cost Differences

- ✈ Direct Operating Costs
- ✈ Indirect Operating Costs
- ✈ Seating Density / Load Factor

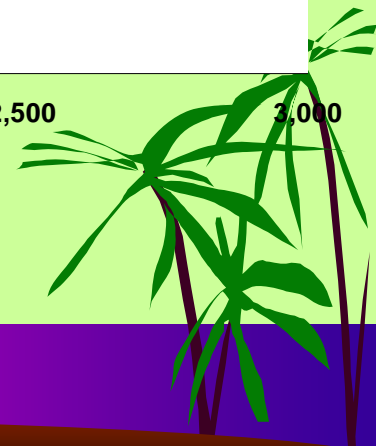
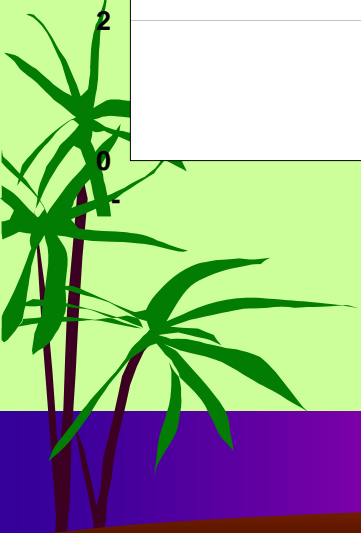
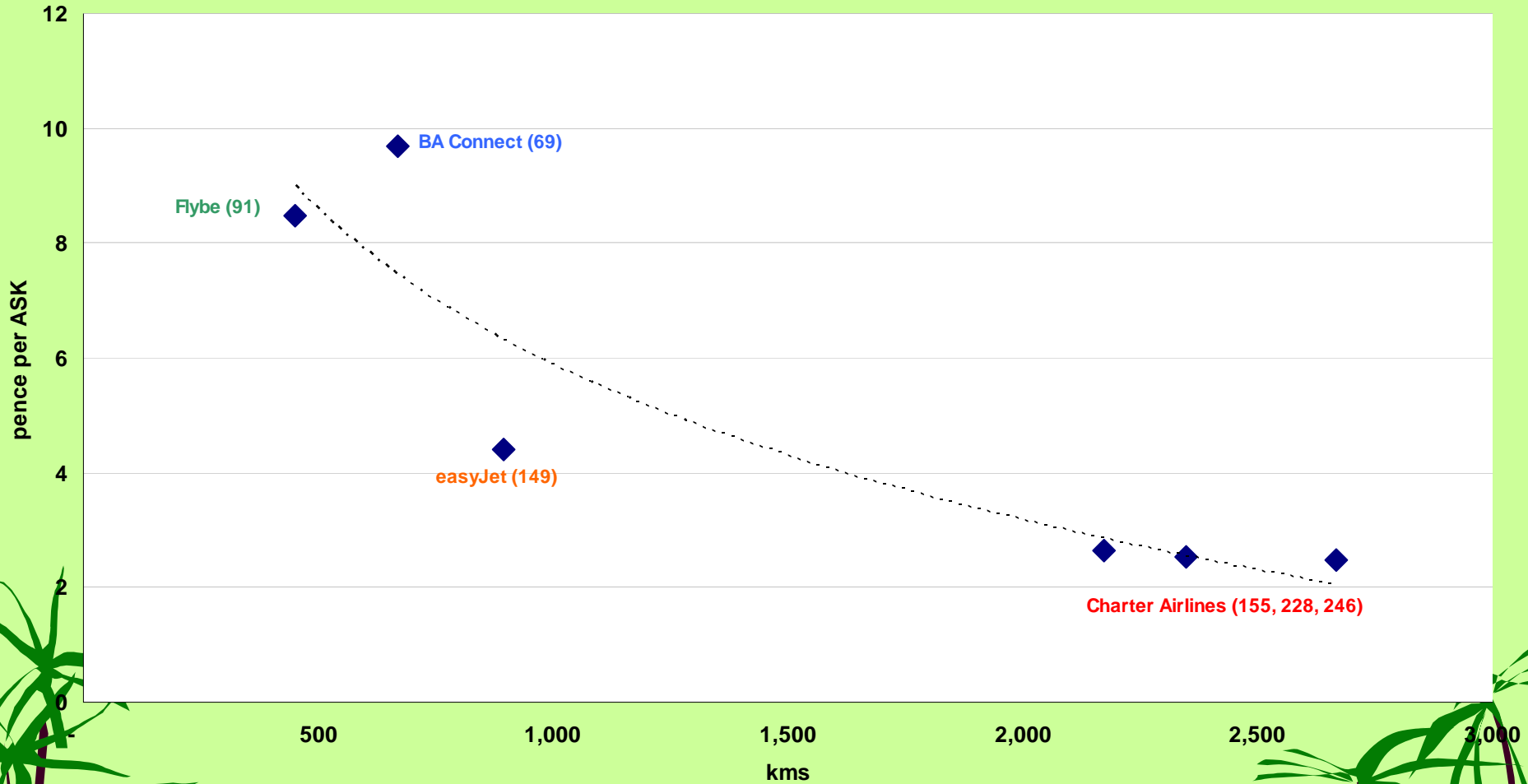


Direct Operating Costs

- ↑ Charter aircraft on average fly longer sectors than scheduled operators (unit costs fall as sector length increases due to greater fuel efficiency, and better aircraft and crew efficiency)
- ↑ Charter airlines on average operate larger aircraft than their scheduled counterparts
- ↑ Charter flight crew earn less than their scheduled colleagues and fly more hours



Unit cost against Stage Length in 2005/6



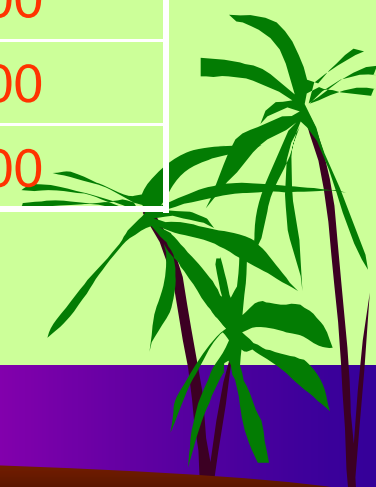
Aircraft Size

- Typical low cost scheduled aircraft seating capacity is 149
- In 2006, the average seating capacities of UK charter airlines were: First Choice (225), Monarch (255), MyTravel (240), Thomas Cook (246)
- The size difference is being reduced though, with Ryanair using the Boeing 737-800 (189 seats)



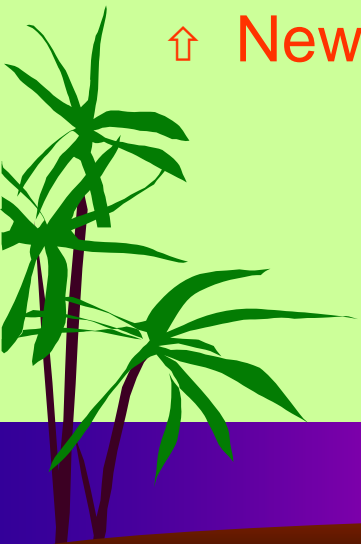
Flight Crew Costs & Productivity 2006

Airline	Average Number of Personnel	Average Annual Expenditure (£s)
BA	3140	97,600
easyJet	1208	64,200
First Choice	385	75,100
GB A/w	183	61,600
Monarch	385	68,400
Thomas Cook	337	67,500
Virgin Atlantic	702	82,000
XL	182	72,000



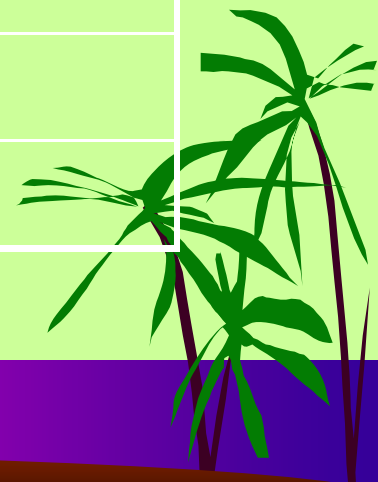
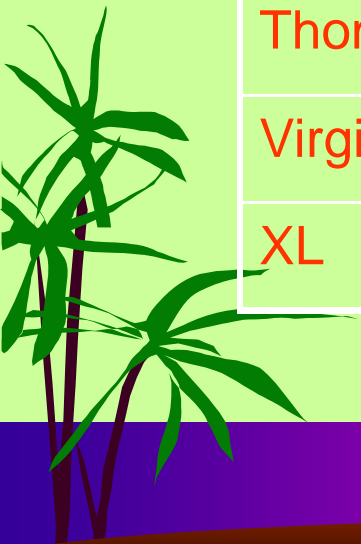
Direct Operating Costs

- ↑ Charter cabin crew are paid less than their scheduled colleagues and fly more hours. Many are employed only during summer periods
- ↑ Little difference in fuel costs. (Advantages of longer sectors and larger more modern aircraft offset by use of numerous and sometimes remote airports)
- ↑ New entrant carriers face higher insurance costs



Cabin Crew Costs 2006

Airline	Average Number of Personnel	Average Annual Expenditure (£s)
BA	14327	27,900
easyJet	2176	19,300
First Choice	1245	18,700
GB Airways	466	10,600
Monarch	1383	15,500
Thomas Cook	1053	15,400
Virgin Atlantic	3839	13,300
XL	1032	15,100



Direct Operating Costs

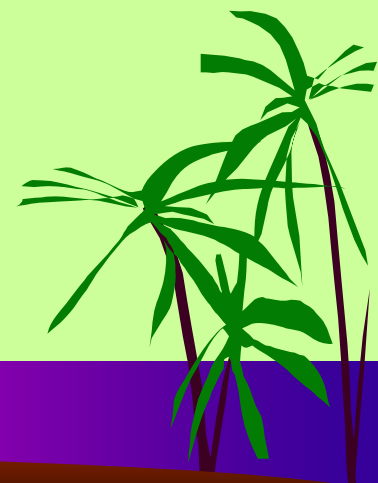
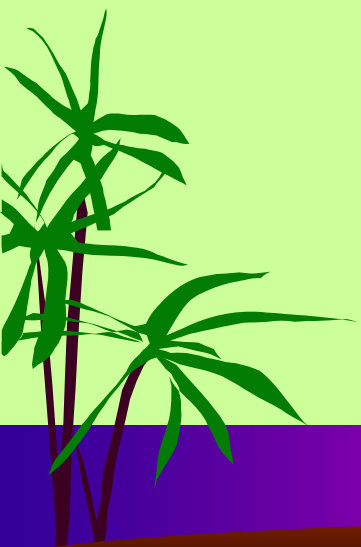
- ↑ No difference in en route charges
- ↑ Landing fees are lower for charter airlines as they avoid peak traffic periods at congested airports and often operate to more lightly used / less expensive locations. (Use of larger aircraft of relevance here)
- ↑ All things being equal, the larger scheduled operators will have the advantage in terms of maintenance and ownership costs due to their greater purchasing power



Landing & Departure Fees per Passenger 2005/6

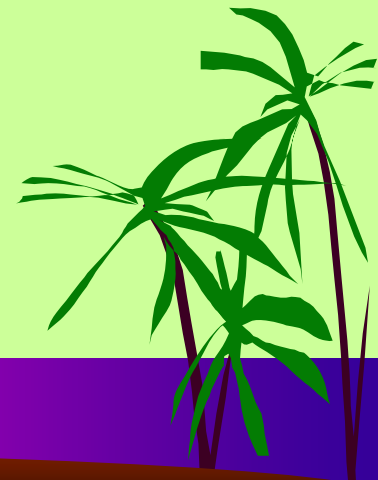
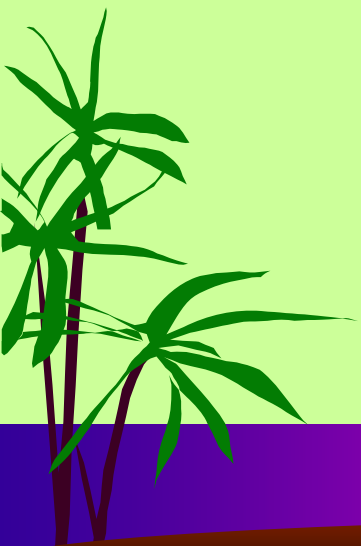
£

BA	5.18
bmi	5.61
easyJet	1.16
First Choice	2.95
Thomas Cook	2.42

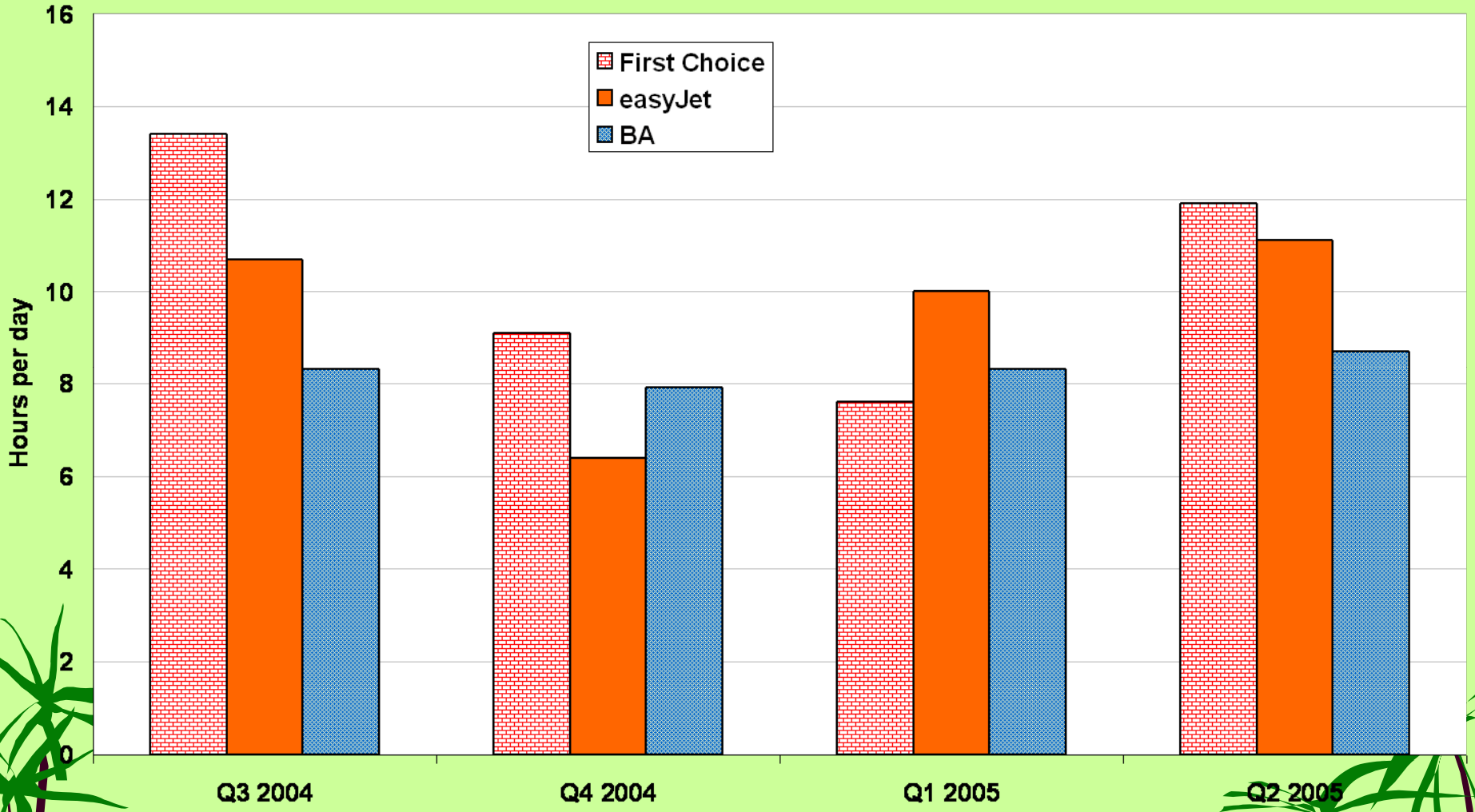


Direct Operating Costs

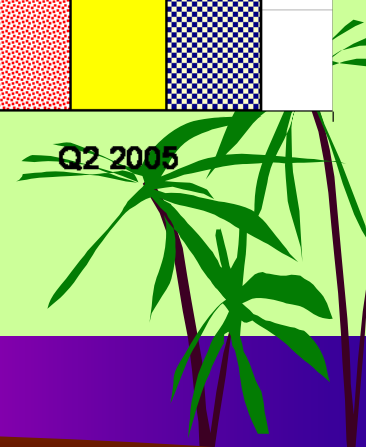
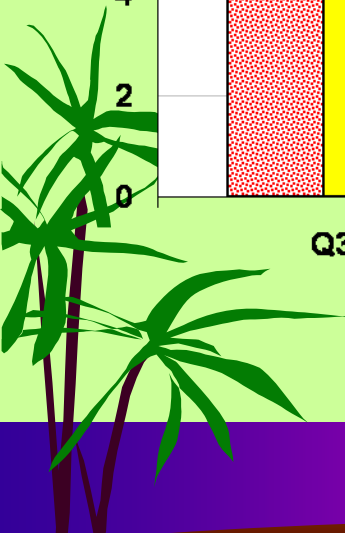
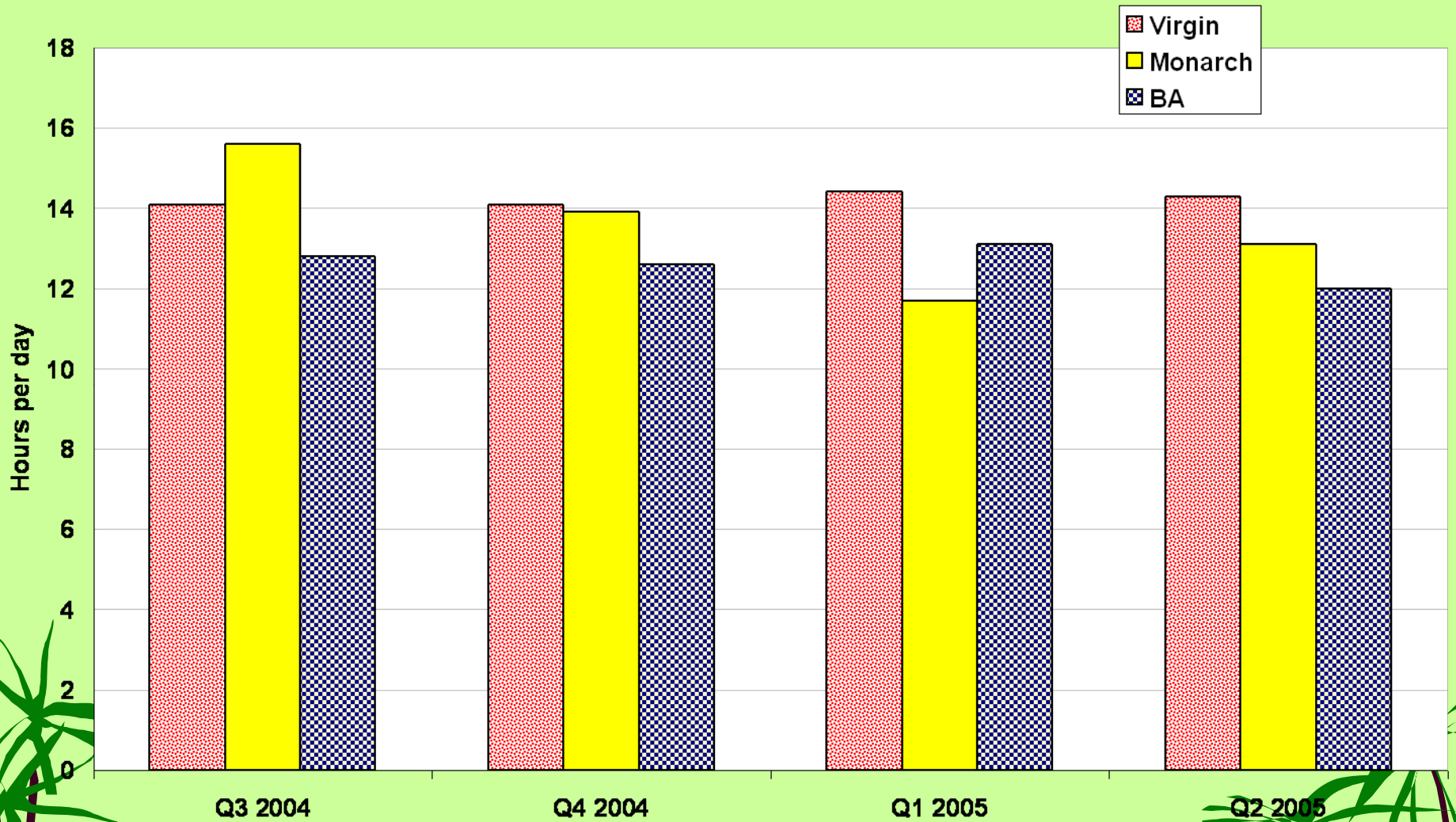
- ↑ Aircraft utilisation: charter carriers fly longer average sectors (airborne to ground ratio is higher); they have a longer operating day in short haul markets; they achieve faster turnarounds. The lower winter usage is more than offset by *round the clock* operation achieved during summer months



A320/319 Utilisation



A330 / B744 Utilisation



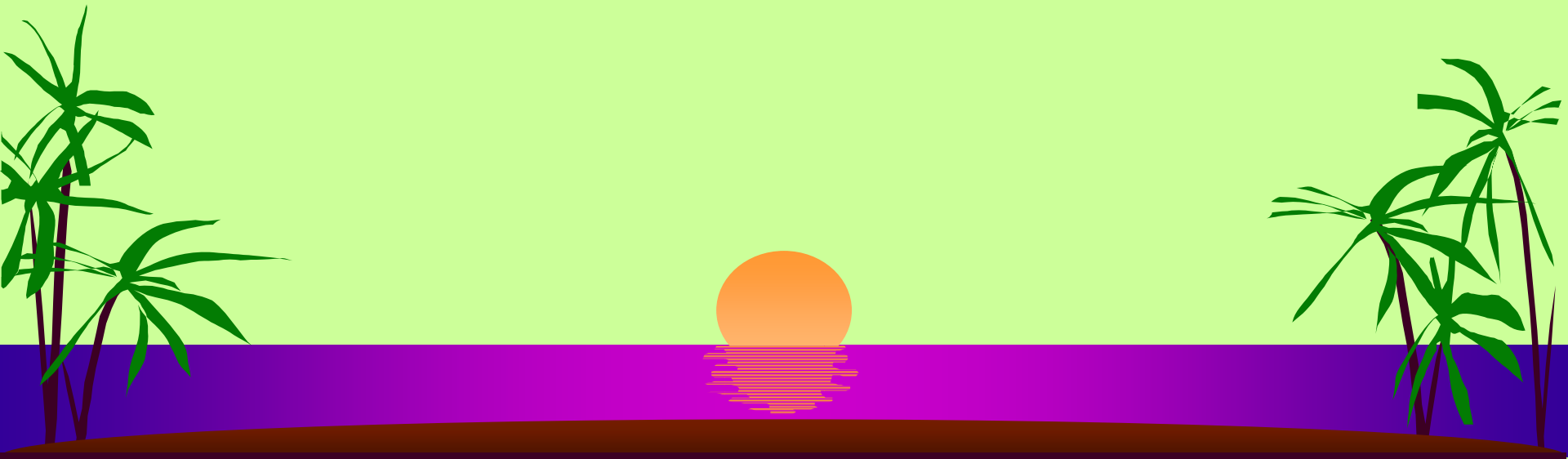
Indirect Operating Costs

- ↑ Passenger service costs are lower (charter carriers use statutory minimum number of cabin crew; in-flight catering spend is usually low; no interlining or connection responsibilities)
- ↑ Station costs are lower (charter carriers outsource their passenger and aircraft handling)
- ↑ Largest area of saving is in Ticketing, Sales and Promotion (charter ticketing is undertaken by tour operators; no commission payments to travel agents; no city centre shops or offices; small sales effort)



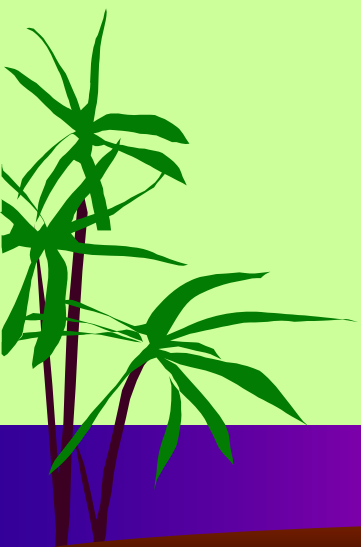
Indirect Operating Costs

- ↑ Charter carriers have lower overhead costs (very small planning/forecasting departments; located in modest accommodation at low cost location; few administrative staff)



The Direct:Indirect Cost ratio of charter airlines is much higher than that of conventional scheduled carriers.

As a result of their lower direct and indirect operating costs, charter carriers can operate short haul sectors for 20 - 30% less total expenditure than conventional scheduled airlines.

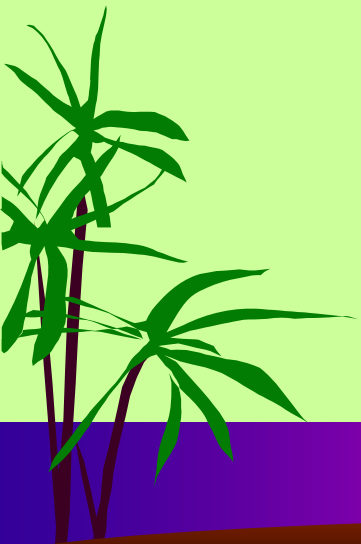


Charter Seating Density

↑ Mostly one class

↑ Reduced seat pitch

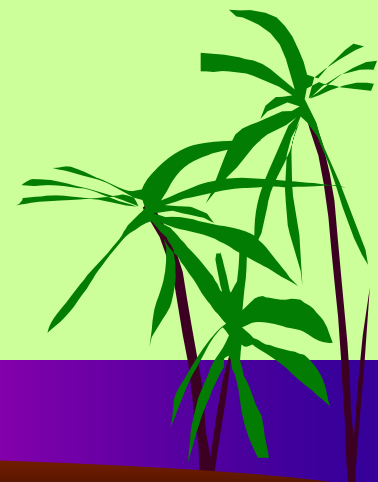
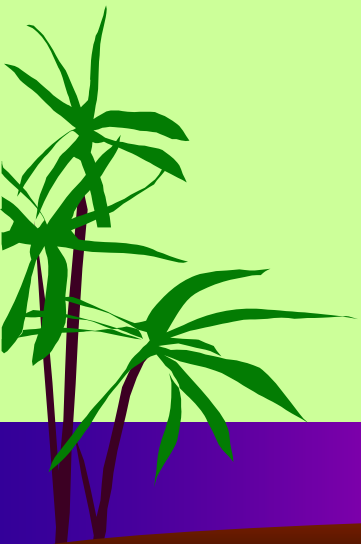
↑ Fewer galleys & lavatories



Seating Configurations

Airbus 321

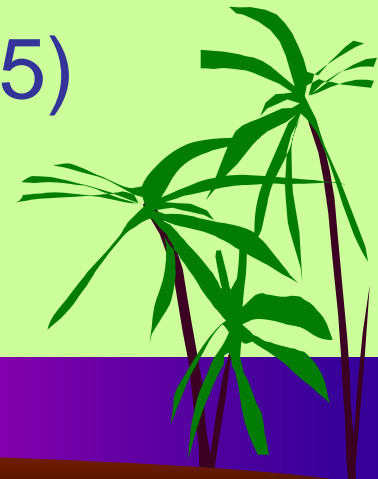
Air France (2 class)	188
MyTravel	220
Finnair (2 class)	181
Monarch	220
Swiss (2 class)	186



Seating Configurations

Boeing 767-300

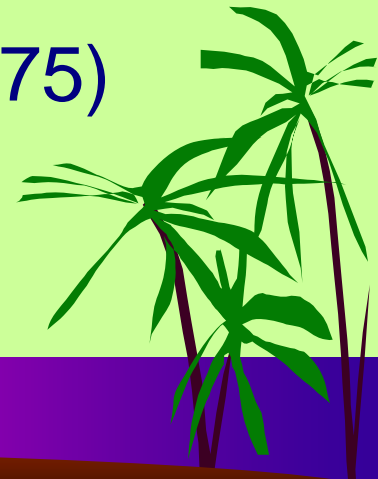
Air France	210 (C26 Y184)
MyTravel	326
British Airways	181 (F8 C36 Y137)
Thomas Cook	269 (C24 Y245)
Air Europa	263 (C18 Y245)



Seating Configurations

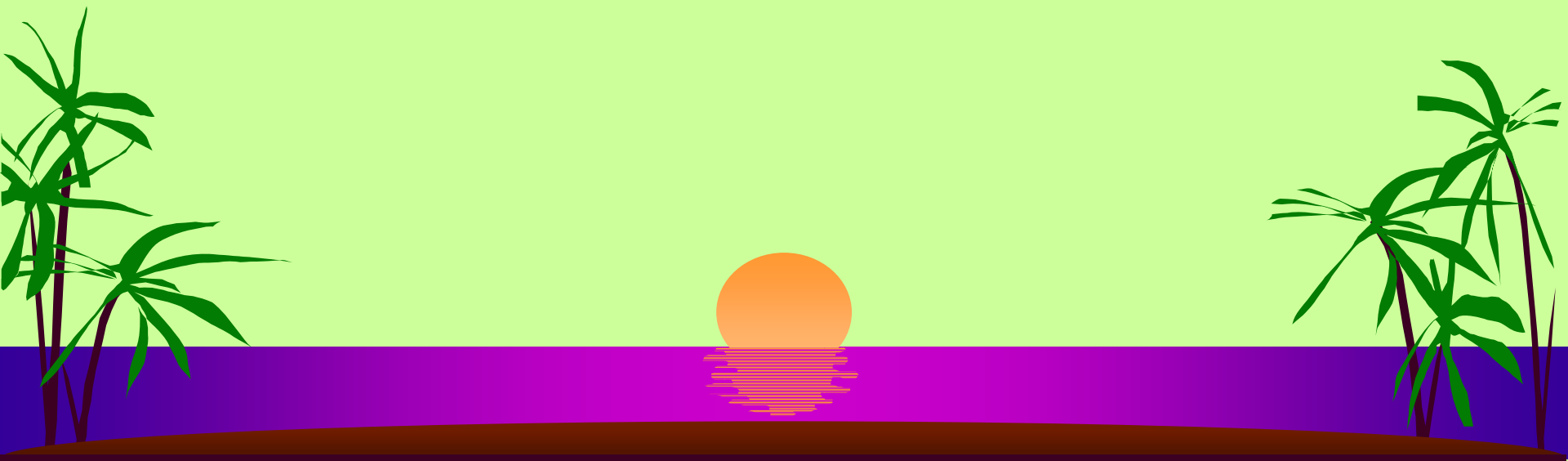
Airbus 330-200

Air France	219 (C40 Y179)
Air Transat	363 (C20 Y343)
Emirates	237 (F12 C42 Y183)
Monarch	374 (C51 Y323)
Swiss	196 (F12 C42 Y142)
TAM	228 (F7 C46 Y175)



Factors that have affected Charters

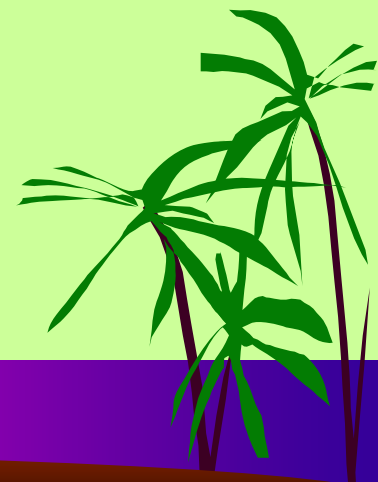
- ↑ *No frills* scheduled airlines
- ↑ Trend to long haul holidays



DOC breakdown per ASK (p)

financial year 2005/6

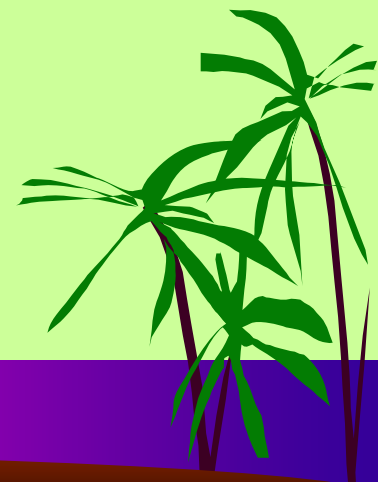
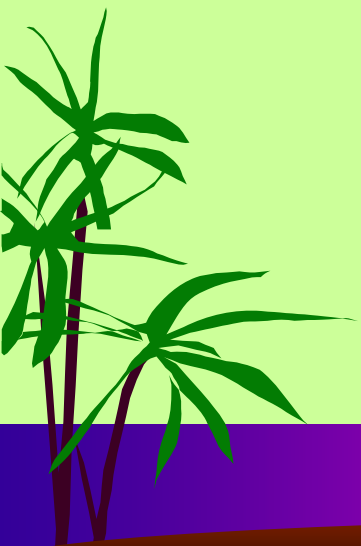
Item	bmi	easyJet	% difference
Flight crew	0.44	0.30	47%
Fuel & oil	0.93	0.87	7%
Airport & en-route costs	1.02	0.90	13%
Maintenance	0.61	0.38	61%
Depreciation, rent & insurance	0.91	0.55	65%
Total DOC	3.91	3.00	30%



IOC breakdown per ASK (p)

financial year 2005/6

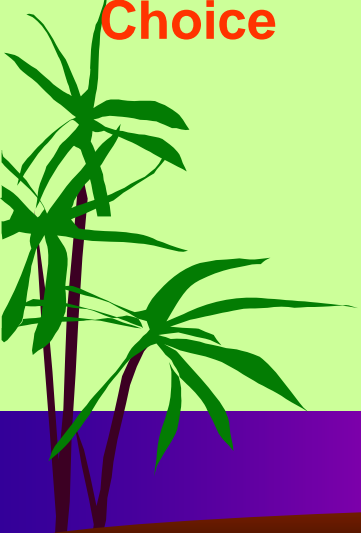
Item	bmi	easyJet	% difference
TSP	0.59	0.16	269%
<i>Total IOC</i>	<i>2.46</i>	<i>1.33</i>	<i>85%</i>
Total	6.37	4.33	47%



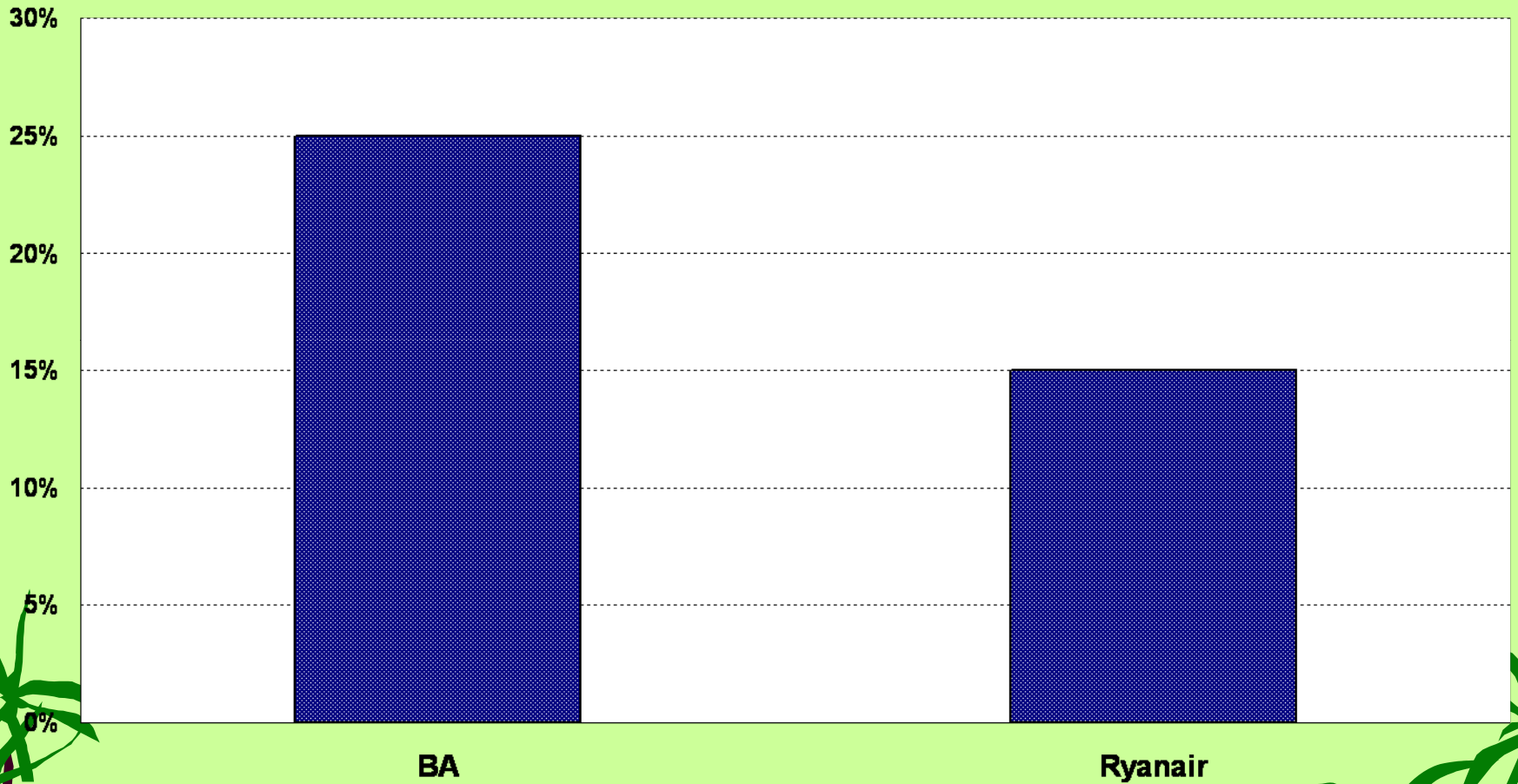
Operating Cost Comparison

2005/6 Financial Year

Airline	Unit Cost (p per ASK)	Load Factor (% pass-km)	Av. Stage (km)	Av. Seats per aircraft
flybe	7.17	65.7	480	101
easyJet	4.34	81.7	967	148
First Choice	2.46	89.9	2460	225



Labour Cost as a % of Total Operating Cost



Enjoy your next Low Cost Flight!

