

Predicting demand
Rob Greenaway. 1998 NZRA Annual Conference

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Summary

This paper tests the hypothesis that a high level of provision of resources for some recreation activities is a factor in their demise.

The level of provision of resources for an activity generally rises in response to increases in demand for that activity. And when demand falls, redundant purpose-built facilities may result. The question is, did excess capacity result from a drop in demand, or did it help cause the drop?

Any resource manager - commercial or otherwise - will watch the 'product lifecycle' of their enterprise. They will be keenly interested in factors which affect demand, and will attempt to balance investment in product development with expected returns. Ideally a balance would be struck whereby supply and demand are equal. This never happens since the effects of competition, and other socio-economic factors, change the balance, driving the product lifecycle curve into tailspins, explosions or slow spirals.

Fashion is a fickle thing. If too many people take up a trend, its appeal may decline. If it appeals to a minority and is mainstreamed - adopted by the masses - it may also quickly decline. If a fringe activity is sanctioned by society, its appeal may also disappear. Skateboarding, for example, has gone through several swings in popularity - its product lifecycle curve has swayed from high to low several times, and is currently at a high. What caused the decline and what is sustaining the high?

By considering the history and current status of skateboarding and squash, the paper considers the effect of over-provision of resources on their product lifecycle.

The key conclusion is that 'mainstreaming' may have - in the past - had a negative affect on the lifespan of some recreation activities, if they were recognised by an original 'fringe core' (such as skateboarding). 'Mainstreaming' may be represented by the over-provision of resources. However, product lifecycles are now being more keenly observed by many commercial entities. Their interest in maintaining demand for the resources they sell encourages them to maintain a 'cutting edge' for their core service. This includes - especially with regard to skateboarding - music, fashion and heroes. The core service might not change, but the 'ethos' within which the activity exists might change substantially. Consider the commercialisation of rugby.

This scenario (the role of commercialism) poses questions for local authority recreation providers where their role is to correct for 'market failure'.

Squash, on the other hand, gives a clear example of how increasing diversity in demand for recreation activities affects the viability of purpose-built facilities.

The author intended to take a reductionist approach to testing the hypothesis, considering the vagaries of effects on outcomes as propounded by Chaos Theory, but concluded that it is a lot easier to just interview plenty of people.

The Paper

I'll admit up-front that this paper is a think piece. In this paper I will look at the question: When is enough too much? Where lies the border between the right level of resource provision for recreation and over-provision. Actually, my question is: Can what we think is the right level of provision - where demand and supply are pretty much equal - actually be too much? In fact, my hypothesis is: Over-supply of resources can lead to the reduction in demand for the particular activity. Which means, the right level of provision is actually where demand for recreation facilities exceeds supply, possibly by a lot.

Let's start at the beginning. What made me think that over-provision of resources occurs a long way before demand is satisfied?

I do a few feasibility studies for recreation facilities. They are generally quite straightforward exercises (although always very-drawn out), since it is pretty much the same type of feasibility study you'd carry out for a business. Money comes in one end - depending on how much money you take from a certain number of people - and hopefully less money goes out the other end, where your costs are. There are risks and usually opportunities for minimising risk.

The good thing with feasibility studies for the type of public assets that I usually assess, is that, most often, there is no venture capital to worry about. It's mostly grant capital. And then there is often a subsidy to operate the facility, because it is considered to be delivering a public good service that the market cannot provide for. In that case, the question is, how willing are the funders to subsidise the number of people identified by the feasibility study, by how much, and how much risk are they willing to accept?

I enjoy going through an exercise with groups who are seeking funding for a new facility to see what level of use of their service they will feel happy with. We do this before even thinking about how many patrons a facility is likely to receive.

This applies to single purpose facilities as much as it does to multi-purpose facilities.

I sit down with the management committee and ask, if, in five years' time, you looked at the completed facility and it saw it was recording, say, 100 uses a week, would you think you'd done a good job (we might break that down into 25 people from the youth group twice a week, plus the Brownies once a week and so on). I ask, would you think you'd spent the community's money wisely?

The committee looks at each other and says things like, 'Ohhhh, we'll definitely get more than 100 uses'. But I keep pushing, and ask again, but if you did only get 100 uses, would you feel proud of yourselves.

They might say, 'No, we wouldn't feel proud of ourselves'. So we work the numbers up and create a scenario for the proposed facility that the committee would be proud of. I slot that number away - or the mix of users we have identified - as being the bottom line for the facility, regardless of whether the facility will make a financial surplus with that, or a lower, level of use.

If it proves that the facility is likely to gain a lower level of patronage, but still run at a surplus, I put it to the committee that the centre will not be feasible, because it will not make them proud of what they have done. It can cause a few eruptions, but it is important to know why you are pushing for a community service, particularly when its development is at the cost of another development (I usually say, some other bidder for Lottery, WestpacTrust funds or whatever, will miss out if they gain funding - that's the neighbourly approach I propounded yesterday).

If you were running a business this exercise would equate to identifying your preferred level of return on your investment. That is, however, easier since you'd just compare your returns to the current fixed-term interest rate.

That to me is one very coarse way of working out the subjective end of when a certain level of resource provision is enough. We obviously need to go further, of course. The Lottery Grants Board, sensibly enough, asks us to make sure a proposal will not compromise some other, possibly competing, service, creating redundant facilities.

This is where I start to get curious. Say we work out that demand is sufficiently high that a new facility, that could compete with an existing facility, will merely encourage those currently fettered by a lack of opportunity. So we set up a scenario where the difference between supply and demand is smaller, or perhaps (and this is more often the case) supply exceeds existing demand but we believe there is a great untapped latent demand that will spring into action very shortly.

There are a million and one things to be curious about when it comes to predicting that demand. Anyone with a product lifecycle curve on their mind will agree. What factors affect demand?

Naturally, the presence of a facility - or a recreation opportunity - will affect demand. You can't go bungy jumping without a drop and with something to stop you from hitting the bottom, for example. What worried me, was that the presence of a facility could possibly kill demand. I'll explain.

Several bits of information will help.

The first bit of information was about Cher's tattoos, and it appeared in the Christchurch Press, and probably in every paper around the world. Apparently Cher is tired of her tattoos and is hoping monthly laser treatment will remove her personal graffiti.

"When I got them, no-one else had them," she is reported as saying. "Now everybody has them. They're not so fabulous any more."

And apparently it's harder to find love when you're older.

The second bit of information was the history of the study of population dynamics. You'll be familiar, of course, with the Italian biologist Umberto D'Ancona. In about

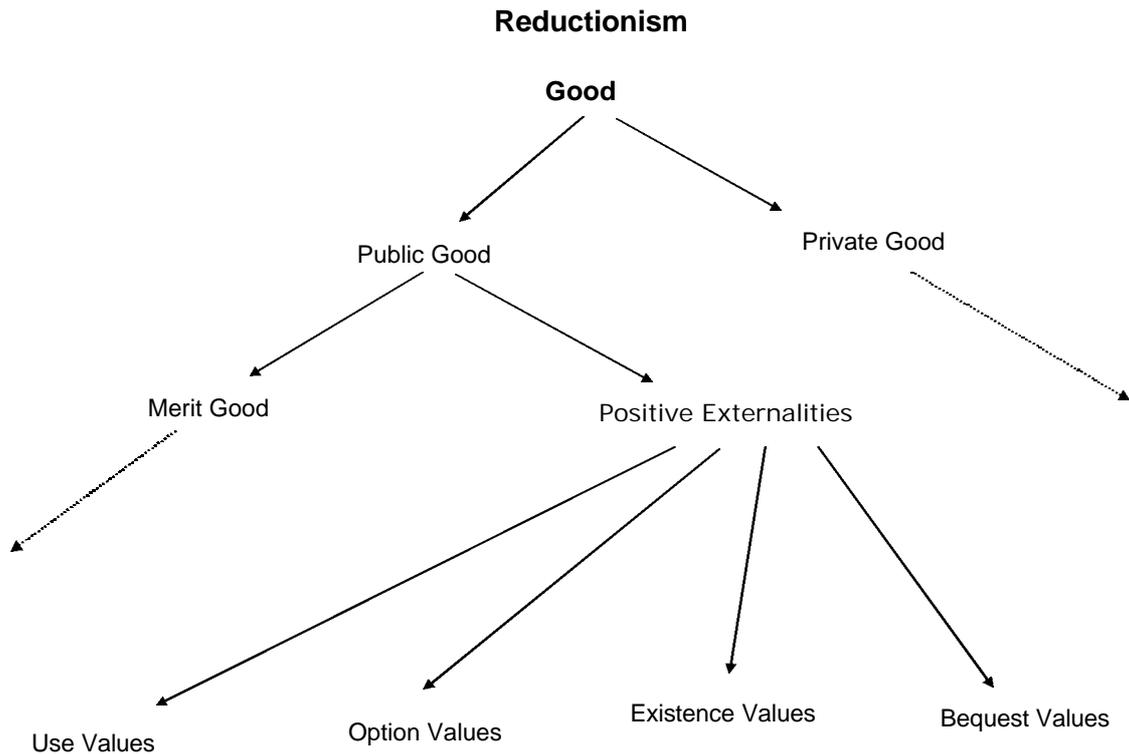
1925 he obtained the records for the number of fish caught near the port of Fiume in the northern Adriatic Sea. It included data gathered during World War One. To cut a fascinating story short, he noticed that a greater percentage of sharks and rays were caught during the war, when less fishing was carried out. D'Ancona also noticed that not only were there more predators around during the war but there was, conversely, fewer food fish. That is, when the fishing fleet was not fishing, the number of commercial fish available dropped. He teamed up with a mathematician - Volterra - and came up with a model that showed that as the population of predators is reduced by fishing, more food fish survive. The amount of food fish that the trawlers caught did not make a dent in the number of food fish that had escaped predation. They call this Volterra's paradox. The same applies to the use of pesticides. We spray chemicals to kill pests, we kill the pest's predator at the same time, and so we get more pests, and fewer items to eat.

It made me think of skateboarding for some reason. Could Volterra's paradox apply to skateboarding? There seems to be a correlation. In the past, councils and service organisations have put in facilities to cater for a demand for skateboarding. Within a few years there are plenty of concrete skate bowls and fewer skateboarders. Remember the 80s and early 90s? These days, most of the ramps are plywood. A lesson learned perhaps. But is that lesson transferable and did over-supply have anything to do with a decline in patronage, and what factors are encouraging the demand for skateboarding now, and will it die soon? And why don't so many of us play squash any more?

What I hoped would help me tie the issues together was Chaos Theory. Chaos Theory is all about predicting things - or in fact, working out why it is so jolly hard to predict most things. The stock market, for example, and weather patterns, earthquakes and the demand for skateboards. I thought reductionism, a tool in Chaos Theory, would help light the way ahead.

It didn't, but it was very interesting. Primarily because I learnt what reductionism was, and that we practice it a lot. For example:

Take the word 'good'. What happens if we take a reductionist approach to defining the word good? We need to find sub-units of the word that contribute to its entire meaning. We might get 'public good' and 'private good', which is taking a reductionist approach to defining the word. The trick is, we haven't actually defined the word yet. We've just said it's made up of a couple of smaller units. To really define it, we need to go further. So we take the unit 'public good' and we split it up into, say 'positive externalities' and 'merit goods', and then we split positive externalities into use values, option values, existence values and bequest values, and so on. In fact, we never define good, we just split it into smaller bits and hope we can understand those. The game ends when you find it impossible to reduce the units any further.



What actually happens is you take a perfectly good word and pad out your lecture material. In my favourite text on Chaos Theory, the authors suggest that much of serious reductionism is like trying to work out how a car functions by smashing it into a wall and then checking out all the bits that fly off - including the sparks - then trying to smash those into a wall as well.

After six months of reading Chaos Theory I decided it would be a damn sight easier to just phone up a heap of people who know about such things as skateboarding and squash, and - without putting words in their mouths -, try to identify whether over-supply of facilities has had anything to do with the rise and fall of the popularity of their activities.

First, skateboarding. This over-supply theory stemmed from the impact of the mainstreaming of the activity. My perception - and it's been supported to a fair degree by my analysis - is that skateboarding has been attractive due to its ability to offer an accessible, relatively safe, but slightly fringe activity. That fringe element is fundamental to its popularity. Its attraction partly stemmed from the fact that older people didn't do it. The last time I was on a skateboard - which was the late seventies - only teenagers seemed to be involved. With the provision of centralised and sanctioned skateboarding facilities in the late 70s and early 80s, the activity was mainstreamed and therefore its attraction waned. Well, that's the theory, and it's potentially supported by such skateboarding histories as Dunedin's.

I'll quote from William van der Vliet's webpage, titled, A history of skateboarding in Dunedin, all original tenses intact:

“The history of modern skateboarding in Dunedin began in 1988. A hard core of young skaters rediscover the Mornington Bowl. Skating takes place after school, at night and during the weekend. A friendly atmosphere ensures that the scene grows. On a sunny weekend typically 30 skaters skate the bowl, have water fights, and just lounge on the grass. Local university skaters construct a mini-ramp in the building that eventually became Unipol. The mini ramp is soon relocated in a warehouse in North East Valley.

The Dunedin Skateboard Association is started by local skateboarding retailers and senior skaters. The St Clair ramp is built in October 1989.... Indoor skateboard facility Wheelcool is opened in 1990. Owner Stu Dovey initially builds a vert ramp, then a mini ramp and finally a street course. Inclement weather ensures Wheelcool’s popularity. Wheelcool hosts competitions, demos and sleepovers.

A portable wooden mini-ramp is built. This ramp does the rounds of various local areas to test out sites for the possible [location] of new ramps. Fairfield locals fundraise to build a ramp complex. At the same time mini-ramps are built in Mosgiel and Brockville. Local schools also construct mini ramps, with varying degrees of skill. Ramps are constructed at Andersons Bay School, Kenmure Intermediate and Logan Park High School.”

And now the crunch:

“Skateboarding slumps. Wheelcool closes. Skateboarding is kept alive in Dunedin by a small group of hard-core skaters”

But wait, there’s more:

“The popularity of Streetstyle skating overseas causes a growth in skateboarding. New skaters join established skaters as skating becomes fashionable again. The connection overseas to the music industry ensures skateboarding is cool once again.....”

There we have the rise, fall, rise, fall and rise of skateboarding. I talked to a number of skate retailers to see what factors they believed has caused these fluctuations.

The falls in popularity over the past few decades is put down to fashion, y’know. Kids just stopped doing it. It wasn’t so cool anymore. It’ll take a PhD to work through what that means, but I think it could be a result of the mainstreaming of the activity - by sanctioning it in schools, for example, the likelihood that cool dudes in their late teens will keep the activity going are slim. And I believe manufacturers and retailers of skate equipment are painfully aware of this, and this is where I get a bit more detail from those I talked with.

Retailers and manufacturers keep an eye on their product lifecycle. Local authorities, as a rude generalisation, don’t. When demand for a product plateaus or begins to wane, you can be sure the commercial team is wondering how to retain the plateau or to reverse that decline. Many local authorities might just heave a sigh of relief.

So how is the commercial world sustaining skateboarding? There’s a very tidy coincidence of support between the music, fashion and skateboarding industries. This triangle is running very hard to maintain a high coolness factor with their products. For skateboarding this means virtually any age group can differentiate itself from others

by virtue of their fashion sense and taste in music. Those factors can keep changing, and with continuing good management of the recreation, music, fashion mix, demand for the activity of skateboarding can be sustained. Or should I say, a fringe element can be sustained, since most music and much fashion will remain inaccessible to those who might sanction the activity. Previously it was only the activity of skateboarding that offered differentiation. I predict that the current rise in skateboarding will be sustained for longer than previous trends. Maybe by twice as long - and if it survives a decade, it might survive two.

Now we have a very good example of a 'value added' product.

Consider a comparison with snowboarding. I did an article a year go on ski bums for NZ Skiing Magazine. Ski bums are mostly older males who have low incomes and spend most of their winter days on the slopes, on two skis. Not snowboards. Amongst the dozen people I interviewed - including snowboard wholesalers - there was feeling that snowboarders were unlikely to become board bums in later life. This was partly due to the fact that skiing was discovered by those who are now ski bums. The activity *per se* was the attraction, and that attraction endured. Snowboarding, on the other hand, is an activity that is sold. It's birth was a commercial activity, or should I say, the midwives rapidly recognised commercial opportunities, and links were very quickly forged between products and the activity - that is, boards, fashion and music. In fact, many high profile snowboarders run quiet business turning out ski jackets and beanies. Ski bums worked as builders and waiters over summer, and all they did in winter was ski. High profile snowboarders are generally entrepreneurs and enduring boarders are very likely to be involved in the business side of recreation in later life. Ski bums were generally real bums, and they are a dying breed.

The interesting thing with snowboarding is that it is thriving on mainstreaming, perhaps due to all those entrepreneurs pushing it.

The other activity I considered was squash. Currently squash is suffering a slump. I had a long chat with the President of Canterbury Squash - Lawrence Skurr - about this, and he was most forthcoming. By coincidence Lawrence is presenting a paper about the future of squash in Canterbury to his association today, and he faxed me a copy of that paper a few weeks ago.

According to that paper, the number of players of interclub squash in Canterbury has declined from almost 2000 to 1600 since 1995, which matches the decline in full time club members. Small squash clubs are being forced to close and are amalgamating with larger organisations. Lawrence suggests that the association needs to reconsider its marketing approach to arrest this decline, and like many other regions, employ a full-time professional Squash Development Officer to promote the national strategic development programme. This includes investment in junior squash, coach education, club development, promotion and marketing, event support and community liaison.

On the more subjective side, Lawrence recognised the impact of our 'pay and play culture'. Potential association members he observes are now partaking in numerous recreation activities, no longer adhering to, and supporting, one key sport, and certainly not joining a club. As we have heard many times over the past few years, many national and local clubs are struggling. We have to advertise on TV to get coaches.

Lawrence also bemoaned the loss of a competitive spirit in younger players. I have to say, I support this trend. Players just wanna have fun, but that means that interclub activities suffer.

This is a very different theme to skateboarding. Skaters are skaters, and they might also be snowboarders. They are dedicated. Why? Because they are tribe members, identified in life by music, clothes and activities.

Squash has lost that. Maybe in the seventies, when we could sit in our new spa pool, after partaking in a really cheesy fondue, and talk about our performance on the squash ladder, did the activity have any real 'value added' elements.

I asked Lawrence if there was anything that squash players discussed about new developments or trends in their support, particularly with regard to commodities - things you could buy. Well, there were shoes and rackets, and we had a riveting chat about new squash balls - there's a whole world of different coloured dots to debate.

In skateboarding you can do Nollies, K grinds, kick flip variats, and even Ollie impossibles, which is when your board spins around your foot in a windmill like action. A Hensley flip is when your body spins 180 degrees - on the vertical I assume - and your board moves 360 degrees the same way while moving backwards.

Maybe you can do similar things in squash, but who's going to be watching? We don't hang out in our squash shoes down at the local McDonalds in our whites. At least lawn bowls has that advantage, although McDonalds isn't the venue.

Squash is going to have to work very very hard to return to the hey-days of the cheese fondue. How can it become a value-added activity? I suspect it can only achieve that by attaching itself to multi-purpose facilities, and by riding the pay and play wave. Lawrence Skurr was onto it when he raised the need to build better social facilities into squash clubs. But those services will only work if they have other activities also supporting them.

So, to conclude. When is enough too much? I am not saying that we should always restrict resource provision so that demand always exceeds supply by miles, although I'd aim at that if I was running a business since I'd get better prices. I suggest that in terms of providing public facilities for what are rapidly becoming commodified recreation activities - such a skateboarding and rugby - the right level of provision is actually under-provision, where demand exceeds supply, if only as a risk mitigation measure. It is also a basic representation of the 80/20 rule. If we're talking about correcting market failure, do we really want to spend the last 80% of the budget on satisfying the last 20% of the market.

When supply and demand levels get close, the warning bells should start ringing. We all should be looking at our product lifecycle curves, and very quickly start wondering what factors are going to be affecting demand in the future. If an activity is not value-added, what will sustain demand in the medium to long-term? Any facility that looks quiet will probably become quieter. An activity that is identified by its fringe nature might not want to be mainstreamed. It might look good on paper to provide for all that assumed latent demand, but that latent demand might be killed by the Cher effect - and it's probably harder to get rid of dead facilities than it is to get rid of tattoos.

The moral: multipurpose facilities, reading the market, and value added recreation.