Poor people, poor products?

A preliminary analysis of the impact on low income households of longer lasting consumer durables

Tim Cooper

SUMMARY

This paper addresses the potential impact on low income households of initiatives to increase the life span of consumer durables. Such initiatives would reduce the excessive waste generated in industrialised nations, but there may be a conflict with social objectives, in that prices of the cheapest household appliances, which poorer households can only barely afford, may increase. The paper applies data from recent Government surveys on spending patterns among the poor to earlier research on product life undertaken by the author (Cooper, 1994). It explores the options available to low income households if prices of essential items increase and identifies some alternatives to purchasing new products. It concludes that, in theory if not in practice, several such options exist. However it highlights the complexity of the issue by contrasting the belief that it is unacceptable for households to be so poor that they have to utilise products discarded by others, with the argument that it is environmentally unrealistic to assume that every household should possess an ever-increasing range of new consumer durables.

KEY WORDS

CONSUMER SOCIETY
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Tim Cooper
School of Leisure and Food Management
Sheffield Hallam University
Pond Street, Sheffield S1 1WB
Tel: +44 (0) 114 225 4838
Fax: +44 (0) 114 225 3343
E-mail: t.h.cooper@shu.ac.uk

Sustainable consumption & social justice

Since the 1992 Earth Summit there has been growing interest in the link between environmental policy and social justice. Policies designed to encourage environmental sustainability by influencing consumption patterns invariably have a social dimension: there will be winners, but also losers. Thus measures to promote sustainable consumption are liable to meet with political opposition unless carefully designed, especially if those people liable to suffer are already socially disadvantaged.

The manufacture and sale of longer lasting household products has recently been proposed as a necessary response to the ever-increasing volume of waste generated in industrialised countries. This paper explores the potential impact on the poor of such a strategy.

Anecdotal evidence suggests that many poor people buy consumer durables such as kitchen appliances second hand rather than new. The environmental significance is clearly positive in that use is made of items which would otherwise be discarded prematurely. It is not the ideal solution from a more critical, social perspective, however, which would question whether poor people should have to live off the 'waste' of the affluent.

An alternative option for the poor might be to buy the cheapest, budget range products. Even this is less than ideal, however, in that these are often less durable and, in the case of electrical appliances, less energy efficient and thus more costly to run. An enforced increase in the durability of new household products may well increase their price and thus make them less accessible.

In order to understand the meaning of sustainable consumption there is a need for greater understanding of the social dimension of consumption and waste. It has recently been argued that much consumer research has in the past tended to concentrate on 'middle class' interests, such as trends in high street sales and the impact of 'out of town' supermarkets. There have, for example, been few studies of alternative modes of consumption such as second hand shops and car boot sales, which are of particular relevance to low income households [1].

Similarly, little research has been undertaken on the social dimension to waste generation, or, more specifically, who throws what away, why, and when. Indeed there are not even comprehensive statistics available at present on the overall composition of household waste. This paper represents a preliminary attempt to address such concerns.

At the outset it is necessary to define the households which might be considered 'poor' in a generally affluent society, "one in which a clear majority has been able to satisfy their physical and social needs and is able to enjoy at least some material and non-material wants [2]. This paper will use households on low incomes as a proxy for the poor because most of the available data on the possession of consumer durables and household expenditure on such items is disaggregated in this form. Strictly speaking, however, the poor cannot be equated with people on low incomes. People's current income is not the sole determinant of their standard of living, which will be affected by a range of factors, including previously acquired possessions and savings.

The life span of consumer durables

The life span of consumer durables will vary according to product type and quality and it is important not to generalise. A product's durability may be defined as its ability "to perform its required function over a lengthy period under normal conditions of use without excessive expenditure on maintenance or repair" [3]. Many factors affect product life spans, among them the quality of materials and fittings, ease of repair, availability of spare parts, technological advance and fashion. The care with which products are treated and frequency of use are also important influences. Little published data is available on how long consumer durables typically last, apart from the estimates in Table 1.

Table 1: Product life spans
(average service life)

Cars	11-12 years
Cookers	10-15 years
Washing machines	7-10 years
Refrigerators	10-12 years
Microwaves	8-10 years
Radio cassette players	10 years
Telephones	3 years
Televisions	10 years

Source: Tim Cooper (1994), *Beyond Recycling: the longer life option*, London: New Economics Foundation

It is important to note the different interpretations of 'product life'. Second hand use may well affect a product's 'service life', the period from the point of sale to the point of final disposal, which therefore differs from its 'replacement life', the period from the point of sale to the point at which the buyer purchases a replacement.

The case for longer lasting products

Consumer durables are products designed for repetitive use such as vehicles, kitchen appliances, audio-visual equipment, furniture and floor coverings, hardware and other household and garden equipment. The environmental case

for them to be longer lasting is strong [4]. In brief, it rests upon the assertion that there is a need to reduce the physical throughput of the economy - the input of energy and raw materials and the output of waste and pollution. In order to achieve such a reduction, while maintaining people's material living standards, the average life span of products needs to be increased.

It should be stressed that from an environmental perspective the aim is to optimise rather than maximise durability. There are exceptions to the general principle of increasing product life: for example, it may be better to replace an old or malfunctioning refrigerator which is inefficient in its energy consumption than to prolong its life.

Longer lasting products may also benefit the consumer financially, offering better value for money. Although consumers are strongly influenced by a product's point of sale price, the cost per unit of service provided by the product more accurately reflects its ultimate value. For example, in terms of service provided, a product which retails at £300 and lasts for 8 years is not as good value as one which is priced at £400 but lasts for 12 years. However consumers often lack information about the design life of products necessary to make well informed choices, and some would be unable to afford the higher price of longer lasting products.

If consumers benefit, why has planned obsolescence arisen? While there is no single determinant of product life, one explanation often given is that the market for many household items has become saturated and companies can therefore only maintain sales volumes by shortening product life spans *(table 2)*. There is certainly no technological reason why longer lasting products should not be made [5]. Durability is simply an aspect of quality. The challenge is how to create an effective demand from consumers for higher quality products.

Table 2: Possession of consumer durables *(all households)*

Refrigerator/Fridge-freezer	99%
Telephone	92%
Washing machine	91%
Video recorder	79%
Car/Van	70%
Microwave	70%
Tumble drier	51%
CD player	51%
Dishwasher	20%

Source: CSO (1996) *Family Spending 1995-96* London: HMSO

A wide range of measures to encourage longer lasting products have been proposed [6]. Some relate to design, while others (collectively termed 'product life extension') are concerned with products already in use. They include labelling products with their anticipated design life, fiscal incentives such as zero rating VAT on repair work and spare parts, the use of significantly longer and free guarantees, and the development of after-sales services and second hand markets. Some proposals, such as labelling or minimum standards, would not be without difficulty, as a product's life span is affected by the intensity and care of use as well as its intrinsic design.

Consumable durables and poorer households

Households in lower income groups tend, not surprisingly, to possess relatively few consumer durables *(table 3)*. Even so, poverty does not appear to prevent them from possessing those items widely considered to be necessities. Other products appear not to be sought after: market analysts Mintel report that almost two-thirds of people not owning a dishwasher consider the item to be an 'unnecessary luxury' [7]. Only among the very poorest households, those in the lowest 10% decile group, do less than three-quarters of households possess refrigerators, televisions and washing machines.

Table 3: Possession of consumer durables by selected income decile group 1995-96

	All households	Lowest 10%	2nd decile group	9th decile group	Highest 10%
Telephone	92%	77%	86%	99%	100%
Washing machine	91%	72%	81%	98%	99%
Video recorder	79%	46%	60%	93%	95%
Microwave	70%	44%	54%	83%	85%
Tumble dryer	51%	26%	35%	64%	73%
CD player	51%	19%	26%	73%	81%
Dishwasher	20%	3%	5%	38%	58%

Source: Department of Social Security (1995) *Households below average income,* London: HMSO

A recent Government report reveals that since 1979 there has been a substantial increase in the possession of consumer durables, particularly fridge-freezers and telephones, among low income households [8] *(table 4)*. The data does not distinguish whether the products are owned or rented, however, nor does it give any indication as to their age and quality.

Market implications of longer lasting products

The following assessment of the possible social impact of measures to encourage longer lasting products first addresses the potential market implications and then the impact on low income households. As a preliminary analysis it is simplified in that no specific policy is defined and consumer durables are considered as a whole.

Consumer demand for a product normally falls if its price rises in response to increased production costs. This reduction in demand will be greatest for products for which demand is elastic, those which are inessential. To what extent might prices rise as a result of increased product durability and effective demand consequently fall?

Improved quality in the form of increased durability would normally be expected to result in higher prices, although some authorities argue that price increases should not be great because materials account for only a small proportion of total costs [9]. Another possibility is that prices rise as the government introduces ecological tax reform, which would increase the cost of energy and raw materials (while reducing that of labour). Its advocates, such as Ernst von Weizsacker of Germany's Wuppertal Institute, argue that consumers do not pay a 'true' cost when buying products, as environmental costs associated with consumption, such as waste collection and disposal, are not paid directly but passed on to the rest of society through local taxation [10].

Price sensitivity is likely to be particularly significant at the budget end of markets. In the early 1990s there was an increase in demand for lower priced white goods [11]. According to Mintel, the market for laundry and dishwasher appliances was increasingly polarised, with a growth in budget and premium brands and a reduction in middle market (£300-£450) brands . Up to 30% of the market is now accounted for by products priced at below £300 [12]. According to one manufacturer, the profit on a washing machine priced at £270 is barely £17.50 whereas that on a model costing £700 is over £125 [13]. Assuming that this is correct, budget range manufacturers are least likely to be able to absorb additional production costs resulting from measures to increase durability. Low income households would thus be especially vulnerable to price rises.

At the premium end of the market consumers might regard paying a higher price for a longer lasting product as an acceptable 'green premium' for an environmentally friendly product. However, according to a recent National Consumer Council report there may be fewer consumers willing to pay such a

Table 4: Trends in the possession of consumer durables

(% of income distribution, before housing costs)

	Bottom 10%		Bottom 20%		Total population	
	1979	*1992/3*	*1979*	*1992/3*	*1979*	*1992/3*
Telephone	47%	78%	46%	75%	70%	90%
Washing machine	69%	89%	70%	89%	84%	93%
Car/Van	39%	55%	36%	49%	66%	71%
Fridge/Fridge-freezer	86%	98%	87%	99%	94%	99%
Freezer/Fridge-freezer	29%	83%	32%	83%	53%	90%

Source: Department of Social Security (1995) *Households below average income,* London: HMSO

premium on altruistic grounds than some surveys have suggested [14]. A positive response by consumers would in any case depend on the credibility of claims about life span. Currently, there is much confusion about environmental claims [15] and price remains the key factor influencing decisions to purchase consumer durables, across all income groups [16].

In response to any increase in the price of consumer durables, households would have to choose between spending a higher proportion of their income on consumer durables, buying a smaller number of consumer durables, trading down to models with fewer features, renting, or buying second hand. Some might defer their purchase of replacements either out of choice (if products designed for longer life maintained their appearance for longer and were more reliable) or necessity (because of the higher cost of replacements).

The impact on poorer households

In affluent countries such as Britain, poorer people tend not to do without basic consumer durables such as refrigerators and washing machines but to suffer lower quality. They buy budget range models which are cheaply made, or second hand items may soon be in need of repair and are sometimes unsafe. What would be the impact on low income households if longer lasting consumer durables resulted in higher prices?

One means of considering the potential implications is to analyse expenditure patterns. Households in the lowest 10% income group spend, on average, £82 per week. A quarter is spent on food and non alcoholic drink (approximately £21) and a further quarter on housing and energy costs (£21). The rest is spent as follows: household and leisure goods (£10), alcohol and tobacco (£7), travel (£6.50), leisure services such as television and video rental (£5), household services such as telephone costs (£4.50), clothing (£3.50), and personal goods such as toiletries (£3).

Consumption patterns vary according to income. Households with a relatively low income spend a lower than average proportion of income on leisure goods such as audio-visual equipment, but a marginally higher proportion on household goods such as kitchen appliances and furniture. In each case, the variation between higher and lower income groups is not substantial, although households with a higher income obviously spend more in absolute terms.

Significantly, the variation between income groups is far greater for motoring and 'leisure services' than for household goods or leisure goods. It appears that people are rather more inclined to spend additional income on motoring, entertainment and holidays than on higher quality consumer durables. This would suggest that if the price of consumer durables increased, people may prefer to buy lower quality models, or even second hand items, than to spend a higher proportion of their income on such products.

Low income households have the least flexibility in their spending options. Even so, it is unlikely that they would do without consumer durables which nowadays are widely regarded as necessities. If prices rose some people who previously had been able to afford budget range models would have to buy second hand. Others might find ways of reducing expenditure elsewhere, or would rent instead of purchasing outright.

The second hand market is particularly important to low income households. Consumer durables of the kind sold in second hand shops, car boot sales and jumble sales (such as appliances, kitchenware and clothing) are often heavily discounted, especially if product technology is advancing rapidly, as with hi fi systems, telephones and home computers. Higher prices for new consumer durables may cause a ripple effect in these markets which could harm low income households. A reduced supply of second hand goods caused by people deferring new purchases, together with increased demand from people no longer able to buy new items, might create upward pressure on prices. Households on the lowest incomes may then be unable to afford even second hand items.

A trend towards longer lasting products may have wider effects of particular relevance to low income households. For example, an improvement in after-sales services, with cheaper repairs and parts available for longer periods, would help households who have always been less able to afford new items.

Options for helping poorer households

How can the interests of the poor be protected if prices of essential household goods increase?

People criticise the 'throwaway society', yet relatively few appear able and willing to pay a premium for higher quality products which would last longer. If there is to be a major shift towards longer lasting products one change required is in people's attitudes, so that consumer durables are viewed as long term investments. As Stahel and Jackson have rightly pointed out, "properly maintained or repaired goods are no longer a sign of good husbandry, but of poverty and second-class status"[17].

Second, the promotion of appropriate savings schemes such as those run by locally based credit unions could help low income households who might otherwise lack the initial capital to pay for higher quality products. Indeed, many consumers might benefit from better money management skills: much money is spent financing loans rather than paying for higher quality.

Third, there is a need to improve the operation of second hand markets, on which many low income households depend. As a New Economics Foundation discussion

Table 5: Expenditure on household goods and leisure goods by decile group 1995-96

	Household goods		Leisure goods	
	Average weekly expenditure (£/p)	% total expenditure	Average weekly expenditure (£/p)	% total expenditure
Lowest 10%	*7.72*	8.8	3.09	3.5
Second	10.10	8.4	5.30	4.4
Third	14.42	9.2	6.42	4.1
Fourth	16.56	8.1	9.78	4.8
Fifth	20.07	8.2	10.14	4.2
Sixth	22.04	7.4	15.73	5.3
Seventh	28.72	8.4	15.27	4.5
Eighth	31.61	8.3	19.50	5.1
Ninth	34.67	7.8	19.49	4.4
Highest 10%	48.55	7.8	32.58	5.2
All households	*23.45*	*8.1*	*13.73*	*4.7*

Source: CSO (1996) *Family Spending 1995-96* London: HMSO

paper indicated, such markets provide an effective means of extending product life spans [18]. Second hand products ought to be safe, function properly and be reasonably reliable. This is often not the case, however, because some sectors of the market are inadequately regulated and Trading Standards departments are not always able to protect consumers from unsafe or stolen items.

The second hand market has considerable potential for expansion. Over the past twenty years the growth of the charity shops sector, which now comprises around 7,000 shops with a turnover approaching £350m, has been a remarkable success story [19]. Even so, many products which are discarded end up in landfill sites even though they could be repaired. If this potential is to be realised, however, additional public resources are needed in trading standards departments to ensure that consumers are adequately protected.

Fourth, an expansion in the rental market may help low income households. Rental has historically proved attractive to poorer people who lack adequate initial capital to purchase items and cannot get credit. Some advocates of longer lasting products are sympathetic to rental, arguing that consumer durables could be made to higher standards because there would be no commercial advantage to be gained from planned obsolescence. The profit incentive would come from providing a satisfactory service, rather than selling more products [20]. The rental sector had until recently been in long term decline in Britain. Significantly, perhaps, Thorn, owners of Radio Rentals, has recently been able to develop Crazy George's, a high street chain deliberately targeted at low income households which rents out a range of products including audio equipment, white goods, computers and furniture [21]. There is, however, a disadvantage in that most rental customers ultimately pay more than if they had purchased products.

Fifth, increased sharing and barter may help low income households [22]. An obvious example are Local Exchange and Trading Schemes, commonly known as LETS. Such schemes, in which a local currency is created as a basis for exchanging skills and equipment, have expanded rapidly over the past decade. There are now over 400, involving around 35,000 people. For example, household and garden equipment which is movable and not used each day, such as lawn mowers and power drills, can be borrowed using the currency. The borrower has to offer services or equipment to other members of the scheme in exchange, but cash is not required. LETS can thus offer poorer people access to items which they would be unable to buy. Membership may be particularly useful for households in the poverty trap, who need consumer durables but cannot earn the necessary income to buy them without losing state benefits.

Finally, a revival in the repair sector would benefit households with low incomes, who are less able to replace broken items. This is another sector of the economy which has attracted little research interest and for which inadequate data is available. Its environmental significance ought to be recognised by government, in that repair and reconditioning work prolongs product life spans and thereby prevents products from becoming waste prematurely. As the modern era of mass consumption has progressed, such work, being labour intensive, has become relatively expensive. In contrast, many consumer durables are manufactured overseas where labour is cheap. There are measures which Government could take to increase repair work, such as zero-rating VAT on repairs. Designers could make products more easy to disassemble, while manufacturers could seek to standardise parts and make them available for longer than at present.

CONCLUSION: Do 'green' products reinforce social inequity?

Ultimately, the fact that people purchase products with relatively short life spans reflects the fact that they have limited incomes and cannot always afford the best quality. As long as consumers have choice, some will accept a lower quality model of one product in order to buy others.

Among poorer households, however, the choice is more usually between buying a budget priced model, second hand, or not at all. If society determines that the durability of products must improve and prices are consequently higher, buying new may no longer be an option. In other words, the removal of lower quality products from the market would reduce their choice. Does this mean that there is inevitably a trade off between environmental goals and social goals?

There need not be. In theory, if longer lasting products are more efficient economically, in terms of providing the greatest service for a given cost, economic resources are released which could be directed to the poor. Moreover, as a general principle the Government could introduce fiscal measures to overcome any reduction in the effective spending power of poorer households caused by its environmental policies.

Some people may question whether it is acceptable to introduce measures designed to remove lower quality items from the market if the only alternative for some low income households would then be to buy second hand. On the other hand, is the social pressure for all households to be regularly equipped with new products realistic in the light of environmental concerns?

Equity requires the just treatment of different social groups. A fundamental redistribution of income and wealth may well be considered imperative by those who object to poorer households having to use products discarded by others. The primary concern of this paper, however, has been to explore whether an environmental policy can be designed with complementary measures to ensure that the poor are not made any worse off. There are clear environmental benefits to be gained from the manufacture and sale of longer lasting products, but low income households must be provided with a range of attractive alternatives if the cost of new consumer durables becomes prohibitively expensive.

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REFERENCES

1 Gregson, Nicky and Crewe, Louise, Beyond the High Street and the Mall: car boot fairs and the new geographies of consumption in the 1990s, Area, 1994, Vol.26, No.3, pp.261-7; Scitovsky, Tibor (1994), Towards a Theory of Second-hand Markets, Kyklos, Vol.47, pp.33-52.
2 Lansley, Stewart (1994), After the Gold Rush, London: Century, p.23.
3 Cooper, Tim (1994), Beyond Recycling: the longer Life option, London: New Economics Foundation, p 5.
4 Cooper, op. cit.Heiskanen, Eva (1996) Conditions for product Life Extension, Helsinki: National Consumer Research
5 OECD (1982), Product Durability and Product Life Extension, Paris: OECD, p.15.
6 For example, OECD op. cit., Cooper, op. cit., Stahel, Walter and Jackson, Tim, Optimal Utilisation and Durability, in Jackson, Tim (ed.) (1994), Clean Production Strategies, Boca Raton:Lewis.
7 Mintel Marketing Intelligence, Market Research Journal, Consumer Goods, June 1995 (CDROM).
8 Department of Social Security (1995), Households Below Average Income: a statistical analysis, London: HMSO.
9 Giarini, Orio and Stahel, Walter (1989), The Limits to Certainty, Dordrecht: Kluwer, p.52.
10 von Weizsacker, Ernst (1994), Earth Politics, London: Zed.
11 Financial Times, 27th June, 1995.
12 Mintel, op.cit.
13 John Graham, Chief Executive of ASKO, presentation to C.B.I. seminar on product durability, November 1994.
14 National Consumer Council (1997), Consumers and the Environment, London: National Consumer Council, pp.24-7.
15 National Consumer Council (1996), Green Claims, London: National Consumer Council.
16 Mintel, op.cit.
17 Stahel, Walter and Jackson, Tim, op. cit., p.282.
18 Burgin, Kirstie (1995), The Second-Hand Market, NEF Discussion Paper, London: New Economics Foundation.
19 1995 NGO Finance Shops Survey.
20 Stahel and Jackson, op. cit., p.288.
21 Financial Times, 23rd February 1995.
22 Barnes, Helen, North, Peter and Walker, Perry (1996), LETS on Low Income, London: New Economics Foundation.