

In February 2006, Marks & Spencer wrote that climate change was 'an important societal risk though not one that would be considered relevant to future earnings' within typical business planning cycles. In the same document, it downplayed interest in the use of energy efficient products and said that 'customer research has not identified any demand in our key market segments of clothing, home, beauty and food'.<sup>i</sup>

Less than a year later, Marks & Spencer has launched its 'Plan A', an extremely ambitious proposal to make the company carbon neutral, reduce its landfill waste to zero, and change its supply chain to improve its position as an ethical retailer. Stuart Rose says 'M&S will change beyond recognition the way it operates over the next five years'. The swing in opinion from a year ago is extraordinary, M&S is saying that 'customers, employees and shareholders now expect us to take bold steps and do business differently'.<sup>ii</sup> In the first hours of trading after the announcement, M&S shares rose against the wider market.

The scale of Rose's ambition is breathtaking – no company of any size has announced a programme of this complexity and difficulty. Does this new plan make financial sense? Does it represent a real and well thought through approach that will position M&S as the world's leading sustainable retailer? Or is it just a bold statement of ambition that will prove extremely difficult to implement?

Our conclusions are

- Carbon neutrality is relatively easy to achieve. M&S will need to buy about 4% of the UK's 2005 output of renewable electricity. The only problem is that many virtuous companies are trying to do the same and the slow rate of growth of renewables output is likely to force up the prices of genuinely 'green' power. M&S gas needs are also substantial, and will need to be offset. M&S is right to be hesitant about this – commercial 'offsetting' is increasingly seen as unconvincing way to cut emissions.
- Store waste will be recycled or reused but otherwise the zero-waste proposals are less ambitious than the press has reported. The company is focusing on making packaging, and, interestingly, the clothes themselves, recyclable, rather than ensuring everything is recycled. The company may be underestimating the difficulties in sourcing and using compostable packaging materials such as PLA.
- The 'ethical' sourcing and retailing commitments are eye-catching. There's no dodging the fact that they are going to be difficult to achieve. The world needs to produce a lot more FairTrade cotton than it does today just to keep the UK in ethical underwear. This is where M+S is really sticking its neck out – will customers really pay the premium for organic, FairTrade, sustainable and healthy foods? Will the supply chain be able to react in time to meet Rose's targets? Though the skills inside M&S make it likely that the company will be able to redirect its supplier base, we question whether things will happen as fast as the company would like. We think Rose's hunch that its shoppers will willingly pay a premium is probably correct. But this is the big gamble.

## **Marks & Spencer current performance.**

### Energy use

Retailing – particularly food retailing – is energy intensive. A typical Marks & Spencer store has energy demand of over 700 kWh per square metre, about three times the level of a typical home, and twice that of a reasonably efficient air-conditioned office. Per employee, stores use about 14,000 kWh, or almost twice what that employee would typically use at home. These figures are broadly similar to the major High Street chains, and somewhat lower than the pure grocery retailers.

M&S has made some recent improvements, with electricity consumption falling about 3% in the last reported year. Nevertheless, big stores are prodigious users of electricity, with bigger shops actually using slightly more energy per unit of space than comparable smaller stores.

However, the operation of the retail stores is not the crucial part of M&S' wider responsibility for emissions. Its own work shows that the stores generate about 300,000 tonnes of emissions (0.05% of the UK's total). The whole supply chain is much more important – the production of its food is thought to generate about 1.5m tonnes of CO<sub>2</sub> – about 0.25% of the UK total. (Grossed up to the whole UK market, M&S figures suggest that food production may be responsible for almost ten per cent of national emissions).

Just getting the goods to stores and customers' own travel is probably responsible for almost twice the emissions from the shops. The crucial point is this – add together the whole supply chain and retailers, particularly of food, are key to the struggle to reduce the UK's emissions.

However to M&S energy costs are not in themselves hugely significant. The last report to the Carbon Disclosure Project says that they equate to about 0.4% of turnover, though higher electricity and gas prices may take this figure up to as much as 0.8%.

### Packaging

M&S uses about 120,000 tonnes of packaging a year (20kgs per person in the UK), of which about 50,000 tonnes are plastic. The large majority of the remainder is glass and paper. The plastic element of packaging appears to be a particular target of 'Plan A'.

### Sourcing

M&S initiatives on Fairtrade cotton, free range animal products and Forest Stewardship Council wood products already put the chain in the vanguard of world retailers. By comparison, the company's record on local sourcing of food is weak.

The challenges:

## 1, Is consumer demand there?

Recent opinion surveys have shown high levels of consumer interest in taking actions which accord well with M&S' new policy. (Of course, polls do not always give reliable guides to actual behaviour). An Autumn 2006 YouGov survey showed that 51% of people would 'avoid, as far as possible, using packaged goods in order to reduce waste'.<sup>iii</sup> The percentage was somewhat higher in 35+ ABC1 women, M&S' core market.

Very similar percentages agreed to the proposition that they would buy more local food and that air-freighted produce should become more expensive. The support was again stronger in typical M&S customer groups.

By comparison, only 25% would be willing to drive their car less without financial incentives. M&S' target customers were no more likely to volunteer to reduce motoring than the population as a whole. These results suggest that customers' stated wishes are very much in line with Stuart Rose's Plan A.

An M&S that reduced its packaging, and made it all genuinely recyclable, and sourced from its food regionally, rather than internationally would, it seems, at least command the approval of consumers. Changing buying behaviour may be more difficult; after all, people don't have to buy M&S existing heavily packaged and shrink wrapped vegetables today, but very many of them seem happy to do so.

## 2, Reducing energy use

Marks & Spencer proposes a 25% improvement in energy efficiency. This figure is high in comparison to the very limited recent improvements. But Tesco managed a 15% reduction in the last reported year in energy use per square metre, suggesting that real improvements are possible. Furthermore, Tesco promises to cut energy use by a further 50% by 2010. Although it starts from a higher base than M&S, Tesco has actually got more ambitious targets than Stuart Rose.

Published 2004 work by the Carbon Trust suggests that M&S does have plenty of scope for improvement.<sup>iv</sup> The report mentions some obviously wasteful activities, such as running the escalators at night. It also suggested that top management had some way to go in backing energy use reduction initiatives. Presumably the Rose plan will remove any lingering uncertainty in the minds of employees about commitment of the company.

More generally, however, improving energy efficiency in supermarkets is an uphill task because of increasing demands for refrigeration of chilled foods. Waitrose says that 65% of its energy bill is devoted to cooling its products. In M&S' Simply Food stores, 85% of the cost is spent on refrigeration. As consumers demand more and more chilled food, any long-term improvement is going to be difficult once the easy efficiency gains have been captured.

The savings to shareholders from a 25% energy use reduction would not be huge. The 2003/4 energy budget was only £30m, although price increases will have significantly augmented this figure.

### 3, Moving to 'green' energy.

A substantial switch to 'green' electricity across the UK is going to be more difficult than M&S imagines. The electricity use in its stores is equal to about 4% of total UK renewable generation in 2005. Renewable energy is growing, but at a far lower rate than the government intends. The 10% target for 2010 will be missed by a wide margin.<sup>v</sup> Very large numbers of major companies are in the process of trying to move to renewable energy in the next year, and we can be sure that demand will exceed the available supply. The cost premium is small and it is a visible indication of corporate commitment. For example, Tesco's electricity use is approximately three times that of M&S and if it decided to only buy renewable electricity, it would use about 12% of the UK's total supply of renewables.

The Carbon Trust's 2004 report expressed some concern about whether some of M&S' claims about the green credentials of some of its existing sources of 'green' energy and there continues to be a substantial future risk to corporate reputation of not buying electricity from genuinely renewable sources.

Gas represents almost a quarter of M&S energy use. Paradoxically, perhaps, if it reduces its electricity consumption, its gas use may actually go up. (Electric lights help heat shops). The company says it will install equipment to produce energy from the anaerobic digestion of food. This technology is expensive and largely untried. We doubt it will be available in cost-competitive form until the last years of Stuart Rose's plan. 'Green' gas from the mains is an impossibility and to meet its promises, the company will be forced to 'offset' most of its gas burning. The cost of this, at today's prices, is insignificant and will add less than £0.5m to its energy bill. As the Rose plan makes clear, 'offsetting' is probably a very poor form of carbon reduction, and should be avoided wherever possible.

Even with all these reservations, there is little doubt that M&S can improve its energy purchasing very significantly. But, as its own data makes abundantly clear, the real challenge is to improve the energy use of its food suppliers, which are responsible for five times as much CO<sub>2</sub> as the store chain itself. The phrase in the Plan that covers this is suitably vague: M&S intends to 'mobilise' its suppliers to improve performance. This is an uphill struggle.

Transport and logistics will also be very difficult to improve at the same rate as the stores. Though the chain has achieved substantial reductions in emissions per tonne/mile, the scope for further savings is small without a major switch to rail. All UK supermarkets have found it difficult to make the economics of rail transport work, except for limited types of goods. The M&S wine train to Scotland is a very unusual example.

#### 4, Ethical food sourcing

M&S commits to 'buy as much food from the UK and Ireland as possible'. This suggests that it will wait and see whether customers genuinely do want to eat Lincolnshire broccoli in February or whether they actually buy Chilean air freighted grapes. The commitments to local food are unspecific, though the chain does promise to double regional food purchases within 12 months, albeit from the very low current level.

The willingness to triple the sales of organic food and textiles within the lifetime of the plan may look ambitious but actually probably involve little extra stimulation of customer demand. The problem will be sourcing these goods within the UK and Europe. The Soil Association reports that the area given over to fully organic production in the UK fell during 2005, though there was a 10% rise in 2005 in horticultural land. At the same time, says the Soil Association, the demand for organic goods rose by 30% in the year. Mr Rose's commitment to organic sourcing may be in conflict with his desire to increase local sourcing.

In the case of cotton, the move to Fair Trade and organic sources is a particular problem. M&S is responsible for 10% of the UK clothing sales but less than 0.1% of all worldwide cotton production is certified as organic. Similarly, Fair Trade cotton is in limited supply with less than 300 village cooperatives holding the right to the logo. The price premium to producers of Fair Trade cotton is of the order of 30% of world market prices. The impact of using only FairTrade raw materials on retail prices will be extremely small but the availability is likely to grow only slowly.

#### 5, Zero waste to landfill.

This ambition is more limited than it might seem. M&S is actually focusing on changing the materials used in packaging to ones that *can* be recycled. This means switching more to easily recyclable plastics, such as PET. The commitment to reduce packaging use is more limited, with only a 25% reduction promised. Since M&S probably uses more packaging, particularly of its food, than any other UK retailer this is not a demanding target.

The company mentions using compostable packaging, such as corn starch based PLA. This may be a much trickier area than the company imagines. PLA needs quite high temperatures to rot, and the ordinary garden compost heap will leave the material untouched. Similarly, it will be unaffected in landfill. PLA may become cheaper than oil-based plastics, but this critically depends on the price of crude.

M&S has tried and failed to make sturdy carrier bags out of compostable material in the recent past. So the current announcement promises to reduce plastic bag use, and to use recycled materials rather than virgin plastics.

Embedding the notion of a closed loop of packaging materials – manufactured, used to protect food and clothing, brought back to the store and then recycled prior to

remanufacture is an extremely worthwhile aim for the company. But it involves substantial changes in consumer and company behaviour over the five year lifetime of Rose's plan.

#### 5 Energy efficient goods and services

The company promises to help customers reduce energy use in the home. The big uses of energy at home lie in the area of heating, consumer electronics and refrigeration. The announcement by M&S makes it seem likely that the company will source its own range of ultra-low energy use appliances and sell them in stores. Whether it will move into home heating boilers and domestic insulation seems a little more problematic.

#### **The plan as a whole: some conclusions.**

A growing number of companies are promising 'carbon neutrality'. For M&S, the cost may be as little as 0.1% of turnover or less. At present, therefore, it is easy and cheap. It will become much more difficult as the supply of renewable electricity grows less fast than the demand from virtuous companies and individuals. Moreover, the real problem lies in food supplier energy use, about which the company can do very little. M&S food – largely pre-prepared and packaged – is always going to embody large amounts of energy compared to ambient goods, whether baked beans or cabbages. Mr Rose must hope that concerns over climate change do not increase sufficiently to start a trend towards home preparation of food, which is much less energy intensive than the packaged foods he sells.

The other promises, which concentrate on waste minimisation and ethical sourcing, are much more substantial and, almost certainly, very difficult to achieve. They involve radical changes to models of how the company sources its goods. At present, the role of the retailer is to get goods as cheaply as possible from anywhere the world, as long as manufacturing conditions meet certain minimum standards. M&S' Plan A is a huge step away from this, and assumes that customers are really willing to do what they say they want to do – buy more local foods, organic products and work with company to build a closed loop of packaging materials.

This is a risky business; building a new business system around smaller scale local sourcing and huge reductions in disposable packaging is a huge challenge. With his extraordinary reputation for understanding his customers, Stuart Rose is clearly taking the view that people will change their behaviour, even at some cost, and will tolerate the many problems that M&S is likely to have in achieving its targets.

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<sup>i</sup> Marks and Spencer published response to the 4<sup>th</sup> cycle of the Carbon Disclosure Project, 13<sup>th</sup> February 2006. Available at [www.cdproject.net](http://www.cdproject.net)

<sup>ii</sup> Press release 15<sup>th</sup> January, 'Marks and Spencer launches 'Plan A' - £200m 'eco-plan'.

<sup>iii</sup> YouGov 'Global Warming and the Environment' 6<sup>th</sup> November 2006 for the Daily Telegraph

<sup>iv</sup> This report accompanies M&S submission to the 3<sup>rd</sup> cycle of the Carbon Disclosure Project.

<sup>v</sup> National Grid Seven Year Statement