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Profit without loss

How conserving resources benefits the economy, businesses and consumers

Profit without loss: how conserving resources benefits the economy, businesses and consumers

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Summary

> “The only environmentally sustainable route to growth in the long term is to grow using fewer natural resources.”

All economic activity relies on natural resources, but the world’s demand for them is outpacing supply.[1] The only environmentally sustainable route to growth in the long term is to grow using fewer natural resources, through an economy designed around reducing, reusing, repairing and recycling.[2] These are the central activities in what is known as the circular economy.

The UK government has committed to improving resource efficiency and tackling waste, including in its 2018 resources and waste strategy. But, five years since this was published, none of the policies it promised have been delivered, and progress towards any implementation has been painfully slow. While initial recycling commitments continue to be postponed, more transformative policies that stimulate action higher up the waste hierarchy, ie to keep materials from ending up as waste in the first place through reuse and repair, have not had any attention at all.

One of the reasons for the slow progress towards a more circular economy is concern, particularly within economic circles, about what impact it will have on the economy as a whole. In this report, we set out to assess the evidence, good or bad, of the UK becoming more circular from three perspectives: national, business and consumer. Our conclusion is that it has positive impacts at all levels, despite

major gaps in knowledge. Along with the experts we consulted, we believe further research would reveal the outcome of a genuinely circular economy would be significantly more positive than is currently understood.

> “We advocate for further research to better predict the impact of a resource reduction strategy.”

In part one, we review the studies and modelling used to assess how greater resource efficiency affects the economy and tease apart the assumptions behind them. Most predict a small, positive effect on GDP and net job creation, suggesting there would be an immediate win-win opportunity for the UK.

However, most scenarios do not model a reduction in total primary raw material use, compared to today. Our assessment and those of the experts we consulted suggest all the models are, therefore, likely to overstate the costs and understate economic benefits. We advocate for further research to better predict the impact of a resource reduction strategy, which should be integral to a circular economy.

In part two, we draw on interviews with ten circular businesses to explore how some will be able to grow into new niches and increase their profitability by adopting circular models, such as rental and resale.

In part three, we present new analysis on how the consumer experience might change and show how people can make substantial savings buying second hand or repaired items. But it is clear that policy change is needed to support better access to these options.

In light of the evidence on the benefits to the wider economy, businesses and consumers, as well as the environment, the UK government now needs to match its good intentions on resource efficiency with concrete policy commitments.

Drawing on our assessments, we highlight the following seven priority actions for the government to accelerate the circular economy transition:

1. Improve access to data on material flows and circular activities.
2. Use the tax system strategically to achieve environmental goals, including through material taxes.
3. Set a target to bring England's resource use within planetary boundaries by 2050.
4. Kickstart circular business with a dedicated £800 million fund to help companies to change.
5. Support workers to transition to a circular economy by improving training in relevant business skills.
6. Help consumers save money and access high quality goods by setting design standards for efficient, long lasting and repairable products.
7. Build consumer confidence in new business models by setting out clear consumer protections and rights to repair, warranties and rental contracts.

Introduction

> “A circular economy reduces the amount of raw material required to meet society’s needs.”

Resource extraction and processing, including of food, fuel and raw materials, is responsible for 90 per cent of global biodiversity loss and 50 per cent of greenhouse gas emissions.[3] To reduce these impacts, while growing the economy and meeting future generations’ needs and aspirations, a circular economy is needed, built on the basis of reducing primary raw material consumption and avoiding valuable materials going to waste. As the 2021 Dasgupta Review, *The economics of biodiversity,* commissioned by the UK Treasury, states, “we cannot rely on technology alone: consumption and production patterns will need to be fundamentally restructured.”[4]

What might this restructuring look like? And how will it affect GDP growth, jobs, economic resilience, business models and consumers?

Currently, the UK’s economy has a ‘take, make, use and throw’ structure where raw materials are mined or grown and made into products which we use and then throw away. This is called the ‘linear economy’ and it results in unsustainable levels of raw material extraction, carbon emissions and waste. A circular economy reduces the amount of raw material required to meet society’s needs, achieved by keeping products and materials in use at their highest value for as long as possible, through reusing, repairing and remanufacturing, and then eventually recycling when use is no longer possible.

Our definition of a circular economy

There are various definitions of a circular economy, but we see its ultimate aim as reducing the amount of raw materials required to meet society's needs.

The UN, WRAP and Ellen MacArthur Foundation all define the circular economy as a system which decouples economic growth from the consumption of finite natural resources, eliminating waste and restoring nature in the process.[5] Circular systems are described as regenerative, as needs can be met without further depletion of the planet's resources.

Circularity is often conflated with resource efficiency. This tends to focus mainly on the efficient use of resources in production processes. Even if a linear economy vastly improves its use of resources or achieves a relative decoupling of resource use from GDP, total consumption could still rise across the economy.

As we see it, a genuinely circular economy achieves an absolute decrease in raw material use.

> "As global resources dwindle or become harder to access, an economy that reduces its need for new raw materials will be more secure."

As society transitions from a linear economy to a circular economy, economic activities would change. Some would decrease, such as raw material extraction, including mining and forestry, processing of raw materials, the production of single use goods, landfill and waste incineration. Others would increase, such as the production of goods designed for multiple use and long lifetimes, the repair and remanufacturing of products, logistics for collection and return of reusable products, and the high quality recycling of materials that can no longer be reused.

A more circular economy could deliver rapid and inexpensive emissions cuts for industrial sectors such as steel and chemicals, and play an important role in ensuring that near term greenhouse gas reduction targets are met. In the UK, improving material use could reduce emissions by 200 $MtCO_2e$ by 2032, and two billion tonnes by 2050.[6]

This shift will build economic security and resilience. As global resources dwindle or become harder to access, an economy that reduces its need for new raw materials will be more secure. This is especially true for materials considered critical, which the government recognised in its UK Critical Minerals Strategy, stating: "An efficient circular economy of

critical minerals would require increased recovery, reuse and recycling at the end of a product's life, as well as better design and new business models for durability, resource efficiency and reuse."[7]

> "There is a yawning gap between government aspirations and concrete commitments."

But there is a yawning gap between government aspirations and concrete commitments, targets and policy, which are all focused simply on recycling and the lower end of ambition. Five years on from the publication of the UK's resources and waste strategy, none of the major recycling reforms have been delivered, and this is further delaying possible action higher up the waste hierarchy on reduction, reuse and repair.[8]

Our experience suggests that one of the barriers holding the government back is uncertainty about how these policies would affect the UK economy. In this report we assess the evidence on the economic impacts and identify where further research is needed. Finally, we propose the low risk circular policy solutions that would deliver immediate economic and environmental win-wins.

1.
What would a circular UK economy look like?

Most models that look at the overall impact of circular practices or resource efficiency on the economy show they will lead to net growth in gross domestic product (GDP) as well as job creation. But these studies have limitations, including access to adequate data. The OECD's critique of them states: "productivity improvements emerge from nowhere and diffuse throughout the economy at no apparent cost."[9]

We set out to review the evidence on macroeconomic impacts, to unpick the assumptions behind the models and dig out the economic changes suggested, which lead to the headline figures. We reviewed all 28 studies that model the economic impact of a circular economy, and spoke to the academics and experts involved, to assess the strength of current evidence. For a full discussion, see the supporting evidence published alongside this report at bit.ly/3QNWFEP

> “Studies have not captured the full potential economic impact of going circular.”

The impact on GDP growth and jobs

Globally, while the impact of resource efficiency scenarios on GDP is small, mostly it is positive, with a median increase in GDP of three per cent by 2050.[10] This is driven by three factors: technological change, increased investment and higher consumer spending. In all the models reviewed, technological change that improves resource efficiency happens at no cost, thereby reducing the overall cost of production. Cheaper products mean more money is available for businesses to invest and for consumers to spend, generating GDP growth. But this means people buy more items as they become cheaper, creating a ‘rebound effect’ where material use also increases, which runs counter to the aims of a circular economy.

Some scenarios seek to reduce the rebound effect through policies that promote less material intensive sectors, such as services. This includes deploying material taxes, though these could reduce the environmental and economic gains unless carefully designed.[11]

Most studies find that impacts on employment are net positive – with a median increase of 4.1 per cent in 2050 – reflecting a shift in employment from material extraction and primary manufacturing to the more labour intensive activities of remanufacturing, repair and recycling.[12] This normally assumes current labour intensities, but technology could change this. Increased automation of sorting, processing and remanufacturing could lead to fewer, but probably more skilled, jobs, with higher productivity than current labour intensity estimates predict.

Gaps in knowledge

Most studies we reviewed are not yet modelling a circular economy as we define it, where raw material consumption decreases.[13] More ambitious scenarios are needed that bring consumption in line with UN recommendations, which suggests the UK needs to halve the amount of raw material consumed per person.[14]

Several other gaps in understanding or limitations in modelling, outlined below, mean studies have not captured the full potential economic impact of going circular.

> “Existing models suffer from a severe lack of data on material flows.”

Inadequate information

Existing models suffer from a severe lack of data on material flows as well as on the economic impacts of circular activities. Better data collection and available information would enable more accurate analysis of the economic and environmental impacts, as well as provide a stronger basis on which to project future impacts.

Underestimation of economic benefits

Currently, the only studies that quantify productivity gains are based on multiplying up current productivity levels in the waste sector. They are not able to capture economy-wide interactions. The economy-wide models are also not designed to model long term structural changes or positive feedback loops. This is the missing link between labour and resources and GDP growth. For instance, potential positive feedbacks from better technology, and therefore productivity, when innovations reach economies of scale, should be accounted for. It is likely the economic benefits of the circular economy transition are underestimated and the costs are overstated.[15] More dynamic economic modelling is needed.

Inability to account for economic shocks

A circular economy would improve economic security and supply chain resilience, by reducing reliance on raw material imports, but this protection against future economic shocks is not captured by existing models.

Lessons for the UK

Only one macroeconomic study has been conducted for the UK, showing that a combination of resource productivity policies would increase GDP by almost one per cent by 2035, ie nearly £25 billion.[16] Given the similarities between the structure of the UK and other European economies, useful lessons for the UK may also be drawn from Europe-wide analyses.

Countries like the UK, which are net resource importers, stand to gain from onshoring circular activities, such as remanufacturing, repair and recycling. Once investments are made in building the infrastructure for a circular economy, this would lead to a reduction in the need

for imported goods, boosting economic security and resilience, as well as GDP growth and job creation from the development of new industries.

One European study suggests this reduction in imports would create a trade surplus benefit of one to two per cent of GDP by 2030.[17] If the UK moves early in the transition, developing clusters of knowledge and supply chains, it could benefit from potential export opportunities.[18] However, the UK cannot onshore all circular economy activity nor rely solely on the materials already circulating in the economy, and there will be a balance to strike between onshoring and the global trade in materials and products.

There is no single version of the circular economy. As with net zero, the shape of the transition would depend on government priorities and how policy and incentives are designed to achieve those outcomes. There will be some sectors and business models with huge potential for job creation and upskilling in labour intensive activities, such as repair and remanufacturing. Some will also provide community and social benefits by boosting local high streets.[19] And there are also sectors and business models where technological innovation and digitalisation, through artificial intelligence (AI), blockchain and big data, could reduce the labour and resource intensity of activities and increase economic productivity.[20]

Taken together, these findings suggest the UK economy, like the rest of Europe, is particularly well placed to benefit economically from bringing resource use in line with planetary limits, in terms of GDP growth, resilience and the reduction of imports. More work is needed to test these assumptions together in a dynamic economic model of the circular economy. But immediately, improving resource efficiency in industry offers a clear win for both GDP growth and reduced environmental impacts, including climate change.

“But immediately, improving resource efficiency in industry offers a clear win for both GDP growth and reduced environmental impacts.”

Policy recommendations for a UK circular economy

To capture the economic benefits, policy design is key. The government needs to create an attractive environment to investment in the circular economy and its new business models. Three policies are needed to achieve it:

> “The UK tax system is geared towards a high carbon, linear economy.”

1. Improve access to data on material flows and circular activities

Increasing resource efficiency requires much better data on material and product stocks and flows. This has been recognised by the government since 2018, when the resources and waste strategy stated, “if you can’t measure it, you can’t manage it – and this lack of basic data prevents us from reaping the benefits of resource efficiency”.[21] Better published data on material flows and circular activities would improve understanding of current economic impacts and enable more accurate modelling of a future circular economy. As a first step, the proposed National Materials Datahub pilot should be accelerated, with a commitment to create a fully functioning database for at least two sectors within five years.

2. Use the tax system strategically

The UK tax system is geared towards a high carbon, linear economy.[22] For example, there are tax reliefs for fossil fuel consumption and building new homes, but not for retrofitting old buildings or repairing electrical goods. The system is increasingly out of date and hindering the transition to a greener economy. There are also risks for revenue collection, as receipts for taxes such as fuel duty decline. The time is ripe to address these issues via a comprehensive review, including looking at material taxes.[23] In the UK we already have several taxes of this nature, including the plastic packaging tax, aggregates tax and the landfill tax. Our research has shown the public are open to material taxes, with 48 per cent saying they support them and 24 per cent opposed.[24] These changes should be considered as part of a review of the whole tax system, conducted by a cross party independent commission, to ensure that perversities, ie taxing beneficial activity and rewarding negative outcomes, are not created by making changes in isolation and that distributional impacts are properly considered.

> “This transition needs to be driven by clear long term policy ambition.”

3. Set a target for reduced resource use

While evidence suggests there are immediate wins to be gained from supporting resource efficiency measures, the longer term impact of a transition to a circular economy that reduces resource use needs further research. But, as technology improves and economies of scale are reached, the economic benefits will increase. This transition, therefore, needs to be driven by clear long term policy ambition. Given the UK is currently using twice the level of raw materials the UN considers sustainable, we have previously set out the case that this target should be in the region of halving the material footprint per person in England by 2050 (the devolved administrations have already taken steps to set such targets).[25] This target should allow for flexibility across sectors, materials and geographies, and be supported by plans for specific sectors and materials that ensure an equitable transition. As with the UK’s world leading net zero target, this target should have legally binding interim goals that chart the path towards meeting it.[26] This would give investors and businesses the certainty they need around the future economic trajectory of the UK and counter the rebound effect by ensuring consumption shifts towards those sectors which minimise material use. Policy could then be developed to ensure the target is met.

2
The economics of circular business

The transition to a more circular economy will affect different sectors in different ways. Some will need to invest in new machinery and systems and some will need to switch to new approaches and upskill their workers. For example, businesses that produce a high volume of disposable goods with short lifetimes could see demand decrease or costs increase unless they invest to adapt their processes. New business models could still be lucrative for them, as in the case of reusable packaging pilots where only minimal changes to existing production methods and infrastructure are needed, because some disposable containers are already durable enough for reuse.[27]

In other sectors, there are opportunities to increase labour productivity, eg in construction, circular methods such as offsite manufacturing could deliver projects 20-60 per cent faster than traditional onsite methods.[28] While this could lead to job losses in bricklaying, some could be replaced by the new jobs required in retrofitting, up to 230,000 of which could be in the UK. [29,30]

What are circular businesses models?

In a circular business, materials and products are kept at their highest value for as long as possible by designing for longevity; creating systems for reuse or sharing; building 'reverse supply chains' that collect goods for reprocessing, resale and redistribution; and changing ownership models so businesses keep control of a product and have the incentive to maintain its value through repair.

Typical circular business models

Leasing or rental	Providing a service where products can be rented from a central platform, with the customer paying per use or for a set time. Having multiple users per item extends product lifetimes.
Product service systems	Retaining ownership of and responsibility for goods, with maintenance then provided as a service to users. This encourages reuse and resource efficiency.
Sharing	Asset ownership is retained by the company. Products are used in a public domain by multiple users. Unlike leasing, there is limited business interaction (eg cleaning, redistributing) between uses.
Reusable products	Selling items that can be used multiple times, especially where single use is the norm. With some products (eg packaging), companies might also run a reverse supply chain, collecting, cleaning and redistributing the items.
Resale	Collecting, cleaning and reselling products in their current form, sometimes undertaking light repairs. Businesses can also provide platforms through which people resell their own goods.
Repair	Carrying out significant repairs or upgrades to products and charging for the service. Repaired items sometimes have new warranties, on a par with new items.

> “Small companies and larger retailers are beginning to adopt more circular practices.”

The lines between different types of circular business model can be blurred, and many combine multiple functions into one business, such as repair and resale. Circular models are the minority in today’s economy, but small companies and larger retailers are beginning to adopt more circular practices. For instance, John Lewis offers a furniture rental service, IKEA offers buyback and resell schemes, and tech manufacturers are beginning to share information about how customers can repair their own electronics.[31]

Benefits for business and workers

The economics of the circular transition will play out differently in each sector, with job losses in some areas and gains in others. We spoke to ten circular businesses as part of research for the Circular Economy Taskforce. They highlighted the economic benefits that are possible at the business level:

Profit

Circular business can be profitable on multiple counts, but often has higher upfront costs and longer payback periods compared to linear business models. As a result, many circular businesses struggle with a lack of investment and initial scale up, even though their profitability often matches or exceeds that of mainstream businesses once they are underway.[32]

Once businesses establish market niches, circularity more clearly becomes profitable. For leasing, rental, product service systems and sharing models, having multiple customers per item extends the window for profit. Children’s clothing rental company The Little Loop, for instance, earns 120 to 260 per cent of the recommended retail price for each garment it rents.[33] In resale and repair models, there is a significant increase in product values, as what would have been waste is transformed into useable products. Electronics repair company Techbuyer saw turnover of 24 per cent in 2022, compared to the industry average of one to two per cent.[34]

> “Circular practices that reduce volatility and material costs would allow businesses to offer greater price stability.”

High quality jobs

The transition to a circular economy would create net jobs in countries like the UK and can increase opportunities for skilled workers, for example in repair, remanufacturing and digitalisation. Product service system models often create highly skilled, digital jobs in business analysis, as centralised teams monitor and refine the services and assets leased out.[35] Across sectors, jobs can be created in reverse supply chains and circular procurement. This could include roles in circular logistics, cleaning and redistributing reusable products, leasing or collecting and decommissioning for resale and repair.[36]

Supply chain resilience

The national resilience and trade balance benefits of circularity seen at national level are replicated at the company level. Materials are a major business outlay and are subject to geopolitical threats and inflation. The construction industry had £23 billion of extra input costs in 2022, largely driven by the war in Ukraine and inflation.[37] The war also affected Russian trade in metals such as the aluminium and nickel needed for electric vehicle batteries and solar panels.[38] Geopolitical risks from critical mineral extraction and processing adds to continuing damage to communities and ecosystems along their supply chains.[39] Although of particular concern for critical minerals, circular practices that reduce volatility and material costs generally would allow businesses to offer greater price stability to their customers and save money themselves.[40]

Reputation for green supply chains

Consumers are increasingly interested in sustainability, which is reflected in consumption habits such as buying second hand and boycotting brands that greenwash.[41] For businesses aiming to reduce pollution, land clearance and human rights abuses in their supply chains, circular practices are a clear solution. Such practices help to meet due diligence requirements, introduced by the EU in 2023, and reporting requirements on emissions from supply chains (called scope 3). This reporting puts businesses under increased pressure to monitor and reduce the environmental impact of their entire business model.[42,43]

Policy recommendations for circular business

While many businesses are already demonstrating the potential to profit from circular models, there are barriers to wider adoption and scale up, including the structure of the tax system and the need for financial support to help businesses change. The government should create an attractive investment environment in the following ways:

> “As most people who will be working in 2050 are already in the workforce, it will be vital to create reskilling opportunities.”

1. Kickstart circular business with a dedicated fund

The government provides only limited support to grow a more efficient circular economy, with funding overwhelmingly focused on treating waste instead.[44] A dedicated £800 million fund to redress the balance would help support and kickstart circular businesses.[45] This should include helping those businesses that face high upfront costs as they start up or transition, as well as those creating infrastructure for circular logistics and reverse supply chains to support national markets.

Having a fund of this size would begin a partnership between the public and private sector, to increase circularity through innovative business models. To ensure value for taxpayers’ money, this should be supported by strong regulation, for example setting clear targets for resource use reduction. In time, supporting the circular economy and new business models should be brought into the remit of the UK Infrastructure Bank for long term support.

2. Support workers with the skills to transition

The circular economy is part of the move to a broader green economy and will require training in new skills and a just transition for workers.[46] As extraction declines, and remanufacturing, repair and recycling increase, there will be new, highly skilled job opportunities. These include jobs in repairing and remanufacturing electronics, or using software to improve the design of buildings so they use less raw materials. A generation of new jobseekers will need to gain these skills but, as most of the people who will be working in 2050 are already in the workforce, it will be vital to create reskilling opportunities too. However, awareness of green career options and the skills required is low. The

government should improve information for new jobseekers, for example by creating green, circular skills modules in relevant qualifications in schools and colleges, as well as increasing opportunities for retraining existing workers. For example, the government should offer businesses a super-deduction (a tax reduction in return for investment) for providing green jobs and circular skills training.[47]

“The government should offer businesses a super-deduction for providing green jobs and circular skills training.”

3
Consumers and the circular economy

If circular businesses are to scale up and grow, their customer base will also have to expand. Modern consumer expectations are based on speed and convenience, relying on cheap, often poor quality goods designed for a single use or a short lifetime. But there is a steadily growing base of customers who want to make more sustainable choices. In a survey of public attitudes, 61 per cent say they were likely to switch to a brand that is more environmentally friendly. But data on buying habits suggest people struggle to move from intention to action with less than one per cent of UK consumption classed as ethical spending in 2019.[48]

The dominance and continued marketing of linear businesses makes it difficult for consumers to diverge from the norm, as the burden is placed on the individual to make a more sustainable choice. Customer interaction with businesses would change significantly in a more circular economy, with these different business models meeting consumer needs.

Resale

Nine out of ten consumers are willing to shop second hand in principle and 40 per cent of people surveyed in 2022 had bought second hand or refurbished goods in the previous 12 months.[49,50]

Repair

53 per cent of people surveyed in 2022 had repaired an item rather than replaced it in the previous 12 months.[51]

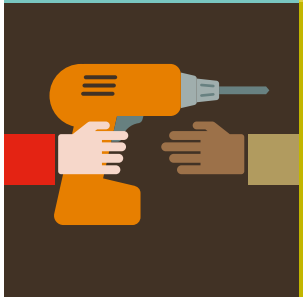
Renting

On renting furniture, fashion and electronics, 52 per cent, 49 per cent and 41 per cent respectively said that they, "never do this, and I have no interest in doing this".[52] This suggests renting is not yet a popular idea.

Reusable products

Seventy two per cent of consumers are interested in buying items that are more durable and long lasting.[53]

Consumer intentions around single use plastic is clear, with 64 per cent limiting their consumption of single use plastic in 2022.[54]



Sharing

Sixty per cent of people would support widespread community product sharing facilities.[55]

Younger generations are moving away from the idea of ownership, particularly for cars.[56]

Circular saves consumers money

For consumers to change their buying habits, circular businesses must be able to offer products and services that are high quality, easy to use and affordable. Buying reused or remanufactured products can save consumers significant amounts of money compared to buying new. Economic modelling shows that introducing policies that support circular activities reduces consumer prices overall.[57] Many are already turning towards circular options in the wake of the cost of living crisis, with nine out of ten people saying they are willing to shop second hand due to concerns about cost and the environment.[58]

However, the benefits of circular products are not always straightforward. For instance, some repairs are more costly than others, meaning they are undercut by cheap goods available on the market, and consumers also have priorities beyond price that affect their purchasing habits. We conducted new analysis on the potential for the resale, repair and renting of mobile phones, household appliances and clothing to save consumers money in the current market, with the following conclusions:

Resale

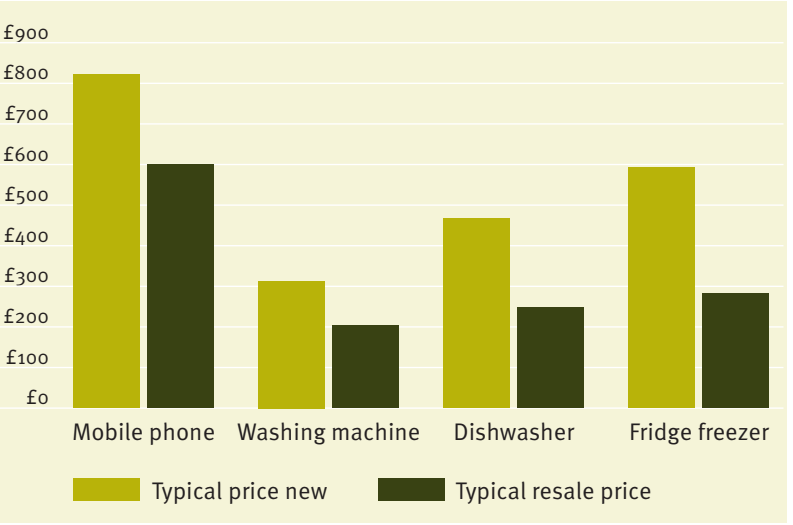
Buying second hand goods is an obvious way to save money and is rising in popularity due to inflationary pressure on consumer bills and spending. In fashion, the resale market grew by 149 per cent between 2016 and 2022, with apps, such as Depop and Vinted, enabling people to sell used goods and major brands such as Selfridges setting up their own resale facility in-house.[59] Resale is also increasingly attractive for electronics, with more options coming to market for professionally refurbished mobile phones through companies offering warranties, such as Back Market.

How much consumers pay for resold items depends on the original brand and quality, with higher quality, sought after brands reselling for higher prices. However, our analysis of clothing resold across Depop, Vinted and Reselfridges shows customers can save up to 60 per cent for dresses, 79 per cent for tops and 90 per cent for trousers, compared to buying new, regardless of the original price. For mobile

phones, customers looking for the latest iPhone, Samsung Galaxy or Google Pixel models could save an average of 28 per cent by buying a resold phone instead of a new one. For example, a Google Pixel 7 Pro costs £849 new, but second hand versions range from £566 to £575 on Back Market, offering a saving of close to £300.[60]

These are significant savings. £300 is well over the average household monthly budget for food and non-alcoholic drinks, or almost two weeks' rent for an average room in the UK.[61] However, consumers have concerns about the quality of resold items, with 64 per cent saying they are put off by this worry.[62] Some companies, such as IKEA's Circular Hub, Depop, Vinted and Back Market, are starting to tackle this by introducing buyer protection, verification tools for expensive branded items and providing warranties for resold and repaired items. The government should help to increase buyers' confidence in these new markets by creating stronger consumer protections and mandatory warranties for resold goods.

Resale offers consumers substantial savings



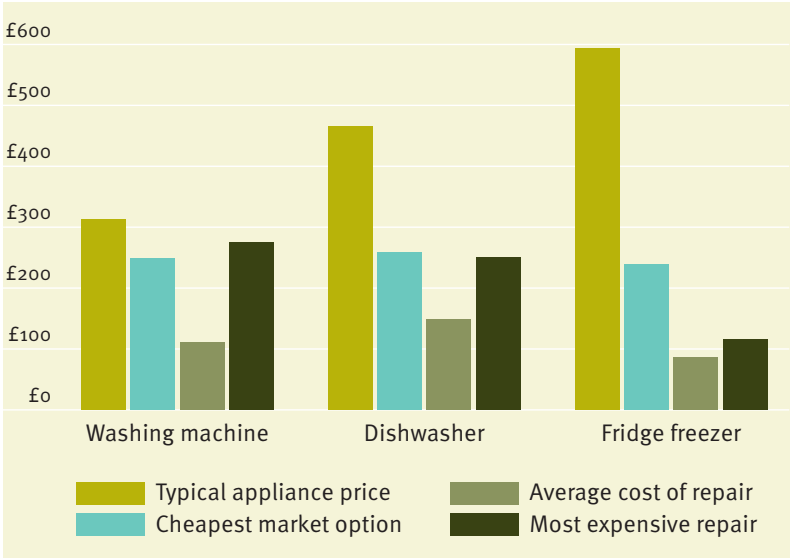
> “A replacement motor costs £230 for an average washing machine, whereas the cheapest model on the market costs £249.”

Repair

Repair should be an obvious way for people to save money and help the environment, by avoiding throwing away products that could easily be fixed. Our analysis suggests this is already true for mobile phones, with common repairs such as screen or battery replacement carried out by official repairers saving 68 to 87 per cent of the cost of buying a new phone for the latest iPhone, Samsung Galaxy and Google Pixel models.

However, our analysis of the repair market for household appliances and clothing shows that repair, in these sectors, can cost the same as buying a new product at the cheaper end of the range or, in some cases, more. For clothes, repairing holes, buttons, zips and pockets could save consumers up to 61 per cent of the cost of an equivalent new garment, but the availability of cheap fast fashion items risks undercutting the incentive to repair. For household appliances, the Office for National Statistics estimates the average cost of a washing machine repair is £63. However, more complicated repairs cost much more. Fitting a replacement motor costs £230 for an average washing machine, whereas the cheapest model on the market costs £249.[63]

Repair can be more expensive than buying a new household appliance



> “The government could support people in trying to do the right thing by making repair cheaper and more accessible.”

How long a product lasts is also a major consideration. Consumer research suggests people expect new washing machines to last nearly seven years, but they actually last slightly less time than this.[64] More expensive, high quality models claim to last 20 years.[65] There is no public data on how long different repairs should be able to extend the lifetime of a washing machine. Therefore, even for the cheaper repairs, consumers may opt for new products under the impression that they will last longer than a repaired machine and be more cost effective in the long run. In the current system, households on tight budgets are being forced into a cycle of regularly replacing cheap machines, rather than repairing existing machines to keep them in use for longer.

Cost is not the only concern. Convenience is a priority for most people and repair takes time and is an effort to organise. [66] The government could support people in trying to do the right thing by making repair cheaper and more accessible through legislation that ensures that access to affordable spare parts, repair services and information are all improved through a full right to repair.[67] This would support a growing consumer base interested in repair, often benefiting from emotional as well as financial rewards, as demonstrated by the popular BBC TV show The Repair Shop.[68]

Renting

Renting products makes more efficient use of each item, reducing the need for new products, and therefore significantly reducing impact on the environment. Renting products rather than owning them also reduces the upfront cost to consumers to access new technologies or expensive items. For example, rather than buying an electric vehicle, customers can access them through renting a car or joining a car club. For fashion, rather than splashing out on a designer dress that will only be worn a few times, customers can now rent it for a week at a fraction of the cost.

The rental model is becoming increasingly common for clothing, with one in four people in London saying they would like to rent clothes.[69] The economics works best for high quality, durable items that will only be worn for a relatively short period of time. Our analysis of dresses for

rent from ByRotation and HurrCollective shows savings of 78 per cent on average through renting instead of buying. For example, customers can rent a £90 dress for three days for £12.[70] The model also works well for high quality children's clothing, as children often grow out of items before they wear them out. Parents can access high quality children's clothing by renting from companies like The Little Loop or Bundlee for four to 30 per cent of the cost of buying them outright.[71]

> "Younger generations are already less interested in the idea of ownership."

Rental models require a change in mindset with a shift away from ownership culture. Younger generations are already less interested in the idea of ownership, particularly of cars, than previous generations.[72] However, people are concerned about being tied into rental contracts and penalised for not returning products in pristine condition. For example, 76 per cent of respondents interviewed for a previous Green Alliance report were worried about damaging shared appliances.[73] To support this shift and build consumer confidence and trust there is a need for strong legal consumer protections and greater clarity about who is responsible for a product at each stage of the rental process.

For more details of our analysis, see bit.ly/3QNWFEP

Policy recommendations for consumers in a circular economy

Strong consumer rights and protections would help to build confidence and trust in circular products and services, supporting people to make more sustainable choices that also cut costs. The government can support buyers by speeding up the introduction of long lasting, repairable goods and strengthening consumer protections in law with the following policies:

> “People strongly support improvements to design standards to improve repairability.”

1. Set design standards for efficient, long lasting, repairable products

Setting product standards ensures high quality products are available and save consumers money. The existing UK and EU ecodesign and energy labelling regulations saved the average UK household £100 on their energy bills in 2020.[74] The same regulations protected consumers from energy price spikes due to the war in Ukraine, saving the average EU consumer €1,000 in 2022.[75]

The latest round of ecodesign standards in the UK, matching EU standards adopted during the Brexit transition, have started to address repairability and resource efficiency, but they only apply to a few types of household appliances. Since the EU has adopted new resource efficiency standards for phones and tablets, but it is unclear if the UK will follow suit. The government should deliver on its promise to match or exceed what the EU does on ecodesign, as well as setting out plans to take advantage of its new wide ranging powers through the 2021 Environment Act. These powers mean it can now set standards for a greater range of products, and it should start with high impact sectors like textiles, furniture and construction products.[76]

2. Embed the right to repair

A genuine right to repair would tackle cost and access to information barriers that limit consumers’ ability to repair goods. People strongly support improvements to design standards to improve repairability.[77]

The latest UK ecodesign standards for energy related products are a start, but they fall short, requiring

manufacturers to make spare parts and repair information available for only a small subset of appliances, often only to professional repairers not the public. And they do not address the VAT discrepancies that make repair expensive.[78] The rules should be extended to cover products like phones and tablets (as in the EU), and the government should reduce cost barriers by removing VAT on spare parts and repairs.[79,80]

> “Extended warranties would give consumers certainty and encourage manufacturers to design better, more durable products”

3. Introduce mandatory extended warranties for electrical items

Extended warranties provide longer protection for products than a standard warranty, covering repair and replacement for three to five years, rather than the typical one to two years.[81] This would give consumers certainty and encourage manufacturers to design better, more durable products that are easily repaired.

Currently, extended warranties are only offered voluntarily. They vary by manufacturer and usually cost extra. Greater transparency and standardisation would help combat consumer concerns around reliability and safety.[82] The government committed to exploring mandatory extended warranties, in conjunction with consumer rights law and ecodesign standards, in its 2018 resources and waste strategy, but it has done nothing so far.[83] This review needs to take place as a priority and should include consideration of warranties for previously repaired and remanufactured goods.

4. Provide clarity in contracts

In 2022, consumer protections were strengthened, requiring businesses offering subscription services to give consumers more information before they enter into contracts, remind them before free trials come to an end and improve the process of exiting a contract.[84] However, more should be done, as businesses are not obliged to obtain explicit consent from consumers once free trials end or offer options without automatic renewal. Business models around product sharing, like car clubs, are not always subject to the same standards of quality control, safety and liability, or payment disputes, as other businesses.[85] Consumer rights should be clear and consistent across all business types.

Time to profit from a circular economy

> “The government cannot continue to ignore the opportunities of a circular economy.”

A more circular economy can lead to GDP growth and new jobs, as well as new opportunities for businesses and cost savings for consumers. But achieving it cannot happen without stronger policy support.

Right now, there is a catch-22 situation. Without concrete long term commitments to reducing resource use, there is no signal or framework to develop the policies needed and no incentive for businesses to invest. Conversely, without a framework, the government is unwilling to commit to a long term target.

The government should break this deadlock and stimulate sufficient investment to mainstream the circular economy. As we have shown, this should include indicating the commitment to economy-wide change with a legally binding resource reduction target, using the tax system strategically to achieve the target and doing more, through simple adjustments, to increase consumer confidence in these business models.

Change is needed on many fronts to get the UK’s stagnating economy growing again. With this aim paramount, the government cannot continue to ignore the opportunities of a circular economy.

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