

In the next twenty pages *The Land* takes A COOL LOOK AT RATIONING Introduction

Rationing is back on the agenda. It often is in times of scarcity. The 2020 COVID lockdown and the sudden surge in the price of gas in 2021 were already threatening to cause shortages of fertiliser, food, and energy well before the war in Ukraine turned a crisis into an emergency. As early as March 2020 respected academics were calling upon the Government to implement a UK wide “Food Rationing Scheme . . . open, equitable and based on health needs, taking account of age, income, and vulnerability.”¹ In an effort to prevent stockpiling, supermarkets have been rationing goods in short supply ranging from rice and cooking oil to bleach and toilet paper. In July 2022, the EU unveiled a scheme to pool gas supplies among its member countries and ration each country’s quota according to need. Asked just prior to her election as PM whether she would rule out European-style energy rationing, Liz Truss replied curtly: “I do rule that out. Yes.” But it was not long before she was ruled out.

As capitalism lurches from one crisis to the next, and geopolitical tensions rise, the prospect of severe shortages of essential goods is by no means out of the question. Moreover, if (through some miraculous change of heart) our leaders do get it together to phase out fossil fuels at the rate deemed necessary to prevent runaway global warming, there is no guarantee that substitute sources of energy will be sufficient to produce enough goods to satisfy burgeoning consumer demand. Under such circumstances, the alternative to a Hobbesian “condition of war of everyone against everyone”, will be through rationing of one kind or another.

The prospect of rationing gets many people hot under the collar, especially amongst those on the right who view it as a socialist measure to be avoided whenever possible. But in a sense we experience rationing constantly on a daily basis. Economists habitually talk about “rationing by price” or by the market. As one economics website puts it:

“As a general process, rationing is the distribution of a given amount of goods or services among competing users. Price rationing is a method of rationing that allocates the limited quantities of goods and services using markets and prices. Markets ration commodities by limiting the purchase only to those buyers willing and able to pay the price.”²

When commodities become scarce, prices increase and demand drops. Economists find it satisfying the way market forces maintain this balance between supply and demand, and for

some it is almost a religion. But for those who are unable to pay the price, the result is deprivation; and if it is essential goods such as food or fuel they will be deprived of, then society has to intervene with other means of rationing scarce goods, otherwise it will cease to function. In this sense, rationing can be defined as “a regulated allocation of resources among possible users”.¹

There are many ways in which resources can be allocated through regulation. In the first of the three articles that follow, Stan Cox compares some of the most common forms of rationing to have been applied over the last 80 years. He also looks at different proposals for rationing fossil fuel if and when governments become serious over tackling climate change.

This theme is taken further by Shaun Chamberlin who describes a system of tradable energy quotas designed to ensure equitable distribution of scarce resources while safeguarding a certain amount of consumer choice.

Finally, this being *The Land* magazine, we have an article on the various ways of rationing the means of production, namely land, so as to guarantee livelihoods when the market fails, or in some cases simply does not exist. It’s a bit long, but it has some good pictures.

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Alarmist headlines in the *Daily Mirror* of 7 October 2022, as Liz Truss rules out emergency rationing. But these drinkers seem happy with candlelight and hand-pulled beer.

ANY WAY YOU SLICE IT

There are many ways of rationing scarce resources. STAN COX examines their advantages and drawbacks.

For many people, notably politicians, “rationing is a four-letter word”, never to be mentioned except in the context of the Second World War. Economists, on the other hand, employ the term “rationing” to denote any means of apportioning goods and the resources used to make them such as raw materials, energy or labour. “Rationing by price”, or by “willingness to pay”, refers to the apportioning of goods through market forces, ie through changes in the market price of a scarce factor or product. Prices direct resources towards more profitable uses by industry, and once industry has turned out commodities, prices ration the commodities among consumers. That is said to provide maximum benefit to society, because the ways in which people spend their money reflect what they believe will increase their own well being.

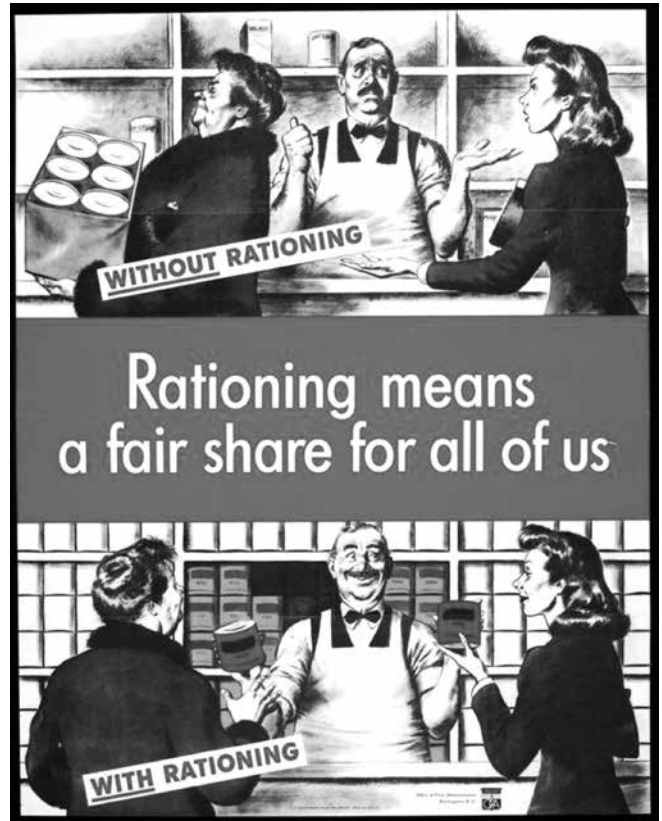
However willingness to pay can only be expressed by those with the ability to pay. If there is a shortage of essential goods, and a portion of the population struggles even to meet minimum requirements, then rationing by price can create intolerable hardships. What happens when society decides collectively that it is not acceptable to have supplies dwindle, allows prices to rise and lets people scramble for what they need? Governments can build a floor under consumption, to secure basic needs at the bottom of the economy, and they often put a ceiling in place as well to conserve resources that would otherwise be consumed in excess by some.

In other words they practice rationing by means other than price. The object of non-price rationing is not only to limit total consumption but also to distribute goods in the way which the market would not distribute them.

Varieties of Rationing

If it becomes clear that non-price rationing is necessary, societies can learn from past experience; wartime provides many of the most discussed examples, but there are others. The more familiar include the following:

- **Rationing by queueing**, as at gas pumps in the US in the 1970s;
- **Rationing by triage**, as in battlefield or emergency medicine, when criteria are used to assess who is the most deserving recipient of scarce medicines or medical attention. Many GP surgeries in Britain have moved from rationing by queueing (turn up and wait your turn, or phone to make an appointment) to rationing by triage (ring up and we will tell you whether you need to come in).
- **Rationing by time**, as when permission to drive is limited to odd or even dates by license plate number;
- **Rationing by lottery**, as with immigration visas, planning permission for homesteads in Alaska, and some clinical trials of scarce drugs;



- **Progressive pricing** is a rationing by price mechanism that ensures a basic supply to everyone while providing a disincentive for overconsumption. California's Pacific Gas and Electricity Company's customers pay a certain amount for the electricity up to a baseline, but pay progressively higher rates the more they exceed the baseline.
- **Rationing by quantity**, as governments did with fuel, shoes and some food products during the Second World War. With rationing by quantity, people or households use coupons, stamps, electronic credits or other parallel currencies that entitle them to a given weight or measure of a specific good over a given time period. However if only a few items are restricted by quantity, people take the extra money they saved and spend it on non-rationed goods, driving up the price. **For instance if meat is rationed consumers may buy more fish.** Demand for these unrationed goods shoots up higher, and stocks are depleted. These goods are then brought into the rationing scheme, thereby extending it to larger and larger numbers of essential goods.
- **Rationing by points.** When individually controlling a wide range of products becomes unfeasible, quantity rationing may be applied by assigning individual items a different number of points as was done in wartime Britain. Unlike straight rationing, quantity rationing by points cannot guarantee everyone access to every item, but it can ensure a fair share of consumption from a range of similar items. Points, like all ration credits, are a currency. Every covered item requires

payment in both cash and points. But points differ from money in that every recipient has the same point income.

Tradable rationing. In some systems there is the option of allowing barter or sale of unused ration credits among consumers and producers. Such markets have been included in recent proposals for fuel rationing and for limiting greenhouse-gas emissions (see p. 51)

Two tier pricing. In many countries a large portion of the supply of food, water, cooking fuel or other essentials is subsidised and rationed by quantity, while the remaining supply is traded on the open market. Such two tier systems have a floor to ensure access to the necessary minimum, but have no ceiling to contain total consumption.

What About Taxes?

In 1952, looking back on America's wartime experience, the economist James Tobin noted that if the nation again faced general scarcity, either income tax or consumption taxes (such as VAT) could be used successfully to bring demand down to match supply, "but probably neither can be as effective an instrument of equalisation of consumption as rationing".

Governments have the power to put their thumbs on the scale though subsidies, taxes, economic assistance and other interventions. However, steering demand indirectly through taxation is not very precise, especially if the goal is to discourage consumption of seemingly abundant resources to reduce ecological footprints. Then there is the political toxicity factor: to many voters and politicians, the only good tax is a repealed tax.

The burden of consumption taxes weighs most heavily on people in lower income brackets. It has been suggested that governments can handle that problem by redistributing proceeds from consumption taxes in the form of cash payments to low income households. But determining the size of those payments is no easier than finding the right tax rate; and means-tested redistribution programmes often come to be seen as "handouts" to undeserving people and are more politically vulnerable than universal programmes or policies.

In 1970, Tobin observed that redistributing enough income to the lower portion of the American economic scale through a "negative income tax" (ie subsidies to low income households such as today's Tax Credit system) would require very high tax rates on higher incomes. This might make it politically impossible, a dilemma faced by the recent succession of Tory governments. The question, Tobin acknowledged, has no easy answer. He wrote:

"The most difficult issues of political economy are those where goals of efficiency, freedom of choice and equality conflict. It is hard enough to propose an intellectually defensible compromise among them, even harder to find a politically viable compromise."

If in addition to efficiency, freedom, and equality, we add a fourth goal — restraint of consumption — then conflicts multiply.



Can Rationing Be Popular?

Although many politicians will do anything rather than invoke the spectre of rationing, the experience of the 1940s suggests that people are receptive to it when it is a response to a crisis. As the United States shifted from the 1930s depression into the Second World War, a large slice of the population remained poor, and the equal-shares aspect of rationing, together with controls on prices and the creation of well-paid wartime jobs, tended to boost the real incomes of working-class Americans.

In August 1942, when only limited numbers of items were being rationed in the United States, a poll found that 70 percent of respondents felt they had not been asked to sacrifice enough. Even with rationing at its height in the 1943-45 period, polls consistently found strong approval, often in the range of two to one.

Support for price controls remained strong after the war, and three postwar polls found that majorities above 70 percent would tolerate continued food rationing in order to help keep Europe fed. When the administration opted for voluntary, market-based strategies, the women of a Consumer Advisory Committee to the government blasted President Truman for not taking tougher action. Their letter stated:

"Voluntary rationing is patently inadequate to meet the present food crisis . . . The housewife wants a guarantee that when she takes pains to change her buying habits and the diet habits of her family to curtail her use of scarce foods, all other housewives are doing likewise."¹

Rationing stirred similar egalitarian feelings in Britain. In 1943 an American economist reported:

"I was frequently told emphatically that the British people are so constituted that they will stand almost any degree of rationing if they are convinced that everyone is being treated equally, but that they decisively reject any arrangement that smacks of discrimination."²

Rationing worked primarily to the benefit of poor families who had previously known hunger. "The Second World War represented a major turning point in the history of the British diet," writes Ina Zweiniger Bargielowska. "The rise in consumption of brown bread, milk and vegetables, coupled with food fortification resulted in a healthier diet and no social group fell short of basic nutritional requirements."³ Life

expectancy in England and Wales increased by 6.7 years during the 1940s, compared with an increase of only 2.2 years in the peaceful 1920s, 1930s and 1950s.⁴ After 1945 the policy formed part of the Labour government's wider commitment to greater social equality. Perhaps most strikingly, the nutritional gulf between rich and poor did not reappear after controls were lifted: the improvements had stuck.⁵

Black Markets

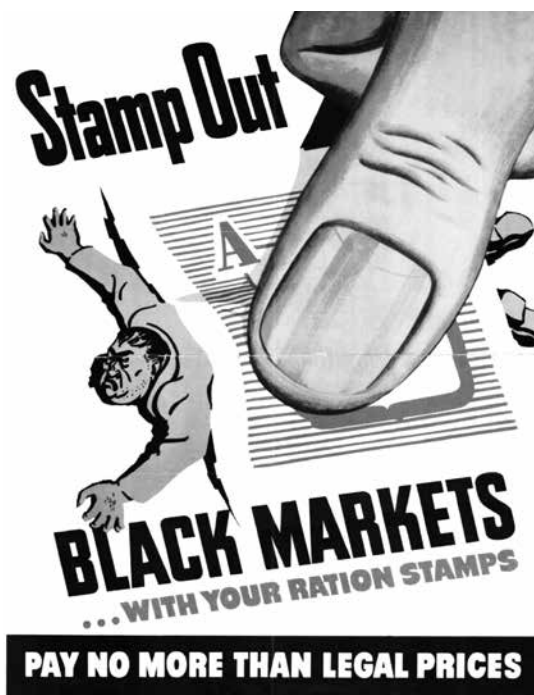
The rationing of goods at controlled prices provides a strong incentive for cheating. For administering wartime ration and price controls, the UK had an enforcement staff of around a thousand. They pursued cases involving pricing violations, license violations, theft of food in transit, selling outside the rations system, forgery of ration documents; and most prominently illicit slaughter of livestock and sale of animal products. Most people at one time or another made unauthorised purchases, but it was only the better off who could afford to buy more costly contraband goods routinely.

Given the frequency with which rationing laws were flouted in Britain during World War II, several commentators predict that any attempt to reintroduce rationing on this scale would be badly handicapped. For instance Mauri Cohen writes

“Black markets are inevitable outcomes of the regulation of consumption . . . On one hand, policing action to completely eradicate these activities will likely be ineffectual in the short term and counterproductive in the long term. On the other hand, excessive tolerance for illegal trading will lead to the erosion of public support for the consumption control regime. There is no easy solution to this dilemma other than agile and adept management.”⁶

No law is ever met with total compliance, but there are many examples of laws and regulations that appear to be accomplishing their goals despite routine violations. Around the world it is common for a large share of motorists to be exceeding speed limits at any one time. Nevertheless speed limits succeed in preventing accidents and fatalities. Tax laws are routinely violated in all countries. The amount of tax that went missing in 2019 in the UK was about £31 billion, and more than half of this is due to fraudulent financial activity and tax evasion. But £31 billion was just 4.7 percent of total tax liabilities.⁷ Here too, even when cheating occurs on a grand scale through tax havens and so on, it does not scuttle the system, and no one argues that we should abandon taxes on that account.

Theory says that the rich are better off in a pure market economy, while those with the lowest incomes are better off in an economy that incorporates rationing. However, the poor benefit even more under rationing when it is accompanied by



some flexibility in satisfying family needs. This is thought to be one of the many reasons that there was such widespread dissatisfaction with the conversion from a controlled economy with illegal markets to an open, legal market economy in the former Soviet Union and Eastern Europe in the 1990s.⁸

Feeding the Hungry

The ecological nightmares that the world's affluent are hoping to avoid are already endured by billions of people. In many countries rationing of water, food and other essential goods has become a matter of survival for a large share of the population. Their day-to-day experience in sharing resources could hold lessons for those of us in the North once we decide to start bringing consumption

in line with what the world can support.

Governments around the world learned long ago about the dangers of exposing their citizens' daily food needs to the whims of global markets. Many countries routinely buy and store staple grains and then ration consumers' access to those stores at subsidised prices. In the years following independence — and with the catastrophic Bengal famine of 1943 still fresh in public memory — India's new government established a universal rationing system for staple foods. Almost all families had to use their ration cards to buy their staple foods, and there were few sources of food other than the so-called Fair Price Shops where public rations were sold.

In the 1970s, state and regional food networks expanded and merged into a national public distribution system (PDS), under which every household with a fixed address could obtain a ration card entitling them to food at a fixed low cost.

But in 1997, with the liberalisation of the Indian economy, the PDS was narrowed to target primarily the low end of the income scale. The exclusive focus of targeting was to keep subsidised ration cards out of the hands of purportedly non-needy households, but in the process it caused far more errors of exclusion. By 2010, one half to three quarters of all families living below the poverty line in the most poverty-stricken states had no subsidised ration card. India is not alone. In virtually every country that has ended universal food rations in favour of targeting, the rate of errors of exclusion has increased.⁹

A further proposal for transforming the PDS is to replace delivery of physical food with a cash payment. Economic theory says that in most cases families will buy the same amount of food, whether the benefit is in kind or in cash. However on-the-ground research consistently shows that when families receive a benefit that provides only for food, they consume more food than they do if they receive a cash payment.

For those who are registered on the scheme, the fair price shops appear to function fairly well, though in some states better than others. A survey conducted in New Delhi, published in 2018 found that the majority of beneficiaries (of whom 54 percent were female and 46 percent male) considered that the shops performed well on most counts. Ninety-eight percent of beneficiaries said they preferred payment in kind to payment in cash; and 68 percent preferred manual ration cards to the newly introduced digital system which was time-consuming or failed to deliver.¹⁰

But exclusion remains a problem. According to one researcher, Narayan, 42 percent of Indians are not covered by the PDS scheme and at least 100 million eligible persons are estimated to be out of its ambit. After a bumper harvest in 2021, food grain reserves were at an all-time peak of 110 million tonnes, and yet “only those with existing ration cards have benefitted”. She concluded that “with a historic record of food grains stocks currently in government granaries, the time is ripe for the universal expansion of the PDS.”¹¹

Rationing Carbon

What happens when there is not a current or even imminent shortage, but demand must be curbed for environmental or other reasons? Carbon is different from commodities that have been rationed in the past. During World War II, there simply was not enough petrol to go around, so people were not permitted to buy as much as they could afford to buy. Today, even after everyone’s demand for fuel is satisfied, there is plenty left over.

It’s far harder to institute rationing in a world of such abundance than it is in a world of obvious scarcity. The experience of the 1940s suggests that people are much more receptive to rationing when it is a response to a crisis. According to Amy Bentley, the US government wanted to avoid “offensive rationing” which she defined as “widespread and conservative control of the nation’s food supply over a long period”. The approach they took instead, “defensive



A queue outside a fair price shop in Raipur, central India . . .

rationing”, meant imposing controls only when they were unavoidable. So will carbon rationing have to wait until the visible impact of fossil fuels on the climate makes controls unavoidable? If so it may be too late.

Moreover, rationing of household consumption does not work as a primary means of limiting total resource use; to take a commonplace analogy, it is a lot easier to turn off a bathroom shower at the tap than to try plug up every hole in the shower head. Rationing household consumption is a measure that becomes necessary once the use of resources “upstream” in production is limited. If governments begin treating fossil fuels as if they are scarce as part of an effort to curb ecological disruption, then rationing by price could create intolerable hardship for many.

To address these difficulties, James Hansen has proposed a “tax and 100 percent dividend”, arguing that “a tax on coal, oil, and gas is simple. It can be collected easily and reliably at the first point of sale” and the proceeds can be shared out equally among the members of the public. “The dividend would put money in the hands of the public, allowing them to purchase vehicles and other products that reduce their carbon footprint and thus their taxes.

Some think Hansen is overselling the carbon tax. The Lean Economy Connection argue that “if taxation were high enough to influence the behaviour of the better-off it would price the poor out of the market.” Some carbon tax proposals have recommended directing the bulk of the dividend toward lower income households, in the form of home-insulation or other energy conservation measures. Means testing the dividend, however, would probably undermine the popularity of the tax.

Personal Carbon Trading

Perhaps not surprisingly, given its status as world champion in per capita carbon emissions over the course of the industrial age, and its wartime experience, the United Kingdom has been an incubator for proposals to address greenhouse gas emissions through national rationing systems. The idea has even been debated on the floor of Parliament.



. . . and a queue outside a food bank in Newcastle.

The first personal carbon rationing scheme was proposed in 1991 by Mayer Hillman and has been articulated more recently as a proposal for “personal carbon allowances” (PCA). In 1996 David Fleming developed a plan for “tradable energy quotas” (TEQ). Both systems establish markets in emissions allowances that give each individual the same right to emit an annual quantity of carbon, and the right to buy and sell some or all of this allowance if they plan to use more or less energy. However the PCA system covers only personal consumption, whereas TEQs tie consumers, retailers, wholesalers, producers and brokers into a single energy-trading system (see next article).



Pots give way to panels. Will the transition be fast enough to avoid energy scarcity?

Leading proposals for carbon rationing have always assumed a right to trade because it emphasises a “conservation principle” to complement the “polluter pays principle”; and because it seems less like rationing and more palatable to governments and the public.¹² But there is concern that trading provides licenses to pollute for those who can afford it, and will turn carbon into a commodity. The British economist, Nick Eyre fears that, given the everyday economy in which people live, “a preference for ‘cash now pay later’ is very likely, which could plausibly lead to unfair practices by financial intermediaries or even ‘doorstep buying’ of carbon permits.”¹³ Speculation in carbon and carbon-derivatives markets could put the cost of extra rations beyond the reach of many. That wouldn’t matter to those who managed to keep their energy consumption below their allowance, but low income people reliant on a car for commuting or living in poorly insulated housing might suffer.

Fairness could be served and total emissions further reduced if excess carbon rations could only be sold to the government, who would take them out of circulation. This kind of buy back would reward conservation, ratchet down the national consumption cap over time and keep the price of carbon credits stable. The government could offset the expense of buying credits by levying higher taxes on the rich, who would not be able to buy their way out of consumption limits.^{14 15}

Anti-Growth Coalition

When there is a “siege motive” for rationing it tends to meet with broad public acceptance, provided it follows firm “fair shares” principles. But if rationing were to be deployed preemptively to address climate change it would meet stiffer challenges. There would be powerful, relentless economic pressure to issue more credits, and make more fossil fuel available, just as Europe has seen pressure to raise the cap on its carbon-trading scheme.

Economists, politicians and executives fear what would happen if demand for goods were intentionally suppressed in a 21st century capitalist economy. Businesses would produce less, with permanent stagnation and chronic unemployment the probable result. Ecologists and visionaries campaign for alternative “steady state” or “degrowth” economies that contract in a fair and orderly way, out of respect for ecological limits and basic human needs — but such schemes remain on the drawing board.

Yet stagnation and unemployment, booms and busts already plague economies worldwide, as a result of the inherent tendency to overproduce. Whether governments and economies continue with business as usual, or are turned inside out by ecological revolution, either way they could find themselves dealing with inflation, shortages of basic necessities, or other threats. In either case, rationing may become unavoidable. If it does, the way it happens — justly or harshly — will depend very much on whether we have managed to build a just society.

This article is drawn from *Any Way You Slice It*, by Stan Cox, The New Press, 2013; it has been updated with some additional material. Stan Cox is a plant breeder at the Land Institute in Salina, Kansas.

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