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Innovative financing mechanisms for levelling up social outcomes

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Executive summary

Budgetary pressures and uncertainty feature prominently in policy discussions. Although there has been a surge of interest in demonstrating the 'value' of public expenditure, there is a gap between the goal of pricing and paying for improved social outcomes and how it works in practice.

Tackling today's challenges requires multiple dimensions of value to be recognised across places and at various levels of governance. The UK government's levelling up agenda is a case in point. It introduced an interlinked six capitals framework, guided by 12 missions to address entrenched regional inequalities.

In this exploratory report, we focus on two specific advances in pricing practices in health and climate policy, with the purpose of articulating features of these new pricing mechanisms which may have the potential to improve our thinking around creating value and better social outcomes within available financial resources. The recommendations are intended to contribute to thinking around the UK government's levelling up agenda, but the insights will have broader relevance for global policy makers interested in increasing value within a constrained budget.

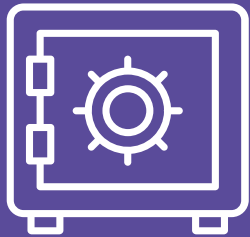
The two specific advances investigated are:

- In healthcare, pre-defined standards for the rigorous assessment of evidence have evolved in pursuit of aligning the price of medicines to the value they offer to an expansive group of stakeholders. When evidence is not readily available, healthcare payers have engaged in a variety of risk-sharing arrangements with providers to mitigate uncertainty and to consider the long-term value of health outcomes, instead of delaying patient access to medical advances.
- Carbon pricing instruments create and harness market incentives to finance actions to mitigate climate change. Reflecting the scale of investment required to achieve the Paris Agreement, there is a growing range of financing mechanisms that unlock alternative sources of funding.

Policy implications

By adapting frameworks that have been evidenced to work in other policy areas, governments can accelerate the pathways to improving public service provision within set budgets. Through exploring some of the innovative practices in health and climate policy, we have identified some key transferrable lessons for financing social outcomes that are especially relevant to the current financial and economic circumstances.

Key lessons:



1. Risk mitigation amid uncertainty: rather than allowing uncertainty to hinder funding and investment into social issues, governments can incorporate a range of risk-sharing features to price and pay for outcomes.



2. Pricing and payment based on long-term value: paying for long-term value and cost containment are not mutually exclusive. Flexible payment mechanisms that adapt when and how much to pay for an outcome can bring broader, longer-term value into policy consideration.



3. Financial mechanisms to support a shared goal: addressing complex issues with multiple causes may not align with clearly delineated departmental budget responsibilities. Pooling funds from various sources can advance a shared goal. Such mechanisms can be created through multi-level or cross-departmental initiatives that leverage new or existing sources of funds.



4. Alternative sources of funding: by aligning policy and regulatory gaps with local priorities, novel financing mechanisms such as crowdfunding and the creation of a marketplace for social impact have already been implemented in some local jurisdictions.



I Introduction

As many nations learn to live with COVID-19, intensified budgetary pressures and uncertainty continue to influence policy discussions today. In parallel, many existing inequalities were exacerbated and brought to the fore by the pandemic, ranging from health to economic outcomes across regions, and their complexities left little doubt that financial constraints would remain considerable in the years to come. But the situation became even worse with the start of a war in Ukraine, which pushed uncertainty levels furtherⁱⁱ up along with inflation and cost of living.

The extended rise in prices convinced central banks to pursue a tightening policy, a double-edged sword for the current circumstances that could send the world into another recession. Such an environment presents considerable risks to development initiatives across the globe. For instance, the UK government has charted a course to 'level up' left-behind regions of the country within these stormy seas. Challenging this ambition will be its aim to restore fiscal discipline during a period of higher debt servicing costs. Therefore, a focus on maximising value for moneyⁱⁱⁱ in the process is key.

The increased focus on outcomes beyond outputs precedes the pandemic, but amid heightened levels of uncertainty and budget constraints,^{iv} outcomes-based contracts (OBCs) are seen by some as a viable option for commissioning public services.¹ However, these novel forms of commissioning have given rise to new challenges for policymakers grappling with the task of delivering best value with limited resources.

Pricing social outcomes has been notoriously difficult. In theory, the price of an outcome should strike a balance between value to the payer and cost to the provider. However, given the inherently subjective nature of 'value', this is easier said than done. Defining value too restrictively will fail to represent the divergent needs of various segments of society, while an overly expansive definition may render the quantification impractical and weaken the link between the provision of specific services and the achieved outcomes.

The UK government has a long-standing history in experimenting with innovative ways to deliver and finance outcomes. Its latest initiative, levelling up framework aligns six capitals (physical, human, intangible, financial, social and institutional capitals) to multiple dimensions of value.² A recent surge of interest in social and public values reflects its intuitive appeal and unequivocal importance. At present, however, the increased focus on values and rise of OBCs has not necessarily translated into specific pathways for the closer alignment of prices to value.

According to a survey of practitioners that we conducted in April 2022, cost considerations are often prioritised over decision-making and pricing practices based on values. In this context, there may be a reluctance to monetise outcomes that are considered to be financially 'invaluable' such as improved trust in the community. Meanwhile, the budgeting and measurement of the broad, longer-term and often indirect effects of programmes can prove challenging.

ii [International Monetary Fund \(IMF\)](#) research suggests that the level of uncertainty spiked during the pandemic, and once it was slowly going down, the war in Ukraine triggered a resurgence.

iii GO Lab and CIPFA have developed a Value for Money (VfM) Toolkit with an aim to aid appraisal for outcome-oriented programmes. [Access the toolkit and guide.](#)

iv The pandemic's pressure on budgets is especially seen in developing countries, where substantial health spending led to cutting other expenses, such as [climate spending](#) and [education](#). Given the soaring inflation and spike in [public debt](#), such measures might soon be seen in developed countries as well.

Resources to support public policy objectives are likely to remain constrained when compared to needs. Trade-offs will be inevitable. However, there have been advances in the domains of healthcare and climate change policy that may facilitate sustained value creation within a constrained budget.

For example, within healthcare, pricing that reflects value to patients has gained rapid adoption, especially in some developed countries like the UK. Most recently, the conversation has progressed towards capturing wider values at the healthcare system and society at large using value-based pricing.^{3,4} Faced with the uncertainty over health and economic outcomes of innovative interventions and breakthrough technologies, the sector has seen a rise in new payment mechanisms that share risk between payers and providers.

Similarly, in the environmental space, there has been a global call for carbon pricing to more fully capture the environmental, social and economic effects caused by human activity. A closer alignment between these effects and market pricing mechanisms may have the potential to deliver a 'double dividend' for the public purse and the planet.

Notwithstanding these advances, there is a gap between the conceptual frameworks of such payment mechanisms and their practical applications. A consensus on value-based pricing is yet to emerge, and implementation of carbon pricing is fraught with political uncertainty.

The purpose of this report is to identify potentially transferable features that can apply to social outcomes, rather than to recommend these specific pricing practices. Innovative pricing and payment practices can in principle support place-based strategies aimed at maximising public value. While the focus of this report is the UK government's levelling up policy, the insights have broader relevance for other jurisdictions seeking to address complex issues within a limited budget. Indeed, pricing optimisation requires the efficient allocation of public resources that correspond to what is valued across places and at various levels of governance.

Ambitions to tackle entrenched regional inequalities can be achieved even in an environment of limited capacity and resource. By extending the lessons learned from healthcare and climate policies to other settings, the intention of this report is to challenge current practices that define value primarily in terms of short-term financial savings.

Methodology

To serve this objective, the preparation of this exploratory report benefits from various forms of scoping research and engagement activities, including:

- desk research and a rapid literature review, covering academic and policy evidence around innovative pricing and payment mechanisms in service provision
- a survey of 17 practitioners^v from public sector (53%), voluntary, community and social enterprise sector (24%), private sector (18%) and intergovernmental organisations (5%) on current practices in pricing social outcomes
- interviews with 6 subject matter experts selected based on their expertise in theory and practice of pricing outcomes to guide our thinking and fact-check the findings
- an international [peer learning group discussion](#) led by a panel of 5 speakers and 30 participants.

All of these activities took place between January and April 2022.

^v Ethics reference number: SSH/BSG_C1A-22-03



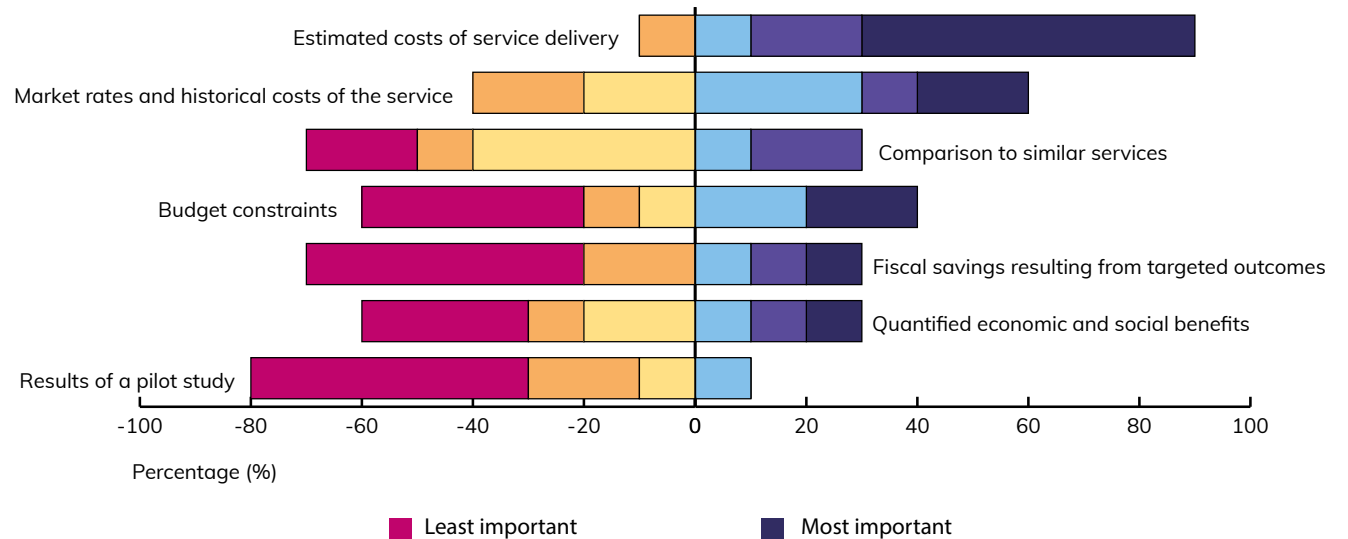
II Current practices in pricing social outcomes

Key takeaways

- Our survey finds that current outcome pricing is based primarily on cost considerations, with payer’s budget constraints acting as a cap.
- Competing priorities of fiscal saving and broader consideration of value can hinder programmes designed to prevent negative outcomes or improve long-term outcomes.
- Practitioners are interested in learning from the advances made in pharmaceutical and carbon pricing, although applicability of these insights may be compromised by current budgeting practice for social outcomes and risks inherent in OBCs.

Based on a survey of practitioners, we find that cost considerations, such as the estimated cost of service delivery, comparable services’ current and historical costs, are perceived as the main driver of pricing social outcomes by 80% of respondents, with budget constraints acting as a payment cap. Importantly, two respondents indicated that payers ‘hardly’ or ‘never’ have capacity to pay for long-term economic and social values, while for the majority the concept of value is focused on monetary saving. The results highlight the gap between a desire to capture ‘public value’ and what has been feasible in practice.

Figure 1: Determinants of price for social outcomes



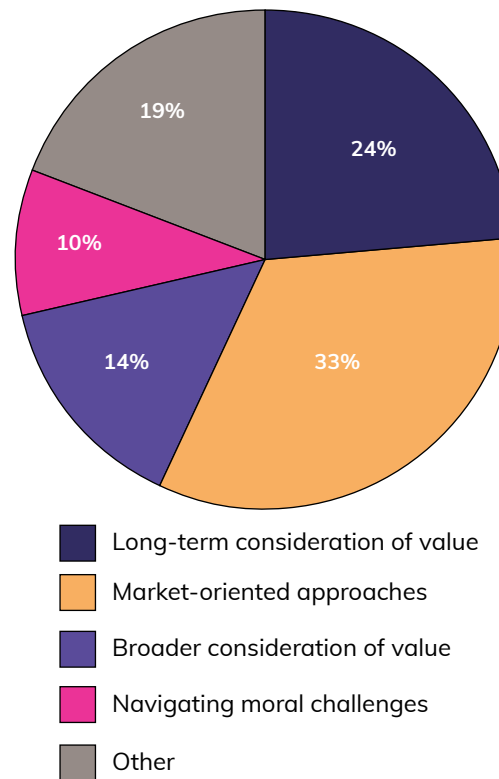
Respondents were asked to rank the considerations according to importance.

Relatedly, a few survey responses noted that the challenges of pricing social outcomes stemmed from varying perspectives of stakeholders on what is considered a fair price. While 40% of stakeholders with experience of outcomes pricing found that the agreed price was fair, half noted that it depended on other factors. For example, one respondent indicated that how broader value is incorporated into pricing relies on whether payers view OBCs as a cost-saving mechanism or as a value-creating investment in their community.

This often contrasts with providers seeking to justify their value proposition by considering wider social and economic benefits. An excessive focus on short-term financial gains unduly reduces public value to a sum of easily quantifiable metrics and hinders efforts targeted at prevention. While the issue is recognised, it is challenging to accurately quantify broader and longer-term benefits in practice.

Considering these challenges, stakeholders are interested in drawing lessons from advances made in health and climate policies. Survey participants expressed a particular interest in learning from the use of a market-oriented approach in scaling initiatives and long-term and broader consideration of value. Recent developments in these domains may offer insights both in terms of their approach – flexibility and commitment to exploration – and their practical applications, fostering cross-sectoral collaboration through outcomes evaluations and the evolving use of market mechanisms.

Figure 2: Transferrable learnings from pharmaceutical and carbon pricing



Respondents were asked to select all that apply. The 'Other' responses include conditional payment on evidence development, standardised valuation methods, cross departmental pooled budgets and long-term budgeting practices.

However, some stakeholders caution against uncritical application of these insights to social outcomes. For instance, transferability may be limited by the risk of prioritising targets that are easier to quantify and achieve, as well as the potentially artificial nature of market-quoted price as a proxy of value. More fundamentally, these advances may not be transferred unless budgeting practices meaningfully reflect the consideration of cross-departmental and long-term value of policy programmes in the first place.

While these concerns must be heeded, the domains of healthcare and carbon pricing have also faced these challenges. Innovative pricing and payment mechanisms emerged because of, rather than despite of, the obstacles in aligning prices to value. It is envisaged that the report inspires interdisciplinary thinking necessary to address regional inequalities. In the next two sections, we summarise the recent progress to distil the transferrable learnings.



III Pricing in healthcare

Key takeaways

- **Pricing of medicines and treatments is determined by negotiations between (mainly) public payers and private sector manufacturers. However, there has been a call for closer alignment of price to value, reflecting the rise in healthcare expenditure and increasing costs of advanced medicines. Rigorous review of clinical and economic evidence helps measure value in terms of health outcomes and their impact on patients, healthcare systems and society at large.**
- **When evidence for cost-effectiveness is insufficient at the time of decision-making, some public payers have adopted innovative payment mechanisms instead of delaying patient access to new treatments. Risk-sharing arrangements can complement cost-sharing arrangements by adding conditions such as payment based on development of further evidence and target outcomes.**
- **Given the multidimensional nature of regional inequality, delivering on levelling up missions necessitates a cross-sectoral approach. An inspiration can be drawn from advances in healthcare to improve funding arrangements that better reflect uncertainty of outcomes.**

Improving health and social, physical and mental wellbeing⁵ is a leading public policy priority across the world. While scientific advancements for treatments of debilitating illnesses that had previously been thought incurable garner much attention, they can come with hefty price tags and considerable uncertainty around their clinical and economic effectiveness.⁶

With healthcare spending accounting for 10% of GDP on average in 2020 across OECD countries (up from 9% in 2019)⁷, payers are eager to contain further cost pressures.⁸ In response, pricing and payment mechanisms for medicines and other treatments have evolved to spur innovation while mitigating risks. By embedding review of clinical and economic evidence in decision-making processes, these mechanisms enable closer alignment of price to the value new medicines and treatments offer.

Linking price to value

One of the major challenges in healthcare policy is ensuring affordable patient access to effective medicines within finite budgets. Purchases of new medicine will inevitably displace funding for other existing treatments.⁹ By shifting away from traditional cost-containment measures to broader assessments of value, industry practice can better inform if and how much to pay for new medicines.

In many high-income countries, health technology assessment (HTA) agencies are responsible for evidence assessments. The HTAs have developed detailed guidance on how to evaluate clinical and economic evidence to inform pricing decisions.

Internationally, there exists a range of pricing mechanisms that link, at least in part, healthcare payments to measurements of value.¹⁰ Defining value as cost-effective improvements in health outcomes,¹¹ value-based pricing (VbP) asserts that the price of an intervention should reflect the benefits derived to patients, health systems and society at large. While it may seem intuitive that more effective medicines warrant higher prices, VbP is a relatively novel approach that seeks to establish an explicit link between price and a broader basket of values.¹⁰

One of the existing practices of measuring 'patient-level' value in appraisal is centred on the concept of quality-adjusted life years (QALY). QALYs attempt to measure the net disease burden by aggregating health costs and benefits, which are then expressed as a patient's quantity of life (i.e., life span) adjusted by quality of life.

For example, when appraising a new medicine, the cost per additional QALY is calculated based on a like-for-like comparison with the existing treatment. This measure, referred to as the incremental cost-effective ratio (ICER), guides the HTA's recommendation as to whether healthcare providers should pay for the medicine and make it available for patients.

The practice of converting these measures into market prices varies across healthcare systems, and some countries' thresholds are more explicit than others. In England, the National Institute for Health and Care Excellence (NICE) provides guidance on a threshold of £20,000 to £30,000 per QALY.¹² These are then adjusted by weights, known as modifiers, for a range of additional value-based attributes that accommodate higher prices for medicines treating severe illnesses, or where a new treatment addresses a patient's unmet medical needs.¹²

A focus on patient-level value may align with the interests of payers, whose budgets would not customarily consider non-health consequences. However, value is found not only in terms of mortality and morbidity, but also in the prevention of healthcare backlogs and enabling of daily activities such as employment and education.¹³

Current conversations try to incorporate such broader considerations that reflect public or social value as well as economic productivity.¹⁴ Ideally, value assessments should be based on both a health system and societal perspective and include an impact inventory – a standardised list of health and non-health consequences.¹⁵

Given the inherently political and moral nature of policies around access to healthcare, implementing value-based pricing in its literal and complete sense has faced some headwinds. For example, issues include technical difficulties with measurement, defining value for money and the potential for discriminating against specific groups such as the older population or those with rare diseases. In practice, establishing a price on value is an ongoing process, which may begin with evidence assessments but then extends further.

Ultimately, the final price of a medicine is reached through complex and private negotiations between payers seeking to improve population health and pharmaceutical companies aiming to maximise profits and recover research and development costs.¹⁶ These discussions occur within price corridors¹⁷ established by economic and clinical evidence (upper and lower bounds reflecting willingness to pay and production cost respectively); the degree with which this reflects value for money lies in the selected payment mechanism.

Innovative payment mechanisms amid uncertainty

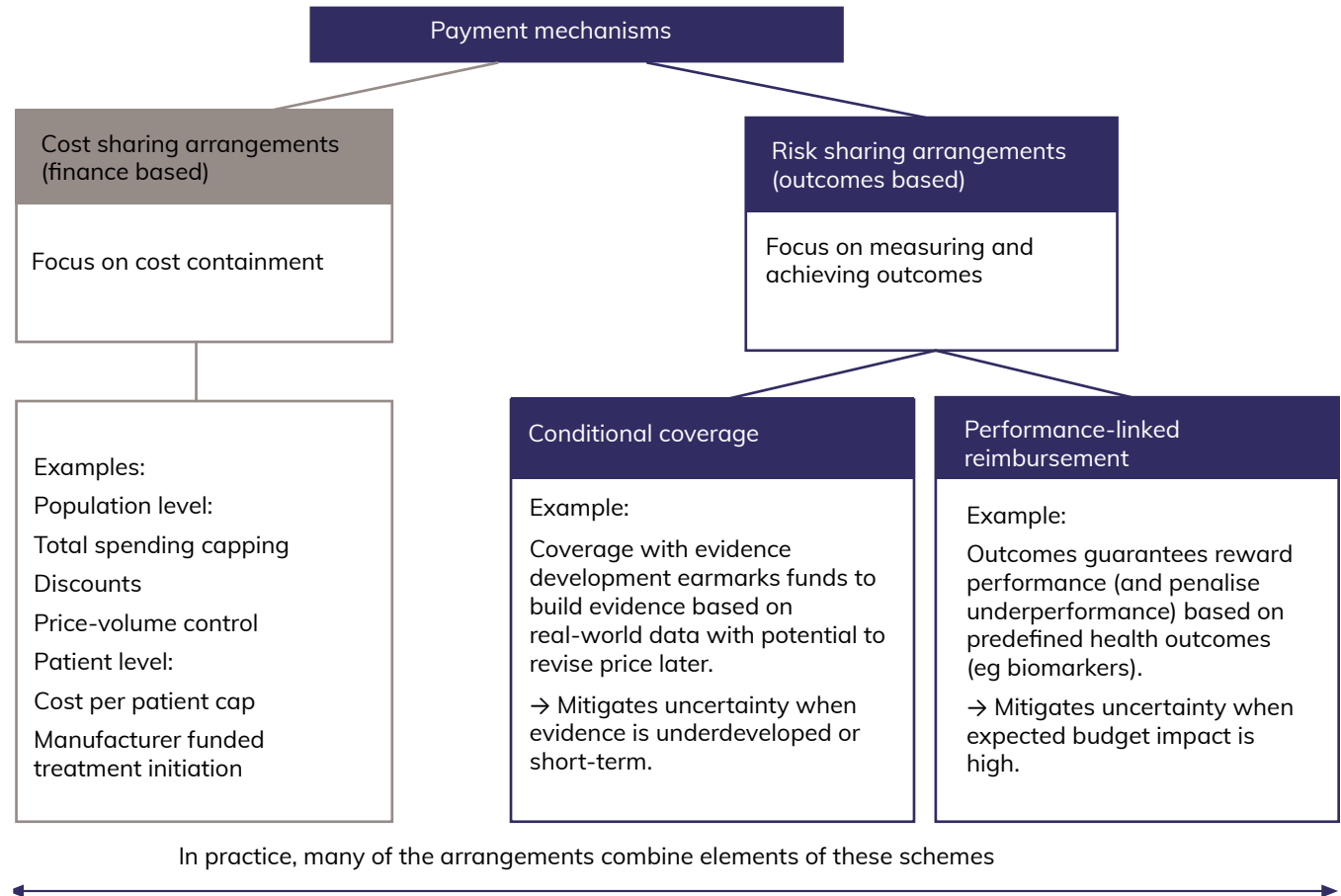
High-quality evidence for assessing value is not always readily available. This is particularly the case for advanced health treatments with potentially long-term and curative benefits, for which only short-term data is available.¹⁸

In this context, another noteworthy development in healthcare is the rise of payment mechanisms that enable payers and manufacturers to share the risks of uncertain health and economic outcomes. While based on relatively straightforward 'cost-sharing' mechanisms, there has been a surge in interest in more innovative and flexible arrangements over the last two decades.^{19, 20}

Performance-based risk sharing arrangements (PBRSA) between healthcare payers and manufacturers link payment and reimbursement decisions to real-world future performance, measured by the effects on a patient's lifespan and quality of life.²¹ Such arrangements can offer mutual benefits: payers can provide patients with accelerated access to advanced medicines, while providers avoid further front-loaded costs in research and lost revenue-generating opportunities due to delayed market entry.²¹ Moreover, PBRSA can balance the short-term benefits of efficient allocation with the longer-term benefits of incentivising and rewarding innovations (instead of evergreening existing products).¹⁹

Figure 3 describes the context of such payment mechanisms while box 1 provides an example.

Figure 3: Key features of cost and risk-sharing arrangements



Source: Authors' interpretation of academic studies.^{8, 19, 21, 22, 23}

Box 1: Paying for high-value cancer treatments

Gene therapies are new one-off treatments for cancer that deliver genes to cancer cells.²⁴ While there exist several clinically tested therapies, the long-term economic and health impacts are currently unknown. These potential breakthroughs are among the most expensive cancer treatments to date, reflecting research and development costs in the order of £1bn.²⁵

Yescarta is an example of a gene therapy that is derived from a patient's own white blood cells to fight cancer cells.²⁶ Now approved in a number of countries, the launch of such treatments has resulted in various innovative payment mechanisms that balance the need for patient access with uncertainty around effectiveness.¹⁸

Conditional payment on evidence development

Example payer: National Health Service (England)

NICE (the UK's HTA agency) calculates the cost per QALY at around £50,000, exceeding the cost effectiveness threshold. The assessment notes a lack of data on side effects and progression-free survival.²⁷

Upon recommendation, the treatment was made available through the Cancer Drug Fund, but its coverage is conditional upon the clinical evidence in real-world settings and a price reassessment in five years (2023).

Outcomes-based payment

Example payer: Sistema Nacional de Salud (Spain)

The Spanish healthcare payer adapted a staged payment mechanism based on delivery and patient response to the treatment. An initial payment of €118,000 (36% of total) is made upon successful delivery, followed by a second payment of €209,000 linked to outcome (patients' survival).²⁸

In Spain, this is the first nation-wide outcome-based scheme of its kind.

Source: authors' interpretation of academic studies.^{18, 27, 28, 29}

There are arguments against using such mechanisms. For example, some academics are sceptical of contracts that reward performance due to the lack of reliable comparators, which can compromise the rigour of evidence evaluation in practice.²³ Nonetheless, when there are risks of protracted negotiations delaying a patient's access to potentially life-saving treatments,³⁰ these payment mechanisms have the potential to overcome decision uncertainty.¹⁹

Meanwhile, although administrative charges for data collection and management continue to be barriers for wider adaptation of such schemes, the cumulative positive budget impact from these high-value innovations may build a stronger case for wider uptake in the future.¹⁸

Box 2: Repurposing generic drugs through financing clinical trials

As the price of medicines is substantially lower once patents expire, pharmaceutical companies have few commercial incentives to invest in costly research activities for repurposing generic medicines – off-patent and unbranded medicines – for exploring their alternative usages. This represents a missed opportunity for all health stakeholders, since these generic medicines have the potential to deliver cost-effective health improvements.

For example, early clinical evidence suggests that Naltrexone – a treatment that helps patients with history of substance and alcohol abuse avoid relapse – has the potential to treat chronic pain.³¹ In response, novel payment mechanisms have been applied to achieve equitable access to medicines.

Crowd Funded Cures, a social enterprise based in New Zealand, seeks to fill the investment gap through a social impact bond^{vi} model by bringing impact investors, healthcare payers and researchers together to fund clinical research. By leveraging smart contracts – programming conditions for outcomes payment on blockchain – and fundraising capacity of cryptocurrency market, it facilitates investment into these projects while preventing the investment and the evolving evidence from being tampered.³²

[Learn more about this initiative in the Oxford Government Outcomes blog.](#)

vi [Social impact bonds](#) are outcomes-based contracts paid by the government. The bonds use funding from investors to cover the upfront costs of service delivery.

IV Climate change mitigation



Key takeaways

- **Carbon pricing instruments cover over one-fifth of global emissions. The past two decades have seen the creation of mandatory and voluntary markets, as well as new mechanisms that tap into alternative sources for financing climate action.**
- **When divergent value judgements and disagreement over estimated economic and social impact of climate change defy standardised monetisation of an outcome, market creation is one way to give shape to otherwise unacknowledged costs and benefits.**
- **Levelling up recognises the differences in value across places and time, but it leaves central government with the challenge of allocating funds that align with local priorities. The evolution of carbon pricing has been fraught with disagreement over political feasibility as well as concerns over equity. However, some initiatives have been implemented using small-scale pilots through experimentation. These cases may offer transferrable insights into building cross-sector trust to scale initiatives.**

Climate change mitigation is often framed in corrective terms as a necessary but unwelcome sacrifice for preventing adverse consequences in the distant future. As the awareness of the urgency of climate action grows, the transition to a green economy is increasingly seen as complementary to economic growth.

While an international consensus under the Paris Agreement 2015 exists for what target outcomes should be – limiting the global temperature rise to 1.5°C³³ and achieving Net Zero by 2050 – a collective way forward remains challenging. In this context, we identify features from carbon pricing that could be applied to other policy domains.

What is carbon pricing?

Against a backdrop of renewed commitments to mitigate climate change, the adoption of various carbon pricing instruments has gained pace, implemented in 45 national and 34 subnational jurisdictions as of 2021.³⁴ At the heart of carbon pricing is the idea that the signalling effects of a price can incentivise behavioural changes across economies and societies. Over time, these additional costs have the potential to spur innovations that yield less carbon-intensive ways of production and consumption.³⁵ Such measures could deliver longer-term cost-effectiveness by more accurately reflecting negative environmental impacts into prices.³⁶

Linking price to value

While the idea behind carbon pricing may be intuitive, assigning a monetary value to a tonne of CO₂ is complex. Estimating the cumulative effects of carbon over an extended time horizon and the ethical conundrum over how to value the impact that accrues to future generations requires numerous assumptions and qualitative judgements.³⁵ Indeed, disciplines such as climate science and economics have attempted to calculate a price for carbon yielding a wide range of estimates.

Social cost of carbon and marginal abatement cost

Calculating the social cost of carbon in an integrated assessment model requires data on the cost of current emissions and the benefit of carbon reduction.³⁷ The lack of agreement over key assumptions and uncertainties inherent in the modelling such as the precise relation between economic development and the environment³⁸ have resulted in a wide range of carbon price estimates from US \$80–\$300³⁹ and even beyond when broader equity implications are considered.⁴⁰

As governments around the world commit to legally binding net zero target, monetary value of carbon for policy appraisal has evolved to align with its attainment. Marginal abatement costs have been adapted as a means to derive a carbon price based on the costs of necessary remedial action.³⁷ The use of marginal abatement represents a pragmatic shift away from less precise forms of measuring the social cost of carbon,³⁸ since the emission cap set by these commitments subsumes subjective value judgements present in estimating a price to carbon.³⁷ As guidance, the High-Level Commissions on Carbon Prices at Carbon Pricing Leadership Coalition recommends a target-consistent price between US \$40 and \$80.⁴¹

Market price of carbon

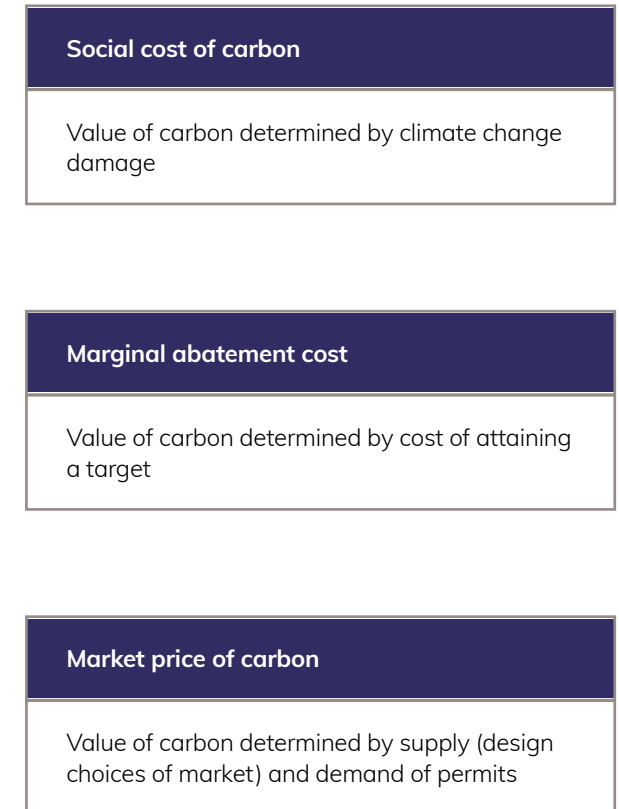
Today, 21.5% of global greenhouse gas emissions are covered under a carbon pricing instruments, with China launching a much-anticipated carbon market in 2021.⁴²

Emissions trading systems (ETS) are an example of how carbon pricing can be made transparent through a more market-based approach. Also known as ‘cap-and-trade’, these schemes limit total emissions through the allocation of free or auctioned permits.⁴³ Under these schemes, firms with lower abatement costs can sell their permits to others facing higher costs, thereby minimising the overall burden of curbing emissions.³⁶ This approach allows the market to set the price and adjust it accordingly in real time.

Reflecting the global nature of climate change, there has been a call for international cooperation to link carbon markets, through which these permits can be traded across countries and jurisdictions to enhance market liquidity and transparency.

In effect, the ETS obviates the need for government to identify abatement cost and its variation by relying on more efficient market information. Such mechanisms can improve the pricing of carbon and help to accelerate wider adoption over time.³⁸

Figure 4: Approaches to pricing CO2 emissions



There is huge variation in market-quoted carbon prices across the world. Less than 5% of emissions covered under national or regional schemes are priced at a level consistent with the suggested range of \$40–80 per tonne.⁴² As a result, the effectiveness of carbon pricing in reducing emissions has been modest.⁴⁴

Governments will need to rely on a wider portfolio of climate mitigation policies and assess the overall net effect. For instance, fiscal measures that target income redistribution through fuel subsidies can hinder net zero ambitions, effectively setting a net negative carbon price (i.e. paying for carbon emissions rather than charging for them).³⁶

Carbon markets have matured over time. In recent years, the European Union's ETS – the world's oldest carbon market – has progressed rapidly with advances in its design such as price floor and more stringent caps.⁴⁵ Despite the increased market sophistication, prices are ultimately determined by the supply of permits and the demand from firms and speculation from financial institutions.

Carbon offsets

Carbon offsetting is a mechanism that allows polluters to compensate for their emissions by funding projects that remove carbon from the atmosphere elsewhere. For instance, this can be an investment into forestry conservation.

The growth in the number of businesses declaring voluntary net zero commitments has been accompanied by a rapid uptake of carbon offsets, with the volume of such instruments more than doubling in the past few years.⁴⁶ Indeed, the market is expected to see accelerated growth given the prioritisation of implementing the Paris Agreement that was expressed by national leaders at the COP26 summit in Glasgow in late 2021.⁴⁷ Consumers and investors are increasingly vocal about the distinction between carbon reduction and offsets,⁴⁸ with many expressing concerns over the challenges surrounding accurate impact attribution.³⁶

Blockchain technology has the potential to reduce transaction costs and the administrative burden of measurement and verification.⁴⁹ As 'a digital ledger of transactions',⁵⁰ blockchain can enhance the attribution of climate impact.⁵¹ Pilot initiatives that apply these technologies to facilitate and reward climate action include the use of satellite data that link payment to verified climate impact and peer-to-peer trading platforms for natural assets.⁵²

While carbon offsets are not a replacement for reducing actual emissions, they can serve as a short- to medium-term conduit to achieving net zero ambitions.

Green finance

Substantial financial resources will be needed to curb greenhouse gas emissions in line with the net zero by 2050 agenda. Green finance, broadly defined as investments with an aim to improve environmental outcomes,⁵³ is among the fastest growing asset classes. According to Bloomberg New Energy Finance, there was the global issuance of US \$1.6tn in sustainable debt instruments in 2021, including green bonds.⁵⁴

The rise of green finance is not confined to the finance industry and private sector investors. In the UK, the government's commitments to net zero require capital investments averaging £50–60bn a year into the 2030s.⁵⁵

As acknowledged in the recent [White Paper](#), levelling up and net zero ambitions need to be aligned to ensure these investments are leveraged to tap into regions' varying economic potential. Although the role of local government in transitioning to a green economy is widely recognised, councils fundamentally lack the financial resources or governance arrangements to deliver the investments necessary to match the scale of the ambition.⁵⁶ More recently, however, local authorities are considering alternative sources of market funding (refer to box 3).

Box 3: Local green finance

Governments across the world have increasingly turned to green bonds as a means to finance capital expenditures for climate projects. In the last few years, local governments have also been active in this space. For instance, in the United States, government-backed issuances (the majority of which are municipal green bonds) have grown to constitute almost one-fifth of the country's green bond market in 2021.⁵⁷

In the UK, West Berkshire issued their first local green bond in 2020 under a new investment-based crowdfunding model called community municipal investment (CMI), developed through collaborative research funded by the Inclusive Economy Unit within the Department of Digital, Culture, Media and Sport.⁵⁸ Since 2021, a new type of CMI structured as a peer-to-peer loan called municipal climate investments have been issued by several local governments with disparate profiles in the UK. For example, the London Borough of Camden issued a green community bond in March 2022.⁵⁹ Under this scheme, £1m will be raised via an online crowdfunding platform to be spent on four pre-defined capital projects that aim to deliver local

environmental impact over 5 years. Most recently, Cotswold District Council launched a community bond in late April 2022 to raise £0.5m.⁶⁰ This place-based strategy also facilitates local engagement and sense of ownership for the local community, as these local projects are visible to those who fund them. Under these schemes, investors can also choose to donate the interest payments to the council. For instance, in West Berkshire, one in six investors donated the first interest payment to the council to fund other net zero initiatives.⁵⁸

Starting from £5, new municipal climate investments offer residents and investors access to Innovative Finance individual saving account (ISA) tax benefits available for debt crowdfunding products, while diversifying the funding source for councils by tapping into the £650bn ISA market.⁶¹ These novel approaches of unlocking alternative sources of funding, incremental and small-scale as they may be, can be a way to galvanise momentum for climate efforts across local communities. A recent estimate suggests that the CMI model has the potential to raise £3bn for climate projects across local authorities in the UK.⁵⁸

Local authorities' community municipal investments in the UK

Community municipal investments (CMI)

Local climate bonds

Pilot initiatives structured as a regulated investment bond, not eligible for the Innovative Finance ISA.

Issued by
West Berkshire Council (£1m, May 2020) and
Warrington Borough Council (£1m, August 2020).

Municipal Climate Investments

New product structured as a peer-to-peer loan, eligible for the Innovative Finance ISA.

Issued by
Islington Council (£1m, October 2021),
Camden Council (£1m, March 2022), and
Cotswold District Council (£0.5m, April 2022).



V Policy relevance for social outcomes

The complex nature of today's policy challenges in areas such as climate change, health, inequality and poverty will require a multidisciplinary approach. The magnitude of these issues calls for solutions that can integrate the underlying drivers behind politics, economics, finance and community values.

Innovative practices in health and climate sciences should be used to inform how social outcomes are priced and financed. By adapting frameworks that have been evidenced to work in other policy areas, governments can accelerate the pathways to improving how public services are delivered within set budgets.

In the UK, strategies such as the [Plan for Growth](#) and [Levelling Up](#) involve the coordination of activities across a range of government departments and regional jurisdictions. Many of these players will be aware of what works in other sectors and may more readily support transferable good practices.

Value and levelling up

The six capitals framework of the UK's levelling up agenda recognises the multidimensional nature of regional inequality. As published in a recent [White Paper](#), 12 missions will guide how public policy provides more equal access to opportunities in areas considered 'left behind'. More than 50 headline and supporting metrics have already been identified to monitor and evaluate success at both national and subnational scales.⁶²

To "unlock the potential of people and places in every part of the UK", each of the strategic missions will vary in its scope and feasibility.⁶³ Local leaders and their communities will be granted more devolved powers to craft solutions that meet local needs.

Despite the promise that such solutions will be less centrally led, grant funding will continue to flow from Whitehall based on a competitive bidding process. Meanwhile, the policy landscape is characterised by 'unusually high uncertainty' due to the aftermath of the COVID-19 pandemic and cost of living crisis worsened by the war in Ukraine.⁶⁴ Indeed, the goals are ambitious with 2030 announced as the target completion date.

In this context, the absence of longer-term funding arrangements beyond what was announced in the Spending Review 2021 is a concern. The availability of streamlined and predictable funding for local government is vitally important.²

Crucially, addressing regional inequalities will need to occur across a continuum, advanced by incremental successes across a range of projects and initiatives. Collaboration, coordination and scale will be key. Governments should encourage a diverse network that includes industry, businesses, investors, philanthropies, universities and local communities. Each partner can impart different perspectives on what value is and how it can be most effectively created.

Lessons from pharmaceutical and carbon pricing

Systems reform through improving information, creating incentives and strengthening institutions are aspects of policy initiatives that can be transferred from the health and climate settings to the levelling up agenda.²

This section highlights four key lessons that can be leveraged to mitigate budget uncertainty and constraints.

1. Navigating uncertainty

Despite efforts to build evidence on ‘what works’, programmes designed to improve social outcomes are hindered by unpredictable funding availability and complexity of measuring outcomes. These issues render pricing social outcome challenging. Although relatively more advanced, pricing mechanisms in healthcare are continuously evolving as NICE updates standards and guidance frequently upon consultations with an increasingly expansive groups of stakeholders.¹⁶

Rather than allowing uncertainty to slow the provision of treatments to patients, pharmaceutical companies acknowledge rapid change by incorporating a range of risk-sharing features within their pricing schemes. Indeed, these are agreed during early-stage contract negotiations so that the pipeline from research to product development is not unduly restricted.

Meanwhile, a key feature of navigating the politics of net zero initiatives has been a willingness to implement solutions through a ‘learning by doing’ approach,⁴³ drawing on international pilots. For instance, the European Union’s ETS was launched as a three-year pilot initiative in 2005, building on the success of the USA’s ETS regulating sulphur dioxide emissions to control acid rain in 1990.

There is an emerging consensus around the need to be pragmatic, reviewing policy designs by collating best practices in policy designs emanating from around the world.³⁵

While value for money consideration requires policymakers to carefully weigh the benefits and costs of available options, pilots and experiments can propel advances in finding new policy solutions. In setting 12 medium-term ambitions, the UK’s levelling up policy signals the government’s commitment to a ‘mission-oriented approach’.² In this context, embedding risk-sharing features and evaluation are necessary for delivering value for money in these missions to prevent the waste of public resources.

2. Pricing and payment based on long-term value

Innovative payment mechanisms in healthcare and the commitment to mitigate climate change corroborate the need to reconsider the long-term value of policy programmes. While paying for long-term value may initially seem at odds with cost containment, the two need not be mutually exclusive. In fact, investments in preventative measures have been evidenced to save money in the long-term. Although the need to capture such values is highlighted in national guidelines such as the HM Treasury’s [Green Book](#), practical implementation has been a challenge.

By recognising a range of capitals such as human, social and physical, the UK’s levelling up agenda provides an impetus for change. The quantification of longer-term value can be challenged when the timing between an initiative’s implementation and policy impact are not closely aligned. In such cases, flexible funding and payment arrangements that adapt when and how much to pay for a stated outcome will allow for a range of policy targets to be met.

3. Using financing mechanisms to support a shared goal

The comprehensive nature of levelling up presents an opportunity to bring together funds from various sources that can support a shared goal. Importantly, the structural design of funding schemes may help alleviate a 'wrong pockets problem' whereby the benefits of a programme accrue to stakeholders other than, or in addition to, the lead department or agency.⁶⁵ Unless the value of such residual benefits can be recognised, this can result in underinvestment or disincentives for collaboration. Pooled funding and the alignment of goals have the potential to support larger, complex initiatives.

This can be implemented through a system of multi-level or cross-departmental initiatives that leverage new or existing pots of funds. For example, the Treasury's [Shared Outcomes Fund](#) facilitates cross-departmental piloting and evaluation, while other [outcomes funds](#) such as the [Life Chances Fund](#) help to scale outcomes-based contracts.

Such pooling of resources may be particularly advantageous for smaller or less resourced councils who can benefit from the purchasing power derived from scale. Larger authorities will also be better placed to access grant funding when they are able to evidence partnership working that lead to the wider success of a region.

To ensure risk-appropriate funding arrangements between multiple payers and providers with varying tolerance for risks, monitoring should be conducted throughout implementation against a comprehensive impact inventory.

Box 4: Community-based financing mechanism for health and social outcomes (USA)

There is a growing awareness that factors such as education and social networks, collectively referred to as social determinants of health, impact health outcomes before medical treatments can intervene.⁶⁶ Deficits in investment and funding to social and community support programmes can become amplified when funding channels do not adequately recognise issues relating to sequencing and prioritisation.

The [Collaborative Approach to Public Goods Investments \(CAPGI\)](#) offers a mechanism to channel investments into community-based projects.⁶⁶ In this model, a neutral 'broker' aggregates confidential bids placed by local stakeholders based on their willingness to pay for addressing a specific issue that affects the community. Any surplus funds in excess of the total actual cost is then uniformly distributed to all investors as a discount.

By pooling the collective interests of local organisations, CAPGI's allow for a stable funding stream to be generated in contrast to traditional grants or donations. Currently, this financing model is being discussed or piloted in ten cities across the United States. For example, in 2021, 11 local organisations in Cleveland, Ohio launched a six-month pilot programme to deliver medically tailored meals to isolated elderly people with underlying health conditions.⁶⁷

4. Leveraging market-based mechanisms to access alternative sources of funding

To the extent that value is subjective, the monetisation of its associated outcomes will be open to interpretation. While the narrative underlying the UK's levelling up strategy offers a 'common currency' in which to understand the values being targeted, the sequencing of policies led by its 12 objectives may differ across geographies. The creation of a market may help to create the conditions that can bring scale to funding initiatives that cross multiple policy domains or jurisdictions.

Although a market cannot uncover the intrinsic value of an outcome, it can bring together otherwise disparate stakeholders from a range of geographies and sectors whose values coincide at a specific time and place.⁶⁸ In this context, market-based mechanisms such as ETS and carbon offsets can be an inspiration for pricing outcomes in social domains such as unemployment and homelessness.

Meanwhile, a parallel can be drawn to the funding mechanism for outcomes-oriented projects. For instance, the concept of tradeable 'social profit credits' extends these ideas to the non-profit sector, diversifying sources of revenue and building higher risk tolerance to invest in new solutions where there may be insufficient evidence on their effectiveness.⁶⁹ Market mechanisms themselves will not

address poorly designed or funded projects. The design of an arrangement should reflect the comprehensive landscape of local priorities.

For instance, the issues prioritised by a local community may lend itself more readily to investment-based crowdfunding as a means to unlock alternative sources of funding.

The key is to identify the policy gaps that can be served using market-based solutions. Indeed, local governments and their stakeholders are often best placed to take on this task. The appropriate level to which the public sector is involved could vary, from creating and hosting the market to overseeing its regulation, as illustrated in the following example.

Box 5: A local marketplace for investing in social impact (Netherlands)

Innovative schemes that use market mechanisms to tokenise social outcomes are now being used to fund projects initiated within the voluntary, community and social enterprise (VCSE) sector. For example, in Rotterdam, businesses that bid for public procurement contracts valued over €225,000 are required to allocate at least 5% of the contract value to programmes that support employment opportunities for those currently excluded from the labour market.⁷⁰

The [Rikx Platform](#) uses such regulatory requirements as a means to fund the outcomes-oriented projects of social enterprises, NGOs and local communities. First, Rikx creates a digital marketplace for social impact, where projects and their targeted social outcomes are listed for like-minded investors to purchase. Next, the price of each token is determined by a panel of assessors who weigh a range of factors such as the project's reach, depth and durability of impact and its cost-effectiveness.

While the platform is at a piloting stage, Rikx is seeking ways to scale the initiative in other jurisdictions around the world through competitive funding from the [Bloomberg Philanthropies](#).

[Learn more about this initiative in the Oxford Government Outcomes blog.](#)

Conclusion

As governments seek ways to address complex drivers of inequalities and adverse social outcomes, drawing on innovative financing, pricing and payment practices from health and climate policy can accelerate the pathways to improved public services. Some of the relevant practices identified in this report are:



Amid unusually high levels of uncertainty caused by COVID-19 and the war in Ukraine, governments can engage in risk-sharing arrangements instead of letting uncertainty hinder programmes designed to improve social outcomes.



When the timing of implementation and the policy impact are not closely aligned, flexible payment mechanisms that adapt when and how much to pay for an outcome can facilitate investment into long-term impact. This can be supported by further efforts in developing outcome-based budgeting and impact measurement resources (for example, refer to [GO Lab-CIPFA Value for Money Toolkit](#) or the [Impact Wayfinder](#)).



The lack of clearly delineated budget responsibility can result in underinvestment in place-based projects that seek to address complex drivers of inequalities. A shared goal can be served by pooling new or existing pots of funds to implement multi-level or cross-departmental initiatives.



In the current context of tightening budgets, governments can consider accessing alternative sources of funding through novel financing methods such as crowdfunding and market creation.

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