Project Hindsight

BACK TO THE FUTURE

UNILEVER'S VISION OF 1984

Dr Michael Weatherburn
and Mark Cox-Smith

May 2021

CONTENTS

Project Hindsight is a strategy consultancy which uses the past to clarify the future. Our current focus is on forecasting and institutional memory.

'Many practical lessons'
- Singapore Straits Times

'Helped us think more deeply about where we realistically are in terms of technology adoption'
- Vinesh Jha, CEO Extract Alpha (Hong Kong)

SUMMARY

This project contributes to research on forecasting and related futures research.

It examines Unilever's forecast for the year 1984, *Britain 1984*, published in 1963. Unusually rich and data-driven for contemporary forecasts, Unilever predicted the future of technology, energy, transport, demography, consumer goods, social behaviours, and more. The future of technology was a particular focus.

This project located historical data from 1984 to verify what Unilever got right and wrong and contributes to our ongoing efforts to improve forecasting. In line with prior research (Weatherburn, 2017), we conclude that Unilever overestimated rates of change, that their forecast structure was particularly risk-prone (having prioritised technological change), and that we must attempt to ensure data architecture considers historical shifts underway, requiring new classification systems.

Keywords: *forecasting, futures, strategy, sustainability, business ethics, ESG.*

INTRODUCTION

Forecasting and futures thinking is everywhere. Weather, climate, economics, technology, demography, health, and many more. Some investigations into forecasting, futures, and related decision-making have become bestsellers (Toffler, 1970; Taleb, 2007; Kahneman, 2011; Tetlock and Gardner, 2016). Fashions in forecasting come and go but the sector is consistently influential. Governments, organisational management, and individuals all rely on them to manage daily activity, plan for future risk and make important, sometimes expensive, decisions (Gordon, 2009; Flyvbjerg, 2017). Moreover, given the expansive nature of forecasting activity, we are beginning to realise that forecasting has a long and rich history (Andersson, 2012; Friedman, 2013; Beckert, 2016; Pietruska, 2017; Andersson, 2018; Andersson, 2019; Weatherburn, 2020).

Connected, there are claims that forecasts are unreliable (Heffernan, 2020). As Kahneman (2011: 219), put it, 'People who spend their time, and earn their living, studying a particular topic produce poorer predictions than dart throwing monkeys'. But we do not know if all forecasts have been equally reliable or unreliable. We also lack a benchmark of reliability. As Andersson (2012) has noted, forecasts can be, and have been, already extremely influential, although we lack a retrospective measure of scale or impact. Indeed, there are claims that the sector's lack of analytical rigour in this reflexive historical sense is a critical flaw. As Tetlock and Gardner (2016: 14) observed,

> *Often forecasts are made and then … nothing. Accuracy is seldom determined after the fact and is almost never done with sufficient regularity and rigor that conclusions can be drawn.*

Building on this observation, this study forms part of a wider project which adds historical depth to the forecasting sector. It uses historical evidence to verify the forecasts of the past and, in so doing, addresses the concerns which these researchers raise. *Back to the Future* has been designed to offer practical insights into how to do so.

METHODS: REVERSE ENGINEERING A FORECAST

The principal source for this project was Unilever's book *Britain 1984: Unilever's Forecast; an Experiment in the Economic History of the Future* (1963). We are grateful to Professor David Edgerton of King's College London for bringing this source to our attention. Once delivered from Amazon, testing *Britain 1984* was, in theory, relatively simple as its authors supplied their data sources and those sources have been consistently produced to this day. Most of Unilever's forecasts drew on the *Annual Abstract of Statistics* series, published by the Central Statistical Office (CSO; now the Office for National Statistics or ONS).

In practice, the Covid-19 pandemic lockdowns of 2020-21 presented novel research challenges. The CSO 1960s, 1970s and 1980s datasets onto which Unilever mapped their forecasts are unavailable in digital format so we had to find the paper CSO sources. This generally meant studying the CSO *Annual Abstract of Statistics* (AAS), normally relatively easy, but Covid-19 restrictions prevented research visits to libraries. Relevant AAS manuals were obtained from Amazon, Abebooks and Archive.org, plus we studied the *Board of Trade Journal* and CSO *UK National Accounts*, also known as the 'Blue Books', at the Bodleian Library, Oxford University, when visits were briefly possible in autumn 2020.

CSO data architecture changed considerably between the 1960s and the 1980s (Ward and Doggett, 1991; Römer, 2020), and so data conversion was necessary to allow for comparability. Inflation adjustment was applied to prices, and we factored-in the UK pound's decimalisation in 1971 (which Unilever did not anticipate). When necessary, we converted metrics such as energy yields using industry-standard ratios.

UNILEVER'S CONTEXT

Unilever officially describes its 'unique heritage' as 'founded on a sense of purpose'; that is, 'making sustainable living commonplace' (Unilever, n.d.), and the firm's long history has become increasingly well-known (Wilson, 1970; Jones, 2005; Jones and Miskell, 2005; Lewis, 2017). Founded in the late nineteenth century, Unilever expanded considerably after World War Two. Described as an 'enormous business in the 1960s' (Jones, 2005: 5), the decade saw Unilever's operations and products expand globally. At the same time, supermarkets diffused worldwide, product lines expanded, and consumer attitudes converged (Jones, 2005). Given the scale and speed of change to Unilever's target markets, it is unsurprising that the firm became interested in establishing what the future may hold.

When Unilever began work on *Britain 1984*, the futures field was growing strongly (Andersson, 2018) and although Unilever's interest in the topic was not unusual for a large corporation (Shell also became keenly interested – see Cornelius, 2005; Jefferson, 2012), the scale and scope of *Britain 1984* was. In being highly quantitative, Unilever's study was normal for its time and sought to extrapolate future trends from historical datasets. Indeed, some contemporary forecasting projects involved well-known historians (Waskow, 1968; Briggs, 1978).

BRITAIN 1984

Britain 1984 was primarily written by the economist Ronald Brech (1915-2012), head of Unilever's economics and statistics department, who pursued a subsequent career in broadcasting and consultancy (Green, 2012). Brech described the project's purpose, geared towards Unilever's growing need to understand the impact of change, as follows:

> The purpose of this experiment was to stimulate imagination by inviting comment and criticism. It makes no pretence at being comprehensive. Indeed, it is purposely limited to an economic-sociological forecast of the British consumer based on past and present trends and on present indications of scientific, technological and sociological developments in so far as these might affect the pattern of consumer expenditure.

As recorded in *Britain 1984*, Brech had selected 1984 as it was one generation after the time of writing, as well as the title of George Orwell's famous novel. *Britain 1984* was presented in the following order, with the statistical forecasts in an appendix.

1. Technological Changes
2. Psychological Changes
3. Social Changes
4. Demographic Changes
5. Industry
6. Economic Development
7. The Domestic Environment
8. Family and Social Life
9. Personal Expenditure
10. And After 1984?

Brech was aware that the study 'exaggerates new developments', studying 'those things that will be regarded as the features of the 1980s rather than the features of the 1960s' and that 'the world will always be a mixture of new and old'.

One contemporary review by C.T. Saunders (1964) of the National Institute of Economic and Social Research described *Britain 1984* as 'experiment in prophecy', which went 'well beyond the direct interests of even so forward-looking an organization'. Saunders concluded that 'Brech may or may not be proved right' but, importantly, 'an imaginative and skilfully executed forecast' should prompt readers to think what they can do about the future, now.

CASE 1: UK ENERGY

The history of UK energy in the 1970s and 80s is generally well known: the troubled post-war history of coal partially accounts for its relative decline into the 1980s which happened at a slightly faster rate than predicted. Also well-known is the 1974 OPEC oil crisis and the discovery of North Sea oil which offset the decline in imports from the Middle East. Despite Unilever's misplaced predictions for the future importance of nuclear power, the striking feature of this forecast is its underestimate of the future growth of gas from both policy and consumer perspectives. The 1966 discovery of natural gas in the UK Continental Shelf, which, combined with the oil and coal problems of the 1970s, led to a relative shift towards gas – hitherto a 'premium fuel' - in the later 1970s and 1980s (Helm, 2003). The 1960s and later also saw a substantial shift from manufactured gas ('town gas') to natural gas, coupled with a corresponding rise in domestic uses such as central heating boilers (Arapostathis, 2013).


Case 1. Energy - Predicted Change(%) and Actual Change(%)
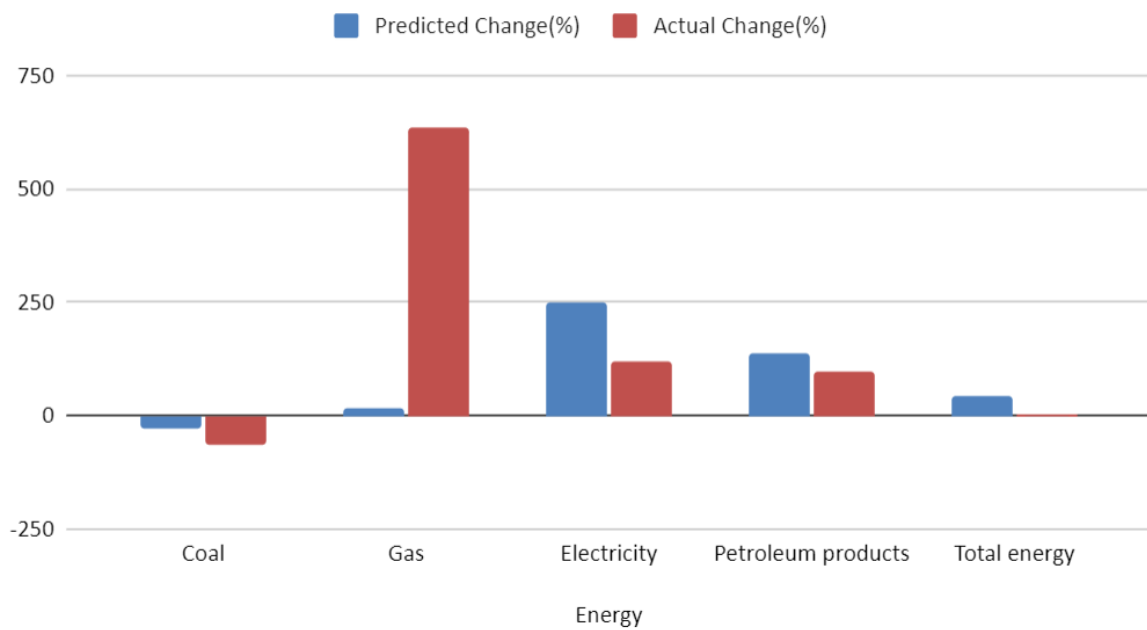
CASE 2: UK POPULATION

This graph indicates that Unilever based their forecasts on the growing birth rate from the mid-1950s up to the early 1960s. As ONS (2015) data show, the birth rate then went into decline, giving rise to 'Generation X'; relatively small compared to the post-war 'baby boomers'. Unilever's prediction that British mothers would emulate the young Queen Elizabeth II and have four children did not come to pass. Indeed, in retrospect the most curious demographic prediction was that the average marriage age for women would decline from the 1960s into the 1980s. Unilever's rationale was twofold: i) 'males will out-number females in the vital age-marrying groups, and the competition for women will mean that they will tend to get married at younger ages' and ii) 'with a rising standard of living, and with the aid of hire purchase and endowment insurances, it is much easier (economically) to set up home than in the past, and this will obviate the need for the long engagement-cum-saving period'. (Brech, 1963: 19) In reality, the average marriage age for both UK men and women has risen almost continuously since the late 1960s (ONS, 2019).


Case 2. UK Population Change (%)

Predicted change (%)   Actual change (%)
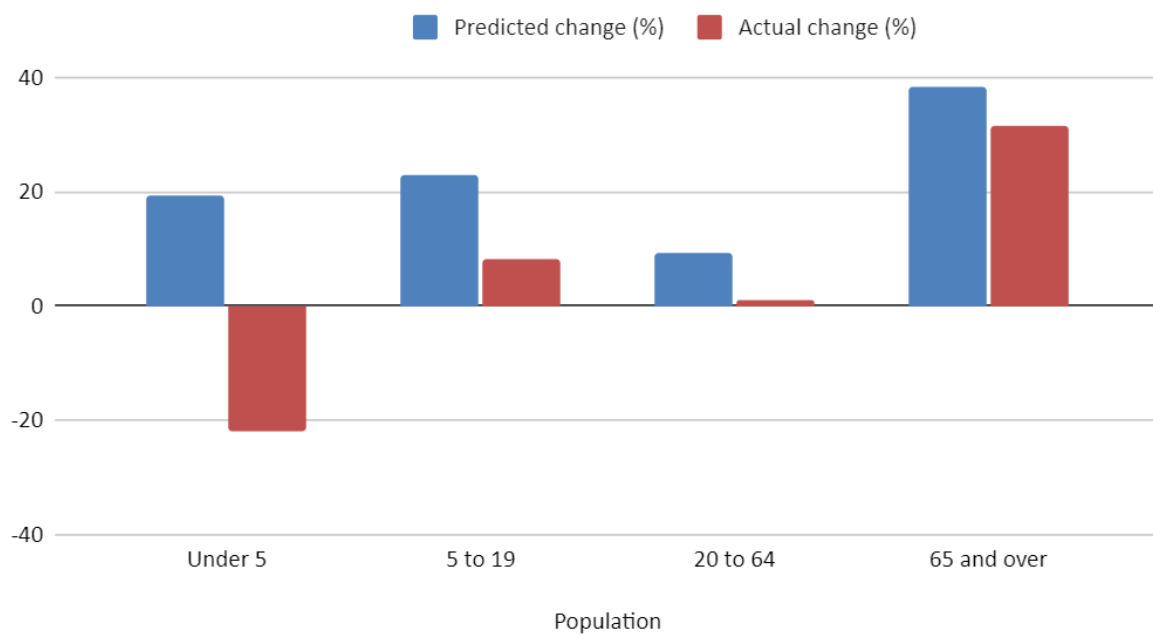
CASE 3: UK FOOD EXPENDITURE

As can be seen, all food categories studied performed the opposite to that predicted. Whereas Unilever saw rising food expenditure as an indicator of agricultural productivity and rising living standards, this data masks the rise of processed foods (Unilever studied only fresh food, as did the contemporary CSO). The rise of women in the workplace and the decline of men eating lunch at home, meshed with the emergence of supermarkets, prepared food, takeaways, and home conveniences. By the end of the 1970s, 95% of UK families owned a refrigerator and the prepacked fresh sandwich was launched in 1980 (Marks & Spencer Company Archive, n.d.). This led to the decline in formerly staple materials, such as flour, and the rise of convenience foods such as frozen peas (DEFRA, 2016). The ONS later included these food types in their metrics.

Case 3. UK Household Food Expenditure (%)
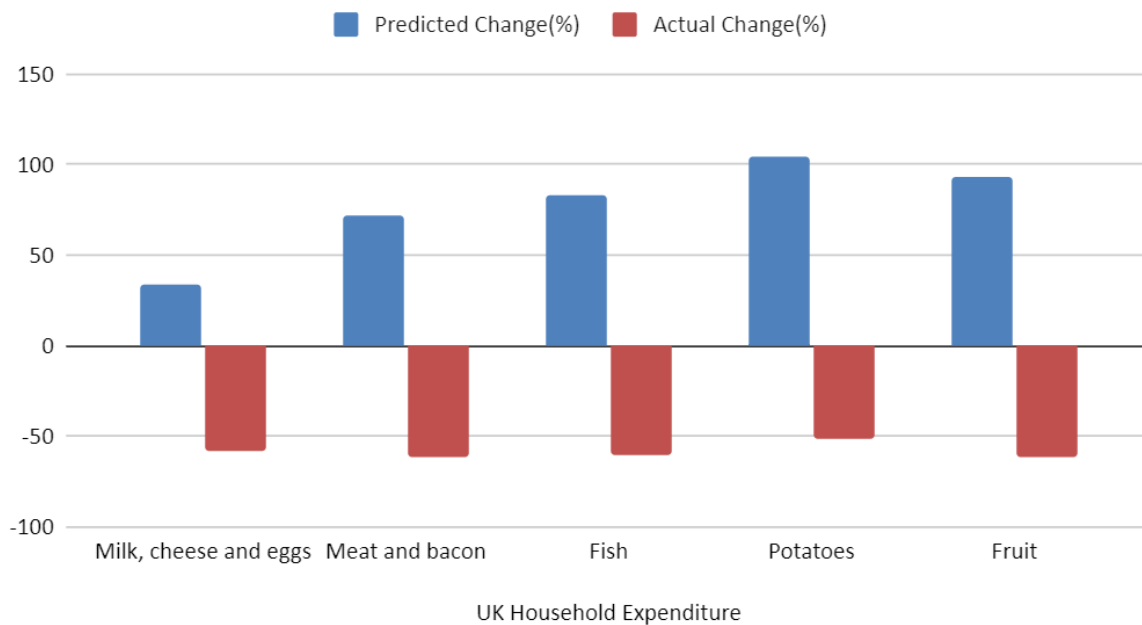
CASE 4: UK NON-FOOD EXPENDITURE

This heterogenous mixture of items indicates several points. Unilever correctly predicted the rise in purchases of clothes and appliances, but not the emergence of cheaper, imported electrical goods and clothing, which explains a smaller rise in expenditure on these items than anticipated.
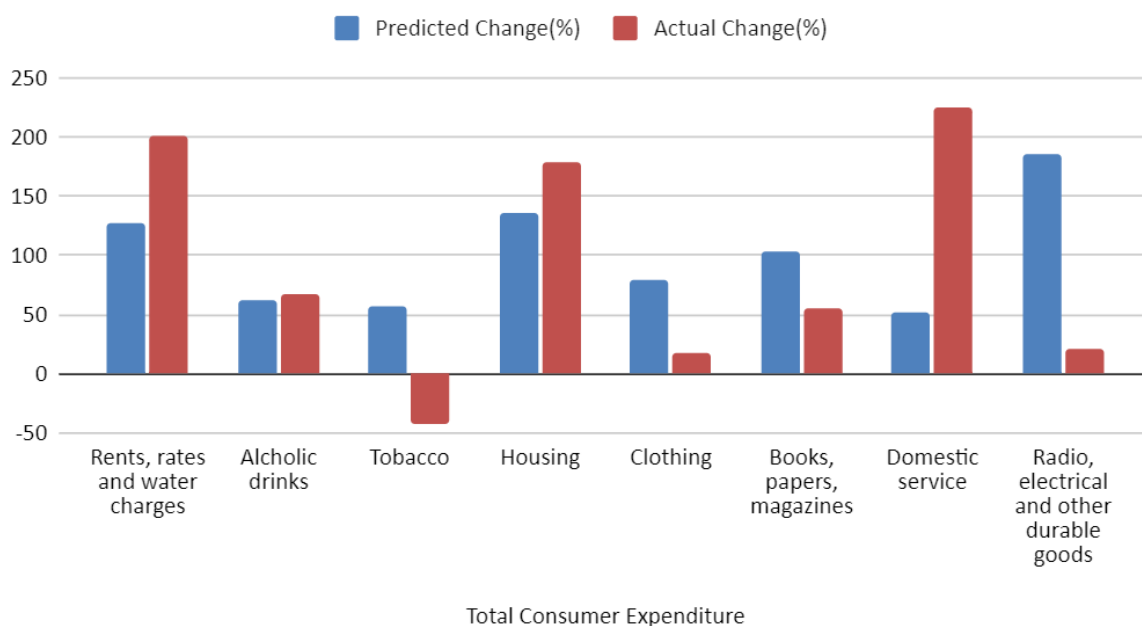
HOUSING

Unilever predicted that by 1984, more than 60% of houses would be owner-occupied; 'certainly a mark of the rising standard of living' and 'the creation of a truly mass middle class'. However, the data Unilever presented make it hard to determine the details. No mortgage data was presented and housing costs were divided into 'rents, rates and water charges' and 'occupiers' maintenance costs'. Even so, we can glean the general lesson that housing, utilities, and associated costs rose at a faster rate than expected.

DOMESTIC SERVICE

Unilever's predictions for domestic service combine several debatable assumptions: that domestic appliances lead to an absolute reduction in housework (Cowan, 1983), that there would be no major employment shocks in the 1970s or 1980s and that the family unit would become more involved in the organisation of the home. As historian Lucy Delap (2012) has studied, despite mid-century stereotypes about 'servantless homes', the 1970s saw a rise in informal Spanish, Portuguese and Italian domestic workers performing cleaning and childcare work. This was augmented by further domestic workers, migrant and British-born, in the 1980s as mass unemployment restricted employment choices and UK prosperity concentrated into London and the South East of England.

Case 4. UK Consumer Non-Food Expenditure (%)

Legend: Predicted Change(%) (blue), Actual Change(%) (red)

| Category	Predicted Change(%)	Actual Change(%)
Rents, rates and water charges	126	200
Alcoholic drinks	62	67
Tobacco	57	-42
Housing	135	178
Clothing	78	17
Books, papers, magazines	102	55
Domestic service	51	225
Radio, electrical and other durable goods	185	21

Total Consumer Expenditure

TECHNOLOGY FORECASTING AND THE CASE OF FLYING CARS

As Edgerton (2006: x) has discussed, the 1960s was a high-point of innovation-centric futurism. This is evidenced in *Britain 1984* in three ways: first, that 'technology' and 'technological change' were taken as synonymous. Second, the fact that technology ranked first in Unilever's forecast structure, with other factors referenced back to this imagined future technology. Third, prominent technologies within Unilever's forecast were early sixties futurist classics: nuclear power, space colonies, supersonic flight, and flying cars. Unilever wrote about the latter that 'personal aircraft will be much cheaper to run (mainly because of easier maintenance) and will therefore be in much more general use, because with vertical take-off the problem of landing space will be greatly reduced'.

Unilever projection of air passenger numbers ━━━ ━━━ **Actual air passenger numbers**
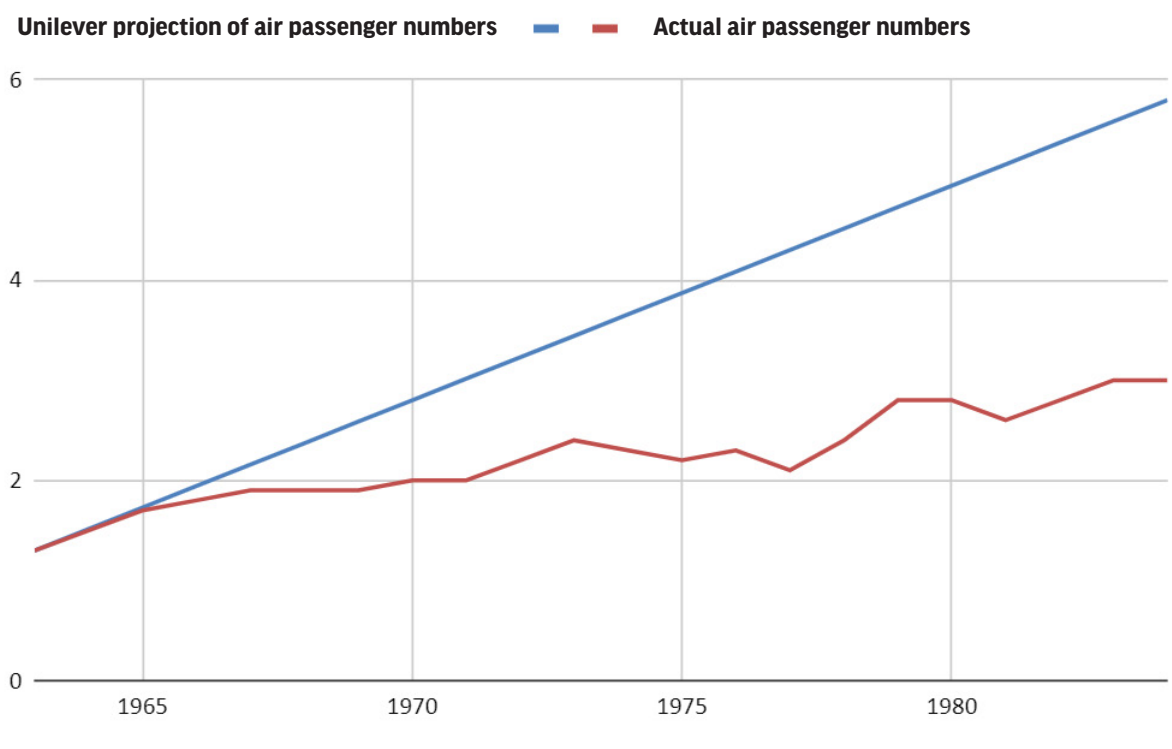
Flying cars deserve a specific mention due to their appearance in Unilever's forecast data and so the impact of a misfired technology forecast at the core of a larger forecast can be measurably studied. As can be seen, Unilever predicted a large rise in air travel into the 1980s, with a corresponding rise in private car licences (from 2.4 million in 1951, 5.5 million in 1960 to 20 million in 1984). Based on the assumption that flying cars would be widepsread by 1984, they predicted substantial declines in both rail and road journeys. *Britain 1984* then predicted the psychological, social, and infrastructure implications of flying cars. Given that the flying car was not available by 1984, and is still not available thirty-seven years later (2021), this forecast was by far the most unreliable in *Britain 1984*, and indicates the risks of placing technology forecasts first. The equivalent is relying on demographic forecasts without knowing which species humans will give birth to in the future. Relating this to probably the best-known depiction of flying cars - the 1980s *Back to the Future* movie franchise - it seems the future needed roads, after all.

CONCLUSION

In examining Unilever's *Britain 1984* project, *Back To The Future* has sought to contribute to growing research, including historical research, on futures, forecasting and related decision-making. Produced in 1963 to imagine Britain in two decades, *Britain 1984* used CSO and related data to predict the future of technology, energy, transport, demography, consumer goods, social behaviours, and more.

Using archival sources and facing novel research challenges due to Covid-19, this study set out to test Unilever's 1963 forecasts for Britain in 1984. We focused on energy, population, household expenditure and transport.

We reached three general conclusions: i) Unilever overestimated rates of future change, ii) in prioritising analysis of technology, specifically technological change, Unilever's forecast structure was particularly risk-prone, and iii) that forecasters should try to anticipate upcoming changes in data architecture. Finally, as we concluded in a different study – that of the dotcom boom of the late 1990s and early 2000s (Weatherburn, 2017) – decision-makers should aim to adopt a more measured tone and seek to manage expectations of forecast users.

BIBLIOGRAPHY

Andersson, Jenny. *The future of the world: futurology, futurists, and the struggle for the post-cold war imagination.* Oxford University Press, 2018.

Andersson, Jenny. 'The great future debate and the struggle for the world.' *The American Historical Review* 117.5 (2012): 1411-1430.

Andersson, Jenny. 'The future of the Western world: the OECD and the Interfutures project.' *Journal of Global History* 14.1 (2019): 126-144.

Arapostathis, Stathis, et al. 'Governing transitions: cases and insights from two periods in the history of the UK gas industry.' *Energy Policy* 52 (2013): 25-44.

Beckert, Jens. *Imagined futures: fictional expectations and capitalist dynamics.* Harvard University Press, 2016.

Brech, Ronald. *Britain 1984: Unilever's forecast: an experiment in the economic history of the future.* London: Longman & Todd, 1963.

Briggs, Asa. 'The historian and the future.' *Futures* 10.6 (1978): 445-451.

Cornelius, Peter, Alexander Van de Putte, and Mattia Romani. 'Three decades of scenario planning in Shell.' *California Management Review* 48.1 (2005): 92-109.

Cowan, Ruth Schwartz. *More work for mother: the ironies of household technology from the open hearth to the microwave.* Basic Books, 1983.

DEFRA, *The UK's food history revealed through five generations of data* (2016). Online at: https://www.gov.uk/government/news/the-uks-food-history-revealed-through-five-generations-of-data

Delap, Lucy, 'Yes ma'am': domestic workers and employment rights', *History & Policy* (2012). Online at: http://www.historyandpolicy.org/policy-papers/papers/yes-maam-domestic-workers-and-employment-rights

Edgerton, David. *The shock of the old: technology and global history since 1900.* Profile books, 2006.

Flyvbjerg, Bent, ed. *The Oxford handbook of megaproject management.* Oxford University Press, 2017.

Friedman, Walter. *Fortune tellers: the story of America's first economic forecasters.* Princeton University Press, 2013.

Gordon, Adam, *Future savvy: identifying trends to make better decisions, manage uncertainty and profit from change.* American Management Association, 2009.

Green, Toby, 'Ronald Brech: economist with a passion for his field' *Independent*, 7 October 2012.

Heffernan, Margaret. *Uncharted: how to map the future together.* Simon & Schuster, 2020.

Helm, Dieter, *Energy, the state and the market: British energy policy since 1979.* Oxford University Press, 2003.

Jefferson, Michael. 'Shell scenarios: What really happened in the 1970s and what may be learned for current world prospects.' *Technological Forecasting and Social Change* 79.1 (2012): 186-197.

Jones, Geoffrey. *Renewing Unilever: transformation and tradition.* Oxford University Press, 2005.

Jones, Geoffrey, and Peter Miskell. 'European integration and corporate restructuring: the strategy of Unilever, c. 1957–c.1990' *The Economic History Review* 58.1 (2005): 113-139.

Kahneman, Daniel. *Thinking, fast and slow.* Macmillan, 2011.

Lewis, Brian. *'So clean': Lord Leverhulme, soap and civilization.* Manchester University Press, 2017.

Marks & Spencer Company Archive, *M&S food timeline* (n.d.). Online at: https://marksintime.marksandspencer.com/download?id=13176.

ONS, *Marriages in England and Wales* (2019). Online at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/marriagecohabitationandcivilpartnerships/bulletins/marriagesinenglandandwalesprovisional/2016#:~:text=5.,rise%20recorded%20since%20the%201970s.

ONS, *Trends in births and deaths over the last century* (2015). Online at: https://www.ons.gov.uk/peoplepopulationandcommunitybirthsdeathsandmarriages/livebirths/articles/trendsinbirthsanddeathsoverthelastcentury/2015-07-15.

Pietruska, Jamie L., *Looking forward: prediction and uncertainty in modern America.* Oxford University Press, 2017.

Römer, Felix. 'Evolving knowledge regimes: economic inequality and the politics of statistics in the United Kingdom since the postwar era.' *KNOW: A Journal on the Formation of Knowledge* 4.2 (2020): 325-352.

Saunders, C. T. 'Britain 1984: a forecast prepared for Unilever' *Journal of the Royal Statistical Society* (1964): 147-149.

Taleb, Nassim Nicholas. *The black swan: the impact of the highly improbable.* Random House, 2007.

Tetlock, Philip E., and Dan Gardner. *Superforecasting: The art and science of prediction.* Random House, 2016.

Toffler, Alvin. *Future shock.* Bantam, 1970.

Unilever, *Our History* (n.d.). Online at: https://www.unilever.co.uk/about/who-we-are/our-history

Ward, Reg and Ted Doggett, *Keeping Score: The First Fifty Years of the Central Statistical Office* (HMSO: Central Statistical Office, 1991).

Waskow, Arthur I. 'The historian's role in futures research.' *Futures* 1.2 (1968): 117-124.

Weatherburn, Michael. *Don't believe the hype: work, robots, history*. Resolution Foundation, 2017.

Weatherburn, Michael. 'Human Relations' invented traditions: Sociotechnical research and worker motivation at the interwar Rowntree Cocoa Works.' *Human Relations* 73.7 (2020): 899-923.

Wilson, Charles. *The history of Unilever: a study in economic growth and social change.* Weidenfeld & Nicolson, 1970.