Annual Report and Financial Statements 2019

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Report from Chair

During my tenure at Wellcome, which ends in 2020, I count myself lucky to have had the opportunity to meet inspiring people from a rich diversity of sectors, backgrounds, specialisms and scientific fields.

Wellcome's achievements belong to the people who work here and to the people we fund – it is a partnership that continues to grow stronger, more influential and more ambitious, spurred by our independence. Not relying on public funding means Wellcome can take risks that would be more difficult for governments or other charities.

"Nothing can be achieved in isolation from others."

This year, Wellcome spent £1.13 billion on charitable activities – this spend is much higher than last year because of the timing of significant commitments but it is in line with our expectation that we will spend, on average, around £1 billion a year.

Our spending level is made possible by our investment portfolio, which returned 6.9% in the year to 30 September 2019 or 4.9% after inflation. Our annualised returns over the past ten years have been 12.0%. In part, this period of strong returns reflects a low starting point for asset prices after the Global Financial Crisis, and it has certainly been assisted by the actions of Central Banks globally. Nonetheless, our investment team deserve credit for taking advantage of these conditions to enable Wellcome to more than double our funding capability.

I would like to take this opportunity to acknowledge our former Chief Investment Officer, Danny Truell, who died in September. His management of the portfolio through the crisis years and beyond was exceptional. His contributions have been pivotal to making Wellcome what it is today.

The macro environment is increasingly challenging, which has created volatility in financial markets. Q4 2018 was a very difficult quarter, but the resumption of interest rate cuts by the US Federal Reserve underpinned another year of gains for our portfolio. We recognise that the cycle is extended, and that the portfolio is likely to face more challenging times ahead.

The team is working hard to ensure that Wellcome is as well placed as possible to face more difficult times.

Existing priority areas have shown the additional impact possible when Wellcome acts at scale: our vaccines priority area co-founded Coalition for Epidemic Preparedness Innovation (CEPI), which has now raised $780 million for developing vaccines and technologies to prevent infections such as Nipah virus and Rift Valley fever. This year, Wellcome-commissioned research added to the evidence that vaccines could also help to reduce drug-resistant infections, another of our priority areas.

Two new priority areas were approved in 2019. One will help make safe, effective and accessible treatments a reality for snakebites, which currently kill more than 120,000 people a year. The other aims to ensure that Artificial Intelligence and data technologies will transform research and healthcare in ways that benefit everyone.

The foundation of medical progress is science that reveals new knowledge about human health and disease. Most of Wellcome's funding goes into this vital and fundamental science, and it is difficult to pick out specific advances from the thousands of researchers we support. On pages 10 to 20, we convey some of the range of this work. Not just the clinician scientist, funded by Wellcome for 30 years, who shared a Nobel prize in October 2019 for research on oxygen sensing, but also the early career researcher setting up a lab to study how wounds heal, a team of neuroscientists decoding cellular connections in the brain, and a collaboration at the Wellcome Sanger Institute using cutting edge genomics to personalise disease prediction for a type of chronic blood cancer.

There are so many more achievements we could celebrate. This is what makes Wellcome such an exciting organisation: we see glimpses of how the world's health could be transformed in a few years, a decade, or even a century from now. My admiration for the discipline and rigour of scientific thinking has only increased, and I have seen great resilience to adversity among the scientific community. Wellcome is in an enviable position of being able to fund our activities ourselves, but we know how researchers continually have to apply for grants and awards from funders like us. It's vital that Wellcome takes account of the effects that our approach to funding can have on the culture of research – not to over-state our influence, but so that we can aim for those effects to be positive.

At the time of writing, researchers in the UK – and across the European Union – need all their resilience during the uncertainty of Brexit. It is difficult to focus on science when you don't know whether your international colleagues will be able to stay in your lab next year. Wellcome has been consistently clear that the UK must develop a simple, swift immigration system for researchers and technicians, keep access to EU research funding, and cooperate on regulation. This will allow cross-border scientific collaboration to continue to flourish, and help the UK maintain its reputation as a magnet for global scientific talent.

Nothing can be achieved in isolation from others. I would like to thank everyone I have met and worked with at Wellcome, including Directors Mark Walport and Jeremy Farrar, and my fellow Governors who have guided, challenged and inspired me.

Three Governors retired from the Board this year: Naguib Kheraj, also previously a stalwart external member of Wellcome's Investment Committee, Anne Johnson and Alan Brown, who all contributed so much to Wellcome over the years. Amelia Fawcett, Richard Gillingwater and Cilla Snowball joined the Board in September 2019, and Elhadj As Sy will join in January 2020. The great wealth of commercial and non-profit expertise they bring will be invaluable as the Board continues to evolve after an effectiveness review in 2018, and as Wellcome develops more ambitious goals and effective strategies to improve health for everyone.

Eliza Manningham-Buller

Eliza Manningham-Buller
Chair, Wellcome

Report from Director

In 1989, Peter Ratcliffe began setting up a lab at Oxford University to investigate how cells sense oxygen levels in the body. Wellcome awarded him a senior fellowship award and we've funded him ever since. The research in his lab led to fundamental discoveries about how the body responds to changes in oxygen levels, and about related medical conditions including kidney failure. More recently, it has informed the development of potential new drugs for use in critical care and to treat kidney disease, anaemia and several forms of cancer. Everyone at Wellcome was thrilled when it was announced that Peter would share the 2019 Nobel Prize in Medicine for this work.

I was working in the Weatherall Institute of Molecular Medicine, Oxford, in the early 1990s and remember the scientists in Peter's lab being so inspired – not just about their work but also the culture of the lab. I am sure the positive environment he created there contributed to all their success and should be celebrated along with the resulting research.

"We need science, innovation and society working together to improve health for everyone"

Whether basic research into cellular oxygen-sensing in Oxford, or demonstrating the effectiveness of a vaccine programme to prevent diarrhoeal disease in Malawi, it's ideas and people coming together in a constructive and supportive environment that leads to genuine transformations in health. Aware of our influence as a funder, Wellcome launched a campaign in September 2019 to "reimagine research": working with the rest of our community to create a more positive research culture that consistently promotes excellence in the way science is done as well as in the results it produces.

Research and innovation have most impact when science is a trusted part of society. Wellcome Global Monitor interviewed 140,000 people in 140 countries about how they think and feel about science and major health challenges. It's the largest ever study of its kind, and is not a resource just for Wellcome – the full 2019 report and dataset are available on our website, and I encourage all scientists, policy makers and funders to make use of it to actively influence trust in science in your societies and communities.

Such activities show the increase in Wellcome's scale and ambition over the past decade. This year, we have been engaging with new sectors to recruit an outstanding chief executive for the Leap Fund, for example. We're now leading global responses to big health challenges, including drug-resistant infections and mental health.

The Wellcome Success Framework ties all our work together so we can assess how well we're achieving our mission of improving health. As well as being a tool to measure progress, it can be used to ensure we're making the most of Wellcome's resources, expertise and relationships with people we fund, our partners and networks.

This year, the Wellcome Success Framework informed a significant review of how we fund science. As we have changed in recent years, so too have the research enterprise and the health challenges we face. It's time to take stock, respond to those changes and set out exactly what we hope to achieve through that funding. This is feeding into a broader review of organisational strategy.

In September 2019, I was delighted to welcome Paul Schreier onto the Executive Leadership Team (ELT) as our new Chief Operating Officer. It's a role Wellcome has had before, though not for a few years, and he will help us to put the organisation into the right shape for delivering our ambitious strategies. Also joining ELT this year were Karen Chadwick as Acting Chief Financial Officer, and Mike Turner, who is Director of Science while Jim Smith steps away from ELT to lead the review of Wellcome science.

We operate in a rapidly changing world. There is upheaval on all sides – political, social, environmental – but there are also opportunities to find new allies in our mission. The great health challenges of our time cannot be solved by any one organisation or nation acting alone: we must think beyond and work across borders to find the right mix of ideas that work for us all. Wellcome already has productive partnerships with academia, industry, governments and philanthropy all around the world. In January 2019, we opened an office in Berlin to support work with new partners and to contribute to the German government's increasing commitment to global science and innovation, and its long-standing support for multilateralism.

Back in London, the opening of a new permanent gallery at Wellcome Collection has to be one of my highlights of the year. Being Human explores issues of trust, identity and health in our changing world – issues central to Wellcome's mission since our foundation in 1936. It helps remind us that we need science, innovation and society – all three working together – to improve health for everyone.

Jeremy Farrar
Director

Trustee's Report

A colleague talks to Dr Hayley Francies, a Senior Staff Scientist at the Wellcome Sanger Institute

Image: Thomas Farnetti

What we do

We are an independent global charitable foundation dedicated to improving health.

Our vision and objects

The objects of the Wellcome Trust, as set out in our Constitution, are:

To protect, preserve and advance all or any aspects of the health and welfare of humankind and to advance and promote knowledge and education by engaging in, encouraging and supporting:

- research into any of the biosciences; and
- the discovery, invention, improvement, development and application of treatments, cures, diagnostics, and other medicinal agents, methods and processes that may in any way relieve illness, disease, disability or disorders of whatever nature in human beings or animal or plant life;

To advance and promote knowledge and education by engaging in, encouraging and supporting:

- research into the history of any of the biosciences; and
- the study and understanding of any of the biosciences or the history of any of the biosciences.

Our spending

Wellcome maintains an average funding level of around £900 million a year, rising with inflation, for our core activities: supporting researchers, campaigning and public engagement. This provides stability and predictability for our annual spending plans. In addition, we fund priority areas and other large scale, high-impact activities.

The Financial Planning process is discussed in the Financial Review on page 34.

Our current priority areas are:

- Data for science and health
- Diversity and inclusion
- Drug-resistant infections
- Mental health
- Research ecosystems in Africa and Asia
- Science education
- Snakebites
- Vaccines
- Our Planet, Our Health

Our work

Wellcome exists to improve health by helping great ideas to thrive.

We support researchers
Wellcome directly funds thousands of scientists and researchers around the world addressing fundamental health challenges of our time, across biomedical science, population health, medical innovation, humanities and social sciences, and public engagement. We are open to proposals and give grants through schemes run by our three funding divisions: Science, Innovations, and Culture & Society.

We take on big health challenges
We identify areas in which Wellcome can lead significant change within five or ten years. The aim is to transform the global response to some of today's biggest health challenges, such as drug-resistant infections, climate change and mental health.

We campaign for better science
Through partnerships across the world, we advocate to ensure that good research is well supported, and that health is improved by changes to policies and practices based on evidence.

We help everyone get involved
We engage the public so that people are more aware of science and health research, and feel able to make the most of it in their own lives. Through our Culture & Society division, we offer grants to Wellcome-funded researchers and a range of other people and organisations for public engagement activities. We directly run a number of other activities including Wellcome Collection, our free museum and library.

Review of Charitable Activities

Charitable spending by area

Science

£839m

2018: £545m

Our aim is to catalyse excellent science and maximise its health impacts. A major part of our work is engaging with the research community, many of whom will apply to and be supported by our funding schemes.

Innovations

£130m

2018: £35m

We work with people and organisations across the world to transform great ideas, discoveries and inventions into treatments and products.

Culture & Society

£96m

2018: £96m

We maximise Wellcome's impact on human health by understanding the social and cultural contexts of science and health. This includes supporting research in the humanities and social sciences, and public engagement with science.

Priority areas

£66m

2018: £47m

Wellcome chooses priority areas where we want to see significant change. We lead and are accountable for these activities, working with partners to achieve ambitious goals.

More detail on Annual Charitable Expenditure and movements between the current and prior year is given in the Financial Review on page 33 and in note 6.

A selection of case studies is presented on pages 10-14.

Case studies

Case studies on pages 10 to 14 highlight some of the people and projects we support through our three funding divisions – Science, Innovations, and Culture & Society – and directly. More examples can be found on wellcome.ac.uk.

SCIENCE

Rotavirus vaccine success

A study of over 48,000 babies born around the time of the implementation of the rotavirus vaccine in Malawi makes the case for more widespread use in resource-poor counties. The research, published in autumn 2018, was the first to report reductions in infant mortality in a low-income country using the rotavirus vaccination schedule recommended by the WHO.

The vaccine was developed by a team at the Malawi-Liverpool-Wellcome Trust Clinical Research Programme, and introduced in Malawi in late 2012. The new study showed a 34% decrease in child deaths associated with vaccine coverage, and potentially a larger decrease when immunisation was accompanied by improvements in water, hygiene and sanitation.

INNOVATIONS

Tailoring stroke treatment

At University College London Hospitals, a supercomputer is being trained with anonymised data from thousands of stroke patients. Given the complexity of the human brain and the vast amounts of data required to better understand stroke, advances in preventing and treating strokes have lagged behind similar conditions. The computer will learn to identify patterns and how different treatment decisions affected outcomes for different types of stroke.

The aim of this Wellcome-funded project is for it to quickly predict the best clinical decisions for patients. Recovery is greatly affected by the speed of treatment, so technology that can make rapid and accurate decisions about treatment could be transformative.

Researchers in the Malawi-Liverpool-Wellcome laboratory in Blantyre, Malawi *Image: Thoko Chikondi*

Refugee Astronaut III by Yinka Shonibare, in the Being Human gallery

Image: Wellcome

SCIENCE

C-GULL birth cohort

Children Growing up in Liverpool (C-GULL) is the first new birth cohort study in the UK for almost 20 years. Generations can grow up in very different environments, so continuing to support new birth cohort studies can bring more up-to-date knowledge that better supports human health.

C-GULL will track the growth and development of 10,000 first-born infants to explore connections between poverty, pregnancy and childhood. In Liverpool, as in other cities, there are high rates of heart disease, cancer and mental health problems in disadvantaged areas. The Wellcome-funded C-GULL was launched in July 2019 and is part of a larger study to improve knowledge around health and development of children born in poorer areas of the UK – and other countries – in a time of significant social and political change.

CULTURE & SOCIETY

Being Human

Wellcome Collection's new permanent gallery opened in September 2019 to explore trust, identity and health in a changing world. With personal experience at heart, it will help to engage thousands of visitors with science and health research, through new commissions and significant artworks from well-known and emerging contemporary artists.

Other items on display include a jukebox of contemporary songs about epidemics, a DNA sequencer smaller than a smartphone, and a Friendship Bench – an intervention developed in Zimbabwe with Wellcome support, which is transforming mental health across the world by taking counselling outside the clinic.

SCIENCE

Personalised predictions

Personalised disease predictions could soon become a reality for patients with chronic blood cancers known as myeloproliferative neoplasms, following work published in October 2018 by researchers at the Wellcome Sanger Institute and their collaborators. Studying 69 cancer genes from over 2,000 patients, the team identified eight genetic subgroups of the disease. They developed an improved method to make disease predictions for individuals and identify which specific treatments or clinical trials may most benefit each patient.

The Wellcome Sanger Institute is part of the Wellcome Genome Campus, and they operate under the auspices of Genome Research Limited, a wholly owned subsidiary of the Wellcome Trust.

SCIENCE

Wound healing

Anna Franz, a postdoctoral researcher in Bristol, was awarded a Sir Henry Dale Fellowship in 2019. The funding enabled her to start her own research group at University College London investigating the functions of fat cells in wound healing and cancer. She has discovered that, in fruit flies, these cells are recruited to skin wounds where they seal the wound, clear debris and produce an immune response. They may also perform similar roles in vertebrates.

The Sir Henry Dale Fellowship scheme is a partnership between Wellcome and the Royal Society.

Between 25,000 and 65,000 people die of leishmaniasis every year – Ruby was successfully treated in hospital in India

Image: Kishore Pandit-DNDi

INNOVATIONS

New leishmaniasis drugs

Over 1 billion people worldwide are at risk of leishmaniasis, which is transmitted by the bite of a sandfly. The only drug treatments have serious drawbacks in terms of safety, duration, resistance, stability and cost. In February 2019, Wellcome announced funding for the Drugs for Neglected Diseases initiative, a not-for-profit research and development organisation, to improve treatments for this devastating disease.

The three-year partnership will enable the development of combinations of entirely new, all-orally acting drugs, bringing together the pharmaceutical and biotechnology industries, academia and product development partnerships. The focus is on delivering the most promising and effective treatments, and supporting the World Health Organization's strategy to control and eliminate leishmaniasis.

Wellcome Photography Prize images were displayed at the 2019 World Health Summit

CROSS-WELLCOME

Wellcome Photography Prize

Celebrating compelling visual stories, the Wellcome Photography Prize announced its first winners in July 2019. This new open competition inspires people to think more widely about health and medicine, rewarding pictures that show the importance of health in society and the impact health issues can have on people and communities worldwide.

The Prize aims to increase knowledge of Wellcome's mission and encourages engagement with our key issues. Shortlisted images have since been displayed in London, including Westminster, at the World Health Summit in October 2019, and online to accompany journalism about dengue outbreaks. We will continue to use them at events throughout 2020 to invite new conversations with global health leaders and policy makers.

SCIENCE

Brain circuits

New light has been shed on how neural circuits in the largest region of the brain develop. The cerebral cortex supports many of our advanced abilities and contains two main cell types – excitatory and inhibitory neurons – with brain functions depending on how the connections between them are organised. A team at King's College London, funded by Wellcome, identified a range of cell-specific molecular codes in the mouse brain that emerge during development and are responsible for the connections between these two cell types. Their work, published in January 2019, advances fundamental understanding of the brain's diverse neuronal circuitries.

SCIENCE

Evolution, genes and health

Whole-genome sequence data from ancient humans and their pathogens can reveal much about present-day western Eurasians, and two major Wellcome awards are supporting work to probe how human evolution has shaped our genomes and our health. A collaborative group at Cambridge University is constructing the evolutionary histories of western Eurasian people and evaluating the impact of ancient humans and their pathogens on the health status and disease profiles of the present-day populations in the region.

A second project at the Francis Crick Institute will sequence over 1,000 whole genomes from ancient Britons who lived during the past 5,000 years. This creation of a genomic history of Britain will be used to reconstruct human evolution and understand how natural selection has shaped genetic variation in response to historic shifts such as industrialisation, urbanisation and epidemics.

SCIENCE

Sensing oxygen

In October 2019, Sir Peter Ratcliffe shared the Nobel Prize in Physiology or Medicine for research into how cells sense and adapt to oxygen availability. In 1990, Peter was awarded a Wellcome Senior Fellowship Award to get a new lab started at Oxford University. His research, which Wellcome has funded continually since then, helped uncover the sensing mechanism through which individual cells can respond to changing levels of oxygen in the body by making new blood vessels or producing more red blood cells. This has led to insights into kidney failure and the development of new drugs to treat anaemia and cancer.

Peter currently holds a Wellcome Senior Investigator Award. He is Director of the Target Discovery Institute at Oxford University and Director of Clinical Research at the Francis Crick Institute, which is co-funded by Wellcome and other partners.

Researchers in the Sequencing Centre at the Wellcome Sanger Institute *Image: Thomas Farnetti*

Wellcome's mission is to make sure great ideas from science and research thrive so that they can fulfil their potential to drive significant improvements in health. As well as supporting researchers, we look for opportunities to transform areas we have prioritised, using our influence to bring people together and achieve impact.

Health has been and will continue to be transformed by ideas tested and developed through research: progress is cumulative, there is often a time lag between funding and outcome, and the results of individual early-stage investigations cannot be predicted. Funding research requires confidence that the teams, people and places supported will, as a whole, produce valuable information and insight in support of our overall mission to improve health.

The majority of Wellcome funding supports hypothesis-based investigation but our expanding scale and ambition has taken us into new sectors.

Translational research is usually expected to achieve impact in one to five years, sometimes much longer. Our funding for translation activity is structured through milestones, and we are keen to find ways to move exciting discoveries along the translational pathway more quickly.

Careers in research offer opportunities but can take a huge toll on individuals. Poor work-life balance has become the norm and change is desperately needed. As a major global funder, with a track record of leading change in the sector, we share responsibility for research culture. Through our #ReimagineResearch campaign, launched in September 2019, we are working with the research community to create a shared vision of great research culture. Our aim is to lead long-lasting changes to help build a culture that is creative, inclusive and honest, that takes much greater account of the way research is done as well as what it produces.

In line with this aim, we are reviewing how Wellcome supports science, taking stock of how Wellcome, research and health challenges have changed in recent years. After an initial phase in the summer of 2019, we consulted widely on four bold visions with the potential to redefine Wellcome's role in science for the next 10 to 15 years. Each will be thoroughly tested and external perspectives gathered before findings and our future direction are announced in 2020. No changes to our funding schemes as a result of this review will be implemented before October 2021.

In parallel with the science review, we are reviewing Wellcome's organisational strategy with the aim of making sure we achieve as much impact as possible from our charitable activities to improve health.

The development of the Wellcome Success Framework over the past few years is helping us to rethink how we monitor and evaluate our activities and outcomes. By bringing together the broad range of activities through which we achieve our mission, it has already increased our confidence that Wellcome succeeds in many different ways across different fields of research and beyond. However, it has also revealed significant gaps in our knowledge about the impact of many of Wellcome's activities. In 2020, we intend to start publishing reports for tracking what Wellcome does – both directly and with our award holders and partners – in pursuit of our mission.

The majority of Wellcome funding supports hypothesis-based investigation but our expanding scale and ambition has taken us into new sectors. The Leap Fund, announced in 2018, will take on challenges that are too early, risky or unconventional for existing funding streams. Recruiting a chief executive for the Leap Fund has taken longer than predicted. We needed to engage with people in communities outside Wellcome's existing spheres of influence, which is the right approach for a project of this scale and ambition, and we aim to appoint a CEO in early 2020.

Wellcome is based in London and most of the work we fund takes place in the UK, but we are international in our outlook. Our new Germany office opened in January 2019, giving us a base from which to work with new partners to address big health issues like drug-resistant infections, and to learn from the German government's expertise on global health, research, innovation and culture.

We continue to encourage the UK Government and other partners to create the best possible conditions for research and science to impact health as the UK leaves the European Union. In March 2019 we published a report identifying an opportunity for the UK, after Brexit, to become a world leader in effective regulation to ensure emerging science and technologies can improve our lives quickly and safely. In June 2019, we launched a petition in support of EU/UK collaboration post-Brexit – researchers across Europe need a long-term solution to allow them to continue working together on the big challenges our societies face.

The second largest ever outbreak of Ebola began in the Democratic Republic of the Congo in August 2018. Wellcome has supported vaccine research as part of the emergency response. This funding was provided through the Joint Initiative on Epidemic Preparedness, a partnership with the UK Department for International Development. In November 2019, a vaccine developed with Wellcome support became the first licensed vaccine against Ebola.

In June 2019, the first Wellcome Global Monitor report was published. Public trust in science is essential for achieving Wellcome's mission. To more effectively engage people with science and health issues, policy makers, researchers and funders need data on different attitudes across different countries and demographics. In the world's largest ever study to try to understand how people around the world think and feel about science and major health challenges, 140,000 people from over 140 countries were interviewed.

The results presented an unprecedented view of the relationship between science and society worldwide. Generally there was high confidence in scientists (72% of those surveyed) and in doctors and nurses (73%). Men were more likely than women to claim greater knowledge of science, even when reported levels of science attainment were equal. And more than three-quarters of those surveyed agreed that vaccines are safe and effective. The full report is available on the Wellcome website for anyone to access and use.

Science

Wellcome's Science division oversees a portfolio of around 1,800 active grants totalling more than £3 billion. The majority of this funding is through Fellowships and Investigator award schemes, and to Wellcome Centres and our Africa and Asia Programmes as well as ventures such as the Wellcome Sanger Institute, the Francis Crick Institute, and Diamond Light Source.

The Science team is working closely with the review of Wellcome's approach to supporting science, but given there will be no significant changes resulting from the review before 2021, current work is still focused around:

- Creating knowledge
- Strengthening research capabilities
- Using knowledge effectively
- Promoting an environment in which research can flourish.

In July 2019, Wellcome announced five years of funding for the Human Developmental Biology Initiative, which will provide insights into how human beings develop and grow. More than a dozen labs across the UK will work together to generate data and new tools, integrating disciplines to build a 'family tree' of cell divisions during the first 14 days of development. The data, tools and methods generated will be freely available to the scientific community.

Meanwhile the Human Cell Atlas goes from strength to strength, publishing two significant papers this year. The Wellcome-funded project is a collaboration between world-leading scientists who aim to compile a collection of maps that describe and define the cellular basis of health and disease. In November 2018, research from the project detailed how the maternal immune system is modified in early pregnancy. In September 2019, another research paper detailed the cellular landscape of the developing liver and clues into how the blood and immune systems develop in the fetus.

November 2018 saw the launch of the ambitious Darwin Tree of Life Project, led by the Wellcome Sanger Institute. Part of the Earth Biogenomes Project, it brings genome sequencing expertise together with taxonomists and will sequence all 60,000 species in the UK. All of the data will be stored in public domain databases and made freely available for research and public use, meaning it can benefit anyone from school children to citizen scientists. The project will yield unprecedented insights into biology and evolution, bolster efforts to conserve, protect and restore biodiversity, and create new benefits for society and human welfare.

Another project maximising the value of data is the UK Biobank, which Wellcome supports alongside other funders. In September 2019 it was announced that UK Biobank would begin whole-genome sequencing of all 500,000 of its participants, greatly increasing researchers' ability to find associations between genetics and health. This ambitious project is being funded through UK Research and Innovation's Industrial Strategy Fund, and by Wellcome and the pharmaceutical companies Amgen, AstraZeneca, GlaxoSmithKline, and Johnson & Johnson. The sequencing will be done by the Wellcome Sanger Institute and deCODE, a subsidiary of Amgen based in Iceland (further detail is provided in note 7).

Our relaunched PhD programme implemented changes in line with our broader objectives to build a better research culture.

Wellcome is one of 12 UK funders collaborating on the UK Prevention Research Partnership, which will fund large collaborations and networks researching the prevention of non-communicable diseases. In May 2019, the first eight projects were funded, tackling factors behind the prevention of diseases such as heart disease, obesity, poor mental health, cancer and diabetes.

Our Seed Awards in Science funding scheme launched in 2015 but has proved to be relatively inefficient in terms of the effort it takes to make a large number of small awards. The Springboard Award scheme, run by the Academy of Medical Sciences with support from Wellcome and others, has similar aims and so we decided to close Seed Awards in Science after a final funding round in March 2019.

Another funding scheme, Research for Health in Humanitarian Crises, was established in 2013 as a partnership with the Department for International Development and the Department for Health and Social Care to reduce mortality and morbidity in humanitarian crises. We have decided to stop funding this scheme after two more years, when we expect it to continue without our support. Our role in establishing this scheme has been fulfilled and Wellcome will now look at other ways to support research in this area.

In September 2019, our relaunched PhD programme implemented changes in line with the #ReimagineResearch campaign and our broader objectives to build a better research culture. As well as asking institutions to build PhD programmes based on excellent science, we required them to demonstrate their commitment to promoting a positive research culture. As the first funder to explicitly combine assessment of research excellence and culture as part of the peer review and decision-making process, Wellcome now only funds programmes that support the personal, professional and technical development of students during and after their PhDs. Hard metrics cannot measure the concept of culture, so as well as evaluation by an independent social researcher, we have asked the funded institutions to form a community and share their approaches.

Innovations

In 2019, the Innovations division has focused on building our new Flagship portfolios and diversifying the overall portfolio. Flagships were announced in late 2018 with the aim of establishing five specific topics over the next five years. This year we defined and invested in four Flagships, focusing on neglected tropical diseases, psychosis, innovation in lower and middle income countries, and innovation to prevent enteric disease.

Within our Flagships, we have supported new programmes to transform treatments for leishmaniasis, a neglected tropical disease (see page 12); work to manufacture and clinically develop a vaccine for Shigella, a global health threat that disproportionately affects the most vulnerable in low income countries; and a programme to improve treatments for typhoid, an enteric fever spread in contaminated food.

We work with researchers and organisations around the world to transform ideas, discoveries and inventions into treatments, products and cures for disease, and to help develop transformational technologies that can make a meaningful impact on human health.

Two key examples of this are the use of machine learning to assess patients after stroke (see page 10), and a 'clean room' facility for researchers to produce prototype implantable medical devices for human testing. Without clinical data from human testing, devices cannot be adopted by clinicians and benefit patients, so we are supporting a team at King's College London to create a dedicated facility to build and certify implantable medical devices for first-in-patient studies.

We strengthened our technology portfolio through a digital health Innovator Award call this year. We made 15 new awards across broad areas from a machine learning tool to improve patient assessment based on cardiac MRI data, to app-based screening to help eradicate malaria, and using deep learning technology to predict and diagnose psychosis.

Translational Partnerships provide tailored support to institutions to increase the awareness and engagement in translational activities among their researchers. We work in partnership with the institutions to agree mutual goals and guide the deployment of the funding. Seven awards made in 2019 were to UK institutions and three to non-UK EU institutions, in line with Wellcome's global outlook.

To date, we have found it challenging to identify a practical and uniform approach to commercialising intellectual property from discovery science. Our current approach to revenue sharing and consents is flexible, predicated on common priorities and values with those we fund. We will be exploring the underlying issues further, and if this doesn't generate the charitable benefit we anticipate we will need to consider other options.

As of July 2019, our portfolio had over 70 clinical and field studies, touching the lives of more than 3.5 million people. At least 10% of Wellcome investigators are involved in translational activity and we have 73 interventions in clinical use.

Culture & Society

Following the introduction of a new public engagement strategy in 2018, our work in this area has become more people-centred, focusing on the human experience of health and of science and health research. This year we began to promote new practices in public dialogue, bringing a broader range of voices into discussions about health challenges and how we face them. For example, we are using an approach called deliberative dialogue in our work on drug-resistant infections, since a public mandate for change around antimicrobial use would increase the likelihood of substantial policy change and meaningful action at a local level.

Using human-centred design approaches we have trialled projects exploring various aspects of health in society. One project looked at sleep and shift work, and how we could make a healthier 24-hour workforce; another, with the Academy of Medical Sciences, aimed to open a national conversation around death and dying.

We closed our Public Engagement Fund in July 2019 after the deadline for what will now be the final round. The fund was not proving to be the best vehicle for finding diverse and innovative projects to support, while the systematic changes needed to help the public engagement sector succeed require more targeted investment and thoughtful partnerships, rather than an open fund.

Also in July, Wellcome's humanities and social sciences team launched two one-off calls to fund international exchange programmes and research development activities for researchers. The awards will be made in 2021 to support groups of research leaders who want to take risks and push boundaries with their work. We hope they will also help to build research environments that make transformative research possible.

Following a large consultation, Wellcome published an updated open access policy in May 2019 to align with Plan S – the initiative to make full and immediate Open Access to research publications a reality. The policy, which will apply from January 2021, means all research articles that acknowledge Wellcome funding must be freely available immediately upon publication. The policy requires academics to retain copyright of their work and encourages preprints where there are significant health benefits to research being available without delay.

In order to better reflect the diversity in the population, particularly in London, and confront institutional and individual bias, we are embedding Access, Diversity & Inclusion into every aspect of Wellcome Collection – our free museum and library that aims to challenge how we all think and feel about health. The plan covers physical access and includes a new Changing Places toilet, which provides a safe and clean environment with additional equipment and enough space to meet the needs of all disabled people. We are working to nurture different perspectives, challenging ourselves, our partners and the people we engage in our collections and programmes.

Priority Areas

Wellcome sets priority areas where we want to see, lead and be accountable for change. New areas can be proposed at any time and can be resourced for a development phase, after which a decision is made whether or not to make it a priority area. We currently have nine priority areas, after two new areas were approved in 2019: Data for Science and Health, and Snakebites.

Data for Science and Health

Artificial intelligence and technology are transforming healthcare, bringing opportunities to diagnose and understand disease, speed up drug discovery and deliver better care. Having consulted leading researchers across 30 countries about potential benefits and challenges, we made Data for Science and Health a priority area in June 2019.

Our programme will address barriers that could hinder data innovation. We want to engage society to build trust, understanding and participation in health data innovation, ensuring the public are part of the solution, and to equip and motivate data scientists to innovate with health data for public good.

Wellcome sets priority areas where we want to see, lead and be accountable for change.

Snakebites

Snakebites are inevitable but deaths and disabilities as a result are not. Treatment has progressed little in the last century and is rarely safe, effective and accessible in the places it is most needed. The world produces less than half of the antivenom it needs, as well as supporting only limited investment into snakebites and the emerging technologies that could deliver new treatments. Wellcome will help bring antivenom production into the 21st century: kickstart the next generation of treatments, build and sustain snakebite as a global health priority, and change the way science, policy and regulation combine to address neglected tropical diseases.

Mental Health

Mental Health became a priority area in 2018, with the aim of inspiring a new generation of approaches and treatments to help young people held back by anxiety and depression. In 2019, we framed our vision as: ‘No one held back by mental health problems’.

A radical new approach is needed to drive mental health science forward. Wellcome funded research, undertaken by mental health ‘super-science’ teams will identify the core active components of approaches and treatments which help young people to manage their mental health. We will also build support to sustain private, public and charitable funding for mental health research into the future.

Vaccines

Wellcome has long been committed to funding the development of vaccines to fight challenging infectious diseases, and to optimising vaccine use in low and middle-income countries. In 2017, we co-founded the Coalition for Epidemic Preparedness Innovation (CEPI), which has now raised $780 million of its $1 billion target. This year, CEPI funded research into vaccines against Nipah virus, Chikungunya, Rift Valley fever and other viruses, as well as technologies such as the RNA printer, a vaccine platform that can target multiple diseases.

There is growing evidence that vaccines could help to reduce drug-resistant infections, another of our priority areas. Vaccines not only reduce the burden of infections and the emergence of resistant strains, they can also reduce the amount of antibiotics used for secondary infections, which in turn reduces the development of drug resistance in bacteria. Wellcome commissioned a report, published in July 2019, on R&D opportunities for vaccines that combat antimicrobial resistance (AMR), using the WHO’s priority pathogen list as a starting point for the assessment.

Drug-Resistant Infections

Since becoming a priority area for Wellcome in 2016, steady progress has been made in raising the issue of drug-resistant infections but it is essential that the world works together on this problem. For example, in November 2018, we co-hosted a global event in Accra, Ghana to help drive pioneering action to stop the rise and spread of superbugs. It was our second ‘Call to Action’ event and saw greater participation from the global south and wider stakeholders. Over two days, it highlighted ongoing work to tackle drug-resistant infections and addressed how local and national action can be translated into sustainable action at a multinational, multilateral level.

New data re-use prizes were launched to reward insights and tools to help researchers reuse data. One focused on the AMR Register, an open data resource launched by Wellcome’s Drug-Resistant Infections team and led by the Open Data Institute. The winner developed an interactive web app that allows users to visualise resistance to antibiotics for common infections in countries of interest, and will help doctors prescribe more appropriately in the face of local drug resistance.

Research Ecosystems in Africa and Asia
Working with the African Academy of Sciences, the Wellcome/DBT India Alliance and Wellcome's Africa and Asia Programmes, this priority area aims to strengthen research ecosystems by driving sustainable coalitions and partnerships, strong leadership to tackle global health challenges, and effective research management.

In March 2019, the Government of India announced a five-year extension to their support for the Wellcome/DBT India Alliance, an independent charity funding biomedical research and increasingly focusing on the research ecosystem. After a successful pilot this year, the Alliance launched India's first ever research management fellowships, as well as institutional and travel grants. Similarly, the African Academy of Sciences is pursuing a research management programme to support institutional leadership, sustainability, individual capacity development, and Good Research Management Practice standards.

Science Education
Wellcome wants to improve science learning for all young people and to see teachers using evidence about how to teach science in their classrooms. In the autumn of 2018, the Wellcome CPD Challenge invited 40 schools in Sheffield and Rotherham to meet defined criteria and thereby ensure all teachers can access high-quality professional development. The ultimate goal is to understand what resources are needed for all teachers to participate in a transformational amount of quality, relevant and impactful development each year.

In January 2019, we welcomed our new Head of Learning and Education, Anita Krishnamurthi, who will lead future strategy for education and learning. Explorify, our free resource for primary school teachers to deliver science in an interactive way, won two awards in 2019: the Bett Free Digital Content or Open Education Resources award, and the Education Resources Awards Primary Resource or Equipment award. Explorify has now reached 62% of all schools in the UK.

Diversity and Inclusion
In order to open up science and health research to anyone who wants to participate, Wellcome aims to embed diversity and inclusion in our working culture and to support grantholders trying innovative approaches to create a more inclusive workforce. EDIS, co-founded by Wellcome to advance Equality, Diversity and Inclusion in Science and Health, expanded its collaborative network to 14 members this year. In September 2019, best or emerging practices in running inclusive conferences were demonstrated at an EDIS symposium about inclusive research and experimental design. The symposium led a sector-wide conversation on inclusive research, an area in which EDIS will continue to drive change next year.

In 2018, we were the first research funder in the UK to publish a specific bullying and harassment policy. We revised this policy in June 2019 thanks to lessons learned from its application and interpretation. In line with our misconduct policy, we now require organisations to tell us when a bullying and harassment investigation has been launched. We expect organisations to complete investigations even if the subject of the investigation leaves. The policy is now clear that Wellcome will try to ensure that those working on affected grants are impacted as little as possible – for example, when funding is removed from a principal investigator (PI), we may move their postdoctoral researchers to another PI, or keep the grant open until their projects are concluded. There has been an increase in the number of people telling us about problems and although we rely on their organisations to investigate specific allegations, we welcome the fact that more people feel they can speak up.

Our Planet, Our Health
As the global population grows towards 10 billion, the changes in our earth systems have far-reaching impacts on health and wellbeing. From climate to land use to water cycles, we need innovative, interdisciplinary research to provide insights and guide decisions about energy, agriculture, urbanisation and other activities. Our Planet, Our Health focuses on this research and its translation to policy.

Evidence increasingly suggests we will not be able to feed everyone unless eating habits are transformed, food production improved and food waste reduced. Published in January 2019, the EAT-Lancet report was the first full scientific review of what constitutes a healthy diet within a sustainable food system, and which actions can support and speed up food system transformation.

Review of Investment Activities

Figure 1
Total portfolio net returns (blended £/US$) Period to 30 September 2019

	Annualised return in £ (%)		
	Nominal	UK CPI	Real
Trailing one year*	6.9	2.0	4.9
Trailing three years	12.3	2.3	10.0
Trailing five years	12.3	1.5	10.8
Trailing ten years	12.0	2.2	9.8
Trailing twenty years	8.5	2.0	6.5
Since Oct 1985	13.7	2.7	11.0

	Cumulative return in £ (%)		
	Nominal	UK CPI	Real
Trailing three years	42	7	35
Trailing five years	79	8	71
Trailing ten years	209	25	184
Trailing twenty years	414	49	365
Since Oct 1985	7,793	150	7,643

	Annualised return in US$ (%)		
	Nominal	US CPI	Real
Trailing one year*	1.1	1.9	(0.8)
Trailing three years	10.4	2.1	8.3
Trailing five years	6.3	1.5	4.8
Since Oct 2009	9.1	1.8	7.3

	Annualised return in blended currency (%)		
	Nominal	UK/US CPI	Real
Trailing one year*	4.0	1.9	2.1
Trailing three years	11.4	2.2	9.2
Trailing five years	9.4	1.5	7.9
Since Oct 2009	10.6	2.0	8.6

The value of the endowment of £26.8 billion at 30 September 2019 is measured at fair value, as discussed in note 15(h) and net returns presented are consistent with this valuation. Net returns include impact of all external management fees/expenses. Performance fees are included for hedge funds, private equity and property but for public equity they are only included from FY 2018. This also applies to Figures 2, 3 & 7.

£ used to 30 September 2009. Blended £/US$ used from 1 October 2009. This recognises the global nature of our portfolio (see Figures 12 & 13) and the need to maintain global purchasing power. However, Wellcome's functional currency remains Sterling.

*Prior year trailing one year nominal returns were 13.4% (£), 10.2% (US$), 11.9% (blended £/US$).

Summary

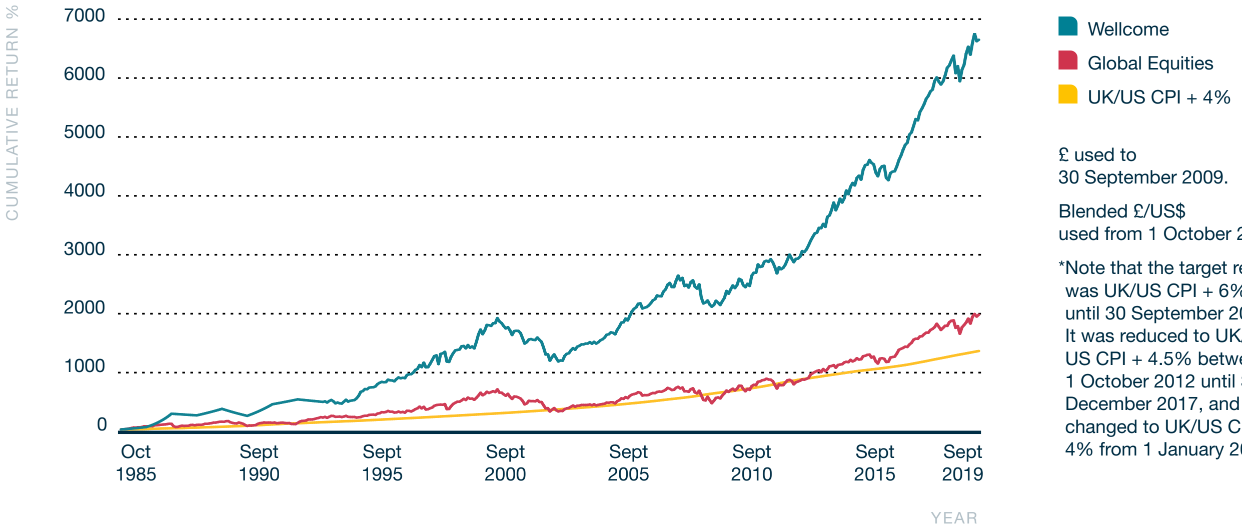
The 2018/19 financial year was a turbulent period. Politics in the US, UK and elsewhere was hugely divisive and the global economy exhibited clear signs of slowing. While consumer spending and labour markets have so far held up, there have been signs of a recession in global manufacturing, especially in the motor vehicle industrial complex, partly caused by simmering trade tensions.

Despite the macro backdrop, the persistence of ultra-low interest rates has helped global equity markets hold up reasonably well. Until the end of 2018, the Federal Reserve appeared to have been set on a course of normalising monetary policy. However, a sharp sell-off in US equities in Q4 2018 coincided with a reversal of that course, leading first to a pause in rate rises, then rate cuts in July, September and October 2019.

Against this backdrop, it is unsurprising that our portfolio returns have been lower this year at +6.9% in Sterling. After taking account of £0.9 billion in charitable cash expenditure over the year, this is equivalent to a gain of £2.1 billion gross of liabilities. Sterling returns were helped by currency weakness – in USD terms the portfolio was up 1.1%.

Over the past ten years, the portfolio has delivered a real return after inflation of 184% in Sterling (9.8% a year in real terms or 12.0% a year in nominal terms). The whole of this period has seen extraordinarily low interest rates globally and active support for asset markets from Central Banks. Double digit real returns should not be seen as normal – with the economic cycle now very mature, we are actively planning for a lower return environment and focusing on ensuring that Wellcome has adequate liquidity for the foreseeable future. This is a key part of financial planning for charitable expenditure discussed in the Financial Review (refer to page 34).

Figure 2
Total portfolio cumulative net returns since 1 October 1985 (%)



£ used to 30 September 2009.

Blended £/US$ used from 1 October 2009.

*Note that the target return was UK/US CPI + 6% until 30 September 2012. It was reduced to UK/US CPI + 4.5% between 1 October 2012 until 31 December 2017, and then changed to UK/US CPI + 4% from 1 January 2018.

Overview

The 12 months to 30 September 2019 provided a rollercoaster ride in global financial markets. Q4 2018 was the weakest quarter for global equities since Q3 2011. By the middle of 2019, all the lost ground had been recovered and markets closed the financial year slightly up. The US Dollar strengthened against most currencies, while Sterling weakened due to uncertainty around Brexit.

The global economy has been showing clear signs of slowing. A combination of trade tensions between the US and China (and the US and Europe) and marked weakness in the market for motor vehicles has caused a downturn in manufacturing. Thus far, consumer demand has held up, but there are concerns that the US and Western European economies might slip into recession.

Until the end of 2018, the US Federal Reserve (Fed) had seemed intent on raising interest rates to more normal levels. However, the combination of a slowing economy and weak financial markets caused an abrupt about-turn in the direction of policy, with interest rate rises first being put on hold, then reversed. Other Central Banks, including the European Central Bank have since joined in with the Fed's renewed monetary easing.

Corporate earnings growth has slowed sharply during 2019, reflecting a tougher economic environment. However, cash flows remain strong, which has supported dividend growth and share buybacks. With other investors sitting on their hands, companies have become the marginal buyers of equities. Management teams see more opportunity to boost returns on capital by shrinking their equity base than by investing in a weak real economy.

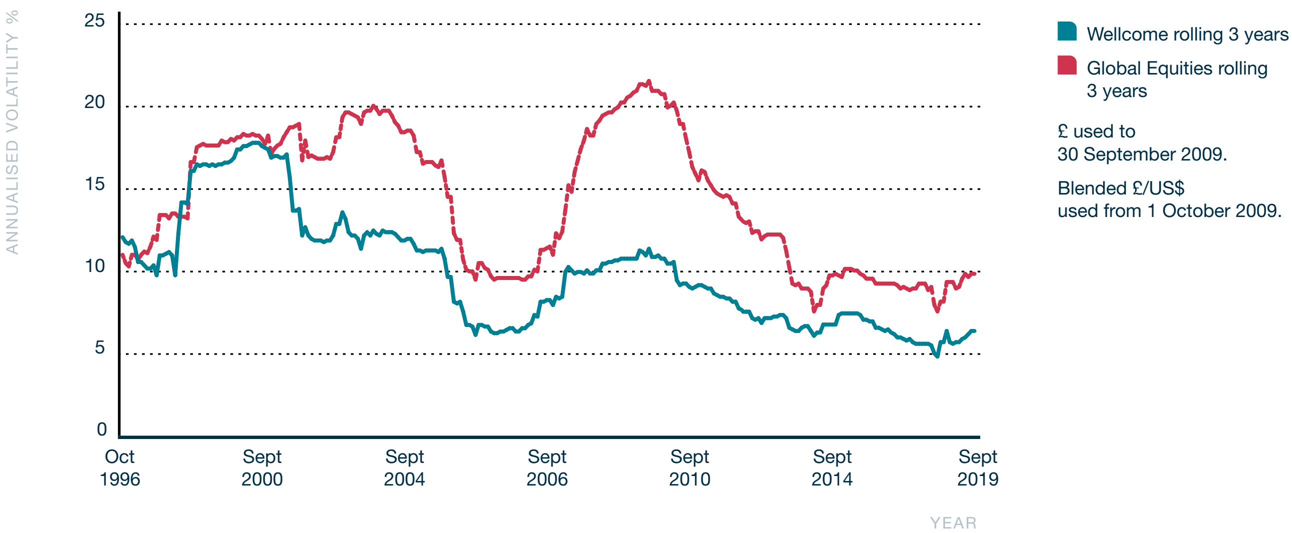
The 6.9% gain in the portfolio was underpinned by a 6.8% rise in the value of our £15.1 billion public equity portfolio, behind the 7.9% gain in global equities. The main source of relative weakness came from our holdings in developed markets, particularly poor performance from several of our UK stocks.

Our £2.9 billion hedge fund portfolio had a good year, returning 9.2%. The recent environment of higher volatility and greater dispersion between the performance of individual stocks is one that should be more suited to hedge funds. The hedge fund composite delivered stronger returns than global equities after several years of struggling to keep up with rising equity markets.

Our £8.3 billion private equity (PE) portfolio now accounts for nearly 28% of total assets. Cash flow from the PE portfolio was roughly flat for the year – the increase in the portfolio value was a result of strong performance, resulting in a 15.6% return over the year. Venture capital funds delivered the biggest gains at 27.0%, reflecting the continued skill of our managers in identifying disruptive technological innovation.

Our £2.4 billion portfolio of property assets delivered mixed results returning 1.5%, including income and capital receipts. Residential assets in South Kensington and elsewhere in London and the Southeast declined slightly in value, as the market continued to be in limbo over Brexit. Agricultural assets were weak for the same reason. However, our asset backed operating businesses delivered strong performances, especially student accommodation provider iQ.

Figure 3
Volatility (standard deviation) of returns (%)



Outlook

We do not expect the investment environment to get any easier for the foreseeable future. Any deal on US-China trade issues is likely to be a temporary truce in what is shaping up to be a protracted economic struggle between the world's two major economies. Political logjam in the Eurozone stands in the way of growth-oriented policies, while the Brexit process continues to make planning difficult for businesses and investors alike.

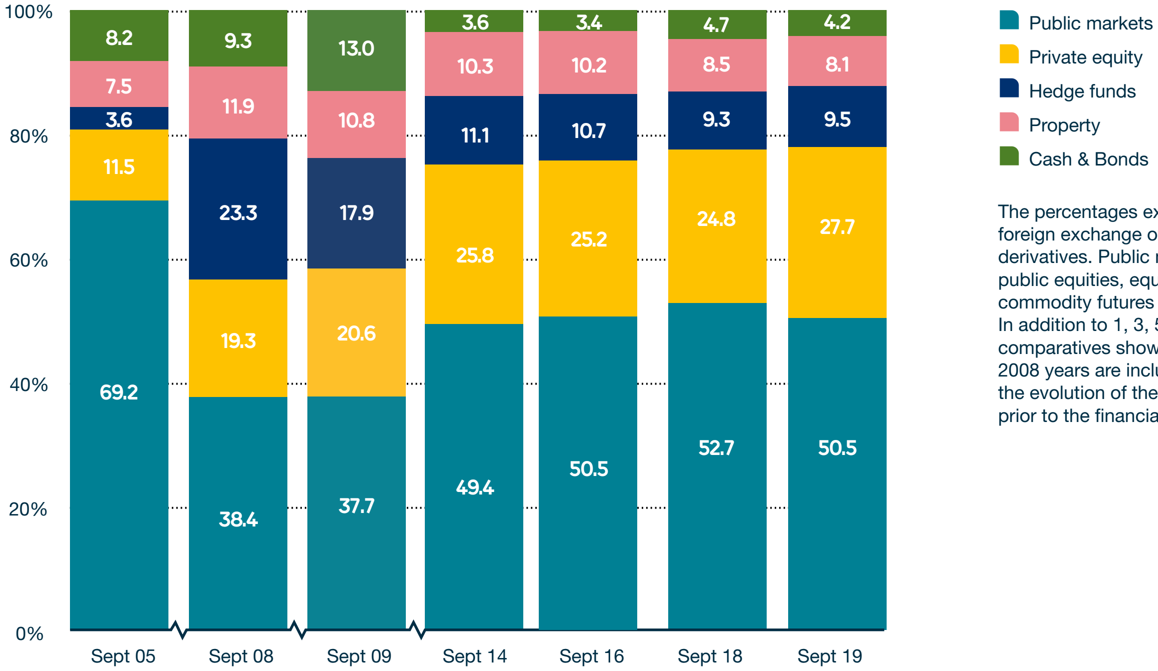
After a long period when owners of capital, like Wellcome, have been the beneficiaries of globalisation, of technological disruption and of ultra-accommodative monetary policy, societal attitudes are shifting. Political populism is at least partly a reaction to stagnant real wages in the West. The corporate sector in much of the developed world has enjoyed three decades of structurally rising margins, which will not go on indefinitely. Structural downward pressure on corporate profitability will obviously not help our portfolio.

However, companies that maintain their societal licence to operate are likely to prosper best over the long-term, which is why we put a lot of emphasis on owning companies with a positive corporate culture.

The strength of the US Dollar has been a headwind for many emerging markets and has been exacerbated by slower growth in China. However, favourable demographics and market friendly reforms in several countries should be supportive of long-term economic growth in emerging markets. If Dollar strength subsides, the global trend we have seen over the last decade of outperformance by developed markets over emerging markets may start to reverse.

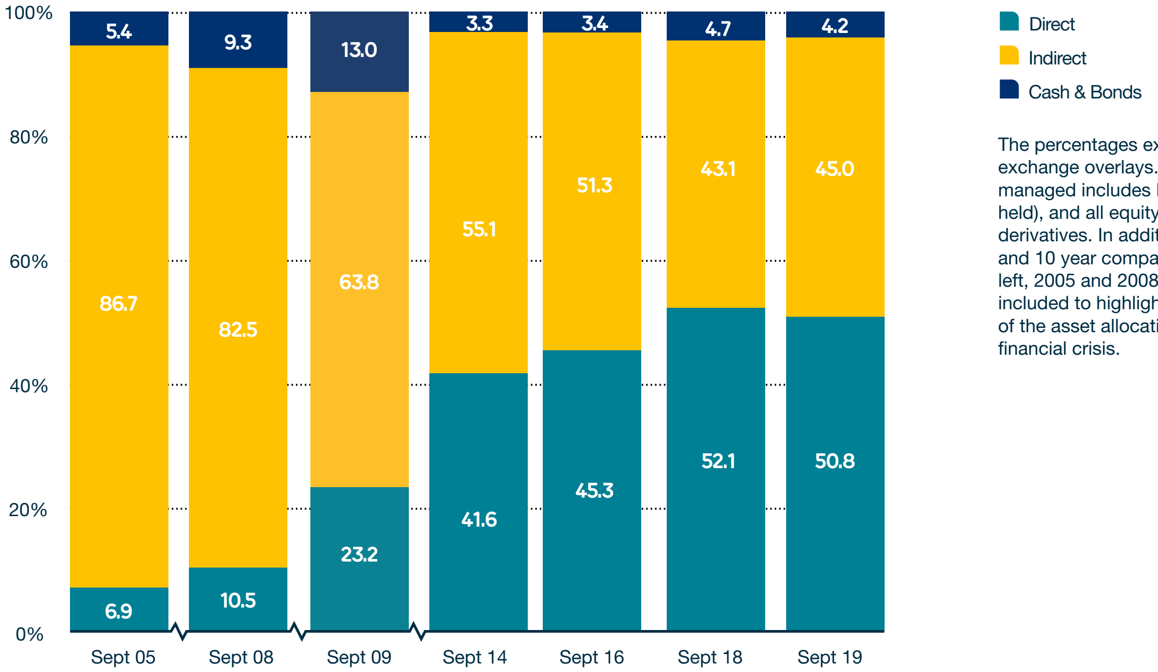
Technological disruption remains a fact of life (and, if anything, is accelerating). This will therefore continue to be a key area of investment focus for us. However, given the illiquidity of many of these information technology related assets, we need to balance the focus on high potential returns carefully against the need to maintain sufficient liquidity to fund our mission today.

Figure 4
Evolution of asset allocation (%)



The percentages exclude foreign exchange overlays and derivatives. Public markets include public equities, equity index and commodity futures and options. In addition to 1, 3, 5 and 10 year comparatives shown left, 2005 and 2008 years are included to highlight the evolution of the asset allocation prior to the financial crisis.

Figure 5
Evolution of asset allocation, directly and indirectly managed (%)



The percentages exclude foreign exchange overlays. Directly managed includes ETFs (when held), and all equity and commodity derivatives. In addition to 1, 3, 5 and 10 year comparatives shown left, 2005 and 2008 years are included to highlight the evolution of the asset allocation prior to the financial crisis.

Figure 6
Investment asset allocation as at 30 September 2019

	2019 £m	2018 £m	2019 %	2018 %	One year return to Sept 2019 %
Total public equities	**15,101**	**14,943**	**50.4**	**52.1**	**6.8**
Indirectly managed	**3,548**	**3,680**	**11.8**	**12.9**	
Global	1,737	1,629	5.8	5.7	
Developed markets	1,106	935	3.6	3.3	
Growth markets	705	1,116	2.4	3.9	
Directly managed	**11,553**	**11,263**	**38.6**	**39.2**	
Mega cap basket	7,455	7,070	24.9	24.6	10.2
Optionality basket	1,852	2,430	6.2	8.5	0.6
Growth basket	1,835	846	6.1	2.9	17.4
Other	411	917	1.4	3.2	
Equity index futures and options*	**33**	**181**	**0.1**	**0.6**	
Commodity futures and options*	**-**	**-**	**-**	**-**	
Hedge funds	**2,860**	**2,679**	**9.5**	**9.3**	**9.2**
Equity long/short	1,694	1,506	5.6	5.2	8.4
Directional hedge funds	454	460	1.5	1.6	11.9
Non Directional hedge funds	712	713	2.4	2.5	9.7
Cash & Bonds	**1,250**	**1,363**	**4.2**	**4.7**	**1.8**
Private equity	**8,309**	**7,126**	**27.7**	**24.8**	**15.6**
Large buyout funds	687	589	2.3	2.0	8.0
Mid buyout funds	582	539	1.9	1.9	8.7
Specialist funds	1,429	1,340	4.8	4.7	9.6
Multi asset partnerships	869	714	2.9	2.5	24.1
Venture funds	3,524	2,817	11.8	9.8	27.0
Direct Private	303	416	1.0	1.4	(31.0)
Private co-investments	915	711	3.0	2.5	14.5
Property	**2,432**	**2,427**	**8.1**	**8.5**	**1.5**
Net overlay assets*	**(16)**	**(11)**	**-**	**-**	
Total assets	**29,969**	**28,708**			**8.5**
Bond liabilities	(3,211)	(2,654)			
Other liabilities	-	(174)			
Total liabilities	**(3,211)**	**(2,828)**			
Total assets net of all liabilities	**26,758**	**25,880**			**6.9**

Performance figures provided from custodian where available. Asset class performance figures are not additive.

**Since September 2017, the equity and commodity derivatives have been shown separately as notional exposures, with futures offsets included in other liabilities. Net overlay assets comprise foreign exchange overlays and the related cash collateral amounts due to counterparties.

A reconciliation of the 'Total assets net of all liabilities' to the amount as reported in the Consolidated Balance Sheet is included in note 15(h).

Figure 7
Public equity net returns (%) Period to 30 September 2019

	Annualised return in £ (%)		
	1 year	3 years	5 years
Global	8.2	13.1	13.3
Developed world	(5.9)	12.3	13.2
Growth markets	10.6	7.3	8.4
Total public equities	**6.8**	**12.0**	**12.5**
Direct public equities by strategy			
Mega cap basket	10.2	14.2	14.4
Optionality basket	0.6	8.9	9.0
Growth basket	17.4	6.7	7.8
MSCI AC World	7.9	12.3	13.3

Figure 8
Direct public equities IRR by strategy (£) (%) Inception to 30 September 2019

	2019 Value £m	IRR (%)
Mega cap basket (inception Sept 2008)	7,455	14.3
Optionality basket (inception July 2008)	1,852	8.0
Growth basket (inception Dec 2009)	1,835	11.3
Total public equities (including indirectly managed)	15,101	10.9

Returns are not adjusted for private purchases.

Figure 9
Top ten direct public equity holdings As at 30 September 2019

Rank 2019	Rank 2018		Total Value £m	Total Value US$m	Return on Cost GBP (Inception dates differ)
1	3	Microsoft	679	836	6.1x
2	2	Apple	590	727	11.0x
3	4	Vonovia	557	687	2.5x
4	5	Bank Of America	475	585	3.1x
5	6	Alibaba	453	558	2.4x
6	7	JPMorgan Chase	450	555	4.3x
7	1	Syncona*	411	507	1.2x
8	9	Alphabet	357	440	6.0x
9	14	Nestle	353	435	2.8x
10	10	Siemens	331	408	1.5x

*Return since transfer into investment portfolio in May 2018.

Public Equity

During the 2018/19 financial year, global equity markets (MSCI AC World) delivered a total return of +7.9% in Sterling or +1.9% in US Dollars. US equities (S&P 500) again recorded the strongest total return at +10.3%, followed by European equities (Eurostoxx 50) at +8.2% and emerging markets equities (MSCI EMF) at +4.1%. UK equities were down in price terms, but a strong dividend yield took the total return to +3.2%. Japanese equities (Topix) were down -0.3%, even taking dividends into account (all return numbers in Sterling).

The return on our total public equity portfolio for the year was behind the global index at +6.8% (Figure 7). While this is disappointing, long-term absolute returns are our primary focus rather than short-term relative returns. The Internal Rate of Return (IRR) of our public equity portfolio since June 2008 (when we started owning stocks directly, rather than outsourcing the entire portfolio) has been 10.9% (Figure 8).

The £7.5 billion internally managed mega cap basket remains at the core of our portfolio. It had another strong year, returning 10.2%. This portfolio combines broad exposure to the global economy through some of the top multinational companies, with highly desirable liquidity characteristics given the huge volumes traded in these shares daily. Liquidity has an attraction that is often undervalued, especially in a portfolio like ours, which does not benefit from donations or other outside sources of income.

There were contrasting fortunes for the other two internally managed portfolios. The £1.9 billion optionality basket was up only 0.6%, despite a strong performance from its largest constituent, German residential property company Vonovia. The £1.8 billion growth basket, which invests in strong franchises in emerging markets, was our best performing equity portfolio, up 17.4%.

We reduced the size of our position in Syncona by approximately £140m in March 2019. This was purely a portfolio management exercise, reflecting the fact that Syncona had grown to become our largest equity holding at the time. Over the financial year, Syncona delivered a return of -21.5%, despite some tangible successes in the portfolio. However, it was very strong last year, and such volatility is not unusual in this type of investment. Wellcome co-founded Syncona in 2012 and we remain a supportive long-term shareholder.

Our remaining external equity managers are mostly engaged to deliver long-term outperformance against relevant indices. There was a wide range of outcomes – the best performing manager beat their benchmark by 7.4%, but five of the eight managers underperformed. We continue to weigh up the merits of internal and external management and to use passive vehicles where appropriate.

Figure 10a
Illiquid asset net returns (£) (%) Period to 30 September 2019

	Annualised return in £ (%)			
	1 year	3 years	5 years	10 years
Directional	11.9	9.5	9.7	8.8
Non Directional	9.7	7.0	8.1	7.8
Equity Long/Short	8.4	10.7	11.4	10.6
Total Hedge funds	**9.2**	**9.8**	**10.4**	**9.5**
Large buyout funds	8.0	17.3	19.1	16.8
Mid buyout funds	8.7	12.5	15.1	
Specialist funds	9.6	12.8	13.6	
Multi asset partnerships	24.1	4.9	4.5	
Venture funds	27.0	21.1	25.5	20.9
Direct Private	(31.0)	(11.0)		
Private co-investments	14.5	24.1	23.3	
Total Private equity funds	**15.6**	**15.1**	**17.2**	
Non-Residential property	5.6	10.0	8.4	6.3
Residential property	(3.0)	(1.5)	1.9	8.8
Property & infrastructure	**1.5**	**3.9**	**5.2**	**8.8**
MSCI AC World	7.9	12.3	13.3	11.8

Figure 10b
Illiquid asset net returns (US$) (%) Period to 30 September 2019

	Annualised return in US$ (%)			
	1 year	3 years	5 years	10 years
Directional	5.7	7.6	3.9	6.0
Non Directional	3.6	5.1	2.4	5.0
Equity Long/Short	2.5	8.8	5.5	7.8
Total Hedge funds	**3.2**	**7.9**	**4.5**	**6.7**
Large buyout funds	2.1	15.3	12.8	13.8
Mid buyout funds	2.7	10.5	9.0	
Specialist funds	3.5	10.8	7.5	
Multi asset partnerships	17.3	3.1	(1.1)	
Venture funds	20.0	19.0	18.8	17.8
Direct Private	(34.8)	(12.5)		
Private co-investments	8.2	22.0	16.8	
Total Private equity funds	**9.3**	**13.1**	**11.0**	
Non-Residential property	(0.2)	8.0	2.6	3.5
Residential property	(8.3)	(3.2)	(3.5)	6.0
Property & infrastructure	**(4.1)**	**2.1**	**(0.4)**	**6.0**
MSCI AC World	1.9	10.3	7.2	8.9

Hedge Funds

Our £2.9 billion hedge fund portfolio had a strong year (Figures 10a and 10b). Until the end of 2018, the environment had, for many years, been difficult for even the best hedge funds. Low interest rates and asset purchases by Central Banks led to high levels of correlation between stocks and very low volatility. Although interest rates remain very low, volatility and dispersion between stocks moved higher over the year, and the performance of our hedge fund portfolio has duly improved.

Our equity long short portfolio (£1.7 billion) delivered 8.4% growth, above global equity returns. The function of these funds in our portfolio is not to reduce volatility, but to deliver excess returns over equity markets. The ability to sell short is an important tool for these managers, but profitable shorting is a very difficult exercise. We are very comfortable with our current stable of managers, but consistently good ones are very difficult to find, which makes it hard to scale this part of the portfolio.

The absolute return (directional and non-directional) hedge funds (£1.2 billion combined) also performed well. These funds employ a much wider range of financial tools, including equities, credit, interest rates, volatility and foreign exchange. Their function in our portfolio is to provide consistent returns that are much less correlated to equities, with lower volatility. It has also proved difficult to increase this part of the portfolio to a more meaningful size because the best managers tend to be unwilling to accept new investment.

Figure 11
Private equity fund net returns (multiples) Inception to 30 September 2019

	Drawn (£m)	Realised (£m)	Net Asset Value (£m)	Total Value to Drawn
Buyouts	4,788	5,929	1,268	1.5x
Specialist	2,990	2,975	1,429	1.5x
Venture	4,406	5,164	3,524	2.0x
All Private equity funds <=2013	9,839	13,761	3,038	1.7x
All Private equity funds >=2014	2,345	307	3,183	1.5x
All Private equity funds total	**12,184**	**14,068**	**6,221**	**1.7x**

Total Value equals Realised plus Net Asset Value. Total Value to Drawn gives a measure of return on invested capital. Funds of vintage years 2013 and earlier have generally finished their investment period.

Private Equity

Our private equity portfolio comprises buyout funds, venture capital (VC) funds, multi-asset partnerships, co-investments and direct private investments. We had another strong year (Figures 10a and 10b), returning 15.6%, which took our total exposure up to £8.3 billion, or 27.7% of total assets. This is close to the peak level of 27.8% reached in 2011.

The main reason for the increase in our exposure in recent years has been consistently strong performance, especially from our VC and large buyout funds, which have delivered annualised returns of 20.9% and 16.8% respectively over the past decade. Our VC portfolio (including healthcare funds) has delivered over 2.0x our investment, net of all fees (Figure 11) since inception. This includes more recent vintages that have yet to deliver meaningful returns. Private equity funds overall have returned nearly 1.7x on the same basis.

It was pleasing to see strong performance from our multi-asset partnerships this year. These vehicles invest primarily in emerging markets across a range of equity and debt instruments. The 24.1% return came after several difficult years and was significantly ahead of the global emerging market equity index (+4.1%).

We made commitments of £680m to new buyout funds, well down on £936m last year. However, commitments to new VC funds totalled £532m, significantly up from last year's £375m. The fundraising timetable of our key partners largely dictates the pace. From what we can currently see, this suggests that we are likely to make fewer new commitments over the coming year.

Despite elevated new commitments in the last two years, private equity cash flows remain balanced. Total calls to private equity funds were £732 million over the financial year, while total distributions were higher at £776 million. VC funds have been continuing to benefit from strong interest in the disruptive technology companies that form the core of their portfolios and have been able to exit or raise new funding at good prices in both public and private markets. Buyout funds have continued to generate exits at good prices, returning £386m to us over the year.

There is no doubt that private equity is now a much more crowded market. New money has continued to pour into the asset class, which has pushed up valuations of private companies, exacerbated by the willingness of lenders to provide debt on very attractive terms to borrowers. Our strategy has been to concentrate on the very best partners, which we believe should continue to be able to navigate a more difficult environment. We do not foresee future returns being as strong as the last decade, but we do continue to expect a premium to public market returns.

Property and Asset Backed Operating Companies

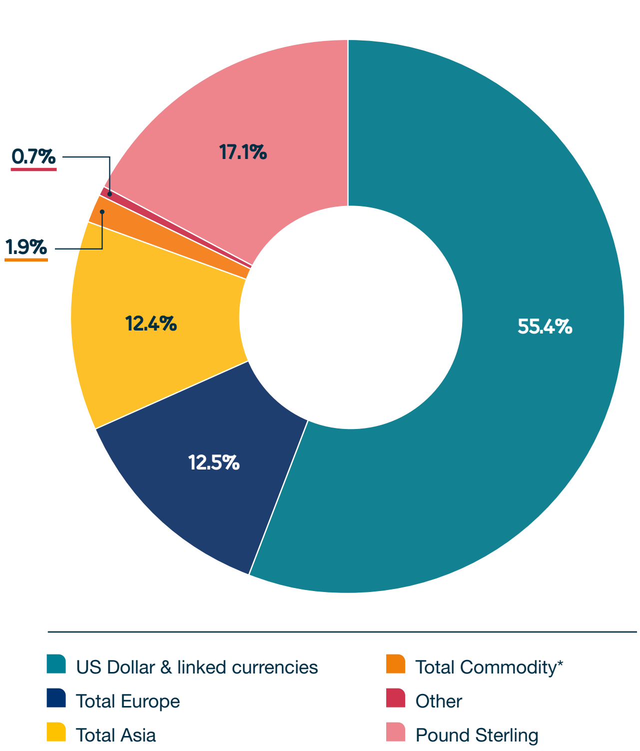
Our £2.4 billion property composite delivered a muted return over the year of 1.5% (Figures 10a and 10b). This part of the portfolio is overwhelmingly located in the UK, which means it has been affected by sentiment towards Brexit. The residential portfolio, which comprises properties in London and the Southeast, was worst affected and produced a negative return of -3.0%. Agricultural land holdings also fell in value.

However, these headwinds were more than counter-balanced by another year of strong performance from our asset backed operating businesses. Our investment in student accommodation business iQ has continued to perform very well. Our budget hotel joint venture, Point A, also delivered good returns.

With the course of Brexit still undetermined, and its long-term impact on the economy impossible to judge, it is very difficult to predict the outlook for the UK property market. Our focus therefore continues to be on optimising the assets in our portfolio rather than worrying too much about the market. While we cannot fight the market, we are continuing to invest in the properties in the portfolio with the most potential to improve our estate and maximise value creation.

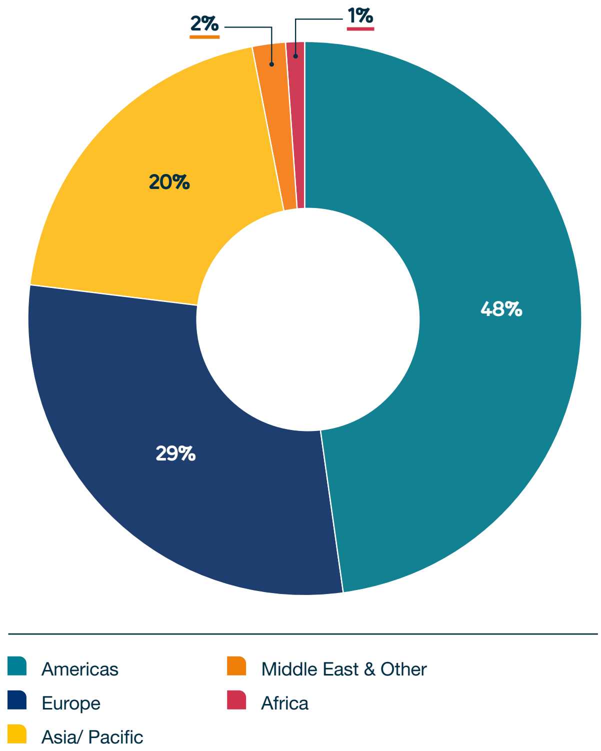
UK property continues to have a place in the portfolio. We have a minimum Sterling exposure limit of 15% given the currency profile of our charitable spending. Our experience over the long-term has been that keeping a significant proportion of that in property delivers good returns and positive cash flow generation. The assets are mostly unlevered, which means that there is a low probability of permanent loss of capital.

Figure 12
Currency allocation (net of currency forwards) (%)
As of 30 September 2019



*Currencies of countries with significant exposure to commodities and natural resource industries, excluding currencies which are directly linked to the US Dollar.

Figure 13
Public and private equity regional exposure (%)
As of 30 September 2019

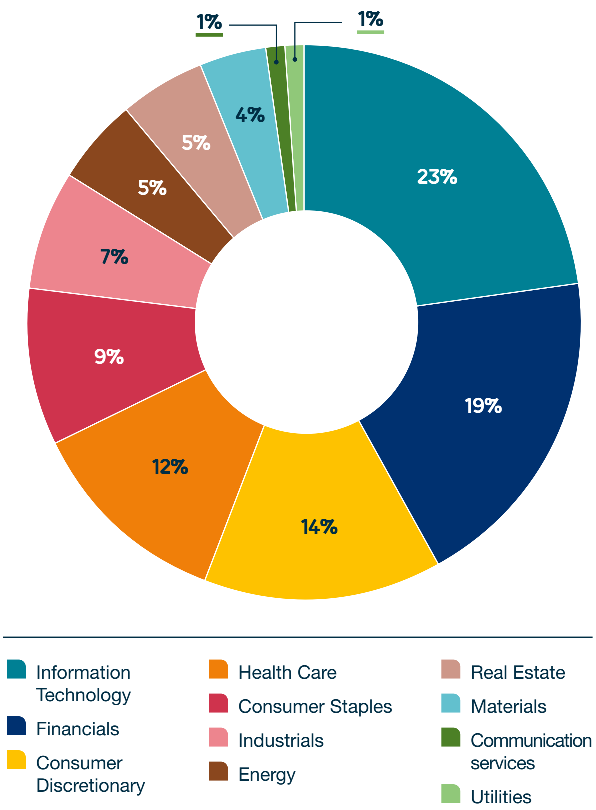


Currency, Regional and Sectoral Overview

We have maintained Sterling exposure (Figure 12) close to our minimum limit of 15% throughout the year. The UK runs a large current account deficit, which needs to be funded with capital inflows. In an environment of extreme political uncertainty, currency weakness is the mechanism to attract capital, which makes hedges into Sterling unattractive for an investor without Sterling liabilities to match. Our US Dollar exposure (including explicitly pegged currencies like the HK Dollar) increased, largely due to the outperformance of our US Dollar assets and of the currency itself. We are paying close attention to the potential for US Dollar weakness given that over half our portfolio is Dollar denominated.

Overall exposure to Asian currencies continued to grow, but the mix has changed. We added to Chinese equities in the market weakness in Q4 2018, which was partially offset by sales of assets in Japan. There has been very little change in our overall currency exposure to Europe ex-UK. Activity in our currency book has been limited this year, although we have maintained some longer dated hedges in developed markets and some return seeking positions in emerging market currencies.

Figure 14
Public and private equity sectoral exposure (%)
As of 30 September 2019



In our underlying public and private equity exposure (Figure 13) there has been a slight reduction in exposure to Europe (including the UK), and a slight increase in the US and Asia Pacific. Although we have sold some positions in the US, continued outperformance has pushed up the value of our underlying assets, especially in Sterling terms. The US economy has continued to do better than most other developed countries, pulling the US Dollar along with it.

Over the year, we have slightly reduced our weighting to the information technology sector (Figure 14). Consumer discretionary has been the main beneficiary, although this has largely involved adding to Internet enabled e-commerce, which is closely aligned to information technology. We have also added to our healthcare exposure. This is an interesting, attractively valued area within public markets, although in the short term it is likely to be hostage to the US election campaign.

Financial Review

Overview
for the year ended 30 September 2019

	2019 £m	2018 £m	Change £m
Investment activity			
Income	408	439	(31)
Expenditure	(148)	(144)	(4)
Investment gain	1,978	2,615	(637)
	2,238	**2,910**	**(672)**
Charitable activity			
Income	73	46	27
Expenditure	(1,131)	(723)	(408)
Effect of discounting of grant liabilities	(42)	85	(127)
Foreign exchange revaluation of grant liabilities	(10)	-	(10)
	(1,110)	**(592)**	**(518)**
Net income before tax	**1,128**	**2,318**	**(1,190)**
Taxation	45	(52)	97
Actuarial (losses)/gains on defined benefit pension schemes	(159)	57	(216)
Net movement in funds	**1,014**	**2,323**	**(1,309)**

Reconciliation of Overview to SOFA

	2019 £m	2018 £m
Management fees and other investment costs	**69**	72
Interest payable on bond liabilities	**79**	72
Investment expenditure	**148**	144
Grants receivable	**21**	20
Other charitable income	**52**	26
Charitable income	**73**	46
Expenditure on charitable activities	**1,183**	638
Effect of discounting of grant liabilities (note 6)	**(42)**	85
Foreign Exchange of grant liabilities revaluation (note 6)	**(10)**	-
Charitable expenditure	**1,131**	723

Net Funds
at 30 September 2019

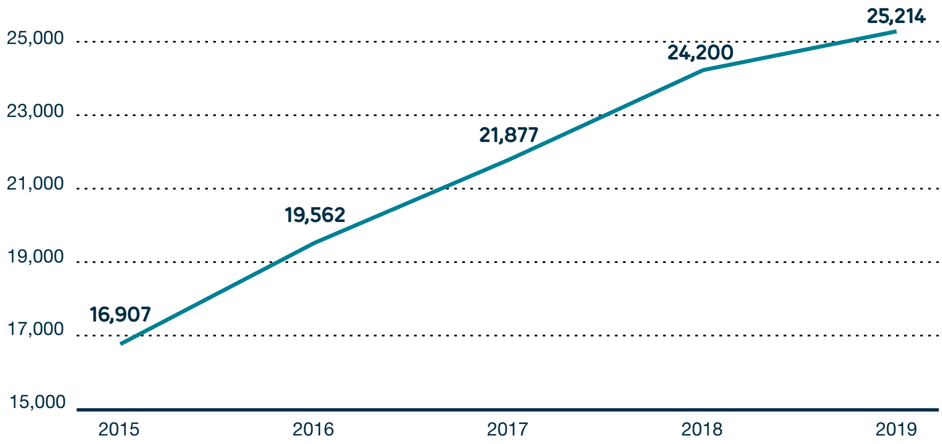
	2019 £m	2018 £m	Change £m
Fixed assets	424	431	(7)
Investment assets	30,214	28,685	1,529
Net current liabilities	(1,058)	(662)	(396)
Long term liabilities	(4,366)	(4,254)	(112)
Net funds	**25,214**	**24,200**	**1,014**

Reconciliation of Net Funds to Balance Sheet

	2019 £m	2018 £m
Quoted investments	**15,054**	14,920
Unquoted investments	**12,403**	10,989
Investment properties	**1,299**	1,352
Derivative financial instruments	**102**	46
Investment cash and certificates of deposit	**1,070**	1,156
Other investment assets	**268**	205
Programme related investments	**17**	18
Investment assets	**30,213**	28,686
Creditors falling due after one year	**(3,843)**	(3,859)
Provision for liabilities and charges	**(151)**	(192)
Defined benefit pension schemes' deficits	**(372)**	(202)
Long term liabilities	**(4,366)**	(4,253)

These tables provide an overview of charitable and investment activities, as well as the funding position. An analysis follows on pages 32-34.

Total funds of the Charity (£m) as at 30 September



Investment Activity

Our investment activity generated net income of £2,238 million (2018: £2,910 million).

Our portfolio returns have been lower this year at 6.9% in Sterling (2018: 13.4%). Over the past 10 years, the portfolio has delivered a real return after inflation of 184% in Sterling (2018: 177%). A full commentary is provided on pages 21-30.

The Net funds of the Wellcome Trust Group (The Group) increased by £1,014 million (4%) to £25,214 million (2018: £24,200 million).

As discussed under Financial Planning (page 34), we plan to support the core research and other activities we deliver through Science, Innovations, and Culture & Society with a consistent level of funding in real terms. The funding is not directly tied to the performance of our investment portfolio within a financial year.

Charitable Activity

Income from grants, programme related investment activity and Wellcome Collection was £73 million (2018: £46 million), including grant and contract income received by the Wellcome Sanger Institute.

Expenditure of £1,131 million (2018: £723 million) is higher than the previous year; this principally reflects the timing of significant commitments as 2018 was a year with no renewals (which typically cover funding for five years) or major one-off commitments. In contrast, the expenditure in 2019 includes 5-year commitments for primary activities to fund Science PhD programmes of £134 million. In addition, there have been significant one-off commitments for Whole Genome Sequencing at UK Biobank (£50 million) and within Innovations Flagships (£74 million).

In 2019, grant writebacks, which reduce overall expenditure, returned to their previous average levels, totalling £17 million (2018: £55 million). These relate to awards made in previous years, a portion of which will no longer be paid out to the award holder. This could be, for example, as a result of research reaching completion.

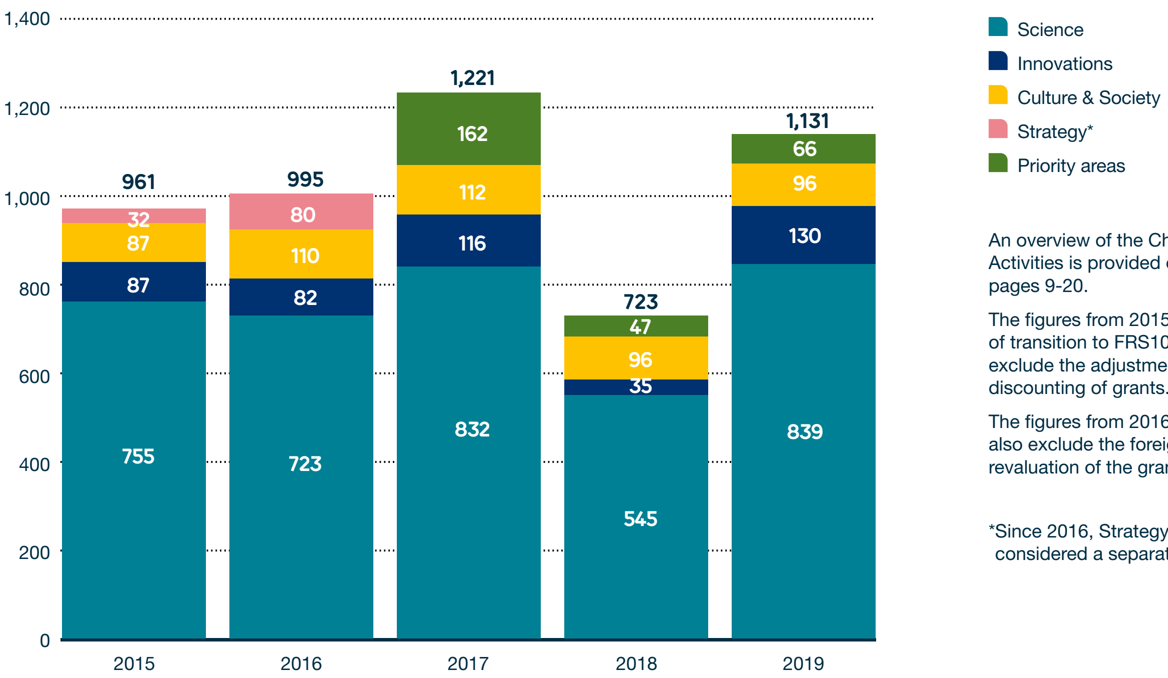
We anticipate that on average our total expenditure will exceed £1 billion per year for the next five years.

Annual Charitable Expenditure for the year ended 30 September 2019

	2019 £m	2018 £m	Change £m
Science	839	545	294
Innovations	130	35	95
Culture & Society	96	96	-
Priority areas	66	47	19
Gross spend on charitable activity	**1,131**	**723**	**408**
Effect of discounting of grant liabilities	42	(85)	127
Foreign exchange revaluation of grant liabilities	10	-	10
Total	**1,183**	**638**	**545**

The present value adjustment is explained in notes 2 and 8.

Total Gross Spend on Charitable Activities (£m)



An overview of the Charitable Activities is provided on pages 9-20.

The figures from 2015 (the year of transition to FRS102) onwards exclude the adjustment for the discounting of grants.

The figures from 2016 onwards also exclude the foreign exchange revaluation of the grant liabilities.

*Since 2016, Strategy is no longer considered a separate activity.

2018/19 expenditure incurred supported the following key areas of activity:

Science – expenditure of £839 million (2018: £545 million):
During the year this expenditure included:
- Investigator Awards, £90 million
- Collaborative Awards, £49 million
- Fellowships and studentships, £123 million
- Wellcome Sanger Institute (via our wholly owned subsidiary Genome Research Limited "GRL"), £96 million.

Expenditure is higher than 2018 due to significant commitments in 2019 including:
- Science PhD programmes, £134 million
- Whole Genome Sequencing, £50 million

Innovations – expenditure of £130 million (2018: £35 million):
During the year this expenditure included:
- Flagships, £74 million.

Expenditure is higher than 2018 due to:
- Increased grant awards in the Flagships which were implemented partway through 2018 and consequently had less than a full year's impact
- Writebacks which could relate to grants awarded over a number of years. These are netted off expenditure and consequently reduce the overall spend. They amounted to £31 million in 2018 and only £3 million in 2019.

Culture & Society – expenditure of £96 million (2018: £96 million), including:
- Wellcome Collection expenditure, £14 million
- Humanities & Social Science, largely Investigator and Collaborative Awards, £22 million
- Public Engagement expenditure, £19 million
- A number of other strategic initiatives totalling £11 million, which included Wellcome Global Monitor.

Priority areas – expenditure of £66 million (2018: £47 million):
During the year this expenditure included:
- Drug Resistant Infections, £29 million
- Vaccines, £17 million
- Our Planet, Our Health, £7 million

Across Wellcome, additional funding made included £10 million to support a rapid research response to the Ebola outbreak in the Democratic Republic of the Congo.

Financial Planning

Our objective when setting the annual budget is to preserve the value of Wellcome's investment portfolio so that the purchasing power of our charitable expenditure is maintained over time. We also aim to ensure that we fund only excellent research and that this is achieved in an efficient manner, including careful consideration of operational costs.

Charitable activities represent funding that we commit to, which is recognised in the year in which the grant is awarded. However, payment in cash of many of these commitments will be made over many years, so charitable cash payments in any one year will include amounts relating to grants awarded in prior years.

We plan to support the core research and other activities we deliver through Science, Innovations and Culture & Society with a consistent level of funding in real terms.

We established a baseline expenditure level of £900 million in 2017/18 (when we implemented a revised methodology for defining our future charitable expenditure plans), and we expect this to grow in line with inflation on an annual basis, accepting that the phasing of some of our larger awards will mean that this is averaged over a five-year period.
We continue to review expected future investment returns and cashflows. This funding will not be tied so closely to the performance of our investment portfolio, which means we will have more stability and predictability in our support.

In addition, we fund priority areas and other large-scale, high-impact activities. We add to this funding only when the investment portfolio performance is sufficiently strong, subject to annual review. This year, the Board of Governors agreed to allocate an additional £100 million to this budget.

The reviews of Wellcome's organisational strategy and how Wellcome supports science may indicate a need to review our financial planning approach in the next couple of years.

Pensions

The Group provides employees with the opportunity to participate in either defined benefit or defined contribution pension schemes. Since April 2016, new employees have joined the defined contribution scheme.

The combined accounting deficit for both Group defined benefit pension schemes at 30 September 2019 amounted to £372 million (2018: £202 million). The deficit has increased principally due to adverse movements on the discount rates, driven off Corporate Bond rates.

The defined benefit pension schemes are required to have triennial actuarial valuations, which are then updated in an interim valuation each year at the balance sheet date of the schemes. As at 31 December 2018, the Wellcome Trust Pension Plan had an estimated deficit of circa £12 million as per the Annual Actuarial Report; the Genome Research Limited Pension Plan had an estimated deficit of circa £5 million as per the triennial valuation results. A formal recovery plan and in addition an informal rolling deficit recovery plan to address the actuarial deficit over a period of up to five years is in place for both schemes and will be deployed as required.

More detail on the pension schemes is given in note 11(e) Retirement benefits.

Reserves policy

The reserve balance at 30 September 2019 was £25,214 million (2018: £24,200 million). Our financial planning approach is intended to ensure that the level of reserves is maintained. The funding methodology defines a minimum level for the net investment portfolio of £20 billion (in real terms as at 30 September 2017, when we implemented a revised methodology for defining our future charitable expenditure plan) to be maintained over the medium term. This level will be subject to annual review by the Board of Governors.

The reserves are almost all unrestricted but certain awards made to the Wellcome Trust's subsidiary undertaking, GRL, by other funders are subject to specific conditions imposed by the donors and are therefore restricted in their use. These amounted to £25.1 million at the end of 2019 (2018: £32.2 million).

Investment policy

Our assets are invested in accordance with the wide investment powers set out in Wellcome's Constitution and within its investment policy. The investment policy is reviewed periodically by the Board of Governors. We invest globally and across a very broad range of assets and strategies. It is our policy not to invest directly in companies that derive material turnover or profit from tobacco or tobacco-related products.

Our response to the FRC UK Stewardship Code, with further details of our investment policy, is available at wellcome.ac.uk. We support the investment industry's continued efforts to strengthen the role played by institutional investors in corporate governance, and we review our response and our investment policy regularly, updating them when necessary.

Going concern and viability

The Board of Governors have assessed the viability of Wellcome and its subsidiaries over the five years to September 2024. They consider the affordability of the financial plan as part of their review, and have concluded that there is a reasonable expectation that there are adequate resources, including the strength to operate and meet the liabilities of the Group as they fall due over the period of their assessment and for the foreseeable future.

This assessment has been in line with the financial planning approach described above and after considering the significant risks laid out in the Risk Management section in the Trustee's Report, as well as the significant accounting estimates and judgements in note 2.

Structure and Governance

The Wellcome Trust (Wellcome) is an independent global charitable trust created in 1936 by the will of Sir Henry Wellcome. It is now governed by its Constitution, established in February 2001 by a scheme of the Charity Commission and has been subsequently amended.

Wellcome is a charity registered in England and Wales (registration number 210183) under the Charities Act 2011.

Principles of governance

As well as following charitable law and regulation, Wellcome considers the nature of its activities and its risk profile. We have regard to principles of good governance and best practice such as those set out in the UK Corporate Governance Code 2016 and the Charity Governance Code. Our policy is not to early adopt new codes. We have considered the UK Corporate Governance Code 2018 and will implement changes in 2019/20.

The Trustee and the Board of Governors

The sole Trustee of Wellcome is The Wellcome Trust Limited (the Trustee), a company limited by guarantee (registration number 2711000), whose registered office is The Gibbs Building, 215 Euston Road, London NW1 2BE. The Trustee is governed by its memorandum and articles of association. The Trustee's directors (known as Governors), the Company Secretary of the Trustee and other administrative details are shown on pages 116-119.

The Board of Governors guides and oversees Wellcome in achieving its mission to improve health for everyone by helping great ideas to thrive. The Board sets strategy, decides priorities, maintains a framework for accountability, allocates budgets, makes strategic funding decisions, monitors progress and retains overall responsibility for risk management. During 2018/19, the Board met seven times, including a two-day residential strategic review meeting, and had six private meetings without the Executive Leadership Team (ELT).

Members of the Board of Governors are distinguished in the fields of medicine, science or business. The Board considers each of the Governors to be independent in character and judgement and manages any relationships or circumstances that are likely to affect, or could appear to affect, the Governors' judgement. Governors are appointed for terms of four years, with an extension of up to three years, following a successful review, by mutual agreement.

All Governors undertake a comprehensive induction programme, which includes their legal and regulatory responsibilities, as well as relevant information about Wellcome. Ongoing learning for Governors is built into the annual Board agenda and training for individual Governors is available as required.

Board Composition and Attendance during 2018/19

	Attended	Maximum possible
Chair Eliza Manningham-Buller	7	7
Deputy Chair Michael Ferguson	7	7
Governors Tobias Bonhoeffer	7	7
Alan Brown (to 30 April 2019)	4	4
William Burns	7	7
Amelia Fawcett (from 1 September 2019)	1	1
Richard Gillingwater (from 1 September 2019)	1	1
Bryan Grenfell	7	7
Anne Johnson (to 31 December 2018)	2	2
Naguib Kheraj (from 1 January 2019 to 27 March 2019)	1	1
Fiona Powrie	7	7
Cilla Snowball (from 1 September 2019)	1	1

The Chair of the Board is Eliza Manningham-Buller, an independent, crossbench peer in the House of Lords. She joined Wellcome as a Governor in 2008 (and will step down in 2020) and was appointed Chair in 2015. She is also Co-President of Chatham House.

During the year three governors retired – Anne Johnson, Naguib Kheraj and Alan Brown. Anne was a valued member of the Audit and Risk Committee until 2017. Naguib was a valued long-term member of the Investment Committee. Alan was a member of the Remuneration Committee and a well-regarded chair of the Investment Committee. The Board is grateful for their ongoing commitment to Wellcome and Alan's support in on-boarding the new governors.

In September 2019 the Board welcomed three new Governors – Amelia Fawcett, Richard Gillingwater and Cilla Snowball. Elhadj As Sy will join in January 2020. They bring a wealth of commercial and non-profit expertise to the Board and its committees.

An independent evaluation of the performance of the Board of Governors in 2018 identified a number of recommendations on effectiveness, which the Board and its committees continue to implement. Some will be reviewed in the light of the future strategic direction and a fundamental review of science at Wellcome, both of which will report in 2019/20.

Executive Leadership Team

The ELT is chaired by Wellcome's Director, Jeremy Farrar, and reports directly to the Board of Governors. It is responsible for the day-to-day management of Wellcome's operations and provides advice to the Governors and the Director with regard to strategy, planning, operational or policy matters, the delivery of objectives, and issues arising from the specific functional areas for which its members are responsible. It provides leadership across the organisation in support of the overall direction given by the Director. Other than for certain key governance areas and matters having a material impact, an Operational Sub-Group of the ELT has the full delegated authority of ELT in relation to all operational matters affecting Wellcome, and implementing policy agreed by the Board of Governors or ELT in relation to them. An additional Sub-Group of the ELT, the Funding and Direct Activities group, manages the day to day funding and direct activities.

In its grant-funding and direct charitable activities, the ELT is also supported by a number of advisory committees, which some Governors attend as observers. These committees assess, review and advise which grant applications to fund, and also advise on policy issues in various fields.

Changes to ELT during the year:

- Jim Smith stepped down as Director of Science to focus on the strategic review of science. He was replaced by Mike Turner in January 2019
- Tim Livett left his role as Chief Financial Officer in January 2019
- Karen Chadwick was appointed Acting Chief Finance Officer in March 2019 and confirmed as Finance Director in December 2019
- Ed Whiting was promoted to Director of Strategy in May 2019 (from his previous position of Director of Policy and Chief of Staff)
- Paul Schreier was appointed Chief Operating Officer in September 2019.

The Wellcome Trust Group comprises Wellcome and its subsidiary undertakings. Subsidiaries support Wellcome through either delivering against charitable objectives or as investment entities. The Board of Governors has delegated management of each entity to its Board of Directors with oversight through the Executive and/or direct representation on the Board.

Details of the Executive Leadership Team are shown under Administrative Details on page 116.

Executive Leadership Team Composition and Attendance during 2018/19

	Attended	Maximum possible
Jeremy Farrar	10	10
Chris Bird	9	10
Stephen Caddick	8	10
Karen Chadwick (from 21 March 2019)	6	6
Simon Chaplin	10	10
Alyson Fox	8	10
Mark Henderson	10	10
Chonnettia Jones	10	10
Tim Livett (to 31 January 2019)	3	3
Peter Periera Gray	8	10
Kathy Poole	7	10
Paul Schreier (from 2 September 2019)	-	1
Jim Smith (to 31 December 2018)	1	2
James Thomas	9	10
Mike Turner (from 1 January 2019)	7	8
Ed Whiting	9	10

Statement of the Trustee's responsibilities

The Trustee is responsible for preparing the Trustee's Annual Report and Financial Statements in accordance with applicable law and UK Accounting Standards (UK Generally Accepted Accounting Practice), including FRS 102 'The Financial Reporting Standard applicable in the UK and Republic of Ireland'. The law applicable to charities in England and Wales requires the Trustee to prepare Financial Statements for each financial year that give a true and fair view of the state of affairs of Wellcome and the Group, and of the incoming resources and application of resources of Wellcome and the Group for that period.

In preparing these Financial Statements, the Trustee is required to:

- select suitable accounting policies and then apply them consistently
- observe the methods and principles in the Charities Statement of Recommended Practice 'Accounting Reporting by Charities'
- make judgements and estimates that are reasonable and prudent
- state whether applicable accounting standards have been followed, subject to any material departures. disclosed and explained in the Financial Statements
- prepare the Financial Statements on the going concern basis unless it is inappropriate to presume that Wellcome will continue in business.

The Trustee is responsible for keeping proper accounting records that disclose with reasonable accuracy at any time the financial position of Wellcome and enable them to ensure that the Financial Statements comply with the Charities Act 2011 and the Charity (Accounts and Reports) Regulations 2008.

The Trustee is also responsible for safeguarding the assets of the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities and for the maintenance and integrity of the charity and financial information included on Wellcome's website.

UK legislation governing the preparation and dissemination of Financial Statements may differ from legislation in other jurisdictions.

The Trustee has reviewed and considered the work and the recommendations of the Audit and Risk Committee, as detailed in the Audit and Risk Committee Report on pages 49-51, and considers that the Annual Report and Financial Statements, taken as a whole, are fair, balanced and understandable and provide the information necessary to assess the performance and strategy of Wellcome and the Group.

Public benefit

The Trustee confirms that it has referred to the guidance contained in the Charity Commission's general guidance on public benefit when reviewing Wellcome's aims and objectives, in planning future activities, and in setting the grant-making policy.

Statement of disclosure of information to auditors

So far as the Trustee is aware, there is no relevant audit information of which Wellcome's auditors are unaware. The Trustee has taken all the steps that it believes it ought to have taken to make itself aware of any relevant audit information and to establish that Wellcome's auditors are aware of that information.

Committees of the Board of Governors

The Board of Governors is supported by its principal committees, each of which is chaired by and has at least one Governor as a member. The Board ensures that committee members have the necessary skills, knowledge and experience to ensure that each committee is effective in discharging its responsibilities. The performance of each of these committees is reviewed on a regular basis with input from the members and key executives.

Details of the membership of each committee are set out on page 116:

- Remuneration Committee (Report on pages 46)
- Nominations Committee (Report on pages 47)
- Investment Committee (Report on pages 48)
- Audit and Risk Committee (Report on pages 49-51).

The terms of reference of these committees can be found at wellcome.ac.uk/about-us/governance.

The Board of Governors has a number of additional committees which report to it on specific issues. The Science Strategy Advisory Group advises the Director of Science and the Board of Governors on the development and implementation of the Science strategy, and the Innovations Advisory Group which provides advice and support on the delivery of the Innovations strategy. The remit of both of these groups will be reviewed in 2020 in the light of our Science and strategy reviews.

During the year independent consultants Spencer Stuart International and Korn Ferry assisted with recruitment to the Board of Governors, the Nominations Committee and the Investment Committee.

Grant-making policy

Wellcome's grant-making policy supports its status as a public benefit entity.

For our core activities, Wellcome awards a large number of grants, organised within established funding schemes with specific criteria, to fund research across a broad remit in the biomedical sciences, population health, translation and implementation science, humanities and social science, and public engagement. In addition, we award bespoke grants within specific areas of focus, Priority Areas, where Wellcome can lead significant change within five or ten years, aiming to transform the global response to some of today's biggest health challenges.

All grant applications undergo due diligence by Wellcome staff to ensure that the resources requested are appropriate for the proposed grant activities. Awards are made following the advice of expert peer reviewers and are subject to specific terms and conditions. Grant holders submit annual reports and a final end of grant report which is used by us to assess progress against our ambitions and to compare our data with that of other funders. Quinquennial awards are made to GRL based on its five year scientific plan.

Our Terms and Conditions require that institutions receiving our funding have formal procedures in place preventing fraud, tax evasion, bribery or any other corrupt practices, and that expenditure is controlled in accordance with these arrangements.

Details of how to apply for grants, together with the relevant forms, are available on wellcome.ac.uk.

Internal control

While no system of internal control can provide absolute assurance against material misstatement or loss, Wellcome's systems are designed to provide the Board of Governors with reasonable assurance that there are proper procedures in place and that the procedures are operating effectively. Risk management is discussed on pages 42-43. In practice, the Group operates a "three lines of defence" framework.

- The first line: Management is responsible for the execution of operational and financial controls. The ELT reviews key internal operational and financial controls annually and confirms the operating effectiveness of those controls to the Audit and Risk Committee and the Board of Governors. The roles of the ELT and the Board of Governors are discussed on pages 36-37
- The second line: Management is supported by the oversight and control functions represented by, for example, Commercial Finance and Legal
- The third line: Internal Audit provides independent assurance over the operation of controls. The internal audit programme includes the review of risk management processes and recommendations to improve the internal control environment.

Key elements that support the framework are:

- **Delegation:** there is a clear organisational structure and documented procedures for delegation of decision making. This is supported by the appointment of experienced and professional staff in roles that have appropriate responsibilities
- **Investments:** Our Investment Committee is fundamental to the management of investment risk. Their Report is on page 48
- **Grants Assurance:** Wellcome's grant conditions and policies set out the standard terms on which grants are awarded. A grants assurance update is provided by the Director of Grants to the Audit and Risk Committee on a regular basis for their review. The Funding and Direct Activities group, which is a Sub-group of the ELT and is discussed on page 37, reviews and manages the day to day funding and direct activities
- **Policies:** a suite of policies covers all major activities and risk areas and they are all available on a dedicated area of the internal web site. The policies include: Safeguarding; Speak up; Procurement; Agreements; Risk Management; External Complaints; Fraud and Corruption and Conflicts of Interest. Wellcome has adopted a values-based approach to internal policies which places emphasis on personal judgement and responsibility. Governors, committee members and employees are expected to conduct themselves with integrity and impartiality and be open, fair and unbiased when making decisions on behalf of Wellcome, and act in its best interests. A separate Code of Conduct was issued in November 2019 to reinforce this
- **Reporting:** the Board of Governors approves and reviews annual budgets and expenditure, and monitors forecast and actual results, investment performance and risk reports on a regular basis. This is supported by:
  – Regular reconciliations of financial records, line manager reviews and systems' access controls;
  – Updates from Finance on areas such as accounting and governance for consideration by the Audit and Risk Committee;
  – A separate Valuations Group which considers the Group's investment valuation policies, application and outcome;
  – Reports from Internal Audit to the Audit and Risk Committee;
  – Independent updates and reports to the Audit and Risk Committee and Finance from the external auditors
- **Review:** the Audit and Risk Committee, which has at least one Governor and two external members, oversees the outcomes of external and internal audits, considers Wellcome's processes of internal control and risk management, and its compliance with relevant statutory and finance regulations, and advises the Board of Governors of any relevant matters. Their report is on page 49.

Bullying and harassment and whistleblowing

In May 2018, Wellcome introduced an enhanced policy clarifying our responsibilities as a funder in relation to bullying and harassment. Unacceptable behaviour causes significant harm, stops people achieving their full potential and stifles good research.

The policy, which is in line with existing internal policies for Wellcome employees, sets out what we expect from the researchers we fund and the organisations that employ them. Our aim is to ensure that people involved in Wellcome-funded activities are treated with dignity and respect.

Conflicts of interest

Wellcome's policy on conflicts of interest, which applies to Governors, employees and committee members, sets out principles for identifying and managing actual and potential conflicts of interest to ensure decisions are free from any undue external influence. Where a potential conflict is identified it will be managed according to its materiality, with actions ranging from not participating at all or being involved in discussions but not voting, to being fully involved if the conflict is immaterial.

Governors who have paid appointments with institutions, or who supervise grant holders within an institution, that are in receipt of grants from Wellcome are detailed in note 7 to the Financial Statements.

Social Responsibility

Employment and inclusion

This year, we have been putting in place many of the foundations that will help us in becoming a more inclusive employer. Wellcome has changed significantly over the last five years, and we need to be able to support the changes this brings to the people who deliver our mission: our staff.

Wellcome is fortunate to be able to hire from within in many cases, while we also do a substantial amount of hiring externally. For example, our recent appointments to the Board of Governors have brought in people with additional skills to support our mission. We have also implemented a new HR system fit for our modern organisation. This system will help us better understand and manage the organisation, our people, and how we develop.

Another foundational piece is a new code of conduct for Wellcome employees to ensure that we are explicit and clear about our expectations for each other's behaviour at work. The Board of Governors has appointed a Board SpeakUp champion, and a communications and training programme to introduce the code of conduct next year will give staff the structure and reassurance to raise any concerns they may have about wrongdoing in the workplace.

In line with UK legislation for organisations with more than 250 employees, 2019 was the third year we published our gender pay gap data. There has been a downward trend since 2017, but much more work is required to eliminate the gender pay gap at Wellcome. Although not yet required by legislation, we also published ethnicity pay gap data on our website for the first time. Pay gaps are important indicators of how inclusive we are, but the data must be interpreted with caution, especially our ethnicity pay gap, as we do not have complete diversity data for all staff.

We introduced a pay gaps action plan in January 2018 and although it is too early to see their impact, we are confident that the changes we are making will make Wellcome fundamentally and sustainably more inclusive. They include prioritising diversity and inclusion data, changing the way we recruit people, signing up to the Race at Work Charter to help identify and address barriers at Wellcome, and updating our flexible working policy.

The Board of Governors had a focus on Diversity and Inclusion this year, interacting with staff through regular 'Meet the Governor' events and inviting staff network groups – including BAME (Black and Minority Ethnicities), Disability Interest Group, LGBTQ+, and Women of Wellcome – to a meeting in June 2019. We continue to learn and remain firmly committed to making Wellcome a more diverse and inclusive employer.

GRL also evolved its HR services this year, with a focus on providing more support for line managers. Projects to increase employee engagement and the brand of the Wellcome Sanger Institute include new induction processes, signing up to the Technician Commitment to recognise the contribution of technicians in research, and initiatives to develop existing employees' careers.

Health and environment

Wellcome has a combined Health and Safety and Environment (HSE) policy. The British Safety Council Five Star Occupational Health and Safety Audit is conducted every two years. Higher risk departments and divisions are audited internally every year, and no significant actions have been raised.

We are committed to employees' physical and mental wellbeing, and train some staff in both physical and mental health first aid through recognised, certified training.

The Wellcome Genome Campus has an overarching health, safety and wellbeing policy, which is co-signed by the GRL and European Bioinformatics Institute (EMBL-EBI) Directors. They hold ultimate responsibility for the health and safety of the Campus. A focus in 2019 has been the launch of a Wellbeing@Work initiative. This pulls together proactive and reactive measures supporting a positive lifestyle across the campus community, including mental health. There has also been an initiative to improve the chemical safety training across the GRL laboratories.

As part of the review of the Corporate Risk Register (see page 41), Wellcome recognised that increased visibility and demand for climate change action needs consideration in Wellcome's policies. The Investment Committee also considered the investment team's approach to environmental, social and governance criteria based on an assessment of companies' "licence to operate" (see page 48). In 2020, we will consider recommendations from the Task Force on Climate-Related Financial Disclosures as well as the core elements of our governance, strategy, risk management, metrics and targets.

Wellcome has been working closely with our service partners and supply chain to reduce our environmental impact. Certified environmental sustainability training has been rolled out across some teams to increase awareness and understanding, allowing practical application and the potential for even greater reduction in environmental impact.

At our London sites, we continued to remove single-use items from operations and have had a greater focus on reducing waste, preventing and reusing where possible, while maintaining our policy of zero waste to landfill. We continue to roll out LED lighting, eliminate food waste and minimise the use of resources and harsh chemicals through our eco cleaning regimes.

Wellcome's carbon emissions, reported under the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme, totalled 24,401 tonnes between April 2018 and March 2019. The Wellcome Genome Campus is the largest contributor. Overall, emissions from gas and electricity consumption were 17% less than the previous year.

Risk Management

Wellcome's risk management policy sets out our risk management objectives and principles and attitude to risk. This policy summarises the responsibilities of key roles for risk management, including the role of the Board of Governors, the Executive Leadership Team (ELT), the Audit and Risk Committee and the Investment Committee.

Wellcome is risk averse with respect to liquidity risk and to health and safety risk, and receptive (taking risk within accepted limits) with respect to investment portfolio risk and certain charitable activities. It is bold with respect to other charitable activities, for example, where Wellcome supports research and development in priority areas such as drug-resistant infections and vaccines.

Wellcome's statement required by the Modern Slavery Act 2015 is available on our website.

The Corporate Risk Register contains the key corporate risks owned and managed by the ELT and the Board of Governors. It is updated and reviewed on a regular basis by the Head of Risk, the Chief Financial Officer, the General Counsel and then by the ELT. It is also reviewed quarterly by the Audit and Risk Committee and by the Board of Governors.

The Corporate Risk Register includes Wellcome's Corporate Risk Matrix, against which the risks are scored, and a description of each corporate risk and treatment plan.

For each of the risks included, the Corporate Risk Register gives:

- a description of the risk
- the owner of the risk, as designated by the ELT
- the controls currently in place to manage the risk
- the current risk assessment score
- any further actions proposed with delivery deadline
- the owner of each proposed action
- the target risk assessment score

The current risk assessment ranking estimates the level of risk that is currently faced, taking into account the effectiveness of existing preventative and mitigating controls. The target risk assessment ranking estimates the level of risk that will be faced once all planned actions are completed. The target risk ranking does not estimate the desired level of risk – just the level of risk that will be faced once the planned actions are completed. The target risk ranking is often used to determine whether sufficient actions are being implemented for significant risks.

The risk categories are:

- delay or non-delivery of Wellcome's objectives, eg skill shortages, key partner or supplier failure, delay in delivery of a strategic objective
- financial loss, eg impact causes monetary loss, fraud
- investment loss, eg volatile investment markets, negative real returns
- reputation and licence to operate, eg criticism by stakeholders, unethical behaviour by Wellcome affecting a key stakeholder group
- regulatory, legal, accounting or tax compliance issues, eg inquiry by a regulator, potential prosecution
- health and safety, eg injury, fatality.

Any single risk will have elements of impact in more than one risk category.

There is also an Operational Risk Register, which is reviewed quarterly by the Operational Sub-Committee of the ELT. Risks may be moved from the Operational Risk Register to the Corporate Risk Register if they are considered to have increased in likelihood or impact.

Wellcome's wholly owned operating investment subsidiaries take responsibility for risk management within their respective operating companies. The Board of each operating company includes appropriate representation from Wellcome and is responsible for ensuring that the operating company has an appropriate balance between risk and reward, and an appropriate risk management culture. The Audit Committee or Audit and Risk Committee for each operating company and GRL is responsible for carrying out the roles delegated to it by its Board. This includes reviewing the adequacy and effectiveness of the company's internal financial controls, internal control systems and risk management systems. A representative of Wellcome attends each of these committees and a report is submitted to the group Audit and Risk Committee twice a year.

The Directors of Genome Research Limited (GRL) have further developed a formal risk management process to assess financial and business risk and to implement risk management strategies for the Wellcome Genome Campus. They have identified the main risks GRL faces, prioritised them in terms of potential impact and likelihood of occurrence and have identified means of mitigating the risks. Wellcome's Internal Audit team conduct regular audits. The Wellcome Sanger Institute Risk Register is reviewed by the GRL Audit and Risk Committee at each meeting and by the GRL Board. The Risk Policy is reviewed by the GRL Audit and Risk Committee when revised.

We note that there are a range of possible Brexit outcomes which could impact Wellcome's ability to achieve its longer term strategic objectives and we continue to monitor developments, although no particular significant actions are currently planned. The investment portfolio is less than

20% exposed to Sterling and the Investment Executive are seeking to manage the portfolio with respect to the range of potential Brexit outcomes as discussed in the Review of Investment Activities section of the Trustee's Report. However, Wellcome recognises that the uncertainty of the Brexit outcome poses potential risks to Wellcome's operations, including personal data flows, travel, recruitment, tax arrangements and the cost of grants, and is taking action to mitigate these risks. This risk was considered as part of the Going Concern and Viability assessment detailed on page 35.

As part of the review of the Corporate Risk Register (see page 42), Wellcome recognised that increased visibility and demand for climate change action needs consideration in Wellcome's policies.

Specific risks that the Board of Governors considers to be the most serious are shown in the Key risks table.

Key risks

	Nature of risk	Management and oversight of risk
Investment Risk	Failure to support Wellcome's ability to maintain the real level of charitable spend in the future, due to one or more of: catastrophic loss of one or more assets within the portfolio, inadequate liquidity, or lack of protection against the impact of inflation.	The Investment Executive manages this risk by: global diversification across assets and asset classes to limit the potential for value loss, diversification of cash flow sources and the regular review of forecast cash flows to manage the portfolio's liquidity profile, and regular consideration of inflation protection within the portfolio with a focus on equities and property holdings. There is an independent Investment Risk function reporting to the Chief Financial Officer. Oversight is provided by the Investment Committee (focusing on investment risks), the Audit and Risk Committee (focusing on valuation risks) and the Board of Governors.
Wellcome Genome Campus Strategic Plan – to develop science and residential opportunities adjacent to the Campus	There is a risk that the long term commercial & scientific strategic aims for the campus are not achieved, which would have a negative impact upon: • funding sustainability of GRL • Wellcome's reputation.	Wellcome's role reflects its position as sole shareholder of Genome Research Limited and that a member of Wellcome's ELT is a member of the GRL Board. Wellcome is also represented on the GRL Audit and Risk Committee. In terms of the commercial development of the site, a Project Board has developed longer term plans. Planning consent was obtained in October 2019 and now awaits Secretary of State approval.
International initiatives in low- and middle-income countries	Failure to deliver the scientific objectives or research capacity building objectives of these initiatives. Risks to the health and safety of Wellcome and third-party personnel local to the initiatives. There could also be suboptimal use of grant awards and a risk to Wellcome's reputation.	Wellcome management is focused on the governance structures and operational integrity at these initiatives and has enhanced the depth of its relationships and its oversight with respect to the universities through which a number of these initiatives are funded. Where the initiatives are funded directly or as part of a joint venture, Wellcome has consistently engaged with the relevant stakeholders. Oversight within Wellcome is provided by the Funding and Direct Activities Group of the Executive Leadership team, and by the Audit and Risk Committee and the Board of Governors.
Digital Resilience and Cyber Security	External risks include: increasingly sophisticated cyber-attacks, either directly targeted or opportunistic. Internal risks include: changes within the Digital & Technology (D&T) function in terms of moving to a cloud-enabled delivery model and team resourcing and restructure.	There were no phishing events reportable to the Information Commissioner's Office; we reported one minor data loss to the Information Commissioner's Office. Management have completed a number of mitigating actions with respect to cyber threats and an ongoing programme is being reviewed and delivered: awareness and education for all employees, expanding the use of a managed security service provider providing 24-hour event collection, monitoring and escalation services, D&T is developing a future technology roadmap that will articulate the technology and required external service providers to ensure appropriate digital provision and resilience for its evolving business needs. Oversight is being provided by the D&T Audit and Governance Group, the Operations Sub-Committee of the Executive Leadership Team, the Audit and Risk Committee and by the Board of Governors.
A No-Deal Brexit outcome	Personal data flows between the EU and the UK. EEA employees and service partners: uncertain status from November 2019. Travel: additional cost and time burden. Recruitment: additional costs, reduced talent pool and perception of UK as attractive place to work (medium term). Fall in value of sterling: increase costs in running Wellcome and cost of grants Increased staff costs for contractors if labour market changes. Change in tax arrangements.	No deal plan developed, setting out risks and mitigating actions. Further action to develop and implement a number of these is ongoing.

Remuneration Report

Wellcome develops and maintains remuneration strategies and policies in line with the strategy, culture and objectives of the organisation. Our aim is to attract, retain, motivate and effectively reward our people and recognise their contribution to Wellcome's overall mission.

Our key principles are that remuneration should be:

- **Competitive:** salaries are benchmarked using external market data appropriate to the sector in which people work
- **Performance-linked:** individual performance and behaviours are assessed for the award of bonuses during the annual salary review
- **Simple and transparent:** our remuneration structure is openly communicated to colleagues. The bonus scheme and benefits are available to all employees. Benefits can be accessed and managed through a portal that also provides a total reward statement.

During the year, Willis Towers Watson, QCG, UCEA and Equilar provided us with salary benchmarking data. McLagan provided data and independent advice on the remuneration of the investments team. PwC advised us on the production of our gender pay gap data and validated our results.

Elements of remuneration

Base salary
Salaries are regularly benchmarked against the market using appropriate specialist surveys or independent consultants.

Benefits
A competitive benefits package is available to all employees, including private medical insurance, medical assessments, group income protection, an on-site gym, enhanced maternity and paternity pay, a cycle-to-work scheme, shopping and entertainment discounts and season ticket loan.

Bonuses
All employees are included in a bonus scheme based on individual achievements. The Investments team has a separate bonus element in their remuneration which is discussed below. Other individual and project-based recognition awards are made at management's discretion.

Long-term incentive plans
In order to ensure that remuneration of the Investments team remains competitive and to encourage a long-term view, certain employees participate in a long-term incentive plan. Awards to employees are made annually, based on investment returns and individual performance over a period of three to five years.

Pension
The Group sponsors two approved funded defined benefit schemes: the Wellcome Trust Pension Plan and the Genome Research Limited Pension Plan. Pensions payable are related to length of service, salary and level of personal contribution. The Group also provides a defined contribution Group Personal Pension plan, into which both employee and employer contributions are paid. Since April 2016, new employees are auto-enrolled into the defined contribution scheme.

Governors' remuneration
In accordance with the will of Sir Henry Wellcome, Governors are entitled to receive remuneration from the Trustee, The Wellcome Trust Limited, of which they are directors.

Under Wellcome's Constitution, Governors are entitled to receive £57,100 a year from 1 April 2000, adjusted with effect from 1 April each year by an amount equal to the percentage increase recommended by the Review Body on Senior Salaries in respect of the salary pay bands of the Senior Civil Service. There were no increases awarded in 2019.

Following approval by the Charity Commission of a scheme in October 2011, the levels of remuneration of Chairs and Deputy Chairs can be set by the Board of Governors at up to 2 and 1.5 times the level of a Governor respectively.

The Remuneration Committee

The Board of Governors appoints the Remuneration Committee, chaired by Eliza Manningham-Buller.
The members are all Governors, all of whom are excluded from any discussion which affects their own pay.
The responsibilities of the committee are to approve the reward strategy and policies for remuneration of employees, including incentive and benefit plans, and to determine individual remuneration packages and terms and conditions of employment for members of the Executive Leadership Team (discussed in Structure and Governance on page 37) and other senior staff.

In addition, the committee exercises any powers, and approves any decisions required by Wellcome, in respect of the Wellcome Trust Pension Plan, the Genome Research Limited Pension Plan, and any other pension arrangements.

It ensures that remuneration practices and policies facilitate the employment and retention of talented people.

The Report of the Remuneration Committee is on page 46.

Key Management Personnel

The key management personnel of the Wellcome Trust Group and Wellcome have been defined as the Board of Governors and the ELT (consisting of the Director, 12 senior executives and the Investment Executive, who are responsible for decision making in respect of the investment portfolio). The roles and responsibilities of the Board of Governors and the ELT are discussed in the Structure and Governance section on pages 37-38.

The total consideration includes Governors' remuneration, salaries, benefits in kind, bonuses, amounts accrued under long-term incentive plans, termination payments and employer pension contributions. The determination of the remuneration of the Governors is discussed above. The remuneration of members of the ELT is determined in accordance with the key principles for all staff laid out in the introduction to this report. The remuneration of the Investment Executive is discussed under "Investments team" below.

Details of the number of employees working on the charitable activities of the Group whose total benefits (excluding employer pension contributions) fall within specific £10,000 bandings, where benefits exceed £60,000, are shown within the Financial Statements under note 11(d).

Investments team

Wellcome manages the investment portfolio that underpins our charitable activities through an internal Investments team, including the Investment Executive, which manages a large proportion of the investments directly rather than through external fund managers. Due to the size, breadth and long-term nature of its portfolio, Wellcome can attract and retain a highly skilled group of investment professionals. With the right leadership and approach, this group has been able to generate superior returns and incur lower costs than would be the case if this activity were outsourced to traditional asset management organisations. The performance of the portfolio supports this approach.

Members of the Investments team are remunerated through their base salary, supported by significant variable elements, which are based directly on the performance of the portfolio, either in the form of an annual bonus or, more significantly, long-term incentive plans as detailed above. The structure and quantum of remuneration is benchmarked on an ongoing basis using market data and external consultants.

Details of the number of employees working on the investment activities of the Group whose total benefits (excluding employer pension contributions) fall within specific £10,000 bandings, where benefits exceed £60,000, are shown within the Financial Statements under note 5.

Governors' Remuneration Year to 30 September

	2019 £	2018 £
Baroness Manningham-Buller (Chair)	**142,108**	142,108
Professor Sir Michael Ferguson (Deputy Chair)	**106,581**	97,699
Professor Dame Kay Davies (Deputy Chair)	**-**	26,645
Professor Tobias Bonhoeffer	**71,054**	71,054
Alan Brown	**41,448**	71,054
Sir Damon Buffini	**-**	71,054
William Burns	**71,054**	71,054
Dame Amelia Fawcett	**5,921**	-
Richard Gillingwater	**5,921**	-
Professor Bryan Grenfell	**71,054**	71,054
Professor Dame Anne Johnson	**17,764**	71,054
Naguib Kheraj	**17,764**	-
Professor Fiona Powrie	**71,054**	53,291
Dame Cilla Snowball	**5,921**	-
Total remuneration	**627,644**	746,067

Expenses in respect of travel, subsistence, telephone and sundries incurred by the Governors in the course of their duties amounted to £129,023 (2018: £213,773), of which £119,690 (2018: £205,544) was paid directly by Wellcome, and £9,334 (2018: £8,229) was paid by the Governors and directly reimbursed to them. The decrease in the expenses paid directly by Wellcome for 2019 is driven by a reduction in the number of Governors. No pension contributions were paid in respect of the Governors.

The Governors were included in the Directors' and Officers' liability insurance in the year to 30 September 2019.

Consideration of Key Management Personnel Year to 30 September

	2019 £	2018 £
Governors Remuneration	**627,644**	746,067
Director of Wellcome Trust	**524,537**	455,761
Executive Board (excluding Director and Investment Executives)	**2,412,989**	2,473,528
Investment Executive	**7,597,257**	8,392,236
Employer Pension Contributions (for relevant staff)	**532,593**	400,027
Employer NI	**2,116,041**	1,236,734
	13,811,061	13,704,353

Employer NI increased due to the exercise in the year of a greater number of units from long term incentive plan (LTIPs) by the Investment Executive. There is a timing difference between recognition of LTIPs as consideration, and related NI falling due upon the exercise and payment of units.

Remuneration Committee Report

As the Chair of the Remuneration Committee, I am pleased to present our report for the year ended 30 September 2019. This report summarises the work the Committee has done over the past year in fulfilling our responsibilities to provide effective governance over the remuneration of our employees.

Effective Committee Governance

The membership of the Remuneration Committee ("The Committee") is set out on page 116. Although not members of the Committee, the Director and the Director of People attend each meeting but absent themselves for discussions on their own pay. The Committee reviewed its terms of reference and the changes were approved by the Board of Governors in November 2019. After each Committee meeting the Chair of the Committee reports to the Board on the main issues that were discussed.

During the year the Committee focused on specific topics, which included:

- Investment remuneration governance and review, to ensure our investments team are remunerated competitively and appropriately
- Pay structure review project
- The remuneration package of the Chair of Wellcome Leap Fund
- Overseeing the remuneration of senior hires within Wellcome.

Finally, I would like to welcome Amelia Fawcett, who we are delighted to announce as the new Remuneration Committee Chair.

Eliza Manningham-Buller

Eliza Manningham-Buller
Chair of the Remuneration Committee
16 December 2019

Remuneration Committee Composition and Attendance during 2018/19

	Attended	Maximum possible
Chair Baroness Manningham-Buller	2	3
Members Alan Brown (to 13 August 2019)	3	3
Dame Amelia Fawcett (from 1 September 2019)	-	1
Professor Sir Michael Ferguson	3	3

Nominations Committee Report

As the Chair of the Nominations Committee, I am pleased to present our report for the year ended 30 September 2019. The Nominations Committee considers the structure, size and composition of the Board, advising on succession planning and making appropriate recommendations to ensure the Board retains an appropriate mix of skills, experience, knowledge and diversity in line with our strategy. The Committee also considers succession planning for the Director and other senior executives.

As a result of the work carried out in 2018/19 to review the structure and composition of the Board, the Nominations Committee, on behalf of the Board of Governors, led the:

- Review of potential candidates, leading to the appointment of four new Governors. Unfortunately, Naguib Kheraj was unable to continue as a Board member because of a conflict of interest, but we thank for him for his service, particularly as a longstanding member of the Investment Committee
- Recruitment of three new external members of the Investment Committee.

The committee reviewed its purpose and effectiveness, recommending to the Board a change in the name and terms of reference. The proposal is to add governance to the remit of the committee to support a focus on succession planning, continuous improvement in board effectiveness, induction, the learning of Board and Committee members and a commitment to the on-going development of excellent governance.

On behalf of the Committee, I would like to welcome Cilla Snowball as a new member. Cilla is a new governor who will ably support our Deputy Chair, Mike Ferguson and the rest of the committee in the search for my successor in the coming year.

Eliza Manningham-Buller

Eliza Manningham-Buller
Chair of the Nominations Committee
16 December 2019

Nominations Committee Composition and Attendance during 2018/19

	Attended	Maximum possible
Chair Baroness Manningham-Buller	3	3
Members Professor Sir Michael Ferguson	3	3
Professor Bryan Grenfell	2	3
Dame Cilla Snowball (from 1 September 2019)	1	1

Investment Committee Report

As the Chair of the Investment Committee, I am pleased to present our report for the year ended 30 September 2019. The Investment Committee's role is to act as an advisory and oversight body of the Board of Governors on investment matters. This report summarises the work the Committee has done over the past year in fulfilling our responsibilities.

There has been considerable turnover in the Committee this year. Alan Brown stood down as Chair of the Committee at the end of the financial year after seven years. We are grateful for his distinguished service and for his oversight of the production of this report. On behalf of the Committee, I would also like to thank David Mayhew, Naguib Kheraj, Sarah Fromson and Tim Livett, who have all stepped down from their roles during the year, for their invaluable contributions. Finally, with the sad death of former CIO Danny Truell, we have lost a valuable long-term contributor to the Committee.

I was appointed to the Committee in September 2019 and took up the role of Chair from the start of the 2019/20 financial year. I would also like to welcome Tracy Blackwell, Cressida Hogg and Martin Halusa who have all recently joined the Committee as external members.

Investment Committee Composition and Attendance during 2018/19

	Attended	Maximum possible
Chair		
Alan Brown (to 10 September 2019)	4	4
External members		
Tracy Blackwell (from 1 September 2019)	1	1
Stefan Dunatov	4	4
Martin Halusa (from 1 September 2019)	1	1
Cressida Hogg (from 1 September 2019)	1	1
David Mayhew (to 10 September 2019)	4	4
Internal members		
Sir Jeremy Farrar	3	4
Professor Sir Michael Ferguson	3	4
Sarah Fromson (to 30 September 2019)	3	4
Richard Gillingwater (from 1 September 2019)	-	1
Naguib Kheraj (to 27 March 2019)	2	2
Tim Livett (to 31 January 2019)	1	1
Baroness Manningham-Buller	2	4
Nicholas Moakes	4	4
Peter Pereira Gray	4	4
Paul Schreier	1	1
Danny Truell (to 29 September 2019)	4	4

Activities during the year

The Investment Committee met in December 2018 and March, May and September 2019. At each meeting, it reviewed the positioning and performance of the investment portfolio in the context of prevailing investment market conditions and the evolving macro-economic and geopolitical environment. At the December 2018 meeting the Committee made its annual consideration of the outlook for long-term returns. In its oversight role, the Committee examined correlations and performance attribution; the approach taken by Internal Audit and Deloitte to reviewing internal controls and third-party oversight in Investments; adherence to risk limits; counterparty limits and costs and fees incurred in managing the portfolio. Revisions to the Investment Policy were reviewed and recommended to the Governors for approval in December and again by email in June.

Other topics of discussion during the year have included currency exposures within the portfolio, notably sterling in the context of Brexit; the investment executive's approach to environmental, social and governance (ESG) criteria based on an assessment of companies' "licence to operate"; a review of the role of hedge funds in the portfolio; a review of exposure to financial services in the context of low interest rates; and discussions about the credit cycle. The Committee provided constructive challenge to the Investment Executive at each meeting.

Richard Gillingwater
Chair of the Investment Committee
16 December 2019

Audit and Risk Committee Report

As Chair of the Audit and Risk Committee, I am pleased to present our report for the year ended 30 September 2019. I would like to take this opportunity to thank Michael Ferguson for his contribution as a member of the Committee and to welcome Fiona Powrie and Amelia Fawcett, who was appointed as a member in October 2019. I would also like to thank Karen Chadwick for her ongoing contribution as Acting Chief Financial Officer.

External audit

Oversight

At the April meeting each year, the Committee discusses with the auditors the scope of their audit and makes recommendations to the Board before the audit commences. The significant audit risks are considered by the Committee to be:

- The valuation of unquoted investments relating to: Direct Investments; Joint Ventures; unconsolidated subsidiary investments (Premier Marinas and Farmcare)
- Gains and losses on unquoted investments
- Management override of controls (which is a risk in any organisation)
- The rate of discount selected to discount the grant liabilities.

This is in line with 2018 with the exception of the valuation of Private Equity funds which is no longer considered to be a significant risk. We have agreed to this approach with Deloitte.

The Committee seeks to ensure the continued independence and objectivity of Wellcome's external auditors. At the April meeting each year, it reviews the performance of the external auditors, discusses this with management and recommends their reappointment if appropriate.

At the April, June, September and December meetings each year, the Committee reviews the Auditor's report about independence of its staff, its policies for maintaining staff independence and monitoring compliance with relevant requirements.

Our interactions with Deloitte LLP included:

- Consideration of their work and opinion relating to management judgements
- Discussion on the level of disclosure in the Annual Report to satisfy ourselves that it is appropriate
- Discussion of developments in financial reporting including changes to accounting standards, statute and best practice
- A review of Deloitte LLP's reports on findings and recommendations on internal control and financial reporting matters identified during their interim and final audits and their view of management's progress in resolving them
- Meetings in private session during each Committee meeting, and at other times throughout the year
- Reviewing and discussing the latest results of the Financial Reporting Council's (FRC's) quality inspections and Deloitte LLP's response in the context of the Wellcome audit.

Non-audit fees

We have a policy on any non-audit services provided by our External Auditors, which takes in to account the changes required by the relevant EU Regulations and Directives, the FRC "Guidance on Audit Committees" and the "Revised Ethical Standard".

Non-audit services were under continuous review throughout the year to determine that they were permitted by reference to their nature, assessing potential threats and safeguards to auditor independence as well as the overall ratio of audit to non-audit fees. Consideration was also given to the FRC consultation: Post Implementation Review of the 2016 Auditing and Ethical Standards.

The Committee is satisfied that Deloitte remain independent and that the level and nature of any non-audit services is appropriate.

Financial reporting

At the December meeting each year, in line with its Terms of Reference the Committee reviews the Annual Report and Financial Statements and related announcements for statutory and regulatory compliance. In particular, it reviews the integrity of the disclosures in the Financial Statements and considers the minutes of the Valuation Group meetings. The Valuation Group is responsible for reviewing investment valuations and reports its views to the Committee to assist in its approval of such documents.

The main area of risk considered at the December 2019 meeting was the valuation of investments in private equity and real estate in the financial statements. The valuation of these classes of investments involves a level of complexity and judgement; the results of the detailed work of the Valuation Group were considered. This included consideration of co-investor valuations.

Other matters covered in 2019 were:

- A review of the assessment that management has made of the key judgements and estimations applied to assets and liabilities reported in the Group Balance Sheet to ensure that these are appropriate and are considered when finalising the year end results (these are laid out in note 2);
- The rate used to discount the grant liabilities and it was agreed that it was appropriate to apply management's expectation of the long-term return of the Wellcome's investment portfolio as approved by the Board of Governors.

On the basis of the work done, the Committee recommended to the Board of Governors that the Annual Report taken as a whole is fair, balanced and understandable. In justifying this statement, the Audit and Risk Committee has considered the robust process in place which includes the following:

- Clear guidance is given to all contributors;
- Revisions to regulatory requirements are monitored on an ongoing basis and are discussed at the Audit and Risk Committee meetings throughout the year;
- Finance staff meet with the auditors throughout the year to discuss developments within the business and any impact on the financial reporting; and
- A thorough process of review, evaluation and verification is undertaken by senior management and finance staff.

Internal audit

Wellcome has an in-house internal audit function that is supplemented through the use of a co-source partner, providing external expertise where relevant. The Head of Internal Audit reports functionally into the Audit and Risk Committee which evaluates her performance annually and considers the work done by the team as a whole. Internal Audits are performed based on a risk-based internal audit plan. The plan is reviewed and approved by the Audit and Risk Committee prior to implementation, with the 2019/20 plan being endorsed by the Committee during the September 2019 Audit and Risk Committee meeting. The plan outlines how each audit will be resourced to provide assurance that it has the right expertise for execution. The plan is regularly reviewed and updated taking into account Wellcome's risks.

At each meeting, the Committee receives an update on audit reports completed and observations identified, progress on completion of actions arising from the audits and performance of the internal audit function. In 2019 this included:

- Reviews of internal Wellcome processes across the organisation such as IT governance and the Bloomberg Order Management System Pre-Implementation review
- Reviews of research administration and policies at grant receiving institutions (for example, universities)
- Reviews of operational controls at a selection of the Asia and Africa Programmes and other third party grant recipients.

Internal audit is also provided for GRL, and reports into the GRL Audit and Risk Committee. Reviews at GRL included coverage of the initial UK Biobank Project and research policies and procedures at GRL.

Risk management (including fraud and whistleblowing)

At each meeting, the Committee monitors and reviews risk management processes and the standards of risk management and internal control, including the processes and procedures for ensuring that material business risks are properly identified and managed. In 2019 specific considerations for discussion were:

- Cyber security and the IT control environment – In 2018 there were two successful phishing attacks. No financial loss has been identified as a result of these incidents. A programme of areas identified for improvement continues to be implemented
- General Data Protection Regulation (GDPR) compliance including the actions to be taken to ensure this is embedded within the organisation and is recognised as an evolving process
- Reputational risk – including safeguarding, bullying and harassment. An updated policy was presented to the Committee and is now in place
- The emerging overall Wellcome strategy
- The review of Wellcome's support for science.

The key areas monitored by the Committee are listed on page 43.

Additional areas of focus

In addition to the reviews of external audit, financial reporting, internal audit and risk management discussed above, key governance areas considered by the Committee during the year were:

- Governance and accountability particularly in the context of the Charity Governance Code and the revised Corporate Governance Code. Consideration was given to the appropriate approach for Wellcome as both a Public Interest Entity and an un-incorporated charity and Wellcome culture in the context of a staff survey;
- Consideration of the level of grant recipients' compliance with Wellcome's grant conditions
- Discussion with management on their oversight of higher risk and international grants
- The impact if there were to be a change of government.

Audit and Risk Committee Composition and Attendance during 2018/19

	Attended	Maximum possible
Chair		
William Burns	4	4
External members		
Adèle Anderson	4	4
Chris Jones	4	4
Internal members		
Professor Sir Michael Ferguson (to 10 April 2019)	2	2
Professor Fiona Powrie (from 10 April 2019)	3	3

The Director attended the April meeting and provided a business update as well an overview of the consideration that had been given to address the changes in senior management.

The Chair attended the September meeting and acknowledged the important role that the Audit and Risk Committee plays in the governance of Wellcome.

William Burns
Chair of the Audit and Risk Committee
16 December 2019

Independent Auditor's Report to the Trustee of the Wellcome Trust

Opinion

In our opinion the financial statements of Wellcome Trust (the 'Trust') and its subsidiaries (the 'group'):

- give a true and fair view of the state of the group's and of the Trust's affairs as at 30 September 2019 and of the group's and the Trust's incoming resources and application of resources for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland"; and
- have been prepared in accordance with the requirements of the Charities Act 2011.

We have audited the financial statements which comprise:

- the consolidated statement of financial activities;
- the consolidated and Trust balance sheets;
- the statement of financial activities of the Trust
- the consolidated cash flow statement;
- the related notes 1 to 24.

The financial reporting framework that has been applied in their preparation is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 102 "The Financial Reporting Standard applicable in the UK and Republic of Ireland" (United Kingdom Generally Accepted Accounting Practice).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the group and the Trust in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We confirm that the non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the Trust.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Summary of our audit approach

Key Audit Matters	The key audit matters that we identified in the current year were: • Valuation of unquoted investments relating to joint ventures (iQ) and controlled unconsolidated investments (Premier Marinas and Farmcare) including unrealised gains/losses related to these investments • Valuation of unquoted investments relating to direct investments, including unrealised gains/losses related to these investments • Risk of the grant liability being misstated due to an inappropriate discount rate being applied Within this report, any new key audit matters are identified with and any key audit matters which are the same as the prior year identified with .
Materiality	The materiality that we used for the group financial statements was £252.1 million (2018: £241 million) which was determined on the basis of 1% of net assets.
Scoping	Our group audit scope included the audit of all subsidiaries that accounted for more than 1% of net assets as well as any subsidiary that required a statutory audit. This meant that 99% of net assets were subject to a full scope audit for the year ended 30 September 2019.
Significant changes in the approach for the current year	There have been no significant changes in our audit approach in the current year other than the below changes in key audit matters: **Removal of Key Audit Matters:** In the prior period, we disclosed a key audit matter related to data breach arising from a targeted phishing attack, given the facts have changed on this matter it is no longer considered a key audit matter. In addition, resulting from our current year risk assessment; we have removed valuation of private equity funds and the related gains/losses. We have also refined our revenue to unrealised gains/losses from unquoted investments.

Conclusions relating to going concern

We are required by ISAs (UK) to report in respect of the following matters where:

- The Trustee's use of the going concern basis of accounting in preparation of the financial statements is not appropriate; or
- the Trustee's have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the group's or the Trust's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

We have nothing to report in respect of these matters.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of unquoted investments relating to joint ventures (iQ) and controlled unconsolidated investments (Premier Marinas and Farmcare) including unrealised gains/losses related to these investments	
Key audit matter description	The valuation of Premier Marinas, Farmcare and iQ Student Accommodation involves significant estimation when determining the valuation approach and the use of key judgemental inputs and assumptions. As a result of these estimates, there is more potential for fraud or error in this area. The primary input to each of these valuations is the fair value of alternative real estate assets including marina assets, student accommodation and farmland. There are few comparable transactions for alternative real estate assets such as Marinas and therefore this increases the degree of estimation in determining the fair valuation of those assets. There is a risk that the application of an inappropriate valuation methodology and/or the use of inappropriate assumptions could result in the valuation of unquoted investments being materially misstated. This would subsequently drive the changes in gains and losses. The valuation of Premier Marinas, Farmcare and iQ Student accommodation amount to £1.01 billion (2018: £0.98 billion), which is 8.1% (2018: 8.9%) of the group's unquoted investments, and 4.01% (2018: 4.0%) of the group's net assets. The Audit and Risk Committee Report on page 49 identifies the valuation of real estate assets as a main area of risk. The significant accounting judgements with respect to the group's fair value measurement and valuation policies are described in notes 2 and 15.
How the scope of our audit responded to the key matter	In responding to the key audit matter arising when determining the fair value of Premier Marinas, Farmcare and iQ Student Accommodation, we performed the following procedures: **Controls Assessment** • We performed an assessment of the design, implementation and tested the operating effectiveness of the relevant controls identified. • In performing this work, we obtained and reviewed policies and processes by which the investments are valued, reviewed and attended Valuation group meetings to understand how ongoing monitoring and reassessment of valuations was performed. **Premier Marinas and Farmcare** • We obtained and reviewed 30 September 2019 and 30 September 2018 external valuation reports and determined that the valuation approach for each was in accordance with the Royal Institution of Chartered Surveyors ('RICS') Valuation – Professional Standards. We assessed the competence, qualifications, capabilities and independence of the third party valuers. We compared 2018 and 2019 reports to assess any changes in methodology or approach year on year; and • We involved real estate specialists as part of our audit team to review the third party valuation reports. We challenged the appropriateness of the fair value methodologies used for the various real estate assets, the market assumptions used as part of their valuations (e.g. berth rates for Premier Marinas, rents, yields, discounts for tenancies and discount rates) and their valuation conclusions. We considered the possible effect of Brexit on market assumptions and stress tested key assumptions to understand their effect on the overall valuation. As part of this process, we held a meeting with the third party valuers used where we challenged the key estimates made in their valuation against our expectations, our own market intelligence and external information; • Specifically for Premier Marinas: we determined whether cash flow data used in the discounted cash flows valuation was appropriate given our understanding of the business; and • Specifically for Farmcare: for a sample of assets we obtained relevant third party data to support acreage and other inputs that drive the valuation. **iQ Student Accommodation** • We obtained and reviewed the 30 September 2019 and 30 September 2018 external valuation report and determined that the valuations were in accordance with the Royal Institution of Chartered Surveyors ('RICS') Valuation – Professional Standards. We assessed the competence, qualifications, capabilities and independence of the third party valuers. We compared 2019 and 2018 reports to assess any changes in methodology or approach year on year; and • We involved real estate specialists as part of our audit team to review information provided by Management, including asset listings and yields. We assessed the appropriateness of the key assumptions driving the valuation including rental assumptions, occupancy rates, operating cost assumptions and yield assumptions. We challenged these assumptions based on our own market intelligence and external information. **All three assets** We performed testing over the accuracy of underlying inputs into the valuation models and back tested previous estimates made by management to assess the accuracy of their previous estimates. We also performed market analysis for contradictory evidence to challenge management on the conclusions reached
Key observations	As a result of our procedures we found the valuations of these investments were appropriate.

Valuation of unquoted investments relating to direct investments including unrealised gains/losses related to these investments	
Key audit matter description	The valuation of unquoted direct investments requires significant estimation as the values are derived from unobservable inputs and assumptions. As a result of these estimates, there is more potential for fraud in this area. The values are obtained from co-investors or are valued based on internal models. As these underlying valuations are sensitive to these unobservable inputs and assumptions, there is a risk that the application of an inappropriate valuation methodology and/or the use of inappropriate market assumptions could result in the valuation of unquoted investments being materially misstated. These estimates and assumptions over investments subsequently drive the changes in gains and losses. The valuation of the group's investments in unquoted direct investments amount to £1.22 billion (2018: £1.13 billion) which is 9.8% (2018: 10.3%) of the group's unquoted investments, and 4.8% (2018: 4.7%) of the group's net assets. The Audit and Risk Committee Report on page 49 identifies the valuation of direct investments and the associated unrealised gains and losses as main areas of risk. The significant accounting estimate with respect to the group's fair value measurement and valuation policies are described in notes 2 and 15.
How the scope of our audit responded to the key matter	We assessed Management's valuation methodology and considered whether it was in accordance with the accounting policies of the Trust, applicable accounting standards and industry practice. We assessed the controls applied by Management and tested these controls where we placed reliance on them. **Controls Assessment** We assessed the design, implementation and tested the operating effectiveness of key controls. This included gaining an understanding of the procedures related to the ongoing monitoring of fund managers and the processes by which valuation approaches are continually re-assessed and challenged by the Valuation group. • We tested the controls and procedures performed by Management during the year, including reviewing minutes of the calls/meetings held with the co-investors to monitor these investments; • For unquoted direct investments, we reperformed Management's review for a sample of investment assets by inspecting documentation to determine whether valuations were challenged based on recent knowledge of the investments, as gained through calls with key Management personnel of the investment companies; • We inspected documentation and attended the August and November 2019 Valuation Group meeting to evidence that the Valuation Group has reviewed and reasonably challenged the valuation of investments at year end, as presented by Management and as recorded in the financial statements. **Substantive procedures** • For selected samples, we independently obtained and reviewed the unquoted direct investments valuation statements to determine whether the value recorded by the group was appropriate. We challenged Management's assessment of the valuation assumptions and appropriateness of valuation methodologies used by the third party to determine the fair value. • Where the valuation is determined by the group, we obtained and reviewed the valuation derivation and assessed the reasonableness of any significant judgemental inputs and assumptions. As part of this process, we sought independent evidence including considering contradictory evidence and market comparables to challenge the appropriateness of management's significant judgements, estimates and assumptions. **Unrealised gains/losses** • We sampled purchases and sales during the period and traced these to supporting documentation, based on this procedure and the above procedures we recalculated the gains and losses associated to conclude on the accuracy thereof.
Key observations	As a result of our procedures we found the valuations of these investments were appropriate.

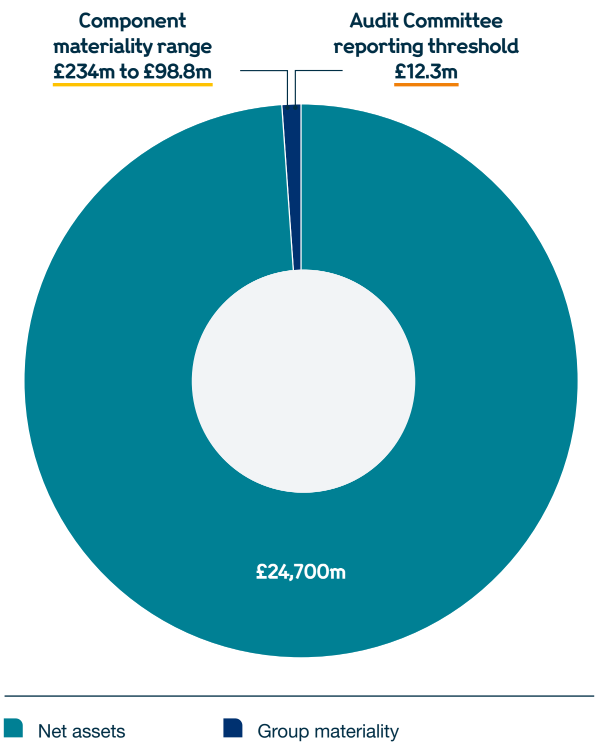
Risk of the grant liability being misstated due to an inappropriate discount rate being applied	
Key audit matter description	The discount rate used is identified as a significant estimate in Note 2 of the annual report. The discounted portion of the grant liabilities is sensitive to changes in the discount rate applied. The non-current grant liabilities £1,517 million (2018: £1,530 million) are discounted, as per the requirements of FRS 102 and Charities SORP. The discount rate selected and applied by Management is based on Management's expectation of the long-term return of the Trust's portfolio. The discount rate used should reflect the opportunity cost to the Trust of not earning an investment return on funds granted and its current assessment of the time value of money. The appropriate discount rate depends on the circumstances of the charity and determining this discount rate requires significant estimation concerning future expectations of investment performance and is subjective. The Audit and Risk Committee Report on page 49 makes reference to the significant estimation uncertainty in this area.
How the scope of our audit responded to the key matter	**Controls Assessment** We assessed the design and implementation of key controls identified in relation to the selection of an appropriate discount rate throughout our planning and interim work. This included gaining an understanding of the procedures related to the review of Management's papers on the selection of an appropriate discount rate and expected rates of long-term return by the Board of Governors used in financial planning and budgeting considerations. **Substantive procedures** In responding to the key audit matter that an appropriate discount rate has not been applied and the grant liabilities balance is potentially misstated, we performed the following procedures: - Reviewed Management's grant discounting methodology paper and compiled a complete list of assumptions involved in the process which were then assessed for reasonableness - We engaged an internal analytics and modelling specialist to review the mechanics of the model and some of the key assumptions • We reviewed Management's paper to the Board of Governors on its expectation of a long-term nominal rate of return of 6.1% (2018: 5.9%) and challenged any year on year changes in approach and the assertions made by Management by: - testing the split of investments stated in the paper and the associated expected investment return of each category; - assessing the stated ranges of nominal rates of return with reference to third party forecasts; and - performing sensitivity analysis on the rate of return by using third party market data in the calculation of the discount rate and determining if variances were material • We tested the arithmetical accuracy of the grant liabilities discounting workings to determine whether the grant liability was materially accurate, and used Deloitte's Analytics tools to challenge the integrity of these spreadsheets.
Key observations	As a result of our audit procedures, we found the discount rate to be appropriate.

Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Trust's financial statements
Materiality	£252.1 million (2018: £241 million)	£239.5 million (2018: £223 million)
Basis for determining materiality	1% of net assets (2018: 1%)	1% of net assets (2018: 1%)
Rationale for the benchmark applied	The Group is an asset based charity making returns on its investment portfolio to support the charitable actives. The basis of group materiality is 1% of net assets which aligns our methodology with industry practice for comparable asset–based organisations.	The Wellcome Trust is an asset based charity making returns on its investment portfolio to support the charitable actives. The basis of Trust materiality is 1% of net assets (limited to 95% of Group materiality) which aligns our methodology with industry practice for comparable asset–based organisations.

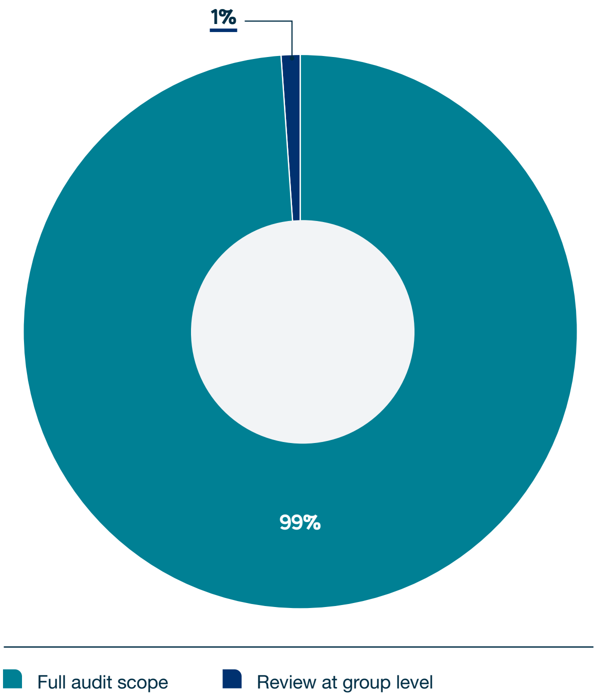


We agreed with the Audit and Risk Committee that we would report to the Committee all audit differences in excess of £12.6 million (2018: £12 million), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

We previously applied a lower level of materiality to the balances related to the Trust's grant liabilities and grant expenditures included within Costs of Charitable Activities on the Statement of Financial Activities which was removed in the current year and our testing approach was adjusted to address the risk in these balances.

An overview of the scope of our audit

Our group audit was scoped by obtaining an understanding of the group and its environment, including group-wide controls, and assessing the balances within each entity and the risks of material misstatement at the group level. Our group audit scope included the full scope audit of subsidiaries which accounted for >1% of Net Assets and those requiring statutory financial statements and all of these subsidiaries were audited directly by the group audit team. Audits were performed at a materiality level determined by reference to the scale of the business concerned ranging from £98.8m to £234 million (2018: £60.4 million to £223 million). The vast majority of audit procedures were performed at the Trust itself.



Other information

The Trustee's are responsible for the other information. The other information comprises the information included in the annual report other than the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in respect of these matters.

Responsibilities of Trustee's

As explained more fully in the Trustee's responsibilities statement, the Trustee's are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Trustee's determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Trustee's are responsible for assessing the group's and the Trust's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Trustee's either intend to liquidate the group or the Trust or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

We have been appointed as auditor under section 151 of the Charities Act 2011 and report in accordance with regulations made under section 154 of that Act.

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Details of the extent to which the audit was considered capable of detecting irregularities, including fraud are set out below.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Extent to which the audit was considered capable of detecting irregularities, including fraud

We identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and then design and perform audit procedures responsive to those risks, including obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion.

Identifying and assessing potential risks related to irregularities

In identifying and assessing risks of material misstatement in respect of irregularities, including fraud and non-compliance with laws and regulations, our procedures included the following:

- enquiring of management, internal audit and the audit and risk committee, including obtaining and reviewing supporting documentation, concerning the group's policies and procedures relating to:
  - identifying, evaluating and complying with laws and regulations and whether they were aware of any instances of non-compliance;
  - detecting and responding to the risks of fraud and whether they have knowledge of any actual, suspected or alleged fraud;
  - the internal controls established to mitigate risks related to fraud or non-compliance with laws and regulations;
- discussing among the engagement team and involving relevant internal specialists, including tax, valuations, pensions, modelling and IT regarding how and where fraud might occur in the financial statements and any potential indicators of fraud. As part of this discussion, we identified potential for fraud in the following areas the valuation of certain unquoted investments where estimation is involved, the related unrealised gain or loss arising from this valuation; and
- obtaining an understanding of the legal and regulatory framework that the group operates in, focusing on those laws and regulations that had a direct effect on the financial statements or that had a fundamental effect on the operations of the group. The key laws and regulations we considered in this context included the Charities Act 2011 and listing rules for the Trust's listed bonds.

Audit response to risks identified

As a result of our risk assessment procedures, we identified key audit matters. The key audit matters section of our report explains the matters in more detail and also describes the specific procedures we performed in response to those key audit matters;

- valuation of unquoted investments relating to joint ventures (iQ) and controlled, unconsolidated subsidiary investments (Premier Marinas, Farmcare) including unrealised gains/losses related to these investments; and
- valuation of unquoted investments relating to unquoted direct investments, including unrealised gains/losses related to these investments.

In addition to the above, our procedures to respond to risks identified included the following:

- reviewing the financial statement disclosures and testing to supporting documentation to assess compliance with relevant laws and regulations discussed above;
- enquiring of management, the audit committee and in-house legal counsel concerning actual and potential litigation and claims;
- performing analytical procedures to identify any unusual or unexpected relationships that may indicate risks of material misstatement due to fraud;
- reading minutes of meetings of those charged with governance, reviewing internal audit reports and reviewing correspondence with HMRC and
- in addressing the risk of fraud through management override of controls, testing the appropriateness of journal entries and other adjustments; assessing whether the judgements made in making accounting estimates are indicative of a potential bias; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

We also communicated relevant identified laws and regulations and potential fraud risks to all engagement team members including internal specialists and remained alert to any indications of fraud or non-compliance with laws and regulations throughout the audit.

Matters on which we are required to report by exception

Adequacy of explanations received and accounting records

Under the Charities (Accounts and Reports) Regulations 2008 we are required to report in respect of the following matters if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Trust, or returns adequate for our audit have not been received from branches not visited by us; or
- the Trust financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

Consistency of the Trustees' Report with the Financial Statements

Under the Charities (Accounts and Reports) Regulations 2008 we are required to report to you if, in our opinion the information given in the Trustee's Report is inconsistent in any material respect with the Financial Statements. We have nothing to report in respect of this matter.

Other matters

Auditor tenure

Following the recommendation of the audit committee, we were appointed by the Trust at its Board of Governor's meeting on 14 December 2015 to audit the financial statements for the year ending 30 September 2016 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments of the firm is 4 years, covering the years ending 30 September 2016 to 30 September 2019.

Consistency of the audit report with the additional report to the audit committee

Our audit opinion is consistent with the additional report to the audit committee we are required to provide in accordance with ISAs (UK).

Use of our report

This report is made solely to the charity's Trustee, as a body, in accordance with Part 4 of the Charities (Accounts and Reports) Regulations 2008. Our audit work has been undertaken so that we might state to the charity's trustees those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the charity and the charity's members as a body, for our audit work, for this report, or for the opinions we have formed.

The engagement partner on the audit resulting in this independent auditor's report is Terri Fielding.

Deloitte LLP

Deloitte LLP (Senior statutory auditor)
Statutory Auditor
London, United Kingdom
16 December 2019

Deloitte LLP is eligible for appointment as auditor for the charity by virtue of its eligibility for appointment as audit of a company under section 1212 of the Companies Act 2006

Financial statements

MLW Labs

Blantyre, Malawi

Image: Thoko Chikondi

Consolidated Statement of Financial Activities

for the year ended 30 September 2019

	Note	Restricted funds £m	Unrestricted funds £m	**2019 £m**	Restricted funds £m	Unrestricted funds £m	2018 £m
Income from investments							
Dividends and interest	3	-	372.7	**372.7**	-	402.4	402.4
Rental income		-	35.6	**35.6**	-	37.0	37.0
		-	408.3	**408.3**	-	439.4	439.4
Charitable income							
Grants receivable	4(a)	20.9	-	**20.9**	19.8	-	19.8
Other charitable income	4(b)	25.3	26.5	**51.8**	-	25.6	25.6
Total income		46.2	434.8	**481.0**	19.8	465.0	484.8
Expenditure on raising funds							
Management fees and other investment costs	5(a)	-	(69.5)	**(69.5)**	-	(71.2)	(71.2)
Interest payable on bond liabilities		-	(78.7)	**(78.7)**	-	(71.9)	(71.9)
Expenditure on charitable activities	6	(53.2)	(1,129.9)	**(1,183.1)**	(13.8)	(624.3)	(638.1)
Total expenditure		(53.2)	(1,278.1)	**(1,331.3)**	(13.8)	(767.4)	(781.2)
Net realised and unrealised gains on investments	15(g)	-	1,978.2	**1,978.2**	-	2,589.3	2,589.3
Realised gains on mixed motive investments	15(d)	-	-	**-**	-	25.8	25.8
Net income before taxation		(7.0)	1,134.9	**1,127.9**	6.0	2,312.7	2,318.7
Taxation	13	-	44.6	**44.6**	-	(52.2)	(52.2)
Net income after taxation		(7.0)	1,179.5	**1,172.5**	6.0	2,260.5	2,266.5
Actuarial gains/(losses) on defined benefit pension schemes	11(e)(iii)	-	(158.2)	**(158.2)**	-	56.6	56.6
Net movement in funds		(7.0)	1,021.3	**1,014.3**	6.0	2,317.1	2,323.1
Funds at start of year		32.2	24,167.9	**24,200.1**	26.2	21,850.8	21,877.0
Funds at end of year	20	25.2	25,189.2	**25,214.4**	32.2	24,167.9	24,200.1

There are no gains or losses apart from those recognised above. All income is derived from continuing activities.

An analysis of the movement of funds in 2019 is shown in note 20.

Consolidated Balance Sheet

as at 30 September 2019

	Note	2019 £m	2018 £m
Tangible fixed assets	14(a)	**424.3**	430.6
Investment assets			
Quoted investments	15(a)	**15,053.9**	14,919.7
Unquoted investments	15(a)	**12,402.8**	10,988.6
Investment properties	15(a)	**1,298.9**	1,352.3
Derivative financial instruments	15(b)	**102.3**	45.7
Investment cash and certificates of deposit	15(c)	**1,070.4**	1,156.4
Other investment assets	15(c)	**268.3**	204.5
Social investments			
Programme related investments	15(e)	**17.4**	17.5
Total Fixed Assets		**30,638.3**	29,115.3
Current assets			
Stock		**9.5**	6.2
Debtors	16	**27.1**	27.3
Cash at bank and in hand		**33.2**	23.7
Total Current Assets		**69.8**	57.2
Creditors falling due within one year	17	**(1,127.8)**	(718.9)
Net current liabilities		**(1,058.0)**	(661.7)
Total assets less current liabilities		**29,580.3**	28,453.6
Creditors falling due after one year	17	**(3,843.3)**	(3,859.4)
Provision for liabilities and charges	18	**(151.0)**	(191.9)
Net assets excluding pension deficits		**25,586.0**	24,402.3
Defined benefit pension schemes' deficits	11(e)(iv)	**(371.6)**	(202.2)
Net assets including pension deficits		**25,214.4**	24,200.1
Funds of the charity			
Restricted Funds	20	**25.1**	32.2
Unrestricted Funds	20	**25,189.3**	24,167.9
Total Funds		**25,214.4**	24,200.1

The Financial Statements on pages 61-113 were approved and authorised for issue by The Wellcome Trust Limited, as Trustee, on 16 December 2019 and signed on its behalf by:

Eliza Manningham-Buller

MJG Ferguson

Baroness Manningham-Buller
Chair

Professor Sir Michael Ferguson
Deputy Chair

Statement of Financial Activities of the Trust

for the year ended 30 September 2019

	Note	2019 £m	2018 £m
Income from investments			
Dividends and interest	3	**333.2**	383.0
Rental income		**34.8**	36.6
		368.0	419.6
Charitable income			
Other charitable income	4(b)	**91.1**	85.6
Total income		**459.1**	505.2
Expenditure on raising funds			
Management fees and other investment costs	5(a)	**(66.7)**	(69.6)
Interest payable to group undertakings		**(31.0)**	(29.8)
Interest payable on bond liabilities		**(39.4)**	(32.7)
Expenditure on charitable activities	6	**(1,109.0)**	(602.0)
Total expenditure		**(1,246.1)**	(734.1)
Net realised and unrealised gains on investments	15(g)	**1,995.7**	2,456.9
Net income		**1,208.7**	2,228.0
Actuarial gains/(losses) on defined benefit pension schemes	11(e)(iii)	**(77.5)**	30.2
Net movement in funds		**1,131.2**	2,258.2
Funds at start of year		**24,030.1**	21,771.9
Funds at end of year		**25,161.3**	24,030.1

There are no gains or losses apart from those recognised above. All income is derived from continuing activities. All funds are unrestricted.

Balance Sheet of the Trust

as at 30 September 2019

	Note	2019 £m	2018 £m
Tangible fixed assets	14(b)	**220.1**	224.1
Investment assets			
Quoted investments	15(a)	**13,292.2**	13,581.2
Unquoted investments	15(a)	**11,050.7**	9,716.5
Investment properties	15(a)	**1,157.0**	1,198.1
Derivative financial instruments	15(b)	**102.3**	45.6
Investment cash and certificates of deposit	15(c)	**1,069.4**	1,156.4
Other investment assets	15(c)	**254.6**	195.9
Subsidiary and other undertakings		**3,323.4**	2,637.0
Social investments			
Programme related investments	15(e)	**17.4**	17.5
Total Fixed Assets		**30,487.1**	28,772.3
Current assets			
Debtors	16	**8.2**	8.6
Cash at bank and in hand		**5.0**	19.0
Total Current Assets		**13.2**	27.6
Creditors falling due within one year	17	**(2,102.7)**	(1,599.7)
Net current liabilities		**(2,089.5)**	(1,572.1)
Total assets less current liabilities		**28,397.6**	27,200.2
Creditors falling due after one year	17	**(3,007.0)**	(3,022.0)
Provision for liabilities and charges	18	**(60.7)**	(59.8)
Net assets excluding pension deficit		**25,329.9**	24,118.4
Defined benefit pension scheme's deficit	11(e)(iv)	**(168.6)**	(88.3)
Net assets including pension deficit		**25,161.3**	24,030.1
Funds of the charity			
Unrestricted Funds		**25,161.3**	24,030.1
Total Funds		**25,161.3**	24,030.1

The Financial Statements on pages 61-113 were approved and authorised for issue by The Wellcome Trust Limited, as Trustee, on 16 December 2019 and signed on its behalf by:

Eliza Manningham-Buller

Baroness Manningham-Buller
Chair

MAJ Ferguson

Professor Sir Michael Ferguson
Deputy Chair

Consolidated Cash Flow Statement

for the year ended 30 September 2019

	Note	2019 £m	2018 £m
Net income for the year (as per the Statement of financial activities)		**1,014.3**	2,323.1
Adjustments to exclude non-cash items and investment income and expenditure			
Decrease in debtors	16	**0.2**	9.4
Increase in stock		**(3.3)**	(4.0)
Increase/(decrease) in grant commitments	8	**273.9**	(232.1)
Increase/(decrease) in creditors and provisions		**155.1**	(3.8)
Less unrealised gains on sale of Programme Related Investments	15(e)	**(2.1)**	(6.2)
Increase in Net Write Down for Programme Related Investments	15(e)	**10.4**	12.4
(Decrease)/increase in other investment debtors	15(c)	**(2.4)**	36.2
Depreciation and Disposals of Fixed Assets		**23.7**	23.9
Investment income		**(408.3)**	(439.4)
Bond interest		**78.7**	71.9
Net realised and unrealised gains on investments		**(1,978.2)**	(2,600.2)
Realised gain on mixed motive investments		**-**	(25.8)
Net cash flows from operating activities		**(838.0)**	(834.6)
Cash flows from investing activities:			
Investment income received	23(a)	**405.9**	439.2
Proceeds from sales of investment assets	23(c)	**4,962.7**	5,403.7
Purchase of investment assets	23(c)	**(4,444.5)**	(5,552.2)
Purchase of tangible fixed assets	14(a)	**(17.4)**	(19.5)
Net cash inflow/(outflow) upon settlement of derivative financial instruments	23(c)	**(81.9)**	97.0
Net cash flows from investing activities		**824.8**	368.2
Cash flows from financing activities:			
Cash outflow for servicing of finance	23(b)	**(77.3)**	686.5
Net cash flows from financing activities		**(77.3)**	686.5
Change in cash and cash equivalents during the year		**(90.5)**	220.2
Cash and cash equivalents at the beginning of the year		**1,180.2**	962.5
Change in cash and cash equivalents due to exchange rate movements		**14.0**	(2.5)
Cash and cash equivalents at the end of the year		**1,103.7**	1,180.2

Cash and cash equivalents include cash at bank and in hand, and investment cash and certificates of deposits.

A statement of net debt is included in note 22(d).

Notes to the Financial Statements

1. Accounting policies

The numbers shown in the financial statements are in millions, rounded to one decimal point.

(a) Statement of compliance

The Financial Statements of the Wellcome Trust (the "Trust") and the consolidated Financial Statements of the Trust and its subsidiary undertakings (the "Group") have been prepared on a going concern basis and in accordance with applicable UK accounting standards (UK Generally Accepted Accounting Practice), including Financial Reporting Standard 102 'The Financial Reporting Standard applicable in the United Kingdom and the Republic of Ireland' ("FRS 102"). In particular, they comply with the Charities Act 2011, the Charities (Accounts and Reports) Regulations 2008 and the Statement of Recommended Practice 'Accounting and Reporting by Charities' published in 2015 (the "SORP") in all material respects with the exception of the valuation of certain joint ventures and associates as detailed under the Basis of Consolidation below.

Wellcome Trust meets the definition of a public benefit entity under FRS 102. The Financial Statements have been prepared under the historical cost convention, as modified by the valuation of investments on a basis consistent with prior years.

The functional currency of the Trust is considered to be Pounds Sterling because that is the currency of the primary economic environment in which the Trust operates. The consolidated Financial Statements are also presented in Pounds Sterling.

Wellcome Trust meets the definition of a qualifying entity under the SORP and has therefore taken advantage of the disclosure exemptions available to it in respect of its separate Financial Statements, which are presented alongside the consolidated Financial Statements. Exemptions have been taken in relation to financial instruments and the presentation of a Cash Flow Statement.

(b) Summary of significant accounting policies

The principal accounting policies applied in the preparation of these consolidated and separate Financial Statements are set out below. These policies have been consistently applied to all years presented, unless otherwise stated.

Basis of preparation

The preparation of Financial Statements in conformity with FRS 102 requires the use of certain significant accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the Financial Statements are disclosed in note 2.

Basis of consolidation

The consolidated Financial Statements include the Financial Statements of the Trust and its subsidiary undertakings. Associates and joint ventures are included as part of the investment portfolio and are discussed below. Subsidiary undertakings are entities over which the Trust has control. Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. When the Group owns less than 50% of the voting powers of an entity, but controls the entity by virtue of an agreement with other investors that gives it control of the financial and operating policies, it accounts for these as subsidiaries. The Financial Statements of subsidiaries are included from the date that control commences until the date that it ceases.

The Trust consolidates four types of subsidiary undertakings:

(i) charitable subsidiary undertakings formed to pursue charitable objects closely allied to those of the Trust which are held at cost less impairment;

(ii) non-charitable operating subsidiary undertakings to conduct non-primary purpose trading which are held at cost less impairment;

(iii) a non-charitable financing subsidiary undertaking formed to issue listed debt to finance Group activities which are held at cost less impairment; and

(iv) non-charitable investment subsidiary undertakings formed to hold investments and freehold property on behalf of the Trust which are held at fair value which is represented by their net asset value.

A subsidiary is excluded from consolidation where the interest in the subsidiary is held as part of the investment portfolio and its value to the Group is through fair value rather than as the medium through which the Group carries out business and where it has not previously been consolidated in the consolidated Financial Statements under FRS 102.

These subsidiaries are included at fair value within investments in accordance with 9.9C(a) of FRS 102.

Further detail on the Trust's significant subsidiary undertakings is provided in note 21.

A joint venture is a contractual arrangement whereby the Group and one or more parties undertake an economic activity that is subject to joint control. The Group considers that it has joint control where there is contractually agreed sharing of control over an economic activity, and exists only when the strategic, financial and operating decisions relating to the activity require the unanimous consent of the parties sharing control. The results of the joint ventures are accounted for using the equity method of accounting unless the entity is held as part of the investment portfolio or as a Social Investment as discussed below.

An associate is an entity, being neither a subsidiary nor a joint venture, in which the Group holds a long-term interest and has significant influence. The Group considers it has significant influence where it has the power to participate in the financial and operating decisions of the associate. The results of the associates are accounted for using the equity method of accounting unless the entity is held as part of the investment portfolio or as a Social Investment as discussed on page 71.

Where an associate or joint venture is held as part of the investment portfolio or as a Social Investment and its value to the Group is through fair value rather than as medium through which the Group carries out business, the associate or joint venture is measured at fair value with changes in fair value recognised in profit or loss (Statement of Financial Activities) in the consolidated Financial Statements in accordance with 14.4B or 15.9B of FRS 102. The fair value is determined in accordance with the accounting policies for Financial Assets and Liabilities detailed on page 70. This is a departure from the SORP which requires that all such investments are accounted for using the equity method of accounting. The fair value of the associates and joint ventures held in the investment portfolio is included in Unquoted investments in note 15(a).

All intra-group transactions, balances, income and expenses are eliminated on consolidation of subsidiaries. Adjustments are made to eliminate the profit or loss arising on transactions with joint ventures or associates to the extent of the Group's interest in the entity. Where subsidiaries, joint ventures and associates are held as part of the investment portfolio or as a Social Investment and measured at fair value, no elimination of intra-group items is undertaken.

Income

The Group recognises income at the fair value of the consideration received or receivable when the significant risks and rewards of ownership have been transferred, the amount of revenue can be measured reliably, it is probable that future economic benefits will flow to the Group and when the specific criteria relating to the each of Group's income channels have been met, as described below.

All amounts are net of discounts and rebates allowed and value added taxes if applicable.

Dividend income including any recoverable tax is recognised from the ex-dividend date when it becomes receivable.

Rental income is recognised on an accruals basis, and is recognised on a straight line basis.

Interest income is recognised using the effective rate of interest.

Charitable income for performance-related agreements is recognised when the expenditure is incurred as this reflects the service levels. Income for non-performance-related agreements is recognised when awarded as this represents entitlement. Capital grants with no performance related conditions are recognised when the charity is entitled, the receipt is probable and the amount is measurable which is when the award letter is received. Any receipts that do not meet these criteria are held as deferred income.

Gift aid income is recognised on an accruals basis when the receipt is both probable and measurable.

Expenditure

Expenditure and liabilities are recognised as soon as there is a legal or constructive obligation committing the Group to that expenditure, it is probable that settlement will be required and the amount of the obligation can be measured reliably. All expenditure is recognised on an accruals basis, with the exception of grants as noted below.

Expenditure on raising funds relates to the management of the investment portfolio and includes the allocation of support costs relating to this activity.

Expenditure on charitable activities is analysed between grant funding and the cost of activities performed directly by the Trust and the Group together with the associated support costs, including governance costs. Governance costs are the costs of governance arrangements that relate to the general running of the Group as opposed to those costs associated with investments or charitable activities. These costs include such items as internal and external audit, legal advice for Governors and costs associated with constitutional and statutory requirements.

Where possible, expenditure incurred that relates to more than one activity is apportioned. The method of apportionment uses the most appropriate basis for each cost type.

Grants awarded to institutions outside the Group are recognised as expenditure in the year in which the grant is formally approved by the Trust and has been communicated to the recipient, except to the extent that it is subject to conditions that enable the Trust to revoke the award.

The provision for multi-year grants is recognised at its present value where settlement is due over more than one year from the date of the award, there are no unfulfilled performance conditions under the control of the Trust that would permit it to avoid making the future payments, settlement is probable and the effect of the discounting is material. The discount rate used is regarded by the Board of Governors as the most current available estimate of the opportunity cost of money and is based on the expected real rate of return on the investment portfolio. The impact of the discount rate is discussed in note 2 (significant accounting estimates and assumptions).

Research expenditure is written off in the Statement of Financial Activities in the year in which it is incurred and is included in Expenditure on Charitable Activities.

Net realised and unrealised gains and losses on investments
Net realised and unrealised gains and losses on investments are recognised within the Statement of Financial Activities. Gains and losses are realised when an investment is disposed of in the year. Unrealised gains and losses arise on the revaluation of investments to fair value at the balance sheet date.

Employee benefits

The Group provides a range of benefits to employees, including annual bonus arrangements, long-term incentive plans, paid holiday arrangements and defined benefit and defined contribution pension plan. These are detailed in the Remuneration Report on page 44.

Short term benefits
Short term benefits, including private medical insurance, medical assessments and group income protection are recognised as an expense in the period in which the service is received.

Pension schemes
The Group pension arrangements are detailed in note 11(e).

The contributions to defined contribution plans are recognised as an expense when they are due. Amounts not paid are shown in accruals in the balance sheet. The assets of the plan are held separately from the Group in independently administered funds.

The liability recognised in the balance sheet in respect of a defined benefit plan is the present value of the defined benefit obligation at the end of the reporting date less the fair value of plan assets at the reporting date. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to "Actuarial gains and losses on defined benefit pension schemes" in the Statement of Financial Activities.

The cost of the defined benefit plans, recognised in charitable expenditure as employee costs comprises:

(a) the increase in pension benefit liability arising from employee service during the period; and

(b) the cost of plan introductions, benefit changes, curtailments, settlements, and administration expenses.

Other retirement benefits are included within provisions and are valued at the present value of the defined benefit obligation at the end of the reporting date.

Annual bonus plan
An expense is recognised in the Statement of Financial Activities when the Group has a legal or constructive obligation to make payments under the plan as a result of past events and a reliable estimate of the obligation can be made.

Long-term incentive plans
The cost is recognised in the Statement of Financial Activities over the period of service to which the plan relates. Where amounts are left in the plan after vesting date, any adjustment in value between the date of vesting and the date of payment is recognised in the Statement of Financial Activities.

Termination benefits
Termination benefits are payable when employment is terminated by the Group, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits when it is demonstrably committed to either (i) terminating the employment of current employees according to a detailed formal plan without possibility of withdrawal or (ii) providing termination benefits as a result of an offer of voluntary redundancy.

Fund accounting

The Group's charitable funds consist of restricted funds, held in Genome Research Limited, and unrestricted funds.

Tangible fixed assets

Tangible fixed assets, excluding land and investment properties, held by the Group and the Trust are stated at cost less accumulated depreciation and any accumulated impairment losses. Land is stated at cost less any accumulated impairment losses. Cost includes the original purchase price and costs directly attributable to bringing the asset to its working condition for its intended use. Fixed assets are subject to review for impairment when there is an indication of a reduction in their carrying value. They are reviewed annually and any impairment is recognised in the year in which it occurs.

Assets in the course of construction are stated at cost and are not depreciated until available for use.

Depreciation is calculated using the straight-line method to allocate the cost of each asset less its residual value over its estimated useful life. Residual value represents the estimated amount that would currently be obtained from disposal of an asset, after deducting estimated costs of disposal if the asset were already of the age and in the condition expected at the end of its useful life. Depreciation commences from the date an asset is brought into service when the charge is reflected in the SOFA.

The useful lives for depreciation purposes for the principal categories of assets are shown in Table 1.

Table 1

	Years
Buildings	50
Leasehold Land and Buildings	Over the term of the lease
Other Plant and Equipment. Fixtures and fittings	3 to 15
Computer Equipment	3 to 5

Heritage assets
The Trustee does not consider that reliable cost or valuation information can be obtained for the vast majority of heritage assets held by the Trust. This is because of the diverse and specialist nature of the assets held, the number of assets held and the lack of comparable market values. The cost of valuing the entire collection would be onerous compared with the benefit derived by users of the Financial Statements in assessing the Trustee's stewardship of the assets. Assets are recognised on the Balance Sheet if they meet the definition of a heritage asset, their value can be reliably measured and they are considered to be material. Further details are provided in note 14.

Financial assets and liabilities

The Group has chosen to adopt Sections 11 and 12 of FRS 102 in respect of financial instruments. Financial assets and financial liabilities are recognised when the Group becomes a party to the contractual provisions of the instrument.

Financial assets which qualify as basic financial instruments as laid out in FRS 102 paragraph 11.8, including trade and other receivables and cash and bank balances, are subsequently valued at amortised cost and assessed for impairment at the end of each reporting period.

Other financial assets, including investments, are subsequently valued at fair value.

Financial liabilities and equity instruments are classified according to the substance of the contractual arrangements entered into. All financial assets and liabilities are initially measured at transaction price (including transaction costs), except for those financial assets classified as at fair value through profit or loss, which are initially measured at fair value (normally the transaction price excluding transaction costs), unless the arrangement constitutes a financing transaction. If an arrangement constitutes a financing transaction, the financial asset or financial liability is measured at the present value of the future payments discounted at a market rate of interest for a similar debt instrument.

Financial assets and liabilities are only offset in the Balance Sheet when there exists a legally enforceable right to set off the recognised amounts and the Group intends either to settle on a net basis, or to realise the asset and settle the liability simultaneously.

Financial assets are derecognised only when (a) the contractual rights to the cash flows from the financial asset expire or are settled, (b) the Group transfers to another party substantially all of the risks and rewards of ownership of the financial asset, or (c) the Group, despite having retained some, but not all, significant risks and rewards of ownership, has transferred control of the asset to another party.

Financial liabilities are derecognised only when the obligation specified in the contract is discharged, cancelled or expires.

Investment valuation policies and procedures are reviewed by the Valuation Group which is responsible for reviewing valuations. Specific policies are detailed below and the detail of the application of these policies is disclosed in the relevant note to the accounts where appropriate.

(i) Quoted investments
Quoted investments comprise publicly quoted, listed securities including shares, bonds and units. Quoted investments are stated at fair value at the balance sheet date. The basis of fair value for quoted investments is equivalent to the market value, using the bid-price. Asset sales and purchases are recognised at the date of trade.

(ii) Unquoted investments
Unquoted investments are valued at management's best estimate of fair value and comprise:

- Private equity and venture funds are valued externally by their fund managers;
- Direct investments the majority of which are made with co-investors (who are funds within our private equity, venture and property funds portfolio) and the co-investor valuations is used to determine the fair value. Where there is no co-investor, these investments are internally valued.
- Investment operating subsidiaries and joint ventures which are held as part of the investment portfolio, refer to the Basis of Consolidation on pages 67-68, are held and measured on a fair value basis. Further details are provided in note 2 (Significant accounting judgements and key sources of estimation uncertainty).

(iii) Derivative financial instruments
Derivative financial instruments are used as part of the Group's portfolio risk management and as part of the Group's portfolio management and investment return seeking strategy. The Group's use of derivative financial instruments includes equity index-linked futures and options, commodities futures and options, options on individual equities, warrants and currency forwards.

The Group's exchange traded options are stated at fair value, equivalent to the market value, using the bid price, on the relevant exchange. Long-term linked currency forwards are stated at management's estimate of fair value, using the market value of a transactions with equivalent cash flows and market observable forward rates.

The Group's warrants are held at the fair value determined by management. These will generally reflect the valuations used by the Group's co-invest partners where these exist and where there is confidence in their approach. Valuations will generally be intrinsic value, as the best estimate of fair value, but for some warrant holdings the use of a Black-Scholes valuation methodology will be used by management.

The fair value of contract positions is recognised in the Balance Sheet and gains and losses on the contracts are recognised in the Statement of Financial Activities.

(iv) Investment cash and certificates of deposit, other investment assets and other investment liabilities
Investment cash and certificates of deposit, and debtors and creditors arising as part of the investment portfolio are stated at their fair value.

(v) Bond liabilities
Bond liabilities are measured at amortised cost using the effective interest rate method. Initial amortised cost is equal to the proceeds of issue net of transaction costs directly attributable. Transaction costs form part of the effective interest rate and are recognised in the Statement of Financial Activities over the term of the Bonds. The fair value of the Bonds disclosed within the notes to the Financial Statements is the market value of the Bonds at the year end date. The Group is not required to, and therefore does not, recognise any adjustment to fair value in the Balance Sheet and the Statement of Financial Activities.

Investment properties

Investment properties for which fair value can be measured reliably on an ongoing basis are measured at fair value annually with any change recognised in the Statement of Financial Activities. The fair values are based on valuations estimated by third party professional valuers; however, where properties are acquired close to the balance sheet date, valuations are not obtained because the acquired properties are recorded at open market value upon initial recognition, which management considers to be a reasonable estimate of open market value at the balance sheet date. Property transactions are recognised on the date of completion.

Investments in subsidiaries

Subsidiary undertakings established purely to hold investments are included in the Trust's Balance Sheet at fair value which is represented by their net asset value.

Securities lending programme

The Group undertakes securities lending arrangements whereby securities are loaned to external counterparties for a set period of time ("the loan period"). The Group receives cash collateral of greater value than the securities loaned from each counterparty for the duration of the loan period and receives a share of the interest earned on the cash collateral held. Under the terms of the securities lending agreements, the Group retains substantially all the risks and rewards of ownership of the loaned securities, and the contractual rights to any cash flows relating to the securities. The loaned securities are not derecognised on the Group's and Trust's Balance Sheets. The cash collateral and the obligation to return the cash collateral to the lender are recognised in the Group's and Trust's Balance Sheets.

Social investments

Programme related investments
Programme related investments are held at fair value, if this can be measured reliably; or if fair value cannot be measured reliably, at cost less impairment. Where a decision is taken that a programme related investment should be held to generate a financial return and that the primary motivation for holding it is no longer to further the objects of the charity, it will be transferred to the main investment portfolio and measured accordingly. These are discussed in note 15(e).

Stock

Stock consists of consumables and goods for sale and is stated at the lower of cost and estimated selling price less costs to complete and sell, which is equivalent to the net realisable value. Cost is determined on a first-in-first-out basis. Where necessary, provision is made for obsolete, slow moving and defective stock.

Provisions and contingencies

Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount has been reliably estimated. Provisions are discounted to present value where the effect is material.

Contingencies

Contingent liabilities are potential future cash outflows, where the likelihood of payment is considered more than remote, but is not considered probable or cannot be measured reliably. These are not recognised but are disclosed in the Financial Statements.

Contingent assets are not recognised. Contingent assets are potential future inflows of economic benefits where the likelihood of receipt is considered more than remote, but is not considered probable or cannot be measured reliably. These are not recognised but are disclosed in the Financial Statements.

Foreign currencies

Transactions denominated in foreign currencies are translated into Pounds Sterling at the exchange rates ruling at the date of transaction. Monetary assets and liabilities denominated in foreign currencies are translated into Pounds Sterling at the rate ruling at the balance sheet date. All foreign exchange gains and losses, realised and unrealised, are recognised in the Statement of Financial Activities.

Taxation

The charitable members of the Group are exempt from taxation on their income and gains falling within Part 11 of the Corporation Tax Act 2010 or section 256 of the Taxation of Chargeable Gains Act 1992 to the extent that they are applied to their charitable purposes.

The non-charitable subsidiaries, although subject to taxation, do not pay UK Corporation Tax because their policy is to donate taxable profits as Gift Aid to the Wellcome Trust. Foreign tax incurred on overseas investments is charged as it is incurred. In common with many other charities, the charitable members of the Group are unable to recover the majority of Value Added Tax ("VAT") incurred on expenditure. The amount of VAT that cannot be recovered is included within the underlying cost to which it relates.

Current tax, including UK corporation tax and foreign tax, is provided at amounts expected to be paid (or recovered) using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is recognised in respect of all timing differences that have originated but not reversed at the balance sheet date. Timing differences are differences between the taxable profits and results as stated in the Financial Statements.

Unrelieved tax losses and other deferred tax assets are recognised only to the extent that, on the basis of all available evidence, it can be regarded as more likely than not that there will be suitable taxable profits from which the future reversal of the underlying timing differences can be deducted.

Deferred tax is recognised on fair market value adjustments of investment subsidiaries even though the subsidiaries will be able to donate the profits from the future realisation of the underlying assets so that no current tax charge will arise.

Deferred tax is measured using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date that are expected to apply to the reversal of the timing difference.

2. Key sources of estimation and uncertainty and significant judgements made in applying the accounting policies

The preparation of the financial statements requires the application of certain estimates and judgements. The material areas of either estimation or judgement are set out below. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Each of these areas are considered by the Audit and Risk Committee based on information prepared by Finance.

Key sources of estimation and uncertainty made in applying the Group's accounting policies

Unquoted investments fair value measurement and valuation

Some of the Group's assets and liabilities are measured at fair value for financial reporting purposes.

Investment asset category	Value £m	Valuation methodology	Estimations and assumptions
Unquoted investments Investment Operating Subsidiaries and Joint Ventures (which are included within Property in the investments allocation refer to Figure 6 on page 25)	1,106	As noted in the Basis of Consolidation on pages 67-68, certain subsidiaries and joint ventures and associates are excluded from consolidation where the interest in the entity is held as part of the investment portfolio. Rather than holding these entities to carry out business, they are held and measured on a fair value basis. Fair value is based on external valuers employing RICS valuation methodology for property adjusting for other net assets	The fair value of the property held within these investments is estimated noting there is difficulty in predicting the outlook of the UK property market. A sensitivity analysis is provided for this below

Estimate	Change in estimate	Impact on unquoted investments
Fair value	Increase/decrease of 10%	Increase/decrease by £111 million (0.9%)

Grant liabilities

Valuation methodology	Value £m	Estimations and assumptions
The initial liability recognised is based on actual amounts awarded, but as the awards are paid out over a number of years non-current liabilities (refer to notes 6 and 8) are discounted based on expected future cash outflows. Internal estimation is required in calculating the appropriate discount rate as well as determining when the liability will be called down as a claim to be paid. An internal model is also used to estimate the timing of the expected cashflows which effects the discounted grant liability	2,284	The expected future nominal rate of investment returns and the timing of the payment of the liabilities. A sensitivity analysis is provided below

Estimate	Change in estimate	Impact on unquoted investments
Rate used to discount grant liabilities	Increase/decrease of 0.5% p.a.	Decrease/increase by £20 million (0.8%)

Defined benefit pension schemes' liabilities

Valuation methodology	Value £m	Estimations and assumptions
The actuaries provide a summary of the actuarial assumptions proposed based on FRS 102 requirements and their knowledge as administrators of the plan. The Finance team, the Chief Investment Officer and the People team review these assumptions and challenge them if required	963	The rate of future salary increases The discount rate The rate of inflation A sensitivity analysis is provided below

Estimate	Change in estimate	Impact on unquoted investments
Discount rate	Increase/decrease of 0.5% p.a.	Decrease/increase by £130.9 million (13.9%)
Rate of inflation	Increase/decrease of 0.5% p.a.	Increase/decrease by £100.7 million (10.7%)

Significant judgements in applying the Group's accounting policies

Non-charitable investment subsidiary undertakings, associates and joint ventures held as part of the investment portfolio

The Group applies judgement to assess which subsidiary undertakings, associates and joint ventures are held as part of the investment portfolio and therefore their value to the Group is through fair value rather than a medium through which the Group carries out business (refer Basis of consolidation, pages 67-68). This judgement relies on the Group's assessment of the purpose of the investment and ongoing management of these entities, this has been applied to the investment operating subsidiaries and joint ventures referenced in this Note above.

3. Dividends and interest

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Dividends from UK equities	**106.4**	94.6	**99.1**	89.0
Dividends and interest from subsidiaries	**-**	-	**0.3**	3.9
Dividends from overseas equities	**224.0**	237.4	**191.6**	219.8
Income from unquoted investments	**36.0**	65.0	**36.0**	64.9
Interest from quoted investments	**3.6**	2.1	**3.6**	2.1
Interest on cash and cash deposits	**1.9**	1.4	**1.8**	1.4
Securities lending income	**0.8**	1.9	**0.8**	1.9
	372.7	402.4	**333.2**	383.0

Interest from quoted investments relates to the funds held for the purposes of repaying the 2021 bonds detailed in note 15(a).

4. Other income

(a) Grants receivable

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
	20.9	19.8	**-**	-

Grants receivable mainly represents awards to the Trust's subsidiary undertaking Genome Research Limited by other funders, notably government grants of £5.6 million (2018: £5.6 million). Income on these grants is recognised on the performance model in line with the accounting policy for charitable income.

(b) Other charitable income

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
	51.8	25.6	**91.1**	85.6

Included in other charitable income for the Group is £25.6 million received by Genome Research Limited in relation to the Whole Genome Sequencing Project discussed in note 6.

Included in other charitable income for the Trust are Gift Aid donations, which are equal to the estimated taxable profit of each subsidiary undertaking, totalling £79.1 million (2018: £73.1 million). The level of these donations is driven by the gains and losses generated in each individual entity. Details of significant group undertakings are given in note 21.

5. Management fees and other investment costs

(a) Total investment costs

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
External investment management fees	**38.1**	39.4	**35.8**	38.0
Internal investment administration	**26.4**	25.9	**26.0**	25.8
Investment support cost allocation	**5.0**	5.9	**4.9**	5.8
	69.5	71.2	**66.7**	69.6

The amount accrued for Long Term Incentive Plans included in the internal investments administration costs above was £9.6 million (2018: £11.2 million). Senior staff in the Investments team receive performance-based remuneration, as noted on page 44, which can give rise to variations in the amount charged to internal investment administration year on year.

The methodology behind the support cost allocation is detailed in note 9.

The bandings disclosures in note 5(b) show employees working on the investment activities of the Group.

(b) Benefits of Investment team employees (salary, bonus, long term incentive plans and allowances)

	Group and Trust	
	2019	2018
£60,000-£69,999	**4**	2
£70,000-£79,999	**3**	3
£80,000-£89,999	**2**	2
£90,000-£99,999	**1**	5
£100,000-£109,999	**-**	1
£110,000-£119,999	**2**	2
£120,000-£129,999	**-**	2
£130,000-£139,999	**5**	-
£140,000-£149,999	**1**	2
£150,000-£159,999	**-**	2
£160,000-£169,999	**-**	1
£190,000-£199,999	**-**	1
£210,000-£219,999	**1**	-
£220,000-£229,999	**1**	2
£230,000-£239,999	**3**	-
£240,000-£249,999	**2**	-
£270,000-£279,999	**1**	1
£310,000-£319,999	**1**	1
£320,000-£329,999	**1**	-
£370,000-£379,999	**1**	1
£490,000-£499,999	**-**	1
£550,000-£559,999	**-**	1
£690,000-£699,999	**1**	-
£750,000-£759,999	**-**	1
£920,000-£929,999	**1**	-
£1,040,000-£1,049,999	**1**	-
£1,050,000-£1,059,999	**-**	1
£1,070,000-£1,079,999	**1**	-
£1,080,000-£1,089,999	**1**	-
£1,090,000-£1,099,999	**1**	-
£1,100,000-£1,109,999	**-**	1
£1,160,000-£1,169,999	**-**	1
£2,330,000-£2,339,999	**-**	1
£2,880,000-£2,889,999	**-**	1
£3,170,000-£3,179,999	**-**	1
£3,250,000-£3,259,999	**1**	-
£3,290,000-£3,299,999	**1**	-
	37	37

The number of employees working within the Investment team whose total benefits (excluding employer pension contributions and employer National Insurance Contributions) fell within the bands as shown in the table above.

Long Term Incentive Plans reflect rolling 3 and 5 year performance periods. Long term incentive plan amounts included in the benefits table above are awarded to eligible individuals by the Remuneration Committee and are reported in the year in which the decision is made.

Amounts included in the table in each year therefore relate to both investment performance in current and prior years. These amounts include awards for which payment is deferred and subject to future investment performance.

6. Charitable activities

Group	Grant funding £m	Direct £m	Allocated support £m	**Total 2019 £m**
Science	621.6	163.7	53.5	**838.8**
Innovations	107.7	14.1	8.7	**130.5**
Culture & Society	35.8	37.3	22.4	**95.5**
Priority Areas	46.4	12.1	7.2	**65.7**
	811.5	**227.2**	**91.8**	**1,130.5**
Effect of discounting of grant liabilities	42.9	-	-	**42.9**
Foreign exchange revaluation of grant liabilities	9.7	-	-	**9.7**
Total	**864.1**	**227.2**	**91.8**	**1,183.1**

Grant funding and direct charitable activities totalled £1,038.7 million. Support costs related to the grant funding activities of the Group included in the total allocated support costs above are; Science £42.4 million, Innovations £7.7 million, Culture & Society £11.0 million and Priority Areas £5.7 million.

Included in Science grant funding above is £50.0 million committed by the Trust to the Whole Genome Sequencing project discussed in the Review of Charitable activities section on pages 9-20 and the Financial Review on page 32. £20.0 million was awarded to Biobank and the balance of £30.0 million was awarded to four pharmaceutical companies.

These companies are part of a consortium, led by GlaxoSmithKline Research & Development Limited who have sequencing contracts with two sequencers, one of which is with Genome Research Limited for $31.5 million. The Trust is not a party to either contract.

The ‘effect of discounting of grant liabilities’ is driven by:

- the impact of the present value adjustment for the grants awarded in year using the current discount model assumptions of £(32.1) million (2018: £(4.6) million); and
- the impact of changes in the discounting model assumptions in year on the opening grant liability of £75.0 million (2018: £(80.6) million).

Group	Grant funding £m	Direct £m	Allocated support £m	**Total 2018 £m**
Science	349.5	145.1	50.7	**545.3**
Innovations	11.8	16.6	6.4	**34.8**
Culture & Society	39.2	33.2	23.5	**95.9**
Priority Areas	33.3	8.0	5.6	**46.9**
	433.8	**202.9**	**86.2**	**722.9**
Effect of discounting of grant liabilities	(85.2)	-	-	**(85.2)**
Foreign exchange revaluation of grant liabilities	0.4	-	-	**0.4**
Total	**349.0**	**202.9**	**86.2**	**638.1**

Grant funding and direct charitable activities totalled £636.7 million. Support costs related to the grant funding activities of the Group included in the total allocated support costs above are; Science £35.8 million, Innovations £2.6 million, Culture & Society £12.7 million and Priority Areas £4.6 million.

Trust	Grant funding £m	Direct £m	Allocated support £m	**Total 2019 £m**
Science	719.7	13.0	33.4	**766.1**
Innovations	107.7	14.1	8.7	**130.5**
Culture & Society	35.8	35.9	22.4	**94.1**
Priority Areas	46.4	12.1	7.2	**65.7**
	909.6	**75.1**	**71.7**	**1,056.4**
Effect of discounting of grant liabilities	42.9	-	-	**42.9**
Foreign exchange revaluation of grant liabilities	9.7	-	-	**9.7**
Total	**962.2**	**75.1**	**71.7**	**1,109.0**

Grant funding and direct charitable activities totalled £984.7 million. Support costs related to the grant funding activities of the Trust included in the total allocated support costs above are; Science £32.8 million, Innovations £7.7 million, Culture & Society £11.2 million and Priority Areas £5.7 million.

Trust	Grant funding £m	Direct £m	Allocated support £m	**Total 2018 £m**
Science	467.1	11.2	31.8	**510.1**
Innovations	11.8	16.6	6.4	**34.8**
Culture & Society	39.2	32.3	23.5	**95.0**
Priority Areas	33.3	8.0	5.6	**46.9**
	551.4	**68.1**	**67.3**	**686.8**
Effect of discounting of grant liabilities	(85.2)	-	-	**(85.2)**
Foreign exchange revaluation of grant liabilities	0.4	-	-	**0.4**
Total	**466.6**	**68.1**	**67.3**	**602.0**

Grant funding and direct charitable activities totalled £619.5 million. Support costs related to the grant funding activities of the Trust included in the total allocated support costs above are; Science £31.0 million, Innovations £2.6 million, Culture & Society £12.9 million and Priority Areas £4.6 million.

7. Grants awarded

Grants are generally awarded to a particular individual, although the actual award is made to the host institution. Small grants may be awarded directly to individuals for the purpose of travel and for public engagement with science.

Grants no longer required relates to unspent amounts of grants awarded in previous years. Supplementations relate to agreed additional research costs for existing grants.

Please refer to the Financial Review on pages 31-35 for an explanation of the movement in grant expenditure. Expenditure per institution can fluctuate considerably from year to year depending on, for example, specific initiatives.

The grants included within 'Grants to other organisations' for 2019 totalled less than £8.0 million in value for each organisation. The institutions listed in the 2018 table are those institutions that received grants in excess of £8.0 million in 2019.

Group	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**2019 £m**
University of Oxford	69.7	16.5	1.9	5.3	**93.4**
University College London	77.9	2.5	1.8	-	**82.2**
King's College London	31.5	26.2	3.9	-	**61.6**
University of Cambridge	53.9	2.5	1.4	-	**57.8**
University of Edinburgh	41.9	-	1.0	-	**42.9**
University of Bristol	24.4	0.3	0.4	-	**25.1**
The Francis Crick Institute	24.8	-	-	-	**24.8**
University of Dundee	17.2	5.7	0.4	-	**23.3**
University of Glasgow	18.9	1.4	0.9	-	**21.2**
Imperial College London	19.2	1.5	-	-	**20.7**
UK Biobank Ltd	20.2	-	-	-	**20.2**
Boston University, United States of America	-	-	-	18.7	**18.7**
Scripps Research Institute, United States of America	-	17.6	-	-	**17.6**
Medical Research Council	12.5	-	-	-	**12.5**
London School of Hygiene & Tropical Medicine	9.4	-	0.4	2.5	**12.3**
University of Sheffield	9.2	0.6	0.5	-	**10.3**
Liverpool School of Tropical Medicine	9.8	-	0.3	-	**10.1**
University of Liverpool	9.1	0.6	0.3	-	**10.0**
University of Manchester	8.5	1.2	-	0.2	**9.9**
Newcastle University	9.1	-	0.4	-	**9.5**
Diamond Light Source Ltd	9.1	-	-	-	**9.1**
Academy of Medical Sciences	8.3	-	0.2	-	**8.5**
University of Birmingham	7.0	-	1.1	-	**8.1**
Grants to other organisations	139.9	34.4	24.5	19.8	**218.6**
Total grants (excluding grants no longer required)	**631.5**	**111.0**	**39.4**	**46.5**	**828.4**
Less: grants awarded in previous years no longer required	(9.9)	(3.3)	(3.6)	(0.1)	(16.9)
	621.6	**107.7**	**35.8**	**46.4**	**811.5**

The award of £20.0 million to UK Biobank Ltd shown above is part of the Whole Genome Sequencing project discussed in note 6.

Group	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**2019 £m**
Grants awarded of which:					
United Kingdom	582.5	61.6	32.3	1.8	**678.2**
Directly funded international	39.1	46.1	3.5	44.6	**133.3**
Grants awarded	**621.6**	**107.7**	**35.8**	**46.4**	**811.5**

Trust	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**2019 £m**
Grants awarded by the Group	621.6	107.7	35.8	46.4	**811.5**
Plus: Grants awarded to subsidiary undertakings	98.1	-	-	-	**98.1**
Grants awarded	**719.7**	**107.7**	**35.8**	**46.4**	**909.6**

Group	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**2018 £m**
University of Oxford	56.3	2.3	1.1	2.4	**62.1**
University College London	35.1	2.4	6.4	10.7	**54.6**
King's College London	11.2	2.6	0.5	-	**14.3**
University of Cambridge	51.4	2.5	0.3	0.2	**54.4**
University of Edinburgh	20.3	0.9	-	-	**21.2**
University of Bristol	9.2	2.5	-	-	**11.7**
The Francis Crick Institute	3.9	0.1	0.5	-	**4.5**
University of Dundee	8.9	-	-	-	**8.9**
University of Glasgow	8.7	0.2	-	-	**8.9**
Imperial College London	33.0	0.4	0.1	5.2	**38.7**
UK Biobank Ltd	-	-	-	-	**-**
Boston University, United States of America	-	-	-	1.2	**1.2**
Scripps Research Institute, United States of America	-	-	-	-	**-**
Medical Research Council	10.1	-	-	-	**10.1**
London School of Hygiene & Tropical Medicine	6.5	0.7	0.8	0.1	**8.1**
University of Sheffield	6.3	0.5	0.1	-	**6.9**
Liverpool School of Tropical Medicine	1.4	-	-	0.7	**2.1**
University of Liverpool	1.4	0.3	-	-	**1.7**
University of Manchester	5.9	0.6	2.1	-	**8.6**
Newcastle University	8.2	0.5	0.8	-	**9.5**
Diamond Light Source Ltd	11.3	-	-	-	**11.3**
Academy of Medical Sciences	-	-	-	-	**-**
University of Birmingham	10.6	1.4	0.6	-	**12.5**
Grants to other organisations	65.7	24.8	34.2	12.9	**137.6**
Total grants (excluding grants no longer required)	**365.4**	**42.7**	**47.5**	**33.4**	489.0
Less: grants awarded in previous years no longer required	(15.9)	(30.9)	(8.3)	(0.1)	(55.2)
	349.5	**11.8**	**39.2**	**33.3**	433.8

Group	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**2018 £m**
Grants awarded of which:					
United Kingdom	328.0	(3.2)	35.2	24.6	**384.6**
Directly funded international	21.5	15.0	4.0	8.7	**49.2**
Grants awarded	**349.5**	**11.8**	**39.2**	**33.3**	433.8

Trust	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**2018 £m**
Grants awarded by the Group	349.5	11.8	39.2	33.3	**433.8**
Plus: Grants awarded to subsidiary undertakings	117.6	-	-	-	**117.6**
Grants awarded	**467.1**	**11.8**	**39.2**	**33.3**	551.4

Further details of grants awarded by the Trust are published on the Trust's website, at the address given on the back cover.

The following Governors had appointments with or supervised individuals within organisations which were in receipt of grant funding during the year:

Mr William Burns – The Institute of Cancer Research
Professor Fiona Powrie – University of Oxford
Professor Sir Michael Ferguson – University of Dundee
Professor Bryan Grenfell – Princeton University

8. Grants awarded but not yet paid

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Liabilities at 1 October	**2,010.0**	2,242.0	**2,011.4**	2,244.9
Grants awarded during the year	**811.5**	433.8	**909.6**	551.4
Grants paid during the year	**(590.2)**	(581.0)	**(689.7)**	(700.1)
Effect of discounting of grant liabilities	**42.9**	(85.2)	**42.9**	(85.2)
Foreign exchange revaluation of grant liabilities	**9.7**	0.4	**9.7**	0.4
Liabilities as at 30 September	**2,283.9**	2,010.0	**2,283.9**	2,011.4
Of which:				
- falling due within one year (note 18)	**767.2**	480.0	**767.2**	481.4
- falling due after one year (note 18)	**1,516.7**	1,530.0	**1,516.7**	1,530.0
Liabilities as at 30 September	**2,283.9**	2,010.0	**2,283.9**	2,011.4

The total value of the grant liabilities discount for the year ended 30 September 2019 is £279.2 million (2018: £322.1 million) applying an expected nominal rate of investment return of 6.1% (2018: 5.9%).

9. Support costs

Support costs are those costs that, while necessary to deliver an activity, do not themselves produce or constitute the output of the charitable activity. Support costs are allocated to the activities shown in the table below.

Funding administration costs are those costs that can be directly attributed to an activity.

Operations comprise an allocation of costs of the following departments; Internal Communications, People, Facilities and Workplace, Finance, Legal, and Digital and Technology.

The remaining support costs have been apportioned using the allocation methods indicated and include governance costs.

- Where costs have been allocated on the basis of headcount numbers, headcount numbers are the average headcount within each activity
- Where costs have been allocated on the basis of expenditure, expenditure is determined as being either the total grant expenditure of the charitable activities; or where appropriate, based on a proportion of both grant and direct spend on the activity.

Group	Costs of generating funds £m	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**Total 2019 £m**	Allocation method
Funding administration	-	13.8	4.4	1.5	1.1	**20.8**	Expenditure/Directly attributed
Support of scientific research	-	19.9	-	-	-	**19.9**	Directly attributed
Operations	4.3	14.3	3.4	20.3	5.7	**48.0**	Headcount/Expenditure
Other	0.3	3.8	0.6	0.4	0.3	**5.4**	Expenditure
Governance costs	0.4	1.7	0.3	0.2	0.1	**2.7**	Expenditure/Directly attributed
	5.0	**53.5**	**8.7**	**22.4**	**7.2**	**96.8**	

Group	Costs of generating funds £m	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**Total 2018 £m**	Allocation method
Funding administration	-	14.9	3.3	1.9	1.0	**21.1**	Expenditure/Directly attributed
Support of scientific research	-	18.7	-	-	-	**18.7**	Directly attributed
Operations	5.1	12.7	2.8	21.0	4.3	**45.9**	Headcount/Expenditure
Other	0.4	2.6	0.2	0.4	0.2	**3.8**	Expenditure
Governance costs	0.4	1.8	0.1	0.2	0.1	**2.6**	Expenditure/Directly attributed
	5.9	**50.7**	**6.4**	**23.5**	**5.6**	**92.1**	

Trust	Costs of generating funds £m	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**Total 2019 £m**	Allocation method
Funding administration	-	13.8	4.4	1.5	1.1	**20.8**	Expenditure/Directly attributed
Operations	4.3	14.3	3.4	20.3	5.7	**48.0**	Headcount/Expenditure
Other	0.3	3.8	0.6	0.4	0.3	**5.4**	Expenditure
Governance costs	0.3	1.5	0.3	0.2	0.1	**2.4**	Expenditure/Directly attributed
	4.9	**33.4**	**8.7**	**22.4**	**7.2**	**76.6**	

Trust	Costs of generating funds £m	Science £m	Innovations £m	Culture & Society £m	Priority Areas £m	**Total 2018 £m**	Allocation method
Funding administration	-	14.9	3.3	1.9	1.0	**21.1**	Expenditure/Directly attributed
Operations	5.1	12.7	2.8	21.0	4.3	**45.9**	Headcount/Expenditure
Other	0.4	2.6	0.2	0.4	0.2	**3.8**	Expenditure
Governance costs	0.3	1.6	0.1	0.2	0.1	**2.3**	Expenditure/Directly attributed
	5.8	**31.8**	**6.4**	**23.5**	**5.6**	**73.1**	

10. Governance costs

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Governors' fees and expenses	**0.6**	0.9	**0.6**	0.9
Auditor's remuneration				
- parent company and consolidation	**0.5**	0.4	**0.5**	0.4
- audits of subsidiary undertakings	**0.2**	0.2	**-**	-
Internal audit	**1.0**	0.6	**0.8**	0.5
Other costs	**0.4**	0.5	**0.4**	0.5
	2.7	2.6	**2.3**	2.3

The internal audit services of £1.0 million (2018: £0.6 million) are those provided by the in-house internal audit team, together with the cost of specialist services provided by PricewaterhouseCoopers LLP.

The figures for auditor's remuneration shown above include irrecoverable VAT of £0.1 million (2018: £0.1 million) and exclude the fees for the audit of the Wellcome Trust and Genome Research Limited Pension Plans of £22,000 (2018: £22,000). In addition the audit of subsidiary undertakings excludes fees of £0.1 million (2018: £0.1 million) excluding VAT to Premier Marinas Limited and Farmcare Limited as these entities are held as part of the investment portfolio. These fees will be taken into account for the purposes of monitoring the cap on the level of non-audit fees as required by legislation.

In addition to the auditor's remuneration above, total fees of £0.2 million (2018: £0.4 million) excluding VAT were payable to the Group's auditors Deloitte LLP or associated firms for non-audit services. The Audit and Risk Committee and Deloitte LLP are satisfied that these additional fees did not represent a threat to the independence of the external auditors.

	Group		Trust	
Non-audit services split (excluding VAT)	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Bond Issue	**-**	0.1	**-**	0.1
Leadership development programmes	**0.2**	0.3	**0.2**	0.3
	0.2	0.4	**0.2**	0.4

The Leadership development programmes are for external leadership training. Contracts with Deloitte for these programmes have not been renewed beyond 2019.

11. Employee information

(a) Employee benefits

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Remuneration and salary benefits	**114.9**	110.3	**63.4**	60.2
Social Security costs	**11.7**	10.1	**7.4**	5.8
Pension costs and other benefits	**42.9**	44.3	**21.6**	20.6
	169.5	164.7	**92.4**	86.6

Pension costs and other benefits includes the current service cost of the pension fund which is disclosed in note 11(e)(iii).

(b) Termination payments

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Redundancy	**1.1**	1.3	**0.8**	1.0
Other compensation	**0.3**	0.3	**0.2**	-
	1.4	1.6	**1.0**	1.0

(c) Average numbers of employees who served during the year

These numbers exclude employees of the investment subsidiaries held as part of the investment portfolio.

	Average	
	2019	2018
Trust	**835**	762
Subsidiary undertakings	**1,022**	1,017
Total for the Group	**1,857**	1,779
Analysed by		
Investments	**44**	45
Direct activities	**1,178**	1,144
Support	**635**	590
Total for the Group	**1,857**	1,779
Analysed by		
Investments	**44**	45
Direct activities	**322**	271
Support	**469**	446
Total for the Trust	**835**	762

51 PhD students (2018: 53) at Genome Research Limited do not have a contract of employment with the Group but provide a significant contribution to the scientific research and have an agreement of support to carry out their own PhD thesis. Previously, PhD students were included within Direct Activities. Only those students who receive a stipend directly from the Group are included within the above total.

(d) Benefits of employees (salary, bonus and allowances)
The number of employees working on charitable activities of the Trust and its subsidiary undertakings whose benefits (salaries, bonuses, allowances and termination payments, but excluding employer pension contributions and employer National Insurance Contributions), fell within the following bands is shown in the table below.

The emoluments of the Director included in the table below totalled £524,537 (2018: £455,761).

As noted in the Remuneration Report on page 45, information relating to the Investment team staff are not included in this table but are shown separately in note 5(b).

	Group		Trust	
	2019	2018	**2019**	2018
£60,000-£69,999	**112**	74	**76**	54
£70,000-£79,999	**54**	43	**38**	30
£80,000-£89,999	**35**	42	**24**	24
£90,000-£99,999	**26**	25	**16**	21
£100,000-£109,999	**15**	15	**11**	13
£110,000-£119,999	**10**	14	**8**	11
£120,000-£129,999	**9**	11	**8**	6
£130,000-£139,999	**9**	4	**6**	2
£140,000-£149,999	**4**	3	**2**	3
£150,000-£159,999	**4**	4	**3**	4
£160,000-£169,999	**-**	1	**-**	-
£170,000-£179,999	**3**	3	**2**	2
£180,000-£189,999	**6**	4	**5**	3
£190,000-£199,999	**2**	-	**2**	-
£200,000-£209,999	**2**	-	**1**	-
£230,000-£239,999	**1**	-	**1**	-
£290,000-£299,999	**1**	-	**1**	-
£320,000-£329,999	**1**	1	**1**	1
£330,000-£339,999	**-**	1	**-**	1
£350,000-£359,999	**1**	1	**1**	-
£360,000-£369,999	**1**	-	**-**	-
£390,000-£399,999	**-**	1	**-**	1
£400,000-£409,999	**-**	1	**-**	-
£450,000-£459,999	**-**	1	**-**	1
£520,000-£529,999	**1**	-	**1**	-
	297	249	**207**	177

Further information in respect of employees' and Governors' remuneration is included within the Remuneration Report on pages 44-45.

The tables on the Remuneration Report on pages 44-45, together with the accompanying notes, form part of the audited Financial Statements.

(e) Retirement benefits

(i) Defined contribution Group Personal Pension plan
The Group provides a defined contribution Group Personal Pension plan into which both employee and employer contributions are paid. The employer contributions amounted to £3.0 million (2018: £1.7 million) and are included within Pension costs and other benefits in note 11(a). No amounts were unpaid at the end of the year (2018: £ nil).

(ii) Defined benefit pension plan and Unfunded Unapproved Retirement benefit scheme

The Group sponsors two approved funded defined benefit schemes, the Wellcome Trust Pension Plan and the Genome Research Limited Pension Plan. The day-to-day management of the Plans' investments has been delegated by the Trustees to the investment manager Legal & General Assurance (Pensions Management) Limited. The investment strategy of the Plan, adopted and regularly reviewed in consultation with the Group, is to be 100% in passive equities. In addition certain Wellcome Trust senior employees are members of an Unfunded Unapproved Retirement Benefit scheme ("UURBs").

The FRS102 "Retirement benefits" actuarial valuation of the Wellcome Trust and Genome Research Limited defined benefit pension plans at 30 September 2019 showed a combined deficit of £371.6 million (2018: £202.2 million).

This deficit represents the difference between an assessment of the liabilities of the pension funds and the current value of their underlying assets. The amount of the deficit is subject to considerable variability because it depends on a valuation of assets at the year-end date and a range of actuarial assumptions impacting the liabilities.

FRS102 requires discount rates to be based on corporate bond yields of an appropriate duration, regardless of actual investment strategy and actual investment returns expected. This leads to a difference between the accounting deficit and the funding position under the triennial valuations.

The defined benefit pension schemes are required to have triennial actuarial valuations, which are then updated in an interim valuation each year at the balance sheet date of the schemes.

A full actuarial valuation of the Wellcome Trust Pension Plan was carried out at 31 December 2016; the valuation showed that the plan was in the region of 93% funded with a deficit of £17.0 million.

The Genome Research Limited Pension Plan had an estimated deficit of Circa £5 million as per the Actuarial Valuation results.

As at 31 December 2018, the Wellcome Trust Pension Plan had an estimated deficit of circa £12 million as per the Annual Actuarial Report. A formal recovery plan and in addition an informal rolling deficit recovery plan to address the actuarial deficit over a period of up to five years is in place for both schemes and will be deployed as required.

During the year, total deficit funding contributions of £7.8 million (2018: £7.8 million) were made into the Genome Research Limited Pension Plan (including £6.2 million (2018: £6.2 million) as required by the schedule of contributions) and £4.6 million (2018: £4.6 million) into the Wellcome Trust Pension Plan as required by the schedule of contributions during the year.

The liability values within the UURBs are calculated at individual member level. The cost of accrual contributes to the charge to the Statement of Financial Activities. As these benefits are unfunded, there is no corresponding asset value. The UURBs liability values represent the present value of providing top-ups to the benefits accrued to date within the approved Wellcome Trust Pension Plan, without restrictions imposed by the approved Plan rules. The assumptions used to value the benefits are as per those stated within the FRS102 disclosures.

The liabilities and the provision for other retirement benefits have been calculated using the following actuarial assumptions:

Trust	**2019 % per annum**	2018 % per annum	2017 % per annum
Inflation RPI	**3.25%**	3.40%	3.40%
Salary increases	**3.75%**	3.90%	3.90%
Rate of discount	**1.85%**	2.85%	2.75%
Allowance for pension in payment increase of RPI or 5% p.a. if less	**3.10%**	3.25%	3.25%
Allowance for revaluation of deferred pensions of RPI or 5% p.a. if less	**3.25%**	3.40%	3.40%
Allowance for commutation of pension for cash at retirement	**90% of Post A-Day**	90% of Post A-Day	90% of Post A-Day
Rate of increase of healthcare costs	**6.00%**	6.00%	6.00%

(e) Retirement benefits (continued)

(ii) Defined benefit pension plan and Unfunded Unapproved Retirement benefit scheme (continued)

Genome Research Limited	**2019 % per annum**	2018 % per annum	2017 % per annum
Inflation RPI	**3.15%**	3.40%	3.40%
Inflation CPI	**2.15%**	2.40%	2.40%
Salary increases	**3.65%**	3.90%	3.90%
Rate of discount	**1.85%**	2.85%	2.75%
Allowance for pension in payment increase of RPI or 5% p.a. if less	**3.05%**	3.25%	3.25%
Allowance for pension in payment increase of CPI or 3% p.a. if less	**1.90%**	2.00%	2.00%
Allowance for revaluation of deferred pensions of RPI or 5% p.a. if less	**3.15%**	3.40%	3.40%
Allowance for commutation of pension for cash at retirement	**90% of Post A-Day**	90% of Post A-Day	90% of Post A-Day
Rate of increase of healthcare costs	**6.00%**	6.00%	6.00%

Announcements by HM Treasury and the UK Statistics Authority on 4 September propose changes to the calculation of the Retail Prices Index (RPI) to match the Consumer Price Index including Housing (CPIH) at some time from 2025 to 2030. This could reduce RPI-linked pension benefits by as much as 1% p.a. if or when CPIH is used instead of RPI, which would lead to a reduction in RPI-linked pension liabilities, or Defined Benefit Obligation. Consultation on RPI reform is planned for Q1 of 2020 and until the outcome of this consultation is known, there is uncertainty over the nature of RPI-linked pension benefits. Consequently, no adjustments have been made for this proposed change within the assumption for RPI used to calculate the Defined Benefit Obligation as at 30 September 2019.

The mortality assumptions adopted at 30 September 2019 imply the following life expectancies in years:

	2019	2018
Male retiring at age 60 in 2019	**27.4**	27.6
Female retiring at age 60 in 2019	**28.4**	28.6
Male retiring at age 60 in 2039	**28.5**	28.7
Female retiring at age 60 in 2039	**29.7**	29.9

The mortality assumptions used in the valuation of the defined benefit pension liabilities of both schemes and the provision for other retirement benefits are based on the base mortality table of S2 PxA_L (male) and S2 PxA_L (female) together with an allowance for mortality improvement in line with CMI 2018 projections and a 1.0% per annum minimum long-term rate of improvement.

(e) Retirement benefits (continued)

(iii) Charge to the Statement of Financial Activities – Pension and other retirement benefits

	Pension funds		Unfunded, unapproved scheme liabilities		Post-retirement medical benefits		Total	
Group	**2019 £m**	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Current service cost	**27.8**	30.0	**0.6**	0.5	**-**	-	**28.4**	30.5
Expenses	**1.2**	0.8	**-**	-	**-**	-	**1.2**	0.8
Losses due to benefit changes	**0.4**	-	**-**	-	**-**	-	**0.4**	-
Interest on pension schemes' liabilities	**5.8**	6.8	**0.3**	0.5	**-**	-	**6.1**	7.3
Actuarial (gains)/losses	**158.2**	(56.0)	**2.7**	(0.5)		(0.1)	**160.9**	(56.6)
Total charge to the Statement of Financial Activities	**193.4**	(18.4)	**3.6**	0.5	**-**	(0.1)	**197.0**	(18.0)

	Pension fund		Unfunded, unapproved scheme liabilities		Post-retirement medical benefits		Total	
Trust	**2019 £m**	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Current service cost	**11.8**	13.7	**0.6**	0.5	**-**	-	**12.4**	14.2
Expenses	**0.7**	0.5	**-**	-	**-**	-	**0.7**	0.5
Losses due to benefit changes	**0.2**	-	**-**	-	**-**	-	**0.2**	-
Interest on pension schemes' liabilities	**2.5**	3.1	**0.3**	0.5	**-**	-	**2.8**	3.6
Actuarial (gains)/losses	**77.5**	(29.6)	**2.7**	(0.5)	**-**	(0.1)	**80.2**	(30.2)
Total charge to the Statement of Financial Activities	**92.7**	(12.3)	**3.6**	0.5	**-**	(0.1)	**96.3**	(11.9)

(iv) Present values of pension schemes' liabilities, fair value of assets and deficit

	Assets		Liabilities		Deficit	
	2019 £m	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Wellcome Trust Pension Plan	**316.7**	295.0	**(485.5)**	(383.3)	**(168.8)**	(88.3)
Genome Research Limited Pension Plan	**252.9**	231.0	**(455.9)**	(344.9)	**(203.0)**	(113.9)
Total pension plans	**569.6**	526.0	**(941.4)**	(728.2)	**(371.8)**	(202.2)
Wellcome Trust unfunded, unapproved scheme liabilities	**-**	-	**(20.9)**	(17.8)	**(20.9)**	(17.8)
Wellcome Trust Post-retirement medical benefits	**-**	-	**(0.9)**	(0.9)	**(0.9)**	(0.9)
Total other retirement benefits	**-**	-	**(21.8)**	(18.7)	**(21.8)**	(18.7)
Total pension liabilities	**569.6**	526.0	**(963.2)**	(746.9)	**(393.6)**	(220.9)

(e) Retirement benefits (continued)

(v) Reconciliation of opening and closing balances of the present value of the pension plans' liabilities as at 30 September

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Plans' liabilities at start of year	**728.2**	706.4	**383.3**	373.8
Current service cost	**27.8**	30.0	**11.8**	13.7
Expenses	**1.2**	0.8	**0.7**	0.5
Interest cost	**21.0**	19.7	**11.0**	10.4
Actuarial (gains)/losses	**171.9**	(21.1)	**85.2**	(9.9)
Benefits paid and death-in-service insurance premiums	**(9.1)**	(7.6)	**(6.7)**	(5.2)
Losses due to benefit changes	**0.4**	-	**0.2**	-
Plans' liabilities at end of year	**941.4**	728.2	**485.5**	383.3

2019 analysis of the sensitivity to the principal assumptions of the value of the plans' liabilities.

Group		
Assumption	**Change in assumption**	**Impact on liabilities**
Discount rate	Increase/decrease of 0.5% p.a.	Decrease/increase by £130.9m (13.9%)
Rate of salary growth	Increase/decrease of 0.5% p.a.	Increase/decrease by £20.7m (2.2%)
Rate of inflation	Increase/decrease of 0.5% p.a.	Increase/decrease by £100.7m (10.7%)
Probability of death in any year after retirement	Increase/decrease of 10.0% p.a.	Increase/decrease by £25.4m (2.7%)
Long-term rate of mortality improvement	Increase/decrease of 0.25% p.a.	Increase/decrease by £12.2m (1.3%)

Trust		
Assumption	**Change in assumption**	**Impact on liabilities**
Discount rate	Increase/decrease of 0.5% p.a.	Decrease/increase by £67.5m (13.9%)
Rate of salary growth	Increase/decrease of 0.5% p.a.	Increase/decrease by £10.7m (2.2%)
Rate of inflation	Increase/decrease of 0.5% p.a.	Increase/decrease by £51.9m (10.7%)
Probability of death in any year after retirement	Increase/decrease of 10.0% p.a.	Increase/decrease by £13.1m (2.7%)
Long-term rate of mortality improvement	Increase/decrease of 0.25% p.a.	Increase/decrease by £6.3m (1.3%)

2018 analysis of the sensitivity to the principal assumptions of the value of the plans' liabilities.

Group		
Assumption	**Change in assumption**	**Impact on liabilities**
Discount rate	Increase/decrease of 0.5% p.a.	Decrease/increase by £96.1m (13.2%)
Rate of salary growth	Increase/decrease of 0.5% p.a.	Increase/decrease by £17.5m (2.4%)
Rate of inflation	Increase/decrease of 0.5% p.a.	Increase/decrease by £67.0m (9.2%)
Probability of death in any year after retirement	Increase/decrease of 10.0% p.a.	Increase/decrease by £18.2m (2.5%)
Long-term rate of mortality improvement	Increase/decrease of 0.25% p.a.	Increase/decrease by £8.7m (1.2%)

Trust		
Assumption	**Change in assumption**	**Impact on liabilities**
Discount rate	Increase/decrease of 0.5% p.a.	Decrease/increase by £50.6m (13.2%)
Rate of salary growth	Increase/decrease of 0.5% p.a.	Increase/decrease by £9.2m (2.4%)
Rate of inflation	Increase/decrease of 0.5% p.a.	Increase/decrease by £35.3m (9.2%)
Probability of death in any year after retirement	Increase/decrease of 10.0% p.a.	Increase/decrease by £9.6m (2.5%)
Long-term rate of mortality improvement	Increase/decrease of 0.25% p.a.	Increase/decrease by £4.6m (1.2%)

(e) Retirement benefits (continued)
(vi) Reconciliation of opening and closing balances of the fair value of the plans' assets as at 30 September

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Fair value of plan assets at start of year	**526.0**	458.5	**295.0**	260.9
Expected return on plan assets	**15.2**	12.9	**8.5**	7.3
Actuarial gains	**13.7**	34.9	**7.7**	19.7
Contributions by the Group employers	**23.8**	27.3	**12.2**	12.3
Benefits paid and death-in-service insurance premiums	**(9.1)**	(7.6)	**(6.7)**	(5.2)
Fair value of plan assets at end of year	**569.6**	526.0	**316.7**	295.0

These figures are for the pension schemes and exclude the other retirement benefits which are included in table 11(e)(iv) above.

None of the fair values of the assets shown above include any of the Group's own financial instruments or any property occupied by, or other assets used by, the Group.

(vii) Amounts for the current and previous four years as at 30 September

Group	**2019 £m**	2018 £m	2017 £m	2016 £m	2015 £m
Fair value of plans' assets	**569.6**	526.0	458.5	361.2	250.0
Present value of plans' liabilities	**(941.4)**	(728.2)	(706.4)	(740.0)	(468.0)
Deficit in plans	**(371.8)**	(202.2)	(247.9)	(378.8)	(218.0)
Experience adjustment on plans' assets	**13.7**	34.9	69.1	75.8	(23.2)
Experience adjustment on plans' liabilities	**(0.9)**	(1.3)	(9.4)	(6.8)	1.5
Effects of changes in the demographic and financial assumptions underlying the present value of the plan's liabilities	**(171.0)**	22.4	93.7	(226.1)	(13.8)

Trust	**2019 £m**	2018 £m	2017 £m	2016 £m	2015 £m
Fair value of plans' assets	**316.7**	295.0	260.9	208.8	146.7
Present value of plans' liabilities	**(485.5)**	(383.3)	(373.8)	(384.6)	(262.5)
Deficit in plan	**(168.8)**	(88.3)	(112.9)	(175.8)	(115.8)
Experience adjustment on plans' assets	**7.7**	19.7	39.7	44.0	(14.2)
Experience adjustment on plans' liabilities	**(0.2)**	(0.8)	(10.0)	1.5	1.0
Effects of changes in the demographic and financial assumptions underlying the present value of the plan's liabilities	**(85.0)**	10.7	45.0	(104.8)	(6.9)

(viii) Estimate of contributions to be paid to scheme
The best estimate of contributions to be paid by the employer to the Wellcome Trust scheme for the period beginning 1 October 2019 is £12.5 million (2018: £12.6 million), which includes £4.6 million (2018: £4.6 million) of deficit funding.

The best estimate of the contributions to be paid by the employer to the Genome Research Limited scheme for the period beginning 1 October 2019 is £8.2 million (2018: £13.6 million), which includes £1.9 million (2018: £6.2 million) of deficit funding.

12. Remuneration of Governors

Information on Governors' remuneration is included in the Remuneration Report on page 45.

13. Taxation

Group	2019 £m	2018 £m
(a) Current Tax		
UK Corporation Tax on profits for the year	**0.1**	2.7
Effect of Gift Aid distribution	**-**	(0.1)
Reversal of prior year charge	**(1.9)**	(13.3)
Total current tax	**(1.8)**	(10.7)
(b) Deferred Tax		
Origination and reversal of timing differences	**(36.3)**	64.5
Effect of change in UK tax rate	**(6.5)**	(1.6)
Total deferred tax	**(42.8)**	62.9
Taxation	**(44.6)**	52.2

Group	2019 £m	2018 £m
(c) Reconciliation of Tax Charge		
Profit/(loss) on ordinary activities before taxation on subsidiaries subject to taxation	**(99.4)**	336.1
Profit/(loss) before tax multiplied by average rate of corporation tax of 19% (2018: 19%)	**(18.9)**	63.9
Effects of:		
Income not subject to tax	**(21.0)**	(9.3)
Losses not deductible for tax purposes	**40.3**	4.0
Gift aid donation paid	**(12.1)**	(13.4)
Tax on income attributable to unquoted investments	**-**	2.5
Temporary differences:		
Difference in timing of recognition of gains and income	**(0.6)**	-
Current year Gift Aid	**-**	(0.2)
Chargeable gains/(losses)	**(22.5)**	6.2
Adjust opening deferred tax to average rate 19%	**(0.6)**	(1.5)
Deferred tax not recognised	**-**	0.5
Allocations from underlying transparent investments	**-**	(0.5)
Adjust closing deferred tax to average rate of 19%	**(9.2)**	-
Taxation	**(44.6)**	52.2

The UK headline corporation tax rate for the period was 19%. Section 46 Finance Act 2016 enacted a further rate reduction to 17% with effect from 1 April 2020.

For the purposes of reporting under FRS102 the investment subsidiaries must provide for deferred tax on temporary timing differences.

The estimated cost of irrecoverable Value added tax suffered by the Group in the year was £15.6 million (2018: £17.8 million).

14. Tangible fixed assets

(a) Group

	Freehold land and buildings £m	Long leasehold land and buildings £m	Other plant, equipment, fixtures and fittings £m	Assets in course of construction £m	**Total £m**
Cost as at 1 October 2018	476.0	1.5	255.0	6.1	**738.6**
Additions	0.2	-	14.6	2.6	17.4
Transfers	-	-	5.1	(5.1)	-
Disposals	-	-	(6.3)	-	(6.3)
Cost as at 30 September 2019	**476.2**	**1.5**	**268.4**	**3.6**	**749.7**
Accumulated depreciation as at 1 October 2018	120.5	1.5	186.0	-	**308.0**
Charge for the year	8.9	-	14.6	-	23.5
Transfers	-	-	-	-	-
Disposals	-	-	(6.1)	-	(6.1)
Accumulated depreciation as at 30 September 2019	**129.4**	**1.5**	**194.5**	**-**	**325.4**
Net Book Value as at 30 September 2019	**346.8**	**-**	**73.9**	**3.6**	**424.3**
Net Book Value as at 30 September 2018	355.5	-	69.0	6.1	**430.6**

(b) Trust

	Freehold land and buildings £m	Long leasehold land and buildings £m	Other plant, equipment, fixtures and fittings £m	Assets in course of construction £m	**Total £m**
Cost as at 1 October 2018	232.7	1.5	121.6	4.0	**359.8**
Additions	-	-	4.3	1.8	6.1
Transfers	-	-	4.0	(4.0)	-
Disposals	-	-	(1.2)	-	(1.2)
Cost as at 30 September 2019	**232.7**	**1.5**	**128.7**	**1.8**	**364.7**
Accumulated depreciation as at 1 October 2018	63.6	1.5	70.6	-	**135.7**
Charge for the year	3.8	-	6.2	-	10.0
Transfers	-	-	-	-	-
Disposals	-	-	(1.2)	-	(1.2)
Accumulated depreciation as at 30 September 2019	**67.4**	**1.5**	**75.6**	**-**	**144.5**
Net Book Value as at 30 September 2019	**165.3**	**-**	**53.0**	**1.8**	**220.1**
Net Book Value as at 30 September 2018	169.1	-	51.0	4.0	**224.1**

Heritage assets

No heritage assets have been capitalised in the current financial year and the Trust did not capitalise any assets in previous years.

Nature of the assets

The Trust has several collections of heritage assets comprising substantial core collections of visual items and material objects, printed and published rare materials, archives, and manuscripts, which are retained and developed in accordance with museum, archive and library best practice. It also holds support collections of objects, artworks, printed, published and digital materials, which are in current use for exhibition, reference, research or other similar purposes. Both core and support collections are held in support of one of the Trust's main objectives of advancing and promoting knowledge and education.

The core collection includes Sir Henry Wellcome's Museum Collection of mainly three-dimensional objects. The most significant part of this collection has been on long-term loan to the Science Museum since 1976 with smaller elements on long-term loan at other institutions. Most of the remaining core and support collection is held at the premises in Euston Road but there are also off-site storage facilities situated in London and Cheshire.

Policy for acquisition

Materials selected for acquisition must be in service of Wellcome Collection's overall mission to challenge the way we think and feel about health by exploring the connections between science, medicine, life and art. They must also comply with our published collections development policy, including with regard to ethical and legal considerations.

Conservation and Collections Care

The Trust recognises its responsibility to conserve and care for the core collections, to ensure that their documentation, storage, location control, treatment and use all adheres to appropriate national and international guidelines, accreditation standards and code of ethics.

Wellcome Collection is an Arts Council England accredited museum, having been awarded full accreditation under the Museums Accreditation scheme administered by the Arts Council England.

We are bound by the Code of Conduct and Professional Standards from the Institute of Conservation, Museums Association and the British Standards relating to 'Conservation of Cultural Heritage' and 'Conservation and care of archive and library collections'. We use the Publicly Available Specifications (PAS) 197:2009 'Code of practice for cultural collections management' and 198:2012 'Managing environmental conditions for cultural collections' to ensure the collections are stored and displayed in a safe, secure and sustainable way in line with best practice without compromising their physical, historical or structural integrity.

The Trust continually develops repository and management systems for digital materials and monitors the digital environment for risk factors such as software or hardware obsolescence and the impact of new technologies.

Disposal

The Trust operates a rolling programme of collections review across its core and support collections. Material may be removed from the collections for the reasons as set out in our published collections development policy. We only take the decision to dispose of material from our core collections following careful consideration of the public benefit and seeking both expert advice and the views of stakeholders, such as donors, researchers, local and source communities. The Trust follows disposal procedures in accordance with the standards set out by the Collections Trust, The National Archives and Chartered Institute of Library and Information Professionals.

Security and insurance

In order to assure security and safety of the collections, various procedures are in place including: registration of users; request of proof of identity prior to access; explanation of handling of materials; video surveillance; limits to amounts of closed access material in reading room; checking of returned material and security tagging; material risk assessments for fire, flood and theft; compliance with appropriate British Standards; fire precaution, fire detection and extinguishing systems; flood warning and egress of water systems; intruder alarms; locking up and opening procedures; monitoring of storage areas; maintenance checklist; and procedures for evacuation of premises.

As part of the Trust's Business Continuity Plan, Wellcome Collection has a disaster and salvage plan in place. Wellcome Collection also has a contract with Harwell which provides support for the majority of the disaster and salvage issues that may arise. Wellcome Collection materials are insured against damage or loss due to fire, flood, or terrorist activity at named locations, unnamed locations and while in transit. The collections are not insured for full replacement value as it is not possible to quantify this and the nature of the items held means that they are often irreplaceable.

15. Investments

(a) Quoted investments, Unquoted investments and Investment properties

Group	Fair value 1 October 2018 £m	Purchases £m	Sales proceeds £m	Total gains/ (losses) £m	**Fair value 30 September 2019 £m**
Total quoted investments	14,919.7	2,308.1	(2,848.5)	674.6	**15,053.9**
Total unquoted investments	10,988.6	2,086.3	(2,035.1)	1,363.0	**12,402.8**
Total investment properties	1,352.3	22.2	(23.9)	(51.7)	**1,298.9**
Total	27,260.6	4,416.6	(4,907.5)	1,985.9	**28,755.6**

Trust	Fair value 1 October 2018 £m	Purchases £m	Sales proceeds £m	Total gains/ (losses) £m	**Fair value 30 September 2019 £m**
Total quoted investments	13,581.2	1,706.4	(2,644.0)	648.6	**13,292.2**
Total unquoted investments	9,716.5	1,996.4	(1,970.4)	1,308.2	**11,050.7**
Total investment properties	1,198.1	19.2	(23.8)	(36.5)	**1,157.0**
Total	24,495.8	3,722.0	(4,638.2)	1,920.3	**25,499.9**

The significance of and the exposure associated with the investment assets are discussed in the Review of Investment Activities section of the Trustee's Report.

During the year, the maximum aggregate fair value of quoted investment securities on loan was £458.3 million (2018: £730.7 million) and the Group held £475.0 million (2018: £754.1 million) as collateral in respect of these securities. The income receivable due to securities lending activities is disclosed in note 3. No loaned securities were recalled but not obtained during the year and therefore no collateral was retained.

The unquoted investment balance shown above includes investments in associates and joint ventures held at fair value of £738.5 million (2018: £770.7 million). As their value to the Group is through fair value rather than as a medium through which the Group carries out business, the Trustee considers this the most appropriate accounting policy. This is a departure from the SORP, which requires that all such investments are accounted for using the equity method of accounting. In a further departure from the SORP, the impact of accounting for such investments on an equity accounting basis has not been quantified. Due to the number of investments made, often over a number of years, the cost to our associates and joint ventures of providing the required additional historic reporting is considered to be disproportionate to the value that would be added by the disclosure.

During the prior year, Wellcome Trust issued £750.0 million 2.517% Guaranteed Bonds due 2118 ('2118 bonds'). The liability is included in note 17. As part of the consideration of the issuance of the Bonds it was decided that we would start to plan for the upcoming maturity of its 4.75% Guaranteed Bonds due May 2021 ('2021 bonds'). As such, prior to the 2118 bonds issue, the Wellcome Trust placed a sum of £275.0 million, being the principal amount of the 2021 bonds, into a segregated account with the custodian, to be held for the purposes of repaying the principal amount of such 2021 bonds at their scheduled maturity in 2021. This sum has been invested prudently under specific conservative constraints and in line with the risk management and investment strategy. The segregated assets amounting to £279.7 million (2018: £276.1 million) are included in Quoted investments above.

During the year the Group had the following transactions with associates, joint ventures or subsidiaries held as part of the investment portfolio and not consolidated, which are related party entities:

- purchases in the form of equity and debt of £28.9 million (2018: £145.4 million); and
- received sales proceeds of £nil million (2018: £8.0 million).

Investment properties in the Group and the Trust have been valued at market value generally in accordance with the Appraisal and Valuation Manual of the Royal Institution of Chartered Surveyors. The valuations were carried out by CBRE, Cluttons, Gerald Eve, Jones Lang Lasalle, and Strutt & Parker.

b) Derivative financial instruments

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Derivative financial instrument asset positions	**102.3**	45.6	**102.3**	45.6

Derivative financial instrument liabilities for the Group and Trust are included within creditors, disclosed in note 17.

The Group's use of derivative financial instruments comprises:

Forward currency contracts and currency options
Forward currency contracts and currency options are used to hedge investment assets denominated in foreign currency into Pounds Sterling and as part of the investment strategy to have a globally diversified currency exposure.

Financial futures, options and warrants
The use of futures, options and warrants constitutes part of the Trust's portfolio management including: a substitution for investing in physical assets, a part of the Trust's long-term investment return strategy entered into with the expectation of realising gains, and adjusting asset exposures within the parameters set in the Trust's investment policy.

(c) Investment cash and certificates of deposit and other investment assets

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Investment cash and certificates of deposit	**1,070.4**	1,156.4	**1,069.4**	1,156.4
Cash collateral held	**156.2**	55.8	**156.2**	55.8
Accrued income from investments	**12.6**	14.6	**5.2**	11.3
Income receivable	**25.2**	20.7	**19.8**	16.4
Proceeds receivable on sale of investments	**62.5**	104.0	**62.5**	104.0
Other investment debtors	**11.8**	9.4	**10.9**	8.4
Other investments assets	**268.3**	204.5	**254.6**	195.9

(d) Mixed motive investments

The realised gain on mixed motive investments of £25.8 million in 2018 recognised in the Statement of Financial Activities represents the increase in fair value from 1 October 2017 to the date of transfer to the investment portfolio, 1 May 2018.

(e) Programme related investments

Group	Book value 1 October 2018 £m	Purchases £m	Disposals £m	Net write-downs £m	Unrealised Gains	**Book value 30 September 2019 £m**
Loans – other	14.2	7.1	(9.9)	(6.8)	(4.6)	**-**
Loans	14.2	7.1	(9.9)	(6.8)	(4.6)	**-**
Equities – Diamond Light Source	-	2.5	-	(2.5)	-	**-**
Equities – MSD-Wellcome Trust Hilleman Laboratories	-	2.2	-	(2.2)	-	**-**
Equities – other	3.3	4.6	(3.8)	6.6	6.7	**17.4**
Equities	3.3	9.3	(3.8)	1.9	6.7	**17.4**
Revenue share - other	-	5.5	-	(5.5)	-	**-**
Revenue share	-	5.5	-	(5.5)	-	**-**
Total	17.5	21.9	(13.7)	(10.4)	2.1	**17.4**

Programme related investments form a portfolio managed separately from the Trust's other investments. These investments are held primarily to further the charitable aims of the Trust rather than to provide a financial return. They are held at fair value, if this can be measured reliably; or if fair value cannot be measured reliably, at cost less impairment.

Commitments to Programme Related Investments are detailed in note 19.

Diamond Light Source Limited
Equities also include a 14% equity interest in Diamond Light Source Limited, a company established to construct and operate a synchrotron in Oxfordshire. Under the shareholding agreement, there is no intrinsic value in the equity and the cost has therefore been fully written down and included within Science direct expenditure.

MSD-Wellcome Trust Hilleman Laboratories
Equities include a 50% equity interest in SCS Pharma Research and Development Private Limited (known as MSD-Wellcome Trust Hilleman Laboratories), a company established in India to develop affordable vaccines to prevent diseases that commonly affect low and middle-income countries. Under the shareholding agreement, there is no intrinsic value in the equity and the cost has therefore been fully written down and reflected within Innovations direct expenditure.

Other
As part of its Innovations activities, the Trust has provided funding to 88 (2018: 83) often early-stage companies to carry out biomedical research projects with potential to deliver health benefits.

It is the Trust's policy to write off the cost of the investment in these often early-stage companies as it is not anticipated that this cost will be recovered. At each year end, a review of the programme related investment portfolio is performed, to assess if any individual assets have value. Where the assets have value, any impairment on such assets is reversed.

The unrealised gains reflect the additional fair value uplift where the value of an asset has increased above the cost.

Any income received or gains realised are included in the Statement of Financial Activities within other charitable income (and are therefore not in the table above).

(f) Fair value of financial assets and liabilities

The fair values and book values of the Group's financial assets and liabilities shown on the Balance Sheet are the same with the exception of the bond liabilities which are measured at amortised cost.

The value of the bond liabilities presented in the Trustee's Report (Figure 6 on page 25) £3,211.2 million (2018: £2,653.8 million) is the sum of the fair value of the bond liabilities and the accrued interest on these liabilities.

The following table categorises the fair values of the Group's financial assets and liabilities based on the inputs to the fair value. Categorisation within the hierarchy has been determined on the basis of the lowest level input that is significant to the fair value measurement of the relevant asset as follows:

- Level 1 – valued using quoted prices in active markets for identical assets.
- Level 2 – valued by reference to valuation techniques using observable inputs other than quoted prices included within Level 1.
- Level 3 – valued by reference to valuation techniques (to estimate what the transaction price would have been on the measurement date in an arm's length exchange motivated by normal business considerations) using inputs that are not based on observable market data.

Assets at fair value as at 30 September 2019

	Level 1 £m	Level 2 £m	Level 3 £m	**Total £m**
Quoted investments	14,905.0	148.9	-	**15,053.9**
Unquoted investments	-	3,413.7	8,989.1	**12,402.8**
Derivative financial instruments asset positions	32.8	69.5	-	**102.3**
Programme related investments	17.4	-	-	**17.4**
	14,955.2	3,632.1	8,989.1	**27,576.4**

Assets at fair value as at 30 September 2018

	Level 1 £m	Level 2 £m	Level 3 £m	**Total £m**
Quoted Investments	14,757.4	162.3	-	**14,919.7**
Unquoted investments	-	3,250.6	7,738.0	**10,988.6**
Derivative financial instruments asset positions	15.0	30.7	-	**45.7**
Programme related investments	3.3	-	14.2	**17.5**
	14,775.7	3,443.6	7,752.2	**25,971.5**

(f) Fair value of financial assets and liabilities (continued)

Liabilities at fair value as at 30 September 2019

	Level 1 £m	Level 2 £m	Level 3 £m	**Total £m**
Derivative financial instruments liabilities	-	36.3	-	**36.3**

Liabilities at fair value as at 30 September 2018

	Level 1 £m	Level 2 £m	Level 3 £m	**Total £m**
Derivative financial instruments liabilities	7.9	29.3	-	**37.2**

Unquoted investments include investments in hedge funds, private equity funds, property funds, direct investments and investment operating subsidiaries. For the funds the Group categorises the investments based on the fair value classification of the underlying assets and liabilities of the funds.

Derivative financial instruments comprise:

- equity and commodities index futures and option positions which are exchange traded and valued at current price meet the criteria of Level 1;
- forward currency contracts assets and liabilities which are over the counter derivatives which derive their value from market exchange rates and therefore meet the criteria of Level 2; and
- long options and warrants asset positions which are valued with reference to the underlying, which are unquoted securities, and therefore meet the criteria of Level 3.

For Level 3 investments:

- private equity and property funds are valued at the most recent valuation from the fund manager, which is usually the net asset value of the fund; and
- unquoted direct investments and programme related investments are held at the valuation determined by management, with valuations, when provided by a third party investment manager as a key input subject to appropriate review by management. Further details are provided in note 2.

(g) Realised and unrealised gains/(losses) on investments

		Group		Trust	
	Note	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Quoted investments	15(a)	**674.6**	1,072.1	**648.6**	858.7
Unquoted investments	15(a)	**1,363.0**	1,527.2	**1,308.2**	1,368.3
Investment properties	15(a)	**(51.7)**	(20.6)	**(36.5)**	(15.8)
Derivative financial instruments					
Currency overlay		**3.0**	(6.7)	**3.0**	(6.7)
Other derivative financial instruments		**(27.3)**	34.4	**(27.3)**	34.2
Shares in subsidiary undertakings		**-**	-	**90.0**	237.0
Short term investments		**0.2**	(10.8)	**0.2**	(10.8)
Foreign exchange losses on monetary assets		**14.0**	(2.5)	**7.1**	(4.2)
Foreign exchange losses on bond liabilities		**2.4**	(3.8)	**2.4**	(3.8)
		1,978.2	2,589.3	**1,995.7**	2,456.9

(h) Reconciliation to Trustee's Report

The presentation of investment balances in notes 15 and 17 is in accordance with the statutory asset and liability classifications. However, the investment portfolio is reported by investment strategy for management purposes and for the Trustee's Report. The distinct classes of assets used and reported on within the Trustee's Report are: public equity; private equity; hedge funds; property; and cash.

This note reconciles the net investment asset fair value at the balance sheet date as presented within the Trustee's Report to the presentation within the Financial Statements. The market value of each asset class presented in the Trustee's Report is equal to the net investment assets and liabilities, held within portfolios with that applicable investment strategy.

The assets and liabilities presented in the Consolidated Balance Sheet and notes reconcile to Figure 6 in the Trustee's Report as follows:

	Note	**2019 £m**	2018 £m
Quoted investments	15(a)	**15,053.9**	14,919.7
Unquoted investments	15(a)	**12,402.8**	10,988.6
Investment property	15(a)	**1,298.9**	1,352.3
Derivative financial instrument asset positions	15(b)	**102.3**	45.6
Investment cash and certificates of deposit	15(c)	**1,070.4**	1,156.4
Other investment assets	15(c)	**268.3**	204.5
Programme related investments	15(e)	**17.4**	17.5
Investment assets as presented in the Financial Review		**30,214.0**	28,684.6
Derivative financial instrument liabilities	17	**(36.3)**	(37.2)
Amount payable on acquisition of investments	17	**(4.8)**	(10.8)
Cash collateral creditor	17	**(156.2)**	(55.8)
Deferred income from investments	17	**(4.1)**	(4.0)
Other investment liabilities	17	**(17.4)**	(20.0)
Total investment assets		**29,995.2**	28,556.8
Bond liabilities at amortised cost falling due within one year	17	**(30.4)**	(30.4)
Bond liabilities at amortised cost falling due between one and five years	17	**(274.2)**	(273.7)
Bond liabilities at amortised cost falling due after five years	17	**(2,032.3)**	(2,033.8)
Total interest bearing liabilities		**(2,336.9)**	(2,337.9)
Total investment assets		**29,995.2**	28,556.8
Total interest bearing liabilities		**(2,336.9)**	(2,337.9)
Adjusted for:			
Restatement of bond liabilities to fair value		**(874.3)**	(315.9)
Programme related investments not in investment asset allocation	15(e)	**(17.4)**	(17.5)
Other investments not in asset allocation		**(8.3)**	(5.9)
Total assets net of Bond liabilities per Figure 6		**26,758.3**	25,879.6

Other investments not in asset allocation relate to unquoted investments held by Genome Research Limited.

	2019	2018
Leverage (Total interest bearing liabilities / Total investment assets)	**7.8%**	8.2%

16. Debtors

	Group		Trust	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Amounts owed by subsidiary undertakings	**-**	-	**2.7**	2.2
Other debtors	**16.1**	18.5	**2.2**	2.9
Prepayments	**11.0**	8.8	**3.3**	3.5
	27.1	27.3	**8.2**	8.6

17. Creditors

		Group		Trust	
	Note	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Falling due within one year					
Amounts owed to subsidiary undertakings		**-**	-	**1,043.4**	914.2
Grant liabilities	8	**767.2**	480.0	**767.2**	481.4
Bond liabilities		**30.4**	30.4	**21.2**	21.2
Amount payable on acquisition of investments		**4.8**	10.8	**4.8**	10.8
Cash collateral creditor		**156.2**	55.8	**156.2**	55.8
Deferred income from investments		**4.1**	4.0	**3.8**	3.6
Derivative financial instrument liabilities		**36.3**	37.2	**36.3**	37.2
Other investment liabilities		**17.4**	20.0	**16.5**	19.2
Trade creditors		**23.9**	13.5	**8.0**	7.3
Other creditors		**35.5**	39.5	**33.1**	37.2
Accruals and deferred income		**51.4**	25.2	**12.2**	11.8
Corporation tax		**0.6**	2.5	**-**	-
Total falling due within one year		**1,127.8**	718.9	**2,102.7**	1,599.7
Falling due between one and five years					
Grant liabilities	8	**1,404.6**	1,290.7	**1,404.6**	1,290.7
Other creditors		**4.0**	3.7	**-**	-
Lease premium creditor		**0.6**	2.1	**-**	-
Bond liabilities		**274.2**	273.7	**-**	-
		1,683.4	1,570.2	**1,404.6**	1,290.7
Falling due after five years					
Grant liabilities	8	**112.1**	239.3	**112.1**	239.3
Lease premium creditor		**15.5**	16.1	**-**	-
Bond liabilities		**2,032.3**	2,033.8	**1,490.3**	1,492.0
		2,159.9	2,289.2	**1,602.4**	1,731.3
Total falling due after one year		**3,843.3**	3,859.4	**3,007.0**	3,022.0

Included in accruals and deferred income above is £20.3 million in relation to Genome Research Limited's contract with GlaxoSmithKline Research & Development Limited part of the Whole Genome Sequencing Project. Further details are included in note 6.

In the prior year, Wellcome Trust issued £750.0 million 2.517% Guaranteed Bonds due 2118 included within bond liabilities above. Further details are included in note 3 and 15(a).

Grant commitments are split pro rata according to the terms of the grant at the point of award. All liabilities are unsecured.

18. Provisions for liabilities and charges

Group	Deferred tax £m	Employment related provisions £m	Other provisions £m	**Total £m**
As at 1 October 2018	128.8	58.2	4.9	191.9
Charge for the year	(40.9)	15.9	(0.4)	(25.4)
Utilised in year	-	(13.6)	-	(13.6)
Foreign exchange revaluations	(1.9)	-	-	(1.9)
As at 30 September 2019	**86.0**	**60.5**	**4.5**	**151.0**

Trust	Employment related provisions £m	Other provisions £m	**Total £m**
As at 1 October 2018	54.9	4.9	59.8
Charge for the year	13.3	(0.4)	12.9
Utilised in year	(12.0)	-	(12.0)
As at 30 September 2019	**56.2**	**4.5**	**60.7**

The employment-related provisions relates to long-term incentive plans for certain employees in the Investment Division (refer note 5(a)) and unfunded unapproved retirement benefit schemes (refer to note 11(e)(ii)).

19. Commitments and contingent liabilities

(a) Investments

The Trust has entered into commitments to invest in private equity and property funds. At the balance sheet date, outstanding commitments amounted to £3,103.3 million (2018: £2,502.8 million). The Trust models its expected cash flows based on the year of the original commitment and historic trends. The Trust expects to invest £787.3 million (26%) of its outstanding commitments in one year, £1,281 million (41%) in between one and five years and £1,035.0 million (33%) after five years.

(b) Pensions

Wellcome has previously agreed with the GRL Pension Plan Trustee to put in place a Deed of Guarantee. The obligations of the Deed, guaranteed by Wellcome, are that GRL pays the necessary contribution as agreed with the Trustee and the Plan Actuary and that any deficit in the funding identified by a full actuarial valuation will be repaid over a period of five years or less. Further details of the funding of the GRL Pension Plan are provided in note 11(e)(ii).

(c) Programme related investments

Programme related convertible loans and equity funding have been made over a series of years, of which £9.1 million (2018: £11.8 million) remains yet to be drawn down and is contingent upon specific milestones being achieved.

The Trust has committed to fund 14% of the operating capital of Diamond Light Source Limited. The outstanding commitment as at 30 September 2019 was £2.4 million (2018: £2.4 million).

During the year, the Trust incurred £2.2 million (2018: £3.0 million) in expenditure relating to an entity in India, MSD- Wellcome Trust Hilleman Laboratories. The outstanding commitment as at 30 September 2019 was £20.8 million (2018: £23.8 million).

(d) Grant funding activities

In prior years, the Innovations division has made Seeding Drug Discovery grants of £173.0 million, of which £169.3 million has been included in grant expenditure in current and prior financial years. The remaining £3.7 million is contingent upon specific funding-related milestones being met and has therefore not been included within grant liabilities.

To date the Trust has incurred £61.1 million for expenditure relating to Wellcome Trust-DBT India Alliance. Subject to Trustee approval, the Trust will contribute up to £32 million over the next five years.

During the year, Wellcome incurred £4.8 million in expenditure relating to a partnership between Wellcome, the UK Medical Research Council, the UK Department for International Development and the UK Department of Health to fund clinical trials in low and middle-income countries. Subject to review and approval of appropriate applications, Wellcome will contribute up to a further £9.8 million over the next two years.

Wellcome has incurred £2.0 million in expenditure relating to a joint initiative between Wellcome, the UK Department for International Development, the Economic and Social Research Council and the UK Medical Research Council to fund health systems research in low and middle-income countries. Subject to review and approval of appropriate applications, Wellcome will contribute up to £6.6 million over the next three years.

During the year the Trust has incurred £0.8 million in expenditure relating to a partnership with UK Research and Innovation (formally the Department for Business, Energy & Industrial Strategy), to support science centres across the UK. Subject to review and approval of appropriate applications, the Trust will contribute up to a further £0.5 million over the next year.

During the year the Trust has incurred £3.7 million in expenditure relating to a partnership with the British Heart Foundation, Cancer Research UK, Scottish Ministers acting through their Chief Scientist Office of the Scottish Government Health and Social Care Directorates, Engineering and Physical Sciences Research Council, Medical Research Council, Natural Environment Research Council, Department of Health and Social Care acting through its National Institute for Health Research, Health and Social Care Research and Development Division, Welsh Government, Public health Agency and The Health Foundation to fund research into population-level strategies that will prevent non-communicable diseases and reduce inequalities in health. Wellcome will contribute up to £3.8 million over the next four years.

In 2017, the Trust entered into a partnership with the US Government's Biomedical Advanced Research and Development Authority (BARDA), Germany's Federal Ministry of Education and Research (BMBF), the UK Government's Department of Health and Social Care (DHSC), through its Global Antimicrobial Resistance Innovation Fund (GAMRIF), the Bill & Melinda Gates Foundation and Boston University to create the Combating Antibiotic Resistant Bacteria Biopharmaceutical Accelerator (CARB-X) to support preclinical product development of new antibiotics. £18.7 million was committed during the year, subject to review and approval of appropriate applications. The Trust will contribute up to £73.4 million over the next four years.

During the year, the Trust has incurred £18.1 million in expenditure relating to a joint initiative between Wellcome and the UK Department for International Development to fund research in epidemic preparedness and response. Subject to review and approval of appropriate applications, Wellcome will contribute up to £4.7 million over the next three years.

(e) Capital Commitments

Wellcome had commitments contracted and not provided for of £15.8 million in relation to the refurbishment of investment properties (2018: £nil).

Genome Research Limited had commitments contracted and not provide for of £2.7 million relating to the West Pavilion redevelopment and air conditioning improvements (2018: £nil).

20. Movement in Charity Funds

Group	Balance as at 1 October 2018 £m	Income £m	Expenditure £m	Net investment gains £m	Balance as at 30 September 2019 £m
Restricted Funds	32.2	46.2	(53.3)	-	**25.1**
Unrestricted Funds	24,167.9	434.8	(1,391.6)	1,978.2	**25,189.3**
Total Charity Funds	24,200.1	481.0	(1,444.9)	1,978.2	**25,214.4**

Group	Balance as at 1 October 2017 £m	Income £m	Expenditure £m	Net investment gains £m	Balance as at 30 September 2018 £m
Restricted Funds	26.2	19.8	(13.8)	-	**32.2**
Unrestricted Funds	21,850.8	465.0	(763.0)	2,615.1	**24,167.9**
Total Charity Funds	21,877.0	484.8	(776.8)	2,615.1	**24,200.1**

All restricted funds arise in Genome Research Limited.

21. Group undertakings

a) Summary of activities of significant subsidiary undertakings

Company	% Holding	Registered Number	Country of incorporation	Legal relationship
Genome Research Limited	100%	2742969	England	The Wellcome Trust Limited and Wellcome Trust Nominees Limited are equal members
Gower Place Investments Limited	• Ordinary shares – 100% • Class A preference shares – 0% • Class B preference shares – 100%	08594660	England	The Wellcome Trust Limited is the shareholder
North London Ventures Limited	• Ordinary shares – 100% • Class A preference shares – 0% • Class B preference shares – 100%	08226374	England	The Wellcome Trust Limited is the shareholder
Wellcome Trust Finance plc	100%	5857955	England	The Wellcome Trust Limited is the sole shareholder
Wellcome Trust Investments 1 Unlimited	100%	06483238	England	The Wellcome Trust Limited is the sole shareholder
Wellcome Trust Investments 2 Unlimited	100%	6576220	England	The Wellcome Trust Limited is the sole shareholder
Wellcome Trust Investment Limited Partnership	100%	LP011456	England	The Wellcome Trust Limited is the limited partner and Wellcome Trust GP Limited is the general partner

These significant subsidiaries are:

- charitable subsidiary undertakings formed to pursue charitable objects closely allied to those of the Trust – refer to note 21(b)(i);
- non-charitable investment holding subsidiary undertakings formed to hold investments and freehold property on behalf of the Trust where the net asset value is in excess of £250 million – refer to note 21(b)(ii); and
- a non-charitable financing subsidiary undertaking formed to issue listed debt to finance Group activities – refer to note 21(b)(iii).

All subsidiaries are registered at 215 Euston Road, London, NW1 2BE.

The table below details the subsidiaries that are held as part of the investment portfolio. They are not included in the consolidation and therefore do not appear in the analysis in note 21(b).

Company	% Holding	Registered Number	Country of incorporation	Legal relationship
Farmcare Trading Limited	100% (indirect through Gower Place Investments Limited)	09152445	England	The Wellcome Trust Limited is the indirect shareholder through Gower Place Investments Limited
Premier Marinas Holdings Limited	100% (indirect through Gower Place Investments Limited)	05524490	England	The Wellcome Trust Limited is the indirect shareholder through Gower Place Investments Limited

a) Summary of activities of significant subsidiary undertakings (continued)

The Trust has taken advantage of an exemption from audit available under 479A to 479C of the Companies Act 2006 for the following subsidiaries which are all registered in England:

Wellcome Trust Investments 1 Unlimited

Wellcome Trust Investments 2 Unlimited

Wellcome Trust Investments 3 Unlimited

The Wellcome Trust Limited has provided the appropriate guarantee for all liabilities of these entities.

The Trust has taken advantage of an exemption from audit available under Regulation 7 of the Partnership (Accounts) Regulations 2008 for the following partnerships:

Wellcome Trust Investment Limited Partnership – registered in England.

Wellcome Trust Scottish Limited Partnership – registered in Scotland.

(b) Summary financial information

The expenditure figures below include the impact of gift aid distributions and tax.

(i) Charitable subsidiary undertaking

	Genome Research Limited	
	2019 £m	2018 £m
Income	**150.8**	146.2
Expenditure	**(164.3)**	(147.3)
Actuarial gains/(losses) on defined benefit pension scheme	**(80.7)**	26.4
Net movements in funds	**(94.2)**	25.3
Total assets	**243.8**	212.8
Liabilities	**(79.5)**	(43.4)
Defined benefit pension scheme deficit	**(203.0)**	(113.9)
Net assets	**(38.7)**	55.5

All restricted funds arise in Genome Research Limited.

(ii) Non-charitable investment holding subsidiary undertakings

	Gower Place Investments Limited		North London Ventures Limited		Wellcome Trust Investment Limited Partnership	
	2019 £m	2018 £m	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Turnover	**3.0**	-	**4.7**	5.6	**18.8**	17.6
Expenditure	**4.8**	(3.8)	**41.7**	(30.5)	**(11.7)**	(11.6)
Gains/(losses) on investments	**(32.5)**	(4.4)	**(139.1)**	231.8	**132.1**	7.5
Total profit	**(24.7)**	(8.2)	**(92.7)**	206.9	**139.2**	13.5
Investment assets	**558.5**	578.0	**411.1**	689.0	**809.6**	657.1
Current assets	**2.6**	0.5	**97.6**	17.2	**51.9**	65.3
Total assets	**561.1**	578.5	**508.7**	706.2	**861.5**	722.4
Liabilities	**(5.5)**	(10.6)	**(28.9)**	(70.7)	**(247.7)**	(247.7)
Net assets	**555.6**	567.9	**479.8**	635.5	**613.8**	474.7

(b) Summary financial information (continued)

(ii) Non-charitable investment holding subsidiary undertakings (continued)

	Wellcome Trust Investments 1 Unlimited		Wellcome Trust Investments 2 Unlimited	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Turnover	**-**	-	**13.7**	-
Expenditure	**(3.9)**	(15.6)	**(12.0)**	(3.1)
Gains/(losses) on investments	**38.1**	83.5	**92.3**	37.7
Total profit	**34.2**	67.9	**94.0**	34.6
Investment assets	**364.1**	326.0	**939.3**	319.9
Current assets	**28.0**	27.9	**99.4**	44.7
Total assets	**392.1**	353.9	**1,038.7**	364.6
Liabilities	**(27.1)**	(23.0)	**(24.3)**	(23.1)
Net assets	**365.0**	330.9	**1,014.4**	341.5

The functional currency of Wellcome Trust Investments 2 Unlimited is the US Dollar because the majority of the Company's transactions are denominated in US Dollars.

(iii) Non-charitable investment financing subsidiary undertaking

	Wellcome Trust Finance plc	
	2019 £m	2018 £m
Turnover	**42.7**	42.7
Expenditure	**(42.7)**	(42.7)
Total profit	**-**	-
Assets	**962.9**	962.2
Liabilities	**(825.4)**	(824.7)
Net assets	**137.5**	137.5

22. Consolidated cash flow

(a) Investment income received

	2019 £m	2018 £m
Dividends and interest	**372.7**	402.4
Rental income	**35.6**	37.0
Increase in income receivable from investments	**(4.5)**	(7.1)
Increase in accrued income from investments	**1.9**	7.5
Decrease/(increase) in deferred income from investments	**0.2**	(0.6)
Investment income received	**405.9**	439.2

(b) Servicing of finance

	2019 £m	2018 £m
Interest payable	**(78.7)**	(71.9)
Foreign exchange gain/(losses) on revaluation of interest bearing liabilities	**2.4**	(3.8)
(Decrease)/Increase in interest bearing liabilities	**(1.0)**	762.2
Cash (outflow)/inflow for servicing of finance	**(77.3)**	686.5

(c) Reconciliation of investment sales and purchases

	2019 £m	2018 £m
Proceeds on sale of quoted investments	**2,848.5**	2,951.1
Proceeds on sale of unquoted investments	**2,035.1**	2,016.3
Proceeds on sale of investment property	**23.9**	23.8
Decrease/(increase) in proceeds receivable on sale of investments	**41.5**	(87.8)
Proceeds on transfer of Mixed Motive Investments	**-**	483.0
Proceeds on sale of Programme Related Investments	**13.7**	17.3
Proceeds from sales of investments	**4,962.7**	5,403.7
Purchases of quoted investments	**2,308.1**	3,650.9
Purchases of unquoted investments	**2,086.3**	1,866.3
Purchases of investment property	**22.2**	6.2
Increase/(Decrease) in amounts payable on acquisition of investments	**6.0**	(5.8)
Purchase of Programme Related Investments	**21.9**	34.6
Purchases of investments	**4,444.5**	5,552.2
(Loss)/gain on derivative financial instruments	**(24.3)**	27.7
(Increase)/decrease in derivative financial asset positions	**(56.7)**	133.0
Decrease in derivative financial liabilities	**(0.9)**	(63.7)
Net cash (outflow)/inflow upon settlement of derivative financial instruments	**(81.9)**	97.0

(d) Statement of net debt

	At 1 October 2018 £m	Cash flow £m	Effective interest & Foreign Exchange £m	**At 30 September 2019 £m**
Cash in hand and at bank	23.7	9.5	-	**33.2**
Debt due after one year				
- bond liabilities	(2,307.5)	-	1.1	**(2,306.4)**
Debt due within one year				
- bond liabilities	(30.4)	77.3	(77.3)	**(30.4)**
Liquid resources:				
- investment cash and certificates of deposit	1,156.4	(86.0)	-	**1,070.4**
Net debt	(1,157.8)	0.8	(76.2)	**(1,233.2)**

In accordance with FRS 102 7.18, an entity shall exclude from the statement of cash flows investing and financing transactions that do not require the use of cash or cash equivalents.

The exclusion of non-cash transactions from the statement of cash flows is consistent with the objective of a statement of cash flows because these items do not involve cash flows in the current period. These non-cash transactions are included in the table above.

23. Financial risk management

In the ordinary course of its activities, the Group actively manages a variety of financial risks including credit risk, liquidity risk and market risk. The Group identifies measures and monitors risk through various control mechanisms as detailed in the following sections, including maximum approved counterparty exposure and diversifying exposures and activities across a variety of instruments, markets and counterparties.

(a) Credit risk

Credit risk is the risk that the Group would incur a financial loss if a counterparty failed to discharge its obligations to the Group.

Credit risk exposure
The Group is subject to credit risk from its financial assets held by counterparties and the risk is particularly concentrated on its investment cash balances and certificates of deposit due to the significant value of these balances. The following table details the Group's maximum exposure to credit risk as at 30 September:

	2019 £m	2018 £m
Derivative financial instruments assets positions	**102.3**	45.6
Investment cash balances and certificates of deposit	**1,070.4**	1,156.4
Cash collateral held	**156.2**	55.8
Accrued income from investments	**12.6**	14.6
Income Receivable	**25.2**	20.7
Proceeds receivable on sale of investments	**62.5**	104.0
Other investment debtor balances	**11.8**	9.4
Programme related investment loans	**-**	14.2
Other debtors	**16.1**	18.5
Term deposits and cash	**33.2**	23.7
	1,490.3	1,462.9

None of the Group's financial assets subject to credit risk (other than the Programme related investments which are discussed in note 15(e)) are past their due date or were impaired during the year.

Risk management policies and procedures
The objective of managing credit risk is to minimise counterparty default on the Group's financial assets causing financial loss to the Group. The Group aims to mitigate its counterparty credit risk exposure by monitoring the size of its credit exposure to and the creditworthiness of counterparties, including setting appropriate exposure limits and maturities. Counterparties are selected based on their financial ratings, regulatory environments and specific circumstances.

The following details the risk management policies applied to the financial assets exposed to credit risk:

- for interest-bearing securities the credit rating of the issuer is taken into account to minimise the risk to the Group of default. Investments are made across a variety of issuers to reduce concentrations of credit risk;
- transactions involving derivative financial instruments are entered into only with reputable banks, the credit ratings of which are taken into account to minimise credit risk. Derivative financial instrument asset positions exposed to credit risk comprise the Group's forward currency contracts;
- direct cash management mandate is limited to the use of deposits with selected banks (the credit ratings of which are taken into account to minimise credit risk), the purchase of short-dated UK Government securities and the controlled use of AAA rated money market funds; and
- sale and purchases of investments are carried out with a small number of brokers, whose credit quality forms part of the initial and on-going reviews by the investment managers.

At the balance sheet date, in addition to the securities on loan discussed in note 15(a), forward currency contract assets which are secured by cash collateral are discussed in note 15(b). There were no other credit enhancements.

(b) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulties raising cash to meet its obligations when they fall due.

Liquidity risk exposure
This is a risk to the Group, given the value of the Group's commitments to charitable and investment activities.

Risk management policies and procedures
The Group monitors its exposure to liquidity risk by regularly monitoring the liquidity of its investment portfolio and holding appropriate levels of liquid assets. Cash held within the Group's cash mandate (refer to Cash reported in Figure 6 of the Review of Investment Activities section of the Trustee's report) and the liquidity forecast is reviewed: weekly by investments management; monthly by the Executive Leadership Team; and quarterly by the Investment Committee and Board of Governors.

The following table details the maturity of the Group's undiscounted contractual payments and grant liabilities as at 30 September:

	2019				2018			
Group	Three months or less £m	No more than one year £m	More than one year £m	**Total £m**	Three months or less £m	No more than one year £m	More than one year £m	**Total £m**
Payments falling due within one year								
Bond liabilities	-	77.4	-	**77.4**	-	77.5	-	77.5
Derivative financial instruments liabilities	36.3	-	-	**36.3**	37.2	-	-	37.2
Collateral liability	156.2	-	-	**156.2**	55.8	-	-	55.8
Amount payable on acquisition of investments	4.8	-	-	**4.8**	10.8	-	-	10.8
Other investment liabilities	17.4	-	-	**17.4**	20.0	-	-	20.0
Trade creditors	23.9	-	-	**23.9**	13.5	-	-	13.5
Other creditors	35.5	-	-	**35.5**	39.5	-	-	39.5
Accruals and deferred income	51.4	-	-	**51.4**	25.2	-	-	25.2
Corporation Tax	-	0.6	-	**0.6**	-	2.5	-	2.5
Contractual payments	325.5	78.0	-	**403.5**	202.0	80.0	-	282.0
Grant liabilities	191.8	575.4	-	**767.2**	120.0	360.0	-	480.0
	517.3	653.4	-	**1,170.7**	322.0	440.0	-	762.0
Payments falling due between one and five years								
Bond liabilities	-	-	545.2	**545.2**	-	-	558.4	558.4
Other creditors	-	-	4.0	**4.0**	-	-	3.7	3.7
Contractual payments	-	-	549.2	**549.2**	-	-	562.1	562.1
Grant liabilities	-	-	1,632.3	**1,632.3**	-	-	1,511.7	1,511.7
	-	-	2,181.5	**2,181.5**	-	-	2,073.8	2,073.8
Payments falling due after five years								
Bond liabilities	-	-	4,705.6	**4,705.6**	-	-	4,772.4	4,772.4
Contractual payments	-	-	4,705.6	**4,705.6**	-	-	4,772.4	4,772.4
Grant liabilities	-	-	163.6	**163.6**	-	-	340.6	340.6
	-	-	4,869.2	**4,869.2**	-	-	5,113.0	5,113.0
Total	517.3	653.4	7,050.7	**8,221.4**	322.0	440.0	7,186.8	7,948.8

The grant liabilities are non-contractual.

(c) Market risk – price, currency and interest rate risks

Market risk is the risk of potential loss the Group may incur as a result of adverse changes to the fair value of the Group's financial instruments. Market risk comprises three types of risks: price risk, currency risk and interest rate risk.

The Group measures returns and monitors portfolio risks in a 50/50 blend of Sterling and US Dollars and monitored Sterling and US Dollar currency exposures. This reflects the globally diversified nature of the Group's assets, liabilities and commitments.

The Group uses a number of investment risk metrics, of which the following are key; the expected ability of the portfolio to generate cash flows growing in real terms; currency exposures; expected likelihood of catastrophic failures of one or more assets held within the portfolio; and the assessed level of inflation protection within the portfolio.

(i) Price risk

Price risk is the risk that the value of an asset or liability will fluctuate due to changes in market price, caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market. This is a risk for the Group because its ability to fund research over the long term is dependent on maintaining the purchasing power of the asset base. The Group's expenditure is predominantly discretionary and the Board of Governors monitor cash expenditure, commitments and the endowment performance throughout the year to manage the balance between funding charitable activities and maintaining the purchasing power of the asset base.

Price risk exposure

The maximum asset and liability value exposed to other price risk at 30 September is the value of the traded investment assets and liabilities as detailed in the following table:

	2019 £m	2018 £m
Quoted investments	**15,053.9**	14,919.7
Unquoted investments	**12,402.8**	10,988.6
Investments properties	**1,298.9**	1,352.3
Derivative financial instruments assets positions	**102.3**	45.6
Assets exposed to risk	**28,857.9**	27,306.2
Derivative financial instruments liability positions	**36.3**	37.2
Liabilities exposed to risk	**36.3**	37.2

(ii) Currency risk

Currency risk is the risk that the value of an asset or liability will fluctuate due to changes to foreign currency exchange rates. The currency of the majority of the Group's expenditure and the functional currency of the Group is Sterling. However, the Group has investment assets denominated in currencies other than Sterling and is impacted by fluctuations in foreign currency exchange rates.

The following table details the asset value exposed to currency risk as at 30 September:

Group	**Value as at 30 September 2019 (currency, m)**	**Value as at 30 September 2019 £m**	Value as at 30 September 2018 (currency, m)	Value as at 30 September 2018 £m
Traded investments assets				
US $	**$17,644.2**	**14,318.1**	$17,039.8	13,067.5
Euro	**€3,315.4**	**2,933.1**	€2,912.6	2,594.1
CNY	**¥19,833.1**	**2,254.6**	¥12421.5	1,384.0
Other		**3,238.5**		3,696.7
Other investment debtors balances				
US $	**$358.8**	**291.2**	$606.9	465.4
Euro	**€44.1**	**39.0**	€28.5	25.3
CNY	**-**	**-**	¥61.1	21.0
Other		**29.6**		60.8
Other investment creditors balances				
US $	**($0.3)**	**(0.3)**	($6.9)	(5.3)
Euro	**(€398.6)**	**(352.6)**	(€400.6)	(355.8)
CNY	**-**	**-**	-¥1.5	(1.3)
Other		**(7.6)**		(12.9)
Forward currency contracts				
US $	**($350.9)**	**(286.5)**	($672.0)	(519.5)
Euro	**(€396.3)**	**(361.1)**	(€36.1)	(47.4)
CNY	**-**	**-**	-	-
Other		**117.1**		244.4
Total exposed to currency risk		**22,213.1**		20,617.1

	Impact on gain for the financial year 2019 £m	Impact on gain for the financial year 2018 £m
10% US Dollar appreciation	**1,432.3**	1,300.8
10% Euro appreciation	**225.8**	221.6
10% CNY appreciation	**225.5**	140.4

A 10% depreciation in currencies would have an equal but opposite impact.

Risk management policies and procedures
The investment team monitor the Group's exposure to foreign currencies on a daily basis and report to the Investment Committee on at least a quarterly basis.

Foreign currency contracts are used to limit the Group's exposure to future changes in exchange rates which might otherwise adversely affect the value of the portfolio of investments. Where appropriate, they are also used to achieve the portfolio characteristics that assist the Group in meeting its investment objectives.

(iii) Interest rate risk
Interest rate risk arises from the risk that the value of an asset or liability will fluctuate due to changes in interest rates (i.e. for fixed interest rate assets or liabilities) or that future cash flows will fluctuate due to changes in interest rates (i.e. for variable rate assets or liabilities).

Interest rate exposure and sensitivity
The Group holds investment cash and certificates of deposit and overnight term deposits and cash, as detailed on the Balance Sheet. These are floating rate interest bearing assets, the future cash flows from these assets will fluctuate with changes in market interest rates. However, as these are liquid assets with no fixed maturity dates, the fair value would not fluctuate significantly with changes in market interest rates.

During the year the Group invested in government and corporate debt securities as part of planning for the upcoming maturity 2021 bonds (refer note 15(a)). These are fixed rate interest bearing assets with fixed maturities, the future cash flows from these assets will not fluctuate with changes in market interest rates, however their fair value will.

The interest-bearing liabilities shown below are the bond liabilities which are fixed rate liabilities which are both held at amortised cost. The bond assets value detailed in the table below is the fair value, the bond and variable rate liabilities value detailed in the table below is the book value.

	2019		2018	
	Weighted average interest rate	**Value as at 30 September £m**	Weighted average interest rate	Value as at 30 September £m
Interest-bearing assets				
Maturing between one and five years				
Fixed rate	**1.61%**	**142.6**	1.61%	142.7
Floating rate	**3 month GBP Libor + 22-26bps**	**129.9**	3 month GBP Libor + 22-26bps	129.9
Total interest bearing assets		**272.5**		272.6
Interest-bearing financial liabilities				
Maturing between one and five years				
Fixed rate – bond liabilities	**4.75%**	**(278.6)**	4.75%	(278.2)
Maturing after five years				
Fixed rate – bond liabilities	**3.13%**	**(2,058.2)**	3.13%	(2,059.8)
Total interest-bearing liabilities		**(2,336.8)**		(2,338.0)

Risk management policies and procedures
The Group takes into account the possible effects of a change in interest rates on the fair value and cash flows of the interest-bearing financial assets and liabilities when making investment decisions. The Investment Committee monitors the Group's exposure to interest-bearing assets, the bond liability and the related finance costs regularly.

24. Events after the end of the reporting period

There are no events to note.

Alternative Performance Measures and Key Performance Indicators

Alternative Performance Measures (APMs) are a financial measure of historical or future financial performance, financial position, or cash flows, other than a financial measure defined or specified in the applicable financial reporting framework.

Key Performance Indicators (KPIs) are a measure by reference to which the development, performance or position of the Group can be measured effectively.

KPIs include APMs where they provide additional insight into performance from the perspective of stakeholders.

The key measures used by the group are explained below and on page 115:

Key APMs	Explanation
Total assets net of all liabilities	This is a summation of all the investment assets less all the investment liabilities and the bond liabilities (refer to Investment Asset Allocation, Figure 6, Review of Investment Activities)
Net debt	This reconciles transactions that do not require the use of cash or cash equivalents to the Statement of cashflows (see note 22(d))
Leverage	The amount of Total interest-bearing liabilities as a percentage of the amount of Total Investment Assets (refer to note 15(h))

Key KPIs	Explanation
Annual Charitable expenditure	This is detailed in the Financial Review on page 33 and summarises the charitable spend, including allocated support costs by activity and details of the accounting adjustments made in accordance with FRS 102
Blended returns	This is a measure of investment portfolio performance which averages the net returns (see below) calculated in £ and US $
IRR	This is the internal rate of return, a measure of investment performance
Net funds	This is detailed in the Financial Review on page 31 and presents an overview of the net assets available to fund future charitable and investment activity
Net movement in funds	This is detailed in the Financial Review on page 31 and presents an overview of the sources funding and the application of these funds
Net returns	This is a measure of investment portfolio performance. This is calculated using the 'Modified Dietz method' as follows: change in the period of Total assets net of all liabilities less charitable cash expenditure for the period, divided by the opening Total assets net of all liabilities for the period plus charitable cash expenditure weighted by the time to the close of the period that the cash expenditure occurred

Glossary of Terms

Glossary of terms	Explanation
Active grants	Grants which have been activated and are still being utilised. The value of active grants is the undiscounted total amount awarded, before deducting any amounts paid to date
Buy-out funds	This is a portion of the Investment portfolio invested in private funds which adopt a strategy of buying out companies and transforming their operations
Cash & Bonds	This is the portion of the investment portfolio which is invested in cash, cash equivalents (liquidity funds, term deposits and certificates of deposit) and fixed income assets (i.e. corporate bonds and government gilts)
Charitable cash expenditure	This is cash spent in year on charitable activities and comprises Net cash flows from operating activities and cash flows from purchase of tangible fixed assets (see Consolidated Cash Flow Statement, page 66)
Directional hedge funds	A directional hedge fund maintains some exposure to the market without placing much emphasis on hedging market risk
Directly managed public equity	This is the portion of the investment portfolio which is invested in public equity and managed by the internal investment division
Equity long/short hedge funds	Investment hedge funds, that involves buying equities that are expected to increase in value and selling short equities that are expected to decrease in value. (rather than buying a call option and selling a put option)
Indirectly managed public equity	This is the portion of the investment portfolio which is invested in public equity and managed by third party external investment managers
Growth markets	These are economies of countries traditionally classified as emerging markets, which often feature high annual GDP growth
Mega cap basket	This is a directly held portion of the Investment portfolio invested in public companies with a market capitalisation in excess of $50bn
Net overlay assets	Foreign exchange overlays and the related cash collateral amounts due to third parties
Non Directional hedge funds	A non-directional hedge fund (absolute return fund) is a hedge fund that aims to generate a stable return regardless of market performance (with low volatility)
Optionality basket	A non-directional hedge fund aims to generate a stable return regardless of market performance (with low volatility)

Reference and Administrative Details

Board of Governors

Baroness Manningham-Buller, LG, DCB (Chair)

Professor Sir Michael Ferguson, CBE, FRS, FRSE, FMedSci (Deputy Chair)

Professor Tobias Bonhoeffer, PhD

Mr Alan Brown, FSIP (to 30 April 2019)

Mr William Burns

Dame Amelia Fawcett (from 1 September 2019)

Mr Richard Gillingwater, CBE (from 1 September 2019)

Professor Bryan Grenfell, OBE, FRS

Professor Dame Anne Johnson, MD, FRCP, FFPH, FRCGP, FMedSci (to 31 December 2018)

Mr Naguib Kheraj (from 1 January 2019 to 27 March 2019)

Professor Fiona Powrie, FRS FMedSci

Dame Cilla Snowball (from 1 September 2019)

Brief biographies are included on pages 117-118.

Company Secretary

Mr Chris Bird

Executive Leadership Team

Sir Jeremy Farrar, FRS, FMedSci, OBE (Director)

Mr Chris Bird (General Counsel)

Professor Stephen Caddick (Director of Innovation)

Ms Karen Chadwick
(Acting Chief Financial Officer from 21 March 2019)

Dr Simon Chaplin, FDSRCS (Director of Culture & Society)

Dr Alyson Fox (Director of Grants Management)

Mr Mark Henderson (Director of Communications)

Dr Chonnettia Jones (Director of Insight and Analysis)

Mr Tim Livett (Chief Financial Officer to 31 January 2019)

Ms Kathy Poole (Director of People)

Dr Paul Schreier
(Chief Operating Officer from 2 September 2019)

Sir Jim Smith, FRS, FMedSci
(Director of Science to 31 December 2018)

Mr James Thomas (Chief Technology Officer)

Professor Mike Turner
(Director of Science from 1 January 2019)

Mr Ed Whiting (Director of Strategy)

Audit and Risk Committee

Mr William Burns (Chair)

Ms Adèle Anderson

Professor Sir Michael Ferguson (to 10 December 2018)

Mr Chris Jones

Professor Fiona Powrie (from 17 December 2018)

Remuneration Committee

Baroness Manningham-Buller (Chair)

Mr Alan Brown (to 31 August 2019)

Dame Amelia Fawcett (from 1 September 2019)

Professor Sir Michael Ferguson

Nominations Committee

Baroness Manningham-Buller (Chair)

Professor Sir Michael Ferguson

Professor Bryan Grenfell

Dame Cilla Snowball (from 1 September 2019)

Investment Committee

Mr Alan Brown (Chair)

Ms Tracy Blackwell (from 1 September 2019)

Mr Stefan Dunatov

Mr Richard Gillingwater (from 1 September 2019)

Sir Jeremy Farrar

Dame Amelia Fawcett (from 1 September 2019)

Professor Sir Michael Ferguson

Mrs Sarah Fromson
(to 10 September 2019)

Dr Martin Halusa (from 1 September 2019)

Ms Cressida Hogg (from 1 September 2019)

Mr Naguib Kheraj (to 27 March 2019)

Mr Tim Livett (to 31 January 2019)

Baroness Manningham-Buller

Mr David Mayhew (to 10 September 2019)

Mr Nicholas Moakes

Mr Peter Pereira Gray

Dr Paul Schreier (from 2 September 2019)

Mr Danny Truell (to 29 September 2019)

Biographies of the Governors

Baroness Manningham-Buller, LG, DCB
Eliza Manningham-Buller has been Chair of Wellcome since 2015, having served as a Governor since 2008. Wellcome is a global charity which exists to improve health for everyone by helping great ideas to thrive. She leads a Board of Governors drawn from the worlds of science, business and public life.

In 2015, Eliza became the Co-President of Chatham House, Royal Institute of International Affairs. She served on the Council of Imperial College from 2009 and was Chair of Council from 2011 to 2015.

She was appointed an independent, crossbench peer in the House of Lords in 2008, and has been a member of the Privileges and Conduct Committee, the Joint Committee on the National Security Strategy, and the Science and Technology Committee.

Previously, Eliza had a career with MI5 for more than 30 years, including a posting to the British Embassy in Washington. She served as Director General from 2002 to 2007 and before that was Deputy Director General, with responsibility for operations.

Eliza was educated at Benenden School and Lady Margaret Hall, Oxford. She taught for three years before joining MI5 in 1974.

Professor Sir Michael Ferguson, CBE, FRS, FRSE, FMedSci
Mike Ferguson is Regius Professor of Life Sciences and academic lead for Research Strategy in the School of Life Sciences at the University of Dundee. His personal research takes a multidisciplinary approach to understanding the biochemistry of protozoan parasites that cause tropical diseases. He believes in the fundamental importance of working across the biology-chemistry interface and in interdisciplinary research in general.

He is particularly interested in translational research and, together with his colleagues, established the Drug Discovery Unit at the University of Dundee and led the construction of the Discovery Centre (for Translational and Interdisciplinary Research).

He also co-directs a proteomics facility that supports much of the work of his colleagues in the Schools of Life Sciences and Medicine and other organisations. He is also a Board member of Amphista Therapeutics Ltd.

Professor Tobias Bonhoeffer
Tobias Bonhoeffer is Director at the Max Planck Institute of Neurobiology and Professor at the Ludwig Maximilians University in Munich. He is one of the world's foremost researchers in systems neuroscience. He studies synaptic plasticity in the brain focusing on learning, memory and how the brain adapts to its environment.

Tobias served for more than 20 years as department head at the Max Planck Institute of Neurobiology and later also as Chair of the Biomedical Section of the Max Planck Society. He has been a member of the scientific advisory boards of numerous leading Institutions, including the Chan Zuckerberg Initiative, the ETH Zurich, the Janelia Farm Research Campus of the Howard Hughes Medical Institute and the Chinese Academy of Sciences.

Tobias is a member of the German National Academy of Sciences, Leopoldina, the Academia Europaea and the European Molecular Biology Organization. He has been awarded the Ernst-Jung Prize for Medicine.

Mr Alan Brown, FSIP
Alan Brown read natural sciences at the University of Cambridge before starting a career in the investment management industry, where he worked for almost 40 years. He has held positions as a chief investment officer for the past 24 years, most recently as an Executive Director at Schroders.

Alan's other responsibilities include Chair of Artemis LLP, Chair of the Board of the Carbon Disclosure Project, and Chair of the Board of the Westway Trust. He is a non-executive director of Pool Reinsurance Company, a scheme established to provide cover for losses arising from terrorism. Previously he was a Director of the Investment Management Association and an alternate member of the Takeover Panel.

Mr William Burns
William "Bill" Burns is Chair of Vestergaard and Molecular Partners, and Vice-Chair of Mesoblast. He also serves as a trustee of the Institute of Cancer Research.

Bill has over 40 years' experience in the pharmaceutical and life sciences industry. He was a senior independent director of Shire Pharmaceuticals until April 2018 and was CEO of the global pharmaceuticals division of Roche Holdings from 2001 to 2009.

He previously chaired the funding committee of the Health Innovation Challenge Fund, a partnership between Wellcome and the Department of Health.

Dame Amelia Fawcett, DBE, CVO
Amelia Fawcett, a former investment banker and lawyer, has a career spanning financial services, media and telecommunications, investment management and government. In addition to 20 years at Morgan Stanley, she has extensive board experience including at the Guardian Media Group, The Prince of Wales's Charitable Foundation, the UK Treasury, the Court of the Bank of England and the London Business School.

Currently, she is the lead director of State Street Corporation in the USA, Chair of Kinnevik AB in Sweden and Chair of Royal Botanic Gardens Kew.

Richard Gillingwater, CBE
Richard Gillingwater is currently the Chair of SSE, the renewable energy and networks group, and Janus Henderson, a global asset manager. After a career in finance, he set up and ran UK Government Investments, created to manage the Government's state-owned businesses, and chaired the UK's development finance business, CDC, investing in Africa and Asia. He has also served as Dean of Cass Business School and as Chair of the Open University and has wide board experience.

Professor Bryan Grenfell, OBE, FRS
Bryan Grenfell is the Kathryn Briger and Sarah Fenton Professor of Ecology, Evolution and Public Affairs at Princeton University. He is jointly appointed at the Woodrow Wilson School and Department of Ecology and Evolutionary Biology.

With over 30 years' experience researching the population dynamics of infectious diseases, his research focuses on the epidemiology, evolution and vaccination control of infections such as measles and influenza. He has advised the UK government and the World Health Organization on the mathematical modelling and control of a variety of infectious diseases.

He is a Fellow of the Royal Society, the American Academy of Arts and Sciences, and the American Association for the Advancement of Science. He has also been awarded the T H Huxley Medal from Imperial College and the Scientific Medal of the Zoological Society of London.

Professor Dame Anne Johnson, MD, FRCP, FFPH, FRCGP, FMedSci
Anne Johnson is Professor of Infectious Disease Epidemiology, and Chair of the Population Health Domain, and formerly Vice Dean for international relations in the Faculty of Population Health at University College London. She was a co-founder of the university's Institute for Global Health.

After training in medicine at the University of Cambridge and Newcastle University, she specialised in epidemiology and public health and has a clinical research career spanning over 30 years.

Her research interests focus on the epidemiology and prevention of HIV, sexually transmitted infections and other infectious diseases. This includes sexual lifestyle studies, international HIV cohort studies, behavioural intervention studies, and the epidemiological and immunological determinants of seasonal and pandemic influenza transmission.

Anne is a Fellow of the Academy of Medical Sciences and has been awarded the Alwyn Smith Prize by the Faculty of Public Health.

Mr Naguib Kheraj
Naguib Kheraj is Deputy Chairman of Standard Chartered PLC – a major international bank – and Chairman of Rothesay Life, a specialist UK insurer. He has held many senior positions including Group Finance Director and Vice-Chairman of Barclays, CE0 of JP Morgan Cazenove and Chief Financial Officer of Salomon Brothers Europe.

Naguib has a long track record in the health and education sectors and currently spends a substantial amount of time as a Senior Adviser to the Aga Khan Development Network. He is also a member of the Finance Committee of Oxford University Press and has previously served on the Boards of the UK-US Fulbright Commission and NHS England. Naguib has also been a senior adviser to Her Majesty's Revenue and Customs and the UK's Financial Services Authority.

Professor Fiona Powrie FRS, FMedSci
Fiona Powrie is Director of the Kennedy Institute of Rheumatology, University of Oxford. She gained a PhD in immunology from the University of Oxford and then moved to the DNAX Research Institute in Palo Alto. She returned to the University of Oxford in 1996 where she was the Sidney Truelove Professor of Gastroenterology and Head of the Translational Gastroenterology Unit from 2009-2014.

Fiona's research is focused on interactions between the intestinal microbiome and the immune system. She identified the role of regulatory T cells in controlling intestinal inflammation and established the cytokine IL-23 as a therapeutic target in inflammatory bowel disease. She is particularly interested in translating basic research into clinical application. She leads the Oxford Biomedical Research Centre's Gastroenterology and Mucosal Immunology theme and recently established the Accelerated Therapy for Arthritis Programme, a clinical research network designed to increase the testing of novel therapies in the clinic.

She serves on a number of scientific advisory boards including the Lister Institute, the Imagine Institute in Paris and the Evergrande Centre in Boston. She received the Louis Jeantet Prize for Medicine in 2012 and was elected a Fellow of the Royal Society in 2011, EMBO in 2013 and the Academy of Medical Sciences in 2014.

Dame Cilla Snowball
Cilla Snowball has had a long career in advertising, including 26 years at the creative agency AMV BBDO, where she was Group CEO and Group Chairman, and pivotal in making it one of the most successful advertising agencies in the UK.

She has chaired the Women's Business Council, acted as a trustee of Comic Relief, and is a Non-Executive Director at the property investment and development company Derwent London plc. She chairs the GREAT Campaign Private Sector Council for the Department for International Trade.

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Wellcome exists to improve health by helping great ideas to thrive.

We support researchers, we take on big health challenges, we campaign for better science, and we help everyone get involved with science and health research.

We are a politically and financially independent foundation.

Further copies of this *Annual Report and Financial Statements 2019* are available from the Trust's website or upon request though emailing contact@wellcome.ac.uk

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