



## The Climate Bank & Climate Saving(s) Account

August // 2019

Private & Confidential

*Efforts to stabilise ‘climate change’ & arrest the ‘climate emergency’ will continue to fail (& waste money) until ‘normal’ people (you & me) connect with, contribute to & benefit from a systemic & sustained ‘climate solution’. The proposed Climate Bank (with ‘Climate Saving(s)’ & ‘Current Climate’ accounts offer such a solution. The idea is simple: People living in debtor countries (such as the UK), ‘settle’ their annual carbon debt through establishing a Climate Saving(s) account, through the deposit of savings equal to their debt. Debt profiles will initially be based on income adjusted national profiles, but will subsequently become more bespoke via individual use of the Current Climate account payments system. A portion of the interest earned from these savings (i.e. carbon ‘debt service’) is then redistributed back to creditor countries. Interest is earned through the returns gained by the Climate Bank through investing the savings into the ‘decarbonising’ fixed income & equity capital markets. It’s time to act ... & the actors must be you & me*

# Climate Bank

## Glossary Of Key Terms

**Climate Change** - The process of steady global temperature increase, partly caused by the day to day release of Greenhouse Gas Emissions [GHG]

**Greenhouse Gas Emissions [GHG]** - Gases released into the atmosphere largely via the combustion of fossil fuels necessary for energy production purposes (e.g. driving)

**Carbon Profiles** - The estimated quantity of GHGs released per person per year (via their lifestyle / consumptive habits)

**Carbon Budget** - The estimated maximum quantity of GHGs released per person per year in order to stabilize **Climate Change** (at a 2 degree temperature increase)

**Carbon Debt** - The result of individual **Carbon Profiles** being greater than individual **Carbon Budget**

**Carbon Credit** - The result of individual **Carbon Profiles** being less individual **Carbon Budget**

**Climate Saving(s) Account** - A savings account, whereby individuals deposit money (initially equal in value to their notional Carbon Debt) and earn interest

**Current Climate Account** - An account for purchases, that helps refine & improve individual Carbon Profiles

**Decarbonising** - The process of removing dependency on fossil fuels to power production activities and consumption patterns

# Climate Bank

## Overview

*The lack of progress in tackling 'climate change' combined with increasing grassroots environmental activism has led to the UK declaring a national 'climate emergency'. Unlike prior climate protests, 'Extinction Rebellion' has succeeded in capturing the attention of the public, media and politicians. For 10 days in April, tens of thousands of people committed acts of civil disobedience (e.g. blocking traffic across the Thames, gluing themselves onto trains and blockading the stock exchange). And it apparently worked: The protests led to two separate parliamentary debates, and these were capped by the successful 'climate emergency' motion.*

*The UK media has also mentioned climate change more in April & May (2019) than it has at any other time in the last five years - including during the Paris Agreement negotiations in 2016. Public opinion is apparently shifting. Some have put that down to David Attenborough broadcasting a hard-hitting climate documentary, *The Facts*, on BBC One. Others point to Greta Thunberg (the 16-year-old Swedish student climate activist who initiated the school strike for climate movement last year, who visited the UK over Easter). Irrespective, a poll published this week found that nearly **63 per cent** of the British public supported the UK declaring a climate emergency and **76 per cent** would vote differently to protect the planet against climate change.*

**So, what next? What can people actually do when global, co-ordinated and sustained action is the only course of effective action?**

The following slides introduce the concept of a **Climate Bank**, a **Climate Saving(s) Account** & a **Current Climate Account** (for every day expenditures)

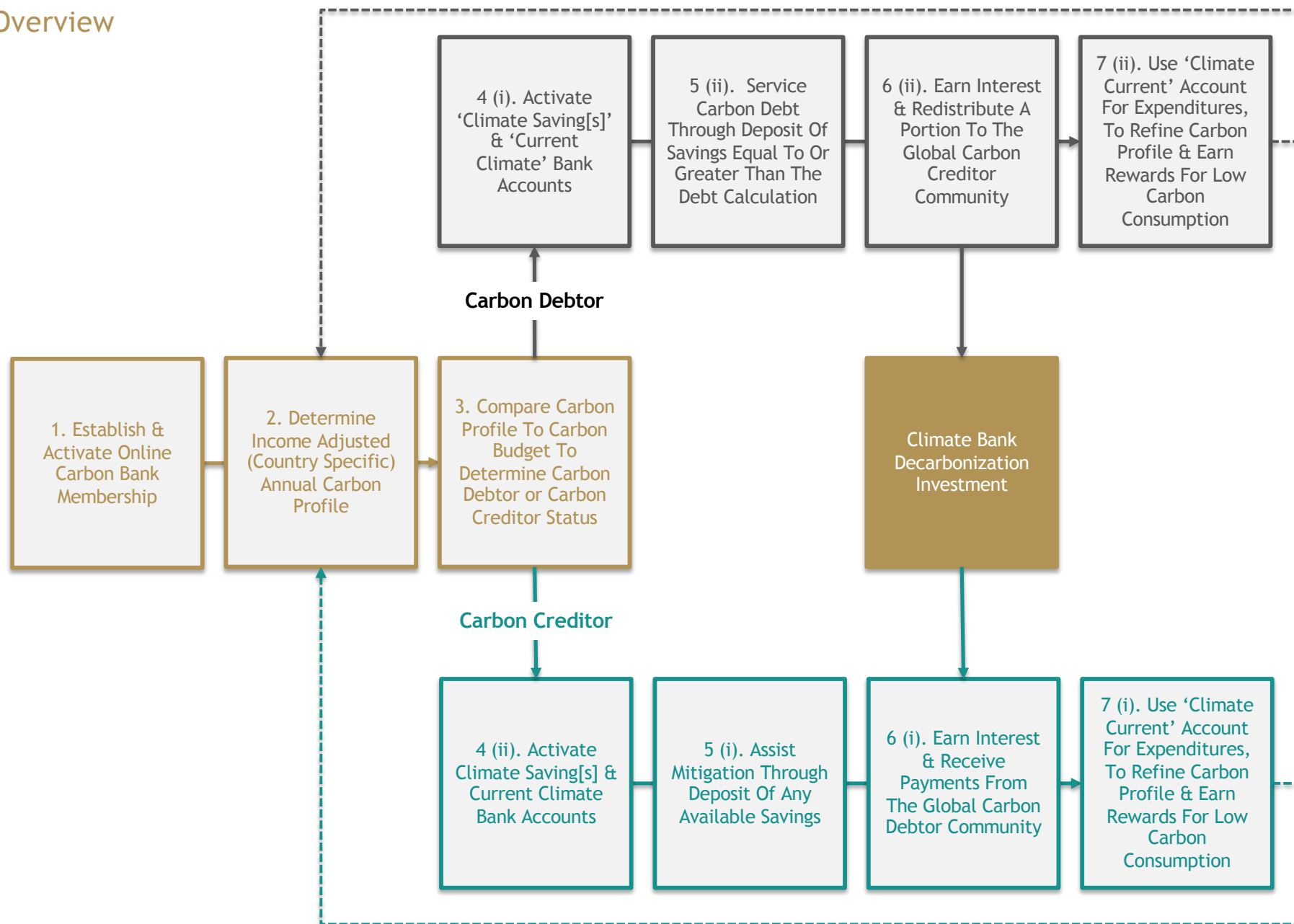
In essence, the **Climate Bank** would enable people to contribute to and earn from mitigating 'climate change' and abating the 'climate emergency', by allocating savings to a **Climate Saving(s)** account. **The Climate Bank idea (in this version or alternative iterations for non-retail banks) is capable of fully democratising sustainable investing.** The Climate Bank would then solely invest these savings in economic activities that are 'decarbonising'. Specifically, investing in decarbonising opportunities within fixed-income capital markets (e.g. 'green' bonds) and decarbonizing opportunities in equity capital markets (e.g. a carbon-tilted index tracker fund). The financial returns gained from this investment strategy would inform the (climate) savings interest rate. At a minimum, the interest rate would out-compete the conventional saving account interest rates. The Climate Bank distinguishes between account holders who are **Carbon Debtors** and those who are **Carbon Creditors**. The former are individuals with estimated annual emissions of Greenhouse Gases greater than the annual **Carbon Budget**. The latter are individuals with estimated annual emissions of Greenhouse Gases less than the annual Carbon Budget. The Carbon Budget is the per person emission allowance necessary to achieve emission reductions that stabilise temperatures at a 2 / 1.5 degree increase. Each year, to reflect and address the carbon debtor-creditor dynamic, the Climate Bank will re-distribute a portion of the aggregate debtor interest earned to the creditor community<sup>1</sup>.

The following slides further explain and exemplify the overall concept. Page 5 illustrates the process of establishing an account, determining debt & credit status and the mechanism for redistribution. Pages 6 to 8, exemplify the debt profiles for the UK, Japan & South Africa. Page 9, illustrates the potential size of the annual savings if there's a 10 per cent uptake across the 75 debtor countries. Page 10 demonstrates how the portion of interest (earned by debtors) to be redistributed (to creditors) is calculated. Page 11, exemplifies how the total redistribution fund can be allocated across creditor countries.

1 - <https://www.wri.org/blog/2019/04/how-much-should-countries-contribute-green-climate-funds-replenishment>

# Climate Bank

## Overview

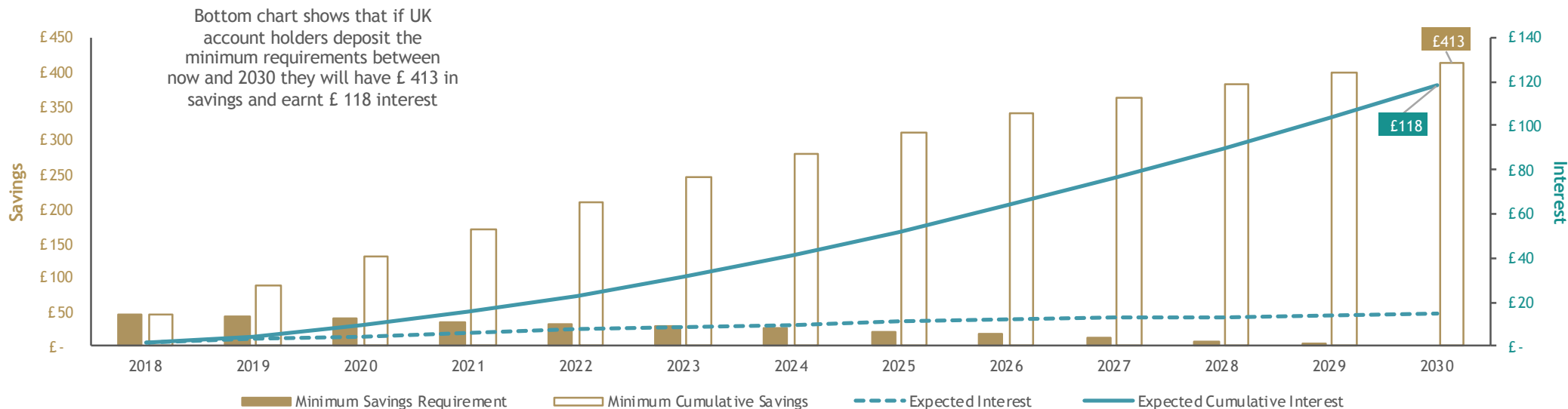
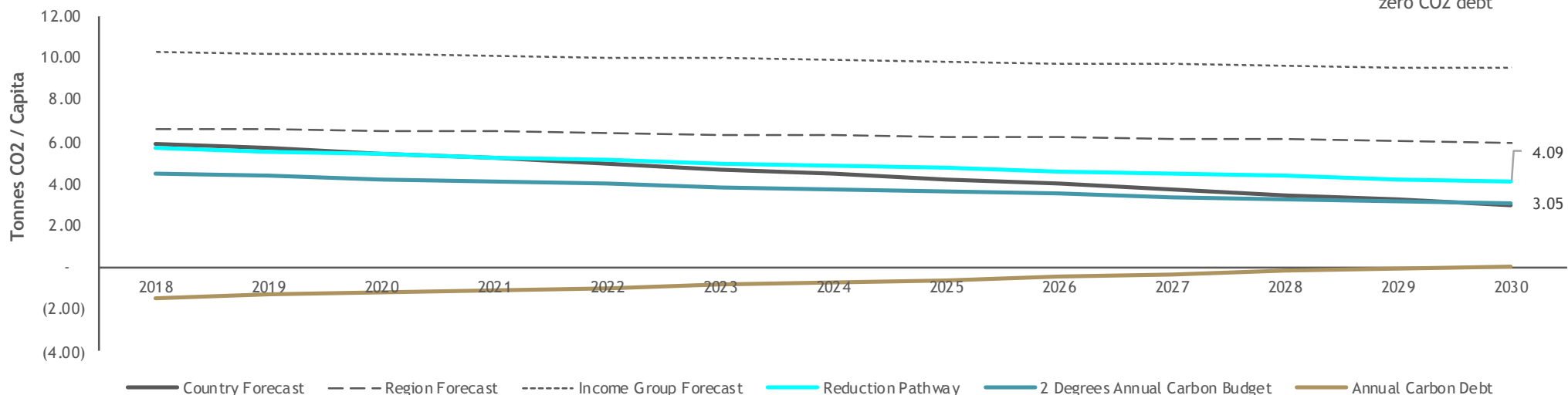


# Climate Bank

## Country Carbon Profiles, Budgets & Debt United Kingdom

Top chart shows the UK (according to forecast) will surpass the reduction pathway and outperforms the regional and income group profile

Accordingly in 2030 the annual individual carbon profile will equal 3.05 T CO<sub>2</sub>. The global budget will equal 3.05 T CO<sub>2</sub>. Therefore, on average, UK individuals will have a zero CO<sub>2</sub> debt



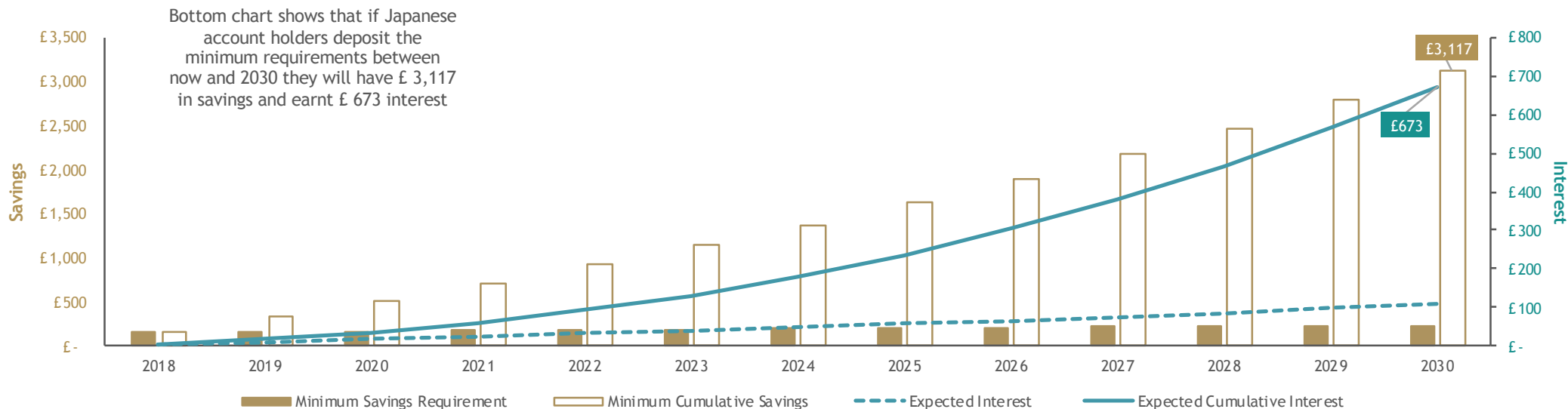
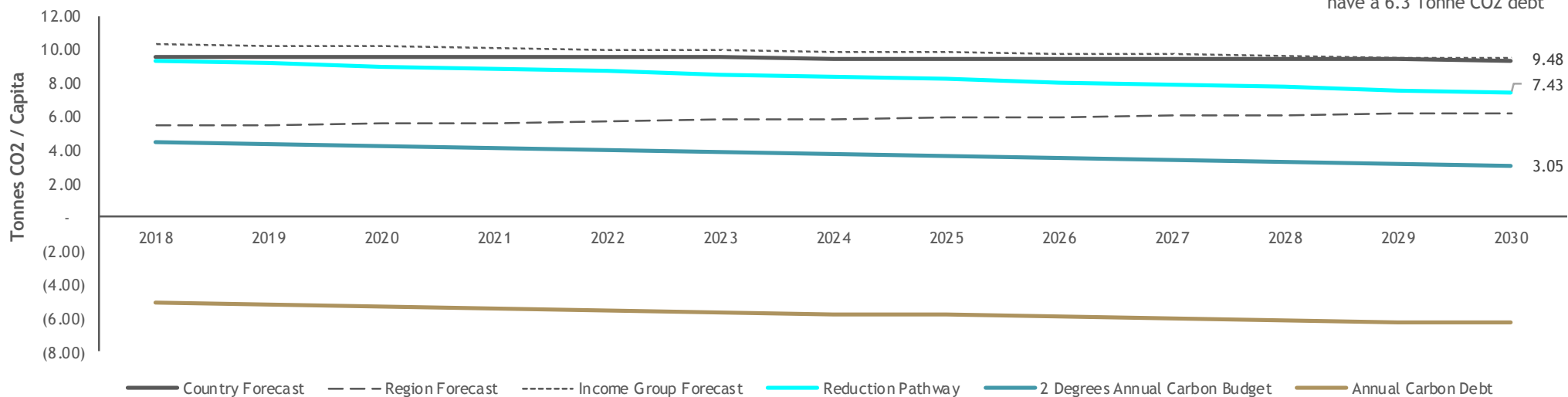
# Climate Bank

## Country Carbon Profiles, Budgets & Debt

### Japan

Top chart shows Japan (according to forecast) will increasingly deviate from the reduction pathway and underperforms the regional profile

Accordingly in 2030 the annual individual carbon profile will equal 9.48 T CO<sub>2</sub>. The global budget will equal 3.05 T CO<sub>2</sub>. Therefore, on average, Japanese individuals will have a 6.3 Tonne CO<sub>2</sub> debt



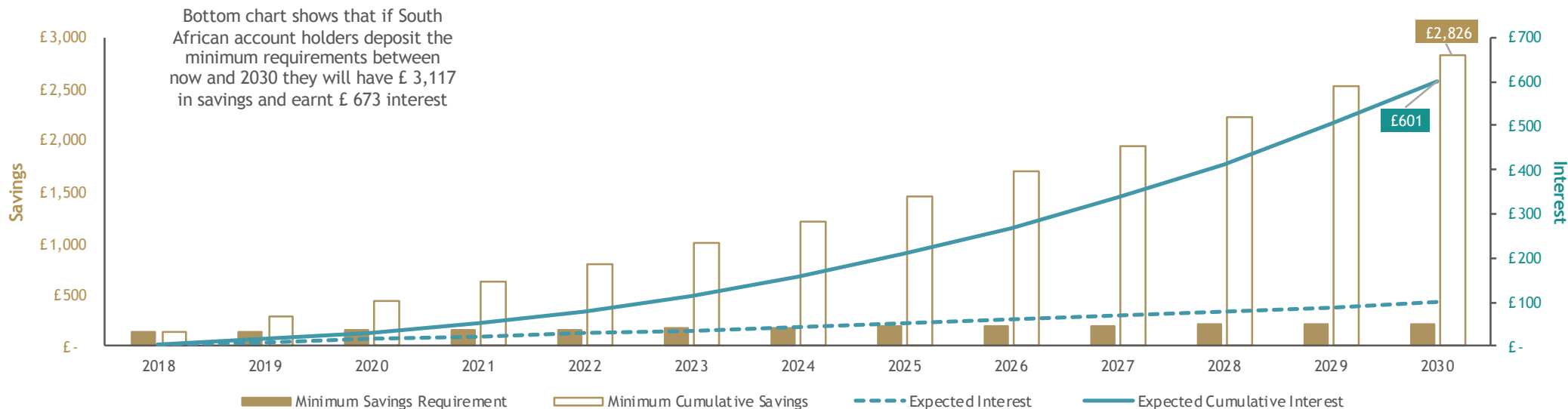
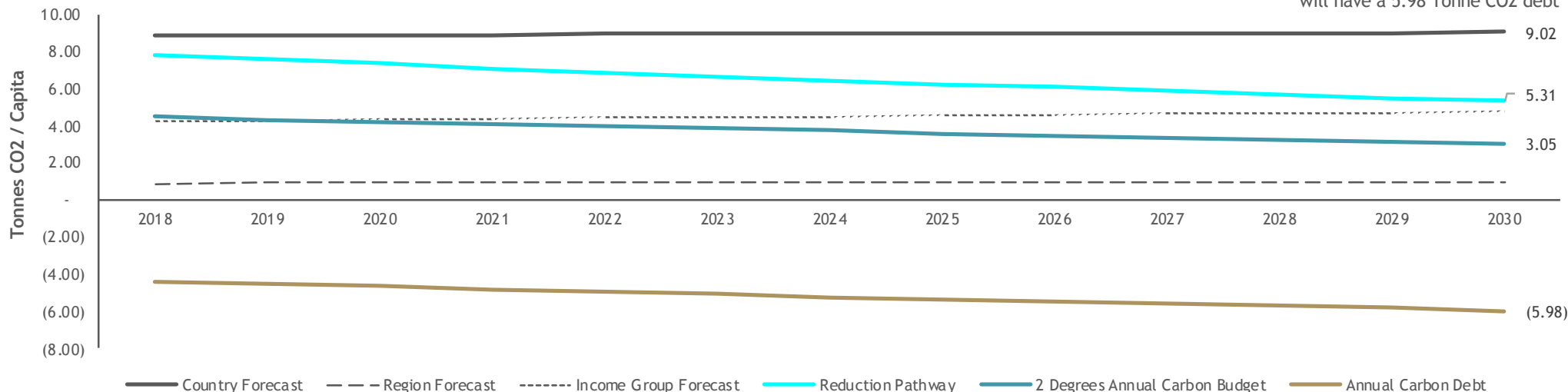
# Climate Bank

## Country Carbon Profiles, Budgets & Debt

### South Africa

Top chart shows South Africa (according to forecast) will increasingly deviate from the reduction pathway and underperforms the regional profile

Accordingly in 2030 the annual individual carbon profile will equal 9.02 T CO<sub>2</sub>. The global budget will equal 3.05 T CO<sub>2</sub>. Therefore, on average, South Africa individuals will have a 5.98 Tonne CO<sub>2</sub> debt



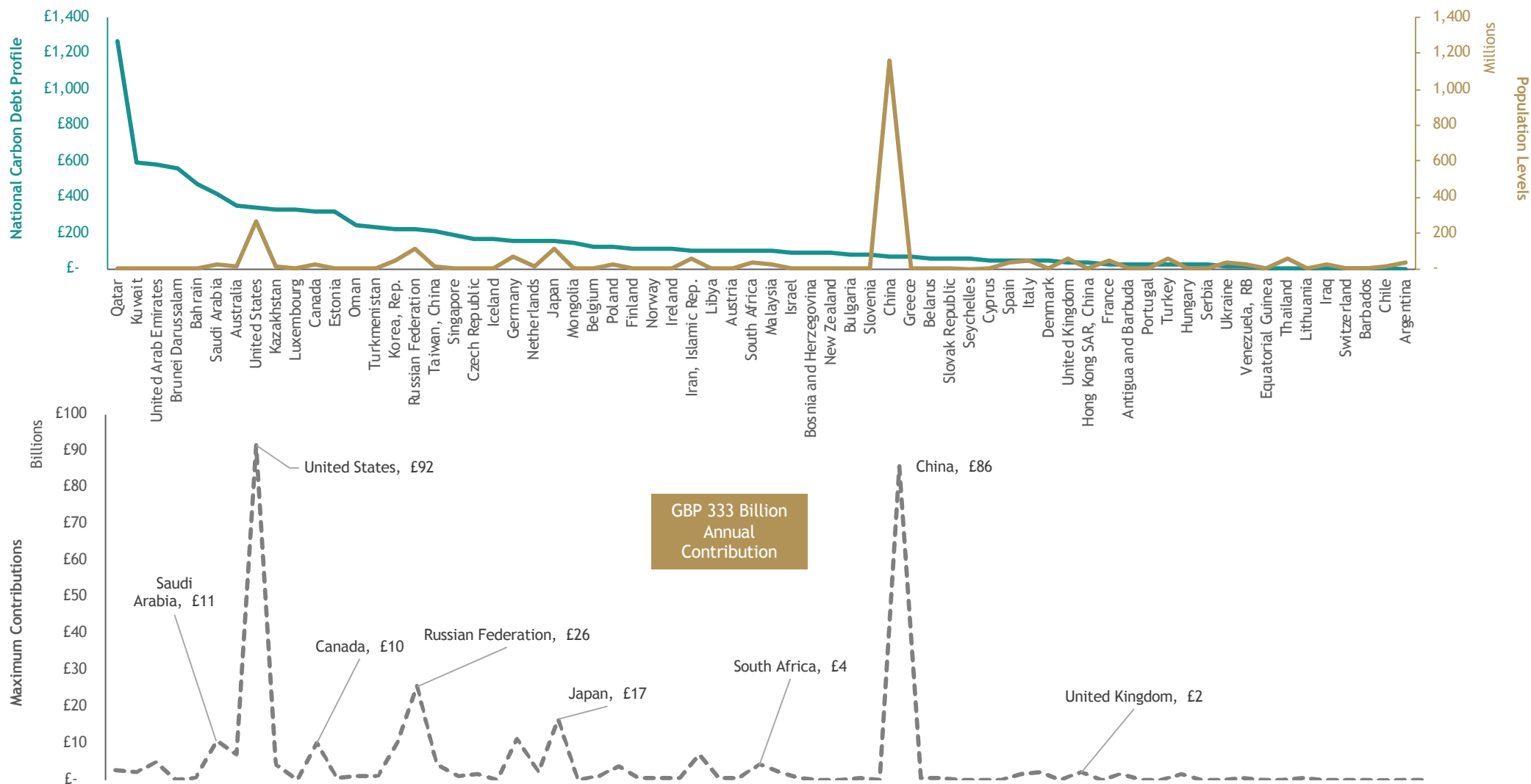
Bottom chart shows that if South African account holders deposit the minimum requirements between now and 2030 they will have £ 3,117 in savings and earn £ 673 interest



# Climate Bank

## Country Carbon Debts

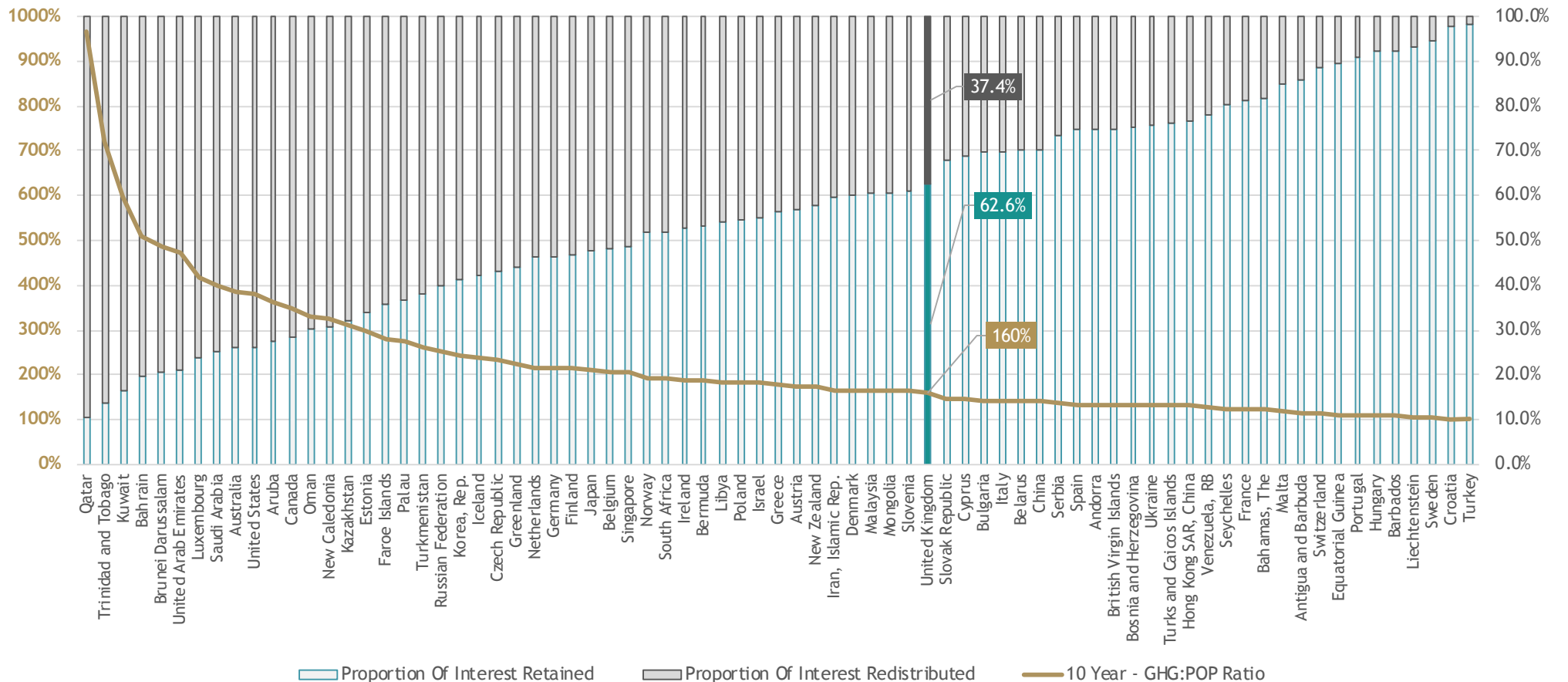
Country Minimum Carbon Saving(s) Deposits, Adult Populations (Potential Account Holders), Maximum Annual Contributions



# Climate Bank

## Carbon Debtors

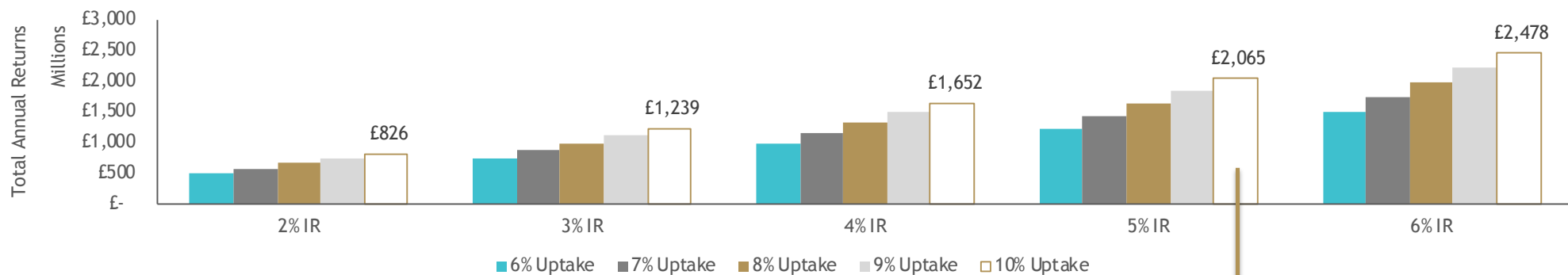
The proposed Climate Bank will address the 'climate debt' issue - whereby 'less developed nations' are being asked to commit to systemic decarbonisation despite 'climate change' being the the by-product of 'more developed nations' consumptive habits. This is achieved by redistributing a proportion of the interest earned (only on the minimum requirements) by debtors to creditors. The proportion is a function of past performance, specifically the ratio of a country's global CO2 emission proportion to global population proportion, over 10 years. If the ratio is greater than 1, the country has been using more 'CO2 assimilation capacity' than is equitable, given CO2 assimilation and 'climate stability' is a true global public good. The following chart illustrates the proportions across the 75 debtor countries for the year 2020 (on this 10 year basis). The UK's 10 Year CO2 to Population Ratio is 160 per cent. Therefore the proportion of global CO2 emission were 60 per cent greater than the proportion of global population over a 10 year period. For interest, over 20 years this ratio equalled 190 per cent. The implication of this 10 year ratio is that 37 per cent of interest earned in 2020 on the minimum saving requirement would be allocated to the global redistribution fund and then to carbon creditors.



# Climate Bank

## Carbon Creditors

For each year, the relative proportions of interest earned by carbon debtor countries are allocated to carbon creditor countries (via the Carbon Saving Fund). For example, in one year, a 10 per cent uptake of the Carbon Saving(s) account (across the 75 debtor countries), utilising £ 32 / Tonne CO2 establishes, a £41 Billion Carbon Saving Fund (the result of every Account Holder paying / saving £32 per tonne of CO2 for every tonne their Carbon Profile exceeds the global Carbon Budget). Utilising a 5 per cent 'blended' interest rate (reflecting the returns from the likely capital allocation across (carbon light) fixed income and (carbon light) equity capital markets, the gross returns equal £ 2 Billion. Of this £2 Billion, 54 per cent is redistributed back to the creditor countries and 46 per cent is retained by the Account Holders. **Of course, any savings in excess of the the annual Carbon Debt retain the full interest rate earnings; therefore no dis-incentive to allocate more capital to the Climate Bank (in order to further support and further earn from decarbonisation).**



54 per cent of Total Annual Returns distributed across Carbon Creditor Countries according to population and historical carbon profiles

Annual Payment Of £ 1.1 Billion



Thank You

