CARBON IRA
ADDRESSING CLIMATE CHANGE BY REWARDING CARBON REDUCTION

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THE CHALLENGE - REWARD PEOPLE FOR CONSUMING LESS

• Economic growth and consumption strongly correlated to increased carbon footprint until non-carbon energy sources replace carbon-intensive fossil fuels
• The science is unequivocal – carbon -> adverse climate -> social/cultural upheaval
• Drive the complex adaptive system “economy” towards LESS overall consumption and drastically reduce carbon footprint by rewarding people for consuming less, rather than driving GDP growth by encouraging more consumption

AN INNOVATIVE (RADICAL) SOLUTION

The carbon individual retirement account (Carbon IRA) – reward individual behaviors which reduce carbon footprint by converting the avoided carbon into funds deposited into a retirement account
• Overcomes reliance on fluctuating energy prices as the principal means of addressing energy consumption and consumer choices
• Addresses anemic retirement savings rates (at least in the USA)
• Does not require new taxes or legislation (to initiate)
• Accelerates appropriate behaviors (solar PV adoption, electric vehicles, non-carbon electricity purchases) rather than asks for new, unfamiliar ones
• Avoids onerous top-down regulatory frameworks

IDENTIFY & EXPLORE CORRELATED SUBSYSTEM IMPACTS

• Sufficient avoided carbon value to drive C-IRA participation
• Effect of lost economic activity in some sectors if C-IRA adopted at large scale
• Tax policy and revenue impacts
• Impact of offering C-IRA on firm’s bottom line
• Potential impact on national retirement savings rates, social security, etc
• Potential reduction of national/global carbon footprint, e.g., quantify C-IRA acceleration the transition to non-carbon energy
• Consumer attitudes towards digital security and personal carbon tracking
• Positive unintended consequences, e.g., beneficial health affects from low, no carbon behaviors
• Negative unintended consequences, e.g., life cycle impacts of accelerated transition
• WHAT HAPPENS WHEN YOU REWARD LESS CONSUMPTION RATHER THAN MORE?

IMPLEMENT

• Select behaviors to be part of the program
  • Commuting by bicycle, walking, carpooling, mass transit
  • Rooftop solar electricity production (or purchased renewables)
  • Electric vehicle miles
  • Vegan lifestyle and diet
  • Track, verify, and validate behaviors
  • Calculate and annualize avoided carbon
  • Assign a price for carbon or refer to market mechanisms
• Convert avoided carbon into funds deposited into retirement investment accounts, loan payments (e.g., college), etc.

GET THE WORD OUT

CARBON-IRA requires support from experts in complexity modeling who are influential in academic and policy circles
• Perform the “computer experiments” (e.g., modeling and simulation) to reveal conceptual effects on carbon footprint, retirement savings rates, and economic impact
• Socialize results with early adopter private firms, retirement fund management sector, policy-makers, corporate sustainability directors, corporate executives, non-profit institutions, etc
• Initiate pilot programs in private firms and NGOs
• Seek legislative support for broader programs
• Carbon-IRA needs champions with reach and established advocacy

ABOUT ME

• President, Pearl Street
• BS, Chemical Engineering, Columbia University
• Electricity industry professional focused on innovation and technology
• Author of multiple professional books on electricity with interest in systems and complexity
• Avid cyclist

EARLY ADOPTERS

• High-growth firms (Google, Apple, Microsoft, Amazon, etc) with robust internal sustainability programs can simply add a Carbon IRA option to their existing employee compensation options
• Firms selling relevant products (e.g., car manufacturers and electric vehicles, utilities and non-carbon electricity, etc) can support and encourage C-IRA to drive business to non-carbon products/services
• Progressive academic institutions, NGOs, and urban governments with robust clean, smart cities long-term plans can add C-IRA to the strategy

POSITIVE FEEDBACK LOOP

Suppliers of low carbon solutions

Higher demand

Increased competition

Increased production

Low carbon services and goods at lower cost

Motivated consumers

Prl Street

Carbon IRA & YouTility

How Action Changes at Home and Work Changes the World

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What happens when you reward less consumption rather than more?