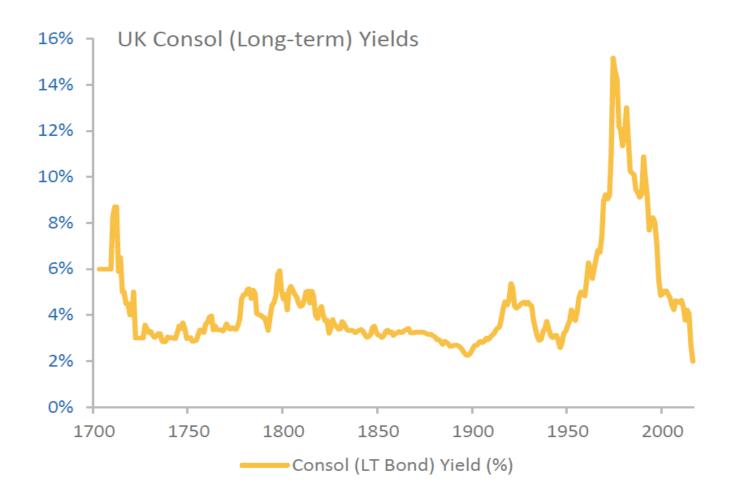
## Just a Temporary Trough? Long-term scenarios for the future development of r\*

By C.A.E. Goodhart Financial Markets Group London School of Economics The main thesis of our recent book, joint with Manoj Pradhan, was that inflation and <u>nominal</u> interest rates will rise. Whether <u>real</u> interest rates, and the equilibrium real rate, r\*, will rise, or stay low and negative, is far less certain, and depends on a variety of factors. In this lecture, I shall start by repeating why we expect both inflation and nominal interest rates to rise.

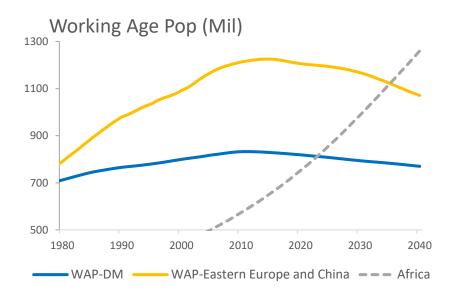
Then I shall record why I expect real interest rates to stay low and negative over the next couple of years, at least.

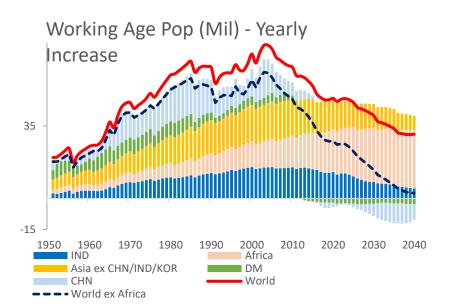
I shall end by listing the factors that in the medium and longer-term could either lead to a continuation of low and negative real rates, or to higher real rates.

#### First, Some History



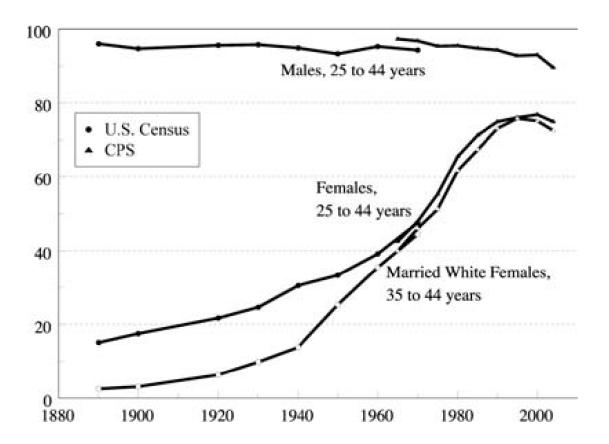
# Explosion of the available working age population, 1980-2010, and its subsequent reversal (ex Africa, India)





#### The Quiet Revolution That Transformed Women's Employment

Labour force participation rates for females and males by age and marital status: 1890-2004

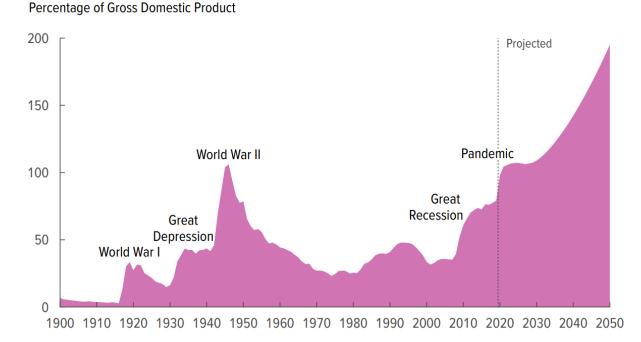


Source: Goldin (Richard T. Ely lecture, 2006)

#### Debt falls after wars, but that will not apply to ageing

#### **Debt and deficits**

Federal debt held by the public is projected to equal 195% of GDP in 2050, and the deficit is projected to equal 13% of GDP



In CBO's projections, federal debt held by the public surpasses its historical high of 106 percent of GDP in 2023 and continues to climb in most years thereafter. In 2050, debt as a percentage of GDP is nearly 2.5 times what it was at the end of last year.

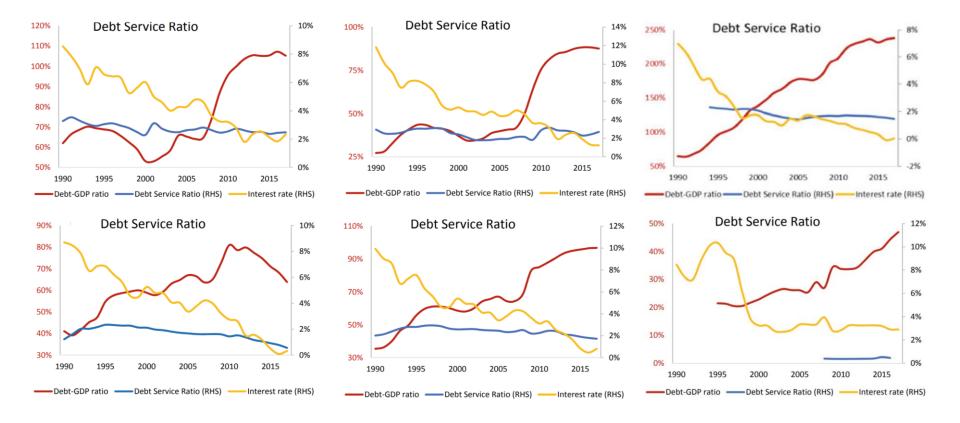
### The endgame? Inflation

## **Dealing with Debt**

- Growth unlikely
- Productivity yes, but modest
- Taxation the 'right' solution, but politically difficult
- Monetary activism will be problematical so long as debt ratios remain so high
- Inflation unattractive, but necessary

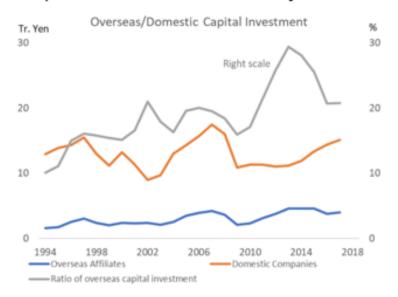
Why Didn't It Happen in Japan?

#### Spot the Difference



#### "Why didn't it happen in Japan" – A Revisionist History

#### Japan Inc. Invested Heavily Abroad

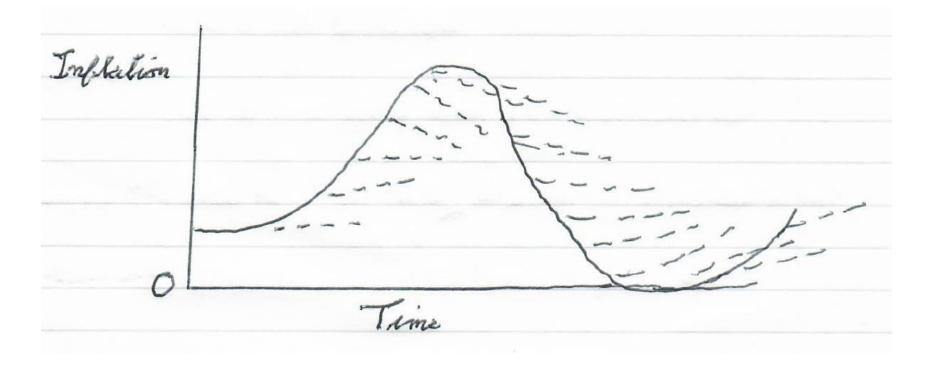




Let us now turn from a consideration of inflation and nominal rates separately to thinking instead about their inter-relationships, the 'real rate of interest'.

We need to distinguish between ex ante (expected) and ex post (outcome) real rates. Ex ante real rates are somewhat less variable, as forecasts, especially of inflation, can be systematically wrong. Ex post real rates were exceptionally variable between about 1973 and 1985.

### **Nominal Forecasting Errors**



r in the short run:-

- 1) Policy commitment
- 2) Systematic underestimate of future inflation
- 3) Debt ratios
- 4) Interest rates have larger effect on output, and less on inflation, when firms are financially fragile.

Long-run considerations for r\*:-

- a) Factors perpetuating low, (maybe negative), r\*.
  - 1) Low growth, but how measured
  - 2) Momentum/continuation
  - 3) Rising desired W/Y ratios (Auclert et al.)
  - 4) Debt ratios remaining high
  - 5) Other? (Lower benefits for old)

- b) Rising real rates, via r\*
  - 1) Inflation lowers debt ratios
  - 2) Climate change
  - 3) Less inequality, lower corporate profitability
  - 4) Housing
  - 5) Rising age of having children
  - 6) Less globalization, invest at home
  - 7) Other? (Political dislike of inflation)

# What is the balance between (a) and (b)? You will find out.