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Economic and demographic choices facing the

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What the papers said

22 The Guardian Monday November 1st 2004
Business

Migrants 'key to pension crisis'

Foreign workers needed to boost tax take

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What the papers said

The Independent on Sunday| 21st November 2004
BUSINESS| 11

The policy that dare not speak its name has a big part to play in solving a £54bn crisis

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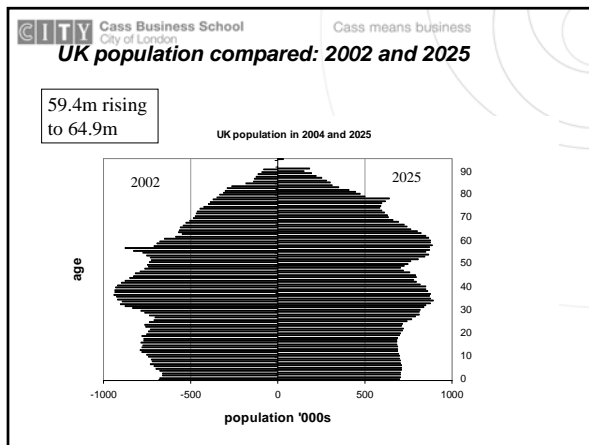
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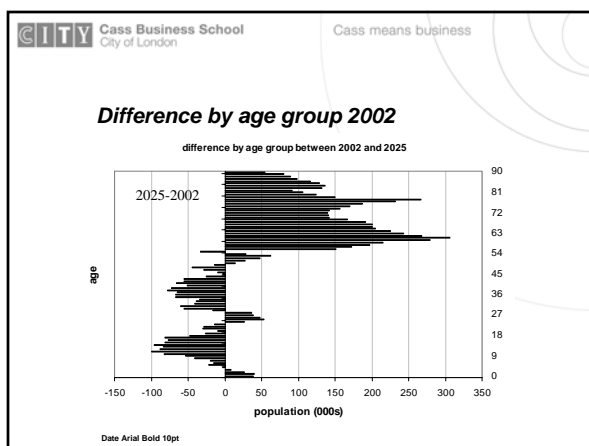
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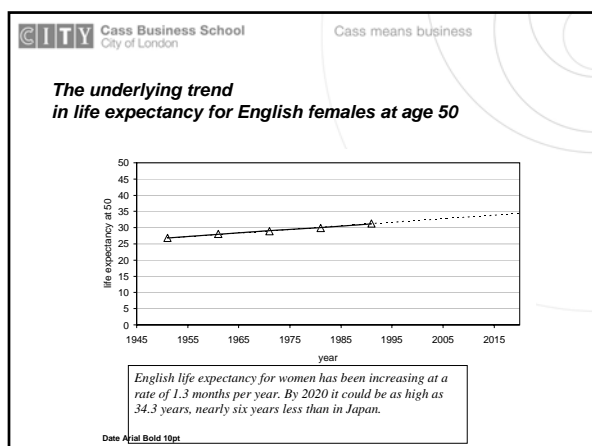
Outline of talk

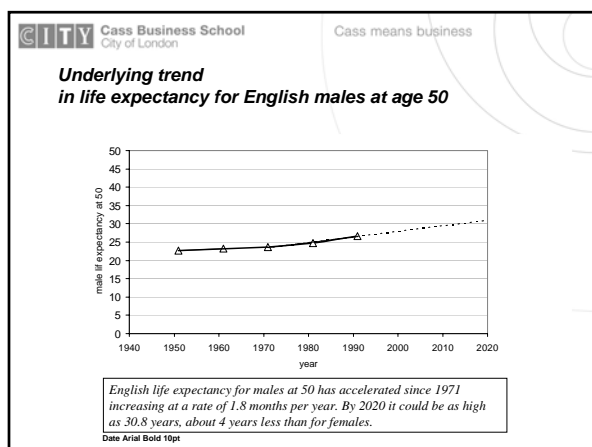
- Brief overview of the future population structure of the UK
- Brief sketch of UK pensions including the role of the basic state pension and entitlement
- A model of the basic state pension and its affordability based on economic and demographic considerations
- Scenarios including the contribution of immigration and most likely options
- Contrast with the current policies of the main political parties

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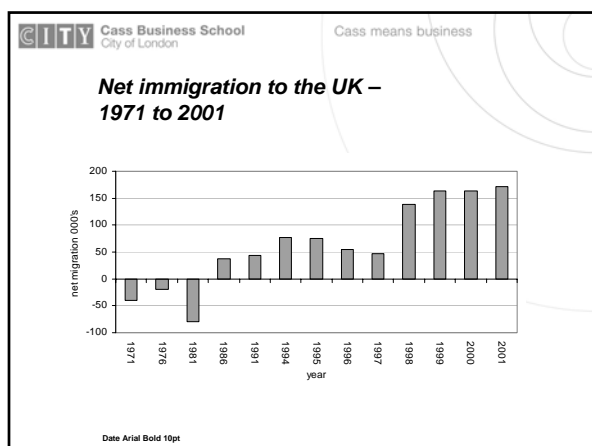








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- Key demographic features in
GAD's assumptions**
- Fertility at 1.74 per woman
 - The 2000-based and 2001-based GAD projections assume that the annual rates of mortality improvement will converge to a common reduction of 0.75% at each age in 2025
 - The long-term unadjusted net migration assumption for the 2002-based projection was 130,000
 - By 2031, 15.2m will be over 65 compared with 9.6m in 2004
 - The population will increase from 59.2m to 64.8m in the same period.
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Pension structure in the UK

Pillar	1 st tier	2 nd tier	3 rd tier	4 th tier
State	Universal flat-rate pension	State earnings related pension (SERPs)		Means-tested benefits Pension credit Benefits in kind e.g. travel concessions, help with daily living.
Employers		Occupational pensions		
Individuals			Private pensions	Earnings, savings, investment income, other capital including property

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Pay as you go (PAYG)

“An arrangement under which benefits are paid out of revenue and no funding is made for future liabilities. The basic state pension is a pay as you go scheme”.

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Entitlement to the basic state pension

If you are a man you normally need to have 44 qualifying years to be entitled to the full basic State Pension. A qualifying year is a tax year in which you have sufficient earnings upon which you have paid, are treated as having paid or have been credited with, National Insurance contributions


If you are a woman, you normally need 39 qualifying years to get the full basic State Pension

If you are a woman you can sometimes qualify for a basic State Pension based on the National Insurance contributions of your husband.

If you don't qualify for the full basic State Pension, but have 25 per cent or more of the qualifying years, you will get a basic State Pension between the minimum (£19.90) and the maximum (£79.60) weekly amounts.

If you have fewer than 25 per cent of the qualifying years then you're not normally entitled to receive any basic State Pension, but you can get a 'non-contributory' State Pension if you are 80 or over.

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Modelling concepts


To be viable, there must be a balance between the revenues generated through National Insurance Contributions (NICs) and the pension paid out.

We measure any deficiency in revenues relative to payments in terms of 'contributor shortfall', which is defined as the number of person-contribution years that would be needed to balance inflow and outflow.

Our direct policy levers to ensure balance are:

- real pension levels
- pensioner numbers
- pension age
- contribution rates
- growth in real wages (arising from improved productivity)
- rates of economic activity

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The static model

$$F_t = N_t p_t - y_t c_t (W_t^{>50} a_t^{>50} + W_t^{<50} a_t^{<50}) + F_{t-1} \quad (1)$$

where:

F_t = the shortfall/surplus in the scheme

p_t = average value of the state pension

y_t = average real wage

N_t = number of people above state pension age and drawing a pension

c_t = contribution rate to the state pension scheme


$W_t^{<50}$ = population aged 20-49

$W_t^{>50}$ = population aged 50 and older

$a_t^{<50}$ = economic activity rate of the population aged 20 to 49

$a_t^{>50}$ = economic activity rate of the population aged 50 and older

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Concept of contributor shortfall/surplus

We can convert equation (1) into a 'contributor shortfall/surplus' by dividing throughout by the product of the wage rate and the contribution rate:

$$S_t = \frac{N_t p_t}{y_t c_t} - (W_t^{<50} a_t^{<50} + W_t^{>50} a_t^{>50}) + S_{t-1}$$


where $S_t = \frac{F_t}{y_t c_t}$ = contributor shortfall/surplus

The contributor shortfall (+) or surplus (-) between years is given by

$$m_t = S_t - S_{t-1} \quad (2)$$

where $m_t = S_t - S_{t-1}$ (and so the cumulative shortfall/surplus in units of 'contributor years' from year $t=0$ (the base year for the projections) to year T is $\sum_{t=0}^{T-1} m_t$).

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Dynamic version of the model


$$m_t = \frac{p_t(1+i)^t N_t}{c_t(1+k)^t y_t(1+j)^t} - (W_t^{<50} a_t^{<50}(1+l)^t + W_t^{>50} a_t^{>50}(1+m)^t) \quad (3)$$

where:

i, j, k, l, m = growth rates in real pensions, real wages, the contribution rate, and the activity rates for individuals below 50 and aged 50 and over from base year values $p_0, y_0, c_0, a_0^{<50}$ and $a_0^{>50}$, respectively

$N_{x,t}$ = the population over state pension age x in year t .

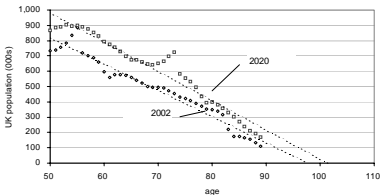
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Fitting straight lines to population over 50



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Estimating the population over a given pension age

It is easily shown using simple geometry that the population above state pension age x in year t is well approximated by:

$$N_{st} = \frac{A_t}{2} \left(x_{st} - x \left(2 - \frac{x}{x_{st}} \right) \right) \quad (4)$$


where:

N_{st} = population above retirement age x in year t

A_t = intercept with vertical axis from regression equation of UK population over 50 against age for year of projection t

x_{st} = intercept with horizontal axis from regression of UK population over 50 against age for year of projection t , and interpreted as the maximum age to which anyone lives for that projection year.

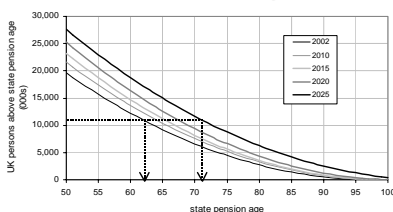
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The number of pensions in payment by retirement age and year



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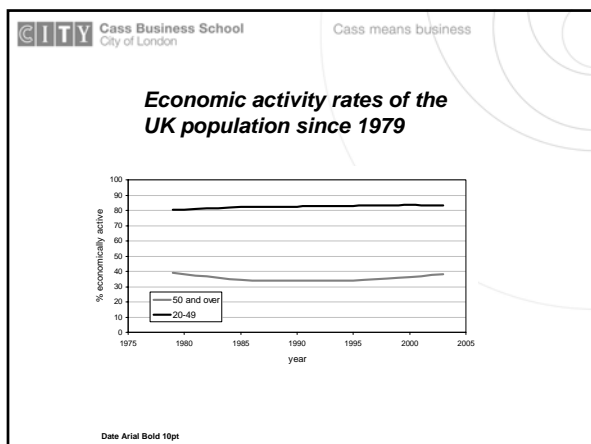
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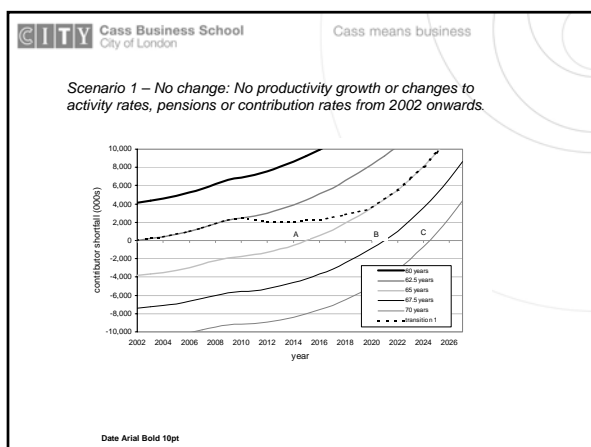
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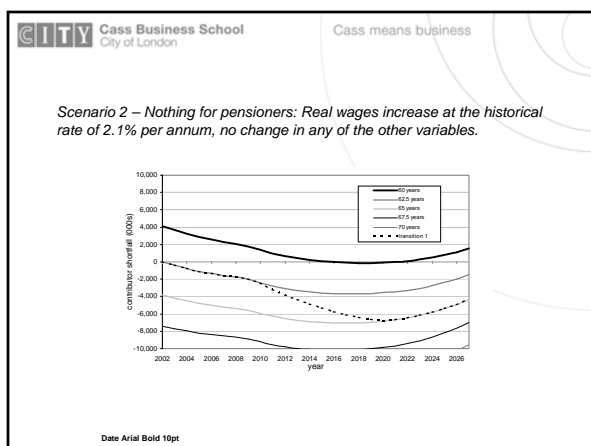
Baseline assumptions

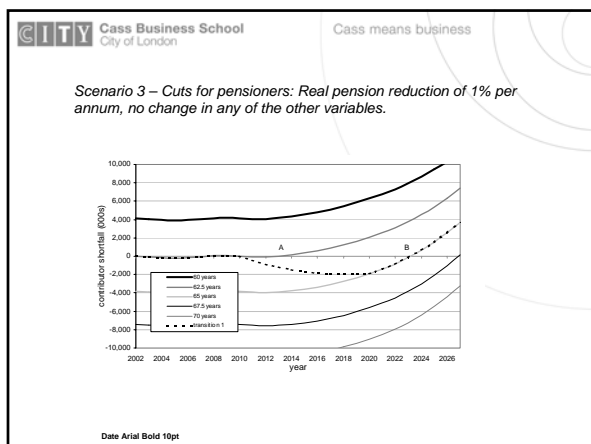
- The average pension paid to men and women in 2002 was £3950 per annum.
- The average gross wage in April 2002 was £20,474 for male and female full and part-time employees
- The NIC lower earnings limit was £89 per week or £4628 per year in 2002, which we deduct from average earnings. We estimate the cost of state pensions equates to an implied contribution rate of 9.47% based on an average state pension age of 62.5 years for men and women in 2002.
- We use an initial activity rate of 83.6% for the under 50s and 36.3% for the over 50s
- In the UK, average real earnings have increased at the rate of 2.1% per annum since 1963.

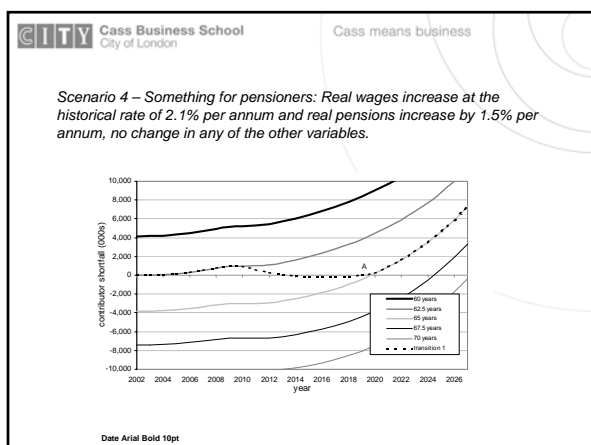
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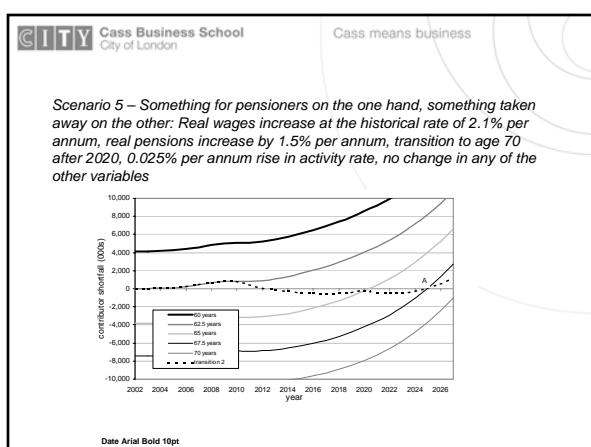


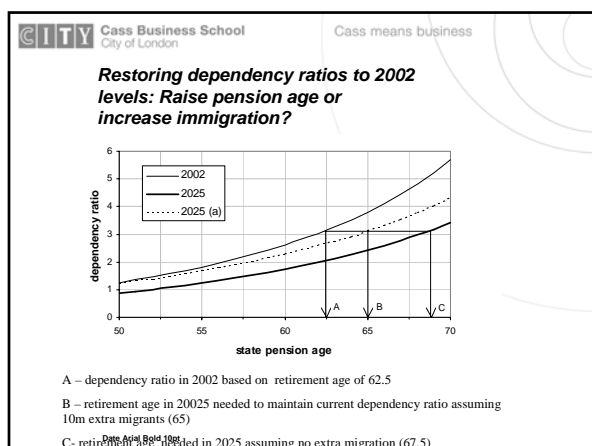












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Caveats

- A key assumption is that immigration is demand-led and brings in qualified immigrants with needed skills
- The rapidly changing nature of the global economy also needs to be considered. Even key services can now be provided internationally
- The impact of immigration on domestic wages also needs to be considered.
- Immigration is not an automatic pension scheme stabiliser but tends to respond to wage differentials and employment opportunities over the economic cycle
- Confirmation that immigration is not a long-term solution to population ageing is given in Coleman (2002, p586).

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Conclusion

If the next generation is smaller in number than the current generation, the current generation has to:

- accept a cut in its real pensions or
- contribute more whilst in work or
- increase productivity
- work longer and retire later or
- accept more immigration.

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Policies of the main political parties:
Labour

State Pensions: Use benefits' savings to design system with basic state pension at core; state pension age stays same; lump sums/higher payments for those working longer; special help for poorest.

Immigration: Will reduce asylum numbers by tougher rules on settlement and more deportations; electronic register of all crossing borders; skills-based points system for permanent immigrants

Work: "We are reforming the welfare state, and in particular, we are reforming incapacity benefit...There are now more people claiming Incapacity Benefit than claiming unemployment benefit. That situation cannot possibly be sustained." (Tony Blair, Hansard, 10 November 1999, col.1123)

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Policies of the main political parties:
Conservatives

State Pensions: Restore link between state pension and earnings by replacing New Deal; fund free long-term residential care via three-year state sponsored insurance scheme.

Immigration: Annual quotas for refugees and other migrants entering Britain; compulsory health checks; create offshore asylum processing centres; pull Britain out of UN refugee convention.

Work: It will provide rehabilitation to the estimated two-thirds of claimants (1.8m) with manageable conditions who could undertake some form of work and security for the remaining third (0.9m) who are unable to work.

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Policies of the main political parties:
Liberal democrats

State Pensions: Boost basic state pension by £25 a week and restore pensions-earnings link for over-75s; link pension to residency not national insurance payments; free long-term personal care.

Immigration: Back common EU asylum policy with fair sharing of asylum settlement; allow asylum seekers to work so don't rely on benefits; quota for immigrant workers from outside EU.

Work: "We need to give individuals the support they need to get back into work rather than just forcing them off benefits and into poverty, ... We would also introduce a Partial Capability Benefit so that those currently on incapacity Benefits whose conditions fluctuate or could do some work could take some paid work without the risk of losing benefits altogether".
Steve Webb MP, Liberal Democrat Shadow Work and Pensions Secretary

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