

Long-run Fiscal Sustainability: Cross Country Perspectives Who Will Pay? A Global Perspective

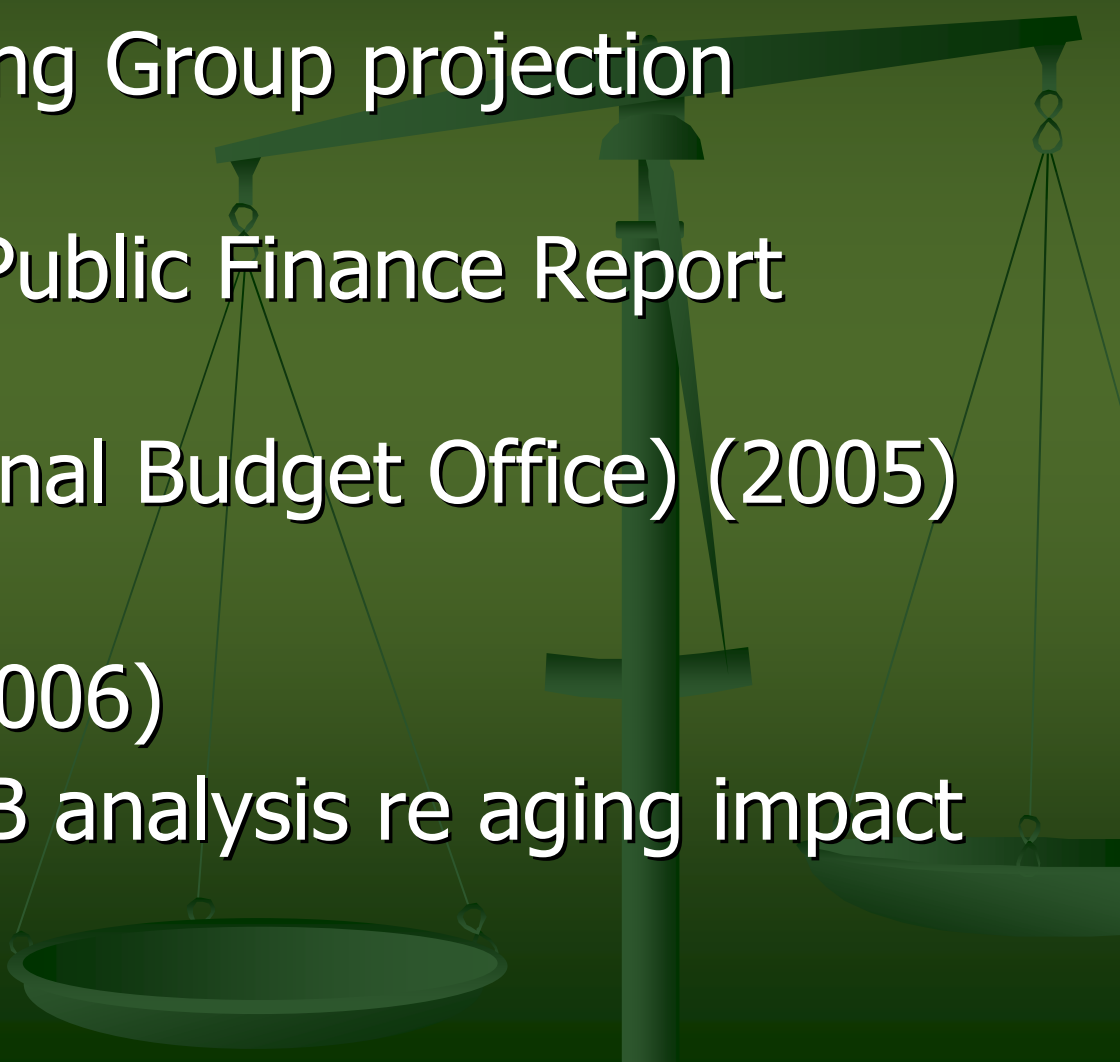
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Several alternative perspectives



- Long-term fiscal sustainability assessments carried out by national fiscal authorities
- Independent global risk analyses
 - Shell
 - World Economic Forum: Global Risk Network
 - Miscellaneous—Morgan Stanley; Global Business Network
 - World Bank
 - Dutch CPB: scenario analysis on the future of Europe
- Multiple region general equilibrium analyses-
 - Warwick McKibbin-Bryant (Brookings)
 - INGENUE model

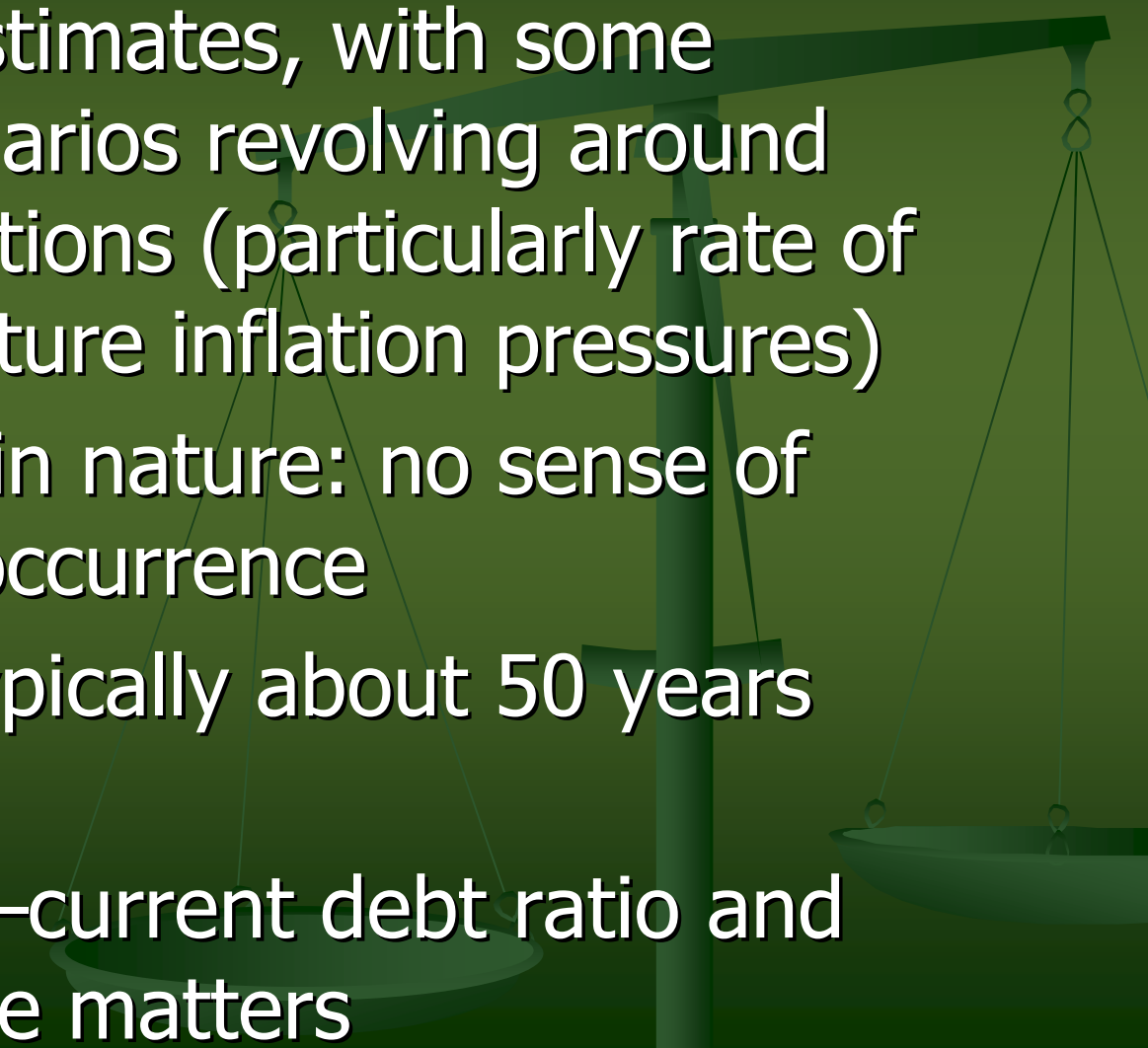
Long-term fiscal sustainability assessments: Limited number of countries that have carried out long-term fiscal reports

- EU Aging Working Group projection exercise (2006)
 - UK Long-Term Public Finance Report (2005)
 - US (Congressional Budget Office) (2005)
 - Australia (2002)
 - New Zealand (2006)
 - Netherlands-CPB analysis re aging impact
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Long-term fiscal sustainability assessments-1

- Most narrowly focus on the consequences for fiscal sustainability of an aging population: implications of change in demographic structure for spending on
 - Health, pensions, unemployment insurance, education
- Flow analyses: balance sheet estimates rare
- Principal nondemographic factor examined, if at all, are potential pressures in the health care sector
- Scenarios on alternative longevity/fertility rare
- Both revenue and non-age related expenditure shares held constant
- Periodicity of exercise: 1 – 4 years

Long-term fiscal sustainability assessments-2

- Mostly point estimates, with some additional scenarios revolving around critical assumptions (particularly rate of health expenditure inflation pressures)
 - Nonstochastic in nature: no sense of probability of occurrence
 - Time frame: typically about 50 years forward
 - Starting point—current debt ratio and primary balance matters
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UNITED STATES

Alternative Long-Term Paths for Primary Spending

(Percentage of gross domestic product)

	2010	2030 ^a	2050 ^a
Higher-Spending Path			
Defense	3.5	2.7	2.0
Social Security	4.2	6.0	6.6
Medicare and Medicaid	5.3	12.0	21.9
Other ^b	5.8	5.0	4.0
Total	18.9	25.6	34.4
Intermediate-Spending Path			
Defense	3.4	2.0	1.5
Social Security	4.2	6.0	6.4
Medicare and Medicaid	5.0	9.2	12.6
Other ^b	5.8	5.3	4.9
Total	18.4	22.5	25.3
Lower-Spending Path			
Defense	3.4	2.0	1.4
Social Security	4.2	5.9	6.3
Medicare and Medicaid	4.7	6.2	7.0
Other	5.5	3.8	2.7
Total	17.9	17.9	17.3

Source: Congressional Budget Office.

Note: Primary spending is the sum of spending for defense, Social Security, Medicare, Medicaid, and other spending (except interest).

- Minor differences in simulated gross domestic product (GDP) result in small differences among the paths in Social Security spending as a percentage of GDP and between the intermediate-spending path and the lower-spending path in defense spending.
- Other spending is lower in 2030 and 2050 under the higher-spending path than under the intermediate-spending path because this category includes premiums paid by Medicare enrollees, which are treated as negative outlays. Those premiums are larger under the higher path's assumption that excess cost growth is 2.5 percentage points.

Japan

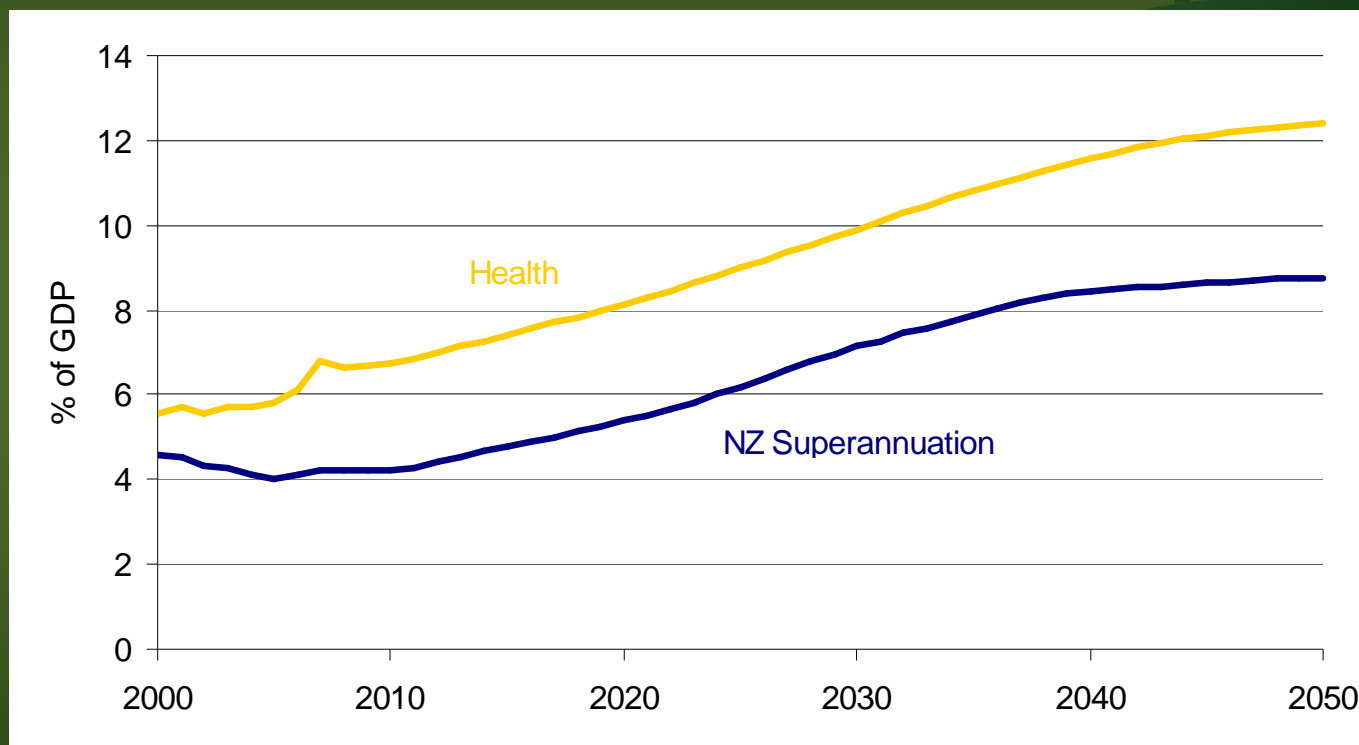
Base Simulation Results

	Primary balance (GDP ratio)	Tax Burden (GDP Ratio)	Social Security burden(GDP)ratio	Public pension benefit (GDP ratio)	Health insurance benefit (GDP ratio)
Actual	-8.48	15.62	9.69	7.75	5.89
Simulation Results					
	-3.3	21.14	9.65	10.16	5.06
	-2.43	22.21	10.18	10.73	5.21
	0.43	25.7	11.95	12.53	5.67
	3.46	29.62	14.24	15.2	6.21
	4.63	31.35	15.82	16.74	6.7
	4.72	31.75	16.6	17.42	7.14
	5.19	32.62	17.53	18.37	7.62
	5.55	33.54	18.91	19.87	8.16
	5.72	34.54	21.02	22.35	8.66
	5.78	35.15	22.42	23.85	9.12
	6.2	35.93	23.27	24.68	9.59

Note: The Social security contribution rate is defined as the ratio of the total amount of social security contributions to the total amount of wage income.

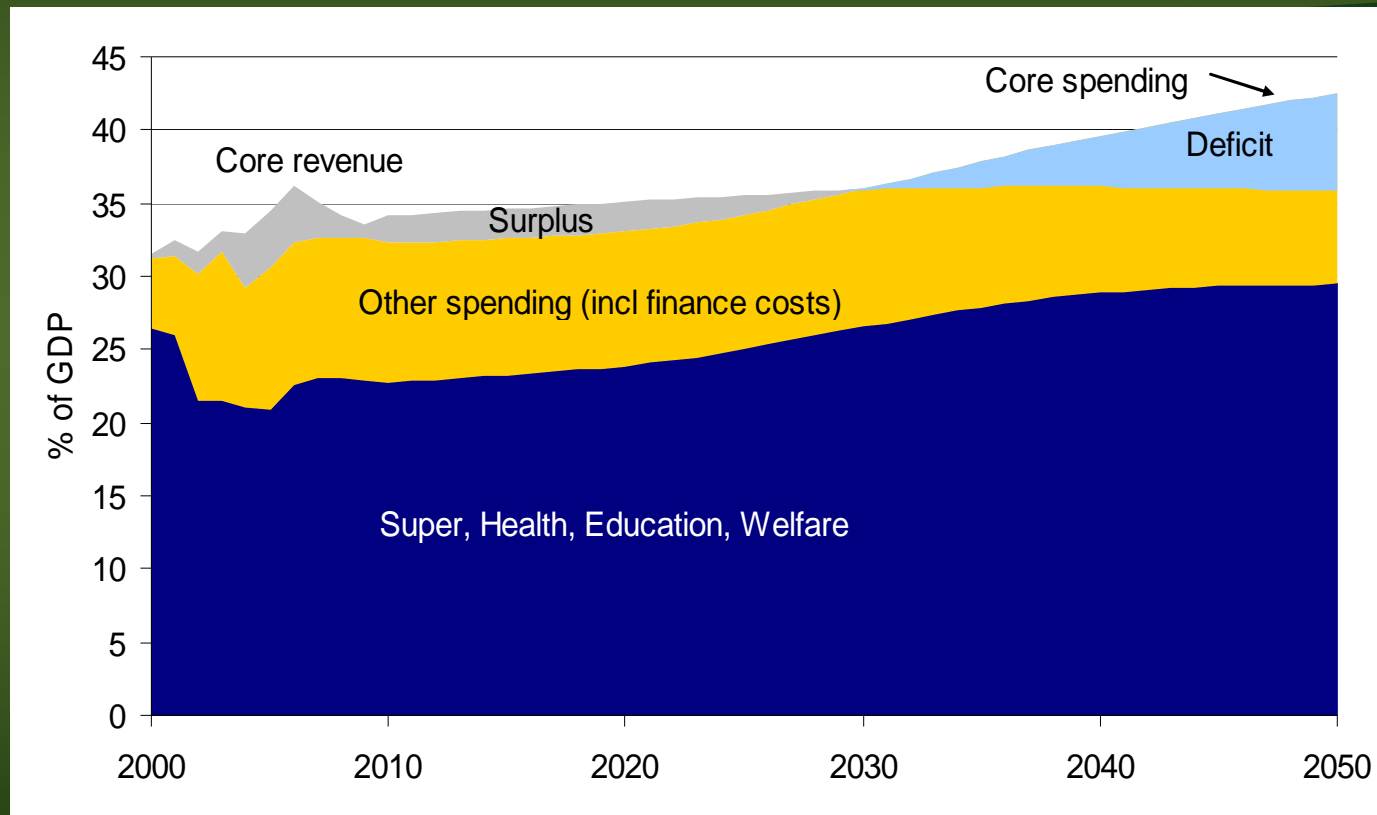
New Zealand

Superannuation and health spending more than double



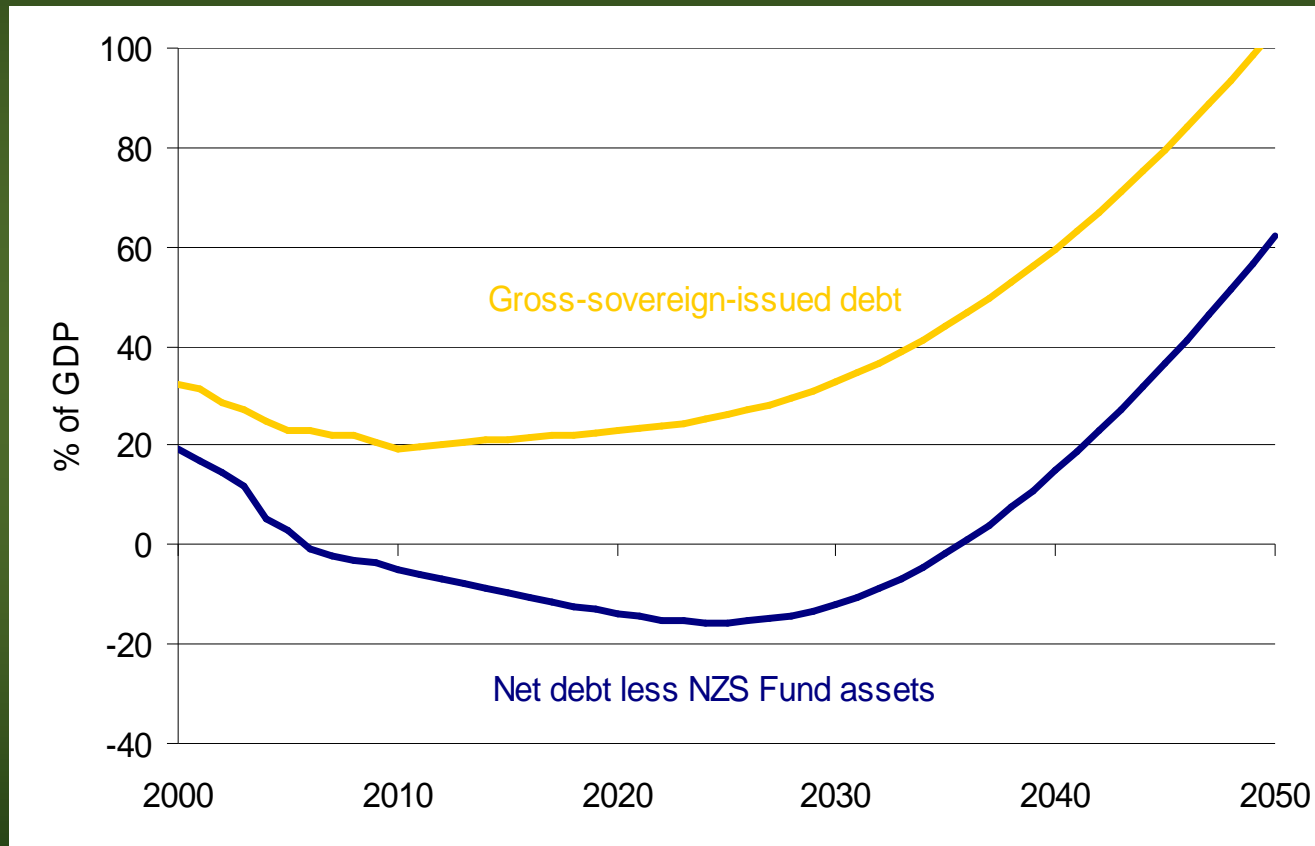
New Zealand

Growth in spending eventually outpaces the tax base



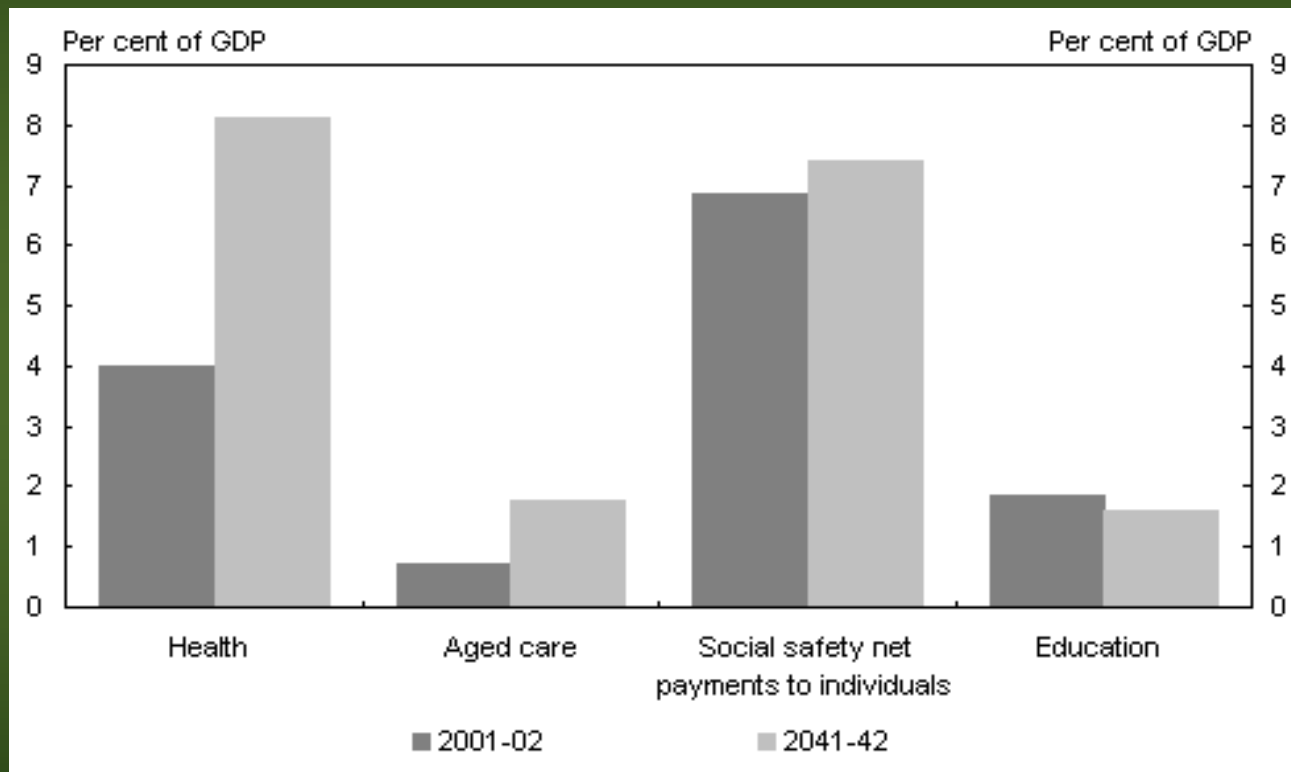
New Zealand

Gross sovereign-issued debt rises



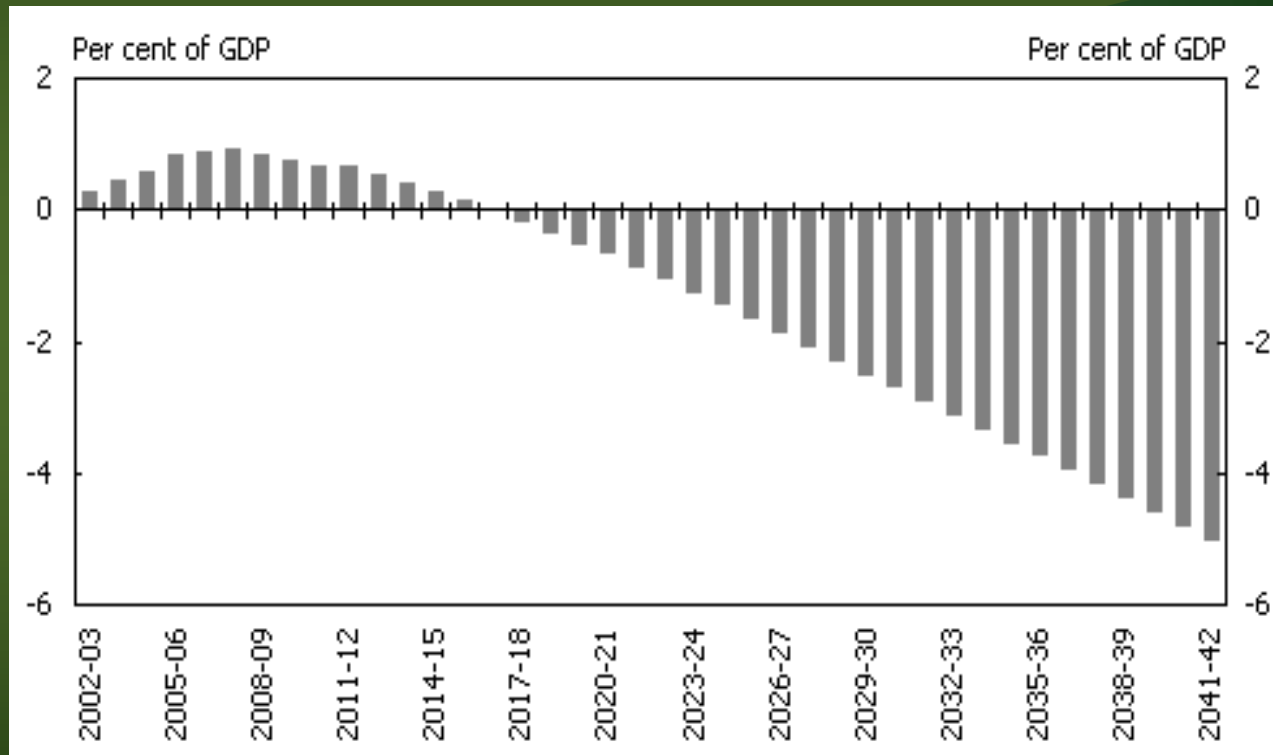
Australia (2002/3)

Projected Commonwealth spending by Category



Australia (2002/3)

Projection of Fiscal Pressure



Recognizing global dimensions of demographic developments-1

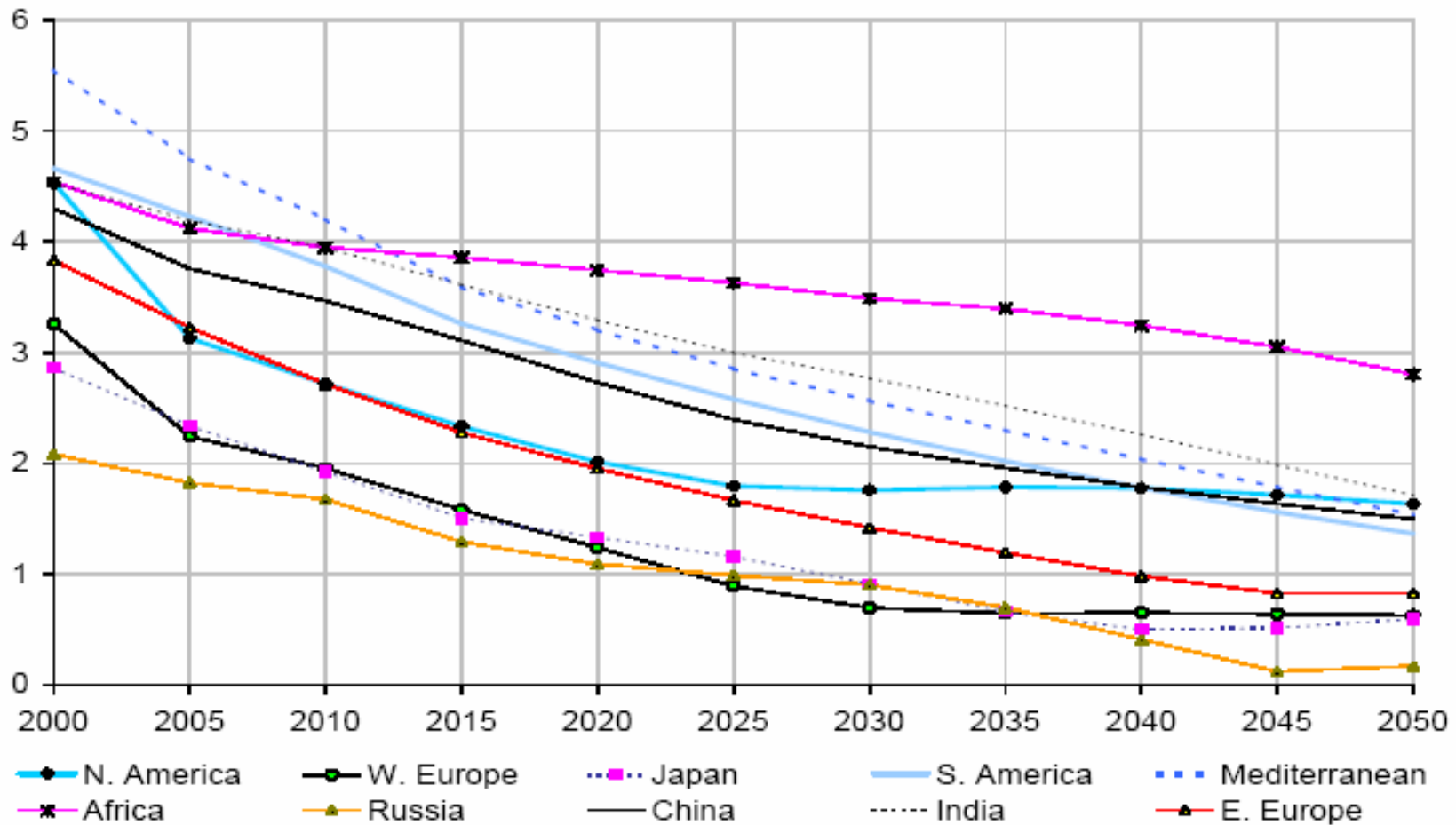
- How independent are a country's portfolio of policy options in addressing the implications of demographic change—aging—from what is happening in the rest of the world?
- Industrial countries largely aging during same time frame
- Lagged significant aging of emerging Asia, particularly China: implication of differential timing of aging in terms of life cycle of savings and investment; consequences for financial markets and capital flows.

Recognizing global dimensions of demographic developments-2

- Recommended policy alternatives cannot be seen in isolation of global capital markets and potential investment opportunities and risks in other parts of the world—also influenced by similar demographic developments
- Witness results of INGENUE-type modeling exercises:
 - On global interest rates; exchange rate; GDP growth

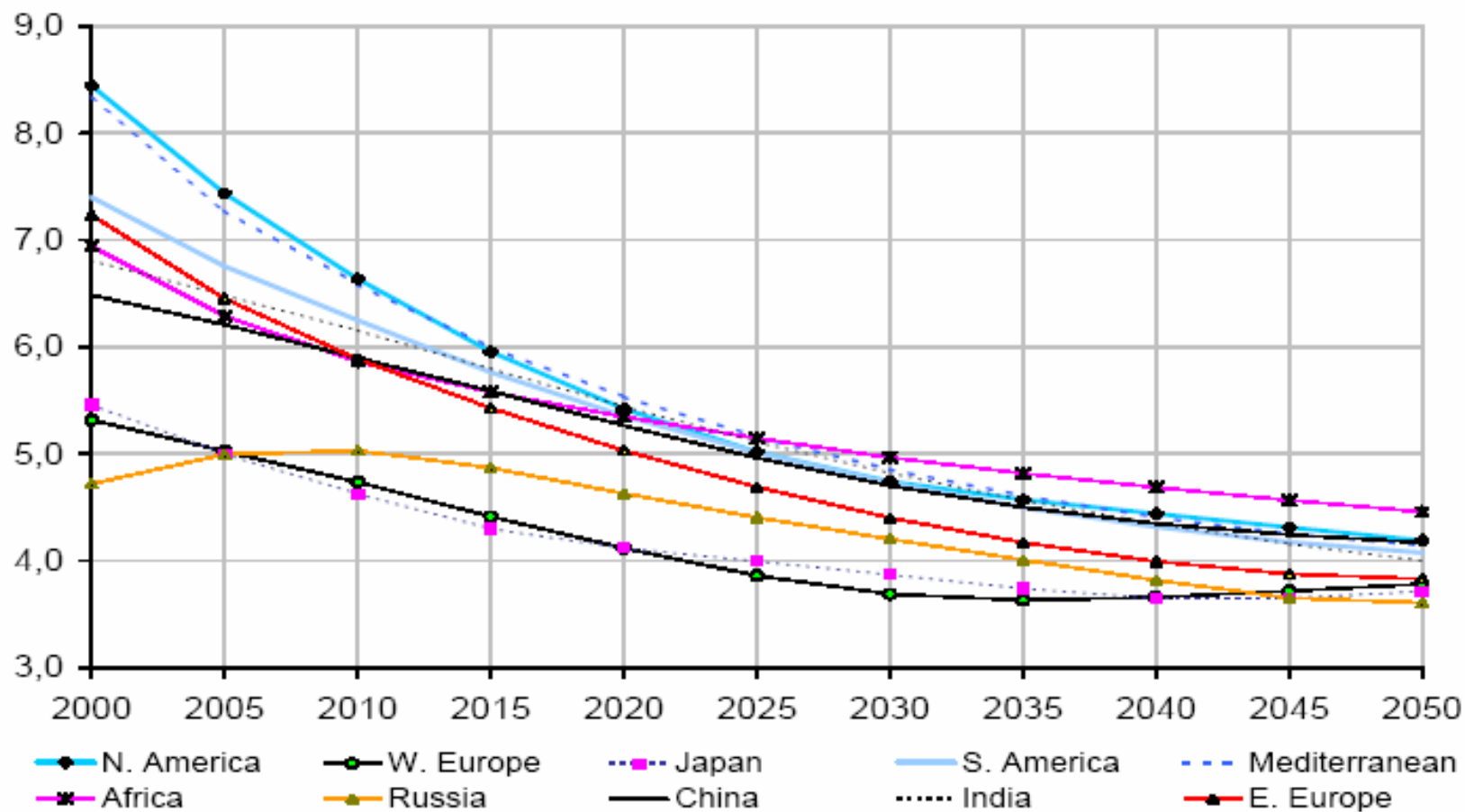
INGENUE MODEL

GDP growth rate (2000-2050)



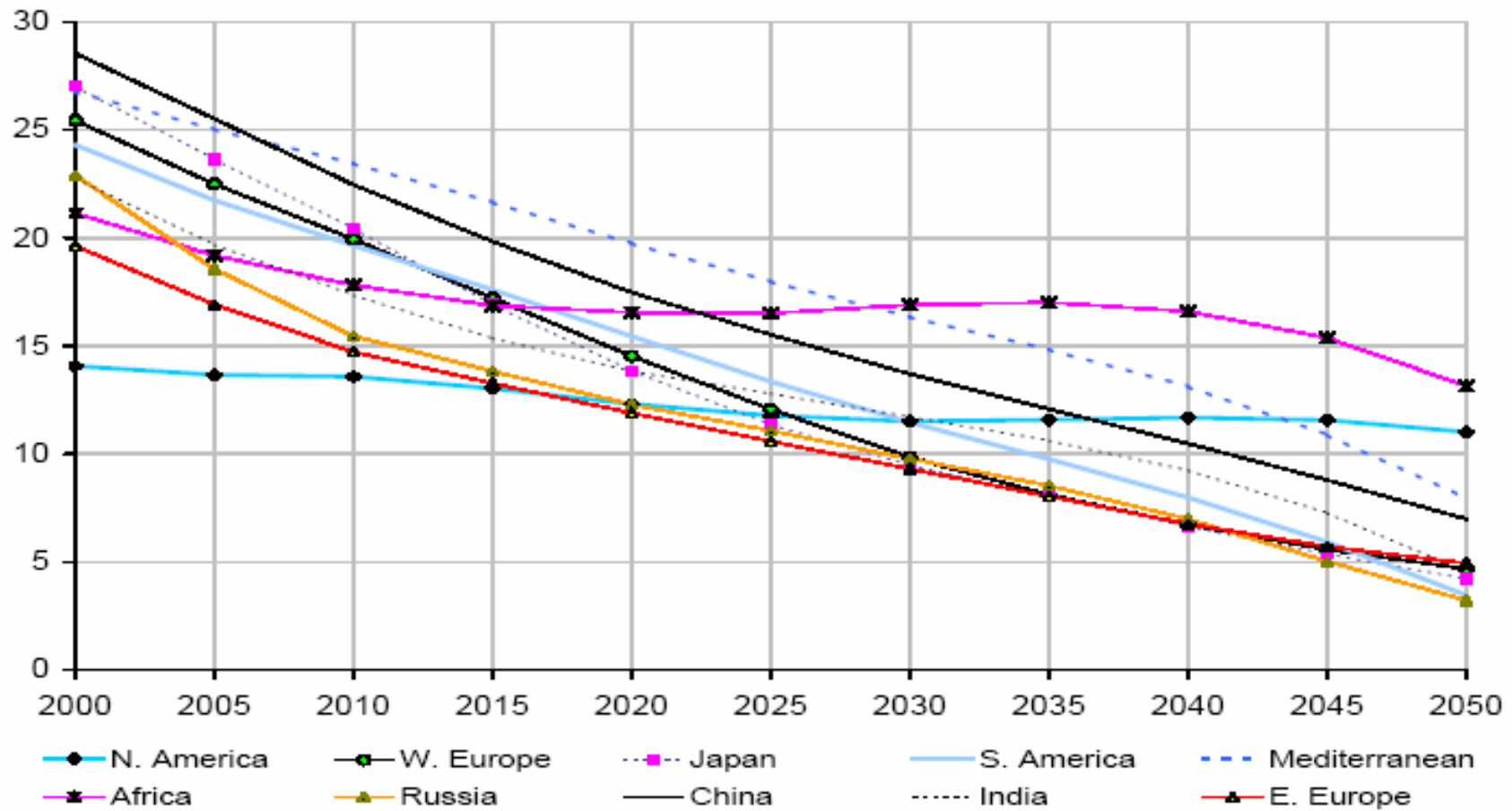
INGENUE MODEL

Regional Interest Rates



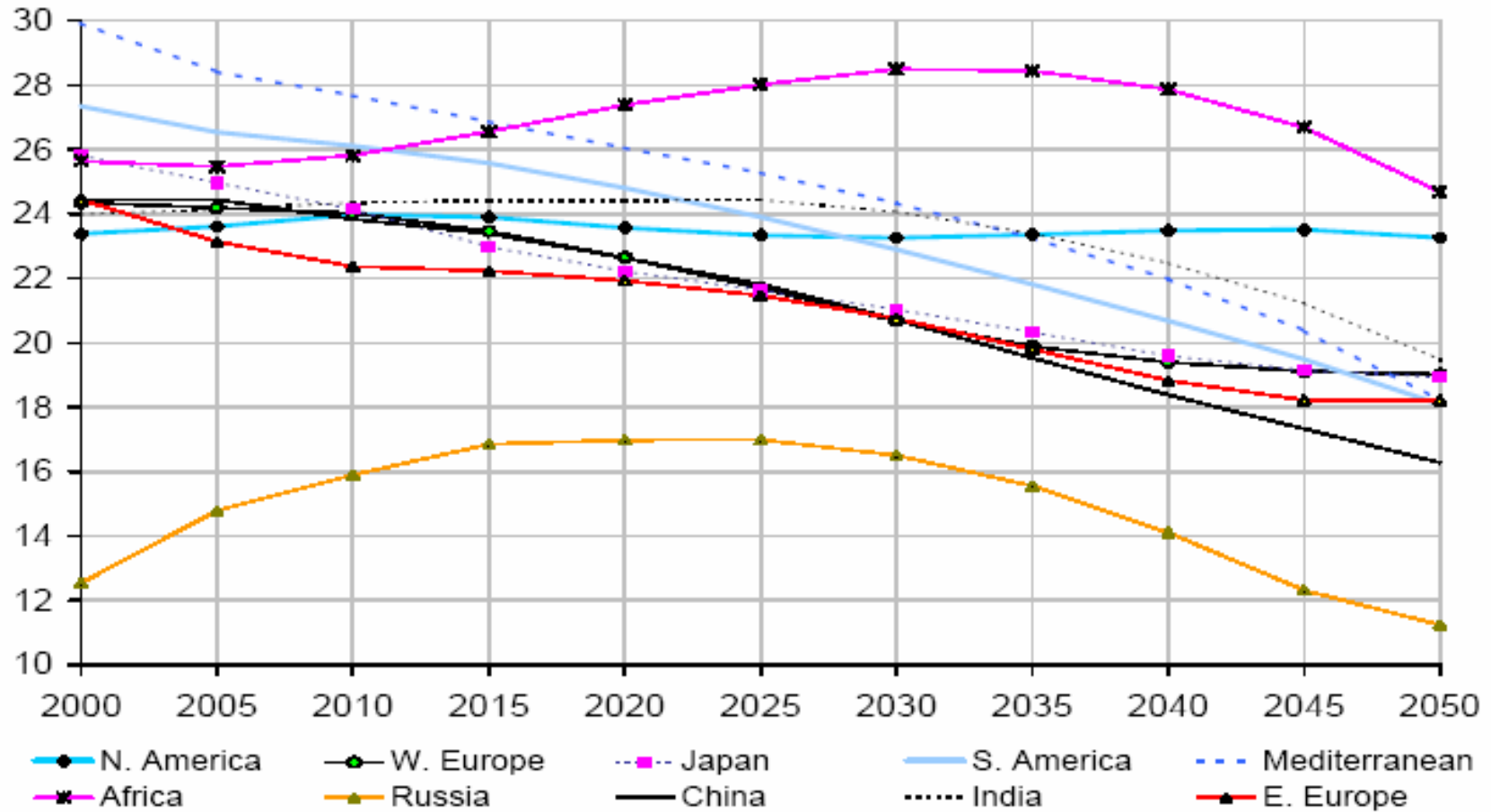
INGENUE MODEL

Net Saving (as a % of GNP)



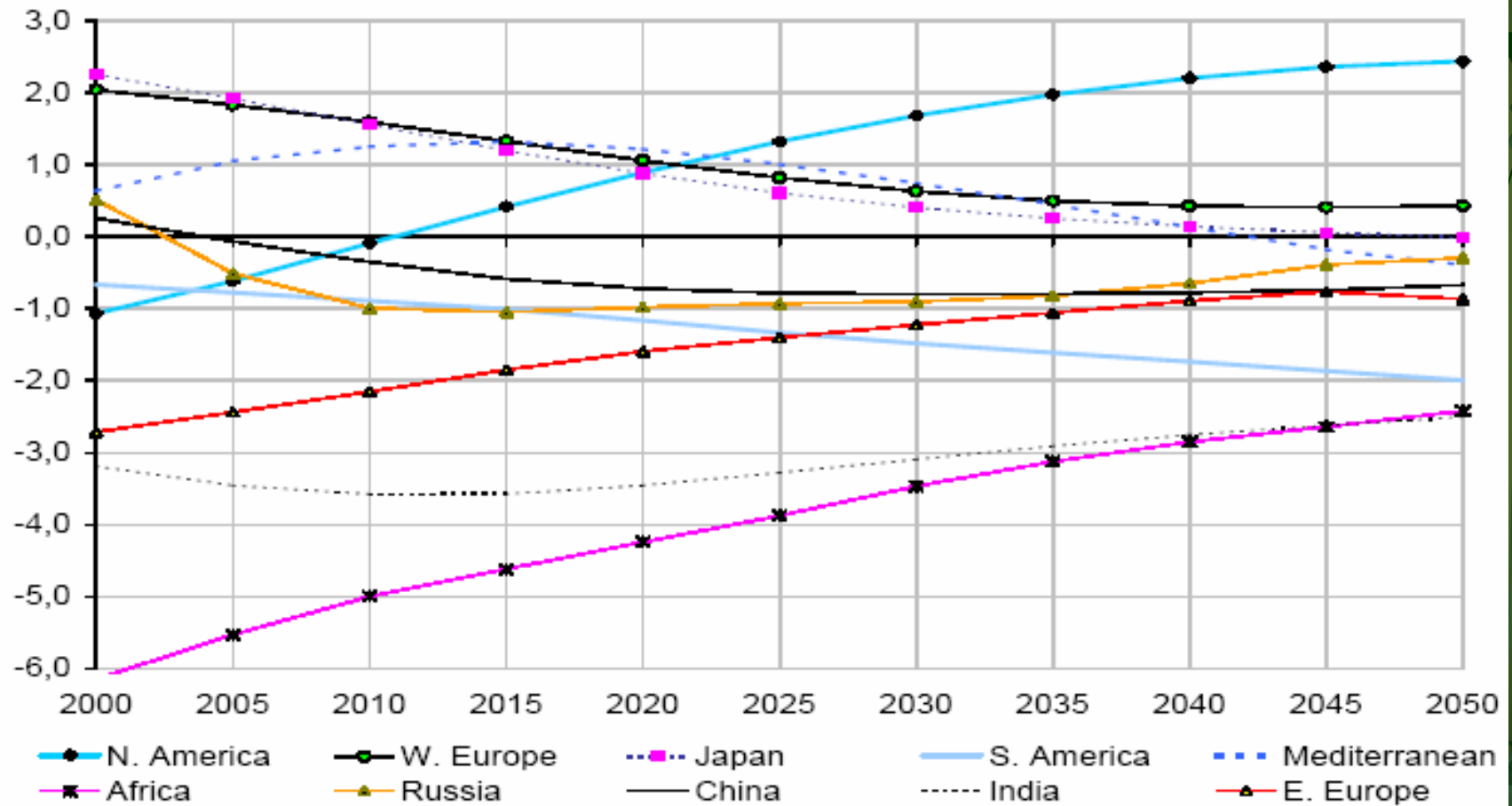
INGENUE MODEL

Gross Investment (as a % of GDP)



INGENUE MODEL

Current Account (as a % of GDP)

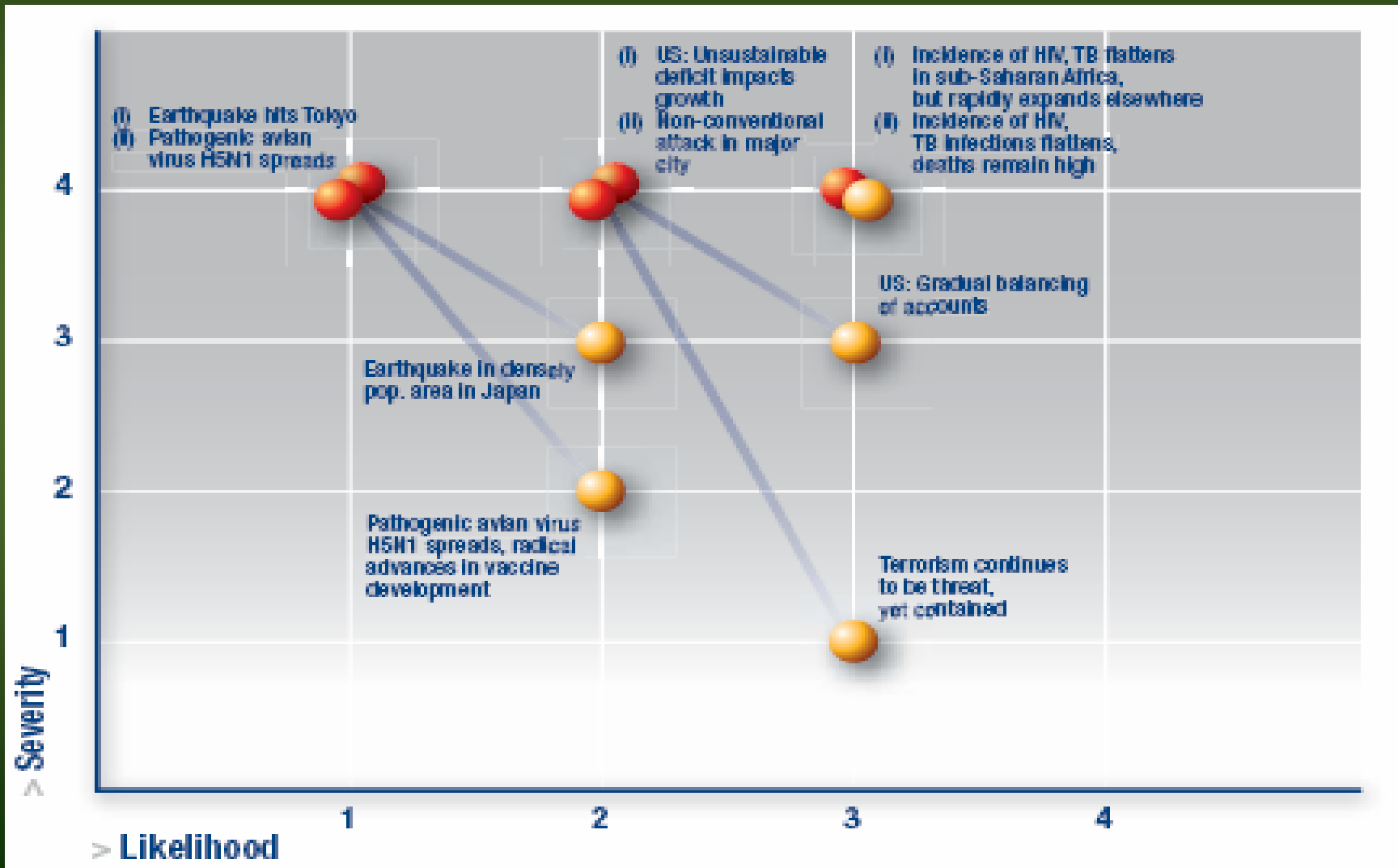


Add to the pot: Alternative perspectives on the long-run

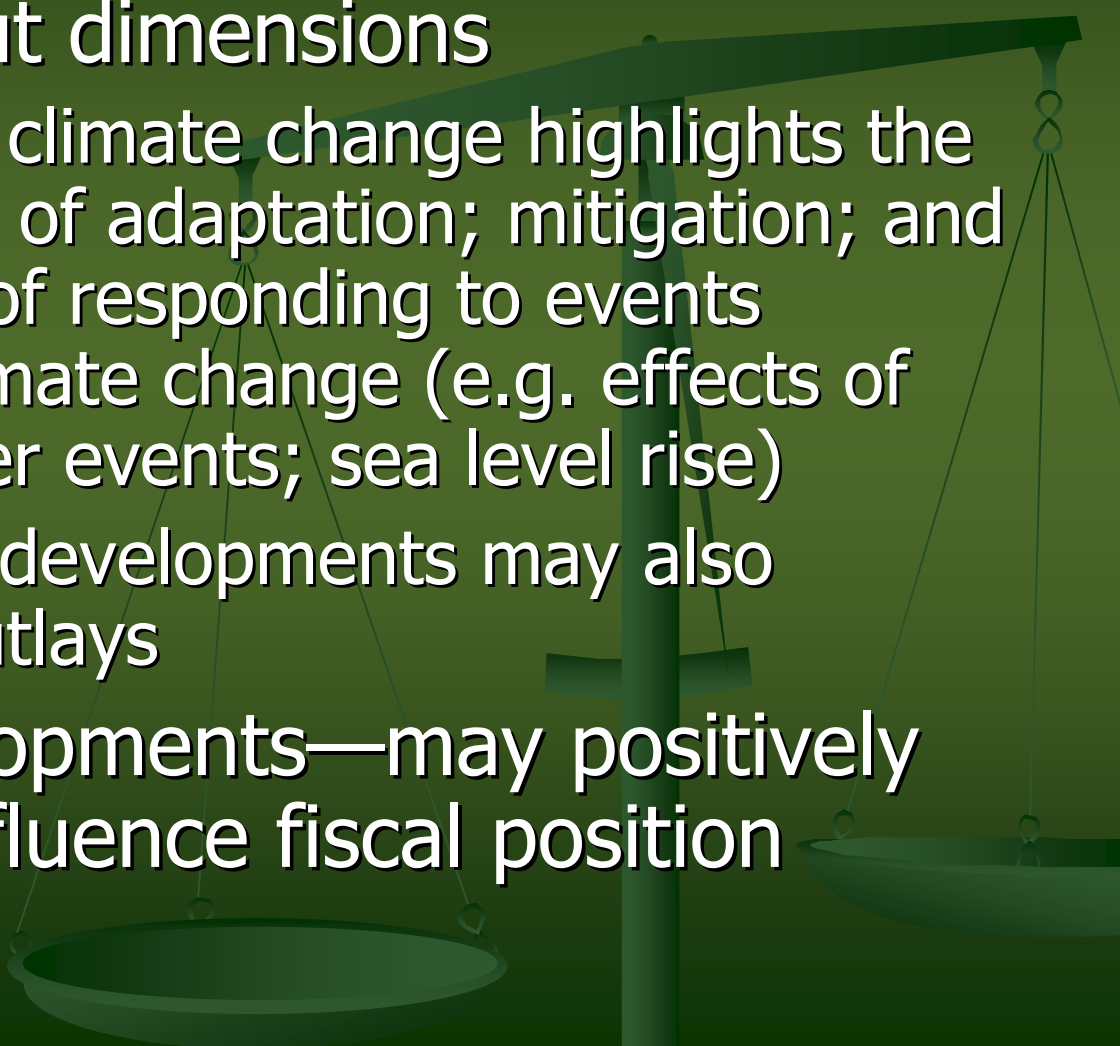
- Scenario analyses underscore multiple factors affecting global economic, and potentially fiscal environment ALL DURING THE SAME SEVERAL DECADES:
 - Various potential effects of climate change
 - Pandemic possibility
 - Direction and pace of technological change; globalization; ICT
 - Failure of major industrial countries to adjust
 - Shifting tectonic economic plates as different regions become more prominent
 - Health technology issues critical
 - Political and security issues—geopolitical factors; terrorism threat
 - youth explosion in mid-East and Africa
 - Natural resource availability—water resources

World Economic Forum: Global Risk Network

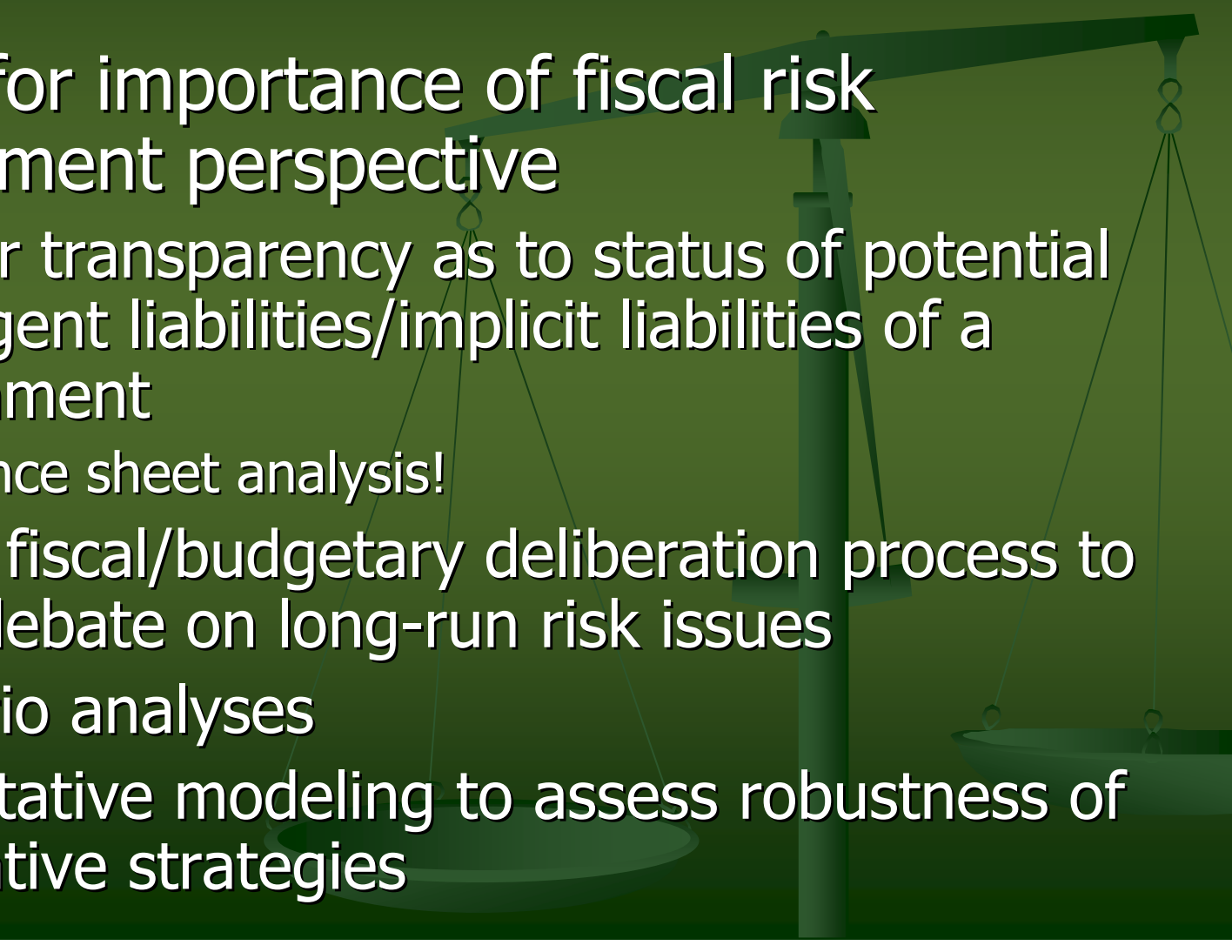
The Top Long-term Risks with the Highest Severity Ranking



These too will have:

- Fiscal and output dimensions
 - Stern report on climate change highlights the necessary costs of adaptation; mitigation; and potential costs of responding to events triggered by climate change (e.g. effects of extreme weather events; sea level rise)
 - Other potential developments may also require fiscal outlays
 - Uncertain developments—may positively or negatively influence fiscal position
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How to incorporate such perspectives in consideration of fiscal sustainability?

- Argues for importance of fiscal risk management perspective
 - Greater transparency as to status of potential contingent liabilities/implicit liabilities of a government
 - Balance sheet analysis!
 - Adjust fiscal/budgetary deliberation process to force debate on long-run risk issues
 - Scenario analyses
 - Quantitative modeling to assess robustness of alternative strategies
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How to incorporate such perspectives in consideration of fiscal sustainability?

- Argues for considering approaches to hedge or limit fiscal risks
 - Hedging instruments
 - Sectoral policy reforms to reduce degree of risk exposure over the long term
 - Social safety net policies to facilitate the further transfer of risk from government to private sector
 - Fiscal consolidation measures to strengthen overall fiscal position—cut debt/accumulate assets
 - Argues for government to actively foster development of market instruments where incomplete markets
 - Inadequate long run instruments
 - Inadequate availability of annuity products addressing longevity risk and inflation risk
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