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Considerations in Mapping the Adequacy and Sustainability of Care and Support for the Elderly in Australia and Developed Countries in Asia

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Agenda

1. Introduction
2. Methodology
3. Defining adequacy
4. Defining sustainability: current vs. potential
5. Findings
6. Discussion and recommendations
7. Risks, Challenges and Opportunities
8. Future research

Countries & Programs

Initial Research

Countries

Canada



England



France



Germany



Sweden



USA



Programs

- Social security (retirement)
- Health care
- Long-term care

Extended to Include

Countries

Australia



Japan



Korea



Netherlands



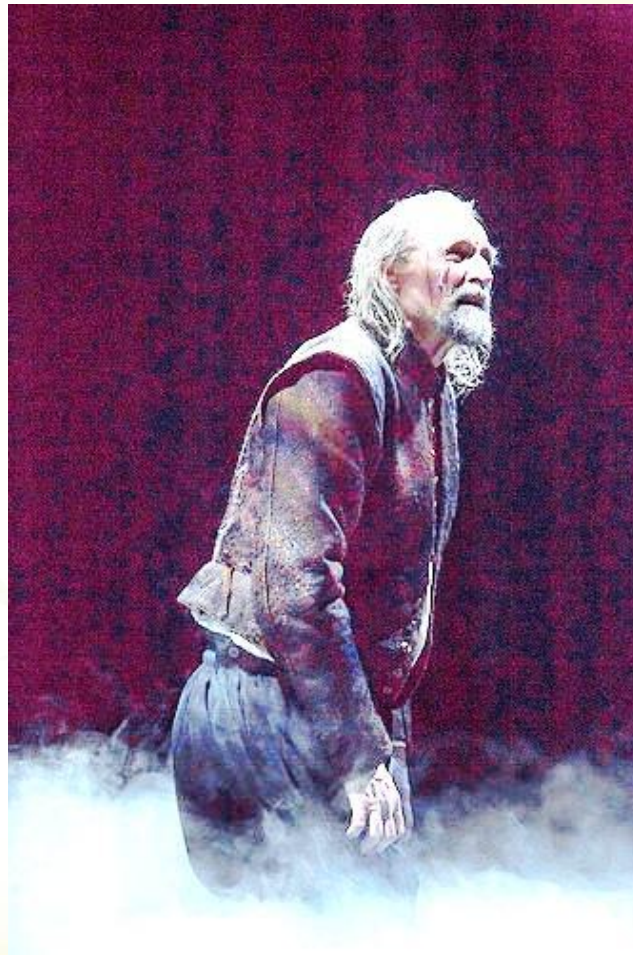
Programs

- Social security (retirement)
- Health care
- Long-term care

Why use fuzzy sets?

- Adequacy and sustainability sound like absolutes
- But there are many variables and much graduation
- Unlikely that a program will be completely out of the set or completely in the set for every situation

**“Our basest beggars are in
the poorest thing superfluous”**



Approach: Adequacy Assessment

- Define specific family compositions
- Calculate income from state pension
- Compare to general expenses and specific expenses for drugs and LTC
- Determine score
- Compute index score across all family compositions

Family Composition One

- Couple both aged between 65 and 70
- Male retired on state pension
- Had career earnings at average national wage
- No other earnings or savings
- Annual drug expenses of \$2,000 (before state plan)
- General living expenses: 53% of average national wage

Family Composition Two

- Single female age 85 or older
- Receiving state survivor pension
- Based on male who had career earnings at average national wage
- No other earnings or savings
- Annual drug expenses of \$1,200 (before state plan)
- General living expenses: 38% of average national wage

Four Family Situations Considered

Family Composition → Care Status ↓	One - Couple	Two – Surviving Female age 85+
No institutional care required	rent not own CN	rent not own SN
One member requires institutional care	rent not own CY	Institutionalized SY

State Pension Compared to General Living & Total Expenses for Each of CN, CY, SN, SY

Label (Social protection)	Comparison	Score
Completely out of set	$sp < 50\% gle$	0
Somewhat inadequate	$50\% gle \leq sp < 100\% gle$	0.33
Somewhat adequate	$100\% gle \leq sp < 100\% te$	0.67
Completely adequate	$100\% te \leq sp$	1

sp state pension







gle general living expenses excluding care and drug expenses

te total expenses





Average Score By Country and Label

Score	At Least One Raw Score of 1	Label
0	No	Completely inadequate
$0.2 > \text{score} > 0$	No	Mainly inadequate
$0.4 > \text{score} \geq 0.2$	No	Often inadequate
$0.4 > \text{score} \geq 0.2$	Yes	More inadequate than not
$0.6 > \text{score} \geq 0.4$	No or Yes	Not adequate or inadequate
$0.8 > \text{score} \geq 0.6$	No	More adequate than not
$0.8 > \text{score} \geq 0.6$	Yes	Often adequate
$1 > \text{score} \geq 0.8$	Yes or No	Mainly adequate
1	Yes	Completely adequate

Adequacy: Initial Results & Assessment

ID						
CN	0.33	0.33	0.33	0.33	1	0.33
CY	0.67	0	0.33	1	1	0
SN	0.33	0.33	0.33	0.33	1	0.33
SY	1	0	0.33	1	1	0.33
Index	0.58	0.17	0.33	0.67	1	0.25
Label	Not adequate or inadequate	Mainly inadequate	Often inadequate	Often adequate	Completely adequate	Often inadequate

Adequacy: Extended Results & Assessment

ID				
CN	0.33	0.33	0.33	1
CY	1	1	1	1
SN	0.33	0.33	0.33	1
SY	1	1	1	1
Index	0.67	0.67	0.67	1
Label	Often Adequate	Often Adequate	Often Adequate	Completely Adequate

Adequacy Comments

- **Divide between English-speaking countries (except Australia) and the other countries reflects differences in philosophy underlying system design**
 - **Expectation that the individual will save for retirement**
 - **Tendency to think of LTC as an individual or family responsibility but provide for the needy**

Adequacy Policy Recommendation 1

- Consider introducing a demogrant
- It can fill gaps left by earnings-related state pensions

Adequacy Policy Recommendation 2

- Some form of comprehensive universal LTC insurance needs to be in place
- LTC is an insurance risk
- Different ways can be used to provide insurance coverage
- Australia – government subsidies with co-payments and means testing
- Japan & Korea – mandatory insurance

Adequacy Policy Recommendation 3

- State survivor pensions need to be improved
- Based on the change in general living expenses a state survivor pension of 70% of the primary pension would be more adequate

Sustainability Labels

Score	Label
0 – 0.20	Unsustainable
0.21 – 0.40	Likely unsustainable
0.41 – 0.60	Possibly sustainable
0.61 – 0.80	Likely sustainable
0.81 or higher	Sustainable

Current Sustainability

1. Stability of current funding rates for social security – a measure of the sustainability of social security in its current form
 2. Level of spending on health care as a percentage of GDP – an indicator of revenues already committed
 3. ***Ratio of “grandmothers to granddaughters”*** – a determinate of a family’s ability to provide care and support to its elderly family members
- Calculate an average score and determine assessment

Current Sustainability Components - Original

Score	Stability of SS Funding Over Long Term	HC Spending GDP %
1	Yes	Less than 10.0
0.5	Possibly	10.0 – 14.9
0	No	15.0 or higher

Current Sustainability Components - Added







Absolute Ratio 2010 (r)

≤ 0.35	1
$0.35 < r \leq 0.7$	0.8
$0.7 < r \leq 1.05$	0.6
$1.05 < r \leq 1.4$	0.4
$1.4 < r \leq 1.75$	0.2
> 1.75	0

Ratio Change (2010/1950)

≤ 1.75	1
$1.75 < r \leq 2.5$	0.87
$2.5 < r \leq 3.25$	0.75
$3.25 < r \leq 4$	0.62
$4 < r \leq 4.75$	0.5
$4.75 < r \leq 5.5$	0.37
$5.5 < r \leq 6.25$	0.25
$6.25 < r \leq 7$	0.12
> 7	0

Assessment of Current Sustainability - Revised

Item						
SS Stability	1.0	0.5	0	0.5	1.0	0
HC Spending	0.5	0.5	0.5	0.5	0.5	0
GM:GD	0.78	0.8	0.8	0.58	0.74	0.84
Index	0.76	0.6	0.43	0.53	0.75	0.28
Label	Likely Sustainable	Possibly Sustainable	Possibly Sustainable	Possibly Sustainable	Likely Sustainable	Likely Unsustainable

Assessment of Current Sustainability - Extended

Item				
SS Stability	0.5	0.5	0	0
HC Spending	1	1	1	1
GM:GD	0.84	0.1	0.46	0.68
Index	0.78	0.53	0.49	0.56
Label	Likely Sustainable	Possibly Sustainable	Possibly Sustainable	Possibly Sustainable

Potential Sustainability

1. Consider Old Age Support Ratio in 2008 and 2050 – an indication of demographic pressures on the tax base
 2. Consider total tax revenue as % of GDP – a measure of ability to pay
 3. Consider expenditure on public pensions in 2010, 2030, 2050 – an indicator of the extent to which public spending is already committed
- Calculate an average score and determine assessment

Level of OASR Assessment Scale

OASR (2008, 2050)	Score
4.0 or higher	1
3.0 – 3.9	0.75
2.0 – 2.9	0.5
1.5 – 1.9	0.25
Less than 1.5	0

Tax Level Assessment Scale







Total Tax Revenue as % of GDP	Score
Less than 30.0	1
30.0 – 34.9	0.8
35.0 – 39.9	0.6
40.0 – 44.9	0.4
45.0 – 49.9	0.2
50 or higher	0

Public Pension Expenditure

2010, 2030, 2050

% of GDP	Score
Under 5	1
5.0 – 8.5	0.75
8.6 – 11.5	0.5
11.6 – 14.9	0.25
15 or higher	0

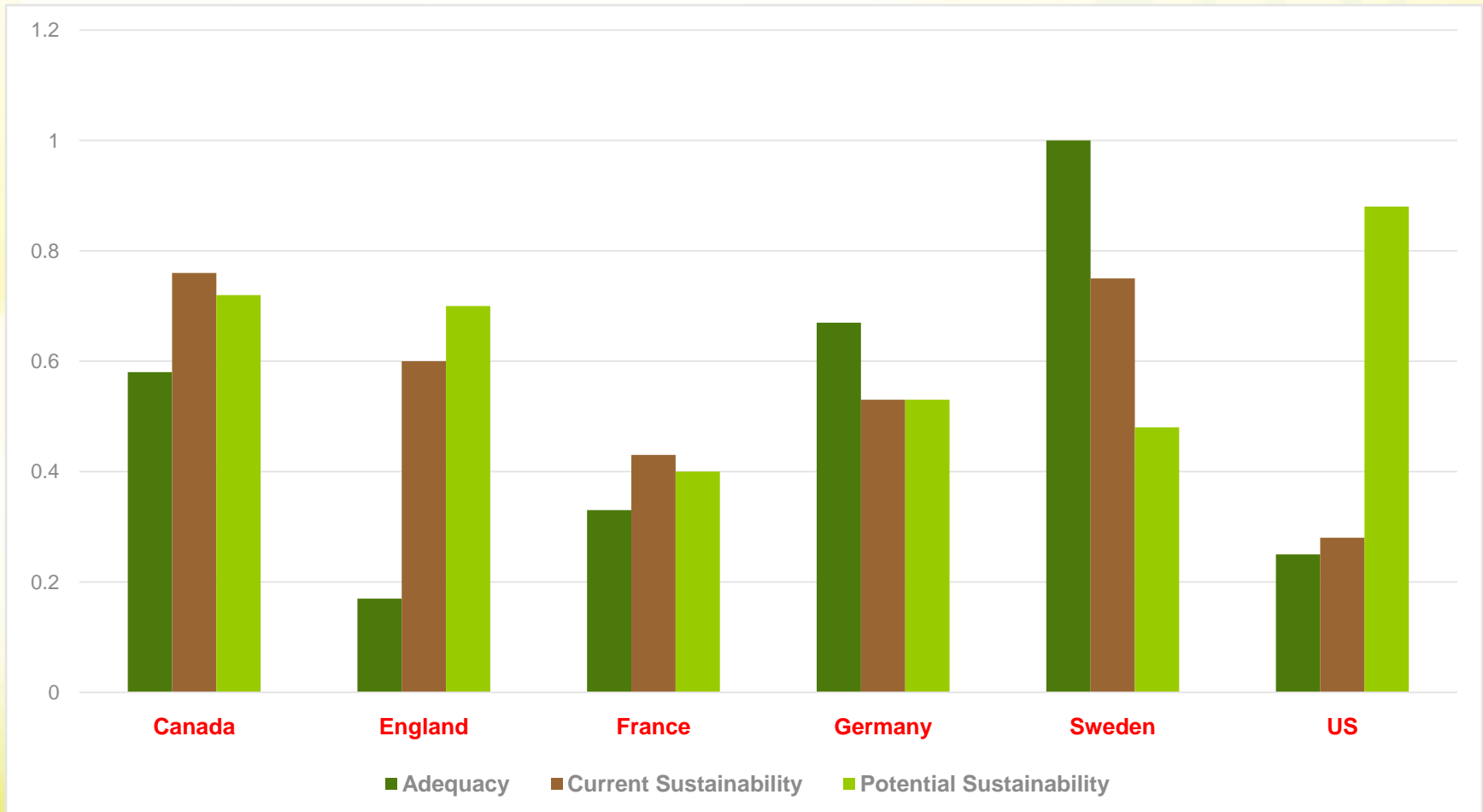
Initial Assessment of Potential Sustainability

Item						
OASR	0.61	0.75	0.56	0.56	0.75	0.64
Tax Burden	0.8	0.6	0.4	0.6	0.2	1
PP Spend	0.75	0.75	0.25	0.42	0.5	1
Index	0.72	0.7	0.4	0.52	0.48	0.88
Label	Likely Sustainable	Likely Sustainable	Likely Unsustainable	Possibly Sustainable	Possibly Sustainable	Sustainable

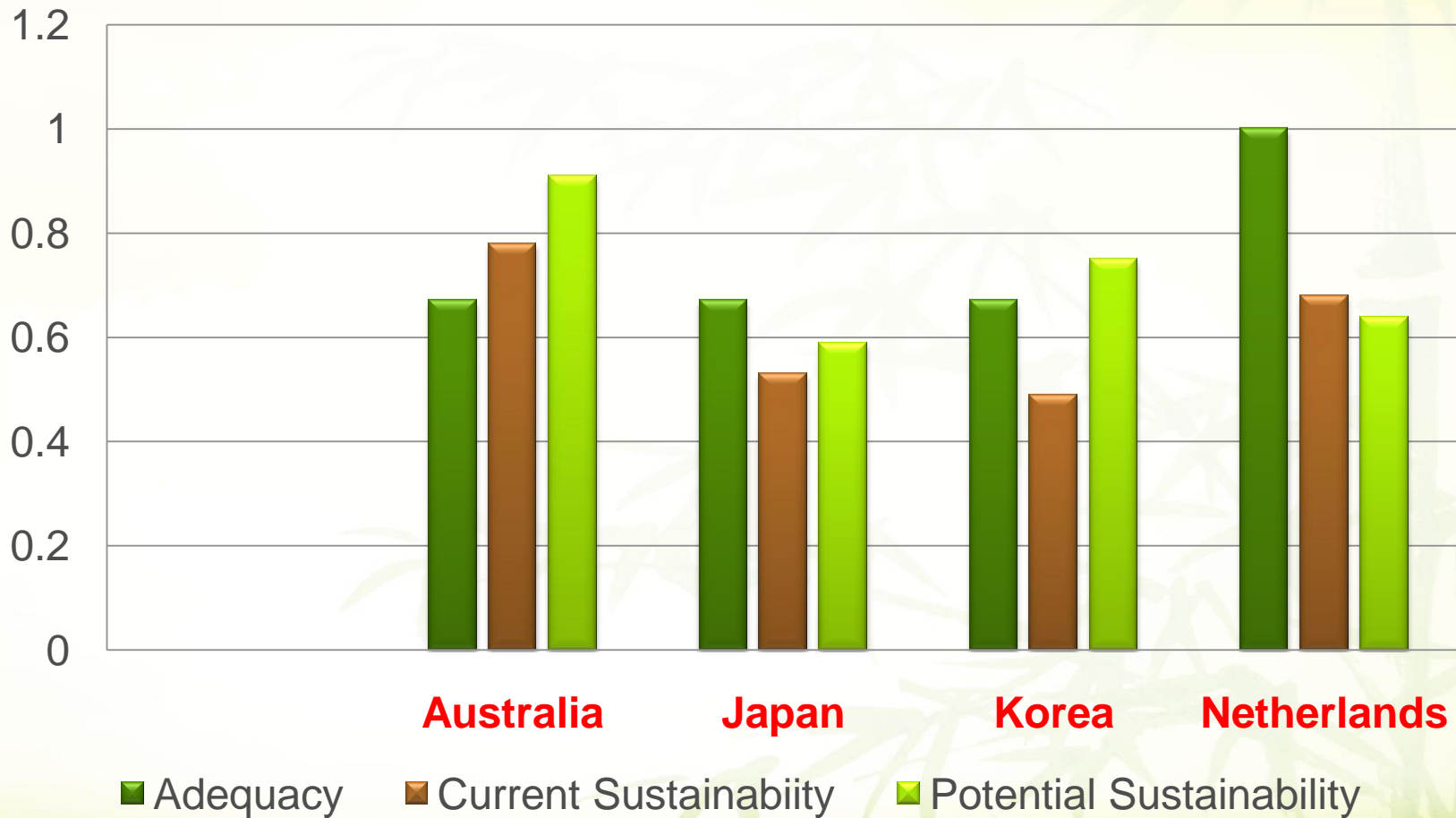
Extended Assessment of Potential Sustainability

Item				
OASR	0.72	0.28	0.33	0.72
Tax Burden	1	1	1	0.6
PP Spend	1	0.5	0.92	0.58
Index	0.91	0.59	0.75	0.64
Label	Sustainable	Possibly Sustainable	Likely Sustainable	Likely Sustainable

Adequacy & Sustainability Revised



Adequacy & Sustainability Extended



Overall Assessment

Top 3

Netherlands

Sweden

Australia

Bottom 3

England

France

USA

Comments - Netherlands

❖ Adequacy – Completely Adequate

1. **High pension income**

2. Strong LTC system

❖ Current Sustainability – Possibly Sustainable

1. Pension funding needs stabilizing

2. Well controlled HC spending

❖ Potential Sustainability – Likely Sustainable

1. Aging not severe

2. Moderate tax burden

Comments - Sweden

❖ Adequacy – Completely adequate

1. State pension provides adequate income
2. LTC – mainly state provided

❖ Current sustainability – Likely Sustainable

1. NDC pension provides stable funding

❖ Potential sustainability – Possibly sustainable

1. Aging not severe
2. Tax burden & public pension commitment leave **little room to adjust** but tax rates are reducing

Comments - Australia

❖ Adequacy – Often Adequate

1. Significant state pension
2. Strong LTC system

❖ Current Sustainability – Likely Sustainable

1. Questions regarding pension funding stability
2. Well controlled HC spending

❖ Potential Sustainability – Sustainable

1. Aging not severe
2. Lots of fiscal room

Comments - Japan

❖ Adequacy – Often Adequate

1. Low state pension
2. Strong LTC system

❖ Current Sustainability – Possibly Sustainable

1. Well controlled HC spending
2. Low female support ratio

❖ Potential Sustainability – Possibly Sustainable

1. Severe aging
2. Some fiscal room

Comments - Korea

❖ Adequacy – Often Adequate

1. Low state pension
2. Strong LTC system

❖ Current Sustainability – Possibly Sustainable

1. Pension funding needs stabilizing
2. Well controlled HC spending
3. **Rapidly changing female support ratio**

❖ Potential Sustainability – Likely Sustainable

1. **Dramatically severe aging to occur**
2. Lots of fiscal room

Risks

- Dramatically changing OASR will threaten the social contract and the social safety net
- Trying to preserve the past
- Maintaining adequate quality of care given rising costs and increased burden of care provision

Challenges

- **Managing LTC costs**
- **Putting the state pension system on stable funding course at an adequate level**
- **Achieving adequate risk-adjusted returns in a low rate environment**

Opportunities

- Lots of room for individual savings to enhance adequacy
- Considerable room to raise additional revenue
- Immigration – generally and for select services

Areas for Future Research

1. Constructing indices and fuzzy sets differently
2. Considering social attitudes
3. Including private savings, employer-provided benefits, and family support
4. Having a model that would permit testing of various assumptions and changes