Population Age Structure Changes and Demographic Dividend in Viet Nam: Findings from NTA Approach

GIANG THANH LONG*, PHAM NGOC TOAN** & PHAM MINH THU**
(*NEU & IRC; ** ILSSA, Hanoi, Viet Nam)

Presenter:
GIANG THANH LONG
National Economics University & Indochina Research and Consulting

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1. DEMOGRAPHIC CHANGES IN VIET NAM

Table 1. Age structure of the Vietnamese population, 1979-2009

Year	Number of persons (millions)				Percentage of the total population		
	Total	0-14	15-59	60+	0-14	15-59	60+
1979	53.74	23.40	26.63	3.71	41.8	51.3	6.9
1989	64.38	24.98	34.76	4.64	39.2	53.6	7.2
1999	76.33	25.56	44.58	6.19	33.0	58.9	8.1
2009	85.79	21.45	56.62	7.72	25.0	66.0	9.0

Source: Population and Housing Census 1979, 1989, 1999 and 2009

Table 2. Ageing index and potential support ratio in Viet Nam, 1979-2049

Year	1979	1989	1999	2009	2019	2024	2029	2034	2039	2044	2049
Aging index	16	17	24	36	50	65	85	107	124	141	158
Potential support ratio	7.44	7.43	7.33	7.27	5.29	4.60	3.83	3.27	2.88	2.51	2.20

Source: Population and Housing Census 1979, 1989, 1999 and 2009 and GSO (2010)

Table 3. 'Feminization' of aging, 2009-2049

Age group	2009	2019	2029	2039	2049
60-69	131	119	109	104	105
70-79	149	140	127	116	111
80+	200	179	164	143	130

Source: GSO (2011)

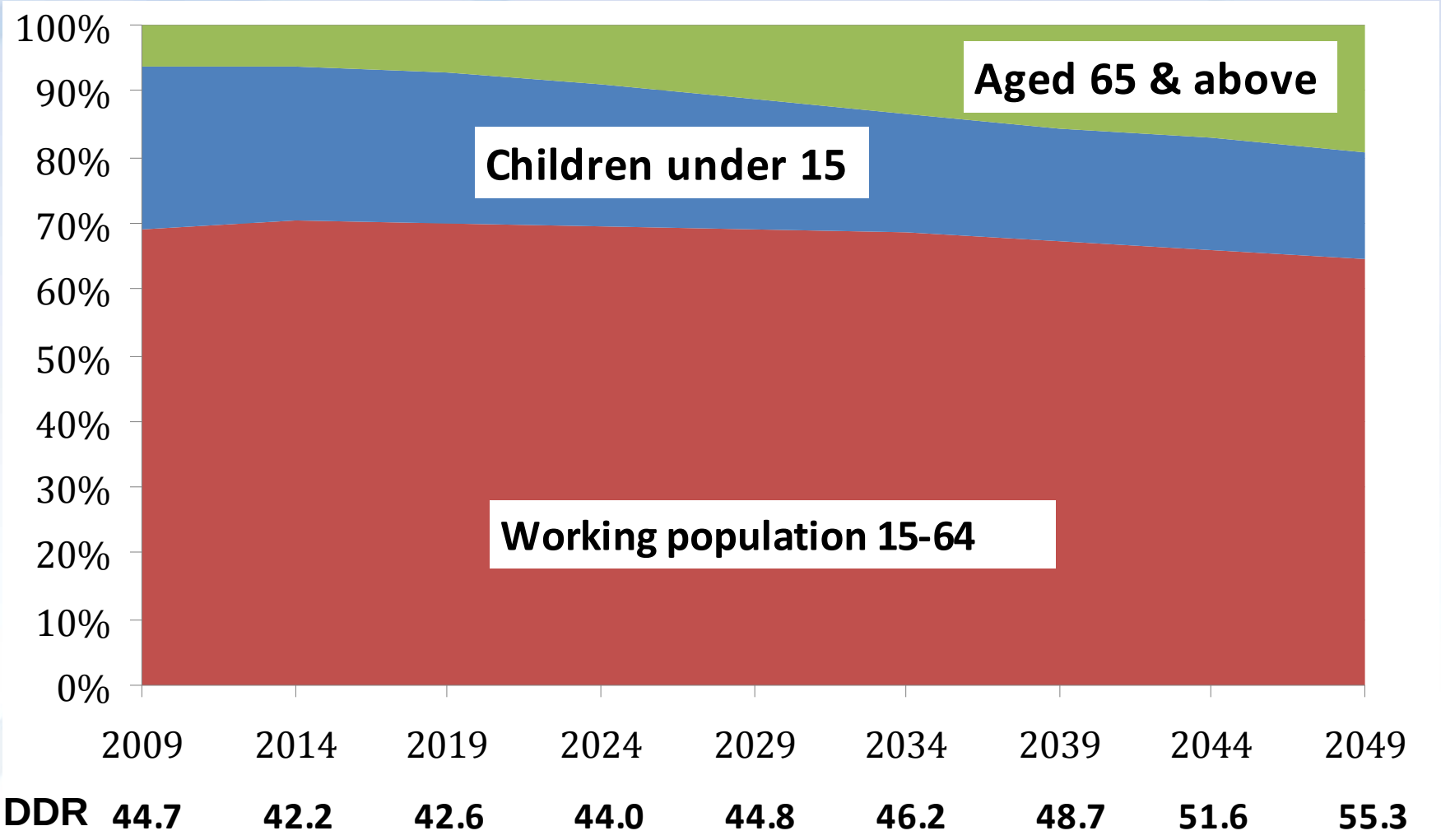
1. DEMOGRAPHIC CHANGES IN VIET NAM

The time needed for transforming from an 'aging' to an 'aged' population is much shorter than other countries with higher income levels.

Time needed to move from 'aging' to 'aged' in some countries

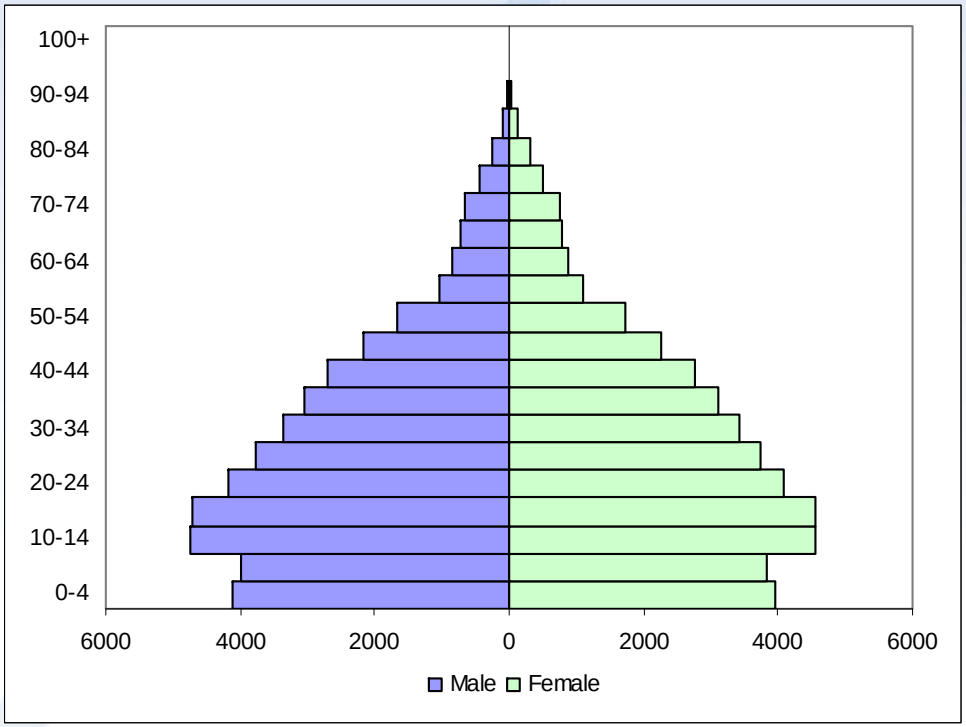
Source: Kinsella and Gist (1995); U.S. Census Bureau (2005); Viet Nam: GSO (2010)

1. DEMOGRAPHIC CHANGES IN VIET NAM

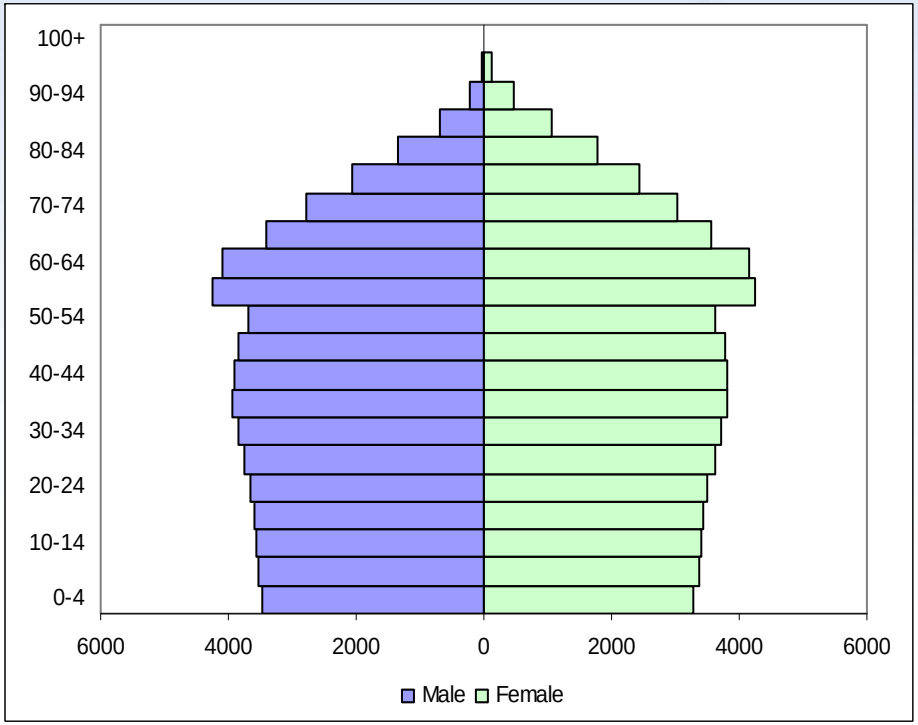


1. DEMOGRAPHIC CHANGES IN VIET NAM

Viet Nam's Population Pyramid



2005



2050

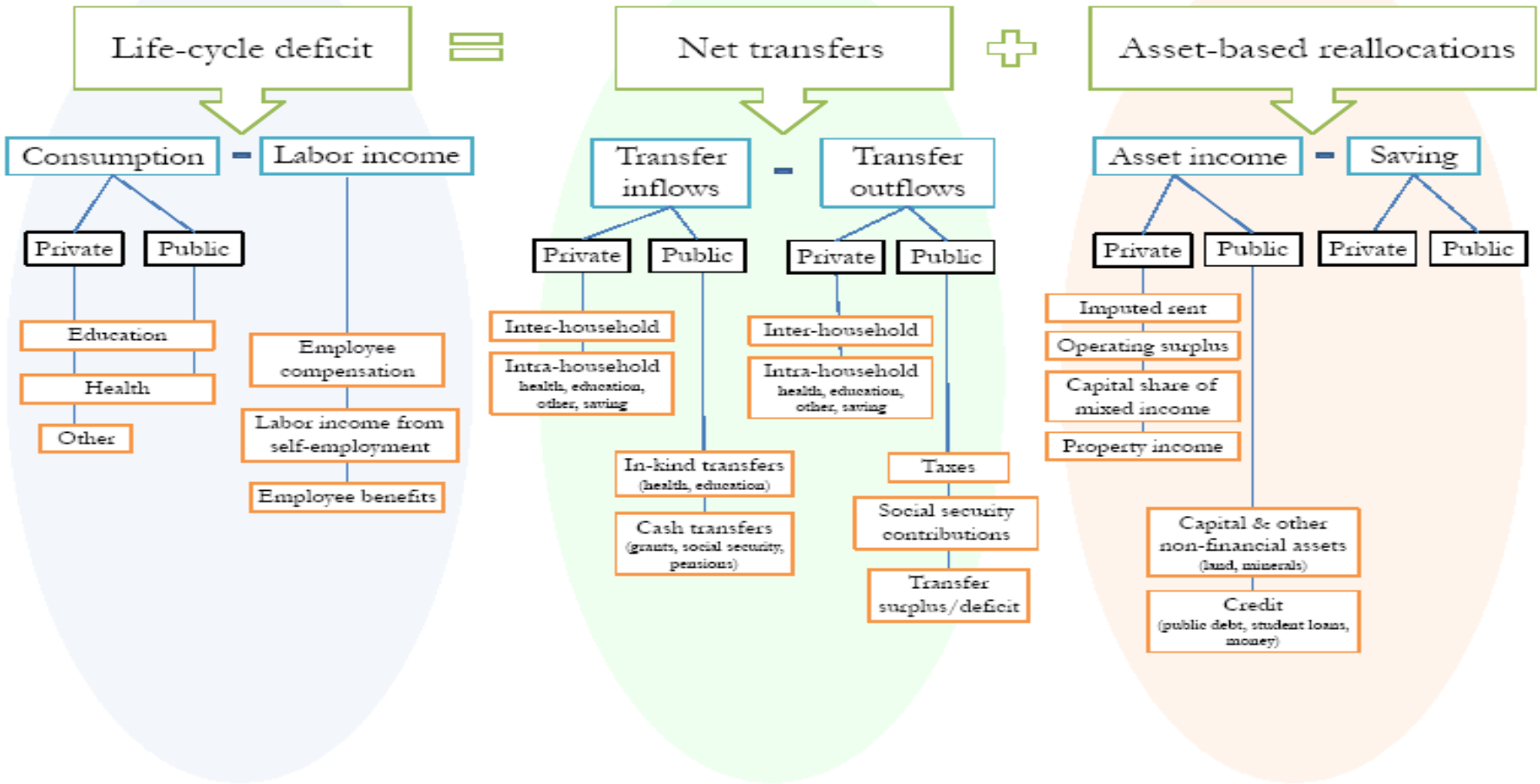
2. DATA & ESTIMATION

- We use the data from the Vietnam Household Living Standards Survey (VHLSS) in 2008.
- The survey includes 38,523 persons living in 9,189 households. They are representative for all regions, urban and rural areas.
- The survey is conducted at household level, but provides a lot of individual information, such as age, gender, education, working status, and relation to household head.
- Labor income and consumption are at household level.

2. DATA & ESTIMATION

- We also use the Input-Output Table (National Accounts System) 2007 for calculating public consumption (on education, health, and others) and controlling macro balance.
- Estimate the per capita age-profile for the variable using household survey data or administrative records.
- Per capita age profiles are estimates of per capita values by single year of age (0-90+).
- All consumption and labor production can be assigned to individuals (public consumption follows private consumption structure by age).

2. DATA & ESTIMATION



Modeling the First Dividend

- Given constant productivity, changes in population age structure affect the economic support ratio:

$$N(t) = \sum_a \alpha(a) P(a,t)$$

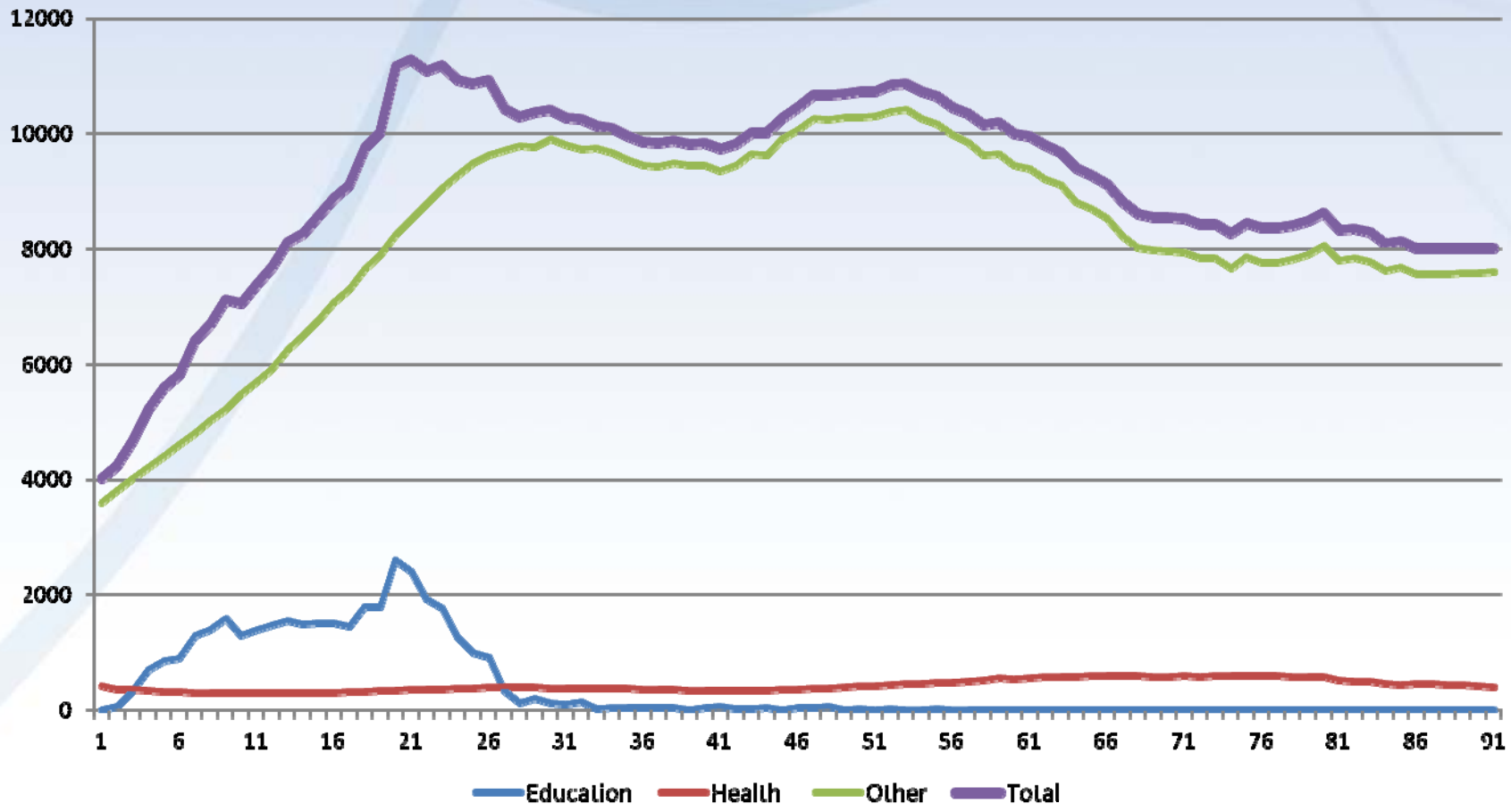
$$L(t) = \sum_a \gamma(a) P(a,t)$$

where $\alpha(a)$ and $\gamma(a)$ are the age profiles of per capita consumption and labor income, and $P(a,t)$ is the population

- Economic Support Ratio : L(t)/N(t)

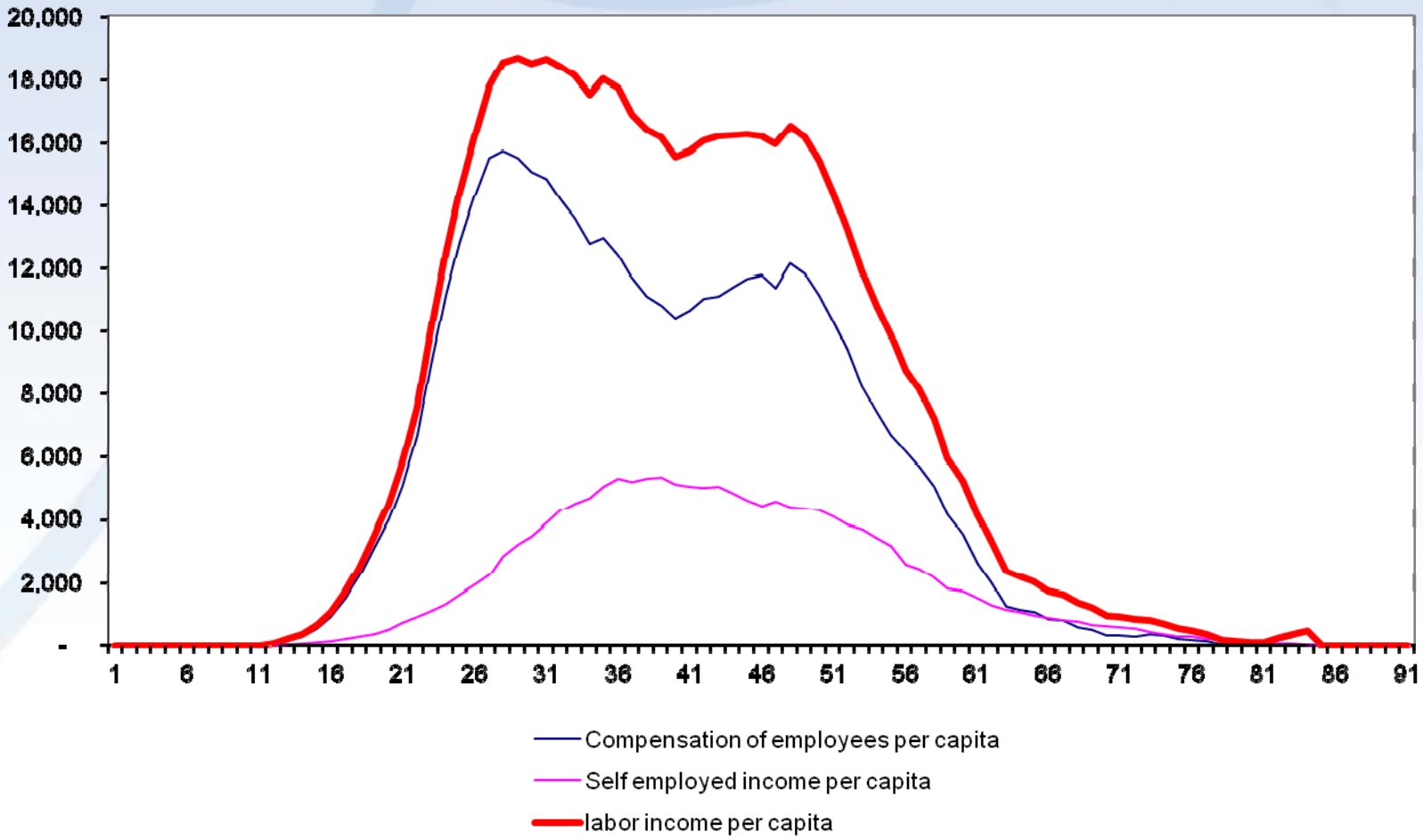
3. ESTIMATES AND POLICY IMPLICATIONS

Per capita consumption (1.000VND/year)



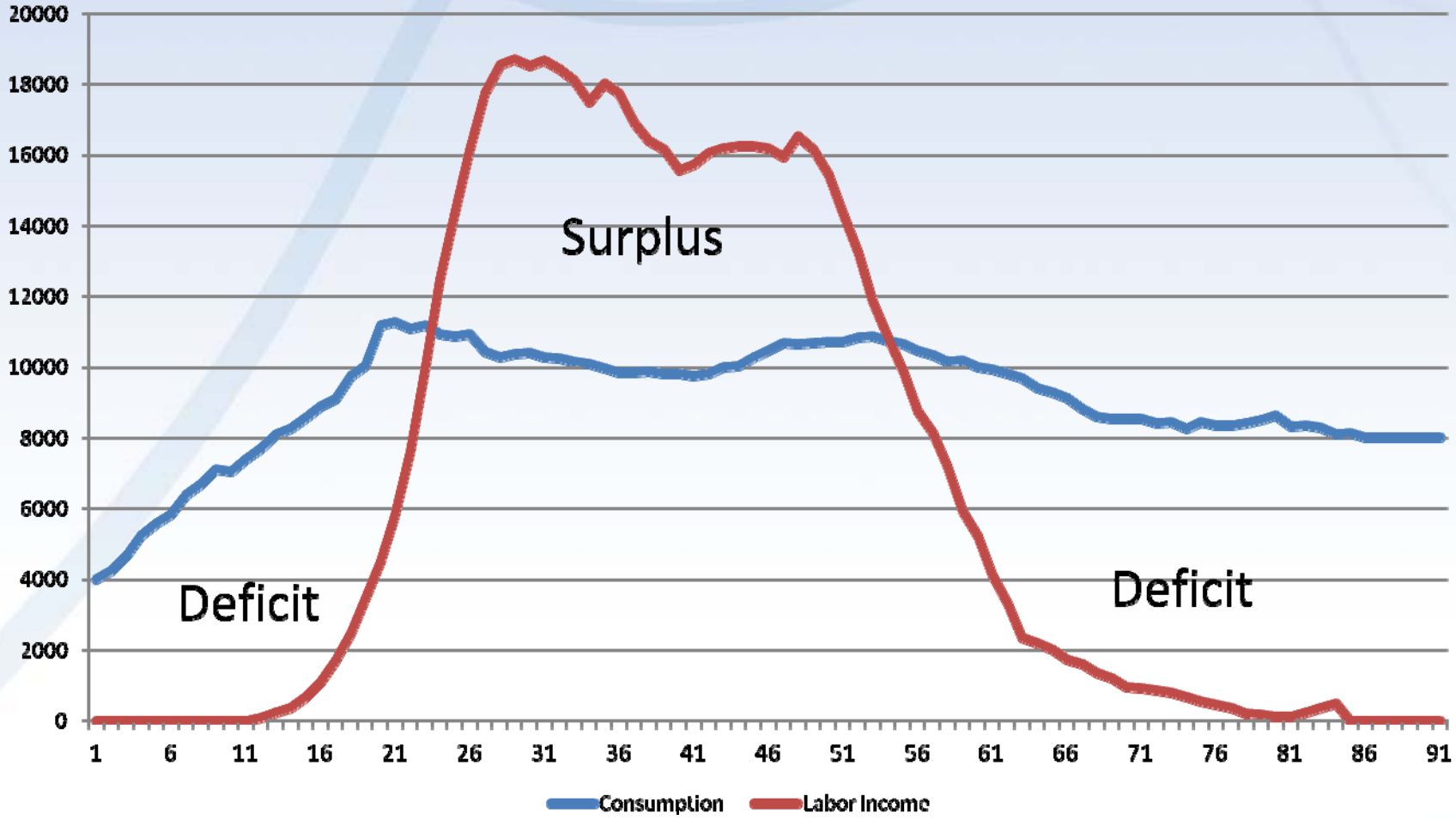
3. ESTIMATES AND POLICY IMPLICATIONS

Per capita labor income (1.000VND/year)



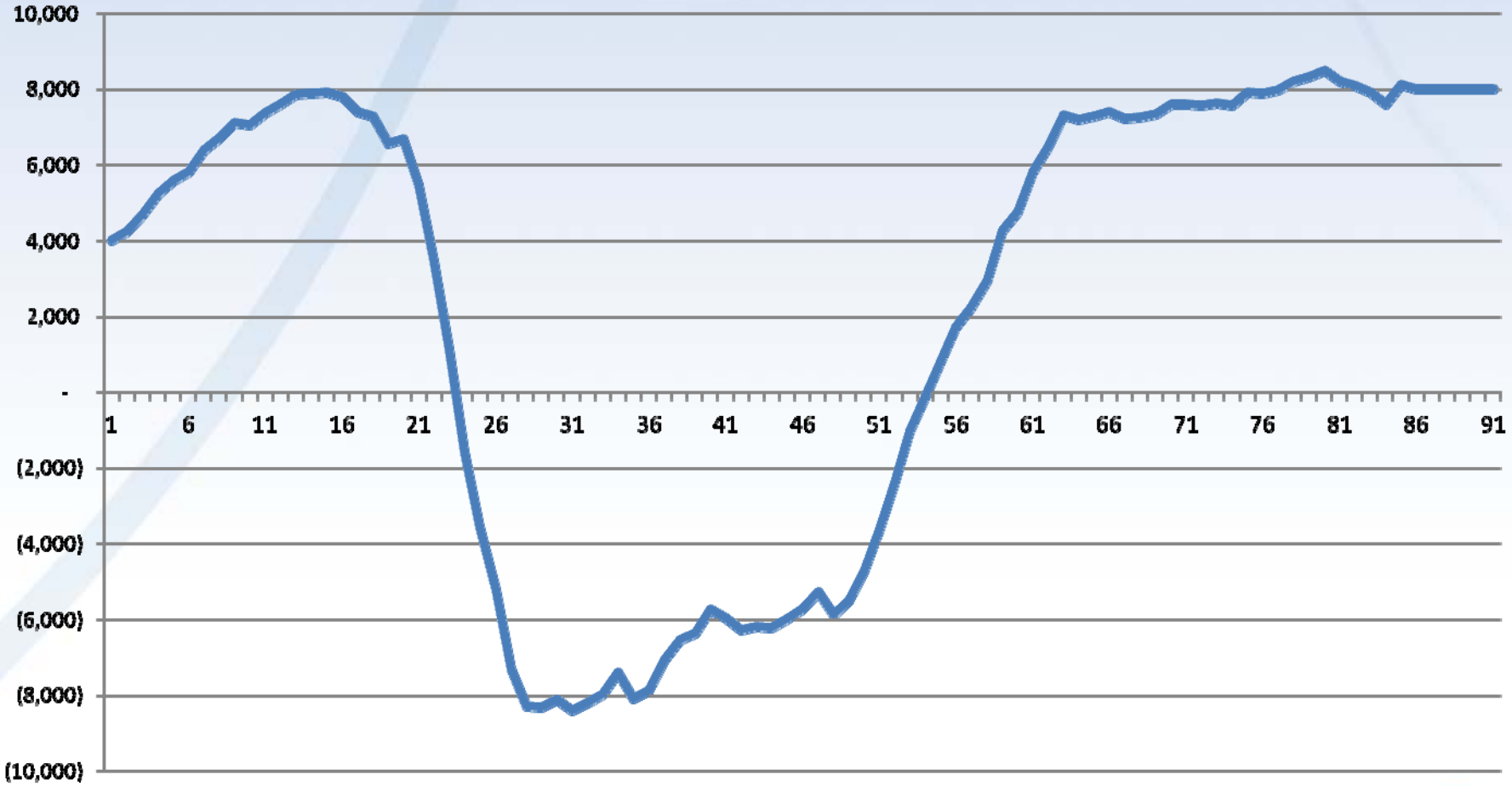
3. ESTIMATES AND POLICY IMPLICATIONS

Per capita consumption and labor income, 2007



3. ESTIMATES AND POLICY IMPLICATIONS

Lifecycle deficit (1.000VND/person/year)



Summary of the Lifecycle Deficit

- Age of lifecycle surplus: 23 - 53
- Total consumption: 827,189 billion VND
- Total labor income: 611,659 billion VND
- Total deficit: 215,620 billion VND

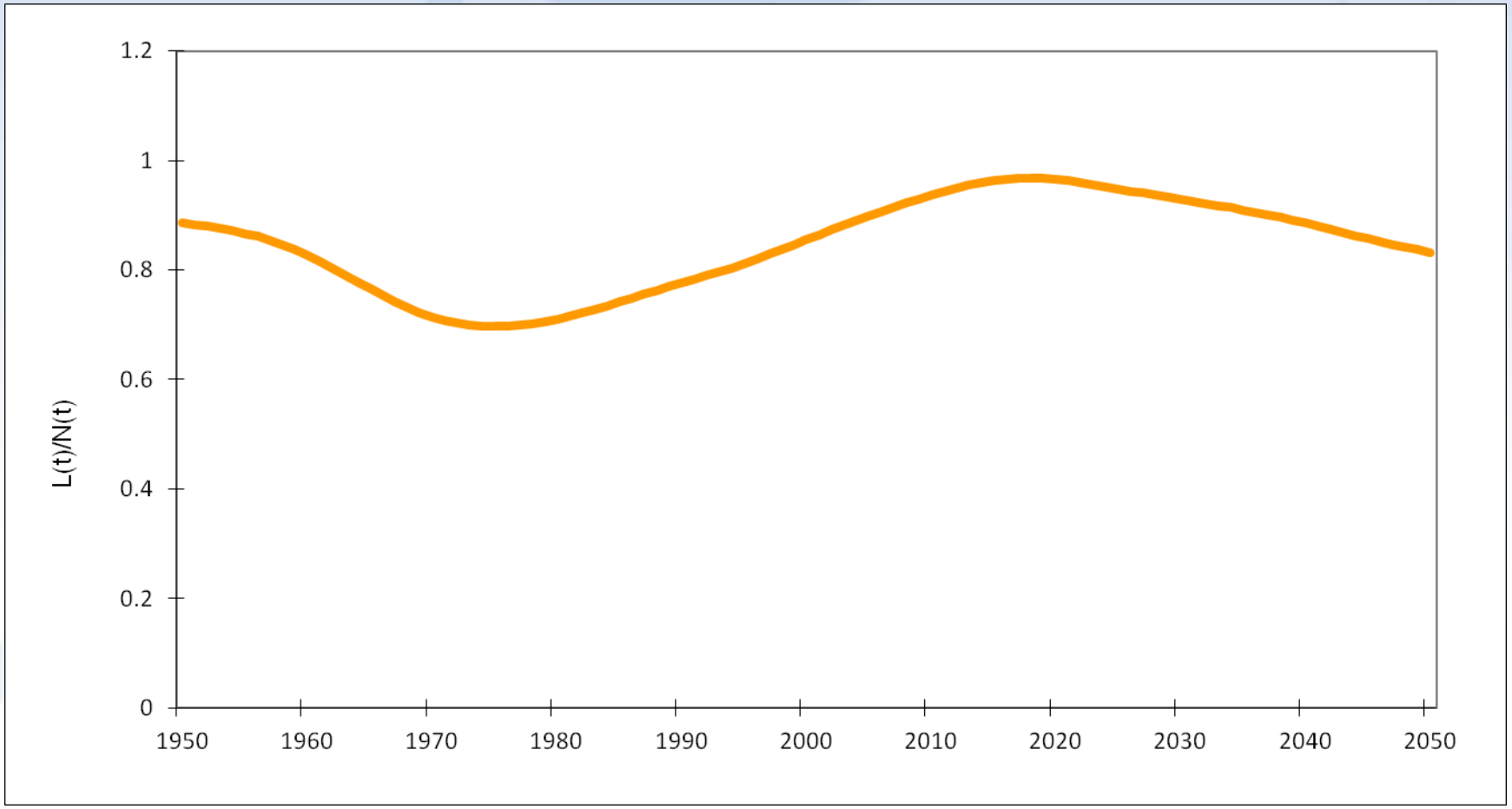
3. ESTIMATES AND POLICY IMPLICATIONS

Age	0-19 (Child)	20-39 (Young)	40-59 (Middle-age)	60+ (Elderly)	Total
YL	14,557	313,595	256,232	27,184	611,569
C	145,831	207,765	208,101	265,493	827,189
C-edu	24,937	10,578	356	6	35,877
C-health	6,408	7,473	8,488	16,807	39,176
C-other	114,486	189,713	199,257	248,680	752,136
Deficit	**-131,273**	**105,830**	**48,132**	**-238,309**	**-215,620**

Note: Age categorization is based on Malmberg's four stages of demographic transition

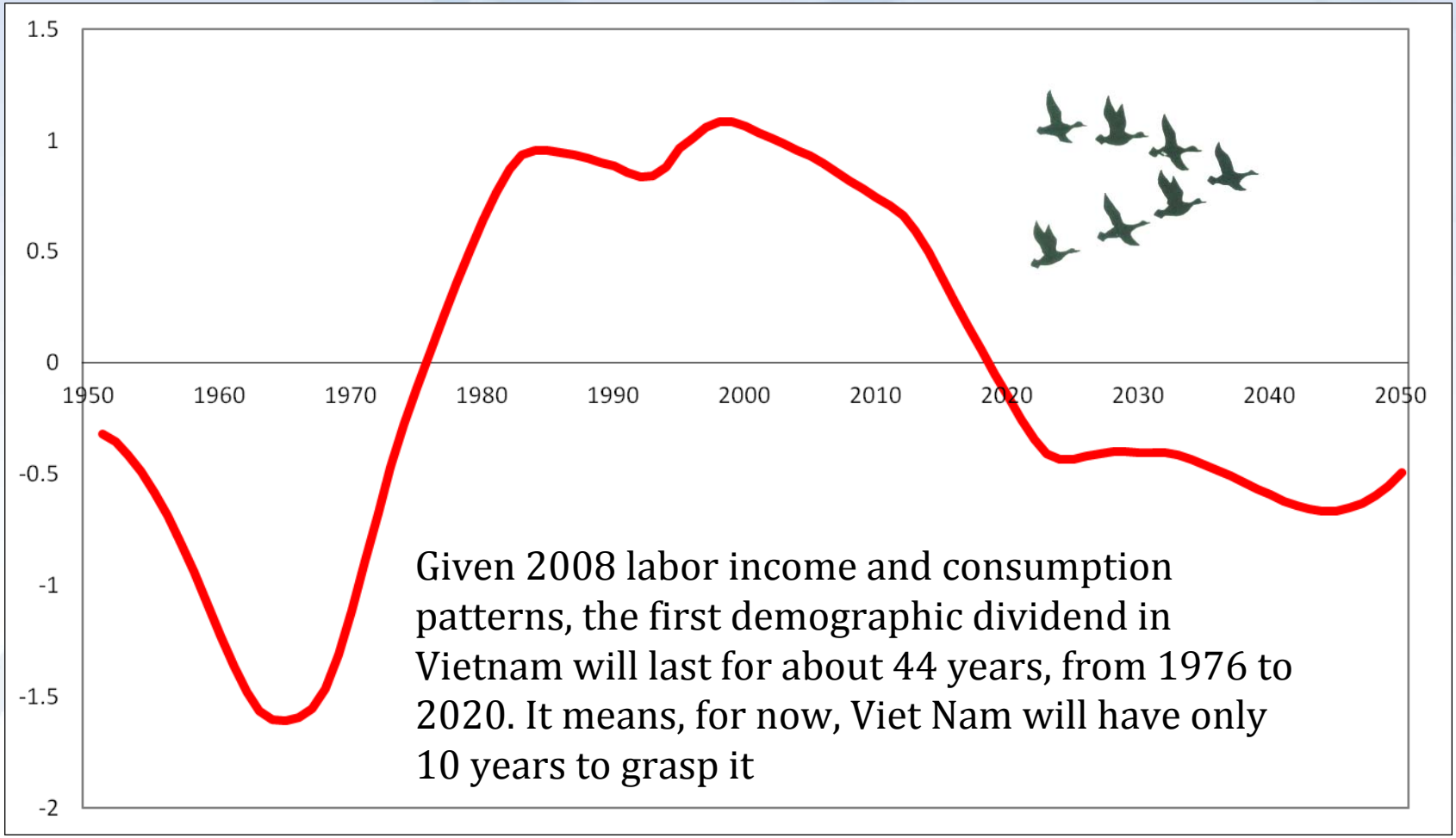
3. ESTIMATES AND POLICY IMPLICATIONS

Economic Support Ratio, 1950-2050

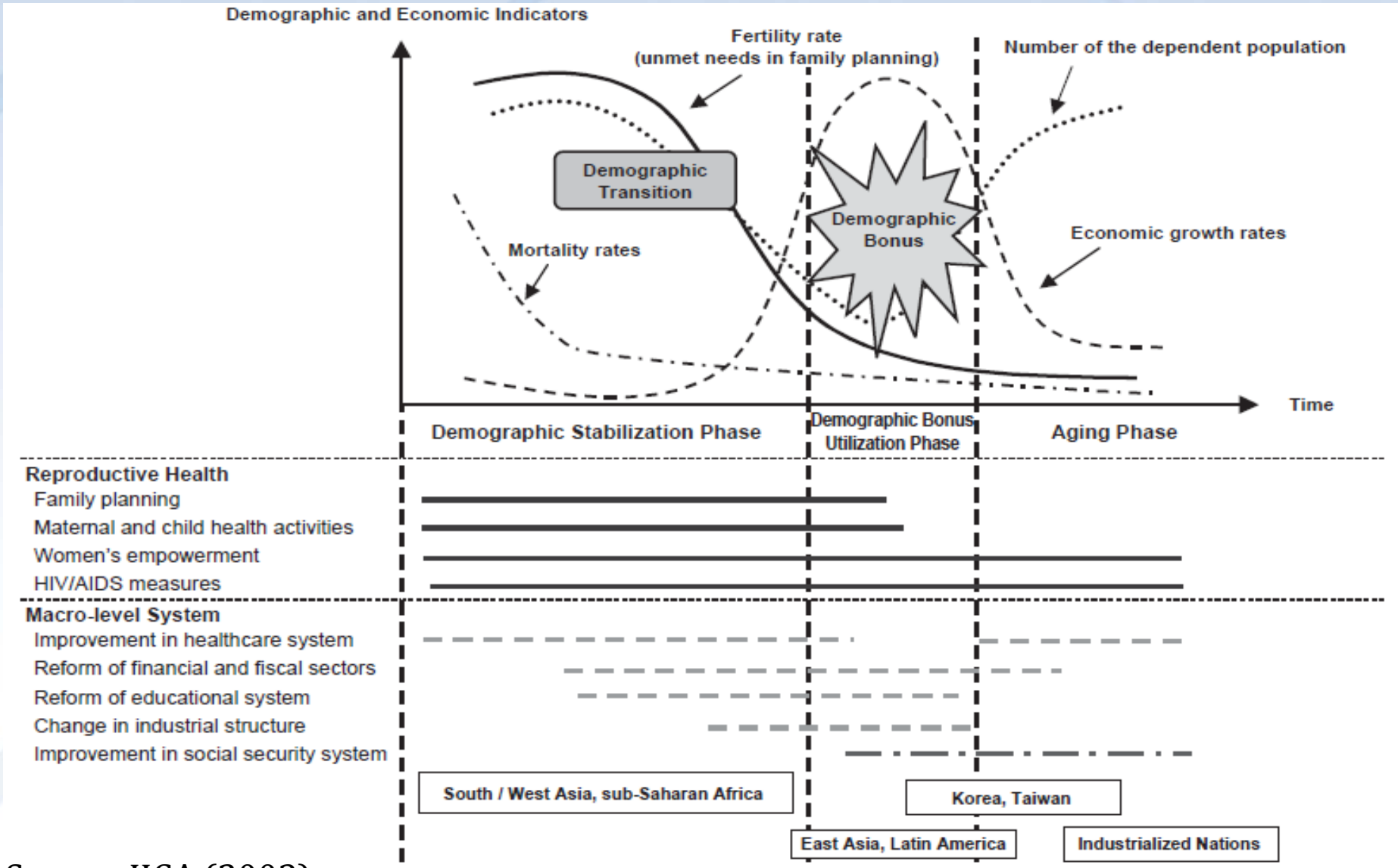


3. ESTIMATES AND POLICY IMPLICATIONS

First Demographic Dividend



3. ESTIMATES AND POLICY IMPLICATIONS



Source: JICA (2003)

4. CONCLUDING REMARKS

- Viet Nam has been going through the first demographic dividend, which happens during 1976-2020. *Such dividend should be well realized and positioned in any socio-economic strategy*.
- *Demographic opportunity is only necessary condition*, while *domestic policy environment is sufficient condition* for taking advantages of population in economic growth and development.

4. CONCLUDING REMARKS

BONUS or **ONUS…**

… depends on how individuals, policy makers, and the whole society comprehend the nuances of demographic changes, so as to take advantages of positive impacts from such changes on economic growth and development.

5. ON-GOING WORK AND NEXT STEPS

- On-going: Revising/updating estimates using 1992-2010 labor income and consumption trends.
- Plan:
- Disaggregation by gender
- Disaggregation by area (urban vs. rural).
- Possible topics applying NTA:
- Population aging and generational welfare: What can Vietnam learn from other countries' NTA?
- Toward an aging population: Reshaping social protection in Vietnam.
- Aging, poverty and the role of pensions: A gender-based analysis.

THANK YOU FOR YOUR ATTENTION*!*

COMMENTS ARE WELCOME!