



# What different measures can tell us about “local development” in Japan?

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# Key Interests

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- Japan's Post-WWII economic reconstruction and development is seen as one of the successful cases in industrial development → GDP
- Human development (economy, knowledge, health) come to be recognized as a better way to measure progress in people's well-being → HDI
- Alternative way to measure people's well-being through people's subjective assessment over their lives → SWB
  - *Do different development measures tell us different interpretation over the development path?*
  - *Is there a way to apply the different measures to understand better over the development path and issue?*

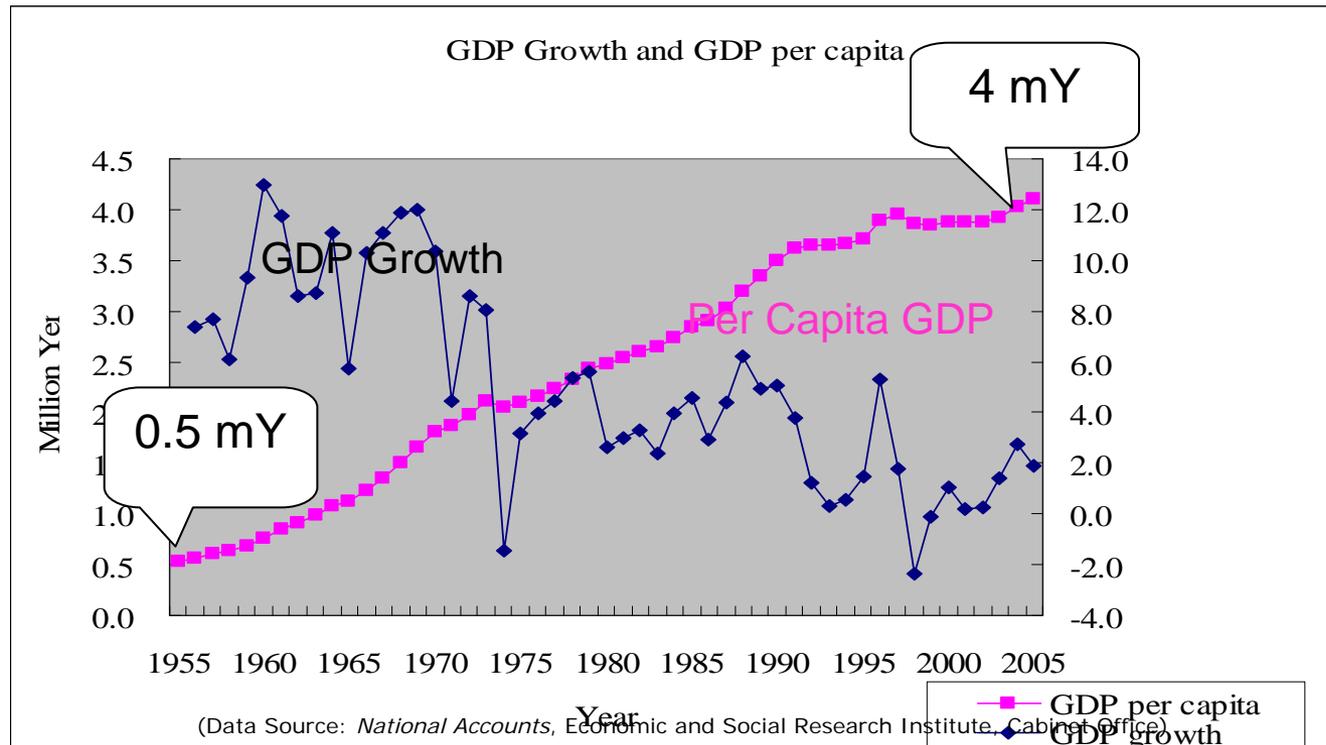
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# Growth in Japan

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# Japan: successful economic development

Japan has been highly praised by both development researchers and practitioners in its successful economic development after 1945.



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# HDI in Japan

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# Japan's Human Development Index

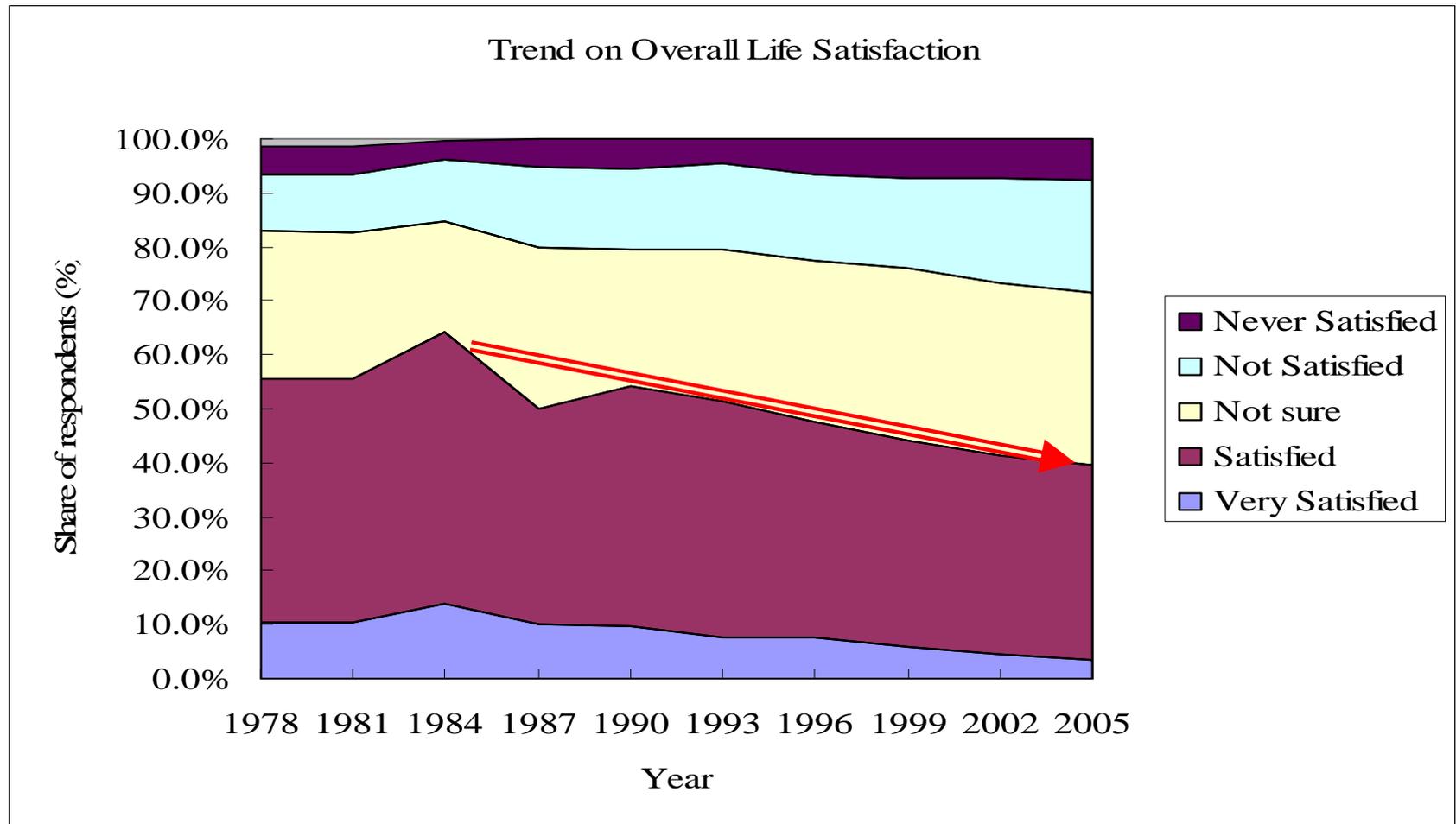
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- Japan is ranked at 7<sup>th</sup> in the world (UNDP 2006)
- Calculation of the prefecture-based HDI reveals distinctive differences across the country.
  - Prefecture-based HDI
    - Gaps among prefectures is not small
    - Tokyo (#1 in Japan) > Norway (#1 in the world)
    - Aomori (the bottom in Japan) ≈ Slovenia and Portugal (27<sup>th</sup>/28<sup>th</sup> in the world)

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# People's life satisfaction in Japan

# Life satisfaction among Japanese

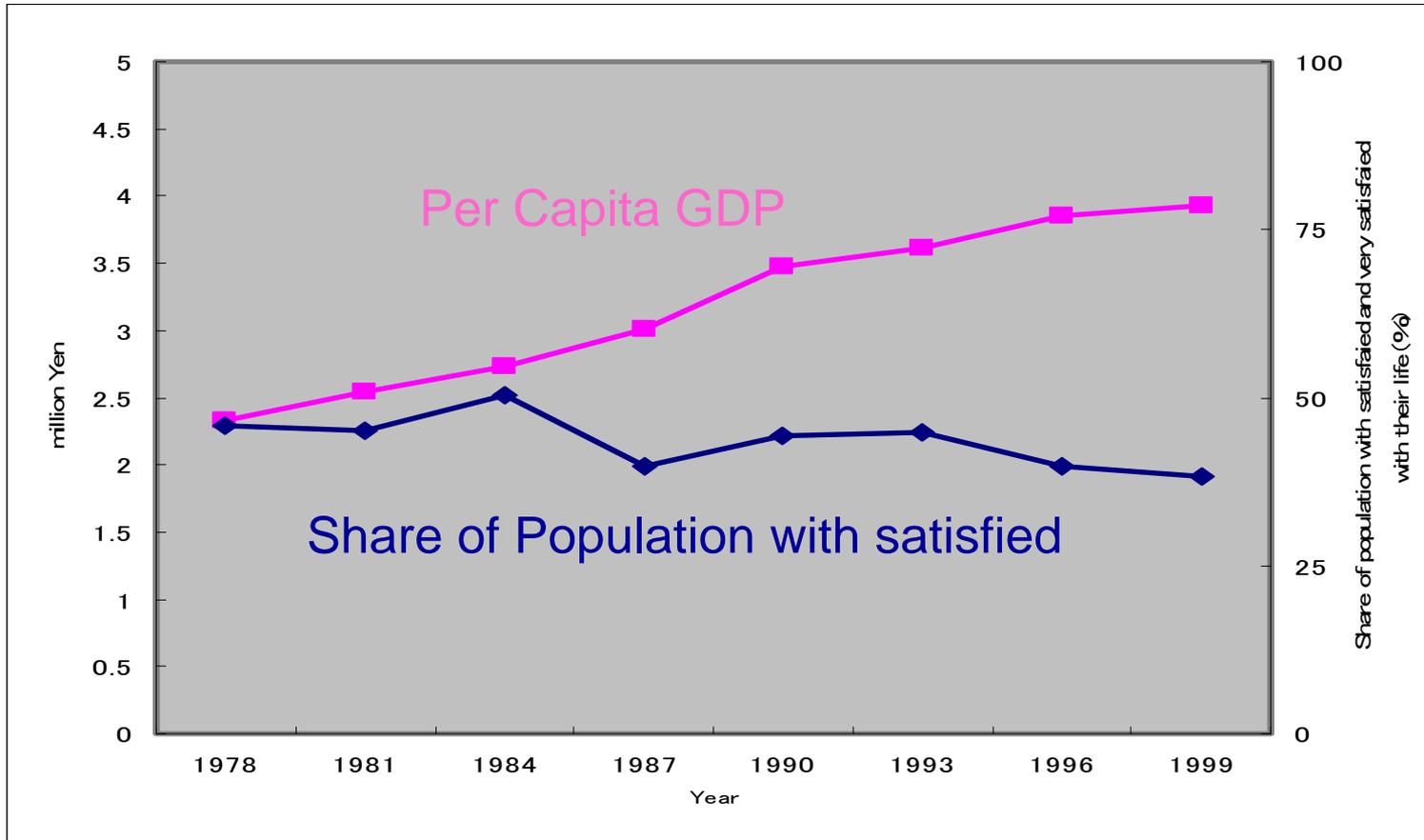


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(Data Source: *Survey of Lifestyles and Needs*, Cabinet Office)

**Figure 7: Overall Life Satisfaction in Japan**

# GDP vs. SWB trends



# Key determinants for life satisfaction by econometrics

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- Examined major factors for 1978, 1990, 2000 datasets by binomial logistic regression.
- Age, gender and house-ownership show statistical significance
- Recent trend shows that income level become more and more significant to determine the level of life satisfaction in Japan
- Married people are more satisfied with their life than single/widowed people.

# Who satisfied with one's life?

	High Satisfaction Group	Low satisfaction group
Age cohorts	Above 60's	20's and early 50's
Gender	Female	Male
Marital status	Married	Not-married
Income level	High	Low
Job status	Work	No work
House ownership	Owned + subsidized	Others

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Can we use different development measures together?

# Japan's Development: GDP-HDI-SWB Prefecture Level

## Top 5 and Bottom 5 prefectures by GDP, HDI and Life Satisfaction

Ranking	GDP (2000)	HDI (2000)	Life Satisfaction (2002)
Top 1	Tokyo	Tokyo	Tottori
Top 2	Aichi	Aichi	Tokushima
Top 3	Osaka	<u>Shiga</u>	Nagano
Top 4	<u>Shiga</u>	Shizuoka	Ishikawa
Top 5	Shizuoka	Fukui	<u>Nagasaki</u>
Bottom 5	Kagoshima	<u>Akita</u>	Hiroshima
Bottom 4	Saitama	Kagoshima	Iwate
Bottom 3	Nagasaki	<u>Nagasaki</u>	<u>Akita</u>
Bottom 2	Nara	Okinawa	<u>Shiga</u>
Bottom 1	Okinawa	Aomori	Kochi

	<i>Group 1</i> HDI>GDP by more than 5 ranks	<i>Group 2</i> HDI>GDP by 0 to 5 ranks	<i>Group 3</i> HDI=GDP	<i>Group 4</i> HDI<GDP by 0 to 5 ranks	<i>Group 5</i> HDI<GDP by more than 5 ranks
<b>Prefectures</b>	Kanagawa, Yamanashi, Gifu, Kyoto, Hyogo, Nara, Kagawa	Saitama, Chiba, Fukui, Nagano, Shizuoka, Shiga, Wakayama, Shimane, Okayama, Tokushima, Ehime, Fukuoka, Kumamoto, Okinawa	Tokyo, Toyama, Ishikawa, Aichi, Mie, Hiroshima, Kochi, Nagasaki	Hokkaido, Miyagi, Yamagata, Gunma, Niigata, Osaka, Tottori, Saga, Oita, Miyazaki, Kagoshima	Aomori, Iwate, Akita, Fukushima, Ibaraki, Tochigi, Yamaguchi
<b>45% and more Satisfied</b>	4 (57%)	3 (21%)	2 (25%)	3 (27%)	1 (14%)
<b>35% or less Satisfied</b>	0 (0%)	3 (21%)	2 (25%)	1 (9%)	3 (42%)

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- HDI > GDP by more than 5 ranks group: life satisfaction is high (more balanced development)
    - Dominated by urban prefectures with higher educational development and health services.
  - HDI < GDP by more than 5 ranks group: life dissatisfaction is high (less balanced development)
    - Dominated by backward prefectures (rural-based), depending on their economic livelihood by the public works program from the government.

# Summary

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- Findings by examination on prefecture-based development through GDP, HDI and Life Satisfaction shows different interpretation over the development; in particular between GDP/HDI and Life Satisfaction.
- Combined categorization of prefectures suggest a possibility of mixed use of objective and subjective measures to assess policy impacts at the local level.
- Careful data collection is needed.