

# Design and Construction of the Hong Kong Creativity Index

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Can Creativity be Measured?

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# Outline

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- [ Asian additions?
- [ Cultural Outcomes, Structural/Human/Cultural Capital
- [ Data Availability Problems
- [ Statistical Reliability and Validity
- [ Use of the Index

# Conceptual Framework

— [ Overall: Creativity Outcomes, Structural Capital, Human Capital, Social Capital, Cultural Capital

— [ Start from Florida's 3 Ts: Technology, Talent, Tolerance

— [ Silicon Valley Creativity Community Index - include cultural infrastructure, social connectedness, cultural participation and cultural policies

— [ Expand to cover other competitiveness and creativity elements

— [ Look at World Values Survey

# Technology

— [Innovation (patents)]

— [High-Tech (tech-related industry) replaced by R&D expenditure]

— [This all relates to a hardware perspective of technology, which may be too narrow for Hong Kong]

# Talent

— [ Educational attainment

— [ Specific occupational categories that relate to creative activity (split into creative and scientific talent classes)

# Tolerance

— [ Gay index (coupled gay population)

— [ Bohemian index (artistically creative population)

— [ Melting Pot (foreign-born population) (tricky for Hong Kong - are Mainland born people foreign-born?)

— [ In Euro version, use World Values Survey to assess Attitudes, Values, Self-expression (strengths of Europe compared to US)

# Asian additions?

- [Asian values have been controversial, but there are differences
- [Entrepreneurship - key element of economic growth in Asia
- [Social capital - traditionally provides opportunities to insiders, but can be defined in terms of relationships across groups and civic participation
- [Cultural capital - cultural assets provide basis for public participation (Silicon Valley study) and increased connectedness
- [Creative outputs - public goods that may stimulate further creative activity

# Creative Outputs

## — [ Economic contribution

— % of GDP, % workforce, % export trade, % import trade, % e-commerce trade

## — [ Inventive activity

— Ability to sell local brands internationally, ability to obtain new tech, patents/capita, % local patent applicants

## — [ Other outcomes

— Newspaper circulation/capita, new books/periodicals/capita, music titles/capita, lyrics/capita, films/capita, film shows/capita, performances/capita, floor area new buildings/capita<sub>8</sub>

# Structural/Institutional Capital

- [ Independent legal system

  - Enumeration of independence

- [ Corruption perceptions

  - %le on Corruption perception index

- [ Freedom of expression

  - %le scoring of freedom of press, speech

- [ ICT infrastructure

  - % of businesses with PCs, Internet, website, % of HH with PCs, Internet, mobile phone/capita

# Structural/Institutional Capital

- [ Social/Cultural infrastructure

- Community halls & centres/capita, civic centres/capita

- [ Community facilities

- NGOs/capita, public library users/capita, books in libraries/capita, seats in cultural venues/capita, monuments/city, museums/city

- [ Financial infrastructure

- Listed companies/capita, Stock market cap/GDP, venture capital/GDP

- [ Entrepreneurship

- SME/companies, %le Labour Productivity Index

# Human Capital

## Expenditure on R&D and Education

- R&D (business), R&D (higher ed), R&D (public) /GDP, Public education/GDP

## Knowledge Workers

- Tertiary (non-degree), Tertiary (degree and above) / population aged 15+, R&D employees/labour force

## Mobility

- Visitor arrivals, resident departures, Emigrants, Working visas/capita

# Social Capital

- [ Development of Social Capital

- charitable donations (personal), (companies) / GDP

- [ Network quality: norms & values (World Values Survey)

- generalized trust, institutional trust, reciprocity, sense of efficacy, cooperation, attitude towards, acceptance of diversity, attitude towards human rights, towards immigrants, towards foreigners' lifestyles, modern vs traditional values, self-expression vs survival

- [ Network quality: social participation (WVS)

- Interest in public affairs, participation in social organization, social contact with acquaintance, with community, sense of efficacy, volunteers/capita

# Cultural Capital

## Cultural expenditure

— % of public expenditure on arts & culture, % of HH expenditure on designated cultural goods & services

## Network quality: norms and values (WVS)

— Value placed on creative activity, children's creative activity, arts and cultural activities, children's arts and cultural activities, strong advocate for arts & culture

## Environmental factors

— Evaluation of cultural milieu encourages creative, cultural participation, value on morality for purchase of pirated goods

## Network quality: cultural participation

— Books borrowed/year/capita, royalties paid/capita, % week for personal internet use, museum visits/year/capita, cultural attendances/year/capita, film attendances/year/capita

# Data Availability Problems

- [ Missing data (so exclude items) on
  - Protection of intellectual property rights (much improved now)
  - Social innovation (application of entrepreneurship skills to social problems)
- [ Disposable personal income spent on arts and culture (replaced by HH expenditure on selected items)
- [ Art and culture participation restricted to government sponsored shows
- [ No historical data on
  - Tolerance (so assumed no change over short term)

# Statistical Reliability & Validity

— [ Cross-sectional Analysis

— [ Longitudinal Analysis

# Cross-sectional Analysis

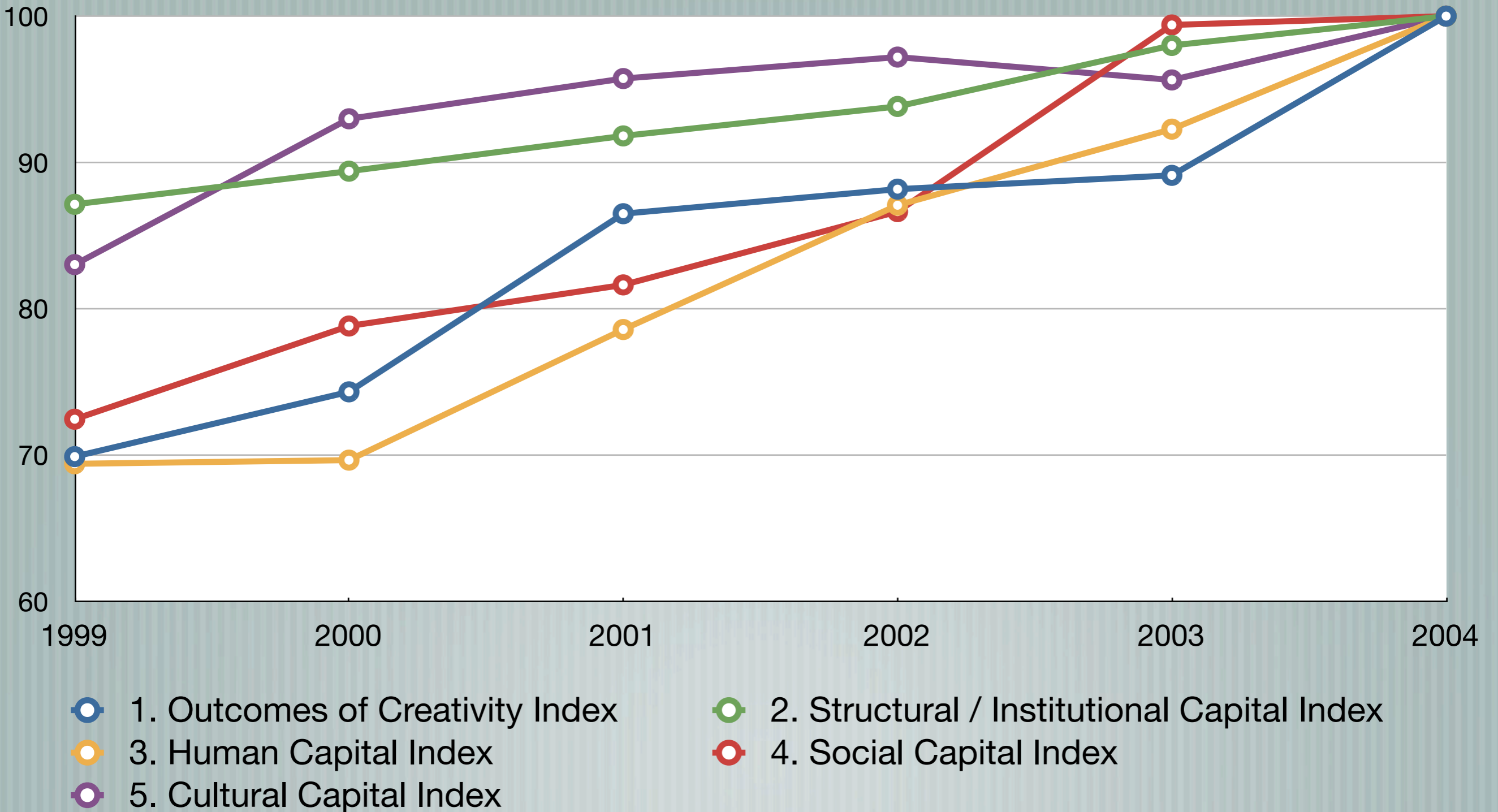
— [Some items were only collected once, but collected for many individuals, which enables evaluation of reliability of items in scales across individuals, e.g. World Values

— [Need to also look at longitudinal analysis later, when data collection has been repeated

# Longitudinal Analysis

- [ Many items were collected (nearly) every year, but only in aggregate, so it was only possible to look for reliable relationships between items within a scale over time.
- [ Nearly all items are ratios even before indexing process, so analyze log transformed data (which changes ratios into differences) using Principal Component Analysis (look for stable positive correlations within sub-scales)
- [ Both Cross-sectional and Longitudinal Analyses facilitate reflection over which items belong in the same or separate sub-scales
- [ Analysis was critical in structuring the sub-scales within the five major scales

# Hong Kong Creativity Index



# Use & Value of the Index

## Positive

- Stimulated invaluable debate about the changes and their importance!
- Structural and Cultural Capital have clearly been increasing less than Human and Social Capital and Cultural Outcomes

## Negative

- Little interest in funding updates to the Index

## Overall

- Gets references by politicians in debates about governments grand plans for cultural developments, indicating that the government will need to update the study for evaluating cultural outcomes using evidence.