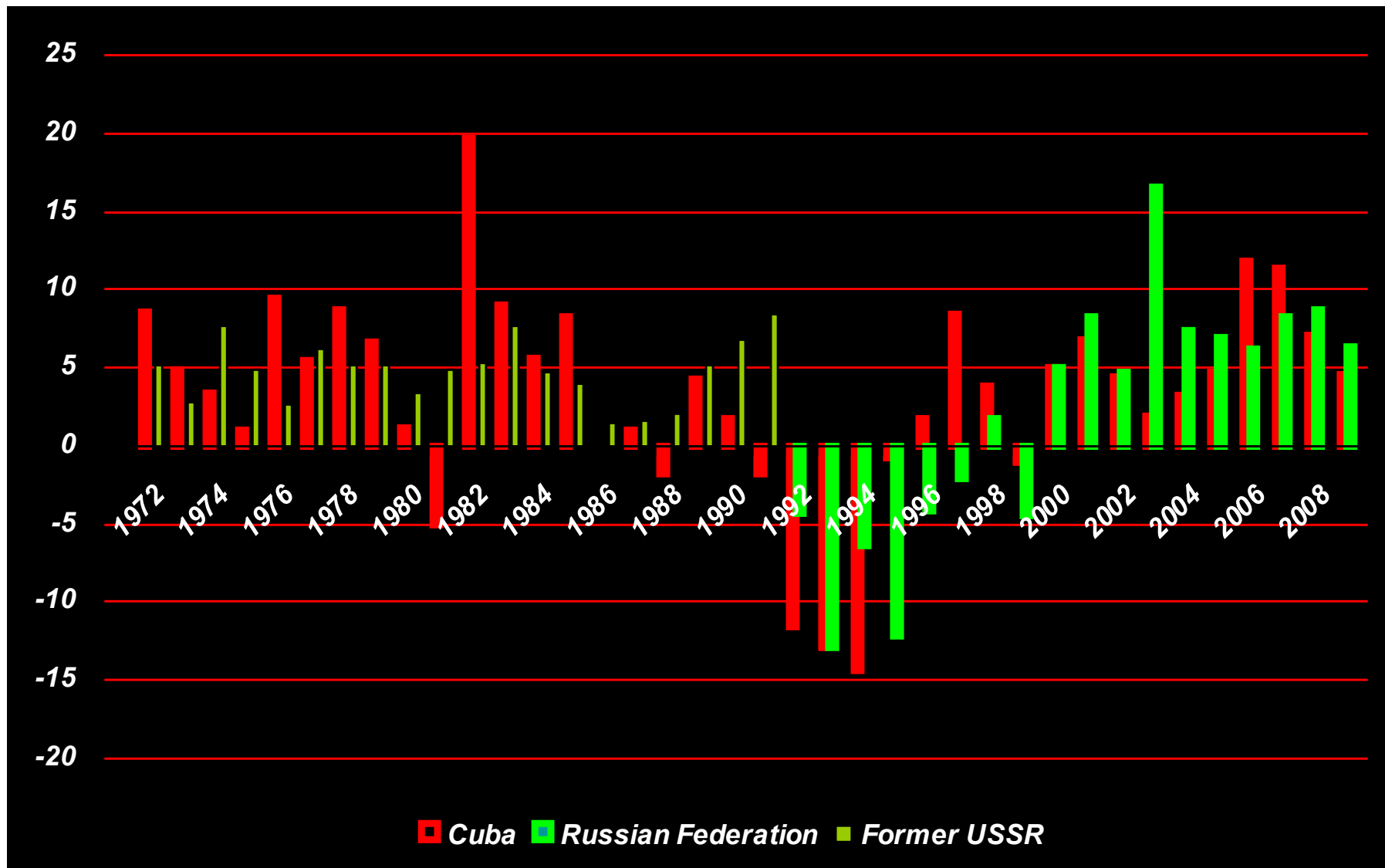


Degrowth and Health

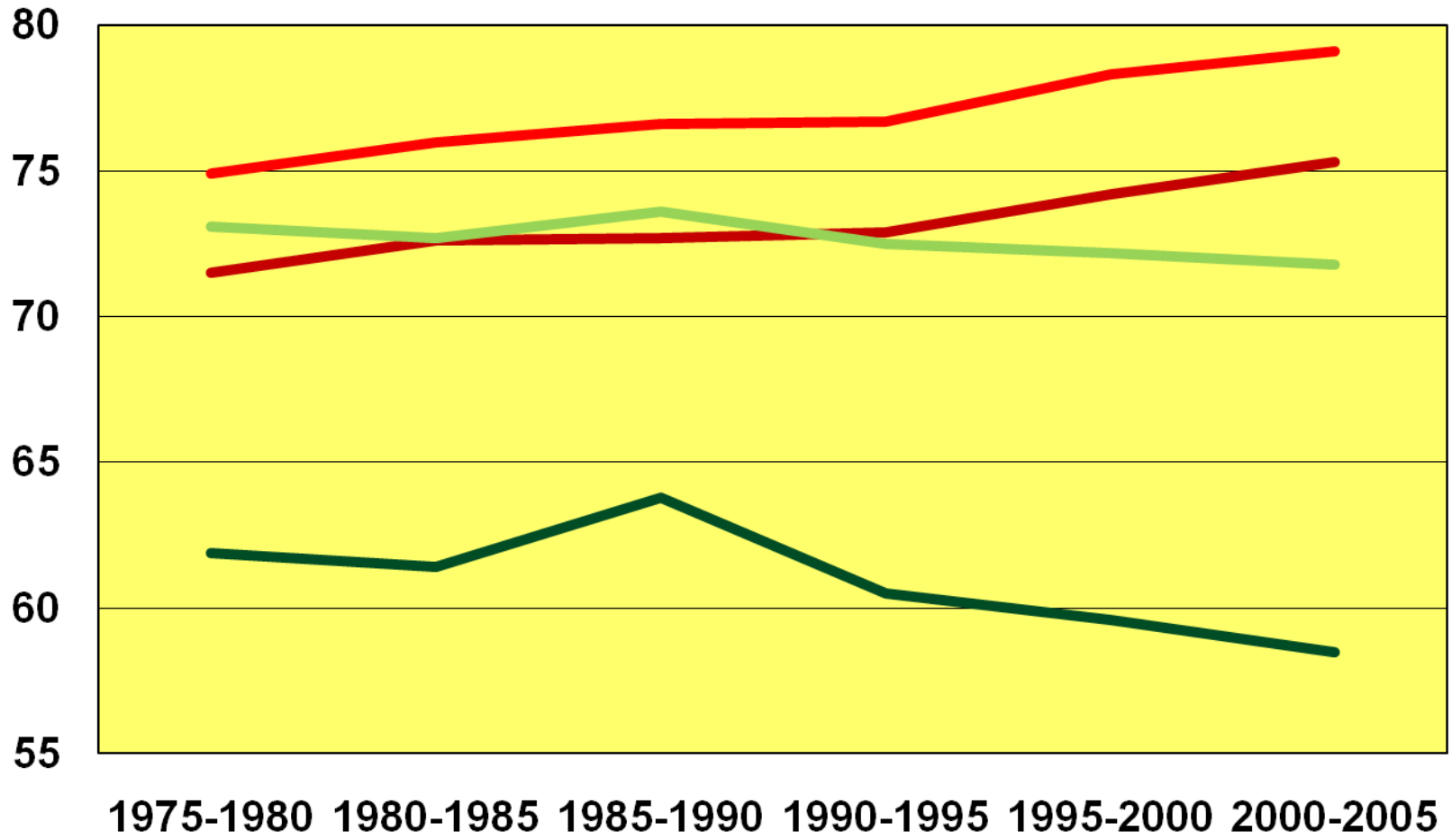
Iris Borowy

University of Rostock

Growth Rate of GDP at Constant 1990 Prices in Percent



Life Expectancy at Birth



— Cuba Male — Cuba Female — Russia Male — Russia Female

Case Study: Cuba and the Russian Federation during the 1990s

- Question: Why did the 1990s economic crisis appear to make Cubans healthier and Russians sicker?

Economic Crisis

- Cuba: 1989 to 1993:
 - Fall of imports by 75 %
 - Reduction of oil imports from 13 to 6 million tons
 - Reduction of GDP to 65.2 %.
- Russia:
 - 1992 – 1996: Fall of industrial and agricultural production by more than 50%
 - 1990-1994: fall of annual per capita income \$ 4.110 to \$ 2.650
 - 1991 – 1995: fall of consumption of goods / services by a third

Reactions

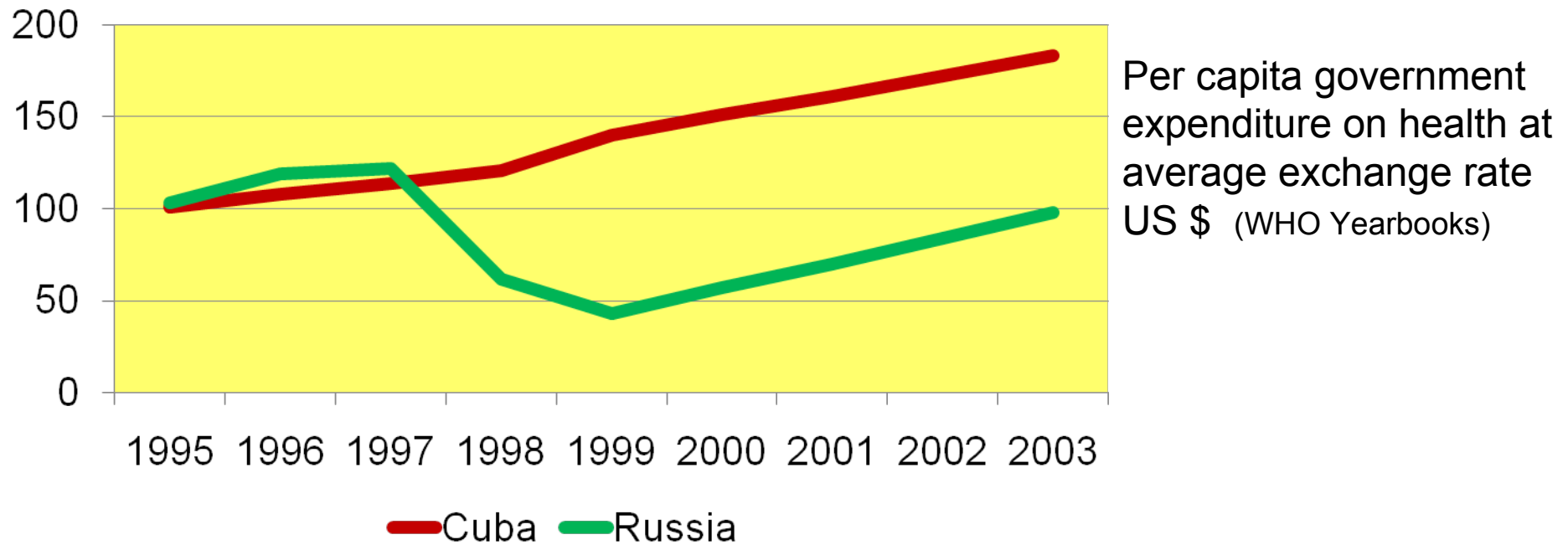
- Cuba:
 - Stimulation of growth
 - Support of promising sectors: tourism, sugar, nickel, biotechnology
 - Privatizations
 - Food production
 - Government support for private farming
 - (Organic) Urban agriculture
 - Adaptations to reduced oil
 - Importation of bicycles
 - Decentralization of public life
- Russia
 - Stimulation of growth
 - Support of heavy industry
 - Privatizations
 - Food production
 - Private household plot farming
 - Stimulation of oil production

Possible Explanations: Some Social Determinants of Health

Reference: Richard Wilkinson / Michael Marmot (eds.), The Solid Facts, 2nd ed., WHO, Geneva 2003.

- The social gradient
- Early life
- Stress
- Social exclusion / Social support
- Working Conditions / Unemployment
- Food
- Addiction: Alcohol
- Transport

Early Life: Status of Public Health



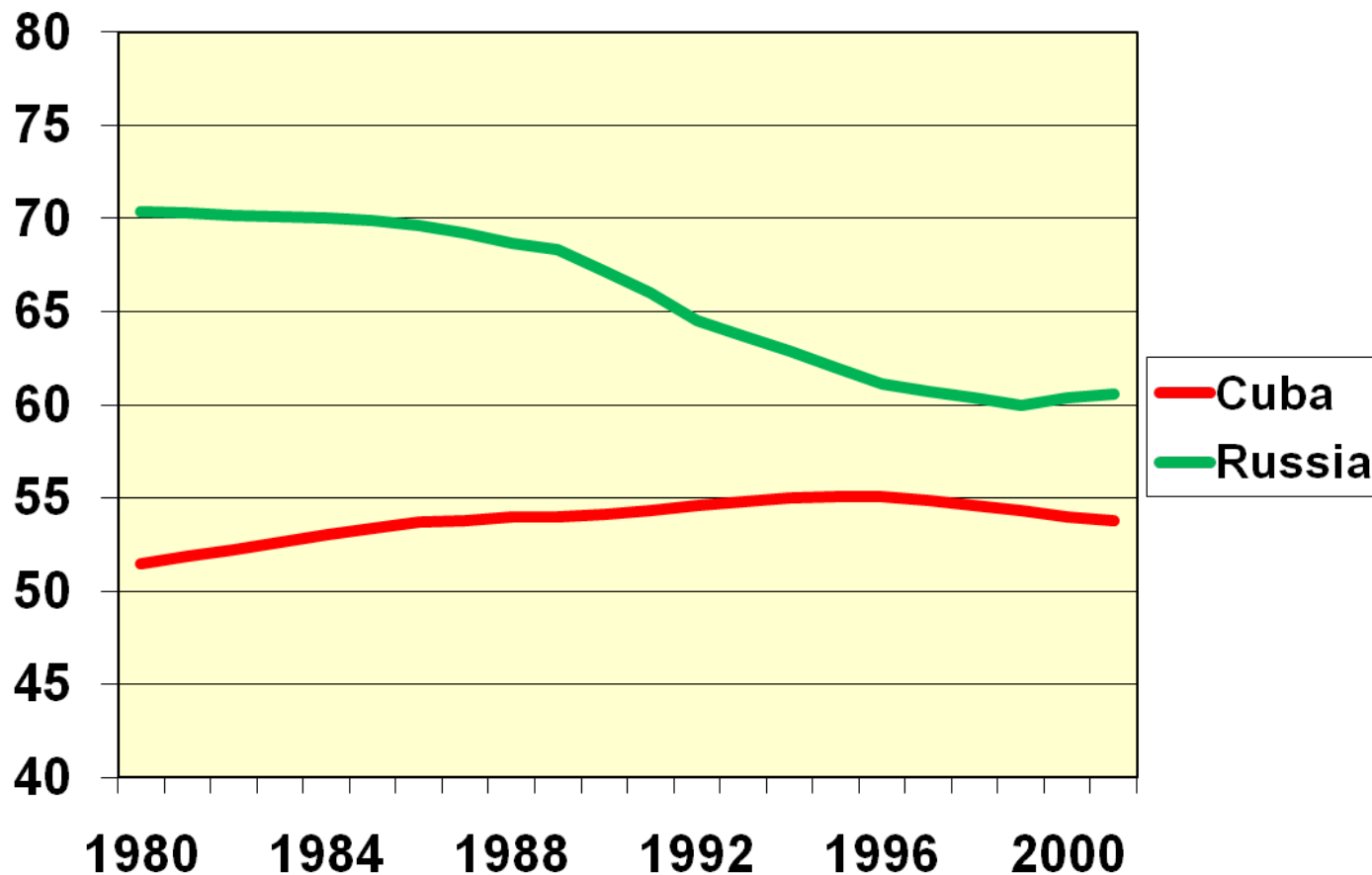
Ratio per 100.000 population, 1993 (WHO Yearbook)

	Physicians	Nurses / Midwives
Cuba	518	752
Russia	380	659

Health system attainment and performance in WHO Member States, estimates for 1997: Cuba rank 40; Russian Federation: rank 100

Stress: Economically Active Population Estimates

Source: <http://laborsta.ilo.org>



Stress

Reasons for Economic Crisis

Cuba

Internal Inefficiency

Collapse of Trade Relations with Soviet
Block

US Embargo

Russian Federation

Internal Inefficiency

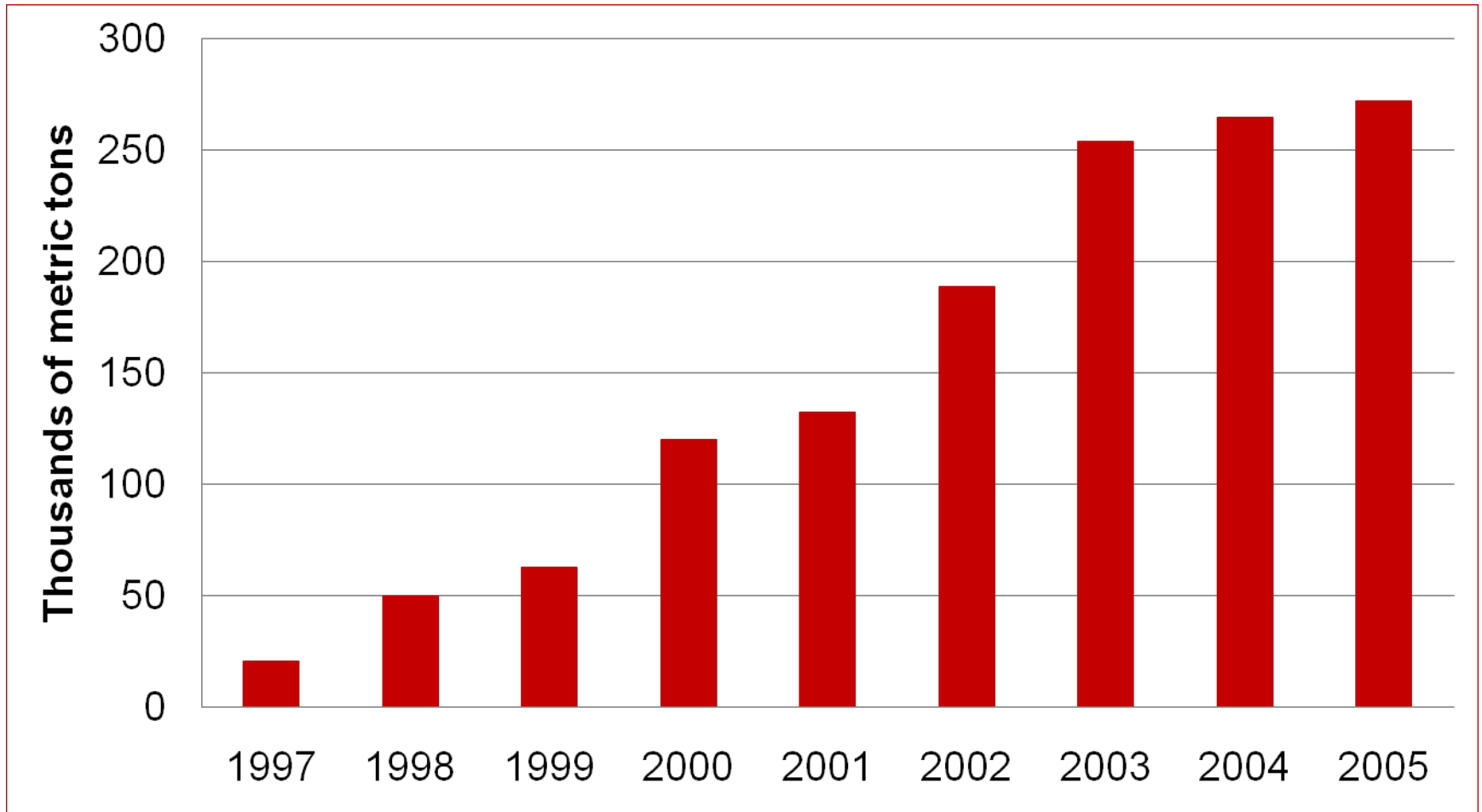
Effects on Food Intake

		1990	1997
Russia:	Meat products	100	67
	Dairy products	100	59
	Eggs	100	72
	Sugar	100	68
	Potatoes	100	123
	Cereal products	100	99

		1989	1993
Cuba	Per capita kcal consumption	2899	1863

Widespread weight loss (average: 5-6%)

Annual Production of Vegetables in Havana



Effects on Public Health in Cuba

	Before crisis	During crisis	After crisis
% of Physically Active	30 (Havana) (1987)	70 (1991-95)	67 (2001)
Obesity			
Havana	1982: 11.9 %	1994: 5.4 %	1998: 9.3%
Cienfuegos	1990: 14.3%	1995: 7.2%	2001: 12.1%
Diabetis mortality Index		1997: 100	2002: 49
CHD / Stroke Mortality Index		1997: 100	2002: 65
All cause mortality Index		1997: 100	2002: 82

Sources: Franco, Manuel et al., "Impact of Energy Intake, Physical Activity, and Population-wide Weight Loss on Cardiovascular Disease and Diabetes Mortality in Cuba, 1980-2005," in: *American Journal of Epidemiology* 166 (2007), pp.1374-1380; WHO Status Report on Alcohol 2004.

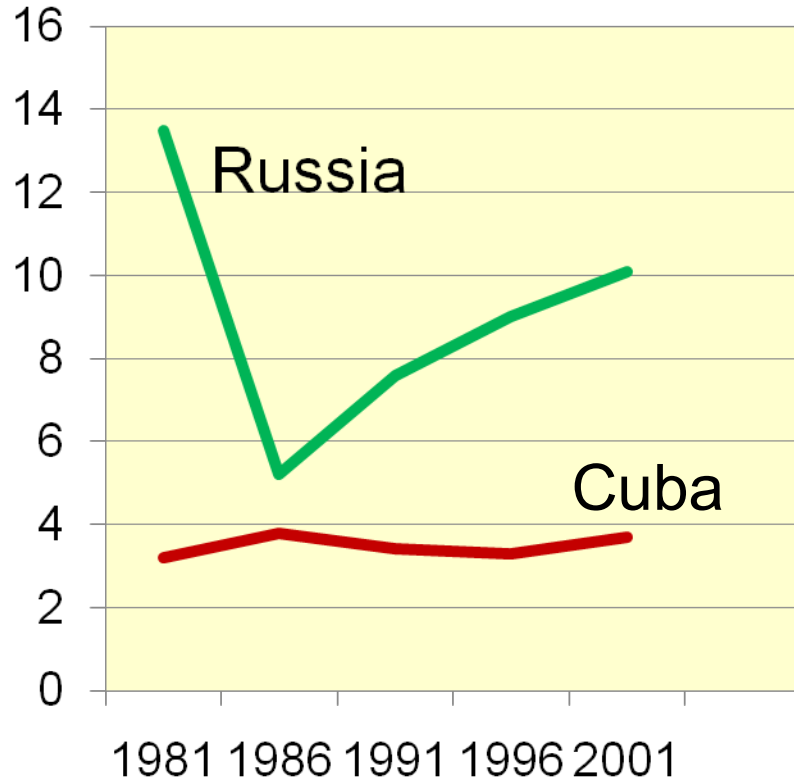
Options to get away

Cuba	Russian Federation
Emigration Net Migration Rate 1990-95: - 1.8	Emigration: Net Migration Rate 1990-95: 0.3
	Alcohol

Dominant Group: (Single) Men

Russia: Alcohol

Official Consumption of pure Alcohol



Source: WHO Global Status Report on Alcohol 2004

Effects on Mortality

- Increases in deathrates for
 - Cirrhosis of the liver
 - Accidental poisonings
 - Road traffic accidents
 - Intentional injuries

Reasons for decline in life expectancies:

- Ca. 33% due to external causes (intentional and unintentional injuries)
- Ca. 12 % due to directly alcohol-related causes

Advantages of Cuba

- Sustained high priority for health care
- Some preparation for urban agriculture
- Probably lower stress level
 - Crisis perceived as fate rather than fault
 - Higher degree of employment
- Smaller Size

Different Effects

- Reduced availability of food
 - Cuba: widespread weight loss > decline in obesity and related mortality
 - Russia: increase in malnutrition
- Substantial increase of household plot farming
 - Cuba: increase in vegetable production and consumption > diversification of diet;
 - Cuba: growing expertise in organic agriculture > new (exportable) service
 - Russia: increase in potato production and consumption > impoverishment of diet
- Increasing tension
 - Emigration
 - (Emigration and) alcoholism

Different Effects II

- Increasing price of alcohol
 - Reduced consumption
 - Increased moonlighting
- Reduced availability of oil
 - Cuba: reduced industrial production; increased physical exercise (walking and bicycle); decentralization
 - Russia: reduced industrial production, increase of domestic oil production

Lessons for Degrowth ?

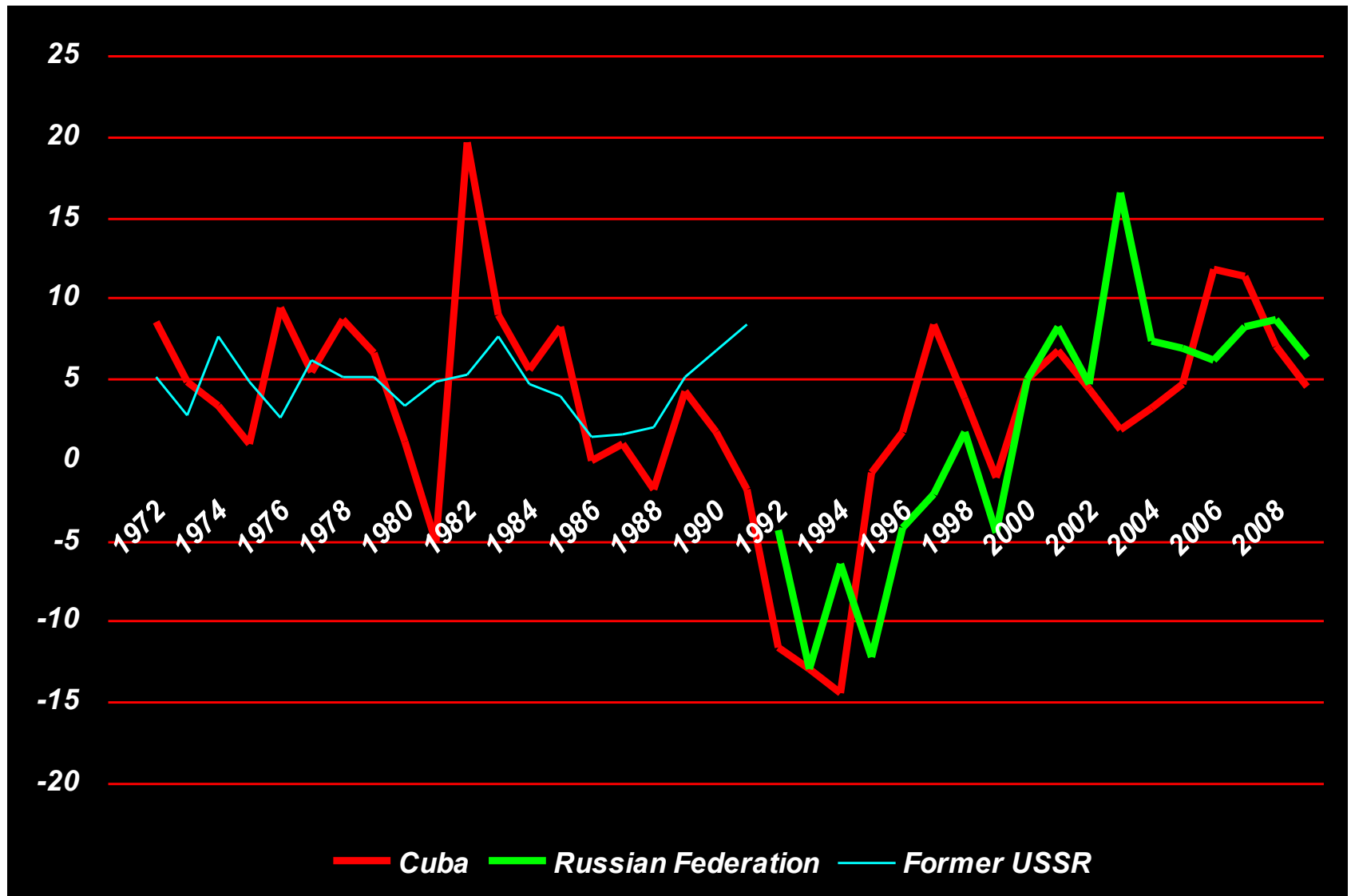
- Transition is painful, but can be healthy when
 - Social services are safeguarded
 - The Situation appears as
 - Unavoidable, external = non-threatening, nobody's fault (disaster acceptance approach)
 - Shared by all („all in the same boat“ approach)
 - Surmountable („Yes we can“ approach)
 - Possibly beneficial: potential gains larger than potential losses („crisis as opportunity“ approach)

Thank you!

Lessons for Degrowth Policy?

- Prioritize healthcare
- Support decentralized agriculture with know-how and infrastructure
- Decentralize public life, support bicycle lanes

Growth Rate of GDP at Constant 1990 Prices in Percent

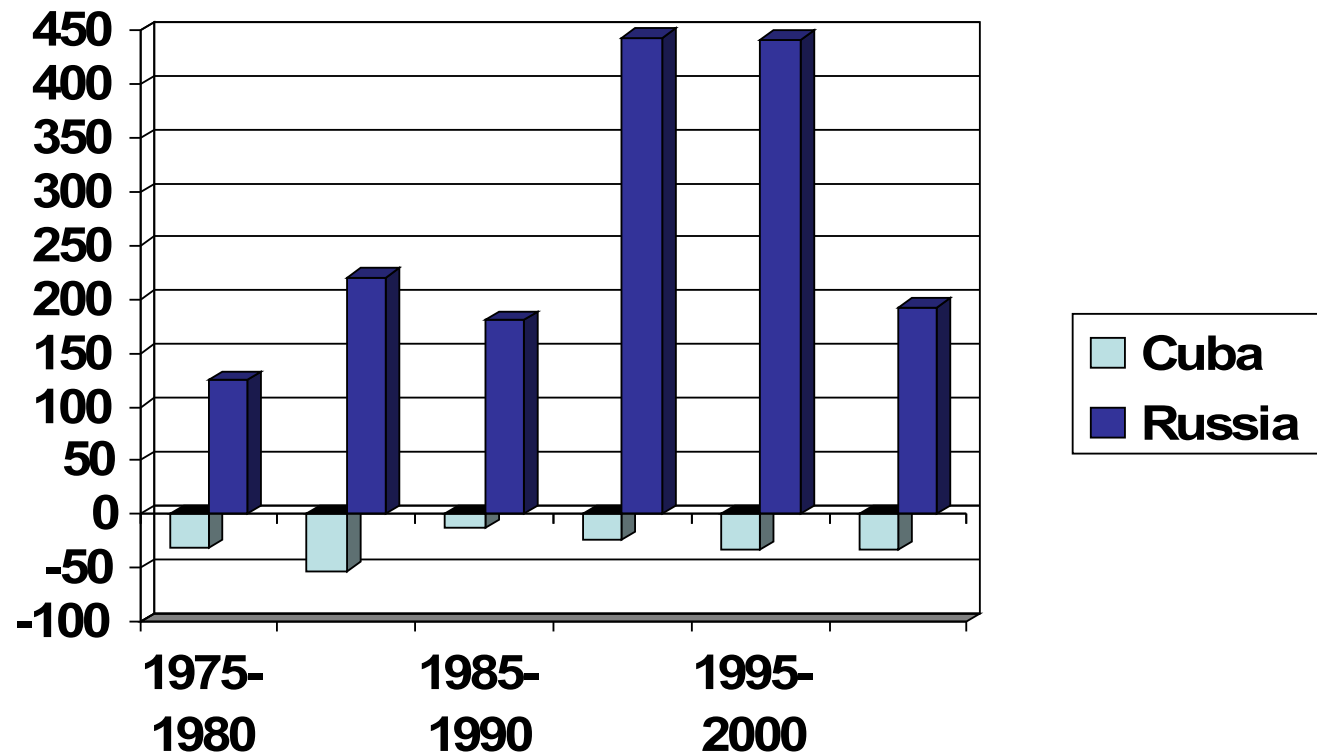


Transport

- Cuba:
 - Import and production of bicycles
 - Reduction of bus services
 - decentralization
- Russia:

Net migration (per year), both sexes combined (thousands)

Source: World Population Prospects: The 2008 Revision, Population Database
<http://esa.un.org/unpp/p2k0data.asp>



Infant Mortality Rate?

Standardized Mortality Rates?

Some Social Determinants of Health

Reference: WHO, The Plain Facts . . .

- The social gradient
- Stress
- Early life
- Social exclusion
- Work
- Unemployment
- Social support
- Addiction
- Food
- Transport
- Socio-economic
 - The social gradient
 - Early life
 - Social Exclusion / Support
 - Work / Unemployment
 - Food
 - Transport
- Behavioural
 - Food
 - Addiction

Different Effects

- Less food
 - Cuba: decline in obesity and related mortality
 - Russia: increase in malnutrition
- More household plot farming
 - Cuba: diversification of diet (vegetables!); expertise in organic farming
 - Russia: impoverishment of diet (potatoes)
- Increasing price of alcohol
 - Reduced consumption
 - Increased moonlighting
- Less available oil
 - Cuba: reduced production; increased physical exercise (walking and bicycle); decentralization
 - Russia: reduced production

- <http://unstats.un.org/unsd/snaama/dnIList.asp>

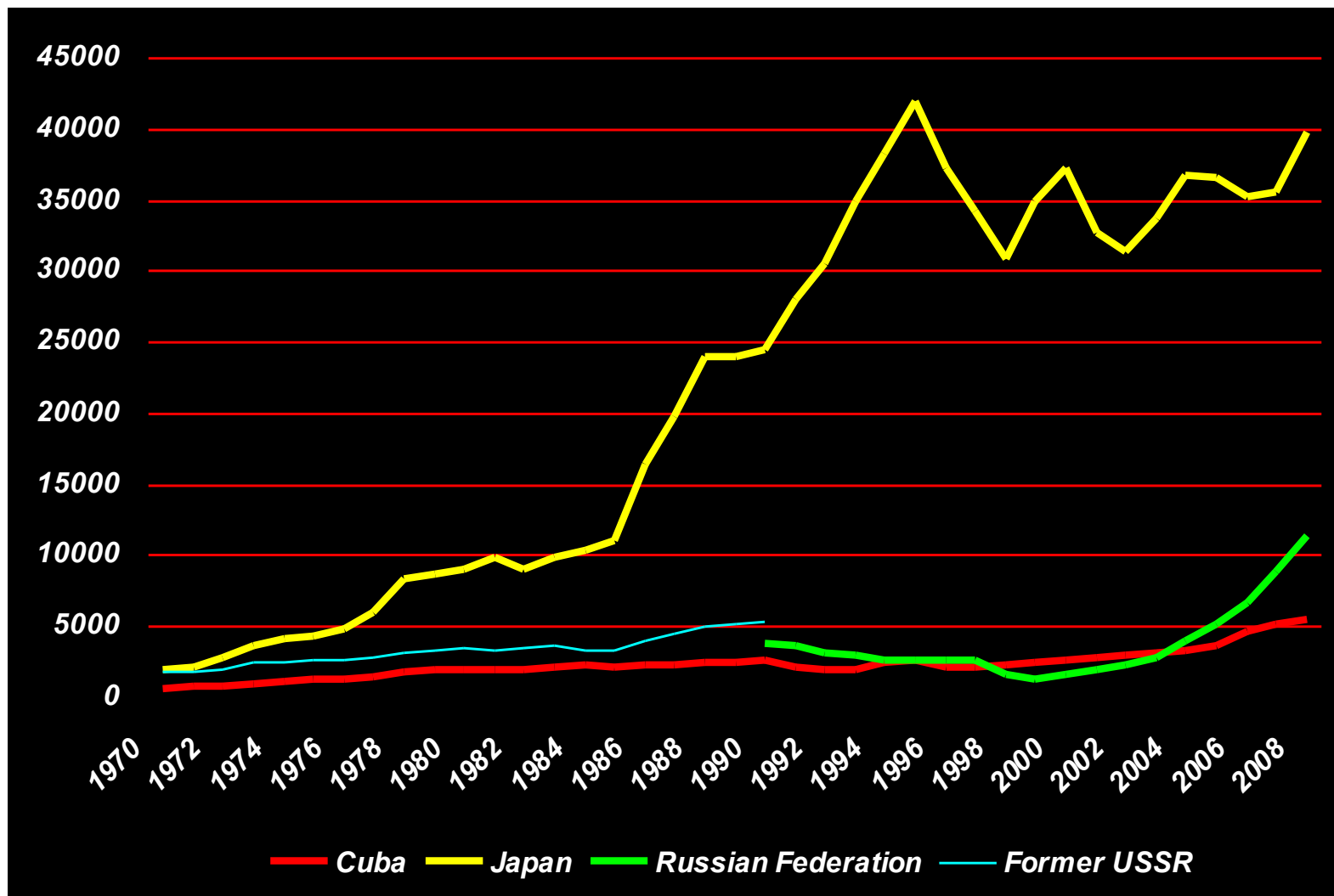
Possible Relevant Factors

- Societal equality (Gini-Coefficient)
- Core health determinants
 - Nutrition
 - Physical Exercise
 - Public health care system
 - Social capital
 - Psychological factors (stress, fear)
 - sleep

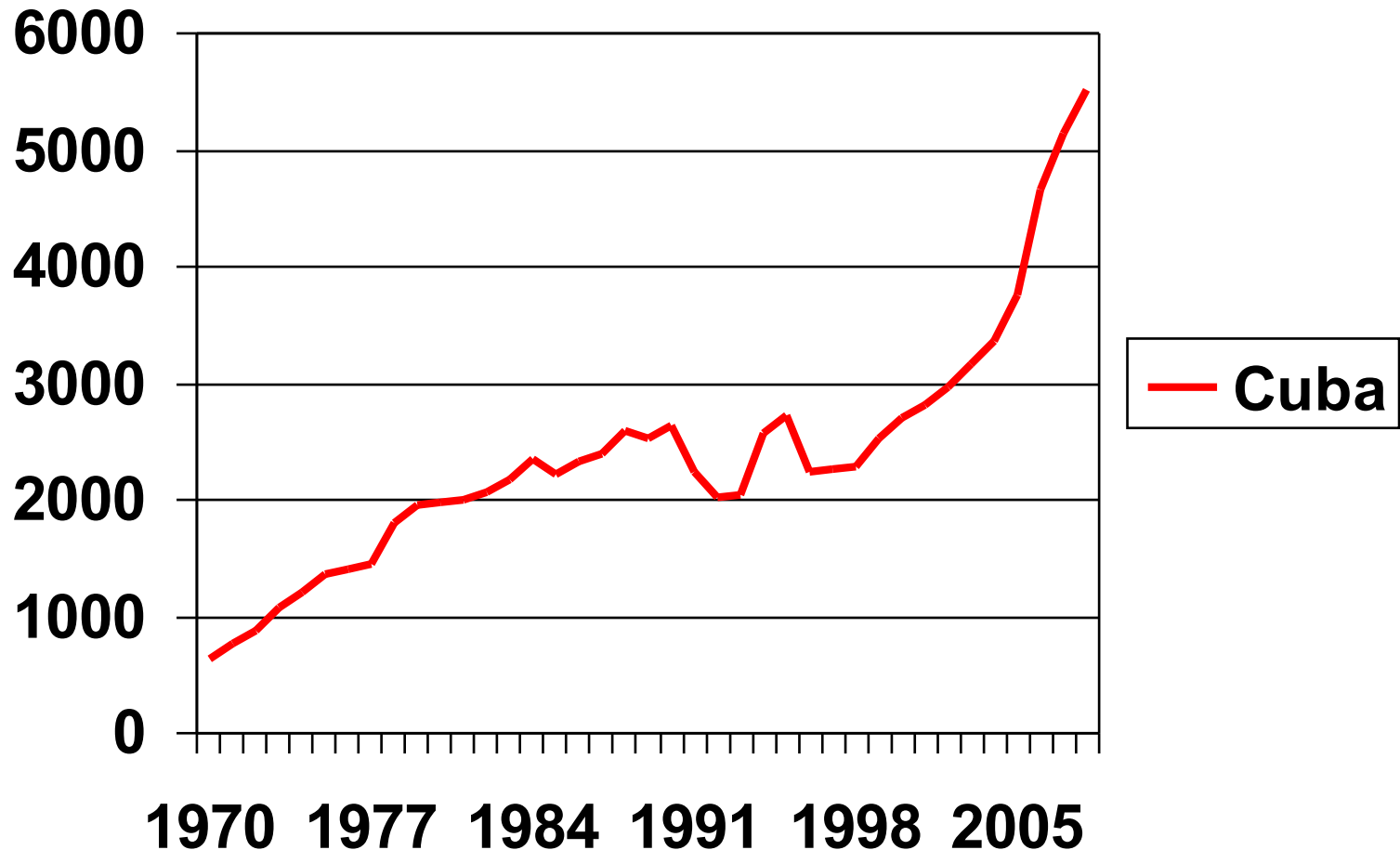
Different Reactions

- Role of government
- Role of community
- Role of crime
- Role of alcohol
- Role of perceived future

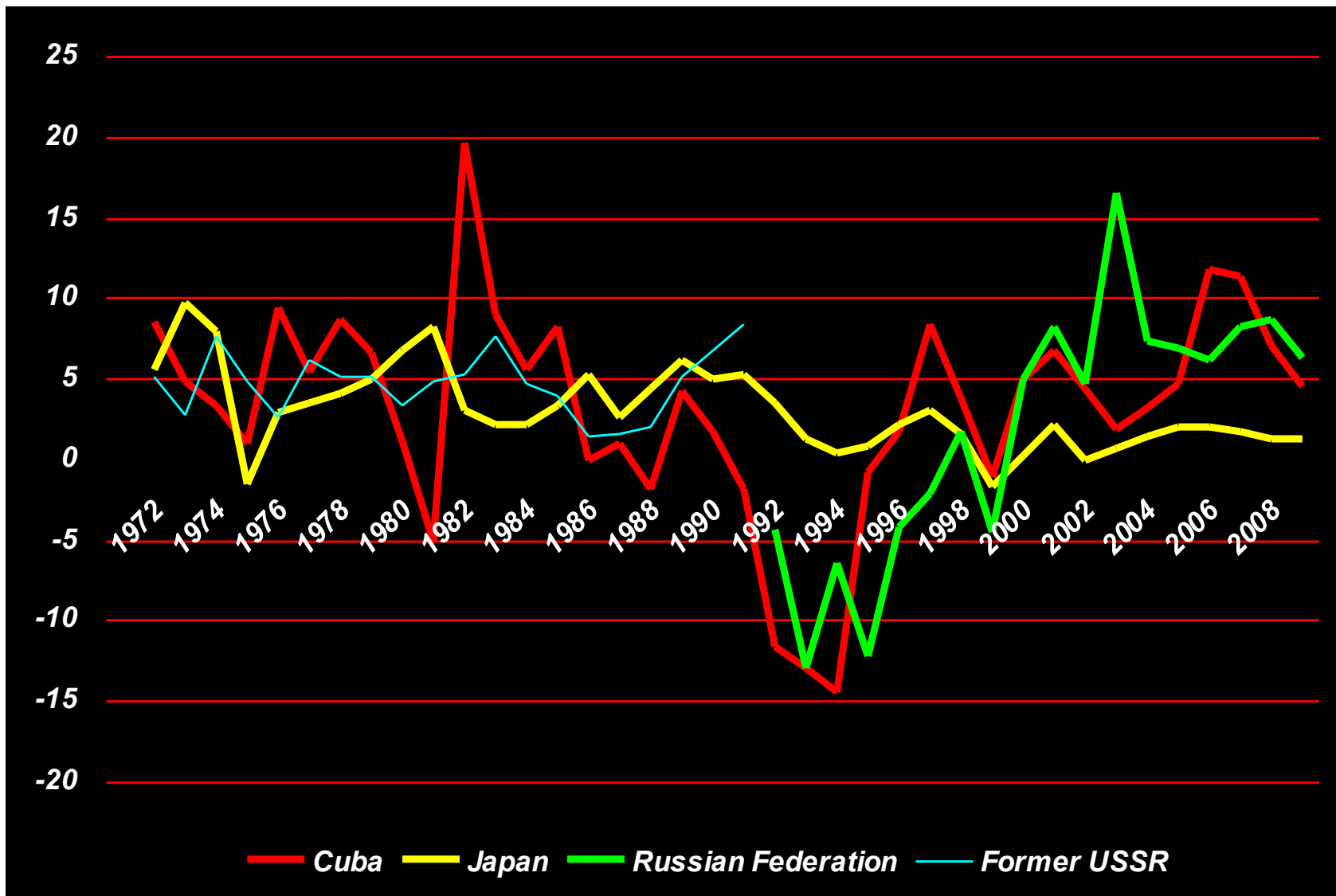
Per Capita GNI at Current Prices in US Dollars



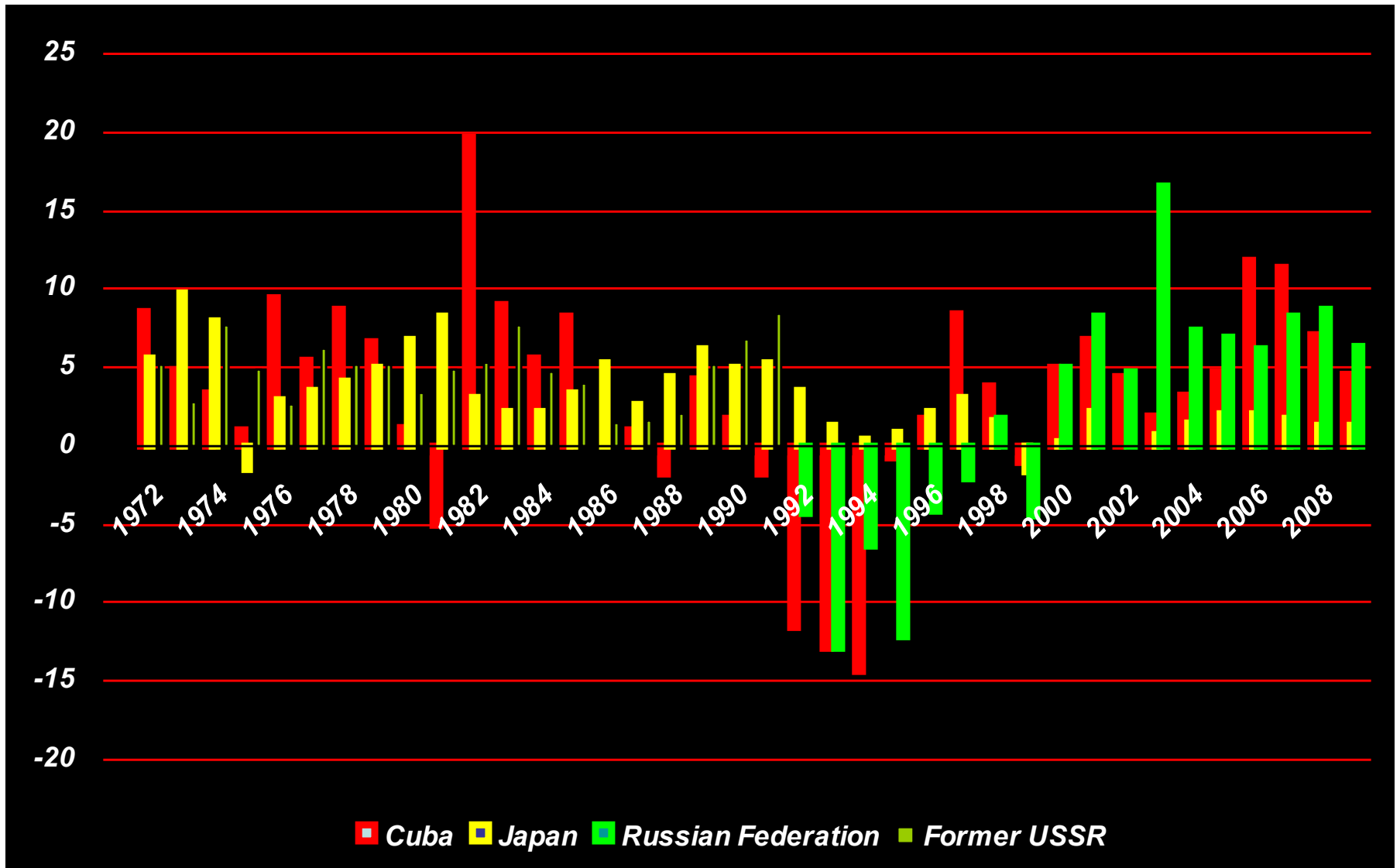
Per Capita GNI at Current Prices in US Dollars



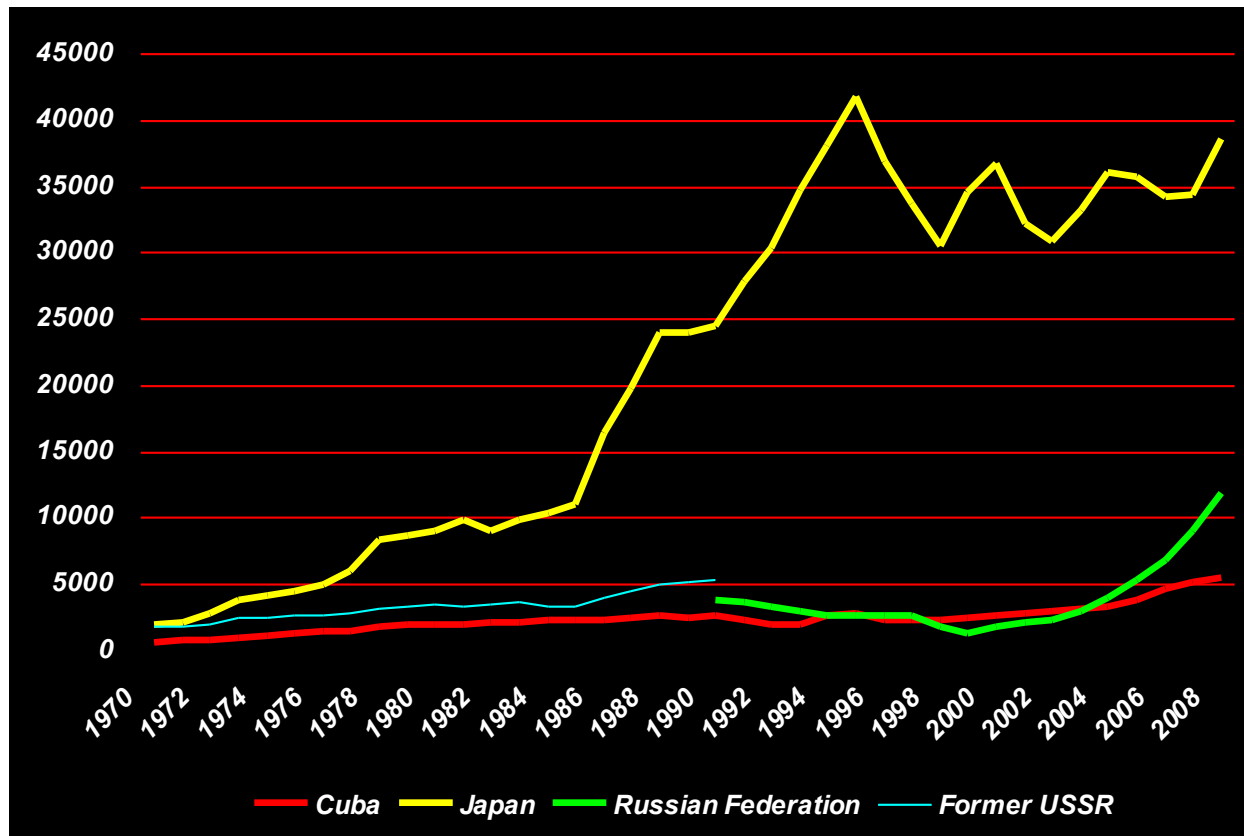
Growth Rate of GDP at Constant 1990 Prices in Percent



Growth Rate of GDP at Constant 1990 Prices in Percent

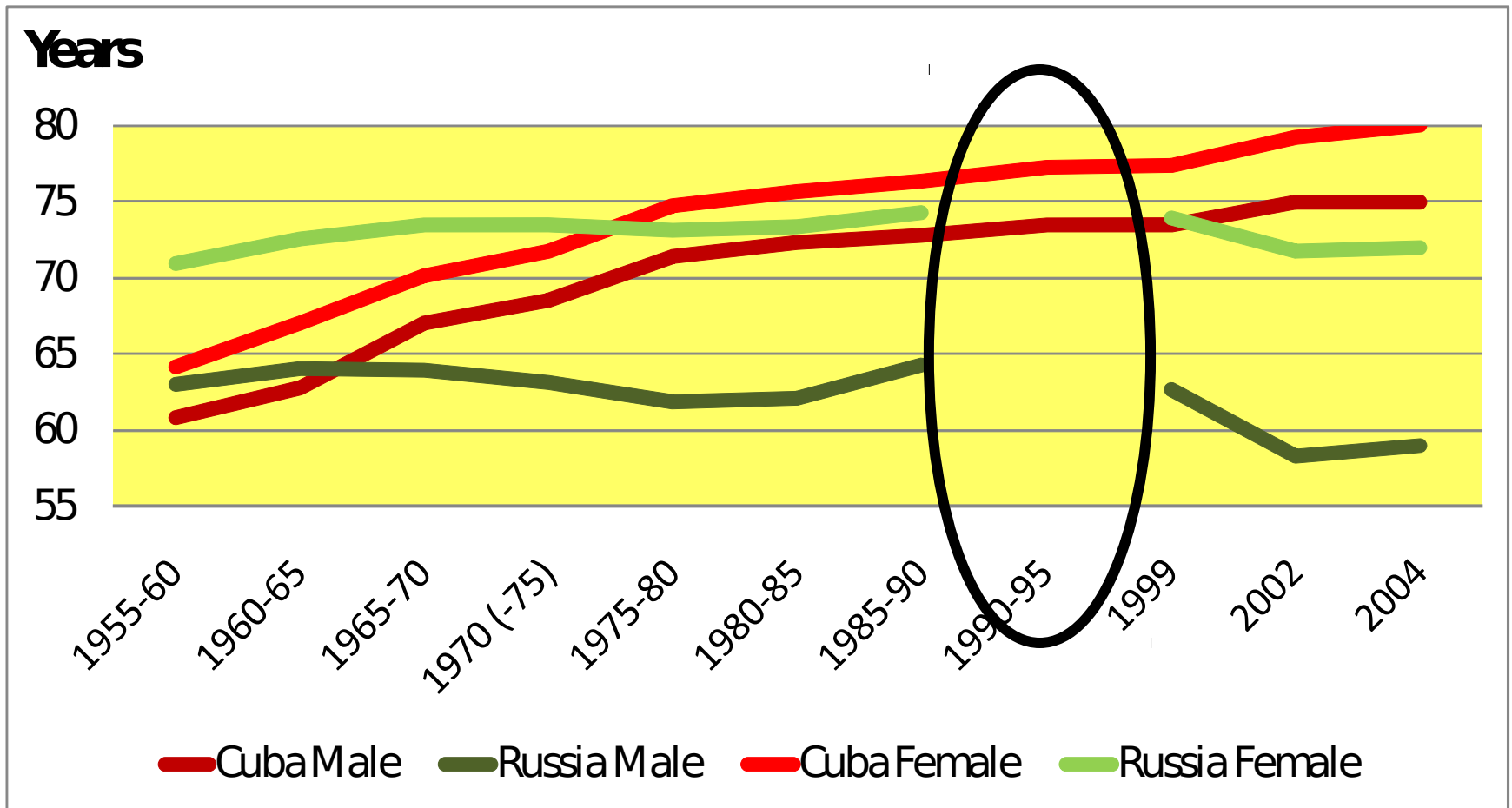


Per Capita GDP at Current Prices in US Dollars



Health: Socio-economic Factors

Life Expectancy at Birth



Public Health Situation

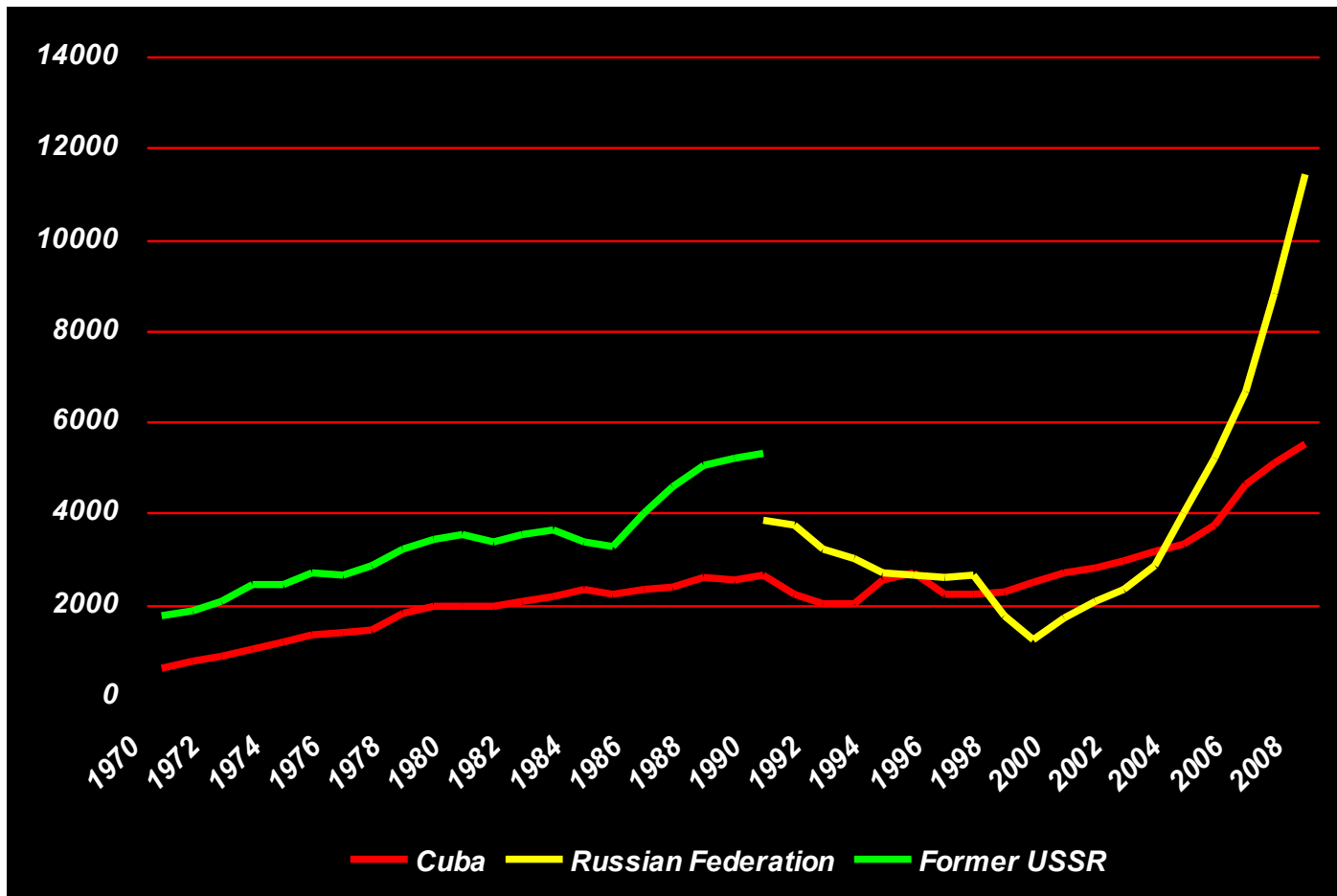
- Cuba
- Russia
 - Largest mortality increase in working-age men
 - Reasons for decline in life expectancies:
 - Ca. 33% due to external causes (intentional and unintentional injuries)
 - Ca. 12 % due to directly alcohol-related causes

- 1. State of the Economy
- 2. State of Public Health
- 3. Comparison / Conclusions

Some (Social) Determinants of Health

- The social gradient
- Stress
- Early life
- Social exclusion
- Work
- Unemployment
- Social support
- Addiction
- Food
- Transport
- Socio-economic
 - The social gradient
 - Early life
 - Social Exclusion / Support
 - Work / Unemployment
 - Food
 - Transport
- Behavioural
 - Food
 - Addiction
 - Exercise
- Medical / Health Care

Per Capita GNI at Current Prices in US Dollars



GDP in Cuba in Constant 1981 Prices Prices in Pesos

Cuba

