Globalisation, equity and health: a framework of analysis

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A tentative Framework
Defining globalisation

• (i) what is it?
  – economic integration: ($X/GDP$, $Finance/GDP$; migration/pop)
  – Spread of consumption patterns, health behav, culture

• (ii) on what does it depend?
  – Endogenous technical change that
    • Cuts costs of info, communic., transport (enhances cross-borders flows of goods, finance, technology, tourism, labour)
    • Enhances observability of living standards worldwide (affects decisions to migrate, consumption models)
  – Exogenous policy decisions (measured by policy indexes) on
    • External transactions (trade, FDI, portfolio finance, technology)
    • Domestic policies facilitating indirectly external transactions (taxation, labour institutions, price deregulation, privatisation)
    • International agreements on global rules (TRIPs, MAI investment, migration, global financial architecture, etc.)
Defining the determinants of health

Stock variables:
- Lifestyles (smoking, diet, drinking, KAP)
- Environmental contamination (vectors, water, air, soil)
- Structure/stability of family (adult/child ratio, com/uncomplete)
- Assets and Human capital (incl. health knowledge)
- Community solidarity and ability to undertake collective action
- Existing collective health/water infrastructure

Flow variables:
- Time of adult member of the family
- Current family income: GDP/c, $\sigma_{\text{GDP/c}}$, Gini
- Prices of basic goods (food, fuel, drugs)
- Psycho-social stress (linked to uncertainty & sudden change)

Policy variables:
- Current public expenditure on social services
- State income transfers to poor families
- Working conditions (affect disability, disease, accidents)
A general framework linking

UNDERLYING FACTORS

ENDOGENOUS GLOBALISATION
- Technical innovation
- ITC/transport costs

EXOGENOUS GLOBALISATION
*domestic liberalisation
- lib factors market
- tax and transfers
- privatisation
* external transactions
- trade
- FDI, portfolio flows
- Technology agreements

STOCKS (slow moving)
- Lifestyles
- Environmental contamination
- Structure/stability of family
- Human capital of family
- Community solidarity
- Public health infrastructure
- Assets

FLOWS (fast moving)
- Time for rest/leisure
- Income level (wages, empl)
- stability, distribution
- Prices of basic goods
- Psychosocial stress

POLICIES
- Current health/soc.expenditure
- Income transfers to poor families
- Employment–social legislation

DEATHS DUE
*Poverty diseases
- infect/nutr/STD
- waterb./immun.

Chronic diseases
- cancer

*Stress related dis
- cvd/cbv
- violent
- cirrhosis
Economics and health: 
the ‘material deprivation’ pathway

- Labor Supply: 
  - rural
  - urban unskilled
  - urban skilled

- Physical Capital Stock and distribution
- Human Capital Stock and distribution
- Land Availability and distribution

- GDP and nat. income
- Employment
- Unemployment
- Family Income

- Human Capital Stock
- Social Capital Stock
- Stock of Social Infrastructure
- Current social expenditure
- Mortality/bidity due to poverty diseases
- Mortality/bidity due to chronic diseases
- Prices of Basic Goods
- Transfers from State to families
- Prices of Basic Goods

- Economics and health: 
  - the ‘material deprivation’ pathway

- Current social expenditure
- KAP
  - Family Structure, Rest/social time

- Income Distribution

- KAP
  - Family Structure, Rest/social time

- Prices of Basic Goods

- Human Capital Stock

- Stock of Social Infrastructure

- Employment

- Unemployment

- Family Income
(i) **income/capita**: level and stability

- Income/c is correlated with LEB, but relation is concave, > 5000$PPP only small gains in LEB (McKweon, Preston). True for all diseases?

- Particularly at low levels, instability of income/c (+lack of insurance/credit) reduces LEB

- High variance of income/c also raises uncertainty and stress
(ii) **inequality** (how high? Gini 35? 50?) **worsens** health:

- concavity relation between GDP/c-health (Preston)
- reduced income growth via:
  - Low investment in human capital (Perotti)
  - Social tension/declining work incent. (Venieris-Gupta)
  - Decreasing returns to capital (Aghion et al)
  - Policy distort, govmnt failure (Alesina-Drazen, Birdsall)
  - **2 Exceptions:** social mobility theories + Forbes
- hierarchy, loss of control (Marmot, Wilkinson)
- erosion social K cuts sharing of health info, help
- high crime rate and violent deaths (Bourguignon)
- low capacity to tax élites reduces social expendit
Income ineq $\rightarrow$ health inequality

• High income ineq raises health inequality
  – low access to private care by poor,
  – weak state provision (inability to tax élites)
  – self-exclusion by poor?

• China is recent example (Zhang Kanbur)

<table>
<thead>
<tr>
<th>Year</th>
<th>Gini</th>
<th>% Pers.Exp</th>
<th>Nat IMR</th>
<th>R/U IMR</th>
<th>F/M IMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>28</td>
<td>18</td>
<td>26.9</td>
<td>1.5</td>
<td>0.9</td>
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<tr>
<td>1990</td>
<td>38</td>
<td>39</td>
<td>29.5</td>
<td>1.7</td>
<td>1.2</td>
</tr>
<tr>
<td>1995</td>
<td>43</td>
<td>50</td>
<td>39.2</td>
<td>2.1</td>
<td>1.3</td>
</tr>
</tbody>
</table>
(iii) Health expenditure and distribution

• is main channel for diffusion of knowledge technology (explains for 45% of IMR gains)

• it is essential but:
  – it also has decreasing returns
  – Its impact depends on inter-sectoral allocation

• Its impact depends also on its distribution among social groups, regions, genders
(iv) education, esp. for women

- 38% of drop in IMR due to improvements in female education in poor countries (WHO)
  - key to diffusion of health knowledge
  - improves use of existing health resources (at delivery, post-partum and for vaccination)
  - better management and allocation of scarce family income (besides rising it)
  - improves female autonomy and fertility regulation (Jain)
Economics and Health: the acute psycho-social stress pathway

Rapid Change
- Flexibilization of labour market
- Financial Volatility
- Rapid technology change
- Change in production structure
- High-rising income inequality
- Cuts in minimum government

Uncertainty
- Job loss and insecurity
- Wage arrears
- Hyperinflation
- Rapid job turnover
- Loss of role
- Distress
- Migration
- Personal insecurity

Stress
- Perceived unexplained shock
- Loss of coping skills
- Loss of sense of control

Health Behaviors
- Binge drinking
- Drug abuse
- Smoking
- Diet/Exercise

Social Relations/Public Response
- Social cohesion
- Social support
- Social integration

Health
- Cardiovascular Diseases/deaths
- Hypertension
- Violent deaths
- Suicide
- Drug and Alcohol Addictions
- Cirrhosis of the liver
- Depression
- Anxiety Disorders
- Occupational Injuries
(i) Labour market changes and stress

- **unanticipated/unattended** rises in unempl. cause
  - loss of skills, cognitive abilities, motivation, confidence
  - psych.harm (loss self respect, unwantedness, dependence)
  - erosion of norms and a greater crime rates
  - family violence and disruption of social relations

- fast restructuring and turnover, unstable jobs
  - often associated with job-search migration
  - lower quality of employment (unskilled workers)

- job conditions/security(the new l.m. model)
  - low pay, unstable, no written contract, weak bargaining conditions, wage arrears
  - deskilling, insecurity
income inequality and stress

• A surge in inequality/social hierarchy
  • reduces access to health services (via divergence of interest and lower taxation)
  • reduces social cohesion which(with weak state) -->
    – reduces control of deviant health behavior
    – reduces crime control and increases personal insecurity
      » in Russia crime rate up 3-4 times in CR
      » in CR homicide rate is 50/5 times that of WE/USA)
    – increases social hierarchy and reduces latitude/control at work

• increases personal isolation (collapse of party-state structures not replaced by eroding civil society)

• increases sense of frustration
### Labor mkt changes: Russia & CR

<table>
<thead>
<tr>
<th>Category</th>
<th>Russia</th>
<th>Czech Republic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Privatization</td>
<td>fast/inequitable</td>
<td>slow/equitable</td>
</tr>
<tr>
<td>Reg Unempl. R ’95</td>
<td>3.2</td>
<td>3.0</td>
</tr>
<tr>
<td>ILO Unempl.R</td>
<td>12.0</td>
<td>4.5 ?</td>
</tr>
<tr>
<td>% U in ALMP</td>
<td>33</td>
<td>75</td>
</tr>
<tr>
<td>Unattended U.R.</td>
<td>7.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Wage bill/GDP’94</td>
<td>39.5</td>
<td>60.9</td>
</tr>
<tr>
<td>Minwage/av wage ’95</td>
<td>26.9</td>
<td>8.8</td>
</tr>
<tr>
<td>Wage arrears</td>
<td>high</td>
<td>very rare</td>
</tr>
<tr>
<td>Gini wages’94</td>
<td>46.4</td>
<td>24.0</td>
</tr>
</tbody>
</table>
Erosion of fam/social networks and stress

• CDR rises in adult MR depresses % married adults. This raises SDR as married people
  – lead healthier lives than singles
  – are less exposed to stress
  – have greater access to social networks
  – do not suffer from bereavement as widows/widowers

• migration (esp. distress migration) causes
  – material hardship and housing problems
  – loss of established social networks
  – disorientation in new environment
Stress caused by unexpected situations (Unemployment, Labour turn-over and shift in the % of married adults), 1989-93, Russia
Historical examples of mortality changes induced by sharp changes

- Rapid 1860-80 industrialisation in UK (Szreter)
- The freeing of the slaves in the USA (Meeker)
- Russian mortality crisis (92-4+98-01) (Cornia-Paniccia)
- East Asian crisis/S.Korea (World Bank, Cornia)
- Japan in the 1990s (Lamar)
- Warangal District, Andra P., ‘98-9 (Sudhakumari)

- and …. impact of ‘rapid entry’ of China in WTO?
2. Key pathways of the impact of globalisation on health
Framework Linking Globalisation & Health

GLOBALISATION
- (i) Trade (GATS), (ii) FDI, (iii) portfolio flows, (iv) technology transfer (TRIPS), (v) migration
- (vi) Deregulation of domestic markets (vii) privatization (viii) tax reform

NATIONAL ECONOMY
(i) GDP (ii) employment (iii) inequality (iv) instability (v) informality

RISK FACTORS
KAP - lifestyles, family stability, human and social capital, environment

HOUSEHOLD ECONOMY
Income/c: level, stability, inequity
Prices basic items (food, drugs)
Time for care and rest
Uncertainty and stress

MORTALITY due to
(i) poverty, (ii) chronic diseases
(iii) stress-related causes

HEALTH & SOCIAL SERVICES
Social Infrastructure
Current Health expenditure
2.1.
Globalisation, (health) technology transfer and health
1. **Transfer of technology & health**

- ITC revolution reduces the cost of *spontaneous* information diffusion

- This facilitates spread of health knowledge and improves health (if social networks operate well)

- Trade (e.g. in vaccines) $\rightarrow$ health improvements

- *Market based* technology transfer depends on its cost. This is rising because of TRIPS

- ‘international mkt failure’ as health research focuses little on Southern problems
2.2
Globalisation of trade, finance, factors markets and inequality/growth
• Standard econ theory predicts that due to L+G
  – Trade increase lab-intensive exports & employment of unskilled workers in dg’s, reduce prices of goods and raises consumer welfare
  – FDI and portfolio flows raise employment of unskilled workers while technology raises firms competitiveness
  – Mkt liberalisation stimulate competition & efficiency,
  – Thus, G+L = more growth and perhaps equality \(\Rightarrow\) less poverty/more health

• True? false?
  – True ‘in theory’ under restrictive conditions and ‘in practice’ in limited n.of countries – at the moment -
  – In other cases, G + L may have been implemented prematurely and backfired
  – Time horizon of evaluation and ‘transition costs’
  – They should be pursued when conditions are met
(i) Trade liberalisation, ineq/growth

- **Trade Theory**: reduces ineq in LIC, raises it in OECD (HO-SS), accelerates growth, reduces prices
- **Observed trends**: A mixed picture
  - Improved distribution/growth in SEA in 60/70s (Wood) and ceteris paribus – in Coastal China in 90s (various)
  - Worsening in LA, Philippines, EE in 1990s (Williamson)
  - Regression analyses:
    - Free trade raises growth, reduces poverty (Sachs/ Warner, Dollar)
    - Overall relation is indeterminate (Rodrik/ Rodriguez, Vivarelli)
- **Theoretical explanations beyond HO/SS (2x2x2)**
  - Skill Enhancing Trade raise capital (not labour) intensity
  - Hanson Feenstra effect
  - Structural rigidities and ‘national institutions’ (Rodrik)
  - Commodity depend + price shocks (Birdsall/ Hammoudi)
  - Asymmetric liberalisation and protectionism (Slaugther)
(ii) Liberalisation of FDI & Ineq

• **FDI Theory**: ‘greenfield FDI’ reduces ineq as it raise labour demand-wages of unskilled workers:

• **Observed trends**: A mixed picture (Woodward)

• **Alternative theoretical explanations of discrepancy**
  – advantages of FDI are greatest in labour-intensive manufacturing, not in capital-or-resource inten. sectors
  – M&A in utilities sector. The equity effect of this operation has depended on the sale price of assets, prices of services supplied and industrial restructuring.
  – ‘Business stealing’ from SME is regressive,
  – N-S plant relocation & skill-biased tech. change
(iii) portfolio flows & inequality

• **Theory:** inequality falls due to jobs creation & better inter-sectoral/temporal allocation of funds

• **Observed trends:**
  – Moderate worsening for inflows (Taylor), large ones for crisis outflows (Galbraith, Diwan)

• **Alternative theoretical explanations**
  – Inflow of portfolio flows trigger:
    • Appreciation RER: less labor absorption + job outsourcing Trigger credit booms with high i.r. + strong e.r raise CS (Taylor)
    • Intersectoral alloc: funds go to rent and capital intensive FIRE
  – Mass outflows
    • Panic, heard behavior, contagion, recession → fall WS (Diwan)
    • Poor affected most via jobs, wage, price effects (Levinshon)
(iv) Reform of taxes/transfers and inequality

• **Theory:** Tax reform not inspired by OTT/equity but by ‘admin. simplification’. Lower progressivity to be offset by broadening tax base + VAT. **Neutral** effect & growing yields (Laffer)

• **Observed trends**
  – Reduced yields/progressivity, less equalizing (Chu et al.)
  – Mixed evidence of progressivity of transfers (SEF)

• **Alternative theoretical explanations**
  – Lower progressivity/simpl. prevailed on tax broadening
  – Gradual dominance of (non-graduated) indirect taxes
  – ‘Race to bottom’ to attract FDI affects tax rate/holidays
Bourguignon-Morisson (2002) confirm inequality rise over l.t.

(average value of within-country inequality coefficients)


- Theil 0.462 0.484 0.498 0.323 0.318 0.315 0.330 0.342

MLD 0.370 0.382 0.399 0.303 0.300 0.304 0.321
Inequality trends after adjustment for last 6-7 years

<table>
<thead>
<tr>
<th></th>
<th>OECD</th>
<th>Developing*</th>
<th>Transition</th>
<th>Total</th>
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<tr>
<td>rising</td>
<td>12</td>
<td>20</td>
<td>21</td>
<td>53</td>
</tr>
<tr>
<td>constant</td>
<td>2</td>
<td>11</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>declining</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>34</td>
<td>23</td>
<td>73</td>
</tr>
</tbody>
</table>

* Increases were most frequent in L.America and the Asian transition economies, followed by S Asia and recently by S E + E Asia, Africa.
Slow growth of GDP/c, except for few countries

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<tr>
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<tbody>
<tr>
<td>World</td>
<td>3.4</td>
<td>1.8</td>
<td>1.2</td>
<td>0.8</td>
</tr>
<tr>
<td>OECD</td>
<td>4.3</td>
<td>2.5</td>
<td>2.2</td>
<td>1.4</td>
</tr>
<tr>
<td>E.Asia (excl. China)</td>
<td>4.9</td>
<td>5.1</td>
<td>3.2</td>
<td>....</td>
</tr>
<tr>
<td>China</td>
<td>1.3</td>
<td>4.4</td>
<td>7.7</td>
<td>9.2</td>
</tr>
<tr>
<td>E.Europa &amp; C.Asia e</td>
<td>5.0*</td>
<td>2.3*</td>
<td>2.1*</td>
<td>-3.3</td>
</tr>
<tr>
<td>L.America</td>
<td>2.7</td>
<td>3.3</td>
<td>-1.1</td>
<td>1.9</td>
</tr>
<tr>
<td>MENA</td>
<td>..</td>
<td>..</td>
<td>-0.4</td>
<td>0.7</td>
</tr>
<tr>
<td>S.Asia excl India</td>
<td>2.3</td>
<td>0.6</td>
<td>3.0</td>
<td>2.5</td>
</tr>
<tr>
<td>India</td>
<td>..</td>
<td>0.8</td>
<td>3.4</td>
<td>3.8</td>
</tr>
<tr>
<td>SSAfrica</td>
<td>2.6</td>
<td>0.6</td>
<td>-1.1</td>
<td>-0.5</td>
</tr>
</tbody>
</table>
2.3.
Globalisation and instability
Rise of unregulated portfolio flows raises n. financial crises

• Has instability risen? A mixed picture
  – The number of financial crises and poverty have risen,
  – Incidency of poverty:  before       during       after
  –  
  – Argentina (87-90)  25.2     47.3       33.7
  – Argentina (93-7)    16.8     24.8       26.0
  – Jordan (86-92)      3.0       ….       14.9
  – Mexico (94-6)       36.0       ….       43.0
  – The countries affected by contagion likely rose
  – USA, China, India (forbid such flows) had stable growth
  – for same GDP/c, greater variance reduces LEB and raises uncertainty and stress
the 1998 Russian financial crisis and leb
Impact of August 1998 financial crisis and rouble devaluation

- Loss of life expectancy at birth in 1999-200
  - Russia
    - Males: 2.4  
    - All: 1.8
  - Moscow
    - Males: 2.9  
    - All: 2.0
  - St. Petersb
    - Males: 3.8  
    - All: 3.3
  - Lening. obl
    - Males: 4.3  
    - All: 3.5

- The increase in death was due to Cvd and violent causes
2.4. Globalisation and public expenditure and social standards
Globalisation erodes public provision of health care?

• ‘Race to the bottom’ erodes also legislation on trade-unions, min-wages, safety at work, child labour & environment

• No systematic evidence of falls in public expend health, (China down but other constant/up, as LA)

• Effect of price of drugs (TRIPS), and of GATS?

• Norm-erosion can lead to health/injury hazard,

• FDI outsourcing: tough verify norms compliance
3. Some health trends
Slowdown in social progress

- Slower gains in wellbeing (Cornia–Menchini)
  - world IMR drops by 2.7% a year in 1980s, but by 1.3% in 90s
  - Simulated lower gains in LEB
    - In 2000, LEB was > 2.1 years in LIC, 1.4 in MIC in relation to base scenario (GDP growth, inequality, technology and parameters were the same as in Golden Era).
  - child malnutrition drops by 1.6% in 80s to 0.8% in 90s (Haddad)

- Growing polarisation of social gains
  - divergence in IMR between regions and countries (CV)
  - growing polarisation in some distributions of IMR by
    - Urban- rural
    - Maternal education
Δ Leb (male) 1989-99 in EE-FSU

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Belarus</td>
<td>-4.6 (1999)</td>
<td>-4.6</td>
<td>-0.3</td>
</tr>
<tr>
<td>Russia</td>
<td>-6.6 (1994)</td>
<td>-4.3</td>
<td>-0.7</td>
</tr>
<tr>
<td>Ukraine</td>
<td>-5.0 (1996)</td>
<td>-3.0</td>
<td>-2.0</td>
</tr>
<tr>
<td>Moldova</td>
<td>-3.7 (1995)</td>
<td>-1.3</td>
<td>-1.2</td>
</tr>
<tr>
<td>Kazakstan</td>
<td>-5.5 (1995)</td>
<td>-3.6</td>
<td>-1.2</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>-2.9 (1995)</td>
<td>-1.2</td>
<td>0.3</td>
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</table>
In conclusion

• Glabalisation has large potential for improving health (e.g. through health technology gains in poor countries)

• Potential (old and new) gains and threats

• A good deal of these benefits probably do not seem to have been enjoyed because mkt, financial, governance distortions