Globalization and Goals: Does soccer show the way

Branko Milanovic
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Why I wrote this paper?

I could not recover from losing that game....
Skills and soccer production function

• Skills go from top A to B….to Z, A’ to Z’ (lowest professional soccer skill as determined by world-wide demand)
• Difference between skills (A-B = C-D) is constant
• There are 26 countries with 2 players each
• Production function of team i is $g_i = S_1 S_2$
• Production function multiplicative (increasing returns to scale)

• \( \frac{dG_i}{dS_1} = S_2 \): marginal product increasing in skills of co-player
Distribution of skills by country

- Normal distribution of skills with larger countries having a greater variance of skills (i.e. longer both tails)
- Size of the country defined by how many soccer players (registered players) it has. This, Brazil is larger than China, Italy than India.
Skill distribution in more and less populous countries

Frequency

More populous

Skill level
• Most populous country will have skills A, the second most populous skills B, the third skills C…and so forth until the smallest country has level Z. Then, again most populous A’, the second B’ etc.

• Skill levels and size of countries coincide: Brazil (A and A’), Italy (B and B’) etc.
Situation 1. No mobility of labor

- Each country has 1 club and 1 (obviously) national team

- Then, the clubs and national teams coincide:
  - for country No. 1: \( g_1 = AA' = 52 \times 26 = 1352 \)
  - for country No. 2: \( g_2 = BB' = 51 \times 25 = 1275 \) etc
  - for country No. 26: \( g_{26} = ZZ' = 27 \times 1 = 27 \)

Inequality: Gini = 38.9

Top-bottom ratio = 50-1, for both clubs and national teams
Situation 2. Mobility of labor allowed

- National team production functions remain the same.
- But the richest club now gets players A and B, the second richest team gets C and D etc.
- Richest country (club): defined as GDP per capita corrected for soccer interest of the population = money demand for soccer services
• The richest club (*Real*) production function is 52x51, second (*Milan*) 49x48,….the poorest is 2x1.
• Gini of clubs = 50. Top/bottom ratio = 1326 to 1. Both went up.
• The average quality of the game increases from 590 to 925 (more than 50%).
• **Summary:** inequality up, quality of the game up.
Increasing returns to skill

• Kuznets’ premise (1960) was
  “that high quality intellectual talents were very unequally distributed in society with those having great originality being never more than a fraction of one percent of the population. What mattered greatly in terms of economic growth was not the presence of a talented individual as the ease with which one talented individual communicated with all other similarly talented individuals.”

Kapuria-Foreman and Perelman on Kuznets, EJ, November 1995, p.1542
Situation 3. Endogenizing skills

- When I play with a better player my skills improve.
- If my skill is $B$ and I play with $A$, my new skill is $B \gamma(A) < A$.
- $\gamma(A) > 1$ but my skills cannot overtake the skills of my more talented co-player—> ordinal ranking preserved; also $\gamma'(s) > 0$: improvement increasing in co-player skills.
The outcome: for clubs

- Further increase in clubs’ inequality.
- Top-bottom ratio becomes
  \[
  \frac{AB \gamma(A)}{Y'Z'\gamma(Y')}
  \]
  Greater than \[
  \frac{AB}{Y'Z'}
  \]
The outcome: for national teams

• Top national team remains AA’ (since its players are best players in their clubs)
• Second team: Bγ(A)B’γ(A’)
• Third team: CC’ etc.
• Difference between 1^{st} and 2^{nd} goes down, 2^{nd} and 3^{rd} increases etc. Overall sum of absolute differences stays the same, quality increases, Gini goes down.
But endogeneity of skills existed even before mobility of labor was introduced

- Before mobility, \( g_1 = AA' \gamma(A) \)
- Top-to-bottom ratio among national teams unambiguously went down:

\[
g_1 \quad g_2 > \frac{AA' \gamma(A)}{ZZ' \gamma(Z)} > \frac{AA'}{Z \gamma(Y)Z' \gamma(Y')}\]

Key issue: **portability of skills**. Low skilled people improve their skills playing with high skills people in best global leagues (like Premier League, Serie A, La Liga, or NBA). They bring skills back to their national teams.
There's no doubt that a number of [American] players have benefited playing outside the U.S....We are helped at the national level by having a nucleus of players who are training and playing at the highest levels. Bruce Arena, US national coach.

The more contacts we have against NBA players, the more competition there is between us, the more likely the gap will close. The rest of the world is finally getting an opportunity to play against the best in the world. It's very important for the progress of basketball as a whole that this continues.

Belov, Russian basketball coach, in *Washington Times*, August 16, 1994
Conclusion

• If skills are endogeneous and there is labor mobility and the richest clubs get the best players, then
• Inequality between clubs must increase and quality of the game go up
• Inequality between national teams must decrease (because players from small countries are able to play with better players), and quality of the game go up
Summary for the clubs: inequality and quality up
Summary for national teams: quality slightly up, inequality less
Greater concentration of quality (inequality) among clubs: some real life illustrations
Illustration 2. The elite (8) in the League of Champions, 1958-2002
Illustration 3. The elite (8) in the World Cups, 1950-2002
Goal difference among World Cup all national teams and World Cup elite (top 8): three World Cups rolling average, 1954-2002
Implications for “real” globalization

• Free mobility of a factor of production in presence of increasing returns or knowledge externalities (think of the Sylicon valley) leads to an increase in output and greater concentration of income (or talent)

• The obverse side is exclusion: if you are out, you are OUT. (If you are poor, you’ll never see Real Madrid play live).
This is where FIFA comes in…

• It imposes binding non-commercial rules that redistribute (to a modest extent) gains from increased productivity

• Some of “leg drain” is reversed. Players from small or poor countries return to play for their countries; increase output (goals) in their countries
• An over-arching global authority with the ability to impose certain rules of the game and to enforce some redistribution is needed to make globalization more equitable.

• Can UN play the role of FIFA? Doubtful.

• Impose the 5-year rule (temporary reversal of brain drain). In order to get citizenship/working permit, obligation to move back to one’s country one year out of each five (for 20 years total).

• Feasible only if impose at the global level. No country individually has an interest to do so.
Problems

• The poor/small will permanently be excluded. FIFA or UN can do only temporary reversals of the flows.

• The rich clubs are beginning more loath to release their players even for short periods.
The danger is looming (basketball where FIBA is much weaker vis-à-vis NBA than is FIFA vis-à-vis Serie A)

“Why in the world would we give our most valuable asset [European players] to another tournament [Olympics], knowing that when we have to offer our product it could potentially have a negative impact. That’s just dumb business”

Mark Cuban, owner of Dallas Mavericks (basketball team in Dallas, Texas, USA) quoted in IHT, January 27, 2004
• Another sad example. Desctruction of the chess federation (FIDE) by Kasparov’s new circus (PCA)

• In the 1960’s, there was an attempt to bolt out of FIFA (Colombia). Failed. Berlusconi recent European League threat

• Philosophical difference between international sports federation (created by rich philantropists, idealists–international cooperation; now bureaucratized, mini UNs) and increasingly unabashedly commercial club culture
• The rich uncomfortable with even rather mild global rules. What does it tell us for the real world?