Questions raised by OECD’s project …and UNDP’s

- WHAT FACTORS HAVE BEEN DRIVING THE CHANGES OF INEQUALITY?
- DO OBSERVED PATTERNS IN INEQUALITY STEM FROM DEMOGRAPHIC AND HOUSEHOLD COMPOSITIONAL CHANGES, FROM DECISIONS TO MIGRATE?
- IS INEQUALITY THE CONSEQUENCE OF MARKET FORCES OR OF MARKET FAILURES?
- IS IT CAUSED BY THE INTRODUCTION OF NEW TECHNOLOGIES AND SKILLED-BIASED LABOUR DEMAND, BY DIFFERENT ACCESS TO TRADE AND THE DISCOVERY OF NATURAL RESOURCES?
- IS IT CAUSED BY UNEQUAL OPPORTUNITIES, DIFFERENT ACCESS TO EDUCATION AND WEAK BARGAINING POWER? DOES IMPERFECT LAND DISTRIBUTION, IMPERFECT ACCESS TO CREDIT AND LABOUR MARKETS AND SEGMENTATION AND DISCRIMINATION IN THE LABOUR MARKET PLAY A ROLE?
- IS IT CAUSED BY THE ABSENCE OF A SAFETY NET FOR THE POOR, BY REgressive GOVERNMENT POLICIES, OR DYSFUNCTIONAL SOCIAL NORMS?
Discussion: two parts

- UNDP sponsored project on Latin American Experience

- Comments on panelists’ papers.

Part 1 - Theoretical Approaches

- Is economic development in a market economy inherently equalizing, unequalizing or neutral with respect to distributive outcomes?
  - Kuznetz curve related to rural-urban migration: in early stages inequality rises and then falls.
  - Tinbergen’s race between technology and education: episodes of inequality increases and subsequent falls repeat themselves with each new wave of technological innovation.
  - Structuralist perspectives: development patterns will determine the evolution of income distribution: natural resource-based development or comparative advantage defining development (Justin Lin) will lead to persistent inequality; comparative advantage following development will lead to equitable growth (the East Asian model).
Technological change, educational upgrading and inequality

- Skill-biased technological change increases wage inequality and hence overall inequality.
- Educational upgrading increases the supply of skilled labor.
- End result depends on which factor dominates.

What could impede the equalization phase from taking place?

- Capital market imperfections-cum-indivisibilities.
- Norms, laws, which cause discrimination, exclusion and/or segmentation.
- Restrictions to spatial and sectoral mobility induced by government policies.
Capital Markets Imperfections and Indivisibilities (Mookherjee and Ray)

- Indivisibilities imply the poor have to use a less productive (cottage; low human capital) technology instead of the high return industrial/high human capital technology.
- If the returns on the cottage technology (or low human capital) are lower than the minimum threshold of investment for the industrial technology (high human capital), families who start with a per capita wealth below the minimum threshold of investment will never accumulate enough wealth to become industrial entrepreneurs (high human capital workers). In this case, the economy will eventually converge to an unequal wealth distribution.
- If the returns on the cottage technology are higher than the minimum threshold of capital to invest in industrial technology, poorer families will accumulate enough wealth to become industrial entrepreneurs. In this case, the economy will eventually converge to a perfectly equal wealth distribution.

Discrimination/Segmentation and Inequality

- Discrimination in the labor market (labor demand): unequal access to “good” jobs or unequal pay for similar jobs will generate persistent inequality. Discriminatory laws or practices can be based on, for example, race, caste or location.
- Discrimination in terms of access to opportunities (labor supply): if the power structure favors wealthy elites, the disenfranchised may be left uneducated and unable to protect themselves from exploitative practices; or, the disenfranchised may never be able to generate a political equilibrium in which elites can be taxed in order to support equalizing opportunities.
### Labor Market Policies

- Labor market regulations that affect hiring and firing, tax the formal sector (and subsidize the informal sector) reinforce low-productivity/low earnings in the latter.
- Restrictions to migrate reinforce rural-urban income disparities.
  - Also, labor organizations that protect *insiders* at the expense of *outsiders* who are usually poorer than the former.

### Economic Policy, Regulation and Patterns of Growth

- Overvalued exchange rates; anti-export bias negatively affects low-skilled workers.
- High taxes on savings and investment.
- Subsidies for capital-intensive technologies.
- Macroeconomic instability.
- High costs for setting up businesses.

However,

- Undervalued exchange rates, are they good for equity?
- Which *productive development policies* are consistent with growth-with-equity?
Public Policy and Redistribution

- Redistribution of Disposable Income – taxes and transfers; direct and indirect effect by allowing the poor to cross the threshold to use the more productive technology.

- Redistribution of skills – expanding access to formal education (supply- and demand-side interventions: infrastructure, teachers; elimination of school fees, school feeding, CCTs).

Public Policy

- Political economy of redistribution.
  - The Role of Democracy, especially participatory (vs. clientelistic) democracy. (James Robinson)
Part 1 - Latin America: a Summary

- Since around 2000, income inequality in LA declined in 12 out of 17 countries. (Warning: surveys do not capture well income from capital; gross underestimation)
- The decline in inequality in LA is significant (in order of magnitude and statistical terms) and widespread.
- The two leading proximate factors: i. the reduction in inequality of education and a decline in relative returns to education; ii. government transfers increased and public spending became more progressive.
- Market forces and state action have been at play:
  - In the race between skill-biased technical change and educational upgrading, the latter has taken the lead. (Tinbergen’s framework)
  - Government spending has become more pro-poor. Why? Perhaps a result of the region’s democratization.

Declining Inequality in LA

- Inequality in most Latin American countries (12 out of 17) has declined (roughly 1.1% a year) between (circa) 2000 and (circa) 2007.
- Except in one case, decline is statistically significant.
Gini Coefficient for Latin America: early 1990s-mid 2000s
The decline in inequality has been widespread

The decline took place in:
- Persistently high inequality countries (Brazil) and normally low inequality countries (Argentina)
- Fast growing countries (Chile and Peru), slow growing countries (Brazil and Mexico) and countries recovering from crisis (Argentina and Venezuela)
- Countries with large share of indigenous population (Ecuador and Peru) and with low share (Argentina)
- Countries governed by leftist regimes (Brazil, Chile, Venezuela) and non-left regimes (Mexico and Peru)

Main Questions: Why has inequality declined in Latin America? Are there factors in common?

- In-depth analysis in four countries:
  - Argentina (Gasparini and Cruces) (urban; 2/3 of pop)
  - Brazil (Barros, Carvalho, Mendoca & Franco)
  - Mexico (Esquivel, Lustig and Scott)
  - Peru (Jaramillo & Saavedra)

- Representative sample of Latin American diversity: high/medium/low ineq; high/low growth; high/low share of indigenous pop; left/non-left regimes

- All four went through market-oriented reforms in 1990s.

- Changes are statistically significant and there is Lorenz dominance.
Decline in inequality is statistically significant and significant in terms of order of magnitude

There is Lorenz dominance for the circa 2000-circa 2006 period (unambiguous; => decline independently of choice of inequality measure)

Robust to income concept (e.g., monetary vs. total)
Argentina: GICs

Curvas de incidencia del crecimiento del ingreso per cápita (percentiles): Argentina (zonas urbanas). Años 2000-2006

Fuente: elaboración propia en base a SEDLAC (CEDLAS y Banco Mundial).

Brazil: GICs 2001-06

Curvas de incidencia del crecimiento del ingreso per cápita (deciles): Brasil. Años 2001-2006

Curvas de incidencia del crecimiento del ingreso per cápita (percentiles): Brasil. Años 2001-2006

Fuente: elaboración propia en base a SEDLAC (CEDLAS y Banco Mundial).
There are many different factors that affect the distribution of income over time: “... the evolution of the distribution of income is the result of many different effects—some of them quite large—which may offset one another in whole or in part.” (Bourguignon et al., 2005)

Useful framework: to consider the ‘proximate’ factors that affect the distribution of income at the individual and household level:
1. Distribution of assets and personal characteristics
2. Return to assets and characteristics
3. Utilization of assets and characteristics
4. Transfers (private and public)
5. Socio-demographic factors

Household per capita income and its determinants
**Decomposition results:**

- **Demographics:** Changes in the ratio of adults per household were equalizing, albeit the orders of magnitude were generally smaller.

- **Labor force participation:** With the exception of Peru, changes in labor force participation (the proportion of working adults) were equalizing. This effect was stronger in Argentina.

- **Labor income (Earnings):** In Argentina, Brazil, and Mexico between 44% and 65% of the decline in overall inequality is due to a reduction in earnings per working adult inequality. In Peru, however, changes in earnings inequality were unequalizing at the household level.

- **Non-labor income:** Changes in the distribution of non-labor income were equalizing; the contribution of this factor was quite high in Brazil and Peru (45% and 90%, respectively).

=> Decline in labor (except for Peru) and non-labor income inequality important determinants of the decline in overall income inequality (in per capita household income)

**What factors were behind these results?**

- Are the changes in labor income inequality driven by changes in the distribution of personal characteristics (in particular, in the distribution of educational attainment) or in the returns to those personal characteristics (returns to education, for example)?

- What caused them to change in turn? Was it increased coverage of basic education, the skill-mix of technological change, macroeconomic conditions or stronger labor unions?

- Do patterns at the household level differ from patterns at the individual workers level?

**Non-labor income:**

- Are remittances an equalizing force in the countries were they are important? Did the effect become stronger over time?

- Do changes in the coverage and distribution of government transfers account for a significant part of the decline in non-labor income inequality?
Why has inequality in labor incomes declined?

- Two main factors:
  - Inequality in educational attainment declined.
  - Skilled/low-skilled wage gap fell.
Why has the skilled/low-skilled wage gap declined?

- Because: the gap between returns to higher levels of education (tertiary and secondary) and lower levels of education (complete primary and below) declined.

- In Argentina, other factors were present too:
  - Spectacular growth and currency devaluation after 2002 reduced unemployment and increased demand for low-skilled workers.
  - Government increased minimum wage and mandated wage increases.
  - Labor unions and other organizations gained more bargaining power (with support of government).
Why did the gap between returns to higher and lower levels of education decline?

- **Composition of the labor force changed:** low-skilled workers have become relatively scarcer and thus command a relatively higher wage than before.
- Change in the composition of labor force is the result of a significant increase in coverage in basic education (primary and lower secondary, in particular).
- The increased demand for higher skills as a result of economic reforms and skill-biased technical change petered off.
Conclusion:
- In the race between skill-biased technological change and educational upgrading, in the last ten years the latter has taken the lead (Tibergen’s hypothesis)
Why has inequality declined in Latin America during the last decade?

- In the four countries:
  - Inequality in labor incomes per adult declined.
  - Inequality in non-labor incomes declined.

Notes:
1. Ratios for returns to education were calculated from educational dummies coefficients of Mincer equations (using wages from main occupation for men only). Variables of education level (college, secondary and primary), potential experience and geographic regions were included. Omitted variable was no schooling or incomplete primary. Remunerations for men are for all workers including wage earners, self employers and employers. Population considered for the age group from 25 years to 55 years.
2. Ratios for education supply groups formed by levels of formal education. Educational levels correspond to completed primary, secondary and tertiary. Complete primary is achieved at 6 years, complete upper secondary at 12 years and tertiary at 15 or more years of formal education. Incomplete primary includes 5 or less years of education and no schooling. Population considered for the age group from 25 years to 65 years.
3. Percentage changes were divided by the number of years for each period. Years considered for calculations were those included in the Figure.
Why has inequality in non-labor incomes declined?

- In the four countries government transfers to the poor rose and public spending became more progressive
  - In Argentina, the safety net program Jefes y Jefas de Hogar.
  - In Brazil and Mexico, large-scale conditional cash transfers => can account for between 10 and 20 percent of reduction in overall inequality. An effective redistributive machine because they cost around .5% of GDP.
  - In Peru, in-kind transfers for food programs and health. Also access to basic infrastructure for the poor rose.

Part 2: Comments on the presentations
Theoretical Approaches

- Is economic development in a market economy inherently equalizing, unequalizing or neutral with respect to distributive outcomes?
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  - Tinbergen’s race between technology and education: episodes of inequality increases and subsequent falls repeat themselves with each new wave of technological innovation.
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Brazil: Explaining the recent (2001-2008) decline in inequality (M. Neri)

- In the race between technology and education, the latter has been winning in the last ten years.
  - This is the result, in part, of government policies that increased access to formal education; this could have relaxed the potential constraint due to cap. mkets. Imperfections and indivisibilities wrt education.

- Government transfers have become more generous and more progressive: Bolsa Familia. Democratization and Lula’s social democratic government.

- Comment on empirical results: orders of magnitude are sensitive to decomposition method, sequence, years. Neri finds a larger contribution for changes in labor income inequality than Barros et al. Also, the latter find that the contribution of social security was higher than Bolsa Familia's, while Neri finds the opposite.

China: Explaining rising inequality in the post-reform era (since the 1980s). (CAI Fang, DU Yang and WANG Meiyan)

- Truncated Kuznetz process because of haiku? Or, would inequality have been higher if there were no restrictions or sand- in-the-wheels of the rural-urban migration process?
- Heterogenous investment in education keeps returns to workers with higher skills high?
- Dismantling of social protection and minimal interventions in labor markets lowered reservation wage of low-skilled?
- how much of the increase in inequality is a positive outcome (i.e., the elimination of artificially compressed wages with no rewards to effort and talent)?
- Method: why didn’t the authors decompose the changes in inequality rather than just the levels?
India: Explaining rising inequality in the post-reform era (1990s to the present). (Dipak Mazundar)

- Relative size of tertiary sector is similar to that found in middle-income Latin America. Perhaps comparison should go beyond Asian countries.
- Empirical analysis seems to show that rise in inequality is primarily driven by the increase in inequality in the service sector.
  - Why is service-sector-led growth seen as a problem?
  - To what extent investment patterns in education keep returns to skilled labor high?
  - Is there a “missing middle” in services?
- Method: why didn’t authors decompose the changes in inequality in addition to levels?

South Africa: explaining the rise in primary income inequality in the post-apartheid era. (Murray Leibbrandt, Ingrid Woolard, Hayley McEwen and Charlotte Koep)

- Gini rose from .67 to .72 between 1993 and 2005. Are these reliable figures?
- Interesting fact: between race inequality has declined; but within race inequality has jumped tremendously. This renders support to the view that eliminating discrimination is far, far from enough.
- What happened? Question remains to be answered. In particular, it might be illuminating to do a parametric decomposition and identify the contribution of changes in the distribution of characteristics (education, for example) and of the returns to those characteristics.
- Given the list of scarce skilled labor it is quite likely that the skill premia have risen substantially. At the same time there is unemployment because there is a mismatch between skills demanded and skills supplied and there is wage rigidities that result from existing labor market regulations while the supply of low-skilled workers has risen substantially.
### Summing up:

- **Brazil**: educational upgrading at the bottom and more progressive gov. spending caused a reduction in inequality.
- **China**: during reforms rising educational inequality/skill premia and dismantling of government social protection plus remunerations more dictated by effort caused an increase in inequality.
- **India**: during reforms rising skill premia in services and distorsionary policies in manufacturing caused inequality to rise.
- **South Africa**: in the post-apartheid period, inter-racial inequality declined but within races inequality increased; rising skill premia due to acute skill specific shortages and high unemployment due to labor market rigidities.

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**THANK YOU**